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DIAGNOSTIC PROGRAM MANUAL

SIGMA 5
CPU DIAGNOSTIC (AUTO)

PROGRAM NO. 704287C

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RELATED PUBLICATIONS

Publication Title	Publication No.
Sigma Symbol and Meta Symbol Reference Manual, SDS Sigma Computers	900952
Sigma 5 Computer Reference Manual	900959
Sigma 5 Computer Technical Manual	901172
Sigma 5/7 CPU Format Converter and CPU Loader Documentation	901584

SECTION I
INTRODUCTION

1-1 SCOPE OF MANUAL

This manual describes the Auto CPU diagnostic program designed for the Sigma 5 computer manufactured by Scientific Data Systems, Santa Monica, California.

This manual is made up of four sections and two appendices. Section I is a general introduction to the Auto program. Section II contains program operating procedures. Section III is a detailed description of the program operation. Section IV contains the complete symbolic listing of the program as generated by the Sigma metasymbol assembler. Appendices A and B contain the T-charts for the multiply and divide instructions.

1-2 PROGRAM OBJECTIVES

The purpose of the Auto program is to detect and diagnose malfunctions of the Sigma 5 CPU pertaining to major instruction categories, such as load, store, branch, comparison, shift, and fixed-point arithmetic. Provisions are also incorporated for testing instruction interruptibility and I/O compatibility.

1-3 GENERAL SPECIFICATIONS

Table 1-1 lists the general specifications for this program.

Table 1-1. General Specifications

Computer configuration	Any Sigma 5 computer with card reader or paper tape reader for program input
Memory size	8K minimum (8192 words)
Optional equipment	Keyboard printer or line printer for optional printed output

Prerequisite tests are listed in table 1-2.

Table 1-2. Testing Prerequisites

Program	Prerequisite Program
Verify	None
Pattern	Verify
Auto	Verify, Pattern*
Suffix	Auto
Float	Auto
Interrupt	Auto
Memory Protect	Suffix

*For the Auto test to run, the block 0 register must be functioning correctly, as tested by the Pattern program.

SECTION II
OPERATING INSTRUCTIONS

2-1 GENERAL

The Auto diagnostic program employs a data-gathering technique for its operation. The program consists of a driver or control section, followed by test modules containing from 4 to 20 words of data prescribing a test. The driver program accesses each module in sequence, sets up the prescribed conditions, executes the specified instruction, and then tests the results for possible errors. A report of each test or error may be printed out or displayed on the control panel indicators.

2-2 LOADING PROCEDURE

Table 2-1 shows the control panel switch settings to be used for loading the program. After the switches have been set as indicated, the following must be done:

a. Clear memory by simultaneously pressing the CPU RESET/CLEAR and SYS RESET/CLEAR pushbuttons.

b. Set the UNIT ADDRESS switches to the address of the peripheral input device.

c. Press the LOAD switch.

d. Place the COMPUTE switch to RUN.

Table 2-1. Switch Settings For Program Loading

Switch	Setting
CONTROL MODE	LOCAL
WATCHDOG TIMER	NORMAL
INTERLEAVE SELECT	NORMAL
PARITY ERROR MODE	CONT
AUDIO	ON
CLOCK MODE	CONT
ADDR STOP	Off
SENSE	0

Upon being loaded with the switches set according to table 2-1, the program will automatically branch to the starting location and begin running. If SENSE switch 1 is on during loading, a wait will occur at X'291' and the count pulse interrupts will not be armed. To continue, reset SS1 and clear the wait.

2-3 OPERATING PROCEDURES

2-4 SUCCESS INDICATIONS

Provided no errors occur, the program will run continuously through all test modules. After completing the last module it will start over, making another pass, first printing out whether the floating point option is installed. A pass counter and error counter are maintained by the program. These may be examined by setting SENSE switch 3. After X'20' error-free passes, a message is output indicating that the real-time clocks are implemented.

After completing each test module, the program reads SS3, and makes a report if the switch is set. Reports are normally made via the keyboard printer, device address 001. However, if no device responds to a TIO to that address and SS4 is off, the program halts at location X'205', with the report information contained in registers 1 through 4. The registers contain the following information:

R1	Present list address
R2	Error count
R3	Pass count (bits 0 through 15), module count (bits 16 through 31)
R4	Instruction tested

Figure 2-1 shows a typical printout from the keyboard printer resulting from setting SS3 after the program has made a number of successful passes.

2-5 ERROR INDICATIONS

When running with the sense switches on 0, the program will halt upon detecting an error. Before halting, however, the error will be reported via the keyboard printer or line printer. If the printing device does not respond to a TIO, the program will merely halt at location X'205' with the alarm on. See page 5 of the program listing for an explanation of the contents of registers 1 through 8 after error halts.

A typical error printout is shown in figure 2-2. The halt-on-error feature may be disabled by setting SENSE switch 4. However, if the machine is operating in this mode and

```
FLOATING POINT OPTION IS INSTALLED
REAL TIME CLOCKS IN USE. TO DISABLE, CP INTERRUPT AND CLEAR R5

                                    AUTO ERROR DISPLAY
  LIST     ERRORS    PASSES     INST   IDENTIFIER    IS    SHOULD BE    DIFF

32400976  00000000  002100AB  92CE03E0

Note: Printouts from A revision of program. Memory locations will change on subsequent revisions   901523A.201
```

Figure 2-1 Sample of Printout Showing No Errors

```
FLOATING POINT OPTION IS INSTALLED
REAL TIME CLOCKS IN USE. TO DISABLE, CP INTERRUPT AND CLEAR R5

                                    AUTO ERROR DISPLAY
  LIST     ERRORS    PASSES     INST   IDENTIFIER    IS    SHOULD BE    DIFF

32401102  00000001  0078018R  25C00204  50000001  07300145  47300145  40000000
32401102  00000002  0078018R  25C00204  6000000C  00000000  BCDEF01A  BCDEF01A

Note: Printouts from A revision of program. Memory locations will change on subsequent revisions   901523A.202
```

Figure 2-2. Sample of Printout Showing Errors

no printout device is available, there will be no error indications except for brief flickers of the alarm indicator (which may be too fast to see when only one or a few modules are failing).

The error indications described in the previous paragraphs occur only for faults that happen as a result of executing the test instruction. If a spurious trap occurs at any other time during the operation of the control program, a wait is executed with the program halting at location X'403'. (See listing for procedure to follow.) If the wait is cleared, the program will resume testing with the current test module.

If a memory parity error occurs, the program is interrupted to location X'56'. The interrupt routine reads the memory fault indicators and leaves the result in register 4. A wait is then executed, causing the program to halt at location X'EE'. If the wait is cleared, the program will resume testing with the current test module.

Table 2-2 summarizes the various wait locations in the program.

Table 2-2. Wait Locations

Location (hex)	Reason for Wait
483	Erroneous trap
291	SS1 on when loading
EE	Memory fault interrupt
FB	Control panel interrupt
205	Report or error

2-6 OPTIONS

Several optional features are incorporated into the Auto program to give the operator a more flexible tool for diagnosing failures while maintaining a quick means of detecting faults with minimal operator intervention.

2-7 Sense Switches

The uses of SS3 and SS4 have already been mentioned; further control is provided through SS1 and SS2, which allow the operator to repeatedly loop on a single test. Table 2-3 summarizes the functions of all four switches.

Table 2-3. Sense Switch Functions

Switch	Function
SS1	Short loop: when SS1 is set, the program continuously repeats the same test module. A minimum of instructions are executed to set up the necessary register and memory areas. No testing of results or other sense switches takes place. If SS1 is on while the program is being loaded the count pulse interrupts will not be armed after X'20' error-free passes
SS2	Long loop: when SS2 is set and SS1 reset, the program repeats the same module. All testing of results takes place and other sense switches are read
SS3	Report: when SS3 is set, the program reports at the completion of each test not otherwise reported because of an error
SS4	Suppress error halt and report halt: when SS4 is set, the program will not halt on errors. Errors will still be reported via the keyboard printer, if it is available. Printing may be suppressed by turning the device off

2-8 Control Panel Interrupt

The control panel INTERRUPT button may be pressed any time while the program is running to change certain parameters in the program. When the button is pressed, the computer comes to a wait with address X'FB' in the instruction address register. The changes are made by entering information into any or all of the registers described in table 2-4, then reading out the instruction from the instruction address location and returning the COMPUTE switch to RUN.

Table 2-4. Register Contents at Time of Interrupt

Register	Contents
R0	The IOP/device address of the unit used for report or error messages. The address is in bits 16-31 and is initially set to 1 when the program is loaded Device selection: the program tests bit 0 to determine whether to use the keyboard printer or the line printer output routines. This bit is initially set to zero, indicating that the

Table 2-4. Register Contents at Time of Interrupt (Cont.)

Register	Contents
	output device is the keyboard printer. Setting a one in bit 0 changing the address in bits 16-31 causes all messages to be output on the line printer
R1	The memory address of the current or most recently completed test module Test selection: when the machine is returned to RUN, the program will begin testing with the module addressed by R1. The first three hex characters must be 324. The last five hex characters will be the test module address. The operator may insert any valid module address he wishes and set SS1 or SS2 to loop on that module
R5	Register bits 16-19, used to arm and enable the count pulse interrupts Counts pulse interrupt level selection: normally, the program automatically arms and enables the four count pulse interrupt levels upon making the twentieth pass. If no errors have occurred, the operator may suppress this feature by clearing R5 when the wait occurs for the control panel interrupt, or by loading the program with SS1 on. He may selectively disable only some of the count plus interrupts if he wishes. He may also reenable the levels later by again interrupting and changing R5 Bits other than 16-19 of R5 have no effect on interrupt

2-9 I/O COMPATIBILITY

Automatically implemented after 35 error-free passes.

2-10 TEST SELECTION

The operator may select any test module to begin running by using the control panel INTERRUPT as described in

paragraph 2-8 and table 2-4. He may likewise loop on a selected test by setting SS1 or SS2 before starting up again.

The operator may also loop on a particular test by setting SS1 or SS2 when that test is being reported either via the keyboard printer or by a report halt or error halt.

2-11 RESTART PROCEDURE

The program may be restarted from location X'100'. When loaded, the program inserts an unconditional branch to that location in address X'26' so that normally, restarting is possible by pressing the CPU RESET button and setting the COMPUTE switch to RUN.

SECTION III
PROGRAM DESCRIPTION

3-1 GENERAL

A simplified flow chart is given in figure 3-1 to illustrate the general philosophy of the program's operation. When loaded, the Auto program automatically branches to its starting location and begins running. Initialization takes place where parameters are set up and a branch instruction is inserted in location X'26' to facilitate restarting if the RESET button should be pressed.

The program accesses each test module in turn and sets up all the test conditions as prescribed by the module. The instruction contained in the module is executed and then SENSE switch 1 is tested to determine whether the short loop mode is in effect. If SS1 is set, the program repeats a minimum amount of the setup procedure for the same test module and again executes the instruction. No results are examined in the short loop mode.

After 30 error free passes an automatic short loop is initiated. This allows repetitive execution (100 times) of a test module with minimum setup and limits testing of results to memory, memory + 1, R12 and R13.

If not operating in the short loop (that is, with SS1 reset), the program proceeds to compare the results of the test with the expected results. The resultant contents of all registers and memory operands are prescribed by the test module. Other items are also tested, such as the instruction location, the location following the instruction, the indirect address location, and the program status doubleword.

When an error is detected or if SS3 is set, the program makes a report – normally via the keyboard printer. The reports may be switched over to a line printer if desired (see paragraph 2-8). When no printing device is available, the program makes its reports by executing a wait for the information stored in general registers 1 through 8.

After results have been checked and reports, if any, have been completed, SENSE switch 2 is read. If SS2 is set, the program goes through the entire setup, test, and report procedure for the same test module that it just finished. If SS2 is reset, the module pointer is updated so that a new test is performed on the next cycle.

3-2 TEST MODULE

Refer to the location X'444' (Table) in the program listing, section IV. Each test module is relocated to the previously cleared table area. The listing describes the meaning of each word. The term program status word 1 (PSW1) is somewhat misleading, since only bits 0 through 11 are used. Bits 12 through 31 are used as a linkage address so that the driver can prepare for any traps resulting from executing instructions.

3-3 OUTPUT MESSAGE ANALYSIS

See figure 3-2 for a sample Auto error printout. The headings on the printout correspond to the register contents after error halts (page 5, program listing, section IV).

Printout Term	Description
LIST	Present list address: 324xxxxx where 324 is LW, 4 and xxxxx is the first memory location of the test module
ERRORS	Total number of errors since initial load or last restart
PASSES	Bits 0-15 contain the number (in hexadecimal) of complete passes. Bits 16-31 contain the number of modules tested in the current pass
INST	Instruction under test
IDENTIFIER	Error identifier and address (see R5, page 5 of program listing, section IV)
IS	Erroneous result
SHOULD BE	Predetermined result
DIFF	Result of an exclusive Or of the contents of the erroneous result with the predetermined result

3-4 USE OF PRINTOUT FOR TROUBLESHOOTING

In figure 3-2 more errors are occurring than are shown. Since all the failing instructions (INST) are add word (AW), sufficient data is available to analyze the malfunction. Stop the printout by turning off the keyboard printer or cause a wait by setting SS4 to 0. The first and last digits of the Identifier column show that the majority of incorrect data is found in register C. Two failures of PSW1 occur at list addresses also having failures in register C, but these can be ignored, because they result from incorrect condition code settings (see DIFF), which depend on the contents of register C.

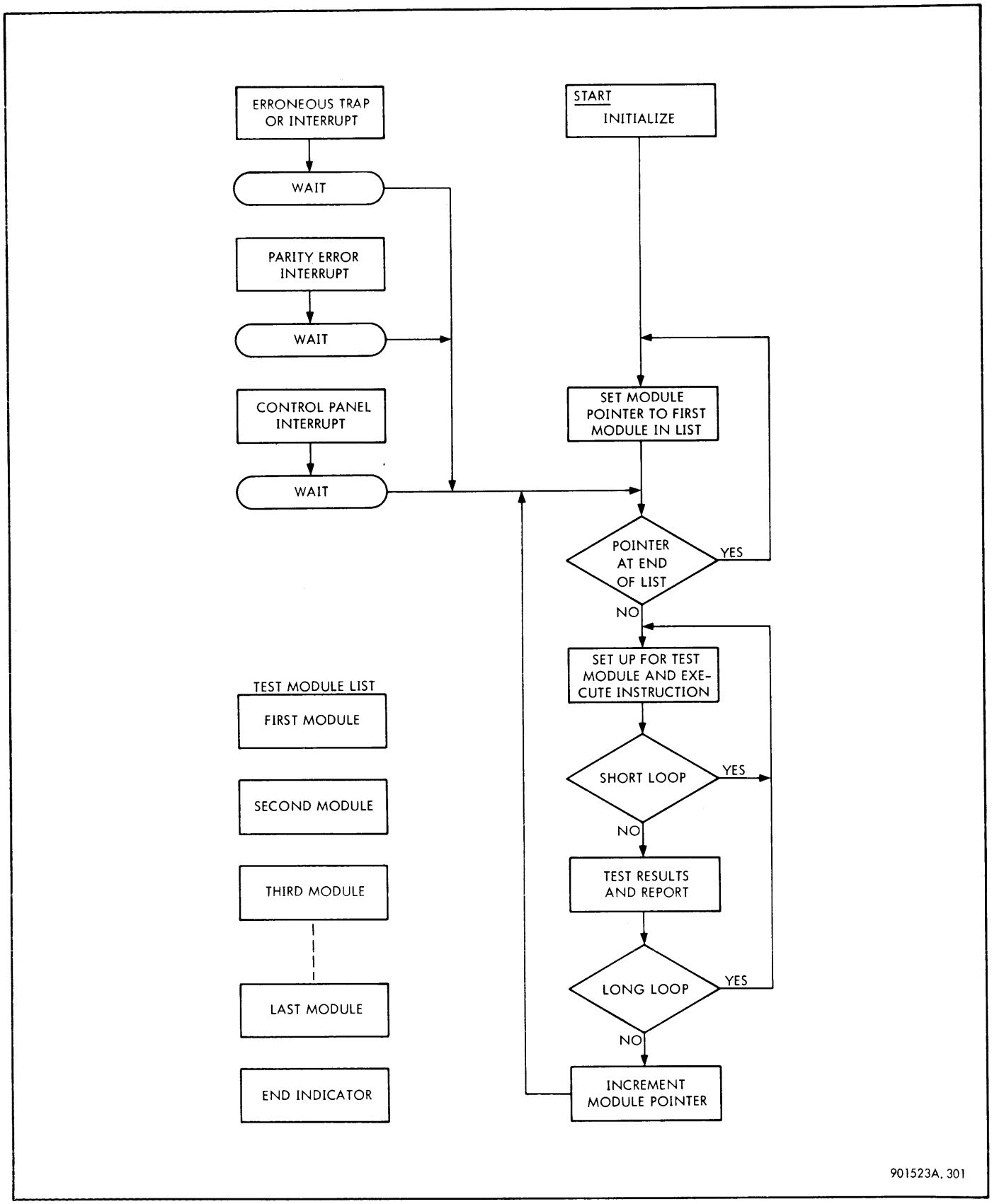

Figure 3-1. Auto Program, Simplified Flow Chart

AUTO ERROR DISPLAY

LIST	ERRORS	PASSES	INST	IDENTIFIER	IS	SHOULD BE	DIFF
3240070C	00000001	00000054	30C00460	6000000C	51555554	55555554	04000000
32400714	00000002	00000055	30C00460	50000001	A7200167	87200167	20000000
32400714	00000003	00000055	30C00460	6000000C	04000000	00000000	04000000
3240071C	00000004	00000056	30C00460	50000001	A7200167	87200167	20000000
3240071C	00000005	00000056	30C00460	6000000C	04000000	00000000	04000000
32400724	00000006	00000057	30C00460	6000000C	FBFFFFFE	FFFFFFFE	04000000
32400734	00000007	00000059	30C00460	6000000C	40444444	44444444	04000000
3240073C	00000008	0000005A	30C00460	6000000C	40444443	44444443	04000000
3240075C	00000009	0000005E	30C00460	6000000C	40444444	44444444	04000000
3240076C	0000000A	00000060	30C00460	6000000C	8C888887	88888887	04000000
32400774	0000000B	00000061	30C00460	6000000C	8C888888	88888888	04000000
3240077C	0000000C	00000062	30C00460	6000000C	8C888888	88888888	04000000
3240078C	0000000D	00000064	30C00460	6000000C	C8CCCCCC	CCCCCCCC	04000000

Figure 3-2. Sample Auto Error Printout

Since the program status word failures can be discounted, the causes of faulty list addresses must be determined. The first failing list (3240070C) is in test module AW05 (see page 82 of the program listing, section IV). The Comments column indicates specifically some of the equations being tested by this test module.

Analysis of the Is, Should Be, and Diff columns of the Auto error display of figure 3-2 shows that bit 5 is always different. Any comment in the AW05 program listing concerning bit position 5 should therefore be interpreted as meaningful.

Before going any further, the user should be aware of the logic equations involved in the add word process. The equations for the adder simplify to the following:

General Equation	Application of Equation for Bit 5
$S_n = PR_n \oplus K_n$	$S_5 = PR_5 \oplus K_5$
$PR_n = A_n \oplus D_n$	$PR_5 = A_5 \oplus D_5$
$G_n = A_n \cdot D_n$	$G_5 = A_5 \cdot D_5$

where n = Bit position

S = Sum

PR = Propagate

G = Generate

A = A-register

D = D-register

On the program listing, K05 is noted in the next to last comment preceding AW05 as being caused by the corresponding term (G06) of the last comment line. Since the numbers being added in this module are both X'AAAAAAAA', both A5 and D5 must be zeros, making PR5 = 0. S5, therefore, should be a one, and the generation of either G6, K5, or NPR5 should be suspect as being faulty.

The above determined, the user should proceed with testing as described in either paragraph 3-5 or 3-6.

3-5 WORK WITH ONE FAILING TEST MODULE

Select a failing test module and then address-stop at location X'164'. An execute instruction will be displayed, which will execute the add word instruction.

Use the single-clock feature to advance to phase 3 of the AW instruction. Obtain test points from the CPU logic equations and check the three suspected terms.

3-6 EXTENDED ANALYSIS

Analyze the next failing AW test module and prepare a truth table for various inputs. See table 3-1 for a sample truth table.

From the comments of each AW test module, fill in the table. Terms such as KI = 1 are defined preceding the AW01 test module.

After analyzing a few cases, a pattern will develop in the truth table. For every failure, K5 should be true. If it were actually false, the IS-S5 would be the result in each case. The approach given in paragraph 3-5 can be taken from this point or the logic module for K5 can be replaced.

Table 3-1. Sample Error Analysis Truth Table

	SHOULD BE				IS
CASE	PR5	G6	K5	S5	S5
AW05	0	1	1	1	0
AW06	1	0	1	0	1
AW07	1	0	1	0	1

Table 3-1. Sample Error Analysis Truth Table (Cont.)

	SHOULD BE				IS
AW08	0	1	1	1	0
AW10	0	1	1	1	0

3-7 FLOWCHART

A detailed flowchart of the entire program (excluding test modules) is given in figure 3-3. Application of the flowchart to the program listing in section IV should provide the user with a clear understanding of program operation.

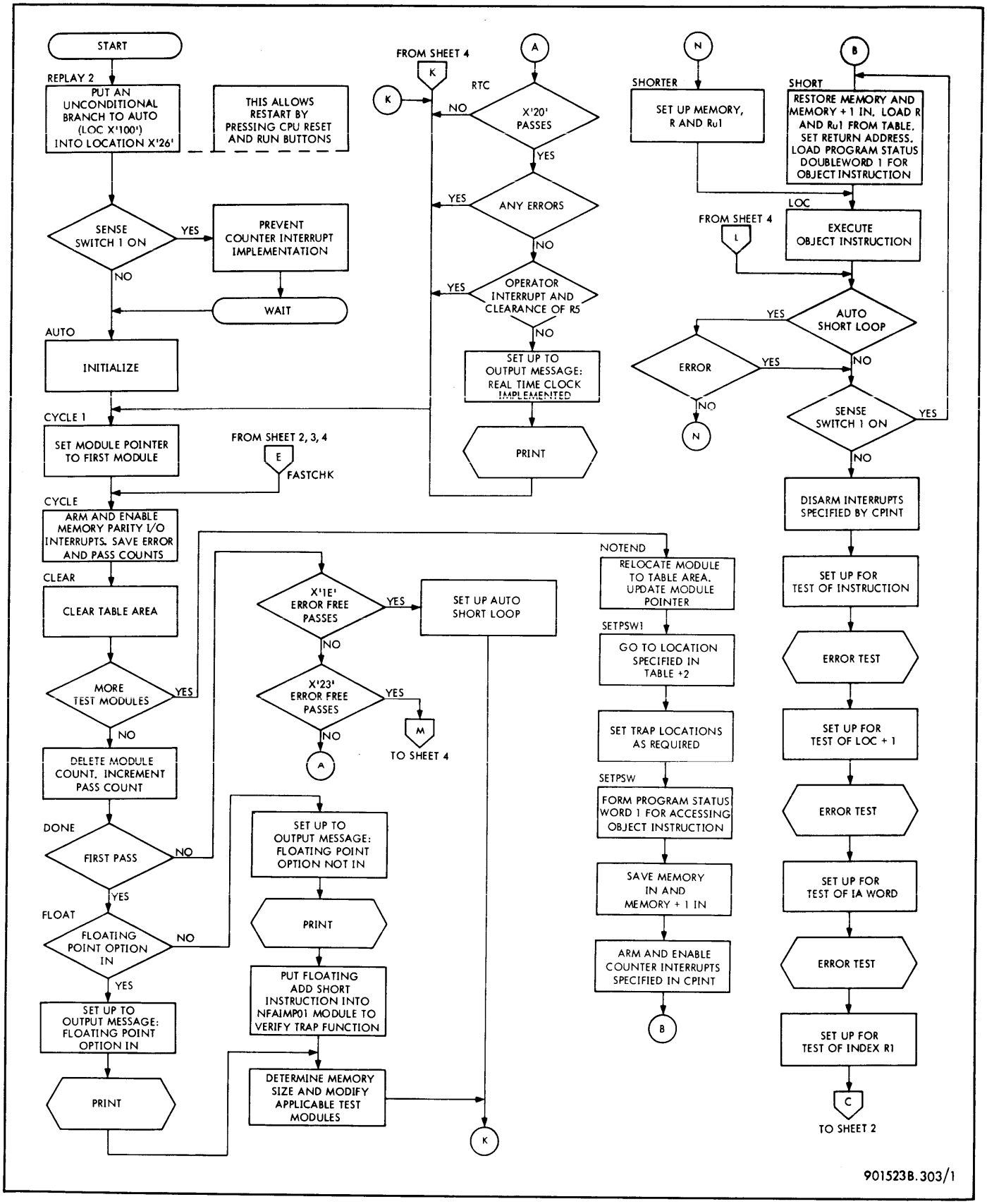

Figure 3-3. Auto Program, Detailed Flow Chart (Sheet 1 of 4)

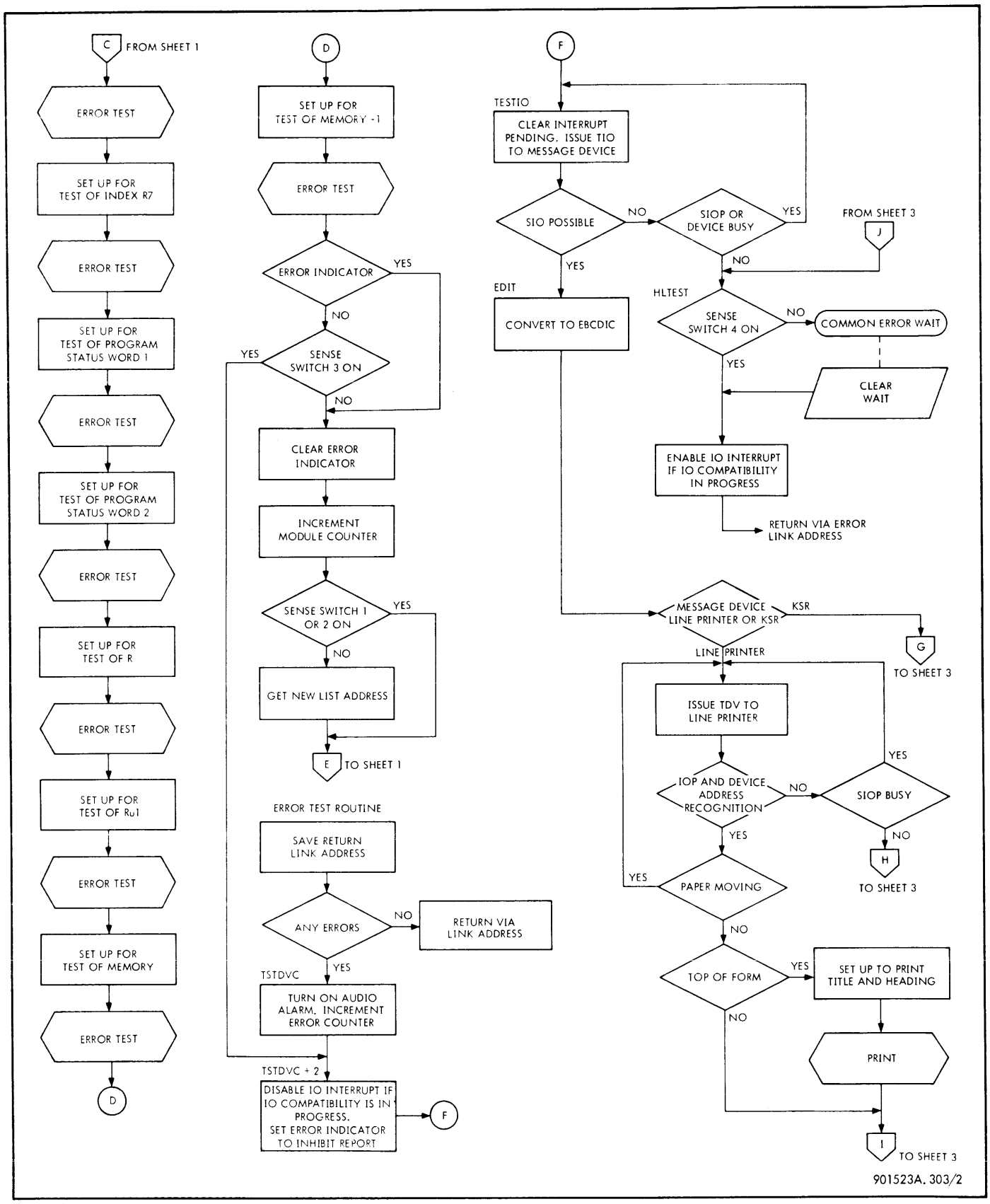

Figure 3-3. Auto Program, Detailed Flow Chart (Sheet 2 of 4)

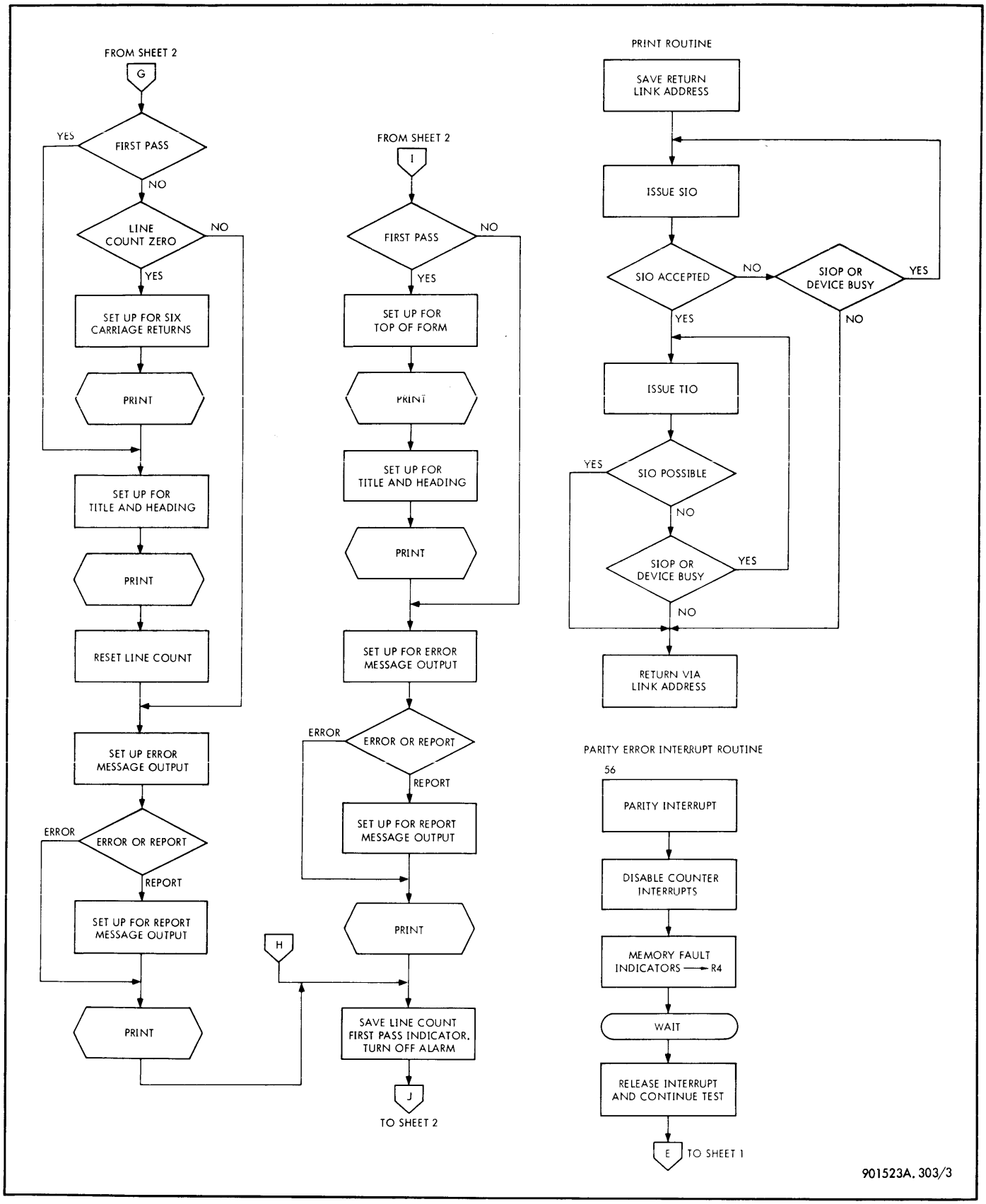

Figure 3-3. Auto Program, Detailed Flow Chart (Sheet 3 of 4)

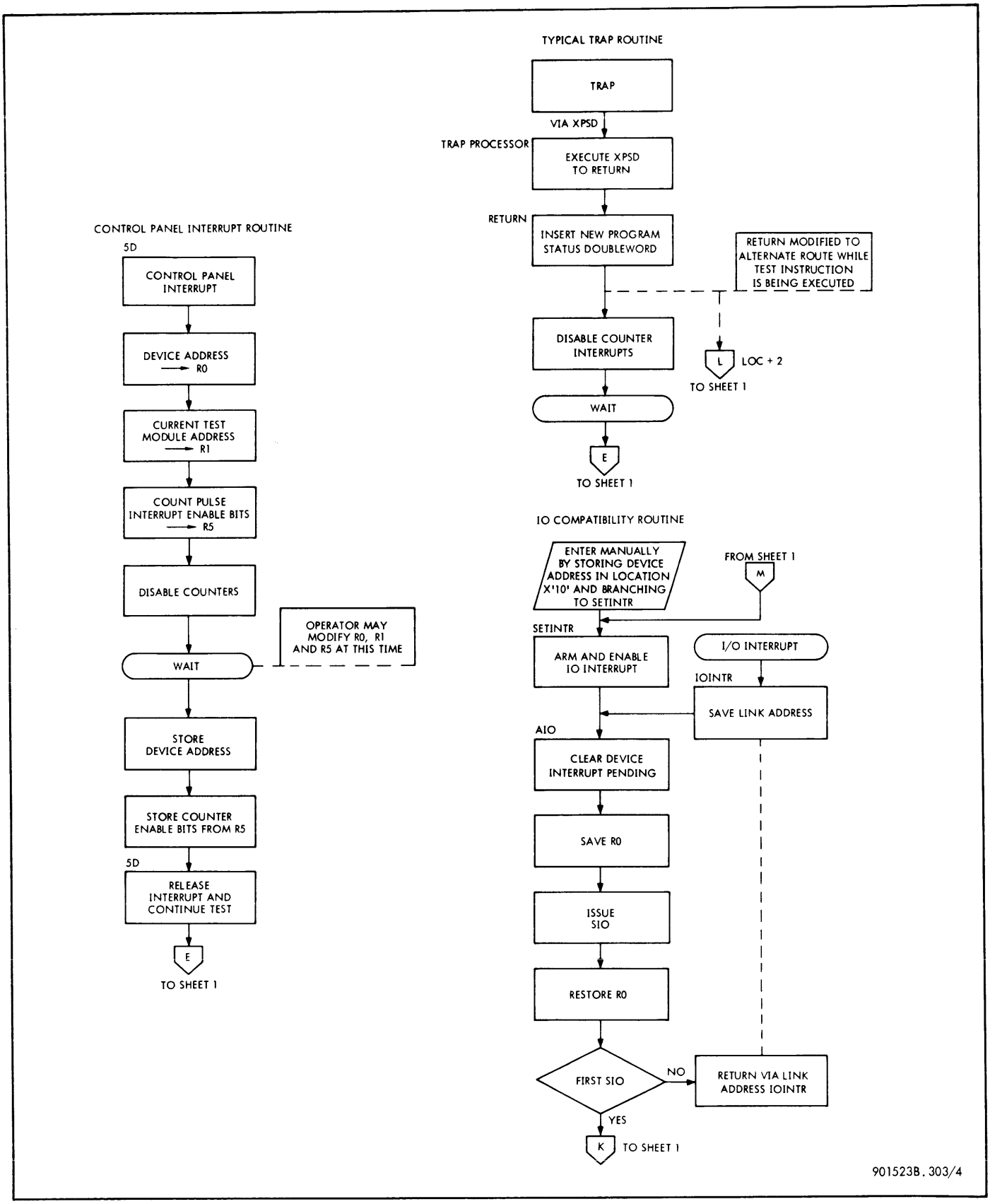

Figure 3-3. Auto Program, Detailed Flow Chart (Sheet 4 of 4)

SECTION IV
PROGRAM LISTING

```
                                *
                                *
                                *
                                * REVISION C: CHANGES NOTED IN COL 71-72 BY - *C                    *C
                                *  I/O COMPATIBILITY ROUTINE MODIFIED TO OPERATE ON COMPUTERS WITH  *C
                                *  ONLY ONE REGISTER PAGE.                                         *C
                                *
                                *
                                *
                                * REVISION B:
                                *       A ROUTINE TO AUTOMATICALLY IMPLEMENT THE SHORT LOOP FOR 100
                                *       PASSES OF EACH TEST MODULE, A TEST FOR TRAPS CORRECTLY REPORTING
                                *       THE LOCATION TRAPPED FROM, ADDITIONAL TEST MODULES, IMPROVEMENT
                                *       OF THE INITIALIZE ROUTINE, COMPUTATION OF NON-EXSISTENT MEMORY
                                *       TO AVOID REPORTING FALSE ERRORS AND AUTOMATIC IMPLEMENTATION OF
                                *       THE I/O COMPATIBILTY TEST (AFTER 35 ERROR FREE PASSES) WERE
                                *       THE MAJOR CHANGES INCORPORATED.
                                *
                                *
                                *
                                *
                                *
                                *
                                *
                                ******* SEE PAGES FOUR THROUGH SIX FOR **********************************
                                *******
                                ******* LOADING AND OPERATING INSTRUCTIONS **************************
                                        SYSTEM  SIGFDP
0000000F                        F       EQU     15
                                *
                                *     FORMS   THE ADDRESS FIELD SPECIFIECS HOW THE WORD IS DIVIDED AND
                                *             HOW MANY BITS THERE WILL BE IN EACH PART OF THE WORD.
                                *             EFFECTIVE AT ASSEMBLY TIME ONLY.
                                I       FORM    4,28
                                *
                                K       FORM    4,4,4,20
                                *
```



```
                                *       PROCS                   EFFECTIVE AT ASSEMBLY TIME ONLY
                                *
                                        OPEN    PAGE            THIS INHIBITS                   *C
00000000                        PAGE    CNAME                    PAGE                           *C
                                        PROC                      DIRECTIVE                     *C
                                        PEND                       TO PERMIT MAX. LINAGE/PAGE   *C
                                *
                                *
                                *
                                *       P       SPECIFIES A DOUBLE WORD ADDRESS
                                *
00000000                        P       CNAME
                                        PROC
                                LF      GEN,32  DA(AF(1))
                                        PEND
                                *
                                *       J       CONVERTS TO BYTE ADDRESS
00000000                        J       CNAME
                                        PROC
                                LF      GEN,8,24 AF(1),BA(AF(2))
                                        PEND
                                *
                                *       FILL    FILLS ALL LOCATIONS BETWEEN AF AND B WITH ZEROS.
00000000                        FILL    CNAME
                                        PROC
                                        DO      ABSVAL(AF)-ABSVAL(*)
                                        GEN,32  0
                                        FIN
                                        PEND
                                *
                                        PAGE
                                *
                                        OPEN    LCFI,AI,CI,LI,MI,SF,S,LCF,STCF
00000024                        SF      CNAME   X'24'
00000025                        S       CNAME   X'25'
00000070                        LCF     CNAME   X'70'
00000074                        STCF    CNAME   X'74'
```

```
                          G1      EQU      1,7,4,3,17
                                  PROC
                          LF      GEN,G1   AFA(1),NAME,CF(2),AF(2),AF(1)
                                  PEND
         00000002         LCFI    CNAME    X'2'
         00000020         AI      CNAME    X'20'
         00000021         CI      CNAME    X'21'
         00000022         LI      CNAME    X'22'
         00000023         MI      CNAME    X'23'
                          G2      EQU      1,7,4,20
                                  PROC
                          LF      GEN,G2   AFA(1),NAME,CF(2),AF(1)
                                  PEND
                          *
                          * BIND - CAUSES THE LOCATION COUNTERS TO ADVANCE TO A WORD BOUNDARY THAT
                          *  IS SPECIFIED IN THE ARGUMENT FIELD.
         00000000         BIND    CNAME
                                  PROC
                          XP      SET      AF-(ABSVAL($)-((ABSVAL($)/AF)*AF))          *B
                                  DO       AF-(ABSVAL($)-((ABSVAL($)/AF)*AF))>0        *B
                                  ORG      ABSVAL($)+XP
                                  FIN
                                  PEND
                          *
                          *
 01 00040                         ORG      X'40'                                       *B
 01 00040
                          *
                          *
                          ****************   LOADING OPTIONS
                          *       SENSE SW1  SET= BYPASS AUTOMATIC IMPLEMENTATION OF REAL TIME
                          *                          CLOCKS. PROGRAM WILL COME TO A WAIT. RESET
                          *                          SENSE SWITCH 1. CLEAR THE WAIT.
                          *                  RESET= ENABLE RTC'S AFTER X'20' ERROR FREE PASSES
                          *
                          *
                          *
```



```
                          ****************  I/O COMPATIBILITY
                          *        THIS TEST IS DESIGNED TO TEST FOR CONFLICTS BETWEEN THE
                          *        INTEGRAL IOP AND THE EXECUTION OF THE AUTO DIAGNOSTIC.
                          * THE TEST IS AUTOMATICALLY INITIATED AFTER 35 ERROR FREE PASSES     *B
                          ***                                                                  *B
                          *  TO DELETE THE TEST :                                              *B
                          *    1. CP INTERRUPT                                                 *B
                          *    2. ENTER A NON-EXSISTENT DEVICE ADDRESS IN LOCATION X'10'.      *B
                          *    3. BRANCH TO ZIOAIN. SEE ADDRESS ON NEXT LINE                   *B
 01 00040     000002D0             DATA      ZIOAIN                                            *B
                          *  TO REINTIALIZE THE TEST:                                          *B
                          *        1. CP INTERRUPT
                          *        2. ENTER DEVICE ADDRESS INTO LOCATION  X'10'
                          *        3. BRANCH TO ZIOAIN. SEE ADDRESS ON NEXT LINE               *B
 01 00041     000002D0             DATA      ZIOAIN                                            *B
                          *           (IF THE SELECTED DEVICE DOES NOT GENERATE AN INTERRUPT
                          *            FOR ANY REASON, RESTART BY REPEATING STEP 3 )
                          *
                          *
                          ****************    OPERATING OPTIONS
                          *
                          *      SS1        SET=SHORT LOOP
                          *              RESET=NORMAL OPERATION
                          *
                          *      SS2        SET=LONG LOOP
                          *              RESET=NORMAL OPERATION
                          *
                          *      SS3        SET=REPORT
                          *              RESET=NORMAL OPERATION
                          *
                          *      SS4        SET=NO HALT ON ERRORS
                          *                  RESET=HALT ON ERRORS AND AFTER REPORT
                          *
                          *************** REGISTER CONTENTS AFTER HALT INITIATED BY:
                          *               (WAIT AT X'1E8')
                          *                REPORT
                          *                  OR
```

```
                        *                ERROR
                        *       R1      PRESENT LIST ADDRESS
                        *       R2      ERROR COUNTER
                        *       R3      PASS COUNTER (PASSES=0-15, MODULES=16-31)
                        *       R4      INSTRUCTION
                        *       R5      ERROR IDENTIFIER AND ADDRESS:
                        *               10000000 = INSTRUCTION
                        *               20000000 = LOCATION+1 OF THE EXECUTION LOCATION
                        *               30000000 = INDIRECT ADDRESS
                        *               4000000X = INDEX REGISTER X: X=1(NORMAL) OR 7(ONE)
                        *               5000000X = PROGRAM STATUS WORD X: X=1 OR 2
                        *               6000000X = REGISTER X: X=C(12)OR D(13)
                        *               7000WXYZ = MEMORY WORD IN LOCATION WXYZ (WXYZ=0-FFFF)
                        *       R6      ERRONEOUS RESULT
                        *       R7      PREDETERMINED RESULT
                        *       R8      DIFFERENCE BETWEEN R6 AND R7
                        *
                        *
                        *************** REGISTER CONTENTS AFTER HALT INITIATED BY:
                        *                 CONTROL PANEL INTERRUPT (WAIT AT X'FB')
                        *                              OR
                        *                 SPURIOUS TRAP (WAIT AT X'403')
                        *
                        ***********************************RO AND OR R5 MAY BE MODIFIED AFTER
                        *                                   THE WAIT FROM CP INTERRUPT. RO WILL
                        *                                   SELECT THE MSG DEVICE AND R5 THE
                        *                                   COUNT PULSE INTERRUPTS
                        *         R0       T000OMSG    T=0 FOR KSR   MSG= DEVICE ADDR
                        *                              T=8 FOR LINE PRINTER
                        *         R1       3240YYYY         LW,4 OBJECT ADDRESS
                        *         R2       ERROR COUNTER
                        *         R3       XXXXZZZZ    X=PASS COUNT  Z= TEST COUNT
                        *         R5       0000N000    N= ACTIVE COUNTER INTERRUPTS
                        *                  BIT POSITION    ACTIVATES COUNTER
                        *                        16                    1
                        *                        17                    2
                        *                        18                    3
```



```
                                   *                     19                    4
                                   *
                                   *
  01 00040                                   ORG      X'40'          TRAP LOCATIONS
  01 00040
                                   ****  THE TRAP LOCATIONS WILL NOT ALWAYS CONTAIN THE INSTRUCTION
                                   ****  SHOWN IN THIS LISTING.
                                   ****  LOCATION 40 USUALLY CONTAINS ::   XPSD,8 RETURN (SAME AS LOC 47)
                                   ****  TRAP MODIFICATION IS USUALLY ACCOMPLISHED BY THE LPSD IN LOC 128
  01 00040      0F00005E           NAOTR     XPSD,0   NAO            NONALLOWED OPERATION
  01 00041      0F000072           UIITR     XPSD,0   UII            UNIMPLEMENTED INSTRUCTION
  01 00042      0F000078           SLTR      XPSD,0   SL             STACK LIMIT
  01 00043      0F00007E           FXPOTR    XPSD,0   FXPO           FIXED POINT OVERFLOW
  01 00044      0F000084           FLPFTR    XPSD,0   FLPF           FLOATING POINT FAULT
  01 00045      0F00008A           DFTR      XPSD,0   DF             DECIMAL FAULT
  01 00046      0F000090           WDTRTR    XPSD,0   WDTR           WATCHDOG TIMER RUNOUT
  01 00047      0F800464           BRANCH    XPSD,8   RETURN
  01 00048      0F000096           CAL1TR    XPSD,0   CAL1           CALL ONE
  01 00049      0F0000AA           CAL2TR    XPSD,0   CAL2           CALL TWO
  01 0004A      0F0000BE           CAL3TR    XPSD,0   CAL3           CALL THREE
  01 0004B      0F0000D2           CAL4TR    XPSD,0   CAL4           CALL FOUR
                                   *                                INTERRUPT LOCATIONS
  01 0004C      00000000 A                   FILL     X'52'
  01 0004D      00000000 A
  01 0004E      00000000 A
  01 0004F      00000000 A
  01 00050      00000000 A
  01 00051      00000000 A
  01 00052      3310046E                     MTW,1    CNT1CP
  01 00053      3310046F                     MTW,1    CNT2CP
  01 00054      33100470                     MTW,1    CNT3CP
  01 00055      33100471                     MTW,1    CNT4CP
  01 00056      0F0000E6                     XPSD,0   PARITY         MEMORY PARITY
  01 00057      00000000 A                   FILL     X'5C'
  01 00058      00000000 A
  01 00059      00000000 A
  01 0005A      00000000 A
```

```
          01 00058    00000000 A
     213                                PAGE
     214  01 0005C    0F8002DC           XPSD,8   IOINTR          I/O INTERRUPT LOCATION                *C
     215  01 0005D    0F0000F0           XPSD,0   RESET           INTERRUPT BUTTON
     216                          *                              NON-ALLOWED OPERATION TRAP
     217                                BOUND 8
     218  01 0005E    00000000 A NAO     PZE
     219  01 0005F    00000000 A         PZE
     220  01 00060    00000062           PZE,0    $+2
     221  01 00061    00000000 A         PZE
     222  01 00062    0F000464   NAORET  XPSD,0   RETURN          NONALLOWD OPERATION                   I9*
     223  01 00063    0F000464   MPVRET  XPSD,0   RETURN          MEMORY PROTECT VIOLATION TRACC=1      I9*
     224  01 00064    0F000464   MVRET   XPSD,0   RETURN          MODE VIOLATION           TRACC=2      I9*
     225  01 00065    0F000464           XPSD,0   RETURN
     226  01 00066    0F000464   NEARET  XPSD,0   RETURN          NONEXISTANT ADDRESS      TRACC=4      I9*
     227  01 00067    0F000464           XPSD,0   RETURN
     228  01 00068    0F000464           XPSD,0   RETURN
     229  01 00069    0F000464           XPSD,0   RETURN
     230  01 0006A    0F000464   NEIRET  XPSD,0   RETURN          NONEXISTANT INSTRUCTION  TRACC=8      I9*
     231  01 00068    0F000464           XPSD,0   RETURN
     232  01 0006C    0F000464           XPSD,0   RETURN
     233  01 0006D    0F000464           XPSD,0   RETURN
     234  01 0006E    0F000464           XPSD,0   RETURN
     235  01 0006F    0F000464           XPSD,0   RETURN
     236  01 00070    0F000464           XPSD,0   RETURN
     237  01 00071    0F000464           XPSD,0   RETURN
     238                                PAGE
     239                          *                              UNIMPLIMENTED INSTRUCTION TRAP
     240                                BOUND 8
     241  01 00072    00000000 A UII     PZE
     242  01 00073    00000000 A         PZE
     243  01 00074    00000076           PZE,0    $+2
     244  01 00075    00000000 A         PZE
     245  01 00076    0F000464   UIIRET  XPSD,0   RETURN
     246                          *                              STACK LIMIT REACHED TRAP
     247                                BOUND 8
     248  01 00078    00000000 A SL      PZE
```



```
     249  01 00079    00000000 A         PZE
     250  01 0007A    0000007C           PZE,0    $+2
     251  01 0007B    00000000 A         PZE
     252  01 0007C    0F000464   SLRET   XPSD,0   RETURN
     253                                PAGE
     254                          *                              FIXED POINT ARITHMETIC OVERFLOW TRAP
     255                                BOUND 8
     256  01 0007E    00000000 A FXPO    PZE
     257  01 0007F    00000000 A         PZE
     258  01 00080    00000082           PZE,0    $+2
     259  01 00081    00000000 A         PZE
     260  01 00082    7020007E           LCF,2    FXPO
     261  01 00083    0F000464   FPORET  XPSD,0   RETURN
     262                          *                              FLOATING POINT ARITHMETIC FAULT TRAP
     263                                BOUND 8
     264  01 00084    00000000 A FLPF    PZE
     265  01 00085    00000000 A         PZE
     266  01 00086    00000088           PZE,0    $+2
     267  01 00087    00000000 A         PZE
     268  01 00088    70200084           LCF,2    FLPF
     269  01 00089    0F000464   FPFRET  XPSD,0   RETURN
     270                          *                              DECIMAL ARITHMETIC FAULT TRAP
     271                                BOUND 8
     272  01 0008A    00000000 A DF      PZE
     273  01 0008B    00000000 A         PZE
     274  01 0008C    0000008E           PZE,0    $+2
     275  01 0008D    00000000 A         PZE
     276  01 0008E    7020008A           LCF,2    DF
     277  01 0008F    0F000464   DFRET   XPSD,0   RETURN
     278                          *                              WATCHDOG TIMER RUNOUT TRAP
     279                                BOUND    8
     280  01 00090    00000000 A WDTR    PZE
     281  01 00091    00000000 A         PZE
     282  01 00092    00000094           PZE,0    $+2
     283  01 00093    00000000 A         PZE
     284  01 00094    0F000464   WDTRET  XPSD,0   RETURN
     285                                PAGE
```

```
                                  *                             CALL 1 TRAP
                                       BOUND 8
 01 00096     00000000 A   CAL1        PZE
 01 00097     00000000 A               PZE
 01 00098     0000009A                 PZE,0     $+2
 01 00099     00000000 A               PZE
 01 0009A     0F000464     C1RET       XPSD,0    RETURN          TRACC=0
 01 0009B     0F000464                 XPSD,0    RETURN          TRACC=1    I9=1
 01 0009C     0F000464                 XPSD,0    RETURN          TRACC=2    I9=1
 01 0009D     0F000464                 XPSD,0    RETURN          TRACC=3    I9=1
 01 0009E     0F000464                 XPSD,0    RETURN          TRACC=4    I9=1
 01 0009F     0F000464                 XPSD,0    RETURN          TRACC=5    I9=1
 01 000A0     0F000464                 XPSD,0    RETURN          TRACC=6    I9=1
 01 000A1     0F000464                 XPSD,0    RETURN          TRACC=7    I9=1
 01 000A2     0F000464                 XPSD,0    RETURN          TRACC=8    I9=1
 01 000A3     0F000464                 XPSD,0    RETURN          TRACC=9    I9=1
 01 000A4     0F000464                 XPSD,0    RETURN          TRACC=10   I9=1
 01 000A5     0F000464                 XPSD,0    RETURN          TRACC=11   I9=1
 01 000A6     0F000464                 XPSD,0    RETURN          TRACC=12   I9=1
 01 000A7     0F000464                 XPSD,0    RETURN          TRACC=13   I9=1
 01 000A8     0F000464                 XPSD,0    RETURN          TRACC=14   I9=1
 01 000A9     0F000464                 XPSD,0    RETURN          TRACC=15   I9=1
                                       PAGE
                                  *                             CALL 2 TRAP
                                       BOUND 8
 01 000AA     00000000 A   CAL2        PZE
 01 000AB     00000000 A               PZE
 01 000AC     000000AE                 PZE,0     $+2
 01 000AD     00000000 A               PZE
 01 000AE     0F000464     C2RET       XPSD,0    RETURN          TRACC=0
 01 000AF     0F000464                 XPSD,0    RETURN          TRACC=1    I9=1
 01 000B0     0F000464                 XPSD,0    RETURN          TRACC=2    I9=1
 01 000B1     0F000464                 XPSD,0    RETURN          TRACC=3    I9=1
 01 000B2     0F000464                 XPSD,0    RETURN          TRACC=4    I9=1
 01 000B3     0F000464                 XPSD,0    RETURN          TRACC=5    I9=1
 01 000B4     0F000464                 XPSD,0    RETURN          TRACC=6    I9=1
 01 000B5     0F000464                 XPSD,0    RETURN          TRACC=7    I9=1
```



```
 01 000B6     0F000464                 XPSD,0    RETURN          TRACC=8    I9=1
 01 000B7     0F000464                 XPSD,0    RETURN          TRACC=9    I9=1
 01 000B8     0F000464                 XPSD,0    RETURN          TRACC=10   I9=1
 01 000B9     0F000464                 XPSD,0    RETURN          TRACC=11   I9=1
 01 000BA     0F000464                 XPSD,0    RETURN          TRACC=12   I9=1
 01 000BB     0F000464                 XPSD,0    RETURN          TRACC=13   I9=1
 01 000BC     0F000464                 XPSD,0    RETURN          TRACC=14   I9=1
 01 000BD     0F000464                 XPSD,0    RETURN          TRACC=15   I9=1
                                       PAGE
                                  *                             CALL 3 TRAP
                                       BOUND 8
 01 000BE     00000000 A   CAL3        PZE
 01 000BF     00000000 A               PZE
 01 000C0     000000C2                 PZE,0     $+2
 01 000C1     00000000 A               PZE
 01 000C2     0F000464     C3RET       XPSD,0    RETURN          TRACC=0
 01 000C3     0F000464                 XPSD,0    RETURN          TRACC=1    I9=1
 01 000C4     0F000464                 XPSD,0    RETURN          TRACC=2    I9=1
 01 000C5     0F000464                 XPSD,0    RETURN          TRACC=3    I9=1
 01 000C6     0F000464                 XPSD,0    RETURN          TRACC=4    I9=1
 01 000C7     0F000464                 XPSD,0    RETURN          TRACC=5    I9=1
 01 000C8     0F000464                 XPSD,0    RETURN          TRACC=6    I9=1
 01 000C9     0F000464                 XPSD,0    RETURN          TRACC=7    I9=1
 01 000CA     0F000464                 XPSD,0    RETURN          TRACC=8    I9=1
 01 000CB     0F000464                 XPSD,0    RETURN          TRACC=9    I9=1
 01 000CC     0F000464                 XPSD,0    RETURN          TRACC=10   I9=1
 01 000CD     0F000464                 XPSD,0    RETURN          TRACC=11   I9=1
 01 000CE     0F000464                 XPSD,0    RETURN          TRACC=12   I9=1
 01 000CF     0F000464                 XPSD,0    RETURN          TRACC=13   I9=1
 01 000D0     0F000464                 XPSD,0    RETURN          TRACC=14   I9=1
 01 000D1     0F000464                 XPSD,0    RETURN          TRACC=15   I9=1
                                       PAGE
                                  *                             CALL 4 TRAP
                                       BOUND 8
 01 000D2     00000000 A   CAL4        PZE
 01 000D3     00000000 A               PZE
 01 000D4     000000D6                 PZE,0     $+2
```

```
01 000D5   00000000 A            PZE
01 000D6   0F000464     C4RET    XPSD,0    RETURN          TRACC=0
01 000D7   0F000464              XPSD,0    RETURN          TRACC=1    19=1
01 000D8   0F000464              XPSD,0    RETURN          TRACC=2    19=1
01 000D9   0F000464              XPSD,0    RETURN          TRACC=3    19=1
01 000DA   0F000464              XPSD,0    RETURN          TRACC=4    19=1
01 000DB   0F000464              XPSD,0    RETURN          TRACC=5    19=1
01 000DC   0F000464              XPSD,0    RETURN          TRACC=6    19=1
01 000DD   0F000464              XPSD,0    RETURN          TRACC=7    19=1
01 000DE   0F000464              XPSD,0    RETURN          TRACC=8    19=1
01 000DF   0F000464              XPSD,0    RETURN          TRACC=9    19=1
01 000E0   0F000464              XPSD,0    RETURN          TRACC=10   19=1
01 000E1   0F000464              XPSD,0    RETURN          TRACC=11   19=1
01 000E2   0F000464              XPSD,0    RETURN          TRACC=12   19=1
01 000E3   0F000464              XPSD,0    RETURN          TRACC=13   19=1
01 000E4   0F000464              XPSD,0    RETURN          TRACC=14   19=1
01 000E5   0F000464              XPSD,0    RETURN          TRACC=15   19=1
                                 PAGE
                        *                                PARITY INTERUPT SERVICE ROUTINE
                                 BOUND 8
01 000E6   00000000 A   PARITY   PZE
01 000E7   00000000 A            PZE
01 000E8   000000EA              PZE,0     $+2
01 000E9   00000000 A            PZE
01 000EA   6C400010 A            RD,4      X'10'           RECORD PARITY ERROR PLANS
01 000EB   32500371              LW,5      CPINT           COUNT PULSE INTERRUPTS
01 000EC   6D501300 A            WD,5      X'1300'         ARM AND DISABLE
01 000ED   2E000000 A            WAIT,0    0
01 000EE   0E30046A              LPSD,3    REPEAT          RELEASE PARITY INTERRUPT-REPEAT TEST
                        *                                INTERUPT BUTTON SERVICE ROUTINE
                                 BOUND 8
01 000F0   00000000 A   RESET    PZE
01 000F1   00000000 A            PZE
01 000F2   000000F4              PZE,0     $+2
01 000F3   07000000 A            DATA      X'07000000'     TURN ON INTERRUPT INHIBIT BITS
01 000F4   32500371              LW,5      CPINT           COUNT PULSE INTERRUPTS
01 000F5   6D501300 A            WD,5      X'1300'         ARM AND DISABLE
```



```
01 000F6   32300474              LW,3      PASSES          RESET PASSES TO LAST SETTING
01 000F7   32200473              LW,2      ERRORS          RESET ERRORS TO LAST SETTING
01 000F8   3210011D              LW,1      SAVE            REINITIALIZE LOAD WITH LAST SETTING
01 000F9   3200037B              LW,0      TYPE
01 000FA   2E000000 A            WAIT,0    0
01 000FB   4B500391              AND,5     MASK+4
01 000FC   35500371              STW,5     CPINT
01 000FD   3500037B              STW,0     TYPE            DEVICE ADDR IF BIT=0 KSR; =1 LP
01 000FE   35500372              STW,5     CPINTM
01 000FF   0E30046A              LPSD,3    REPEAT          RELEASE PANEL INTERRUPT-REPEAT TEST
                                 PAGE
                        *                                AUTO-CONTROL
                                 FILL      X'100'
01 00100   322003C0     AUTO     LW,2      ZERO            ERRORS
01 00101   323003C0              LW,3      ZERO            PASSES
                        * REINITIATE MODULES DEPENDENT ON OPTIONS                        *B
01 00102   321004E7              LW,1      LWO3+1          LW *IA - LEGAL MEMORY ADDRESS    *B
01 00103   35100D14              STW,1     ANLZ08+6                                         *B
01 00104   35100D15              STW,1     ANLZ08+7                                         *B
01 00105   32100332              LW,1      BEND             INST '3 END' BYPASS TEST MODULE*B
01 00106   35100D0F              STW,1     ANLZ08+1        BYPASS TEST MODULE ON FIRST PASS *B
01 00107   351008D3              STW,1     BAL05+1         BYPASS TEST MODULE ON FIRST PASS *B
01 00108   35101621              STW,1     NFAIMP01+1      BYPASS TEST MODULE ON FIRST PASS *B
01 00109   35300371              STW,3     CPINT           CLEAR RTC OPTION                 *B
01 0010A   35300331              STW,3     ITERATE         CLEAR SHORT LOOP                 *B
01 0010B   32100368              LW,1      NEG51
01 0010C   35100369              STW,1     LINE            INITALIZE LINE COUNT
01 0010D   32100385              LW,1      NEG2
01 0010E   35100363              STW,1     FIRST           RESET FIRST PASS COUNTER
01 0010F   32100356              LW,1      LOAD            INITIALIZE MODULE POINTER. SET C=0
01 00110   324003C0     CYCLE    LW,4      ZERO            CLEAR TRANSFER REGISTER
01 00111   3510011D              STW,1     SAVE            SAVE OLD POINTER FOR RESET
01 00112   3540046D              STW,4     PSW2            INITIALIZE FOR EACH MODULE       *B
01 00113   3250037C              LW,5      PCPINT          PARITY AND CONTROL PANAL INTERRUPTS
01 00114   6D501200 A            WD,5      X'1200'         ARM AND ENABLE
01 00115   35200473              STW,2     ERRORS          SAVE ERROR COUNTER IN MEMORY
01 00116   35300474              STW,3     PASSES          SAVE PASS COUNTER IM MEMORY
```

```
      434   01 00117   32500358            LW,5    STORE          PREPARE TO CLEAR THE TABLE, SET I=0
      435   01 00118   32600367            LW,6    NEG20
      436   01 00119   3550011A    CLEAR   STW,5    *+1
      437   01 0011A   35400444            STW,4    TABLE+I       STORE 0 INTO TABLE+I, I=0 TO 11
      438   01 0011B   6550011C            BIR,5    *+1           I+1 INTO 1
      439   01 0011C   65600119            BIR,6    CLEAR
      440                                  PAGE
      441   01 0011D   32400488    SAVE    LW,4     LIST+C        PICK UP COUNT
      442   01 0011E   69300122            BCS,3    NOTEND        TEST FOR MODULE END
      443   01 0011F   4830035C            AND,3    M1015         DELETE MODULE COUNT
      444   01 00120   20310000 A          AI,3     X'10000'      INCREMENT PASS COUNTER
      445   01 00121   68000298            B        DONE
      446   01 00122   32500358  NOTEND    LW,5     STORE         PREPARE TO SET THE TABLE
      447   01 00123   32600004 A          LW,6     4
      448   01 00124   35100126  MOVE    STW,1    FROM            SET LOAD
      449   01 00125   35500127            STW,5    TO            SET STORE
      450   01 00126   32400488  FROM    LW,4     LIST+C        LOAD VEHICAL
      451   01 00127   35400444  TO      STW,4    TABLE+I       STORE VEHICAL
      452   01 00128   65100129            BIR,1    *+1           C+1 INTO C
      453   01 00129   6550012A            BIR,5    *+1           I+1 INTO I
      454   01 0012A   65600124            BIR,6    MOVE
      455   01 0012B   35100126            STW,1    FROM          SET MODULE POINTER = NEXT MODULE
      456                                  PAGE
      457                              *                         AUTO-EXECUTE
      458   01 0012C   32100448            LW,1     TABLE+4       PICK UP INDEX
      459   01 0012D   32400047            LW,4     XPSD          PICK UP RETURN VEHICAL
      460   01 0012E   35400165            STW,4    LOC+1         SET LOC+1 OF 'EXECUTE INSTRUCTION'
      461   01 0012F   35400040            STW,4    NAUTR         SET RETURN FOR SLAVE MODE CASES
      462   01 00130   32400446            LW,4     TABLE+2       PSW1I
      463   01 00131   4840035A            AND,4    LINKAD        SELECT LINK ADDRESS AND DELETE MS,MM
      464   01 00132   3540046C            STW,4    PSW1          SET UP LINKAGE
      465   01 00133   325003C0            LW,5     ZERO          CLEAR R5
      466   01 00134   4840035B            AND,4    COND          CLEAR ADDRESS PORTION OF PSW1
      467   01 00135   0E00046C            LPSD,0   PSW1          LINKAGE
      468                          ** LINKAGE IS TO NEXT INSTRUCTION OR TO VARIOUS TRAP SETUP AREAS START-
      469                          **  ING AT LOC 18C
      470   01 00136   32400446  SETPSW  LW,4     TABLE+2
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      471   01 00137   4840035B            AND,4    COND          CLEAR ADDRESS
      472   01 00138   4840033D            EOR,4    LOCADD        SET ADDRESS TO LOC
      473   01 00139   3540046C            STW,4    PSW1
      474   01 0013A   32400450            LW,4     TABLE+12
      475   01 0013B   3540046D            STW,4    PSW2
      476   01 0013C   22200001 A          LI,2     1
      477   01 0013D   32400445            LW,4     TABLE+1       INSTRUCTION
      478   01 0013E   35400459            STW,4    INST
      479   01 0013F   32500338            LW,5     INDA          INDIRECT ADDRESS
      480   01 00140   32700362            LW,7     ONE           SET HALF WORD (ODD MEMORY) INDEX
      481   01 00141   3550045A            STW,5    IA
      482   01 00142   32800448            LW,8     TABLE+7       STORE EXPECTED MEMORY RESULT =     *B
      483   01 00143   3290044F            LW,9     TABLE+11        INTO A DOUBLEWORD BOUNDARY =     *B
      484   01 00144   358001B0            STW,8    MEMOUT           FOR USE IN AUTOMATIC SHORT =    *B
      485   01 00145   359001B1            STW,9    MEMOUT+1           LOOP                          *B
      486   01 00146   32800449            LW,8     TABLE+5       PUTS EXPECTED REGISTER =           *B
      487   01 00147   32900451            LW,9     TABLE+9        RESULTS INTO AREA FOR =           *B
      488   01 00148   358001B2            STW,8    ROUTPUT          USE OF AUTOMATIC SHORT LOOP     *B
      489   01 00149   359001B3            STW,9    ROUTPUT+1                                        *B
      490   01 0014A   32800448            LW,8     TABLE+4       REGISTER OPERANDS ARE =            *B
      491   01 0014B   3290044C            LW,9     TABLE+8         MOVED TO AN AREA UTILIZED =      *B
      492   01 0014C   358001B4            STW,8    RINPUT           BY THE AUTOMATTIC SHORT LOOP    *B
      493   01 0014D   359001B5            STW,9    RINPUT+1                                         *B
      494   01 0014E   32600331            LW,6     ITERATE       DETERMINES IF AUTO SHORT LOOP      *B
      495   01 0014F   3280044A            LW,8     TABLE+6       MWI
      496   01 00150   3290044E            LW,9     TABLE+10      MW+1I
      497   01 00151   32500371            LW,5     CPINT         COUNT PULSE INTERRUPTS
      498   01 00152   60501200 A          WD,5     X'1200'       ARM AND ENABLE
      499                                  PAGE
      500                          * REGISTER 1 AND REG 7 ARE NOT RESTORED ON SHORT LOOP
      501                          *     IF THE ERROR IDENTIFIER IS = 4 =  THEN THE PROGRAM SHOULD
      502                          *     BE RUN ON LONG LOOP OR MODIFIED TO RESTORE THE FAILING REGISTER
      503   01 00153   35800460  SHORT   STW,8    MEMORY
      504   01 00154   35900461            STW,9    MEMORY+1
      505   01 00155   32C00448            LW,12    TABLE+4       R
      506   01 00156   32D0044C            LW,13    TABLE+8       RU1
      507   01 00157   32F0033C            LW,15    LOC2AD
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      508   01 00158   35F00466              STW,15   RETURN+2
      509   01 00159   0E00046C    PRELOC    LPSD,0   PSW1                                    *B
      510   01 0015A   11C001B2    FASTCHK   CD,12    ROUTPUT   CHECK REGISTER RESULTS          *B
      511   01 0015B   69300167              BNE      ERREXIT   REPORT ERROR VIA NORMAL PATH     *B
      512   01 0015C   12C001B0              LD,12    MEMOUT    CHECK MEMORY RESULTS            *B
      513   01 0015D   11C00460              CD,12    MEMORY                                    *B
      514   01 0015E   68300161              BE       SHORTER   SUCCESSFUL - LOOP AGAIN         *B
      515   01 0015F   12C001B2              LD,12    ROUTPUT   RESTORE R=RU1 SINCE MEMORY WAS BAD*B
      516   01 00160   68000167              B        ERREXIT   REPORT ERROR VIA NORMAL PATH     *B
      517   01 00161   15800460    SHORTER   STD,8    MEMORY    RESTORE MEMORY OPERANDS         *B
      518   01 00162   12C001B4              LD,12    RINPUT    RESTORE REGISTERS               *B
      519   01 00163   0E00046C              LPSD,0   PSW1      GO TO OBJECT INSTRUCTION AT LOC   *B
      520   01 00164   67000459    LOC       EXU      INST
      521   01 00165   0F800464              XPSD,8   RETURN    GO TO LOC+2. ALSO X-FER 0 INTO RP
      522   01 00166   6460015A              BDR,6    FASTCHK   TEST RESULTS OF SHORTER          *B
      523   01 00167   32600331    ERREXIT   LW,6     ITERATE   IN CASE SS1 ON AND AUTO SHORT LOOP*B
      524   01 00168   6C000000 A            RD,0     0         READ SENSE SWITCHES
      525   01 00169   69800153              BCS,8    SHORT     SS1=SHORT LOOP
      526   01 0016A   6D501100 A            WD,5     X'1100'   DISARM
      527   01 0016B   32200473              LW,2     ERRORS
      528                                    PAGE
      529                              *                       AUTO-TEST
      530   01 0016C   35100458              STW,1    TEST+3    IX
      531   01 0016D   32100382              LW,1     BDDBALL   SET RETURN FOR SPURIOUS TRAPS
      532   01 0016E   35100466              STW,1    RETURN+2  SET RETURN TO RESET+2
      533   01 0016F   3570045F              STW,7    TEST+7    SAVE HALF WORD INDEX
      534   01 00170   32100110              LW,1     SAVE      PICK UP PRESENT LIST ADDRESS
      535   01 00171   35C0045C              STW,12   TEST+4    R
      536   01 00172   35D0045D              STW,13   TEST+5    RU1
      537   01 00173   3250036A              LW,5     INSTID    PICK UP INSTRUCTION IDENTIFIED
      538   01 00174   32600459              LW,6     TEST+1    INST(R)
      539   01 00175   32700445              LW,7     TABLE+1   INST(8)
      540   01 00176   0F0001EA              XPSD,0   ERROR     TEST INSTRUCTION
      541   01 00177   32500368              LW,5     XPSDID    PICK LOCATION+1 IDENTIFIER
      542   01 00178   32600165              LW,6     LOC+1     LOC+1(R)
      543   01 00179   32700047              LW,7     XPSD      LOC+1(8)
      544   01 0017A   0F0001EA              XPSD,0   ERROR     TEST LOCATION+1
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      545   01 00173   3250036C              LW,5     IAID      PICK UP INDIRECT ADDRESS IDENTIFIER
      546   01 0017C   3260045A              LW,6     IA        IA(R)
      547   01 0017D   32700338              LW,7     INDA      IA(8)
      548   01 0017E   0F0001EA              XPSD,0   ERROR     TEST INDIRECT ADDRESS WORD
      549                                    PAGE
      550   01 0017F   3250036D              LW,5     IXID      PICK UP INDEX IDENTIFIER
      551   01 00180   32600458              LW,6     TEST+3    IX(R)
      552   01 00181   32700448              LW,7     TABLE+4   IX(8)
      553   01 00182   0F0001EA              XPSD,0   ERROR     TEXT INDEX R1
      554   01 00183   48500361              EOR,5    SIX       SET INDEX 7 IDENTIFIER
      555   01 00184   3260045F              LW,6     TEST+7    IX7(R)
      556   01 00185   32700362              LW,7     ONE       IX7(8)
      557   01 00186   0F0001EA              XPSD,0   ERROR     TEST INDEX R7
      558   01 00187   3250036E              LW,5     PSDWID    PICK UP PROGRAM STATUS IDENTIFIER
      559   01 00188   32600464              LW,6     TEST+12   PSW1(R)
      560   01 00189   32700447              LW,7     TABLE+3   PSW1(8)
      561   01 0018A   0F0001EA              XPSD,0   ERROR     TEST PSW1
      562   01 0018B   6550018C              BIR,5    $+1       INCREMENT PSDW INDENTIFIER
      563   01 0018C   32600465              LW,6     TEST+13   PSW2(R)
      564   01 0018D   32700451              LW,7     TABLE+13  PSW2(8)
      565   01 0018E   0F0001EA              XPSD,0   ERROR     TEST PSW2
      566                                    PAGE
      567   01 0018F   3250036F              LW,5     REGID     PICK UP REGISTER IDENTIFIER
      568   01 00190   48500360              EOR,5    CEE       SET REGISTER ADDRESS =C(12)
      569   01 00191   3260045C              LW,6     TEST+4    R(R)
      570   01 00192   32700449              LW,7     TABLE+5   R(8)
      571   01 00193   0F0001EA              XPSD,0   ERROR     TEST REGISTER
      572   01 00194   65500195              BIR,5    $+1       INCREMENT REGISTER IDENTIFIER
      573   01 00195   3260045D              LW,6     TEST+5    RU1(R)
      574   01 00196   3270044D              LW,7     TABLE+9   RU1(8)
      575   01 00197   0F0001EA              XPSD,0   ERROR     TEST REGISTER J 1
      576   01 00198   32500370              LW,5     MEMID     PICK UP MEMORY IDENTIFIER
      577   01 00199   32600460              LW,6     MEMORY    MW(R)
      578   01 0019A   32700448              LW,7     TABLE+7   MW(8)
      579   01 0019B   0F0001EA              XPSD,0   ERROR     TEST MEMORY WORD
      580   01 0019C   6550019D              BIR,5    $+1       INCREMENT MEMORY IDENTIFIER
      581   01 0019D   32600461              LW,6     MEMORY+1  MW+1(R)
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01 0019E  3270044F              LW,7    TABLE+11        MW+1(B)
01 0019F  0F0001EA              XPSD,0  ERROR           TEST MEMORY WORD + 1
01 001A0  325003C0              LW,5    ZERO            SET IDENTIFIER FOR REPORT
01 001A1  326001AE              LW,6    ERRIND
01 001A2  692001A5              BCS,2   $+3
01 001A3  6C000000 A            RD,0    0               READ SENSE SWITCHES
01 001A4  692001F5              BCS,2   ZR              SS3 # REPORT
01 001A5  326003C0              LW,6    BYTE
01 001A6  356001AE              STW,6   ERRIND
01 001A7  6D000040 A   END      WD,0    X'40'           TURN OFF ALARM
01 001A8  32200473              LW,2    ERRORS          C(R2) WOULD EQUAL 1 IF OBJECT INST
                       *                                WAS A BRANCH TO END
01 001A9  653001AA              BIR,3   $+1             INCREMENT MODULE COUNTER
01 001AA  6C000000 A            RD,0    0               READ SENSE SWITCHES
01 001AB  69C00110              BCS,12  CYCLE           LOOP ON CURRENT TEST (SS1 OR 2)
01 001AC  32100126              LW,1    FROM            RESTORE NEW LIST ADDRESS
01 001AD  0E00046A              LPSD,0  MODULE          UPDATE POINTER
01 001AE  00000000 A   ERRIND   DATA    0
                                PAGE    15
                                BOUND   8               STORAGE OF DATA UTILIZED BY-       *B
01 001B0  00000000 A   MEMOUT   DATA    0,0               THE AUTOMATIC SHORT LOOP         *B
01 001B1  00000000 A
01 001B2  00000000 A   ROUTPUT  DATA    0,0                                                *B
01 001B3  00000000 A
01 001B4  00000000 A   RINPUT   DATA    0,0                                                *B
01 001B5  00000000 A
                       *                               SET XPSD FOR NOA TRAP
01 001B6  3250035F     SI9NAO   LW,5    I9              SET I9=1
01 001B7  4850034E     RI9NAO   EOR,5   NAOXD           SET I9=0
01 001B8  35500040              STW,5   NAOTR
01 001B9  48400346              EOR,4   NAOAD
01 001BA  35400060              STW,4   NAO+2           SET PSW1 BITS 0-11 FOR NAO TRAP
01 001BB  68000136              BCR,0   SETPSW
                       *                               SET PSW1 BITS 0-11 FOR UII TRAP
01 001BC  48400348     UIISW    EOR,4   UIIAD
01 001BD  35400074              STW,4   UII+2
01 001BE  68000136              BCR,0   SETPSW          RETURN TO LONG
```



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                       *                               SET PSW1 BITS 0-11 FOR SL TRAP
01 001BF  48400347     SLSW     EOR,4   SLAD
01 001C0  3540007A              STW,4   SL+2
01 001C1  68000136              BCR,0   SETPSW
                       *                               SET PSW1 BITS 0-11 FOR EXPO TRAP
                       * THIS ROUTINE ALLOWS VERIFICATION OF A TRAP TO THE PROPER LOCATION  *B
                       * AND THE RETURNED COND CODE. IT DOES NOT VERIFY THE ADDRESS OF THE  *B
                       * INSTRUCTION THAT TRAPPED. (SEE THE FOLLOWING ROUTINE)              *B
01 001C2  48400344     FXPOSW   EOR,4   FXPOAD
01 001C3  35400080              STW,4   FXPO+2
01 001C4  4850038E              EOR,5   MASK+1          OP CODE FOR XPSD INST              *B
01 001C5  485001C8              EOR,5   FXPOA           CREATES AN INST  XPSD,0 FXPO       *B
01 001C6  35500043              STW,5   FXPOTR          TO TRAP LOCATION                   *B
01 001C7  68000136              BCR,0   SETPSW
01 001C8  0000007E     FXPOA    DATA    FXPO            ADDRESS OF TRAP PROCESSOR          *B
                       *                               SET PSW1 BITS 0-11 FOR FLPF TRAP
01 001C9  48400343     FLPFSW   EOR,4   FLPFAD
01 001CA  35400086              STW,4   FLPF+2
01 001CB  680001BD              BCR,0   UIISW+1
                       * THIS ROUTINE ALLOWS VERIFICATION OF THE PSDW BUT DOES NOT CHECK    *B
                       * THAT THE INST CAUSED THE CORRECT TRAP TO OCCUR. (SEE ABOVE ROUTINE) *B
01 001CC  48500047     FXPOPSDW EOR,5   BRANCH          XPSD,8 RETURN                      *B
01 001CD  35500043              STW,5   FXPOTR          TO TRAP LOCATION                   *B
01 001CE  68000136              B       SETPSW                                             *B
                                PAGE
                       *                               SET XPSD FOR CAL1
01 001CF  3250035F     SI9CL1   LW,5    I9              SET I9=1
01 001D0  4850034A     RI9CL1   EOR,5   CAL1XD          SET I9=0
01 001D1  35500048              STW,5   CAL1TR
01 001D2  4840033E              EOR,4   CAL1AD
01 001D3  35400098              STW,4   CAL1+2
01 001D4  68000136              BCR,0   SETPSW
                       *                               SET XPSD FOR CAL2
01 001D5  3250035F     SI9CL2   LW,5    I9              SET I9=1
01 001D6  4850034B     RI9CL2   EOR,5   CAL2XD          SET I9=0
01 001D7  35500049              STW,5   CAL2TR
01 001D8  4840033F              EOR,4   CAL2AD
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      653   01 001D9   354000AC              STW,4   CAL2+2
      654   01 001DA   68000136              BCR,0   SETPSW
      655                            *                       SET XPSD FOR CAL3
      656   01 001DB   3250035F     SI9CL3   LW,5     I9      SET I9=1
      657   01 001DC   4850034C     RI9CL3   EOR,5   CAL3XD   SET I9=0
      658   01 001DD   3550004A              STW,5   CAL3TR
      659   01 001DE   48400340              EOR,4   CAL3AD
      660   01 001DF   354000C0              STW,4   CAL3+2
      661   01 001E0   68000136              BCR,0   SETPSW
      662                            *                       SET XPSD FOR CAL4
      663   01 001E1   3250035F     SI9CL4   LW,5     I9
      664   01 001E2   4850034D     RI9CL4   EOR,5   CAL4XD   SET I9=1
      665   01 001E3   3550004B              STW,5   CAL4TR   SET I9=0
      666   01 001E4   48400341              EOR,4   CAL4AD
      667   01 001E5   354000D4              STW,4   CAL4+2
      668   01 001E6   68000136              BCR,0   SETPSW
      669                            ** STORE COND CODE INTO PSW1 IN (TABLE+3)9 THIS IS NECESSARY FOR TEST OF
      670                            ** FARWD WHICH ALWAYS READS THE SENSE SWITCHES. A FALSE ERROR MAY OCCUR
      671                            ** IF SENSE SWITCHES ARE CHANGED DURING THIS SETUP.
      672   01 001E7   6C000000 A   FARWD   RD,0    0       READ SENSE SWITCHES
      673   01 001E8   74000447              STCF    TABLE+3
      674   01 001E9   68000136              B       SETPSW
      675                                    PAGE
      676                                    BOUND   8
      677                                    PAGE
      678                            *                       DECIMAL-ERROR
      679   01 001EA   00000000 A   ERROR   PZE
      680   01 001EB   00000000 A           PZE
      681   01 001EC   000001EE             PZE,0   *+2
      682   01 001ED   00000000 A           PZE
      683   01 001EE   32800006 A           LW,8    6       PICK UP RESULT
      684   01 001EF   48800007 A           EOR,8   7       COMPARE WITH PREDERMINED RESULT
      685   01 001F0   693001F2             BCS,3   TSTDVC  DIFF  # 0
      686   01 001F1   0E0001EA             LPSD,0  ERROR
      687   01 001F2   652001F3     TSTDVC  BIR,2   *+1     INCREMENT ERROR COUNTER
      688   01 001F3   35200473             STW,2   ERRORS   KEEP A RUNNING COUNT
      689   01 001F4   60000041 A           WD,0    X'41'   TURN ON AUDIO ALARM
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      690   01 001F5   32B002E6     ZR      LW,11   IOM
      691                            **              IOM HAS IO INTERRUPT BIT IF IO COMPATIBILITY IS IN USE
      692   01 001F6   6DB01500 A           WD,11   X'1500'  DISABLE IO INTERRUPT
      693   01 001F7   32B0035D             LW,11   6Q3
      694   01 001F8   35B001AE             STW,11  ERRIND   SET ERROR INDICATOR TO ALLOW RETURN
      695                            *                       TO BYPASS SS 3 SETTING
      696   01 001F9   6E000000 A   TESTIO  AIO,0    0       CLEAR INTERRUPT PENDING
      697   01 001FA   CDB0037B             TIO,11  *TYPE
      698   01 001FB   68C00208             BCR,12  EDIT    GO IF IO ADDR RECOG AND SIO POSSIBLE
      699   01 001FC   684001F9             BCR,4   TESTIO  REPEAT TIO IF SIOP IS BUSY
      700   01 001FD   688001FF             BCR,8   $+2     SIO NOT CURRENTLY POSSIBLE
      701   01 001FE   68000202             B       HLTEST  IO ADDRESS NOT RECOGNIZED
      702   01 001FF   43B0035D             AND,11  6Q3     SAVE OPERATIONAL STATE BITS
      703   01 00200   48B0035D             EOR,11  6Q3
      704   01 00201   683001F9             BEZ     TESTIO  DEVICE BUSY
      705   01 00202   6C000000 A   HLTEST  RD,0    0       READ SENSE SWITCHES
      706   01 00203   69100205             BCS,1   NOHALT
      707   01 00204   2E000000 A           WAIT            COMMON ERROR HALT
      708   01 00205   32B002E6     NOHALT  LW,11   IOM
      709   01 00206   6DB01400 A           WD,11   X'1400'  ENABLE I9 INTERRUPT
      710   01 00207   0E0001EA             LPSD,0  ERROR
      711                                    PAGE
      712                            *                       EDIT-LEVEL 3
      713   01 00208   32C00359     EDIT    LW,12   STRMG1   SET STORAGE WORD
      714   01 00209   32900365             LW,9    NEG8
      715   01 0020A   32A00005 A           LW,10   5       TEST R5=0
      716   01 0020B   69300210             BCS,3   REPORT+1  DISPLAY
      717   01 0020C   32900383     REPORT  LW,9    NEG4
      718   01 0020D   32A00351             LW,10   LOADR    SET REGISTER PICKUP
      719   01 0020E   35A0020F             STW,10  LDREG
      720   01 0020F   32A00001 A   LDREG   LW,10   1       PICK UP REGISTER 1 THRU 8(DIS) OR 4
      721   01 00210   35A00476             STW,10  WORD
      722   01 00211   35900472             STW,9   COUNT
      723   01 00212   32F00385             LW,15   NEG2    SET WORD COUNT(M)=2
      724   01 00213   32000352             LW,0    LWN     SET N=-4,-4
      725   01 00214   32A00354             LW,10   LWFRM   SET FRAME = F0F0F0F0, F0F0F0F0
      726   01 00215   32B00338             LW,11   ANFR8   SET CHAR POSITIONS 1234,5678
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01 00216   48900362              AND,9    ONE          TEST COUNT EVEN
01 00217   6930021C              BCS,3    ODD
01 00218   32F00364    EVEN      LW,15    NEG3         SET WORD COUNT(M)=3
01 00219   32000353              LW,0     LWN2         SET N=-2,-4,-2
01 0021A   32A00355              LW,10    LWFRM2       SET FRAME=4040F0F0,F0F0F0F0,F0F04040
01 0021B   32B00339              LW,11    ANFR2        SET CHAR POSITIONS  12,3456,78
01 0021C   32E0033A    ODD       LW,14    ANMK         SET DIGIT PICK = BITS 0-3, 4-7, ETC.
01 0021D   35000220    WORDS     STW,0    SETN         SET NUMBER PICK UP
01 0021E   35A00221              STW,10   SETFRM       SET FRAME PICK UP
01 0021F   35C0023C              STW,12   STRWD        SET STORAGE LOCATION
01 00220   32000383    SETN      LW,0     NUMBER       SET NUMBER
01 00221   32D00388    SETFRM    LW,13    FRAME        SET FRAME (FINAL CHAR-BYTE POSITION)
01 00222   35B00237    BYTES     STW,11   ANDF         SET FILTER
01 00223   35D00475              STW,13   WKB          SAVE FRAME
01 00224   35E0022C              STW,14   ANDM         SET MASK (ORIGINAL CHAR POSITION)
01 00225   32A0034F              LW,10    LWBIT        SET BIT PICK UP
01 00226   32C00383              LW,12    NEG4         SET BIT COUNT
01 00227   32D003C0              LW,13    ZERO         SET CHAR GENERATOR TO ZERO
                                 PAGE
01 00228   35A0022A    BITS      STW,10   LWB
01 00229   35A0022F              STW,10   LWBT
01 0022A   3290037E    LWB       LW,9     BIT          PICK UP BIT 1,2,4OR 8
01 0022B   48900476              AND,9    WORD         (BIT)*(WORD)
01 0022C   4890038D    ANDM      AND,9    MASK         (BIT)*(WORD)*(MASK)
01 0022D   6930022F              BCS,3    LWBT         LWBT IF WORD HAS BIT IN MASK POSITIO
01 0022E   0E000468              LPSD,0   BUMP
01 0022F   3290037E    LWBT      LW,9     BIT          PICK UP BIT
01 00230   48D00009 A            EOR,13   9            MERGE BIT WITH CHAR BEING CONSTRUCTE
01 00231   65A00232    BUMPER    BIR,10   $+1          INCREMENT BIT PICK UP
01 00232   65C00228              BIR,12   BITS         CONTINUE CHAR CONSTRUCTION
01 00233   48D00394              AND,13   MASK+7       PICK OF BINARY 4 BIT CHAR
01 00234   48D00350              EOR,13   LWBYTE       CONSTRUCT BYTE PICK UP WORD
01 00235   35D00236              STW,13   LWBY
01 00236   32D003C0    LWBY      LW,13    BYTE         PICK UP COVERTED BYTE
01 00237   48D00395    ANDF      AND,13   FILTER       SELECT DESIRED TYTE
01 00238   48D00475              EOR,13   WKB          MERGE BYTE INTO CONVERTED WORD
01 00239   65B0023A              BIR,11   $+1          INCREMENT CONVERTED BYTE POSITION
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01 0023A   65E00239              BIR,14   $+1          INCREMENT SELECTED CHAR POSITION
01 0023B   65000222              BIR,0    BYTES        TEST FOR N CHAR'S
01 0023C   35D0042F    STRWD     STW,13   IMAGE+1      STORE CONVERTED WORD
01 0023D   32000220              LW,0     SETN         SET NUMBER PICK UP
01 0023E   32A00221              LW,10    SETFRM       SET FRAME PICK UP
01 0023F   32C0023C              LW,12    STRWD        PICK UP STORE WORD
01 00240   65000241              BIR,0    $+1          INCREMENT NUMBER PICK UP
01 00241   65A00242              BIR,10   $+1          INCREMENT FRAME PICK UP
01 00242   65C00243              BIR,12   $+1          INCREMENT STORE LOCATION
01 00243   65F0021D              BIR,15   WORDS        INCREMENT M - BRANCH IF M NOT ZERO
01 00244   32900472              LW,9     COUNT        SET COUNT
01 00245   32A0020F              LW,10    LDREG        SET REGISTER PICK UP
01 00246   65A00247              BIR,10   $+1          INCREMENT REGISTER PICK UP
01 00247   6590020E              BIR,9    LDREG-1      BRANCH TO LDREG IF COUNT NOT ZERO
                                 PAGE
                       *                              OUTPUT-LEVEL 3
01 00248   32F00369              LW,15    LINE         LINE COUNT (-51)
01 00249   32E00363              LW,14    FIRST        =-2 FIRST TIME
01 0024A   3200037B              LW,0     TYPE         TEST FOR OUTPUT DEVICE
01 0024B   69100260              BLZ      LPO
01 0024C   65E00250              BIR,14   SKIP6        FIRST TIME THRU
01 0024D   65F00255              BIR,15   LINOUT       LINE COUNT NOT ZERO
01 0024E   320003D0              LW,0     PSIXCR
01 0024F   0F000276              XPSD,0   PRINT        OUTPUT 6 CAR. RET.
01 00250   320003D1    SKIP6     LW,0     PTITLE
01 00251   0F000276              XPSD,0   PRINT        NEW PAGE TITLE
01 00252   320003D2              LW,0     PHEAD
01 00253   0F000276              XPSD,0   PRINT        NEW HEADING
01 00254   32F00368              LW,15    NEG51        RESET LINE COUNT
01 00255   320003D4    LINOUT    LW,0     PLONGL       SET UP DISPLAY PRINTOUT
01 00256   32A00005 A            LW,10    5            PICK UP IDENTIFIER
01 00257   69300259              BCS,3    IO
01 00258   320003D3              LW,0     PSHRTL       SET UP RECORD PRINTOUT
01 00259   0F000276    IO        XPSD,0   PRINT
01 0025A   35F00369              STW,15   LINE         SAVE NEW LINE COUNT
01 0025B   35E00363              STW,14   FIRST        SAVE NEW FIRST PASS INDICATOR
01 0025C   6D000040 A            WD,0     X'40'        TURN OFF ALARM
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      801   01 0025D   0E00025E            LPSD,0   GETOUT
      802                                  PAGE
      803                                  BOUND 8
      804   01 0025E   00300202   GETOUT   PZE,3    HLTEST
      805   01 0025F   00000000 A          PZE
      806   01 00260   CEB0037B   LPB      TD\,11   *TYPE
      807   01 00261   68C00264            BCR,12   $+3              GO IF IOP AND DEVICE ADDR RECOG
      808   01 00262   68400260            BCR,4    $-2              GO IF SIOP BUSY
      809   01 00263   6800025A            B        IO+1             IO OPERATION NOT POSSIBLE
      810   01 00264   35B00377            STW,11   TEMP
      811   01 00265   43B00376            AND,11   MOTION           PAPER IS MOVING
      812   01 00266   69300260            BNEZ     LPB              LOOP TILL PAPER STOPS
      813   01 00267   32B00377            LW,11    TEMP
      814   01 00268   43B00378            AND,11   TOP              CHECK FOR TOP OF FORM
      815   01 00269   69300272            BNEZ     LPTOP            OUTPUT TITLE AND HEADING
      816   01 0026A   65E00270            BIR,14   GOTOP            GO TO TOP OF FORM IF FIRST PASS
      817   01 0026B   320003D7   LPMSG    LW,0     LPERR            ERROR MSG CDA
      818   01 0026C   32A00005 A          LW,10    5                PICK UP IDENTIFIER
      819   01 0026D   6930026F            BCS,3    $+2              REPORT
      820   01 0026E   320003D8            LW,0     LPREPORT         REPORT MSG CDA
      821   01 0026F   68000259            B        IO
      822   01 00270   320003D5   GOTOP    LW,0     LPGOTOP          GO TO TOP OF FORM
      823   01 00271   0F000276            XPSD,0   PRINT
      824   01 00272   320003D6   LPTOP    LW,0     LPFORMAT         PRITN TITLE AND HEADING
      825   01 00273   0F000276            XPSD,0   PRINT
      826   01 00274   68000268            B        LPMSG
      827                                  PAGE
      828                        *                                  PRINT-LEVEL 4
      829                                  BOUND 8
      830   01 00276   00000000 A   PRINT   PZE
      831   01 00277   00000000 A           PZE
      832   01 00278   00000278            PZE,0    $+2
      833   01 00279   00000000 A           PZE
      834   01 0027A   CCB0037B   BUSY     SIO,11   *TYPE             OUTPUT MSG
      835   01 0027B   68C00283            BCR,12   DONEMSG          SIO ACCEPTED
      836   01 0027C   6840027A            BCR,4    BUSY             SIOP BUSY. REPEAT SIO
      837   01 0027D   6880027F            BCR,8    $+2              GO IF SIO NOT ACCEPTED
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      838   01 0027E   68000288            B        EXITIO           IO ADDR NOT RECOGNIZED
      839   01 0027F   43B0035D            AND,11   6Q3              SAVE OPERATIONAL STATE BITS
      840   01 00280   43B0035D            EOR,11   6Q3
      841   01 00281   6830027A            BEZ      BUSY             DEVICE BUSY. REPEAT SIO
      842   01 00282   68000288            B        EXITIO           DEVICE NOT OPERATIONAL OR UNAVAIL
      843   01 00283   CDB0037B   DONEMSG  TIO,11   *TYPE
      844   01 00284   68C00288            BCR,12   EXITIO
      845   01 00285   68400283            BCR,4    DONEMSG          SIOP BUSY
      846   01 00286   68800288            BCR,8    $+2              ACCEPTABLE SIO NOT CURRENTLY POSS
      847   01 00287   68000288            B        EXITIO           IO ADDR NOT RECOGNIZED
      848   01 00288   43B0035D            AND,11   6Q3              SAVE OPERATIONAL STATE BITS
      849   01 00289   43B0035D            EOR,11   6Q3
      850   01 0028A   68300283            BEZ      DONEMSG          DEVICE BUSY. REPEAT TIO
      851   01 0028B   0E000276   EXITIO   LPSD,0   PRINT
      852   01 0028C   32200293   SETRPLY  LW,2     REPLAY           BRANCH TO AUTO IS STORED INTO LOC.26
      853   01 0028D   35200026 A          STW,2    38
      854   01 0028E   6C000000 A          RD,0     0                READ THE SENSE SWITCHES
      855   01 0028F   68800100            BCR,8    AUTO             GO IF SS1 IS OFF
      856                        *****  PREVENT COUNTER INTERRUPT IMPLEMENTATION  ******
      857   01 00290   2E000000 A          WAIT     0                TURN SENSE SWITCH 1 OFF.
      858   01 00291   322003C0            LW,2     ZERO
      859   01 00292   35200372            STW,2    CPINTM
      860   01 00293   68000100   REPLAY   B        AUTO
      861                                  BOUND    8
      862                                  PAGE
      863                        ** TEST TO SEE IF FLOATING POINT OPTION IS INSTALLED  (FIRST PASS ONLY)
      864   01 00294   00000000 A   FLTRAP  DATA     0,0,FLNIN,0
            01 00295   00000000 A
            01 00296   000002A0
            01 00297   00000000 A
      865   01 00298   21310000 A   DONE    CI,3     X'10000'
      866   01 00299   6930032A            BNE      INITIATE         CHECK FOR IMPLEMENTING AUTO SHORT *B
      867   01 0029A   320002FA            LW,0     NIMP             SETUP TRAP LOCATION
      868   01 0029B   35000041            STW,0    JIITR
      869   01 0029C   32C003C1            LW,12    BYTE+1
      870   01 0029D   30C003C1   FLOAT   FAS,12   BYTE+1
      871   01 0029E   320002F8            LW,0     PFLOATP          MSG  FLOATING POINT OPTION IS IN
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      872   01 0029F     680002A3                B       FLPRINT
      873   01 002A0     32000290      FLNIN     LW,0    FLOAT           COMES HERE IF TRAP OCCURRED AT X281
      874   01 002A1     35001621                STW,0   NFAIMP01+1      ALLOW TEST OF TRAP EACH TIME
      875   01 002A2     320002FC                LW,0    PNFLOATP        MSG  FLOATING POINT NOT INSTALLED
      876   01 002A3     0F000276      FLPRINT   XPSD,0  PRINT           OUTPUT THE SELECTED MSG
      877   01 002A4     320002F9                LW,0    IMP
      878   01 002A5     35000041                STW,0   UIITR           RESTORE ORIG XPSD TO LOC +1
      879                              * TEST FOR NON-EXSISTENT MEMORY. IF ANY, SETUP BAL AND ANLZ TESTS      *B
      880   01 002A6     32000318                LW,0    RETADDR         MODIFY RETURN TO ENTER THIS -          *B
      881   01 002A7     35000466                STW,0   RETURN+2         ROUTINE WHEN A TRAP OCCURS             *B
      882   01 002A8     22100FFF A              LI,1    4095            ADDRESS                                *B
      883   01 002A9     32000001 A              LW,0    *1              TRY TO FIND NEM                        *B
      884   01 002AA     30100333                AW,1    MINCR           ADD 4096 FOR NEXT 4K                   *B
      885   01 002AB     21120FFF A              CI,1    X'20FFF'        > POSSIBLE MEMORY SIZE                 *B
      886   01 002AC     6830010F                BE      CYCLE-1         NO NON-EXSISTENT MEMORY.               *B
      887   01 002AD     680002A9                B       *-4             TRY NEXT 4K                            *B
      888                                      PAGE
      889                              *THE FOLLOWING ROUTINE IMPLEMENTS THE COUNT PULSE INTERRUPTS AFTER X'20
      890                              *PASSES WITHOUT ERROR
      891   01 002AE     31300379      RTC       CW,3    MAXCNT
      892   01 002AF     6930010F                BNE     CYCLE-1
      893   01 002B0     21200000 A              CI,2    0
      894   01 002B1     6930010F                BNE     CYCLE-1
      895   01 002B2     32000372                LW,0    CPINTM
      896   01 002B3     6830010F                BEZ     CYCLE-1         DO NOT OUTPUT MSG
      897   01 002B4     32000359                LW,0    PRTCMSG
      898   01 002B5     0F000276                XPSD,0  PRINT
      899   01 002B6     32000391                LW,0    MASK+4          BITS FOR COUNTER 1,2,3 AND 4
      900   01 002B7     35000371                STW,0   CPINT           STORED INTO CPINT
      901   01 002B8     6800010F      XRTC      B       CYCLE-1         RESUME WITH FIRST MODULE
      902                                      PAGE
      903                              **
      904                              ** ENTER AT THIS POINT TO BEGIN IO COMPATIBILITY TEST
      905                              ** ENTER THE IO DEVICE ADDRESS IN MEMORY LOCATION X'10'.
      906                              **
      907   01 002D0                           ORG     X'2D0'                                                 *B
            01 002D0
```



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      908   01 002D0     680002D1      ZIOAIN    B       *+1                                                    *B
      909   01 002D1     32E00010 A              LW,14   16              DEVICE ADDR IN X'10'                   *B
      910   01 002D2     35E002D4                STW,14  ZIOA            SAVE                                   *B
      911   01 002D3     680002D5                B       SETINTR                                                *B
      912   01 002D4     00000002 A    ZIOA      DATA    2               NORMAL LINE PRINTER ADDR
      913   01 002D5     22E00020 A    SETINTR   LI,14   X'20'
      914   01 002D6     35E002E6                STW,14  IOM             PUT IO INTERRUPT BIT IN IOM
      915   01 002D7     6DE01200 A              WD,14   X'1200'         ARM AND ENABLE IO INTERRUPT
      916   01 002D8     670002E0                EXU     AIO             AIO INST TO CLEAR ANY PENDING INTR     *B
      917   01 002D9     670002E2                EXU     AIO+2           CDW ADDR                               *B
      918   01 002DA     670002E3                EXU     AIO+3           SIO                                    *B
      919   01 002DB     6800010F                B       CYCLE-1         START A NEW PASS                       *B
      920                                      BOUND   8
      921   01 002DC     0000010F      IOINTR    DATA    CYCLE-1,0,AIO,0 ENTRY TO INTERRUPT ROUTINE
            01 002DD     00000000 A
            01 002DE     000002E0
            01 002DF     00000000 A
      922   01 002E0     6E000000 A    AIO       AIO,0   0                                                      *B
      923   01 002E1     350002E8                STW,0   SAVEO
      924   01 002E2     320002E7                LW,0    PIOCMP          COMMAND DOUBLEWORD ADDRESS
      925                              *** CDW SPECIFIES A SIMPLE WRITE ORDER. OPERATOR MAY CHANGE ANY PART OF
      926                              *** THE CDW PROVIDED THE FIRST 8K OF MEMORY IS NOT DISTURBED BY A READ
      927                              *** ORDER. CDW IS IN X'2AC' & X'2AD'
      928   01 002E3     CC0002D4                SIO,0   *ZIOA                                                   *B
      929   01 002E4     320002E8                LW,0    SAVEO           RESTORE C(R0)
      930   01 002E5     0E8002DC                LPSD,11 IOINTR          RETURN TO PROGRAM                      *C
      931   01 002E6     00000000 A    IOM       DATA    0               CHANGED TO X'20' FOR IO COMPAT.
      932   01 002E7     00000175      PIOCMP    P       IOCMP           CDA
      933   01 002E8     00000000 A    SAVEO     DATA    0
      934                                      PAGE
      935                                      BOUND   8
      936   01 002EA     05000381      IOCMP     GEN,8,24 5,BA(COMP)+1                                          *B
      937   01 002EB     50000031 A              GEN,4,28 5,49           IOCEZ & ICE + BYTE COUNT               *B
      938   01 002EC     31154040 A    COMP      TEXTC   'N             IO COMPATIBILITY TEST IS IN PROGRESS'
            01 002ED     40404040 A
            01 002EE     40404040 A
            01 002EF     4040C9D6 A
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          01 002F0    40C3D6D4 A
          01 002F1    D7C1E3C9 A
          01 002F2    C2C9D3C9 A
          01 002F3    E3E840E3 A
          01 002F4    C5E2E340 A
          01 002F5    C9E240C9 A
          01 002F6    D540D7D9 A
          01 002F7    D6C7D9C5 A
          01 002F8    E2E24040 A
     939  01 002F9    0F000072      IMP       XPSD,0    UII
     940  01 002FA    0F000294      NIMP      XPSD,0    FLTRAP
     941  01 002FB    0000017F      PFLOATP   P         FLOATP
     942  01 002FC    00000186      PNFLOATP  P         NFLOATP
     943                            PAGE
     944                            BOUND     8
     945  01 002FE    05000C01      FLOATP    GEN,8,24  5,BA(FLM)+1                                        *B
     946  01 002FF    0800002F A               GEN,8,24  8,47                                               *B
     947  01 00300    2F154040 A    FLM       TEXTC     'N            FLOATING POINT OPTION IS INSTALLED'
          01 00301    40404040 A
          01 00302    40404040 A
          01 00303    4040C6D3 A
          01 00304    D6C1E3C9 A
          01 00305    D5C740D7 A
          01 00306    D6C9D5E3 A
          01 00307    40D6D7E3 A
          01 00308    C9D6D540 A
          01 00309    C9E240C9 A
          01 0030A    D5E2E3C1 A
          01 0030B    D3D3C5C4 A
     948                            BOUND     8
     949  01 0030C    05000C39      NFLOATP   GEN,8,24  5,BA(NFLM)+1                                       *B
     950  01 0030D    08000030 A               GEN,8,24  8,48                                               *B
     951  01 0030E    30154040 A    NFLM      TEXTC     'N            FLOATING POINT OPTION NOT INSTALLED'
          01 0030F    40404040 A
          01 00310    40404040 A
          01 00311    4040C6D3 A
          01 00312    D6C1E3C9 A
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          01 00313    D5C740D7 A
          01 00314    D6C9D5E3 A
          01 00315    40D6D7E3 A
          01 00316    C9D6D540 A
          01 00317    D5D6E340 A
          01 00318    C9D5E2E3 A
          01 00319    C1D3D3C5 A
          01 0031A    C4404040 A
     952                            BOUND     4
     953  01 00318    0000031C      RETADDR   DATA      $+1                                                *B
     954                            * TRAP COMES HERE. IMPLEMENT TESTS                                     *B
     955  01 0031C    32000382                LW,0      BOOBALL                                            *B
     956  01 0031D    35000466                STW,0     RETURN+2        RESTORE SPURIOUS TRAP CAPABILITY   *B
     957  01 0031E    32000885                LW,0      BAL01+1         BAL,12 BRANCH                      *B
     958  01 0031F    49000001 A              OR,0      1               PUT IN NON-EXSISTENT MEMORY REF    *B
     959  01 00320    350008D3                STW,0     BAL05+1                                            *B
     960  01 00321    320004E7                LW,0      LW03+1          LW,12 *IA                          *B
     961  01 00322    49000001 A              OR,0      1               PUT IN NON-EXSISTENT MEMORY REF    *B
     962  01 00323    35000D14                STW,0     ANLZ08+6        MEMORY IN                          *B
     963  01 00324    35000D15                STW,0     ANLZ08+7        MEMORY OUT                         *B
     964  01 00325    32000D17                LW,0      ANLZ09+1        ANLZ,12 MEMORY                     *B
     965  01 00326    35000D0F                STW,0     ANLZ08+1        STORE INTO ANLZ08 TEST             *B
     966  01 00327    6800010F                B         CYCLE-1         NEXT PASS                          *B
     967  01 00328    00230000 A    IBCOUNT   DATA      X'230000'       35 ERROR FREE PASSES
     968  01 00329    001E0000 A              DATA      X'1E0000'       PASS COUNT OF 3                    *B
     969  01 0032A    31300329      INITIATE  CW,3      $-1             IMPLEMENT AUTO SHORT IF EQUAL      *B
     970  01 00328    69300334                BNE       COMPAT                                             *B
     971  01 0032C    21200000 A              CI,2      0               CHECK FOR ERRORS                   *B
     972  01 0032D    6930010F                BNE       CYCLE-1         START ANOTHER PASS                 *B
     973  01 0032E    22100064 A              LI,1      100             ITERATION COUNT                    *B
     974  01 0032F    35100331                STW,1     ITERATE                                            *B
     975  01 00330    6800010F                B         CYCLE-1         START A PASS UTILIZING THE AUTO-   *B
     976                            *                                   MATIC SHORT LOOP                   *B
     977  01 00331    00000000 A    ITERATE   DATA      0               ITERATION COUNT                    *B
     978  01 00332    680001A7      BEND      B         END             USED DURING INITALIZE              *B
     979  01 00333    00001000 A    MINCR     DATA      4096            CONSTANT
     980  01 00334    49300002 A    COMPAT    OR,3      2               ERROR COUNT OR'ED WITH PASS COUNT  *B
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01 00335   31300328                 CW,3      IOCOUNT                                  *B
01 00336   68300205                 BE        SETINTR        IMPLEMENT IO COMPATIBILITY    *B
01 00337   680002AE                 B         RTC                                      *B
                                    PAGE
                          *                                  CONSTANTS AND WORKING STORAGE
01 00338   48D00395       ANFRO     AND,13    FILTER          PICK OFF CONVERTED BYTE
01 00339   48D00397       ANFR2     AND,13    FILTER+2
01 0033A   4B90038D       ANMK      AND,9     MASK            PICK OFF CHAR. TO BE CONVERTED
01 0033B   00000460       INDA      PZE,0     MEMORY          INDIRECT ADDRESS
01 0033C   00000166       LOC2AD    PZE,0     LOC+2
01 0033D   00000164       LOCADD    PZE,0     LOC
01 0033E   0000009A       CAL1AD    PZE,0     CAL1+4
01 0033F   000000AE       CAL2AD    PZE,0     CAL2+4
01 00340   000000C2       CAL3AD    PZE,0     CAL3+4
01 00341   000000D6       CAL4AD    PZE,0     CAL4+4
01 00342   0000008E       DFAD      PZE,0     DF+4
01 00343   00000088       FLPFAD    PZE,0     FLPF+4
01 00344   00000082       FXPOAD    PZE,0     FXPO+4
01 00345   00000460       MEMAD     PZE,0     DA(MEMORY)
01 00346   00000062       NABAD     PZE,0     NAB+4
01 00347   0000007C       SLAD      PZE,0     SL+4
01 00348   00000076       UIIAD     PZE,0     UII+4
01 00349   00000094       WDTRAD    PZE,0     WDTR+4
01 0034A   0F000096       CAL1XD    XPSD,0    CAL1
01 0034B   0F0000AA       CAL2XD    XPSD,0    CAL2
01 0034C   0F0000BE       CAL3XD    XPSD,0    CAL3
01 0034D   0F0000D2       CAL4XD    XPSD,0    CAL4
01 0034E   0F00005E       NABXD     XPSD,0    NAB
                                    PAGE
01 0034F   3290037E       LWBIT     LW,9      BIT             PICK UP MARCHING BITS
01 00350   32D003C0       LWBYTE    LW,13     BYTE            SELECT BYTE
01 00351   32A00001 A     LOADR     LW,10     1               PICK UP REGISTERS FOR OUTPUT
01 00352   32000383       LWN       LW,0      NUMBER          PICK UP NUMBERS
01 00353   32000385       LWN2      LW,0      NUMBER+2
01 00354   32D00388       LWFRM     LW,13     FRAME           PICK UP FRAMES
01 00355   32D0038A       LWFRM2    LW,13     FRAME+2
01 00356   32400488       LOAD      LW,4      LIST            LOAD TRANSFER VEHICAL WITH DATA MODU
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01 00357   000001A7       RETEND    PZE,0     END             RETURN TO END
01 00358   35400444       STORE     STW,4     TABLE           SET TABLE
01 00359   35D0042F       STRMG1    STW,13    IMAGE+1
                                    PAGE
01 0035A   FF3FFFFF A     LINKAD    DATA      X'FF3FFFFF'
01 0035B   FFF00000 A     COND      DATA      X'FFF00000'
01 0035C   FFFF0000 A     M1015     DATA      X'FFFF0000'
01 0035D   70000000 A     6O3       GEN,4,28  7,0             CHECKS I/O FOR BUSY OR MANUAL
01 0035E   20000000 A     2Q3       DATA      X'20000000'
01 0035F   00400000 A     I9        DATA      X'400000'
01 00360   0000000C A     CEE       DATA      12
01 00361   00000006 A     SIX       DATA      6
01 00362   00000001 A     ONE       DATA      1
01 00363   FFFFFFFE A     FIRST     DATA      -2
01 00364   FFFFFFFD A     NEG3      DATA      -3
01 00365   FFFFFFF8 A     NEG8      DATA      -8
01 00366   FFFFFFF4 A     NEG12     DATA      -12
01 00367   FFFFFFEC A     NEG20     DATA      -20
01 00368   FFFFFFCD A     NEG51     DATA      -51
01 00369   FFFFFFCD A     LINE      DATA      -51
01 0036A   10000000 A     INSTID    I         1,0             INSTRUCTION
01 0036B   20000165       XPSDID    I         2,LOC+1         LOCATION+1
01 0036C   30000000 A     IAID      I         3,0             INDIRECT ADDRESS
01 0036D   40000001 A     IXID      I         4,1             INDEX
01 0036E   50000001 A     PSDWID    I         5,1             PROGRAM STATUS DOUBLEWORD
01 0036F   60000000 A     REGID     I         6,0             REGISTERS
01 00370   70000460       MEMID     I         7,MEMORY        MEMORY WORDS
                                    PAGE
                          *CPINT    BECOMES   0000F000 AFTER X'20' ERROR FREE PASSES (SEE RTC)
01 00371   00000000 A     CPINT     DATA      0
01 00372   0000F000 A     CPINTM    DATA      X'F000'
01 00373   40404040 A     SPACE     TEXT      '            '  12 SPACES
01 00374   40404040 A
01 00375   40404040 A
01 00376   08000000 A     MOTION    DATA      X'8000000'
01 00377   00000000 A     TEMP      DATA      0
01 00378   10000000 A     TOP       DATA      X'10000000'
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1053  01 00379  00200000 A  MAXCNT  DATA   X'200000'
1054  01 0037A  F1000000 A  PGB     DATA   X'F1000000'
1055  01 0037B  00000001 A  TYPE    DATA   1              OUTPUT MSG DEVICE ADDR
1056  01 0037C  00000810 A  PCPINT  DATA   X'810'
1057  01 0037D  00000020 A  IOINT   DATA   X'20'
1058  01 0037E  11111111 A  BIT     DATA   X'11111111'
1059  01 0037F  22222222 A          DATA   X'22222222'
1060  01 00380  44444444 A          DATA   X'44444444'
1061  01 00381  88888888 A          DATA   X'88888888'
1062  01 00382  00000477       BDDBALL  DATA   SPURTRAP
1063                              PAGE
1064  01 00383  FFFFFFFC A  NUMBER  DATA   -4
1065  01 00384  FFFFFFFC A          DATA   -4
1066  01 00385  FFFFFFFE A          DATA   -2
1067  01 00386  FFFFFFFC A          DATA   -4
1068  01 00387  FFFFFFFE A          DATA   -2
1069  01 00388  F0F0F0F0 A  FRAME   DATA   X'F0F0F0F0'     2 WORDS
1070  01 00389  F0F0F0F0 A          DATA   X'F0F0F0F0'
1071  01 0038A  4040F0F0 A          DATA   X'4040F0F0'     3 WORDS
1072  01 0038B  F0F0F0F0 A          DATA   X'F0F0F0F0'
1073  01 0038C  F0F04040 A          DATA   X'F0F04040'
1074  01 0038D  F0000000 A  MASK    DATA   X'F0000000'
1075  01 0038E  0F000000 A          DATA   X'0F000000'
1076  01 0038F  00F00000 A          DATA   X'00F00000'
1077  01 00390  000F0000 A          DATA   X'000F0000'
1078  01 00391  0000F000 A          DATA   X'0000F000'
1079  01 00392  00000F00 A          DATA   X'00000F00'
1080  01 00393  000000F0 A          DATA   X'000000F0'
1081  01 00394  0000000F A          DATA   X'0000000F'
1082  01 00395  FF000000 A  FILTER  DATA   X'FF000000'
1083  01 00396  00FF0000 A          DATA   X'00FF0000'
1084  01 00397  0000FF00 A          DATA   X'0000FF00'
1085  01 00398  000000FF A          DATA   X'000000FF'
1086  01 00399  FF000000 A          DATA   X'FF000000'
1087  01 0039A  00FF0000 A          DATA   X'00FF0000'
1088  01 0039B  0000FF00 A          DATA   X'0000FF00'
1089  01 0039C  000000FF A          DATA   X'000000FF'
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1090  01 0039D  FF000000 A          DATA   X'FF000000'
1091  01 0039E  00FF0000 A          DATA   X'FF0000'
1092                              BIND   64              TO PROVIDE A 64 WORD BOUNDARY     *B
1093                        **                           REQUIRED FOR THE FORMAT ROUTINE
1094                              PAGE
1095  01 003C0  00000000 A  BYTE    DATA   0              0
1096  01 003C1  01010101 A          DATA   X'01010101'    1
1097  01 003C2  02020202 A          DATA   X'02020202'    2
1098  01 003C3  03030303 A          DATA   X'03030303'    3
1099  01 003C4  04040404 A          DATA   X'04040404'    4
1100  01 003C5  05050505 A          DATA   X'05050505'    5
1101  01 003C6  06060606 A          DATA   X'06060606'    6
1102  01 003C7  07070707 A          DATA   X'07070707'    7
1103  01 003C8  08080808 A          DATA   X'08080808'    8
1104  01 003C9  09090909 A          DATA   X'09090909'    9
1105  01 003CA  31313131 A          DATA   X'31313131'    A
1106  01 003CB  32323232 A          DATA   X'32323232'    B
1107  01 003CC  33333333 A          DATA   X'33333333'    C
1108  01 003CD  34343434 A          DATA   X'34343434'    D
1109  01 003CE  35353535 A          DATA   X'35353535'    E
1110  01 003CF  36363636 A          DATA   X'36363636'    F
1111                              PAGE
1112                        *                            COMMAND PAIRS
1113  01 003D0  000001ED       PSIXCR   P      SIXCR
1114  01 003D1  000001EE       PTITLE   P      TITLE
1115  01 003D2  000001EF       PHEAD    P      HEAD
1116  01 003D3  000001F0       PSHRTL   P      SHRTL
1117  01 003D4  000001F1       PLONGL   P      LONGL
1118  01 003D5  000001F2       LPGOTOP  P      PGOTOP
1119  01 003D6  000001F7       LPFORMAT P      PFORMAT
1120  01 003D7  000001F3       LPERR    P      PERR
1121  01 003D8  000001F5       LPREPORT P      PREPORT
1122  01 003D9  000001F8       PRTCMSG  P      RTCMSG
1123                              BOUND 8
1124  01 003DA  0500102C       SIXCR    J      5,TTL
1125  01 003DB  08000006 A            DATA   X'8000006'
1126  01 003DC  0500102C       TITLE    J      5,TTL
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1127   01 003DD   08000039 A            DATA    X'80000039'
1128   01 003DE   05001068      HEAD    J       5,HDG
1129   01 003DF   08000050 A            DATA    X'80000050'
1130   01 003E0   05001088      SHRTL   J       5,IMAGE
1131   01 003E1   0800002C A            DATA    X'8000002C'
1132   01 003E2   05001088      LONGL   J       5,IMAGE
1133   01 003E3   08000054 A            DATA    X'80000054'
1134                                    PAGE
1135   01 003E4   03000DE8      PGSTOP  J       3,PGO
1136   01 003E5   08000001 A            GEN,8,24 8,1
1137   01 003E6   01000DCC      PERR    J       1,SPACE
1138   01 003E7   80000008 A            GEN,4,28 8,8                DC
1139   01 003E8   0100108C              J       1,IMAGE+1
1140   01 003E9   08000050 A            DATA    X'80000050'
1141   01 003EA   01000DCC      PREPART J       1,SPACE
1142   01 003EB   80000008 A            GEN,4,28 8,8
1143   01 003EC   0100108C              J       1,IMAGE+1
1144   01 003ED   08000028 A            DATA    X'80000028'
1145   01 003EE   01000DCC      PFORMAT J       1,SPACE
1146   01 003EF   80000008 A            GEN,4,28 8,8
1147   01 003F0   01001034              J       1,TTL+2
1148   01 003F1   20000031 A            GEN,8,24 32,49              CC
1149   01 003F2   01000DCC              J       1,SPACE
1150   01 003F3   8000000B A            GEN,4,28 8,11
1151   01 003F4   0100106C              J       1,HDG+1
1152   01 003F5   0800004C A            GEN,8,24 X'8',X'4C'
1153                                    PAGE
1154   01 003F6   05000FE1      RTCMSG  GEN,8,24 5,BA(MSG)+1                                    *B
1155   01 003F7   0800004B A            GEN,8,24 8,75                                          *B
1156                            MSG     TEXTC   'N           REAL TIME CLOCKS IN USE. TO DISABLE,';'
1157   01 003F8   4B154040 A            ' CP INTERRUPT AND CLEAR R5'
       01 003F9   40404040 A
       01 003FA   40404040 A
       01 003FB   4040D9C5 A
       01 003FC   C1D340E3 A
       01 003FD   C9D4C540 A
       01 003FE   C3D3D6C3 A
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       01 003FF   D2E240C9 A
       01 00400   D540E4E2 A
       01 00401   C54340E3 A
       01 00402   D640C4C9 A
       01 00403   E2C1C2D3 A
       01 00404   C5684OC3 A
       01 00405   D740C9D5 A
       01 00406   E3C5D9D9 A
       01 00407   E4D7E340 A
       01 00408   C1D5C440 A
       01 00409   C3D3C5C1 A
       01 0040A   D940D9F5 A
1158                                    BBOUND  4
1159                                    PAGE
1160   01 00409   15151515 A   TTL     DATA    X'15151515'
1161   01 0040C   15151540 A            DATA    X'15151540'
1162   01 0040D   40404040 A            DATA    X'40404040'
1163   01 0040E   40404040 A            DATA    X'40404040'
1164   01 0040F   40404040 A            DATA    X'40404040'
1165   01 00410   40404040 A            DATA    X'40404040'
1166   01 00411   40404040 A            DATA    X'40404040'
1167   01 00412   40404040 A            DATA    X'40404040'
1168   01 00413   40404040 A            DATA    X'40404040'
1169   01 00414   404040C1 A            DATA    X'404040C1'
1170   01 00415   E4E3D640 A            DATA    X'E4E3D640'
1171   01 00416   C5D9D9D6 A            DATA    X'C5D9D9D6'
1172   01 00417   D940C4C9 A            DATA    X'D940C4C9'
1173   01 00418   E2D7D3C1 A            DATA    X'E2D7D3C1'
1174   01 00419   E8404040 A            DATA    X'E8404040'
1175                                    PAGE
1176   01 0041A   15404040 A   HDG     DATA    X'15404040'
1177   01 0041B   40D3C9E2 A            DATA    X'40D3C9E2'
1178   01 0041C   E3404040 A            DATA    X'E3404040'
1179   01 0041D   4040C5D9 A            DATA    X'4040C5D9'
1180   01 0041E   D9D6D9E2 A            DATA    X'D9D6D9E2'
1181   01 0041F   40404040 A            DATA    X'40404040'
1182   01 00420   D7C1E2E2 A            DATA    X'D7C1E2E2'
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1183   01 00421   C5E24040 A            DATA    X'C5E24040'
1184   01 00422   4040400C9 A           DATA    X'4040400C9'
1185   01 00423   D5E2E340 A            DATA    X'D5E2E340'
1186   01 00424   4040C9C4 A            DATA    X'4040C9C4'
1187   01 00425   C5D5E3C9 A            DATA    X'C5D5E3C9'
1188   01 00426   C6C9C5D9 A            DATA    X'C6C9C5D9'
1189   01 00427   40404040 A            DATA    X'40404040'
1190   01 00428   C9E24040 A            DATA    X'C9E24040'
1191   01 00429   4040E2C8 A            DATA    X'4040E2C8'
1192   01 0042A   D6E4D3C4 A            DATA    X'D6E4D3C4'
1193   01 0042B   40C2C540 A            DATA    X'40C2C540'
1194   01 0042C   4040400C4 A           DATA    X'4040400C4'
1195   01 0042D   C9C6C615 A            DATA    X'C9C6C615'
1196                                    PAGE
1197   01 0042E   40404015 A   IMAGE    DATA    X'40404015'
1198   01 0042F   00000000 A            FILL    *+19
       01 00430   00000000 A
       01 00431   00000000 A
       01 00432   00000000 A
       01 00433   00000000 A
       01 00434   00000000 A
       01 00435   00000000 A
       01 00436   00000000 A
       01 00437   00000000 A
       01 00438   00000000 A
       01 00439   00000000 A
       01 0043A   00000000 A
       01 0043B   00000000 A
       01 0043C   00000000 A
       01 0043D   00000000 A
       01 0043E   00000000 A
       01 0043F   00000000 A
       01 00440   00000000 A
       01 00441   00000000 A
1199   01 00442   40404040 A   BLANK    DATA    X'40404040'
1200                                    PAGE
1201                                    BBOUND 8
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1202   01 00444                 TABLE   RES     0
1203   01 00444   00000000 A            DATA    0          NEG COUNT OF WORDS IN CURRENT MODULE
1204   01 00445   00000000 A            DATA    0          INSTRUCTION BEING TESTED
1205   01 00446   00000000 A            DATA    0          PSW1 IN
1206   01 00447   00000000 A            DATA    0          PSW1 OUT
1207   01 00448   00000000 A            DATA    0          R IN
1208   01 00449   00000000 A            DATA    0          R OUT
1209   01 0044A   00000000 A            DATA    0          MEMORY IN
1210   01 0044B   00000000 A            DATA    0          MEMORY OUT
1211   01 0044C   00000000 A            DATA    0          RU1 IN
1212   01 0044D   00000000 A            DATA    0          RU1 OUT
1213   01 0044E   00000000 A            DATA    0          MEMORY+1 IN
1214   01 0044F   00000000 A            DATA    0          MEMORY+1 OUT
1215   01 00450   00000000 A            DATA    0          PSW2 IN
1216   01 00451   00000000 A            DATA    0          PSW2 OUT
1217   01 00452   00000000 A            DATA    0          OLD PSW1  - USED ONLY FOR XPSD TEST
1218   01 00453   00000000 A            DATA    0          OLD PSW2  - USED ONLY FOR XPSD TEST
1219   01 00454   00000000 A            DATA    0          NEW PSW2  - USED ONLY FOR XPSD TEST
1220   01 00455   00000000 A            DATA    0          NEW PSW1  - USED ONLY FOR EPSD TEST
1221   01 00456   00000000 A            DATA    0,0
       01 00457   00000000 A
1222                                    PAGE
1223   01 00458                 TEST    RES     0
1224   01 00458   00000000 A            FILL    *+12
       01 00459   00000000 A
       01 0045A   00000000 A
       01 0045B   00000000 A
       01 0045C   00000000 A
       01 0045D   00000000 A
       01 0045E   00000000 A
       01 0045F   00000000 A
       01 00460   00000000 A
       01 00461   00000000 A
       01 00462   00000000 A
       01 00463   00000000 A
1225                                    PAGE
1226   01 00464   00000000 A   RETURN   PZE
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1227   01 00465   00000000 A            PZE
1228   01 00466   00000166              PZE,0    L0C+2
1229   01 00467   00000000 A            PZE
1230   01 00468   00000231     BUMP     PZE,0    BUMPER
1231   01 00469   00000000 A            PZE
1232   01 00469   00000110     REPEAT   PZE,0    CYCLE
1233   01 00468   00000000 A            PZE
1234   01 00469   00000000 A  PSW1      PZE
1235   01 00469   00000000 A  PSW2      PZE
1236   01 00469   00000000 A  CNT1CP    PZE
1237   01 00469   00000000 A  CNT2CP    PZE
1238   01 00470   00000000 A  CNT3CP    PZE
1239   01 00471   00000000 A  CNT4CP    PZE
1240   01 00472   00000000 A  COUNT     PZE
1241   01 00473   00000000 A  ERRORS    PZE
1242   01 00474   00000000 A  PASSES    PZE
1243   01 00475   00000000 A  WK0       PZE
1244   01 00476   00000000 A  WORD      PZE
1245        01 003C0          ZER0     EQU      BYTE
1246        01 00383          NEG4     EQU      NUMBER
1247        01 00385          NEG2     EQU      NUMBER+2
1248        01 00047          XPSD     EQU      BRANCH
1249        00000000          C        EQU      0
1250        00000000          I        EQU      0
1251        00000000          Y        EQU      0
1252        01 00459          INST     EQU      TEST+1
1253        01 0045A          IA       EQU      TEST+2
1254        01 00460          MEMORY   EQU      TEST+8
1255        01 003C0          CNT3Z    EQU      ZER0
1256        01 003C0          CNT4Z    EQU      ZER0
1257        01 0046A          MODULE   EQU      REPEAT
1258        01 0046A          PASS     EQU      REPEAT
1259                                   PAGE
1260   01 00477   0F000478    SPURTRAP XPSD,0   SPUR
1261                                   BOUND    8
1262   01 00478   00000000 A  SPUR     PZE      0
1263   01 00479   00000000 A            PZE      0
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1264   01 0047A   0000047C              PZE,0    *+2
1265   01 0047B   07000000 A            DATA     X'07000000'      TURN ON INTR INH BITS
1266   01 0047C   32500371              LW,5     CPINT
1267   01 0047D   6D501300 A            WD,5     X'1300'          ARM AND DISABLE COUNT PULSE INTRS.
1268   01 0047E   32300474              LW,3     PASSES           RESET PASSES TO LAST SETTING
1269   01 0047F   32200473              LW,2     ERRORS           RESET ERRORS TO LAST SETTING
1270   01 00480   3210011D              LW,1     SAVE             MODULE POINTER
1271   01 00481   32000378              LW,0     TYPE             I/O ADDR
1272   01 00482   2E000000 A            WAIT,0   0                ERROR HALT
1273                          *
1274   01 00483   00000464              DATA     RETURN           ADDR FOR FOLLOWING COMMENT LINE   *B
1275                         * CHECK THE CONTENTS OF 'RETURN' TO DETERMINE THE LOCATION PLUS 1 OF  *B
1276                         * THE XPSD THAT WAS EXECUTED AS A RESULT OF A SPURIOUS TRAP.
1277                          *
1278   01 00483                         BRG      *-1              ELIMINATE ABOVE DATA STATEMENT    *B
       01 00483
1279   01 00483   43500391              AND,5    MASK+4           SAVE ONLY BITS 16-19
1280   01 00484   35500371              STW,5    CPINT            SELECTED INTERRUPTS
1281   01 00485   35000378              STW,0    TYPE             SELECTED  I/O ADDR
1282   01 00486   35500372              STW,5    CPINTM           MASK FOR SELECTED INTERRUPTS
1283   01 00487   0E30046A              LPSD,3   REPEAT           RELEASE PANEL INTERRUPT-REPEAT TEST
1284                                   PAGE
1285                                   BOUND 8
1286   01 00488                 LIST    RES      0
1287   01 00488   FFFFFFFA A    EXU01   DATA     -6               EXU    L0C+1    XPSD
1288   01 00489   67000165              EXU      L0C+1
1289   01 0048A   F0000136              K        15,0,0,SETPSW
1290   01 0048B   F0000165              K        15,0,0,L0C+1
1291   01 0048C   FFFFFFFF A            DATA     -1
1292   01 0048D   FFFFFFFF A            DATA     -1
1293   01 0048E   FFFFFFFC A    EXU02   DATA     -4               EXU    BRANCH  XPSD
1294   01 0048F   67000047              EXU      BRANCH
1295   01 00490   00000136              DATA     SETPSW
1296   01 00491   00000165              DATA     L0C+1
1297   01 00492   FFFFFFF8 A    EXU03   DATA     -8               EXU     MEMORY  LW
1298   01 00493   67000460              EXU      MEMORY
1299   01 00494   93300136              K        9,3,3,SETPSW
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1300   01 00495   A3300166            K       10,3,3,L0C+2
1301   01 00496   FFFFFFFF A          DATA    -1
1302   01 00497   32C00460            LW,12   MEMORY
1303   01 00498   32C00460            LW,12   MEMORY
1304   01 00499   32C00460            LW,12   MEMORY
1305   01 0049A   FFFFFFFA A  EXU04    DATA    -6              EXU X  BRANCH  XPSD
1306   01 0049B   67020460            EXU     MEMORY,1
1307   01 0049C   F7300136            K       15,7,3,SETPSW
1308   01 0049D   F7300165            K       15,7,3,L0C+1
1309   01 0049E   FFFFF3E7 A          DATA    BRANCH-MEMORY
1310   01 0049F   FFFFF3E7 A          DATA    BRANCH-MEMORY
1311   01 004A0   FFFFFFF8 A  EXU05    DATA    -8              EXU *  BRANCH xPSD
1312   01 004A1   E7000460            EXU     *MEMORY
1313   01 004A2   00000136            K       0,0,0,SETPSW
1314   01 004A3   00000165            K       0,0,0,L0C+1
1315   01 004A4   00000001 A          DATA    1
1316   01 004A5   00000001 A          DATA    1
1317   01 004A6   00C20047            PZE,12  BRANCH,1
1318   01 004A7   00C20047            PZE,12  BRANCH,1
1319                                  PAGE
1320   01 004A8   FFFFFFF6 A  EXU06    DATA    -10             EXU *X C1RET   XPSD
1321   01 004A9   E7020460            EXU     *MEMORY,1
1322   01 004AA   00000136            K       0,0,0,SETPSW
1323   01 004AB   00000165            K       0,0,0,L0C+1
1324   01 004AC   0000FACE A          DATA    X'FACE'
1325   01 004AD   0000FACE A          DATA    X'FACE'
1326   01 004AE   000105CC            PZE,0   C1RET=X'FACE'
1327   01 004AF   000105CC            PZE,0   C1RET=X'FACE'
1328   01 004B0   0000DEAF A          DATA    X'DEAF'
1329   01 004B1   0000DEAF A          DATA    X'DEAF'
1330   01 004B2   FFFFFFF8 A  EXU07    DATA    -8              EXU  XPSD  SLAVE MODE
1331   01 004B3   67000460            EXU     MEMORY          MV
1332   01 004B4   078001B6            K       0,7,8,SIGNAL
1333   01 004B5   27000065            K       2,7,0,MVRET+1
1334   01 004B6   FFFFFFFF A          DATA    -1
1335   01 004B7   FFFFFFFF A          DATA    -1
1336   01 004B8   0F000464            XPSD,0  RETURN
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1337   01 004B9   0F000464            XPSD,0  RETURN
1338   01 004BA   FFFFFFFA A  EXU08    DATA    -6              EXU  NEI   SLAVE MODE (NEI=PRIV)
1339   01 004BB   6700000C A          EXU     12              MV
1340   01 004BC   078001B6            K       0,7,11,SIGNAL
1341   01 004BD   A7300060            K       10,7,3,NEIRET+3
1342   01 004BE   0C000460            K       0,12,0,MEMORY
1343   01 004BF   0C000460            K       0,12,0,MEMORY
1344                                  PAGE
1345   01 004C0   FFFFFFFC A  LCF01    DATA    -4              LCF 0    00 INTB F7 = F7 BYTE 0
1346   01 004C1   70000460            LCF,0   MEMORY
1347   01 004C2   F7300136            K       15,7,3,SETPSW
1348   01 004C3   F7300166            K       15,7,3,L0C+2
1349   01 004C4   FFFFFFFC A  LCF02    DATA    -4              LCF 1    00 INTB F7 = F0 BYTE 0
1350   01 004C5   70100460            LCF,1   MEMORY
1351   01 004C6   F7200136            K       15,7,2,SETPSW
1352   01 004C7   F0200166            K       15,0,2,L0C+2
1353   01 004C8   FFFFFFFC A  LCF03    DATA    -4              LCF 2    00 INTB F7 = 07 BYTE 0
1354   01 004C9   70200460            LCF,2   MEMORY
1355   01 004CA   F7100136            K       15,7,1,SETPSW
1356   01 004CB   07100166            K       0,7,1,L0C+2
1357   01 004CC   FFFFFFFC A  LCF04    DATA    -4              LCF 3    00 INTB F7 = 00 BYTE 0
1358   01 004CD   70300460            LCF,3   MEMORY
1359   01 004CE   F7300136            K       15,7,3,SETPSW
1360   01 004CF   00300166            K       0,0,3,L0C+2
1361   01 004D0   FFFFFFF8 A  LCF05    DATA    -8              LCF 3 =  5D INTB A2 = 55 BYTE 0
1362   01 004D1   F0300045A           LCF,3   *IA
1363   01 004D2   A2200136            K       10,2,2,SETPSW
1364   01 004D3   55200166            K       5,5,2,L0C+2
1365   01 004D4   01234567 A          DATA    X'01234567'
1366   01 004D5   01234567 A          DATA    X'01234567'
1367   01 004D6   5D4E6F70 A          DATA    X'5D4E6F70'
1368   01 004D7   5D4E6F70 A          DATA    X'5D4E6F70'
1369                                  PAGE
1370                          ** TEST THAT -R CAN BE CLEARED. ANSWER BE ZERO
1371   01 004D8   FFFFFFFA A  LW01     DATA    -6
1372   01 004D9   32C00460            LW,12   MEMORY
1373   01 004DA   F7300136            K       15,7,3,SETPSW
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1374  01 004D8  C7300166            K       12,7,3,LOC+2      CC1 AND 2 UNAFFECTED CC3 AND 4 ZERO
1375  01 004DC  FFFFFFFF A          DATA    -1                R IN
1376  01 004DD  00000000 A          DATA    0                 R OUT
1377                          ** TEST X-FER OF ONES TO ONES. NEGATIVE RESULT
1378  01 004DE  FFFFFFF8 A  LW02    DATA    -8
1379  01 004DF  32C00460            LW,12   MEMORY
1380  01 004E0  37300136            K       3,7,3,SETPSW
1381  01 004E1  17300166            K       1,7,3,LOC+2
1382  01 004E2  FFFFFFFF A          DATA    -1                R IN
1383  01 004E3  FFFFFFFF A          DATA    -1                R OUT
1384  01 004E4  FFFFFFFF A          DATA    -1                M IN
1385  01 004E5  FFFFFFFF A          DATA    -1                 MOUT
1386                          ** CHECK X-FER OF ONES TO ZEROES. INDIRECT ADDRESSING. NEG RESULT
1387                          ** INSURE RU1 NOT AFFECTED
1388  01 004E6  FFFFFFF4 A  LW03    DATA    -12
1389  01 004E7  B2C0045A            LW,12   *1A
1390  01 004E8  C6200136            K       12,6,2,SETPSW
1391  01 004E9  D6200166            K       13,6,2,LOC+2
1392  01 004EA  00000000 A          DATA    0
1393  01 004EB  FFFFFFFF A          DATA    -1
1394  01 004EC  FFFFFFFF A          DATA    -1
1395  01 004ED  FFFFFFFF A          DATA    -1
1396  01 004EE  00000000 A          DATA    0
1397  01 004EF  00000000 A          DATA    0
1398  01 004F0  FFFFFFFF A          DATA    -1
1399  01 004F1  FFFFFFFF A          DATA    -1
1400                                PAGE
1401                          ** TEST SGTZ TERM BY LOADING A SINGLE BIT. SEQUENCE FROM BIT32 TO BIT01
1402  01 004F2  FFFFFFF8 A  LW04    DATA    -8
1403  01 004F3  32C00460            LW,12   MEMORY
1404  01 004F4  30000136            K       3,0,0,SETPSW
1405  01 004F5  20000166            K       2,0,0,LOC+2
1406  01 004F6  00000000 A          DATA    0
1407  01 004F7  00000001 A          DATA    1
1408  01 004F8  00000001 A          DATA    1
1409  01 004F9  00000001 A          DATA    1
1410  01 004FA  FFFFFFF8 A  LW05    DATA    -8
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1411  01 004FB  32C00460            LW,12   MEMORY
1412  01 004FC  10000136            K       1,0,0,SETPSW
1413  01 004FD  20000166            K       2,0,0,LOC+2
1414  01 004FE  00000000 A          DATA    0
1415  01 004FF  00000002 A          DATA    2
1416  01 00500  00000002 A          DATA    2
1417  01 00501  00000002 A          DATA    2
1418  01 00502  FFFFFFF8 A  LW06    DATA    -8
1419  01 00503  32C00460            LW,12   MEMORY
1420  01 00504  10000136            K       1,0,0,SETPSW
1421  01 00505  20000166            K       2,0,0,LOC+2
1422  01 00506  00000000 A          DATA    0
1423  01 00507  00000004 A          DATA    4
1424  01 00508  00000004 A          DATA    4
1425  01 00509  00000004 A          DATA    4
1426  01 0050A  FFFFFFF8 A  LW07    DATA    -8
1427  01 00503  32C00460            LW,12   MEMORY
1428  01 0050C  10000136            K       1,0,0,SETPSW
1429  01 0050D  20000166            K       2,0,0,LOC+2
1430  01 0050E  00000000 A          DATA    0
1431  01 0050F  00000008 A          DATA    8
1432  01 00510  00000008 A          DATA    8
1433  01 00511  00000008 A          DATA    8
1434                                PAGE
1435  01 00512  FFFFFFF8 A  LW08    DATA    -8
1436  01 00513  32C00460            LW,12   MEMORY
1437  01 00514  10000136            K       1,0,0,SETPSW
1438  01 00515  20000166            K       2,0,0,LOC+2
1439  01 00516  00000000 A          DATA    0
1440  01 00517  00000010 A          DATA    X'10'
1441  01 00518  00000010 A          DATA    X'10'
1442  01 00519  00000010 A          DATA    X'10'
1443  01 0051A  FFFFFFF8 A  LW09    DATA    -8
1444  01 00513  32C00460            LW,12   MEMORY
1445  01 0051C  10000136            K       1,0,0,SETPSW
1446  01 0051D  20000166            K       2,0,0,LOC+2
1447  01 0051E  00000000 A          DATA    0
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1448  01 0051F  00000020 A          DATA    X'20'
1449  01 00520  00000020 A          DATA    X'20'
1450  01 00521  00000020 A          DATA    X'20'
1451  01 00522  FFFFFFF8 A  LW10     DATA    -8
1452  01 00523  32C00460            LW,12   MEMORY
1453  01 00524  10000136            K       1,0,0,SETPSW
1454  01 00525  20000166            K       2,0,0,LOC+2
1455  01 00526  00000000 A          DATA    0
1456  01 00527  00000040 A          DATA    X'40'
1457  01 00528  00000040 A          DATA    X'40'
1458  01 00529  00000040 A          DATA    X'40'
1459  01 0052A  FFFFFFF8 A  LW11     DATA    -8
1460  01 0052B  32C00460            LW,12   MEMORY
1461  01 0052C  10000136            K       1,0,0,SETPSW
1462  01 0052D  20000166            K       2,0,0,LOC+2
1463  01 0052E  00000000 A          DATA    0
1464  01 0052F  00000080 A          DATA    X'80'
1465  01 00530  00000080 A          DATA    X'80'
1466  01 00531  00000080 A          DATA    X'80'
1467                                PAGE
1468  01 00532  FFFFFFF8 A  LW12     DATA    -8
1469  01 00533  32C00460            LW,12   MEMORY
1470  01 00534  10000136            K       1,0,0,SETPSW
1471  01 00535  20000166            K       2,0,0,LOC+2
1472  01 00536  00000000 A          DATA    0
1473  01 00537  00000100 A          DATA    X'100'
1474  01 00538  00000100 A          DATA    X'100'
1475  01 00539  00000100 A          DATA    X'100'
1476  01 0053A  FFFFFFF8 A  LW13     DATA    -8
1477  01 0053B  32C00460            LW,12   MEMORY
1478  01 0053C  10000136            K       1,0,0,SETPSW
1479  01 0053D  20000166            K       2,0,0,LOC+2
1480  01 0053E  00000000 A          DATA    0
1481  01 0053F  00000200 A          DATA    X'200'
1482  01 00540  00000200 A          DATA    X'200'
1483  01 00541  00000200 A          DATA    X'200'
1484  01 00542  FFFFFFF8 A  LW14     DATA    -8
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1485  01 00543  32C00460            LW,12   MEMORY
1486  01 00544  10000136            K       1,0,0,SETPSW
1487  01 00545  20000166            K       2,0,0,LOC+2
1488  01 00546  00000000 A          DATA    0
1489  01 00547  00000400 A          DATA    X'400'
1490  01 00548  00000400 A          DATA    X'400'
1491  01 00549  00000400 A          DATA    X'400'
1492  01 0054A  FFFFFFF8 A  LW15     DATA    -8
1493  01 0054B  32C00460            LW,12   MEMORY
1494  01 0054C  10000136            K       1,0,0,SETPSW
1495  01 0054D  20000166            K       2,0,0,LOC+2
1496  01 0054E  00000000 A          DATA    0
1497  01 0054F  00000800 A          DATA    X'800'
1498  01 00550  00000800 A          DATA    X'800'
1499  01 00551  00000800 A          DATA    X'800'
1500                                PAGE
1501  01 00552  FFFFFFF8 A  LW16     DATA    -8
1502  01 00553  32C00460            LW,12   MEMORY
1503  01 00554  10000136            K       1,0,0,SETPSW
1504  01 00555  20000166            K       2,0,0,LOC+2
1505  01 00556  00000000 A          DATA    0
1506  01 00557  00001000 A          DATA    X'1000'
1507  01 00558  00001000 A          DATA    X'1000'
1508  01 00559  00001000 A          DATA    X'1000'
1509  01 0055A  FFFFFFF8 A  LW17     DATA    -8
1510  01 0055B  32C00460            LW,12   MEMORY
1511  01 0055C  10000136            K       1,0,0,SETPSW
1512  01 0055D  20000166            K       2,0,0,LOC+2
1513  01 0055E  00000000 A          DATA    0
1514  01 0055F  00002000 A          DATA    X'2000'
1515  01 00560  00002000 A          DATA    X'2000'
1516  01 00561  00002000 A          DATA    X'2000'
1517  01 00562  FFFFFFF8 A  LW18     DATA    -8
1518  01 00563  32C00460            LW,12   MEMORY
1519  01 00564  10000136            K       1,0,0,SETPSW
1520  01 00565  20000166            K       2,0,0,LOC+2
1521  01 00566  00000000 A          DATA    0
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```
1522  01 00567  00004000 A          DATA   X'4000'
1523  01 00568  00004000 A          DATA   X'4000'
1524  01 00569  00004000 A          DATA   X'4000'
1525  01 0056A  FFFFFFF8 A  LW19    DATA   -8
1526  01 0056B  32C00460            LW,12  MEMORY
1527  01 0056C  10000136            K      1,0,0,SETPSW
1528  01 0056D  20000166            K      2,0,0,LOC+2
1529  01 0056E  00000000 A          DATA   0
1530  01 0056F  00008000 A          DATA   X'8000'
1531  01 00570  00008000 A          DATA   X'8000'
1532  01 00571  00008000 A          DATA   X'8000'
1533                                PAGE
1534  01 00572  FFFFFFF8 A  LW20    DATA   -8
1535  01 00573  32C00460            LW,12  MEMORY
1536  01 00574  10000136            K      1,0,0,SETPSW
1537  01 00575  20000166            K      2,0,0,LOC+2
1538  01 00576  00000000 A          DATA   0
1539  01 00577  00010000 A          DATA   X'10000'
1540  01 00578  00010000 A          DATA   X'10000'
1541  01 00579  00010000 A          DATA   X'10000'
1542  01 0057A  FFFFFFF8 A  LW21    DATA   -8
1543  01 0057B  32C00460            LW,12  MEMORY
1544  01 0057C  10000136            K      1,0,0,SETPSW
1545  01 0057D  20000166            K      2,0,0,LOC+2
1546  01 0057E  00000000 A          DATA   0
1547  01 0057F  00020000 A          DATA   X'20000'
1548  01 00580  00020000 A          DATA   X'20000'
1549  01 00581  00020000 A          DATA   X'20000'
1550  01 00582  FFFFFFF8 A  LW22    DATA   -8
1551  01 00583  32C00460            LW,12  MEMORY
1552  01 00584  10000136            K      1,0,0,SETPSW
1553  01 00585  20000166            K      2,0,0,LOC+2
1554  01 00586  00000000 A          DATA   0
1555  01 00587  00040000 A          DATA   X'40000'
1556  01 00588  00040000 A          DATA   X'40000'
1557  01 00589  00040000 A          DATA   X'40000'
1558  01 0058A  FFFFFFF8 A  LW23    DATA   -8
```



```
1559  01 0058B  32C00460            LW,12  MEMORY
1560  01 0058C  10000136            K      1,0,0,SETPSW
1561  01 0058D  20000166            K      2,0,0,LOC+2
1562  01 0058E  00000000 A          DATA   0
1563  01 0058F  00080000 A          DATA   X'80000'
1564  01 00590  00080000 A          DATA   X'80000'
1565  01 00591  00080000 A          DATA   X'80000'
1566                                PAGE
1567  01 00592  FFFFFFF8 A  LW24    DATA   -8
1568  01 00593  32C00460            LW,12  MEMORY
1569  01 00594  10000136            K      1,0,0,SETPSW
1570  01 00595  20000166            K      2,0,0,LOC+2
1571  01 00596  00000000 A          DATA   0
1572  01 00597  00100000 A          DATA   X'100000'
1573  01 00598  00100000 A          DATA   X'100000'
1574  01 00599  00100000 A          DATA   X'100000'
1575  01 0059A  FFFFFFF8 A  LW25    DATA   -8
1576  01 0059B  32C00460            LW,12  MEMORY
1577  01 0059C  10000136            K      1,0,0,SETPSW
1578  01 0059D  20000166            K      2,0,0,LOC+2
1579  01 0059E  00000000 A          DATA   0
1580  01 0059F  00200000 A          DATA   X'200000'
1581  01 005A0  00200000 A          DATA   X'200000'
1582  01 005A1  00200000 A          DATA   X'200000'
1583  01 005A2  FFFFFFF8 A  LW26    DATA   -8
1584  01 005A3  32C00460            LW,12  MEMORY
1585  01 005A4  10000136            K      1,0,0,SETPSW
1586  01 005A5  20000166            K      2,0,0,LOC+2
1587  01 005A6  00000000 A          DATA   0
1588  01 005A7  00400000 A          DATA   X'400000'
1589  01 005A8  00400000 A          DATA   X'400000'
1590  01 005A9  00400000 A          DATA   X'400000'
1591  01 005AA  FFFFFFF8 A  LW27    DATA   -8
1592  01 005AB  32C00460            LW,12  MEMORY
1593  01 005AC  10000136            K      1,0,0,SETPSW
1594  01 005AD  20000166            K      2,0,0,LOC+2
1595  01 005AE  00000000 A          DATA   0
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```
1596   01 005AF   00800000 A            DATA    X'800000'
1597   01 005B0   00800000 A            DATA    X'800000'
1598   01 005B1   00800000 A            DATA    X'800000'
1599                                    PAGE
1600   01 005B2   FFFFFFF8 A  LW28      DATA    -8
1601   01 005B3   32C00460              LW,12   MEMORY
1602   01 005B4   10000136              K       1,0,0,SETPSW
1603   01 005B5   20000166              K       2,0,0,L0C+2
1604   01 005B6   00000000 A            DATA    0
1605   01 005B7   01000000 A            DATA    X'1000000'
1606   01 005B8   01000000 A            DATA    X'1000000'
1607   01 005B9   01000000 A            DATA    X'1000000'
1608   01 005BA   FFFFFFF8 A  LW29      DATA    -8
1609   01 005BB   32C00460              LW,12   MEMORY
1610   01 005BC   10000136              K       1,0,0,SETPSW
1611   01 005BD   20000166              K       2,0,0,L0C+2
1612   01 005BE   00000000 A            DATA    0
1613   01 005BF   02000000 A            DATA    X'2000000'
1614   01 005C0   02000000 A            DATA    X'2000000'
1615   01 005C1   02000000 A            DATA    X'2000000'
1616   01 005C2   FFFFFFF8 A  LW30      DATA    -8
1617   01 005C3   32C00460              LW,12   MEMORY
1618   01 005C4   10000136              K       1,0,0,SETPSW
1619   01 005C5   20000166              K       2,0,0,L0C+2
1620   01 005C6   00000000 A            DATA    0
1621   01 005C7   04000000 A            DATA    X'4000000'
1622   01 005C8   04000000 A            DATA    X'4000000'
1623   01 005C9   04000000 A            DATA    X'4000000'
1624   01 005CA   FFFFFFF8 A  LW31      DATA    -8
1625   01 005CB   32C00460              LW,12   MEMORY
1626   01 005CC   10000136              K       1,0,0,SETPSW
1627   01 005CD   20000166              K       2,0,0,L0C+2
1628   01 005CE   00000000 A            DATA    0
1629   01 005CF   08000000 A            DATA    X'8000000',X'8000000',X'8000000'
       01 005D0   08000000 A
       01 005D1   08000000 A
1630                                    PAGE
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1631   01 005D2   FFFFFFF8 A  LW32      DATA    -8
1632   01 005D3   32C00460              LW,12   MEMORY
1633   01 005D4   10000136              K       1,0,0,SETPSW
1634   01 005D5   20000166              K       2,0,0,L0C+2
1635   01 005D6   00000000 A            DATA    0
1636   01 005D7   10000000 A            DATA    X'10000000',X'10000000',X'10000000'
       01 005D8   10000000 A
       01 005D9   10000000 A
1637   01 005DA   FFFFFFF8 A  LW33      DATA    -8
1638   01 005DB   32C00460              LW,12   MEMORY
1639   01 005DC   10000136              K       1,0,0,SETPSW
1640   01 005DD   20000166              K       2,0,0,L0C+2
1641   01 005DE   00000000 A            DATA    0
1642   01 005DF   20000000 A            DATA    X'20000000',X'20000000',X'20000000'
       01 005E0   20000000 A
       01 005E1   20000000 A
1643   01 005E2   FFFFFFF8 A  LW34      DATA    -8
1644   01 005E3   32C00460              LW,12   MEMORY
1645   01 005E4   10000136              K       1,0,0,SETPSW
1646   01 005E5   20000166              K       2,0,0,L0C+2
1647   01 005E6   00000000 A            DATA    0
1648   01 005E7   40000000 A            DATA    X'40000000',X'40000000',X'40000000'
       01 005E8   40000000 A
       01 005E9   40000000 A
1649                                    ** TEST THAT BIT0 WILL INHIBIT SGTZ
1650   01 005EA   FFFFFFF8 A  LW35      DATA    -8
1651   01 005EB   32C00460              LW,12   MEMORY
1652   01 005EC   30000136              K       3,0,0,SETPSW
1653   01 005ED   10000166              K       1,0,0,L0C+2
1654   01 005EE   00000000 A            DATA    0
1655   01 005EF   80000000 A            DATA    X'80000000'
1656   01 005F0   80000000 A            DATA    X'80000000'
1657   01 005F1   80000000 A            DATA    X'80000000'
1658                                    PAGE
1659                                ** CONDITION CODE SETTINGS FOR 'BR'
1660                                **  CC3  CC4   RESULT IN R
1661                                **   0    0      ZERO
```

```
                                        **   0    1     NEGATIVE
                                        **   1    0     POSITIVE
01 005F2    FFFFFFFC A    OR01    DATA     -4                    OR 0:0. RESULT = 0
01 005F3    49C00460              OR,12    MEMORY
01 005F4    37300136              K        3,7,3,SETPSW
01 005F5    07300166              K        0,7,3,LOC+2
01 005F6    FFFFFFF8 A    OR02    DATA     -8                    OR A0:0A  RESULT =AA (EACH BYTE)
01 005F7    49C00460              OR,12    MEMORY
01 005F8    07300136              K        0,7,3,SETPSW
01 005F9    17300166              K        1,7,3,LOC+2
01 005FA    A0A0A0A0 A            DATA     X'A0A0A0A0'
01 005FB    AAAAAAAA A            DATA     X'AAAAAAAA'
01 005FC    0A0A0A0A A            DATA     X'0A0A0A0A'
01 005FD    0A0A0A0A A            DATA     X'0A0A0A0A'
01 005FE    FFFFFFF8 A    OR03    DATA     -8                    OR 0A:A0. RESULT = AA (EACH BYTE)
01 005FF    49C00460              OR,12    MEMORY
01 00600    F7300136              K        15,7,3,SETPSW
01 00601    07300166              K        13,7,3,LOC+2
01 00602    0A0A0A0A A            DATA     X'0A0A0A0A'
01 00603    AAAAAAAA A            DATA     X'AAAAAAAA'
01 00604    A0A0A0A0 A            DATA     X'A0A0A0A0'
01 00605    A0A0A0A0 A            DATA     X'A0A0A0A0'
                                  PAGE
01 00606    FFFFFFF8 A    OR04    DATA     -8                    OR 05:50. RESULT = 55 (EACH BYTE)
01 00607    49C00460              OR,12    MEMORY
01 00608    07300136              K        0,7,3,SETPSW
01 00609    27300166              K        2,7,3,LOC+2
01 0060A    05050505 A            DATA     X'05050505'
01 0060B    55555555 A            DATA     X'55555555'
01 0060C    50505050 A            DATA     X'50505050'
01 0060D    50505050 A            DATA     X'50505050'
01 0060E    FFFFFFF8 A    OR05    DATA     -8                    OR 50:05. RESULT = 55 (EACH BYTE)
01 0060F    49C00460              OR,12    MEMORY
01 00610    17300136              K        1,7,3,SETPSW
01 00611    27300166              K        2,7,3,LOC+2
01 00612    50505050 A            DATA     X'50505050'
01 00613    55555555 A            DATA     X'55555555'
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01 00614    05050505 A            DATA     X'05050505'
01 00615    05050505 A            DATA     X'05050505'
01 00616    FFFFFFF8 A    OR06    DATA     -8                    OR FF:FF. RESULT = FF (EACH BYTE)
01 00617    49C00460              OR,12    MEMORY
01 00618    27300136              K        2,7,3,SETPSW
01 00619    17300166              K        1,7,3,LOC+2
01 0061A    FFFFFFFF A            DATA     -1
01 0061B    FFFFFFFF A            DATA     -1
01 0061C    FFFFFFFF A            DATA     -1
01 0061D    FFFFFFFF A            DATA     -1
                                  PAGE
01 0061E    FFFFFFF8 A    STW01   DATA     -8                    STORE  -1
01 0061F    35C00460              STW,12   MEMORY
01 00620    07300136              K        0,7,3,SETPSW
01 00621    07300166              K        0,7,3,LOC+2
01 00622    FFFFFFFF A            DATA     -1
01 00623    FFFFFFFF A            DATA     -1
01 00624    00000000 A            DATA     0
01 00625    FFFFFFFF A            DATA     -1
01 00626    FFFFFFF8 A    STW02   DATA     -8                    STORE 0
01 00627    35C00460              STW,12   MEMORY
01 00628    F7300136              K        F,7,3,SETPSW
01 00629    F7300166              K        F,7,3,LOC+2
01 0062A    00000000 A            DATA     0
01 0062B    00000000 A            DATA     0
01 0062C    FFFFFFFF A            DATA     -1
01 0062D    00000000 A            DATA     0
                                  PAGE
                        ** CONDITION CODE SETTINGS FOR AND  INSTRUCTION
                        **   CC3  CC4  RESULT IN R
                        **    0    0      ZERO
                        **    0    1      NEGATIVE
                        **    1    0      POSITIVE
01 0062E    FFFFFFFC A    AND01   DATA     -4                    AND 0:0 RESULT = 0
01 0062F    49C00460              AND,12   MEMORY
01 00630    F7300136              K        15,7,3,SETPSW
01 00631    C7300166              K        12,7,3,LOC+2
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     1736   01 00632    FFFFFFF8 A   ANDO2    DATA     -8                AND C:A. RESULT = 8 (EACH HEX CHAR)
     1737   01 00633    48C00460               AND,12   MEMORY
     1738   01 00634    77300136               K        7,7,3,SETPSW
     1739   01 00635    57300166               K        5,7,3,L0C+2
     1740   01 00636    CCCCCCCC A             DATA     X'CCCCCCCC'
     1741   01 00637    88888888 A             DATA     X'88888888'
     1742   01 00638    AAAAAAAA A             DATA     X'AAAAAAAA'
     1743   01 00639    AAAAAAAA A             DATA     X'AAAAAAAA'
     1744   01 0063A    FFFFFFF8 A   ANDO3    DATA     -8                AND 9:5. RESULT = 1 (EACH HEX CHAR)
     1745   01 0063B    48C00460               AND,12   MEMORY
     1746   01 0063C    07300136               K        0,7,3,SETPSW
     1747   01 0063D    27300166               K        2,7,3,L0C+2
     1748   01 0063E    99999999 A             DATA     X'99999999'
     1749   01 0063F    11111111 A             DATA     X'11111111'
     1750   01 00640    55555555 A             DATA     X'55555555'
     1751   01 00641    55555555 A             DATA     X'55555555'
     1752                                      PAGE
     1753   01 00642    FFFFFFF8 A   ANDO4    DATA     -8                AND 3:A. RESULT = 2 (EACH HEX CHAR)
     1754   01 00643    48C00460               AND,12   MEMORY
     1755   01 00644    37300136               K        3,7,3,SETPSW
     1756   01 00645    27300166               K        2,7,3,L0C+2
     1757   01 00646    33333333 A             DATA     X'33333333'
     1758   01 00647    22222222 A             DATA     X'22222222'
     1759   01 00648    AAAAAAAA A             DATA     X'AAAAAAAA'
     1760   01 00649    AAAAAAAA A             DATA     X'AAAAAAAA'
     1761   01 0064A    FFFFFFF8 A   ANDO5    DATA     -8                AND 6:5. RESULT = 4 (EACH HEX CHAR)
     1762   01 0064B    48C00460               AND,12   MEMORY
     1763   01 0064C    F7300136               K        15,7,3,SETPSW
     1764   01 0064D    E7300166               K        14,7,3,L0C+2
     1765   01 0064E    66666666 A             DATA     X'66666666'
     1766   01 0064F    44444444 A             DATA     X'44444444'
     1767   01 00650    55555555 A             DATA     X'55555555'
     1768   01 00651    55555555 A             DATA     X'55555555'
     1769   01 00652    FFFFFFFA A   ANDO6    DATA     -6                AND C(R) WITH ITSELF. C(R) UNCHANGED
     1770   01 00653    48C0000C A             AND,12   12
     1771   01 00654    73300136               K        7,3,3,SETPSW
     1772   01 00655    53300166               K        5,3,3,L0C+2
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     1773   01 00656    84214812 A             DATA     X'84214812'
     1774   01 00657    84214812 A             DATA     X'84214812'
     1775                                      PAGE
     1776                          ** CONDITION CODE SETTINGS FOR EOR
     1777                          **  CC3   CC4  RESULT IN R
     1778                          **   0     0     ZERO
     1779                          **   0     1     NEGATIVE
     1780                          **   1     0     POSITIVE
     1781   01 00658    FFFFFFF8 A   EORO1    DATA     -8                EOR C:9. RESULT = 5 (EACH HEX CHAR)
     1782   01 00659    48C00460               EOR,12   MEMORY
     1783   01 0065A    B7300136               K        11,7,3,SETPSW
     1784   01 0065B    A7300166               K        10,7,3,L0C+2
     1785   01 0065C    CCCCCCCC A             DATA     X'CCCCCCCC'
     1786   01 0065D    55555555 A             DATA     X'55555555'
     1787   01 0065E    99999999 A             DATA     X'99999999'
     1788   01 0065F    99999999 A             DATA     X'99999999'
     1789   01 00660    FFFFFFF8 A   EOR02    DATA     -8                EOR 9:7. RESULT = E (EACH HEX CHAR)
     1790   01 00661    48C00460               EOR,12   MEMORY
     1791   01 00662    B7300136               K        11,7,3,SETPSW
     1792   01 00663    97300166               K        9,7,3,L0C+2
     1793   01 00664    99999999 A             DATA     X'99999999'
     1794   01 00665    EEEEEEEE A             DATA     X'EEEEEEEE'
     1795   01 00666    77777777 A             DATA     X'77777777'
     1796   01 00667    77777777 A             DATA     X'77777777'
     1797                                      PAGE
     1798   01 00668    FFFFFFF8 A   EOR03    DATA     -8                EOR 3:A. RESULT = 9 (EACH HEX CHAR)
     1799   01 00669    48C00460               EOR,12   MEMORY
     1800   01 0066A    37300136               K        3,7,3,SETPSW
     1801   01 0066B    17300166               K        1,7,3,L0C+2
     1802   01 0066C    33333333 A             DATA     X'33333333'
     1803   01 0066D    99999999 A             DATA     X'99999999'
     1804   01 0066E    AAAAAAAA A             DATA     X'AAAAAAAA'
     1805   01 0066F    AAAAAAAA A             DATA     X'AAAAAAAA'
     1806   01 00670    FFFFFFF8 A   EOR04    DATA     -8                EOR 6:4. RESULT = 2 (EACH HEX CHAR)
     1807   01 00671    48C00460               EOR,12   MEMORY
     1808   01 00672    17300136               K        1,7,3,SETPSW
     1809   01 00673    27300166               K        2,7,3,L0C+2
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1810  01 00674  66666666 A            DATA    X'66666666'
1811  01 00675  22222222 A            DATA    X'22222222'
1812  01 00676  44444444 A            DATA    X'44444444'
1813  01 00677  44444444 A            DATA    X'44444444'
1814                                  PAGE
1815                          ** RP SHOULD NOT CHANGE, INTERRUPT INHIBITS SHOULD REMAIN SET
1816  01 00678  FFFFFFEE A   FAPSD01  DATA    -18
1817  01 00679  0F000452             XPSD,0  TABLE+14
1818  01 0067A  F7300136             K       15,7,3,SETPSW       PSW1 IN
1819  01 0067B  00000166             K       0,0,0,L0C+2         PSW1 OUT
1820  01 0067C  00000000 A           DATA    0
1821  01 0067D  00000000 A           DATA    0
1822  01 0067E  00000000 A           DATA    0
1823  01 0067F  00000000 A           DATA    0
1824  01 00680  00000000 A           DATA    0
1825  01 00681  00000000 A           DATA    0
1826  01 00682  00000000 A           DATA    0
1827  01 00683  00000000 A           DATA    0
1828  01 00684  07000000 A           DATA    X'7000000'          PSW2 IN
1829  01 00685  07000000 A           DATA    X'7000000'          PSW2 OUT
1830  01 00686  00000000 A           DATA    0                   TABLE+14
1831  01 00687  00000000 A           DATA    0                   TABLE+15
1832  01 00688  00000165             K       0,0,0,L0C+1         TABLE+16  LOADED INTO PSW1 BY XPSD
1833  01 00689  000000F0 A           DATA    X'F0'               TABLE+17
1834                                  PAGE
1835                          ** CHANGE RP AND INTERRUPT INHIBITS
1836  01 0068A  FFFFFFF2 A   FAPSD02  DATA    -14
1837  01 0068B  0E800460             LPSD,8  MEMORY
1838  01 0068C  30000136             K       3,0,0,SETPSW        PSW1 IN
1839  01 0068D  C7300166             K       12,7,3,L0C+2        PSW1 OUT
1840  01 0068E  00000000 A           DATA    0
1841  01 0068F  00000000 A           DATA    0
1842  01 00690  C7300165             K       12,7,3,L0C+1        MEMORY: LOADED INTO PSW1 BY LPSD
1843  01 00691  C7300165             K       12,7,3,L0C+1
1844  01 00692  00000000 A           DATA    0
1845  01 00693  00000000 A           DATA    0
1846  01 00694  020000A0 A           DATA    X'020000A0'         MEMORY+1 : LOADED INTO PSW2 BY LPSD
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1847  01 00695  020000A0 A           DATA    X'020000A0'
1848  01 00696  05000000 A           DATA    X'05000000'         PSW2 IN
1849  01 00697  020000A0 A           DATA    X'020000A0'         PSW2 OUT
1850                          ** CHANGE RP AND INTERRUPT INHIBITS
1851  01 00698  FFFFFFF2 A   FAPSD03  DATA    -14
1852  01 00699  0E800460             LPSD,8  MEMORY
1853  01 0069A  C5100136             K       12,5,1,SETPSW
1854  01 0069B  32200166             K       3,2,2,L0C+2
1855  01 0069C  00000000 A           DATA    0
1856  01 0069D  00000000 A           DATA    0
1857  01 0069E  32200165             K       3,2,2,L0C+1         LOADED INTO PSW1 BY LPSD
1858  01 0069F  32200165             K       3,2,2,L0C+1
1859  01 006A0  00000000 A           DATA    0
1860  01 006A1  00000000 A           DATA    0
1861  01 006A2  05000050 A           DATA    X'5000050'          LOADED INTO PSW2 BY LPSD
1862  01 006A3  05000050 A           DATA    X'5000050'
1863  01 006A4  020000A0 A           DATA    X'20000A0'          PSW2 IN
1864  01 006A5  05000050 A           DATA    X'5000050'          PSW2 OUT
1865                                  PAGE
1866                          ** LOAD FIVE INTO RP
1867  01 006A6  FFFFFFF2 A   LRP01    DATA    -14
1868  01 006A7  2F000460             LRP     MEMORY
1869  01 006A8  00000136             K       0,0,0,SETPSW
1870  01 006A9  00000166             K       0,0,0,L0C+2
1871  01 006AA  00000000 A           DATA    0
1872  01 006AB  00000000 A           DATA    0
1873  01 006AC  00000050 A           DATA    X'50'
1874  01 006AD  00000050 A           DATA    X'50'
1875  01 006AE  00000000 A           DATA    0
1876  01 006AF  00000000 A           DATA    0
1877  01 006B0  00000000 A           DATA    0
1878  01 006B1  00000000 A           DATA    0
1879  01 006B2  000000A0 A           DATA    X'A0'               PSW2 IN
1880  01 006B3  00000050 A           DATA    X'50'               PSW2 OUT
1881                          ** LOAD A INTO REG POINTER FROM REG
1882  01 006B4  FFFFFFF2 A   LRP02    DATA    -14
1883  01 006B5  2F00000C A           LRP     12
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1884  01 006B6  F7300136          K       15,7,3,SETPSW
1885  01 006B7  F7300166          K       15,7,3,L0C+2
1886  01 006B8  000000A0 A        DATA    X'A0'
1887  01 006B9  000000A0 A        DATA    X'A0'
1888  01 006BA  00000000 A        DATA    0
1889  01 006BB  00000000 A        DATA    0
1890  01 006BC  00000000 A        DATA    0
1891  01 006BD  00000000 A        DATA    0
1892  01 006BE  00000000 A        DATA    0
1893  01 006BF  00000000 A        DATA    0
1894  01 006C0  00000050 A        DATA    X'50'          PSW2 IN
1895  01 006C1  000000A0 A        DATA    X'A0'          PSW2 OUT
1896                              PAGE
1897                           ** INSURE THAT (R.CC) IS FALSE WHEN R28-31 ARE ONES AND CC1-4 ARE ZEROES
1898  01 006C2  FFFFFFF8 A  BCR01 DATA    -8             BRANCH  R FIELD=F  CC=0
1899  01 006C3  68F00460          BCR,15  MEMORY
1900  01 006C4  07300136          K       0,7,3,SETPSW
1901  01 006C5  07300461          K       0,7,3,MEMORY+1
1902  01 006C6  00000000 A        DATA    0
1903  01 006C7  00000000 A        DATA    0
1904  01 006C8  0F000464          XPSD,0  RETURN
1905  01 006C9  0F000464          XPSD,0  RETURN
1906                           ** INSURE THAT (R.CC) IS FALSE WHEN R28-31 ARE ZEROES AND CC1-4 ARE ONES
1907  01 006CA  FFFFFFFA A  BCR02 DATA    -6             BRANCH  R FIELD=0  CC=F
1908  01 006CB  68000000C A       BCR,0   12
1909  01 006CC  F0000136          K       15,0,0,SETPSW
1910  01 006CD  F000000D A        K       15,0,0,13
1911  01 006CE  0F000464          XPSD,0  RETURN
1912  01 006CF  0F000464          XPSD,0  RETURN
1913                           * CHECK (R.CC)= R28.CC1
1914  01 006D0  FFFFFFFC A  BCR03 DATA    -4             NBRANCH  R=CC= 8
1915  01 006D1  68800047          BCR,8   BRANCH
1916  01 006D2  80000136          K       8,0,0,SETPSW
1917  01 006D3  80000166          K       8,0,0,L0C+2
1918                              PAGE
1919                           * CHECK (R.CC)= R29.CC2
1920  01 006D4  FFFFFFFC A  BCR04 DATA    -4             NBRANCH  R=CC= 4
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1921  01 006D5  68400047          BCR,4   BRANCH
1922  01 006D6  40000136          K       4,0,0,SETPSW
1923  01 006D7  40000166          K       4,0,0,L0C+2
1924                           * CHECK (R.CC)= R30.CC3
1925  01 006D8  FFFFFFFC A  BCR05 DATA    -4             NBRANCH  R=CC= 2
1926  01 006D9  68200047          BCR,2   BRANCH
1927  01 006DA  20000136          K       2,0,0,SETPSW
1928  01 006DB  20000166          K       2,0,0,L0C+2
1929                           * CHECK (R.CC)= R31.CC4
1930  01 006DC  FFFFFFFC A  BCR06 DATA    -4             NBRANCH  R=CC= 1
1931  01 006DD  68100047          BCR,1   BRANCH
1932  01 006DE  10000136          K       1,0,0,SETPSW
1933  01 006DF  10000166          K       1,0,0,L0C+2
1934                              PAGE
1935                           ** CHECK THAT CC3 0R 4 IS N0T SH0RTED T0 CC1 0R 2 ALS0
1936                           ** CHECK THAT R28 0R 29 IS N0T SH0RTED T0 R30 0R 31
1937  01 006E0  FFFFFFFC A  BCS01 DATA    -4             N BRANCH  R FIELD = C  CC= 3
1938  01 006E1  69C00047          BCS,12  BRANCH
1939  01 006E2  30000136          K       3,0,0,SETPSW
1940  01 006E3  30000166          K       3,0,0,L0C+2
1941                           ** CHECK THAT CC2 0R 4 IS N0T SH0RTED T0 CC1 0R 3 ALS0
1942                           ** CHECK THAT R28 0R 30 IS N0T SH0RTED T0 R29 0R 31
1943  01 006E4  FFFFFFFC A  BCS02 DATA    -4             NBRANCH  R FIELD = A  CC= 5
1944  01 006E5  69A00047          BCS,10  BRANCH
1945  01 006E6  50000136          K       5,0,0,SETPSW
1946  01 006E7  50000166          K       5,0,0,L0C+2
1947                           ** CHECK THAT A BRANCH C0NDITI0N WILL 0CCUR
1948  01 006E8  FFFFFFF8 A  BCS03 DATA    -8
1949  01 006E9  69800460          BCS,8   MEMORY
1950  01 006EA  80000136          K       8,0,0,SETPSW
1951  01 006EB  80000461          K       8,0,0,MEMORY+1
1952  01 006EC  00000000 A        DATA    0
1953  01 006ED  00000000 A        DATA    0
1954  01 006EE  0F000464          XPSD,0  RETURN
1955  01 006EF  0F000464          XPSD,0  RETURN
1956                              PAGE
1957                           *
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```
                                 *                         PRI=PROPAGATE THRU ITH BIT POSITION
                                 *                         GI = GENERATE FROM THE ITH BIT
                                 *                         KI =CARRY INTO THE ITH BIT
                                 *                         I = BIT POSITIONS 0 THRU 31
                                 *                         J=0,4,8,12,16,20,24,28
                                 *                         K=1,5,9,13,17,21,25,29
                                 *                         L=2,6,10,14,18,22,26,30
                                 *                         M=3,7,11,15,19,23,27,31(31 OPTIONAL)
                                 *
01 006F0   FFFFFFFC A   AW01     DATA    -4                AW      KI=0,GI=0,PRI=0,AI=0,DI=0
01 006F1   30C00460              AW,12   MEMORY
01 006F2   F7200136              K       15,7,2,SETPSW
01 006F3   07200166              K       0,7,2,LOC+2
01 006F4   FFFFFFF8 A   AW02     DATA    -8                AW *    KI=0,GI=0,PRI=1,AI=1,DI=0
01 006F5   80C0045A              AW,12   *IA
01 006F6   E7200136              K       14,7,2,SETPSW
01 006F7   17200166              K       1,7,2,LOC+2
01 006F8   FFFFFFFF A            DATA    -1
01 006F9   FFFFFFFF A            DATA    -1
01 006FA   00000000 A            DATA    0
01 006FB   00000000 A            DATA    0
01 006FC   FFFFFFF8 A   AW03     DATA    -8                AW      KI=0,GI=0,PRI=1,AI=0,DI=1
01 006FD   30C00460              AW,12   MEMORY
01 006FE   07200136              K       0,7,2,SETPSW
01 006FF   17200166              K       1,7,2,LOC+2
01 00700   00000000 A            DATA    0
01 00701   FFFFFFFF A            DATA    -1
01 00702   FFFFFFFF A            DATA    -1
01 00703   FFFFFFFF A            DATA    -1
                                 PAGE
                        ** AW04 TESTS! K(EVEN BIT POSITION) = G(ODD BIT POSITION)
                        **  EXAMPLE   K04= G05
01 00704   FFFFFFF8 A   AW04     DATA    -8                AW  X  KJ=1 GJ=0,PRI=0
01 00705   30C2AF08              AW,12   MEMORY-X'15555',1 KK=0,GK=1
01 00706   97200136              K       9,7,2,SETPSW      KL=1,GL=0
01 00707   57200166              K       5,7,2,LOC+2       KM=0,GM=1
01 00708   55555555 A            DATA    X'55555555'
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01 00709   AAAAAAAA A            DATA    X'AAAAAAAA'
01 0070A   55555555 A            DATA    X'55555555'
01 0070B   55555555 A            DATA    X'55555555'
                        ** AW05 TESTS THE FOLLOWING TERMS! G0003= G00, G0407= G04, G0811 = G08
                        ** G12-15 = G12, G1619= G16, G2023= G20, G2427=G24, G2831=G28, K00=G003
                        ** K03= G0407, K07= G0811, K11= G1215, K15=G1619, K19=G2023, K23=G2427
                        ** K27= G2831,
                        ** K01, 05, 09, 13, 17, 21, 25, 29, (EQUALS GEN TERM ON NEXT LINE)
                        ** G02, 06, 10, 14, 18, 22, 26, 30
01 0070C   FFFFFFF8 A   AW05     DATA    -8                AW      KJ=0,GJ=1,PRI=0
01 0070D   30C00460              AW,12   MEMORY            KK=1,GK=0
01 0070E   172001C2              K       1,7,2,FXPOSW      KL=0,GL=1
01 0070F   E7200166              K       14,7,2,LOC+2      KM=1,GM=0
01 00710   AAAAAAAA A            DATA    X'AAAAAAAA'
01 00711   55555554 A            DATA    X'55555554'
01 00712   AAAAAAAA A            DATA    X'AAAAAAAA'
01 00713   AAAAAAAA A            DATA    X'AAAAAAAA'
                                 PAGE
                        ** AW06 TESTS! G2831= G31+PR28+PR29+PR30, K00= PR00-PR15+K15
                        ** K03= PR04-PR15+K15, K07= PR08-PR15+K15, K11= PR1215+K15
                        ** K15= PR16-27+G2831, K19= PR20-27+G2831, K23= PR2427+G2831
                        ** K04=PR05.PR06.PR07+K07, K05= PR06.PR07+K07, K06= PR07+K07
                        ** K08= PR09+PR10+PR11+K11, K09= PR10+PR11+K11, K10= PR11+K11
                        ** K12= PR13,PR14+PR15+K15, K13= PR14+PR15+K15, K14= PR15+K15
                        ** K18= PR19+K19
                        ** K20= PR21,PR22,PR23,K23, K21= PR22,PR23,K23, K22= PR23,K23
                        ** K24= PR25+PR26+PR27+K27, K25= PR26+PR27+K27, K26= PR27+K27
                        ** K28= PR29,PR30+G31, K29= PR30,G31
01 00714   FFFFFFF8 A   AW06     DATA    -8                AW      KI=1,GI=0,PRI=1(EXCEPT I=31)
01 00715   30C00460              AW,12   MEMORY
01 00716   772001C2              K       7,7,2,FXPOSW
01 00717   87200166              K       8,7,2,LOC+2
01 00718   FFFFFFFF A            DATA    -1
01 00719   00000000 A            DATA    0
01 0071A   00000001 A            DATA    1
01 0071B   00000001 A            DATA    1
01 0071C   FFFFFFF8 A   AW07     DATA    -8                AW      KI=1,GI=0,PRI=1(EXCEPT I=31)
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2032  01 0071D  30C00460          AW,12   MEMORY
2033  01 0071E  072001C2          K       0,7,2,FXPOSW
2034  01 0071F  87200166          K       8,7,2,LOC+2
2035  01 00720  00000001 A        DATA    1
2036  01 00721  00000000 A        DATA    0
2037  01 00722  FFFFFFFF A        DATA    -1
2038  01 00723  FFFFFFFF A        DATA    -1
2039                              PAGE
2040  01 00724  FFFFFFF8 A  AW08  DATA    -8              AW    KI=1,GI=1,PRI=0(K31=0)
2041  01 00725  30C00460          AW,12   MEMORY
2042  01 00726  072001C2          K       0,7,2,FXPOSW
2043  01 00727  97200166          K       9,7,2,LOC+2
2044  01 00728  FFFFFFFF A        DATA    -1
2045  01 00729  FFFFFFFE A        DATA    -2
2046  01 0072A  FFFFFFFF A        DATA    -1
2047  01 0072B  FFFFFFFF A        DATA    -1
2048  01 0072C  FFFFFFF8 A  AW09  DATA    -8              AW    KI=0,GI=0,PRI=1
2049  01 0072D  30C00460          AW,12   MEMORY
2050  01 0072E  972001C2          K       9,7,2,FXPOSW
2051  01 0072F  17200166          K       1,7,2,LOC+2
2052  01 00730  AAAAAAAA A        DATA    X'AAAAAAAA'
2053  01 00731  FFFFFFFF A        DATA    -1
2054  01 00732  55555555 A        DATA    X'55555555'
2055  01 00733  55555555 A        DATA    X'55555555'
2056  01 00734  FFFFFFF8 A  AW10  DATA    -8              AW    KJ=0,GJ=0,PRI=0
2057  01 00735  30C00460          AW,12   MEMORY          KK=1,GK=0
2058  01 00736  072001C2          K       0,7,2,FXPOSW    KL=0,GL=1,
2059  01 00737  27200166          K       2,7,2,LOC+2     KM=0,GM=0,
2060  01 00738  22222222 A        DATA    X'22222222'
2061  01 00739  44444444 A        DATA    X'44444444'
2062  01 0073A  22222222 A        DATA    X'22222222'
2063  01 0073B  22222222 A        DATA    X'22222222'
2064  01 0073C  FFFFFFF8 A  AW11  DATA    -8              AW    KI=0,GJ=1,PRJ=0
2065  01 0073D  30C00460          AW,12   MEMORY          KK=1,GK=0,PRK=0
2066  01 0073E  F72001C2          K       15,7,2,FXPOSW   KL=1,GL=0,PRL=1
2067  01 0073F  E7200166          K       14,7,2,LOC+2    KM=1,GM=0,PRM=1
2068  01 00740  BBBBBBBB A        DATA    X'BBBBBBBB'
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2069  01 00741  44444443 A        DATA    X'44444443'
2070  01 00742  88888888 A        DATA    X'88888888'
2071  01 00743  88888888 A        DATA    X'88888888'
2072                              PAGE
2073  01 00744  FFFFFFF8 A  AW12  DATA    -8              AW    KI=0,GJ=1,PRK=0
2074  01 00745  30C00460          AW,12   MEMORY          KK=0,GK=0,PRK=1
2075  01 00746  072001C2          K       0,7,2,FXPOSW    KL=1,GL=0,PRK=0
2076  01 00747  E7200166          K       14,7,2,LOC+2    KM=1,GM=0,PRK=1
2077  01 00748  DDDDDDDD A        DATA    X'DDDDDDDD'
2078  01 00749  66666665 A        DATA    X'66666665'
2079  01 0074A  88888888 A        DATA    X'88888888'
2080  01 0074B  88888888 A        DATA    X'88888888'
2081  01 0074C  FFFFFFF8 A  AW13  DATA    -8              AW    KJ=0,GJ=1,PRJ=0
2082  01 0074D  30C00460          AW,12   MEMORY          KK=0,GK=0,PRK=1
2083  01 0074E  F72001C2          K       15,7,2,FXPOSW   KL=0,GL=0,PRL=1
2084  01 0074F  E7200166          K       14,7,2,LOC+2    KM=1,GM=0,PRM=0
2085  01 00750  CCCCCCCC A        DATA    X'CCCCCCCC'
2086  01 00751  77777776 A        DATA    X'77777776'
2087  01 00752  AAAAAAAA A        DATA    X'AAAAAAAA'
2088  01 00753  AAAAAAAA A        DATA    X'AAAAAAAA'
2089  01 00754  FFFFFFF8 A  AW14  DATA    -8              AW    KI=0,GI=0,PRJ=0
2090  01 00755  30C00460          AW,12   MEMORY          PRK=1
2091  01 00756  772001C2          K       7,7,2,FXPOSW    PRK=1
2092  01 00757  27200166          K       2,7,2,LOC+2     PRK=1
2093  01 00758  22222222 A        DATA    X'22222222'
2094  01 00759  77777777 A        DATA    X'77777777'
2095  01 0075A  55555555 A        DATA    X'55555555'
2096  01 0075B  55555555 A        DATA    X'55555555'
2097  01 0075C  FFFFFFF8 A  AW15  DATA    -8              AW    KJ=0,GJ=0,PRJ=0
2098  01 0075D  30C00460          AW,12   MEMORY          KK=1,GK=0,PRK=0
2099  01 0075E  772001C2          K       7,7,2,FXPOSW    KL=1,GL=0,PRL=1
2100  01 0075F  27200166          K       2,7,2,LOC+2     KM=0,GM=1,PRM=0
2101  01 00760  33333333 A        DATA    X'33333333'
2102  01 00761  44444444 A        DATA    X'44444444'
2103  01 00762  11111111 A        DATA    X'11111111'
2104  01 00763  11111111 A        DATA    X'11111111'
2105                              PAGE
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2106  01 00764  FFFFFFF8 A  AW16  DATA   -8                    AW   KJ=0,3J=0,PRJ=0
2107  01 00765  30C00460          AW,I2  MEMORY                KK=0,GK=0,PRK=1
2108  01 00766  072001C2          K      0,7,2,FXPOSW           KL=1,GL=0,PRL=0
2109  01 00767  27200166          K      2,7,2,LOC+2            KM=0,GM=1,PRM=0
2110  01 00768  11111111 A        DATA   X'11111111'
2111  01 00769  66666666 A        DATA   X'66666666'
2112  01 0076A  55555555 A        DATA   X'55555555'
2113  01 0076B  55555555 A        DATA   X'55555555'
2114  01 0076C  FFFFFFF8 A  AW17  DATA   -8                    AW   KI=1,3J=1,PRJ=0 (K31=0)
2115  01 0076D  30C00460          AW,I2  MEMORY                GK=0 PRK=1
2116  01 0076E  772001C2          K      7,7,2,FXPOSW           GL=0,PRL=1
2117  01 0076F  97200166          K      9,7,2,LOC+2            GM=0,PRM=1
2118  01 00770  DDDDDDDD A        DATA   X'DDDDDDDD'
2119  01 00771  88888887 A        DATA   X'88888887'
2120  01 00772  AAAAAAAA A        DATA   X'AAAAAAAA'
2121  01 00773  AAAAAAAA A        DATA   X'AAAAAAAA'
2122  01 00774  FFFFFFF8 A  AW18  DATA   -8                    AW   KJ=1,3J=0,PRJ=0
2123  01 00775  30C00460          AW,I2  MEMORY                KK=1,GK=0,PRK=1
2124  01 00776  F72001C2          K      15,7,2,FXPOSW          KL=1,GL=0,PRL=1
2125  01 00777  57200166          K      5,7,2,LOC+2            KM=0,GM=1,PRM=1
2126  01 00778  55555555 A        DATA   X'55555555'
2127  01 00779  88888888 A        DATA   X'88888888'
2128  01 0077A  33333333 A        DATA   X'33333333'
2129  01 0077B  33333333 A        DATA   X'33333333'
2130  01 0077C  FFFFFFF8 A  AW19  DATA   -8                    AW   KJ=1,3J=0,PRJ=0
2131  01 0077D  30C00460          AW,I2  MEMORY                KK=1,GK=0,PK=01
2132  01 0077E  072001C2          K      0,7,2,FXPOSW           KL=0,GL=1,PL=00
2133  01 0077F  57200166          K      5,7,2,LOC+2            KM=0,GM=0,PM=00
2134  01 00780  66666666 A        DATA   X'66666666'
2135  01 00781  88888888 A        DATA   X'88888888'
2136  01 00782  22222222 A        DATA   X'22222222'
2137  01 00783  22222222 A        DATA   X'22222222'
2138                              PAGE
2139  01 00784  FFFFFFF8 A  AW20  DATA   -8                    AW   KI=1,3J=0,PRI=0
2140  01 00785  30C00460          AW,I2  MEMORY                KK=0,GK=1
2141  01 00786  272001C2          K      2,7,2,FXPOSW           KL=0,GL=0
2142  01 00787  57200166          K      5,7,2,LOC+2            KM=0,GM=0
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2143  01 00788  44444444 A        DATA   X'44444444'
2144  01 00789  88888888 A        DATA   X'88888888'
2145  01 0078A  44444444 A        DATA   X'44444444'
2146  01 0078B  44444444 A        DATA   X'44444444'
2147  01 0078C  FFFFFFF8 A  AW21  DATA   -8                    AW   KK=1,3M=1,PR5=1
2148  01 0078D  30C00460          AW,I2  MEMORY                KL=1    PRL=1
2149  01 0078E  072001C2          K      0,7,2,FXPOSW
2150  01 0078F  17200166          K      1,7,2,LOC+2
2151  01 00790  BBBBBBBB A        DATA   X'BBBBBBBB'
2152  01 00791  CCCCCCCC A        DATA   X'CCCCCCCC'
2153  01 00792  11111111 A        DATA   X'11111111'
2154  01 00793  11111111 A        DATA   X'11111111'
2155  01 00794  FFFFFFF8 A  AW22  DATA   -8                    AW   KL=1,3M=1,PRJ=1
2156  01 00795  30C00460          AW,I2  MEMORY                PRK=1
2157  01 00796  072001C2          K      0,7,2,FXPOSW
2158  01 00797  17200166          K      1,7,2,LOC+2
2159  01 00798  DDDDDDDD A        DATA   X'DDDDDDDD'
2160  01 00799  EEEEEEEE A        DATA   X'EEEEEEEE'
2161  01 0079A  11111111 A        DATA   X'11111111'
2162  01 0079B  11111111 A        DATA   X'11111111'
2163  01 0079C  FFFFFFF8 A  AW23  DATA   -8                    AW   KI=0,3I=0,PRJ=1
2164  01 0079D  30C00460          AW,I2  MEMORY                PRK=1
2165  01 0079E  072001C2          K      0,7,2,FXPOSW           PRL=1
2166  01 0079F  17200166          K      1,7,2,LOC+2
2167  01 007A0  88888888 A        DATA   X'88888888'
2168  01 007A1  EEEEEEEE A        DATA   X'EEEEEEEE'
2169  01 007A2  66666666 A        DATA   X'66666666'
2170  01 007A3  66666666 A        DATA   X'66666666'
2171                              PAGE
2172  01 007A4  FFFFFFF8 A  AW24  DATA   -8                    AW   KK=1,3L=1,PRJ=1
2173  01 007A5  30C00460          AW,I2  MEMORY
2174  01 007A6  072001C2          K      0,7,2,FXPOSW
2175  01 007A7  17200166          K      1,7,2,LOC+2
2176  01 007A8  AAAAAAAA A        DATA   X'AAAAAAAA'
2177  01 007A9  CCCCCCCC A        DATA   X'CCCCCCCC'
2178  01 007AA  22222222 A        DATA   X'22222222'
2179  01 007AB  22222222 A        DATA   X'22222222'
```

```
2180  01 007AC  FFFFFFF8 A  AW25   DATA    -8                AW    KI=0,GI=0,PRJ=1
2181  01 007AD  30C00460           AW,12   MEMORY            PRK=1
2182  01 007AE  072001C2           K       0,7,2,FXPOSW
2183  01 007AF  17200166           K       1,7,2,LOC+2
2184  01 007B0  88888888 A        DATA    X'88888888'
2185  01 007B1  CCCCCCCC A        DATA    X'CCCCCCCC'
2186  01 007B2  44444444 A        DATA    X'44444444'
2187  01 007B3  44444444 A        DATA    X'44444444'
2188                          ** AW26 TESTS: G1215= G14*PR12*PR13, G2831= G30*PR28*PR29
2189                          ** K00= PR00-11*G1215, K03=PR04-11*G1215, K07= PR0811*G1215
2190                          ** K0=  PR01*PR02*PR03*K03, K01= PR02*PR03*K03, K02= PR03*K03
2191                          ** K12= PR13*G14, K16= PR17*PR18*PR19*K19, K17= PR18*PR19*K19
2192                          ** K28= PR29*G30
2193  01 007B4  FFFFFFF8 A  AW26   DATA    -8                AW    KI=1(EXCEPT K14,K30,K31)
2194  01 007B5  30C00460           AW,12   MEMORY            TEST ALL CARRY(K) TERMS GATED
2195  01 007B6  072001C2           K       0,7,2,FXPOSW      BY G14 AND G30.
2196  01 007B7  A7200166           K       10,7,2,LOC+2
2197  01 007B8  FFFEFFFE A        DATA    X'FFFEFFFE'
2198  01 007B9  00010000 A        DATA    X'10000'
2199  01 007BA  00020002 A        DATA    X'20002'
2200  01 007BB  00020002 A        DATA    X'20002'
2201                              PAGE
2202                          ** AW27 TESTS: G1215= G13*PR12, G2831= G29*PR28
2203  01 007BC  FFFFFFF8 A  AW27   DATA    -8                AW    KI=1(EXCEPT K13,K29-K31)
2204  01 007BD  30C00460           AW,12   MEMORY            TEST ALL G13,G29 TERMS
2205  01 007BE  F72001C2           K       15,7,2,FXPOSW
2206  01 007BF  A7200166           K       10,7,2,LOC+2
2207  01 007C0  FFFDFFFC A        DATA    X'FFFDFFFC'
2208  01 007C1  00020000 A        DATA    X'20000'
2209  01 007C2  00040004 A        DATA    X'40004'
2210  01 007C3  00040004 A        DATA    X'40004'
2211                              PAGE
2212  01 007C4  FFFFFFF8 A  AW28   DATA    -8                AW    KI=1(EXCEPT K12,K28-K31)
2213  01 007C5  30C00460           AW,12   MEMORY            TEST G12,G28 TERMS
2214  01 007C6  F72001C2           K       15,7,2,FXPOSW
2215  01 007C7  A7200166           K       10,7,2,LOC+2
2216  01 007C8  FFF3FFF8 A        DATA    X'FFF3FFF8'
```



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2217  01 007C9  00040000 A        DATA    X'40000'
2218  01 007CA  00080008 A        DATA    X'80008'
2219  01 007CB  00080008 A        DATA    X'80008'
2220                          ** AW29 TESTS: G0811= G11*PR08*PR09*PR10, G2427= G27*PR24*PR25*PR26
2221                          ** K00= PR00-PR07*G0811, K03= PR0407*G0811, K15= PR16-23*G2427
2222                          ** K19= PR2023*G2427, K08= PR09*PR10*G11, K09= PR10*G11
2223                          ** K24= PR25*PR26*G27, K25= PR26*G27
2224  01 007CC  FFFFFFF8 A  AW29   DATA    -8                AW    29=1,(EXCEPT K11,K27-K31
2225  01 007CD  30C00460           AW,12   MEMORY            TEST G11,G27 TERMS
2226  01 007CE  F72001C2           K       15,7,2,FXPOSW
2227  01 007CF  A7200166           K       10,7,2,LOC+2
2228  01 007D0  FFF7FFF0 A        DATA    X'FFF7FFF0'
2229  01 007D1  00080000 A        DATA    X'80000'
2230  01 007D2  00100010 A        DATA    X'100010'
2231  01 007D3  00100010 A        DATA    X'100010'
2232                              PAGE
2233                          ** AW30 TESTS: G0811= G10*PR08*PR09, G2427= G24*PR24*PR25, K24=PR25*G26
2234  01 007D4  FFFFFFF8 A  AW30   DATA    -8                AW    KI=1(EXCEPT K10,K26-K31)
2235  01 007D5  30C00460           AW,12   MEMORY            TEST G10,G26
2236  01 007D6  F72001C2           K       15,7,2,FXPOSW
2237  01 007D7  A7200166           K       10,7,2,LOC+2
2238  01 007D8  FFEFFFE0 A        DATA    X'FFEFFFE0'
2239  01 007D9  00100000 A        DATA    X'100000'
2240  01 007DA  00200020 A        DATA    X'200020'
2241  01 007DB  00200020 A        DATA    X'200020'
2242                          ** AW31 TESTS: G0811= G09*PR08, G2427= G25*PR24
2243  01 007DC  FFFFFFF8 A  AW31   DATA    -8                AW    KI=1(EXCEPT K9,K25-K31)
2244  01 007DD  30C00460           AW,12   MEMORY            TEST G9,G25
2245  01 007DE  072001C2           K       0,7,2,FXPOSW
2246  01 007DF  A7200166           K       10,7,2,LOC+2
2247  01 007E0  FFDFFFC0 A        DATA    X'FFDFFFC0'
2248  01 007E1  00200000 A        DATA    X'200000'
2249  01 007E2  00400040 A        DATA    X'400040'
2250  01 007E3  00400040 A        DATA    X'400040'
2251                              PAGE
2252  01 007E4  FFFFFFF8 A  AW32   DATA    -8                AW    KI=1(EXCEPT K8,K24-K31)
2253  01 007E5  30C00460           AW,12   MEMORY            TEST G8,G24
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2254  01 007E6  F72001C2          K       15,7,2,FXPOSW
2255  01 007E7  A7200166          K       10,7,2,LOC+2
2256  01 007E8  FFBFFF80 A        DATA    X'FFBFFF80'
2257  01 007E9  00400000 A        DATA    X'400000'
2258  01 007EA  00800080 A        DATA    X'800080'
2259  01 007EB  00800080 A        DATA    X'800080'
2260                         ** AW33 TESTS: G0407= G07*PR04*PR05*PR06, G2023= G23*PR20*PR21*PR22
2261                         ** K00= PR0003,G0407, K15= PR1619,G2023, K4= PR05,PR06,G07, K5=PR06,G07
2262                         ** K20= PR21*PR22*323, K21= PR22*G23
2263  01 007EC  FFFFFFF8 A  AW33     DATA    -8              AW      KI=1(EXCEPT K7,K23-K31)
2264  01 007ED  30C00460           AW,12   MEMORY          TEST G7,323
2265  01 007EE  672001C2           K       6,7,2,FXPOSW
2266  01 007EF  A7200166           K       10,7,2,LOC+2
2267  01 007F0  FF7FFF00 A        DATA    X'FF7FFF00'
2268  01 007F1  00800000 A        DATA    X'800000'
2269  01 007F2  01000100 A        DATA    X'1000100'
2270  01 007F3  01000100 A        DATA    X'1000100'
2271                         ** AW34 TESTS: G0407= G06*PR04*PR05, G2023= G22*PR20*PR21, K4=PR05*G06
2272                         ** K20= G22*PR21
2273  01 007F4  FFFFFFF8 A  AW34     DATA    -8              AW *    KI=1(EXCEPT K6,K22-K31)
2274  01 007F5  B0C0045A           AW,12   *IA             TEST G6,322
2275  01 007F6  572001C2           K       5,7,2,FXPOSW
2276  01 007F7  A7200166           K       10,7,2,LOC+2
2277  01 007F8  FEFFFE00 A        DATA    X'FEFFFE00'
2278  01 007F9  01000000 A        DATA    X'1000000'
2279  01 007FA  02000200 A        DATA    X'2000200'
2280  01 007FB  02000200 A        DATA    X'2000200'
2281                               PAGE
2282                         ** AW35 TESTS: G0407= G05*PR04, G2023= PR20*G21
2283  01 007FC  FFFFFFF8 A  AW35     DATA    -8              AW      KI=1(EXCEPT K5,K21-K31)
2284  01 007FD  30C00460           AW,12   MEMORY          TEST G5,321
2285  01 007FE  472001C2           K       4,7,2,FXPOSW
2286  01 007FF  A7200166           K       10,7,2,LOC+2
2287  01 00800  FDFFFC00 A        DATA    X'FDFFFC00'
2288  01 00801  02000000 A        DATA    X'2000000'
2289  01 00802  04000400 A        DATA    X'4000400'
2290  01 00803  04000400 A        DATA    X'4000400'
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2291  01 00804  FFFFFFF8 A  AW36     DATA    -8              AW      KI=1(EXCEPT K4,K20-K31)
2292  01 00805  30C00460           AW,12   MEMORY          TEST G4,320
2293  01 00806  072001C2           K       0,7,2,FXPOSW
2294  01 00807  A7200166           K       10,7,2,LOC+2
2295  01 00808  F8FFF800 A        DATA    X'F8FFF800'
2296  01 00809  04000000 A        DATA    X'4000000'
2297  01 0080A  08000800 A        DATA    X'8000800'
2298  01 0080B  08000800 A        DATA    X'8000800'
2299                         ** AW37 TESTS: G1619= G19*PR16*PR17*PR18, K16= PR17*PR18*G19
2300                         ** K17= PR18*G19
2301  01 0080C  FFFFFFF8 A  AW37     DATA    -8              AW      K15,K16,K17,K18=1
2302  01 0080D  30C00460           AW,12   MEMORY          TEST G19
2303  01 0080E  B72001C2           K       11,7,2,FXPOSW
2304  01 0080F  27200166           K       2,7,2,LOC+2
2305  01 00810  0000F000 A        DATA    X'F000'
2306  01 00811  00010000 A        DATA    X'10000'
2307  01 00812  00001000 A        DATA    X'1000'
2308  01 00813  00001000 A        DATA    X'1000'
2309                               PAGE
2310                         ** AW38 TESTS: G1619= G18*PR16*PR17, K16= PR17*G18
2311  01 00814  FFFFFFF8 A  AW38     DATA    -8              AW      K15,K16,K17=1
2312  01 00815  30C00460           AW,12   MEMORY          TEST G18
2313  01 00816  F72001C2           K       15,7,2,FXPOSW
2314  01 00817  27200166           K       2,7,2,LOC+2
2315  01 00818  0000E000 A        DATA    X'E000'
2316  01 00819  00010000 A        DATA    X'10000'
2317  01 0081A  00002000 A        DATA    X'2000'
2318  01 0081B  00002000 A        DATA    X'2000'
2319                         ** AW39 TESTS: G1619= PR16*G17
2320  01 0081C  FFFFFFF8 A  AW39     DATA    -8              AW      K15,K16=1
2321  01 0081D  30C00460           AW,12   MEMORY          TEST G17
2322  01 0081E  072001C2           K       0,7,2,FXPOSW
2323  01 0081F  27200166           K       2,7,2,LOC+2
2324  01 00820  0000C000 A        DATA    X'C000'
2325  01 00821  00010000 A        DATA    X'10000'
2326  01 00822  00004000 A        DATA    X'4000'
2327  01 00823  00004000 A        DATA    X'4000'
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2328                                    PAGE
2329                                ** AW40 TESTS: G1215= G15.PR12.PR13.PR14, K12= G15.PR13.PR14
2330                                ** K13= G15.PR14
2331   01 00824   FFFFFFF8 A    AW40    DATA    -8                  AW     TEST G15
2332   01 00825   30C00460              AW,12   MEMORY
2333   01 00826   072001C2              K       0,7,2,FXPOSW
2334   01 00827   27200166              K       2,7,2,L0C+2
2335   01 00828   0FFF0000 A            DATA    X'FFF0000'
2336   01 00829   10000000 A            DATA    X'10000000'
2337   01 0082A   00010000 A            DATA    X'10000'
2338   01 0082B   00010000 A            DATA    X'10000'
2339   01 0082C   FFFFFFF8 A    AW41    DATA    -8                  AW   TEST OVERFLOW TRAP - T0 +
2340   01 0082D   30C00460              AW,12   MEMORY
2341   01 0082E   073001C2              K       0,7,3,FXPOSW
2342   01 0082F   E7300084              K       14,7,3,FPORET+1
2343   01 00830   89ABEF17 A            DATA    X'89ABEF17'
2344   01 00831   70FF0579 A            DATA    X'70FF0579'
2345   01 00832   E7531662 A            DATA    X'E7531662'
2346   01 00833   E7531662 A            DATA    X'E7531662'
2347   01 00834   FFFFFFF8 A    AW42    DATA    -8                  AW   TEST OVERFLOW TRAP + T0 -
2348   01 00835   30C00460              AW,12   MEMORY
2349   01 00836   073001CC              K       0,7,3,FXPOPSDW      CHECK RETURNED PSDW          *B
2350   01 00837   57300164              K       5,7,3,L0C                                        *B
2351   01 00838   61754221 A            DATA    X'61754221'
2352   01 00839   80000000 A            DATA    X'80000000'
2353   01 0083A   1E8ABDDF A            DATA    X'1E8ABDDF'
2354   01 00838   1E8ABDDF A            DATA    X'1E8ABDDF'
2355                                    PAGE
2356                                ** TEST G00=03=G03.PR00.PR01.PR02 ,K0=PR01.PR02.03, K1=PR02.G03
2357   01 0083C   FFFFFFF4 A    AW43    DATA    -12
2358   01 0083D   30C00460              AW,12   MEMORY
2359   01 0083E   77300136              K       7,7,3,SETPSW
2360   01 0083F   87300166              K       8,7,3,L0C+2
2361   01 00840   F0000000 A            DATA    X'F0000000'
2362   01 00841   00000000 A            DATA    0
2363   01 00842   10000000 A            DATA    X'10000000'
2364   01 00843   10000000 A            DATA    X'10000000'
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2365   01 00844   FFFFFFFF A            DATA    -1,-1,100,100
       01 00845   FFFFFFFF A
       01 00846   00000064 A
       01 00847   00000064 A
2366                                ** NO OVERFLOW (-)+(+) T0 (+)
2367                                ** TEST G0003= G02.PR00.PR01, K0=PR01.G02
2368   01 00848   FFFFFFF4 A    AW44    DATA    -12
2369   01 00849   30C00461              AW,12   MEMORY+1
2370   01 0084A   07300136              K       0,7,3,SETPSW
2371   01 00843   87300166              K       8,7,3,L0C+2
2372   01 0084C   E0000000 A            DATA    X'E0000000'
2373   01 0084D   00000000 A            DATA    0
2374   01 0084E   00000000 A            DATA    0,0,8,8,X'20000000',X'20000000'
       01 0084F   00000000 A
       01 00850   00000008 A
       01 00851   00000008 A
       01 00852   20000000 A
       01 00853   20000000 A
2375                                    PAGE
2376                                ** TEST G0003= G01.PR00  NO OVERFLOW (+)+(-) T0 (+)
2377   01 00854   FFFFFFF4 A    AW45    DATA    -12
2378   01 00855   30D00461              AW,13   MEMORY+1
2379   01 00856   07300136              K       0,7,3,SETPSW
2380   01 00857   87300166              K       8,7,3,L0C+2
2381   01 00858   00000001 A            DATA    1,1,100,100,X'40000000',0,X'C0000000',X'C0000000'
       01 00859   00000001 A
       01 0085A   00000064 A
       01 00853   00000064 A
       01 0085C   40000000 A
       01 0085D   00000000 A
       01 0085E   C0000000 A
       01 0085F   C0000000 A
2382                                ** TEST NO OVERFLOW  (-)+(+) T0 (-)
2383   01 00860   FFFFFFF8 A    AW46    DATA    -8
2384   01 00861   30C00460              AW,12   MEMORY
2385   01 00862   07300136              K       0,7,3,SETPSW
2386   01 00863   17300166              K       1,7,3,L0C+2
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2387   01 00864   FFFFFF9C A          DATA    -100,-90,10,10
       01 00865   FFFFFFA6 A
       01 00866   0000000A A
       01 00867   0000000A A
2388                          ** TEST NO OVERFLOW (+)+(-) TO (-)
2389   01 00868   FFFFFFF8 A  AW47    DATA    -8
2390   01 00869   30C00460            AW,12   MEMORY
2391   01 0086A   07300136            K       0,7,3,SETPSW
2392   01 0086B   17300166            K       1,7,3,LOC+2
2393   01 0086C   0000000A A          DATA    10,-90,-100,-100
       01 0086D   FFFFFFA6 A
       01 0086E   FFFFFF9C A
       01 0086F   FFFFFF9C A
2394                                  PAGE
2395   01 00870   FFFFFFF8 A  SW01    DATA    -8                  SW
2396   01 00871   38C00460            SW,12   MEMORY
2397   01 00872   77300136            K       7,7,3,SETPSW
2398   01 00873   87300166            K       8,7,3,LOC+2
2399   01 00874   FFFFFFFF A          DATA    -1
2400   01 00875   00000000 A          DATA    0
2401   01 00876   FFFFFFFF A          DATA    -1
2402   01 00877   FFFFFFFF A          DATA    -1
2403   01 00878   FFFFFFFC A  SW02    DATA    -4                  SW *
2404   01 00879   B8C0045A            SW,12   *IA
2405   01 0087A   F73001C2            K       15,7,3,FXPOSW
2406   01 0087B   87300166            K       8,7,3,LOC+2
2407   01 0087C   FFFFFFF8 A  SW03    DATA    -8                  SW
2408   01 0087D   38C00460            SW,12   MEMORY
2409   01 0087E   E73001C2            K       2,7,3,FXPOSW
2410   01 0087F   57300084            K       5,7,3,FPORET+1
2411   01 00880   7FFFFFFF A          DATA    X'7FFFFFFF'
2412   01 00881   80000000 A          DATA    X'80000000'
2413   01 00882   FFFFFFFF A          DATA    -1
2414   01 00883   FFFFFFFF A          DATA    -1
2415                                  PAGE
2416   01 00884   FFFFFFFA A  SW04    DATA    -6                  SW
2417   01 00885   38C0000C A          SW,12   12
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2418   01 00886   773001C2            K       7,7,3,FXPOSW
2419   01 00887   87300166            K       8,7,3,LOC+2
2420   01 00888   80000000 A          DATA    X'80000000'
2421   01 00889   00000000 A          DATA    0
2422   01 0088A   FFFFFFF8 A  SW05    DATA    -8                  SW     PRI=1
2423   01 0088B   38C00460            SW,12   MEMORY              TEST KM=1
2424   01 0088C   00000136            K       0,0,0,SETPSW
2425   01 0088D   50000166            K       5,0,0,LOC+2
2426   01 0088E   7FFFFFFF A          DATA    X'7FFFFFFF'
2427   01 0088F   80000000 A          DATA    X'80000000'
2428   01 00890   FFFFFFFF A          DATA    -1
2429   01 00891   FFFFFFFF A          DATA    -1
2430                                  PAGE
2431   01 00892   FFFFFFF8 A  SW06    DATA    -8                  SW     TEST <31 WITH RR16=PR31
2432   01 00893   38C00460            SW,12   MEMORY
2433   01 00894   073001C2            K       0,7,3,FXPOSW
2434   01 00895   27300166            K       2,7,3,LOC+2
2435   01 00896   0000FFFF A          DATA    X'FFFF'
2436   01 00897   00010000 A          DATA    X'10000'
2437   01 00898   FFFFFFFF A          DATA    -1
2438   01 00899   FFFFFFFF A          DATA    -1
2439                                  PAGE
2440                          ** S/PH10 = FUBIR.PH1.NBRPH9) BRPH9 = FUBIR.PH1.NSO) SO=1 THUS S/PH10 =1
2441   01 0089A   FFFFFFF8 A  BIR01   DATA    -8                  BRANCH
2442   01 0089B   65C00460            BIR,12  MEMORY
2443   01 0089C   F7300136            K       15,7,3,SETPSW
2444   01 0089D   F7300461            K       15,7,3,MEMORY+1
2445   01 0089E   FFFFFFFE A          DATA    -2
2446   01 0089F   FFFFFFFF A          DATA    -1
2447   01 008A0   0F000464            XPSD,0  RETURN
2448   01 008A1   0F000464            XPSD,0  RETURN
2449                          ** SO=0 THUS BRPH9 IS TRUE
2450   01 008A2   FFFFFFFA A  BIR02   DATA    -6                  NBRANCH
2451   01 008A3   65C00047            BIR,12  BRANCH
2452   01 008A4   00000136            K       0,0,0,SETPSW
2453   01 008A5   00000166            K       0,0,0,LOC+2
2454   01 008A6   FFFFFFFF A          DATA    -1
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2455  01 008A7  00000000 A            DATA    0
2456                                  PAGE
2457                          ** S/PH1O IS TRUE FROM FUBDR.PH1.SGTZ
2458  01 008A8  FFFFFFFA A   BDR01    DATA    -6              BRANCH
2459  01 008A9  64C00047             BDR,12  BRANCH
2460  01 008AA  00000136             K       0,0,0,SETPSW
2461  01 008AB  00000048             K       0,0,0,BRANCH+1
2462  01 008AC  00000002 A           DATA    2
2463  01 008AD  00000001 A           DATA    1
2464                          ** S/PH1O IS FALSE BECAUSE SGTZ IS FALSE
2465  01 008AE  FFFFFFFA A   BDR02    DATA    -6              NBRANCH
2466  01 008AF  64C00047             BDR,12  BRANCH
2467  01 008B0  00000136             K       0,0,0,SETPSW
2468  01 008B1  00000166             K       0,0,0,L8C+2
2469  01 008B2  FFFFFFFF A           DATA    -1
2470  01 008B3  FFFFFFFE A           DATA    -2
2471                                  PAGE
2472  01 008B4  FFFFFFFA A   BAL01    DATA    -6              BAL C   BRANCH
2473  01 008B5  6AC00047             BAL,12  BRANCH
2474  01 008B6  F7300136             K       15,7,3,SETPSW
2475  01 008B7  F7300048             K       15,7,3,BRANCH+1
2476  01 008B8  08C00000 A           K       0,8,12,0
2477  01 008B9  00000165             DATA    L8C+1
2478  01 008BA  FFFFFFF6 A   BAL02    DATA    -10             BAL D  X  MEMBRY
2479  01 008BB  6AD325B3             BAL,13  MEMBRY-X'DEAD',1
2480  01 008BC  01300136             K       0,1,3,SETPSW
2481  01 008BD  01300461             K       0,1,3,MEMBRY+1
2482  01 008BE  0000DEAD A           DATA    X'DEAD'
2483  01 008BF  0000DEAD A           DATA    X'DEAD'
2484  01 008C0  0F000464             XPSD,0  RETURN
2485  01 008C1  0F000464             XPSD,0  RETURN
2486  01 008C2  11112222 A           DATA    X'11112222'
2487  01 008C3  00000165             DATA    L8C+1
2488  01 008C4  FFFFFFF8 A   BAL03    DATA    -8              BAL D  *  MEMBRY
2489  01 008C5  EAC0045A             BAL,12  *IA
2490  01 008C6  00000136             DATA    SETPSW
2491  01 008C7  00000461             DATA    MEMBRY+1
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2492  01 008C8  FFFFFFFF A           DATA    -1
2493  01 008C9  00000165             DATA    L8C+1
2494  01 008CA  0F000464             XPSD,0  RETURN
2495  01 008CB  0F000464             XPSD,0  RETURN
2496  01 008CC  FFFFFFFA A   BAL04    DATA    -6              BAL C  *X BRANCH
2497  01 008CD  EAC20460             BAL,12  *MEMBRY,1
2498  01 008CE  F7300136             K       15,7,3,SETPSW
2499  01 008CF  F7300048             K       15,7,3,BRANCH+1
2500  01 008D0  00000047             DATA    BRANCH
2501  01 008D1  00000165             DATA    L8C+1
2502                                  PAGE
2503                          ** BAL TO NONEXSISTENT MEMBRY. C(R) WILL BE MODIFIED AND TRAP WILL OCCUR
2504                          *  ON FIRST PASS  THE INST IS  B  END.  IF NON-EXSISTENT MEMBRY IS    *B
2505                          *  PRESENT A  BAL,12  -----  WILL BE INSERTED.                        *B
2506  01 008D2  FFFFFFFA A   BAL05    DATA    -6
2507  01 008D3  6AC1FFFF A           BAL,12  X'1FFFF'
2508  01 008D4  B00001B6             K       11,0,0,SIGNAB
2509  01 008D5  F0000067             K       15,0,0,NEARET+1
2510  01 008D6  00000000 A           DATA    0
2511  01 008D7  00000165             DATA    L8C+1
2512                                  PAGE
2513  01 008D8  FFFFFFF8 A   LH01     DATA    -8              LH    HW 0    SE=1 1-1,1-0
2514  01 008D9  52C00460             LH,12   MEMBRY
2515  01 008DA  70200136             K       7,0,2,SETPSW
2516  01 008DB  50200166             K       5,0,2,L8C+2
2517  01 008DC  FFFF0000 A           DATA    X'FFFF0000'
2518  01 008DD  FFFFFFFF A           DATA    -1
2519  01 008DE  FFFF3210 A           DATA    X'FFFF3210'
2520  01 008DF  FFFF3210 A           DATA    X'FFFF3210'
2521  01 008E0  FFFFFFF8 A   LH02     DATA    -8              LH    HW 0    SE=1 1-0,0-1
2522  01 008E1  52C00460             LH,12   MEMBRY
2523  01 008E2  E0300136             K       14,0,3,SETPSW
2524  01 008E3  D0300166             K       13,0,3,L8C+2
2525  01 008E4  00007FFF A           DATA    X'7FFF'
2526  01 008E5  FFFF8000 A           DATA    X'FFFF8000'
2527  01 008E6  80000000 A           DATA    X'80000000'
2528  01 008E7  80000000 A           DATA    X'80000000'
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2529  01 008E8  FFFFFFF8 A  LH03   DATA   -8                    LH *  HW 0    SE=0 0-1,1-1
2530  01 008E9  D2C0045A          LH,12  *IA
2531  01 008EA  F7300136          K      15,7,3,SETPSW
2532  01 008EB  E7300166          K      14,7,3,LBC+2
2533  01 008EC  FFFFFFFF A        DATA   -1
2534  01 008ED  00007FFF A        DATA   X'7FFF'
2535  01 008EE  7FFF0000 A        DATA   X'7FFF0000'
2536  01 008EF  7FFF0000 A        DATA   X'7FFF0000'
2537                              PAGE
2538  01 008F0  FFFFFFFA A  LH04   DATA   -6                    LH    HW 0    SE=0 0-0,0-1
2539  01 008F1  52C0000C A        LH,12  12
2540  01 008F2  30300136          K      3,0,3,SETPSW
2541  01 008F3  00300166          K      0,0,3,LBC+2
2542  01 008F4  0000FFFF A        DATA   X'FFFF'
2543  01 008F5  00000000 A        DATA   0
2544  01 008F6  FFFFFFFA A  LH05   DATA   -6                    LH  X HW 1    SE=0 0-1,0-0
2545  01 008F7  52CE000C A        LH,12  12,7
2546  01 008F8  77300136          K      7,7,3,SETPSW
2547  01 008F9  67300166          K      6,7,3,LBC+2
2548  01 008FA  FFFE0001 A        DATA   X'FFFE0001'
2549  01 008FB  00000001 A        DATA   1
2550                              PAGE
2551  01 008FC  FFFFFFF8 A  LH06   DATA   -8                    LH  X HW 1    SE=0 0-0,1-1
2552  01 008FD  52C30461          LH,12  MEMORY-X'FFFF',1
2553  01 008FE  70300136          K      7,0,3,SETPSW
2554  01 008FF  60300166          K      6,0,3,LBC+2
2555  01 00900  0001FFFF A        DATA   X'1FFFF'
2556  01 00901  00007FFF A        DATA   X'7FFF'
2557  01 00902  00007FFF A        DATA   X'7FFF'
2558  01 00903  00007FFF A        DATA   X'7FFF'
2559  01 00904  FFFFFFF4 A  LH07   DATA   -12                   LH *X HW=1 SE=1 1-1,0-1
2560  01 00905  D2D20460          LH,13  *MEMORY,1
2561  01 00906  F7300136          K      15,7,3,SETPSW
2562  01 00907  D7300166          K      13,7,3,LBC+2
2563  01 00908  000006A3 A        DATA   2*(MEMORY-CYCLE)+3
2564  01 00909  000006A3 A        DATA   2*(MEMORY-CYCLE)+3
2565  01 0090A  00000110          DATA   CYCLE
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2566  01 0090B  00000110          DATA   CYCLE
2567  01 0090C  FFFFFFFF A        DATA   -1
2568  01 0090D  FFFF8000 A        DATA   X'FFFF8000'
2569  01 0090E  00008000 A        DATA   X'8000'
2570  01 0090F  00008000 A        DATA   X'8000'
2571  01 00910  FFFFFFF4 A  LH08   DATA   -12                   LH *X HW=1 SE=1 1-0,1-0
2572  01 00911  D2D20460          LH,13  *MEMORY,1
2573  01 00912  03300136          K      0,3,3,SETPSW
2574  01 00913  13300166          K      1,3,3,LBC+2
2575  01 00914  00000235          DATA   HA(CLEAR)+3
2576  01 00915  00000235          DATA   HA(CLEAR)+3
2577  01 00916  00000347 A        DATA   MEMORY-CLEAR
2578  01 00917  00000347 A        DATA   MEMORY-CLEAR
2579  01 00918  00000000 A        DATA   0
2580  01 00919  FFFFFFFF A        DATA   -1
2581  01 0091A  1234FFFF A        DATA   X'1234FFFF'
2582  01 00918  1234FFFF A        DATA   X'1234FFFF'
2583                              PAGE
2584  01 0091C  FFFFFFF8 A  LB01   DATA   -8                    LB    B 0 0-0,1-0
2585  01 0091D  72C00460          LB,12  MEMORY
2586  01 0091E  F7200136          K      15,7,2,SETPSW
2587  01 0091F  E7200166          K      14,7,2,LBC+2
2588  01 00920  00000000 A        DATA   0
2589  01 00921  000000FF A        DATA   X'FF'
2590  01 00922  FF000000 A        DATA   X'FF000000'
2591  01 00923  FF000000 A        DATA   X'FF000000'
2592  01 00924  FFFFFFF8 A  LB02   DATA   -8                    LB    B 0 0-0,0-1
2593  01 00925  72C00460          LB,12  MEMORY
2594  01 00926  F7300136          K      15,7,3,SETPSW
2595  01 00927  C7300166          K      12,7,3,LBC+2
2596  01 00928  000000FF A        DATA   X'FF'
2597  01 00929  00000000 A        DATA   0
2598  01 0092A  00FFFFFF A        DATA   X'FFFFFF'
2599  01 0092B  00FFFFFF A        DATA   X'FFFFFF'
2600  01 0092C  FFFFFFF8 A  LB03   DATA   -8                    LB X  B 0  0-1,0-0
2601  01 0092D  72C20480          LB,12  MEMORY+X'20',1
2602  01 0092E  F7300136          K      15,7,3,SETPSW
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2603  01 0092F  C7300166          K       12,7,3,LOC+2
2604  01 00930  FFFFFF80 A        DATA    X'FFFFFF80'
2605  01 00931  00000000 A        DATA    0
2606  01 00932  00FFFFFF A        DATA    X'FFFFFF'
2607  01 00933  00FFFFFF A        DATA    X'FFFFFF'
2608  01 00934  FFFFFFF8 A  LB04  DATA    -8                LB *  BYTE 0-1,1-1
2609  01 00935  F2C0045A         LB,12   *1A
2610  01 00936  00200136          K       0,0,2,SETPSW
2611  01 00937  20200166          K       2,0,2,LOC+2
2612  01 00938  FFFFFFFF A        DATA    -1
2613  01 00939  000000FF A        DATA    X'FF'
2614  01 0093A  FF000000 A        DATA    X'FF000000'
2615  01 0093B  FF000000 A        DATA    X'FF000000'
2616                              PAGE
2617  01 0093C  FFFFFFF8 A  LB05  DATA    -8                LB *  B 0 0-1,0-1,1-1
2618  01 0093D  F2C0045A         LB,12   *1A
2619  01 0093E  37300136          K       3,7,3,SETPSW
2620  01 0093F  27300166          K       2,7,3,LOC+2
2621  01 00940  FFFFFFFF A        DATA    -1
2622  01 00941  000000A2 A        DATA    X'A2'
2623  01 00942  A2FFFFFF A        DATA    X'A2FFFFFF'
2624  01 00943  A2FFFFFF A        DATA    X'A2FFFFFF'
2625  01 00944  FFFFFFF6 A  LB06  DATA    -10               LB  X B 2
2626  01 00945  72D2046A         LB,13   PASS,1
2627  01 00946  50300136          K       5,0,3,SETPSW
2628  01 00947  60300166          K       6,0,3,LOC+2
2629  01 00948  FFFFFFDA A        DATA    4*(MEMORY-PASS)+2
2630  01 00949  FFFFFFDA A        DATA    4*(MEMORY-PASS)+2
2631  01 0094A  FFFF89FF A        DATA    X'FFFF89FF'
2632  01 0094B  FFFF89FF A        DATA    X'FFFF89FF'
2633  01 0094C  FFFFFFFF A        DATA    -1
2634  01 0094D  00000089 A        DATA    X'89'
2635  01 0094E  FFFFFFFA A  LB07  DATA    -6                LB  X B 1
2636  01 0094F  72C38000 A        LB,12   12+X'18001',1
2637  01 00950  15200136          K       1,5,2,SETPSW
2638  01 00951  25200166          K       2,5,2,LOC+2
2639  01 00952  FF99FFFD A        DATA    X'FF99FFFD'
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2640  01 00953  00000099 A        DATA    X'99'
2641  01 00954  FFFFFFF8 A  LB08  DATA    -8                LB  X B 3
2642  01 00955  72C20460          LB,12   MEMORY,1
2643  01 00956  01300136          K       0,1,3,SETPSW
2644  01 00957  21300166          K       2,1,3,LOC+2
2645  01 00958  00000003 A        DATA    3
2646  01 00959  000000FF A        DATA    X'FF'
2647  01 0095A  FFFFFFFF A        DATA    -1
2648  01 0095B  FFFFFFFF A        DATA    -1
2649                              PAGE
2650  01 0095C  FFFFFFF4 A  LB09  DATA    -12               LB  *,IX
2651  01 0095D  F2CE0460          LB,12   *MEMORY,7
2652  01 0095E  10000136          K       1,0,0,SETPSW
2653  01 0095F  20000166          K       2,0,0,LOC+2
2654  01 00960  FFFFFFFF A        DATA    -1,X'27',MEMORY+1,MEMORY+1,X'F027F2F3',X'F027F2F3'
      01 00961  00000027 A
      01 00962  00000461
      01 00963  00000461
      01 00964  F027F2F3 A
      01 00965  F027F2F3 A
2655  01 00966  F027F2F3 A        DATA    X'F027F2F3',X'F027F2F3'
      01 00967  F027F2F3 A
2656                              PAGE
2657  01 00968  FFFFFFF6 A  LD01  DATA    -10               LD    RE  ME
2658  01 00969  12C00460          LD,12   MEMORY
2659  01 0096A  F7300136          K       15,7,3,SETPSW
2660  01 00968  C7300166          K       12,7,3,LOC+2
2661  01 0096C  FFFFFFFF A        DATA    -1
2662  01 0096D  00000000 A        DATA    0
2663  01 0096E  00000000 A        DATA    0
2664  01 0096F  00000000 A        DATA    0
2665  01 00970  FFFFFFFF A        DATA    -1
2666  01 00971  00000000 A        DATA    0
2667  01 00972  FFFFFFF4 A  LD02  DATA    -12               LD *  RE  ME
2668  01 00973  92C0045A         LD,12   *1A
2669  01 00974  77300136          K       7,7,3,SETPSW
2670  01 00975  57300166          K       5,7,3,LOC+2
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2671  01 00976  00000000 A          DATA    0
2672  01 00977  FFFFFFFF A          DATA    -1
2673  01 00978  FFFFFFFF A          DATA    -1
2674  01 00979  FFFFFFFF A          DATA    -1
2675  01 0097A  00000000 A          DATA    0
2676  01 0097B  FFFFFFFF A          DATA    -1
2677  01 0097C  FFFFFFFF A          DATA    -1
2678  01 0097D  FFFFFFFF A          DATA    -1
2679  01 0097E  FFFFFFF4 A  LD03    DATA    -12                LD  X RE  ME
2680  01 0097F  12C20048            LD,12   BRANCH+1,1
2681  01 00980  07300136            K       0,7,3,SETPSW
2682  01 00981  27300166            K       2,7,3,L0C+2
2683  01 00982  0000020C A          DATA    (MEMORY-BRANCH-1)/2
2684  01 00983  00000000 A          DATA    0
2685  01 00984  00000000 A          DATA    0
2686  01 00985  00000000 A          DATA    0
2687  01 00986  ACEBEDAD A          DATA    X'ACEBEDAD'
2688  01 00987  BEADFADE A          DATA    X'BEADFADE'
2689  01 00988  BEADFADE A          DATA    X'BEADFADE'
2690  01 00989  BEADFADE A          DATA    X'BEADFADE'
2691                               PAGE
2692  01 0098A  FFFFFFF4 A  LD04    DATA    -12                LD *  RE  ME
2693  01 0098B  92C0045A            LD,12   *1A
2694  01 0098C  F7300136            K       15,7,3,SETPSW
2695  01 0098D  D7300166            K       13,7,3,L0C+2
2696  01 0098E  0000020C A          DATA    (MEMORY-BRANCH-1)/2
2697  01 0098F  F234ABCD A          DATA    X'F234ABCD'
2698  01 00990  F234ABCD A          DATA    X'F234ABCD'
2699  01 00991  F234ABCD A          DATA    X'F234ABCD'
2700  01 00992  F2397572 A          DATA    X'F2397572'
2701  01 00993  1E2783F9 A          DATA    X'1E2783F9'
2702  01 00994  1E2783F9 A          DATA    X'1E2783F9'
2703  01 00995  1E2783F9 A          DATA    X'1E2783F9'
2704  01 00996  FFFFFFF4 A  LD05    DATA    -12                LD    R0  M0
2705  01 00997  12D00461            LD,13   MEMORY+1
2706  01 00998  D7300136            K       13,7,3,SETPSW
2707  01 00999  E7300166            K       14,7,3,L0C+2
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2708  01 0099A  ABCDEF01 A          DATA    X'ABCDEF01'
2709  01 0099B  ABCDEF01 A          DATA    X'ABCDEF01'
2710  01 0099C  543210FE A          DATA    X'543210FE'
2711  01 0099D  543210FE A          DATA    X'543210FE'
2712  01 0099E  12345678 A          DATA    X'12345678'
2713  01 0099F  543210FE A          DATA    X'543210FE'
2714  01 009A0  EDCBA987 A          DATA    X'EDCBA987'
2715  01 009A1  EDCBA987 A          DATA    X'EDCBA987'
2716                               PAGE
2717  01 009A2  FFFFFFF4 A  LD06    DATA    -12                LD  X R0  ME
2718  01 009A3  12D2CCA2            LD,13   MEMORY-2+X'9BDF',1
2719  01 009A4  27300136            K       2,7,3,SETPSW
2720  01 009A5  17300166            K       1,7,3,L0C+2
2721  01 009A6  135793DF A          DATA    X'135793DF'
2722  01 009A7  135793DF A          DATA    X'135793DF'
2723  01 009A8  ECA86420 A          DATA    X'ECA86420'
2724  01 009A9  ECA86420 A          DATA    X'ECA86420'
2725  01 009AA  2468ACE0 A          DATA    X'2468ACE0'
2726  01 009AB  ECA86420 A          DATA    X'ECA86420'
2727  01 009AC  DB97531F A          DATA    X'DB97531F'
2728  01 009AD  DB97531F A          DATA    X'DB97531F'
2729  01 009AE  FFFFFFF4 A  LD07    DATA    -12                LD *  R0  ME
2730  01 009AF  92D0045A            LD,13   *1A
2731  01 009B0  07300136            K       0,7,3,SETPSW
2732  01 009B1  27300166            K       2,7,3,L0C+2
2733  01 009B2  FFFFFFFD A          DATA    -3
2734  01 009B3  FFFFFFFD A          DATA    -3
2735  01 009B4  00000000 A          DATA    0
2736  01 009B5  00000000 A          DATA    0
2737  01 009B6  FFFFFFFF A          DATA    -1
2738  01 009B7  00000000 A          DATA    0
2739  01 009B8  00000001 A          DATA    1
2740  01 009B9  00000001 A          DATA    1
2741                               PAGE
2742  01 009BA  FFFFFFF4 A  LD08    DATA    -12                LD          M0
2743  01 009BB  12C00461            LD,12   MEMORY+1
2744  01 009BC  97300136            K       9,7,3,SETPSW
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2745   01 009BD    A7300166              K       10,7,3,LOC+2
2746   01 009BE    EDCBA987 A            DATA    X'EDCBA987'
2747   01 009BF    12345678 A            DATA    X'12345678'
2748   01 009C0    12345678 A            DATA    X'12345678'
2749   01 009C1    12345678 A            DATA    X'12345678'
2750   01 009C2    6543210F A            DATA    X'6543210F'
2751   01 009C3    9ABCDEF0 A            DATA    X'9ABCDEF0'
2752   01 009C4    9ABCDEF0 A            DATA    X'9ABCDEF0'
2753   01 009C5    9ABCDEF0 A            DATA    X'9ABCDEF0'
2754   01 009C6    FFFFFFF4 A  LD09      DATA    -12                 LD      RE   RE
2755   01 009C7    12C00008 A            LD,12   8
2756   01 009C8    70000136              K       7,0,0,SETPSW
2757   01 009C9    60000166              K       6,0,0,LOC+2
2758   01 009CA    12345678 A            DATA    X'12345678'
2759   01 009CB    0FEDCBA9 A            DATA    X'0FEDCBA9'
2760   01 009CC    0FEDCBA9 A            DATA    X'0FEDCBA9'
2761   01 009CD    0FEDCBA9 A            DATA    X'0FEDCBA9'
2762   01 009CE    9ABCDEF0 A            DATA    X'9ABCDEF0'
2763   01 009CF    87654321 A            DATA    X'87654321'
2764   01 009D0    87654321 A            DATA    X'87654321'
2765   01 009D1    87654321 A            DATA    X'87654321'
2766                                     PAGE
2767   01 009D2    FFFFFFF4 A  LD10      DATA    -12                 LD    R0  RE
2768   01 009D3    12D00008 A            LD,13   8
2769   01 009D4    10000136              K       1,0,0,SETPSW
2770   01 009D5    20000166              K       2,0,0,LOC+2
2771   01 009D6    13579BDF A            DATA    X'13579BDF'
2772   01 009D7    13579BDF A            DATA    X'13579BDF'
2773   01 009D8    02468ACE A            DATA    X'02468ACE'
2774   01 009D9    02468ACE A            DATA    X'02468ACE'
2775   01 009DA    ECA86420 A            DATA    X'ECA86420'
2776   01 009DB    02468ACE A            DATA    X'02468ACE'
2777   01 009DC    ECA86420 A            DATA    X'ECA86420'
2778   01 009DD    ECA86420 A            DATA    X'ECA86420'
2779   01 009DE    FFFFFFF4 A  LD11      DATA    -12                 LD    RE  R0
2780   01 009DF    12C00009 A            LD,12   9
2781   01 009E0    10000136              K       1,0,0,SETPSW
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2782   01 009E1    20000166              K       2,0,0,LOC+2
2783   01 009E2    ABCDEF01 A            DATA    X'ABCDEF01'
2784   01 009E3    12347956 A            DATA    X'12347956'
2785   01 009E4    12347956 A            DATA    X'12347956'
2786   01 009E5    12347956 A            DATA    X'12347956'
2787   01 009E6    10345768 A            DATA    X'10345768'
2788   01 009E7    ACDEF329 A            DATA    X'ACDEF329'
2789   01 009E8    ACDEF329 A            DATA    X'ACDEF329'
2790   01 009E9    ACDEF329 A            DATA    X'ACDEF329'
2791                                     PAGE
2792   01 009EA    FFFFFFF4 A  LD12      DATA    -12                 LD    R0  R0
2793   01 009EB    12D00009 A            LD,13   9
2794   01 009EC    00000136              K       0,0,0,SETPSW
2795   01 009ED    20000166              K       2,0,0,LOC+2
2796   01 009EE    11111111 A            DATA    X'11111111'
2797   01 009EF    11111111 A            DATA    X'11111111'
2798   01 009F0    5AB91233 A            DATA    X'5AB91233'
2799   01 009F1    5AB91233 A            DATA    X'5AB91233'
2800   01 009F2    33445566 A            DATA    X'33445566'
2801   01 009F3    5AB91233 A            DATA    X'5AB91233'
2802   01 009F4    FFFFFFFF A            DATA    -1
2803   01 009F5    FFFFFFFF A            DATA    -1
2804   01 009F6    FFFFFFF4 A  LD13      DATA    -12                 LD *,IX
2805   01 009F7    92CE0460              LD,12   *MEMORY,7
2806   01 009F8    00000136              K       0,0,0,SETPSW
2807   01 009F9    20000166              K       2,0,0,LOC+2
2808   01 009FA    FFFFFFFF A            DATA    -1,MEMORY-1,MEMORY-1,MEMORY-1,-1,-16,-16,-16
       01 009FB    0000045F
       01 009FC    0000045F
       01 009FD    0000045F
       01 009FE    FFFFFFFF A
       01 009FF    FFFFFFF0 A
       01 00A00    FFFFFFF0 A
       01 00A01    FFFFFFF0 A
2809                                     PAGE
2810                           ** LW WITH INDEXING
2811   01 00A02    FFFFFFF4 A  LWIX      DATA    -12
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     2812   01 00A03   32CE000C A            LW,12    12,7
     2813   01 00A04   00000136              K        0,0,0,SETPSW
     2814   01 00A05   10000166              K        1,0,0,L0C+2
     2815   01 00A06   00000000 A            DATA     0,-1,1,1,-1,-1,MEMORY,MEMORY
            01 00A07   FFFFFFFF A
            01 00A08   00000001 A
            01 00A09   00000001 A
            01 00A0A   FFFFFFFF A
            01 00A0B   FFFFFFFF A
            01 00A0C   00000460
            01 00A0D   00000460
     2816                        ** LW WITH INDEXING AND IA
     2817   01 00A0E   FFFFFFF4 A  LWIXIA   DATA     -12
     2818   01 00A0F   B2D2045A             LW,I3    *IA,I
     2819   01 00A10   00000136              K        0,0,0,SETPSW
     2820   01 00A11   20000166              K        2,0,0,L0C+2
     2821   01 00A12   00000001 A            DATA     1,1,0,0,-1,4,4,4
            01 00A13   00000001 A
            01 00A14   00000000 A
            01 00A15   00000000 A
            01 00A16   FFFFFFFF A
            01 00A17   00000004 A
            01 00A18   00000004 A
            01 00A19   00000004 A
     2822                        PAGE
     2823   01 00A1A   FFFFFFFA A  LI01     DATA     -6              LI      SE=1  1-0,1-0
     2824   01 00A1B   22C9FFFF A            LI,12    X'9FFFF'
     2825   01 00A1C   F7300136              K        15,7,3,SETPSW
     2826   01 00A1D   D7300166              K        13,7,3,L0C+2
     2827   01 00A1E   00000000 A            DATA     0
     2828   01 00A1F   FFF9FFFF A            DATA     X'FFF9FFFF'
     2829   01 00A20   FFFFFFFA A  LI02     DATA     -6              LI      SE=0  0-1,0-1
     2830   01 00A21   22C40001 A            LI,12    X'40001'
     2831   01 00A22   07300136              K        0,7,3,SETPSW
     2832   01 00A23   27300166              K        2,7,3,L0C+2
     2833   01 00A24   FFFFFFFF A            DATA     -1
     2834   01 00A25   00040001 A            DATA     X'40001'
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     2835   01 00A26   FFFFFFFA A  LI03     DATA     -6              LI      SE=1  1-1,0-0
     2836   01 00A27   22C80000 A            LI,12    X'80000'
     2837   01 00A28   F7300136              K        15,7,3,SETPSW
     2838   01 00A29   D7300166              K        13,7,3,L0C+2
     2839   01 00A2A   FFF00000 A            DATA     X'FFF00000'
     2840   01 00A2B   FFF80000 A            DATA     X'FFF80000'
     2841   01 00A2C   FFFFFFFA A  LI04     DATA     -6              LI      SE=0  0-0 1-1
     2842   01 00A2D   22C7FFFF A            LI,12    X'7FFFF'
     2843   01 00A2E   F7300136              K        15,7,3,SETPSW
     2844   01 00A2F   E7300166              K        14,7,3,L0C+2
     2845   01 00A30   000FFFFF A            DATA     X'FFFFF'
     2846   01 00A31   0007FFFF A            DATA     X'7FFFF'
     2847   01 00A32   FFFFFFFA A  LI05     DATA     -6              LI *
     2848   01 00A33   A2C00460             LI,12    *MEMORY
     2849   01 00A34   173001B6              K        1,7,3,SI9NA8
     2850   01 00A35   97300063              K        9,7,3,NEIRET+1
     2851   01 00A36   FFFFFFFF A            DATA     -1
     2852   01 00A37   FFFFFFFF A            DATA     -1
     2853                        PAGE
     2854   01 00A38   FFFFFFF6 A  LS01     DATA     -10
     2855   01 00A39   4AC00460             LS,12    MEMORY          PH1 : C(S)= EW+RU1   = 18181818
     2856   01 00A3A   F7300136              K        15,7,3,SETPSW
     2857   01 00A3B   D7300166              K        13,7,3,L0C+2    PH3 : C(S)= R+NRU1   = 81818181
     2858   01 00A3C   C3C3C3C3 A            DATA     X'C3C3C3C3'
     2859   01 00A3D   99999999 A            DATA     X'99999999'     PH4 : C(S)= PH1+PH3  = 99999999
     2860   01 00A3E   3C3C3C3C A            DATA     X'3C3C3C3C'
     2861   01 00A3F   3C3C3C3C A            DATA     X'3C3C3C3C'
     2862   01 00A40   5A5A5A5A A            DATA     X'5A5A5A5A'
     2863   01 00A41   5A5A5A5A A            DATA     X'5A5A5A5A'
     2864   01 00A42   FFFFFFF6 A  LS02     DATA     -10
     2865   01 00A43   4AC00460             LS,12    MEMORY          PH1 : C(S)= EW+RU1   = 81818181
     2866   01 00A44   07300136              K        0,7,3,SETPSW
     2867   01 00A45   17300166              K        1,7,3,L0C+2     PH3 : C(S)= R+NRU1   = 18181818
     2868   01 00A46   3C3C3C3C A            DATA     X'3C3C3C3C'
     2869   01 00A47   99999999 A            DATA     X'99999999'     PH4 : C(S)= PH1+PH3  =99999999
     2870   01 00A48   C3C3C3C3 A            DATA     X'C3C3C3C3'
     2871   01 00A49   C3C3C3C3 A            DATA     X'C3C3C3C3'
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2872  01 00A4A  A5A5A5A5 A          DATA    X'A5A5A5A5'
2873  01 00A4B  A5A5A5A5 A          DATA    X'A5A5A5A5'
2874  01 00A4C  FFFFFFF6 A  LS03    DATA    -10
2875  01 00A4D  4AC00460            LS,12   MEMORY              PH1 : C(S)= EW*RU1   = 24242424
2876  01 00A4E  F7300136            K       15,7,3,SETPSW
2877  01 00A4F  E7300166            K       14,7,3,L0C+2        PH3 : C(S)= R*NRU1   = 42424242
2878  01 00A50  5A5A5A5A A          DATA    X'5A5A5A5A'
2879  01 00A51  66666666 A          DATA    X'66666666'         PH4 : C(S)= PH1+PH3  = 66666666
2880  01 00A52  A5A5A5A5 A          DATA    X'A5A5A5A5'
2881  01 00A53  A5A5A5A5 A          DATA    X'A5A5A5A5'
2882  01 00A54  3C3C3C3C A          DATA    X'3C3C3C3C'
2883  01 00A55  3C3C3C3C A          DATA    X'3C3C3C3C'
2884                                PAGE
2885  01 00A56  FFFFFFF6 A  LS04    DATA    -10
2886  01 00A57  4AC00460            LS,12   MEMORY              PH1 : C(S)= EW*RU1   = 42424242
2887  01 00A58  07300136            K       0,7,3,SETPSW
2888  01 00A59  27300166            K       2,7,3,L0C+2         PH3 : C(S)= R*NRU1   = 24242424
2889  01 00A5A  A5A5A5A5 A          DATA    X'A5A5A5A5'
2890  01 00A5B  66666666 A          DATA    X'66666666'         PH4 : C(S)= PH1+PH3  = 66666666
2891  01 00A5C  5A5A5A5A A          DATA    X'5A5A5A5A'
2892  01 00A5D  5A5A5A5A A          DATA    X'5A5A5A5A'
2893  01 00A5E  C3C3C3C3 A          DATA    X'C3C3C3C3'
2894  01 00A5F  C3C3C3C3 A          DATA    X'C3C3C3C3'
2895                          ** ODD R FIELD CAUSING R AND RU1 TO BE THE SAME. ALSO USES R AS EW
2896  01 00A60  FFFFFFFA A  LS05    DATA    -6
2897  01 00A61  4AD0000C A          LS,13   12                  PH1 : C(S)= EW*RU1   = 0
2898  01 00A62  37300136            K       3,7,3,SETPSW
2899  01 00A63  07300166            K       0,7,3,L0C+2         PH3 : C(S)= R*NRU1   = 0
2900  01 00A64  FFFFFFFF A          DATA    -1
2901  01 00A65  FFFFFFFF A          DATA    -1                  PH4 : C(S)= PH1+PH3  = 0
2902                                PAGE
2903  01 00A66  FFFFFFFA A  LCF06   DATA    -6                  LCF 3  X 10 INTO E7 = 10 BYTE 1
2904  01 00A67  70320041            LCF,3   BRANCH-6,1
2905  01 00A68  E7300136            K       14,7,3,SETPSW
2906  01 00A69  17300166            K       1,7,3,L0C+2
2907  01 00A6A  1117FF2D A          DATA    X'1117FF2D'
2908  01 00A6B  1117FF2D A          DATA    X'1117FF2D'
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2909  01 00A6C  FFFFFFF4 A  LCF07   DATA    -12                 LCF 3 *X FF INTO 00 = F7 BYTE 3
2910  01 00A6D  F0320460            LCF,3   *MEMORY,1
2911  01 00A6E  00300136            K       0,0,3,SETPSW
2912  01 00A6F  F7300166            K       15,7,3,L0C+2
2913  01 00A70  00000123            DATA    BA(BRANCH)+7
2914  01 00A71  00000123            DATA    BA(BRANCH)+7
2915  01 00A72  00000419 A          DATA    MEMORY-BRANCH
2916  01 00A73  00000419 A          DATA    MEMORY-BRANCH
2917  01 00A74  4537FE21 A          DATA    X'4537FE21'
2918  01 00A75  4537FE21 A          DATA    X'4537FE21'
2919  01 00A76  000000FF A          DATA    X'FF'
2920  01 00A77  000000FF A          DATA    X'FF'
2921  01 00A78  FFFFFFF8 A  LCF08   DATA    -8                  LCF 3  X 56 INTO A1 = 56 BYTE 2
2922  01 00A79  70320119            LCF,3   CLEAR,1
2923  01 00A7A  A1300136            K       10,1,3,SETPSW
2924  01 00A7B  56300166            K       5,6,3,L0C+2
2925  01 00A7C  00000D1E A          DATA    4*(MEMORY-CLEAR)+2
2926  01 00A7D  00000D1E A          DATA    4*(MEMORY-CLEAR)+2
2927  01 00A7E  12345678 A          DATA    X'12345678'
2928  01 00A7F  12345678 A          DATA    X'12345678'
2929  01 00A80  FFFFFFF8 A  LCF09   DATA    -8
2930  01 00A81  70C00460            LCF,12  MEMORY
2931  01 00A82  00000136            K       0,0,0,SETPSW
2932  01 00A83  00000166            K       0,0,0,L0C+2
2933  01 00A84  00000000 A          DATA    0,0,-1,-1
      01 00A85  00000000 A
      01 00A86  FFFFFFFF A
      01 00A87  FFFFFFFF A
2934                                PAGE
2935  01 00A88  FFFFFFFC A  LCFI01  DATA    -4                  LCFI 0 FF INTO 00 IS 00
2936  01 00A89  020000FF A          LCFI,0  X'FF'
2937  01 00A8A  00000136            DATA    SETPSW
2938  01 00A8B  00000166            DATA    L0C+2
2939  01 00A8C  FFFFFFFC A  LCFI02  DATA    -4                  LCFI 3 00 INTO F7 IS 00
2940  01 00A8D  02300000 A          LCFI,3  0
2941  01 00A8E  F7300136            K       15,7,3,SETPSW
2942  01 00A8F  00300166            K       0,0,3,L0C+2
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2943  01 00A90  FFFFFFFC A  LCFI03  DATA    -4                    LCFI 2 57 INTO A0 IS 50
2944  01 00A91  02200057 A         LCFI,2  X'57'
2945  01 00A92  A0200136           K       10,0,2,SETPSW
2946  01 00A93  50200166           K       5,0,2,L0C+2
2947  01 00A94  FFFFFFFC A  LCFI04  DATA    -4                    LCFI 1 D9 INTO B6 IS B1
2948  01 00A95  021000D9 A         LCFI,1  X'D9'
2949  01 00A96  26100136           K       2,6,1,SETPSW
2950  01 00A97  21100166           K       2,1,1,L0C+2
2951  01 00A98  FFFFFFF8 A  LCFI05  DATA    -8                    LCFI 3 FF INTO 00 IS FF INDEX
2952  01 00A99  023000FF A         LCFI,3  X'FF',1
2953  01 00A9A  00000136           DATA    SETPSW
2954  01 00A9B  F7000166           K       15,7,0,L0C+2
2955  01 00A9C  12345678 A         DATA    X'12345678'
2956  01 00A9D  12345678 A         DATA    X'12345678'
2957  01 00A9E  9ABCDEF0 A         DATA    X'9ABCDEF0'
2958  01 00A9F  9ABCDEF0 A         DATA    X'9ABCDEF0'
2959  01 00AA0  FFFFFFFC A  LCFI06  DATA    -4                    LCFI *
2960  01 00AA1  82300460           LCFI,3  *MEMORY
2961  01 00AA2  773001B6           K       7,7,3,S19NA0
2962  01 00AA3  F7300068           K       15,7,3,NETRET+1
2963  01 00AA4  FFFFFFFC A  LCFI07  DATA    -4
2964  01 00AA5  02120011 A         LCFI,1  X'20011'
2965  01 00AA6  80000136           K       8,0,0,SETPSW
2966  01 00AA7  81000166           K       8,1,0,L0C+2
2967                               PAGE
2968  01 00AA8  FFFFFFF8 A  LAW01   DATA    -8                    LAW
2969  01 00AA9  33C00460           LAW,12  MEMORY
2970  01 00AAA  F7300136           K       15,7,3,SETPSW
2971  01 00AAB  87300166           K       8,7,3,L0C+2
2972  01 00AAC  FFFFFFFF A         DATA    -1
2973  01 00AAD  00000000 A         DATA    0
2974  01 00AAE  00000000 A         DATA    0
2975  01 00AAF  00000000 A         DATA    0
2976  01 00AB0  FFFFFFF8 A  LAW02   DATA    -8                    LAW  X
2977  01 00AB1  33C20461           LAW,12  MEMORY+1,1
2978  01 00AB2  17300136           K       1,7,3,SETPSW
2979  01 00AB3  27300166           K       2,7,3,L0C+2
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2980  01 00AB4  FFFFFFFF A         DATA    -1
2981  01 00AB5  00000001 A         DATA    1
2982  01 00AB6  FFFFFFFF A         DATA    -1
2983  01 00AB7  FFFFFFFF A         DATA    -1
2984  01 00AB8  FFFFFFF8 A  LAW03   DATA    -8                    LAW *     8F NTRAP
2985  01 00AB9  B8C0045A           LAW,12  *IA
2986  01 00ABA  37200136           K       3,7,2,SETPSW
2987  01 00ABB  57200166           K       5,7,2,L0C+2
2988  01 00ABC  7FFFFFFF A         DATA    X'7FFFFFFF'
2989  01 00ABD  80000000 A         DATA    X'80000000'
2990  01 00ABE  80000000 A         DATA    X'80000000'
2991  01 00ABF  80000000 A         DATA    X'80000000'
2992                               PAGE
2993  01 00AC0  FFFFFFF4 A  LAW04   DATA    -12                   LAW *X    8F TRAP
2994  01 00AC1  B8D20461           LAW,13  *MEMORY+1,1
2995  01 00AC2  F73001C2           K       15,7,3,FXP8SW
2996  01 00AC3  D7300084           K       13,7,3,FP8RET+1
2997  01 00AC4  0000046A           DATA    REPEAT
2998  01 00AC5  0000046A           DATA    REPEAT
2999  01 00AC6  80000000 A         DATA    X'80000000'
3000  01 00AC7  80000000 A         DATA    X'80000000'
3001  01 00AC8  FDBCA972 A         DATA    X'FDBCA972'
3002  01 00AC9  80000000 A         DATA    X'80000000'
3003  01 00ACA  FFFFFFF6 A         DATA    MEMORY-REPEAT
3004  01 00ACB  FFFFFFF6 A         DATA    MEMORY-REPEAT
3005  01 00ACC  FFFFFFF8 A  LAW05   DATA    -8                    LAW
3006  01 00ACD  33C00460           LAW,12  MEMORY
3007  01 00ACE  07300136           K       0,7,3,SETPSW
3008  01 00ACF  27300166           K       2,7,3,L0C+2
3009  01 00AD0  00000000 A         DATA    0
3010  01 00AD1  7FFFFFFF A         DATA    X'7FFFFFFF'
3011  01 00AD2  80000001 A         DATA    X'80000001'
3012  01 00AD3  80000001 A         DATA    X'80000001'
3013                               PAGE
3014                          ** INSURE THAT PROBEBVER/H IS DISABLED BY FAMT
3015  01 00AD4  FFFFFFF8 A  LAH01   DATA    -8                    LAH
3016  01 00AD5  58C00460           LAH,12  MEMORY
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3017  01 00AD6  07300136          K       0,7,3,SETPSW
3018  01 00AD7  27300166          K       2,7,3,L0C+2
3019  01 00AD8  FFFFFFFF A        DATA    -1
3020  01 00AD9  00008000 A        DATA    X'8000'
3021  01 00ADA  8000FFFF A        DATA    X'8000FFFF'
3022  01 00ADB  8000FFFF A        DATA    X'8000FFFF'
3023  01 00ADC  FFFFFFF8 A  LAH02 DATA    -8                  LAH  X
3024  01 00ADD  58C3FFF6 A        LAH,12  MEMORY-REPEAT,1
3025  01 00ADE  37300136          K       3,7,3,SETPSW
3026  01 00ADF  07300166          K       0,7,3,L0C+2
3027  01 00AE0  00000BD5          DATA    HA(REPEAT)+1
3028  01 00AE1  00000000 A        DATA    0
3029  01 00AE2  FFFF0000 A        DATA    X'FFFF0000'
3030  01 00AE3  FFFF0000 A        DATA    X'FFFF0000'
3031  01 00AE4  FFFFFFF8 A  LAH03 DATA    -8                  LAH 8
3032  01 00AE5  D8C0045A          LAH,12  *IA
3033  01 00AE6  17300136          K       1,7,3,SETPSW
3034  01 00AE7  27300166          K       2,7,3,L0C+2
3035  01 00AE8  FFFFFFFF A        DATA    -1
3036  01 00AE9  00000001 A        DATA    1
3037  01 00AEA  FFFF0000 A        DATA    X'FFFF0000'
3038  01 00AEB  FFFF0000 A        DATA    X'FFFF0000'
3039                              PAGE
3040  01 00AEC  FFFFFFF4 A  LAD01 DATA    -12                 LAD    RE
3041  01 00AED  18C00460          LAD,12  MEMORY
3042  01 00AEE  17300136          K       1,7,3,SETPSW
3043  01 00AEF  27300166          K       2,7,3,L0C+2
3044  01 00AF0  9ABCDEF0 A        DATA    X'9ABCDEF0'
3045  01 00AF1  7FFFFFFF A        DATA    X'7FFFFFFF'
3046  01 00AF2  80000000 A        DATA    X'80000000'
3047  01 00AF3  80000000 A        DATA    X'80000000'
3048  01 00AF4  12345678 A        DATA    X'12345678'
3049  01 00AF5  FFFFFFFF A        DATA    -1
3050  01 00AF6  00000001 A        DATA    1
3051  01 00AF7  00000001 A        DATA    1
3052  01 00AF8  FFFFFFF4 A  LAD02 DATA    -12                 LAD MB RE
3053  01 00AF9  18C00461          LAD,12  MEMORY+1
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3054  01 00AFA  37300136          K       3,7,3,SETPSW
3055  01 00AFB  07300166          K       0,7,3,L0C+2
3056  01 00AFC  FFFFFFFF A        DATA    -1
3057  01 00AFD  00000000 A        DATA    0
3058  01 00AFE  00000000 A        DATA    0
3059  01 00AFF  00000000 A        DATA    0
3060  01 00B00  FFFFFFFF A        DATA    -1
3061  01 00B01  00000000 A        DATA    0
3062  01 00B02  00000000 A        DATA    0
3063  01 00B03  00000000 A        DATA    0
3064                              PAGE
3065  01 00B04  FFFFFFF4 A  LAD03 DATA    -12                 LAD X  RE
3066  01 00B05  18C2046A          LAD,12  REPEAT,1
3067  01 00B06  37300136          K       3,7,3,SETPSW
3068  01 00B07  27300166          K       2,7,3,L0C+2
3069  01 00B08  FFFFFFF8 A        DATA    (MEMORY-REPEAT)/2
3070  01 00B09  6789ABCD A        DATA    X'6789ABCD'
3071  01 00B0A  98765432 A        DATA    X'98765432'
3072  01 00B0B  98765432 A        DATA    X'98765432'
3073  01 00B0C  FFFFFFFF A        DATA    -1
3074  01 00B0D  EF012346 A        DATA    X'EF012346'
3075  01 00B0E  10FEDCBA A        DATA    X'10FEDCBA'
3076  01 00B0F  10FEDCBA A        DATA    X'10FEDCBA'
3077  01 00B10  FFFFFFF4 A  LAD04 DATA    -12                 LAD *  RE BF NTRAP
3078  01 00B11  98C0045A          LAD,12  *IA
3079  01 00B12  27200136          K       2,7,2,SETPSW
3080  01 00B13  57200166          K       5,7,2,L0C+2
3081  01 00B14  76543210 A        DATA    X'76543210'
3082  01 00B15  80000000 A        DATA    X'80000000'
3083  01 00B16  80000000 A        DATA    X'80000000'
3084  01 00B17  80000000 A        DATA    X'80000000'
3085  01 00B18  12345678 A        DATA    X'12345678'
3086  01 00B19  00000000 A        DATA    0
3087  01 00B1A  00000000 A        DATA    0
3088  01 00B1B  00000000 A        DATA    0
3089                              PAGE
3090  01 00B1C  FFFFFFF4 A  LAD05 DATA    -12                 LAD    RE BF  TRAP
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3091  01 00B1D  13C00460          LAD,12  MEMORY
3092  01 00B1E  07300102          K       0,7,3,FXPOSW
3093  01 00B1F  57300084          K       5,7,3,FPORET+1
3094  01 00B20  00000000 A        DATA    0
3095  01 00B21  80000000 A        DATA    X'80000000'
3096  01 00B22  80000000 A        DATA    X'80000000'
3097  01 00B23  80000000 A        DATA    X'80000000'
3098  01 00B24  FFFFFFFF A        DATA    -1
3099  01 00B25  00000000 A        DATA    0
3100  01 00B26  00000000 A        DATA    0
3101  01 00B27  00000000 A        DATA    0
3102  01 00B28  FFFFFFF4 A  LAD06 DATA    -12             LAD   R0
3103  01 00B29  13D00460          LAD,13  MEMORY
3104  01 00B2A  B7300136          K       11,7,3,SETPSW
3105  01 00B2B  A7300166          K       10,7,3,L0C+2
3106  01 00B2C  92345678 A        DATA    X'92345678'
3107  01 00B2D  92345678 A        DATA    X'92345678'
3108  01 00B2E  80000000 A        DATA    X'80000000'
3109  01 00B2F  80000000 A        DATA    X'80000000'
3110  01 00B30  00BADBED A        DATA    X'BADBED'
3111  01 00B31  7FFFFFFF A        DATA    X'7FFFFFFF'
3112  01 00B32  00000001 A        DATA    1
3113  01 00B33  00000001 A        DATA    1
3114                        PAGE
3115  01 00B34  FFFFFFF4 A  LAD07 DATA    -12             LAD   R0
3116  01 00B35  13D00460          LAD,13  MEMORY
3117  01 00B36  A7300136          K       10,7,3,SETPSW
3118  01 00B37  A7300166          K       10,7,3,L0C+2
3119  01 00B38  CCCCCCCC A        DATA    X'CCCCCCCC'
3120  01 00B39  CCCCCCCC A        DATA    X'CCCCCCCC'
3121  01 00B3A  7FFFFFFF A        DATA    X'7FFFFFFF'
3122  01 00B3B  7FFFFFFF A        DATA    X'7FFFFFFF'
3123  01 00B3C  BCDEFA98 A        DATA    X'BCDEFA98'
3124  01 00B3D  7FFFFFFF A        DATA    X'7FFFFFFF'
3125  01 00B3E  FFFFFFFF A        DATA    -1
3126  01 00B3F  FFFFFFFF A        DATA    -1
3127                        PAGE
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3128  01 00B40  FFFFFFF8 A  LCW01 DATA    -8              LCW
3129  01 00B41  3AC00460          LCW,12  MEMORY
3130  01 00B42  87300136          K       8,7,3,SETPSW
3131  01 00B43  97300166          K       9,7,3,L0C+2
3132  01 00B44  12345678 A        DATA    X'12345678'
3133  01 00B45  E8CD431E A        DATA    X'E8CD431E'
3134  01 00B46  1732BCE2 A        DATA    X'1732BCE2'
3135  01 00B47  1732BCE2 A        DATA    X'1732BCE2'
3136  01 00B48  FFFFFFF8 A  LCW02 DATA    -8              LCW     9F NTRAP
3137  01 00B49  3AC00460          LCW,12  MEMORY
3138  01 00B4A  07200136          K       0,7,2,SETPSW
3139  01 00B4B  57200166          K       5,7,2,L0C+2
3140  01 00B4C  7FFFFFFF A        DATA    X'7FFFFFFF'
3141  01 00B4D  80000000 A        DATA    X'80000000'
3142  01 00B4E  80000000 A        DATA    X'80000000'
3143  01 00B4F  80000000 A        DATA    X'80000000'
3144  01 00B50  FFFFFFFA A  LCW03 DATA    -6              LCW     REGISTER TO REGISTER
3145  01 00B51  3AC0000C A        LCW,12  12
3146  01 00B52  27300136          K       2,7,3,SETPSW
3147  01 00B53  17300166          K       1,7,3,L0C+2
3148  01 00B54  12345678 A        DATA    X'12345678'
3149  01 00B55  EDCBA988 A        DATA    X'EDCBA988'
3150  01 00B56  FFFFFFF8 A  LCW04 DATA    -8              LCW  X   9F  TRAP
3151  01 00B57  3AC20464          LCW,12  RETURN,1
3152  01 00B58  F73001C2          K       15,7,3,FXPOSW
3153  01 00B59  D7300084          K       13,7,3,FPORET+1
3154  01 00B5A  FFFFFFFC A        DATA    MEMORY-RETURN
3155  01 00B5B  80000000 A        DATA    X'80000000'
3156  01 00B5C  80000000 A        DATA    X'80000000'
3157  01 00B5D  80000000 A        DATA    X'80000000'
3158                        PAGE
3159  01 00B5E  FFFFFFF8 A  LCW05 DATA    -8              LCW *    ZERO
3160  01 00B5F  BAC0045A          LCW,12  *-A
3161  01 00B60  77300136          K       7,7,3,SETPSW
3162  01 00B61  07300166          K       0,7,3,L0C+2
3163  01 00B62  FFFFFFFF A        DATA    -1
3164  01 00B63  00000000 A        DATA    0
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3165   01 00B64   00000000 A          DATA    0
3166   01 00B65   00000000 A          DATA    0
3167   01 00B66   FFFFFFF8 A  LCW06   DATA    -8                LCW
3168   01 00B67   3AC00460            LCW,12  MEMORY
3169   01 00B68   07300136            K       0,7,3,SETPSW
3170   01 00B69   27300166            K       2,7,3,LOC+2
3171   01 00B6A   00000000 A          DATA    0
3172   01 00B6B   7FFFFFFF A          DATA    X'7FFFFFFF'
3173   01 00B6C   80000001 A          DATA    X'80000001'
3174   01 00B6D   80000001 A          DATA    X'80000001'
3175                                  PAGE
3176   01 00B6E   FFFFFFF8 A  LCH01   DATA    -8                LCH       ME
3177   01 00B6F   5AC00460            LCH,12  MEMORY
3178   01 00B70   07300136            K       0,7,3,SETPSW
3179   01 00B71   17300166            K       1,7,3,LOC+2
3180   01 00B72   FFFFFFFF A          DATA    -1
3181   01 00B73   FFFFEDCC A          DATA    X'FFFFEDCC'
3182   01 00B74   12345678 A          DATA    X'12345678'
3183   01 00B75   12345678 A          DATA    X'12345678'
3184   01 00B76   FFFFFFF8 A  LCH02   DATA    -8                LCH  X   ME
3185   01 00B77   5AC2046A            LCH,12  REPEAT,1
3186   01 00B78   07300136            K       0,7,3,SETPSW
3187   01 00B79   27300166            K       2,7,3,LOC+2
3188   01 00B7A   FFFFFFEC A          DATA    2*(MEMORY-REPEAT)
3189   01 00B7B   00007898 A          DATA    X'7898'
3190   01 00B7C   87654321 A          DATA    X'87654321'
3191   01 00B7D   87654321 A          DATA    X'87654321'
3192   01 00B7E   FFFFFFF8 A  LCH03   DATA    -8                LCH *    ME
3193   01 00B7F   DAC0045A            LCH,12  *IA
3194   01 00B80   37300136            K       3,7,3,SETPSW
3195   01 00B81   07300166            K       0,7,3,LOC+2
3196   01 00B82   FFFFFFFF A          DATA    -1
3197   01 00B83   00000000 A          DATA    0
3198   01 00B84   0000FFFF A          DATA    X'FFFF'
3199   01 00B85   0000FFFF A          DATA    X'FFFF'
3200   01 00B86   FFFFFFF8 A  LCH04   DATA    -8                LCH  X   MB
3201   01 00B87   5AC20047            LCH,12  BRANCH,1
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3202   01 00B88   37300136            K       3,7,3,SETPSW
3203   01 00B89   17300166            K       1,7,3,LOC+2
3204   01 00B8A   00000833 A          DATA    2*(MEMORY-BRANCH)+1
3205   01 00B8B   FFFF89AC A          DATA    X'FFFF89AC'
3206   01 00B8C   FFFF7654 A          DATA    X'FFFF7654'
3207   01 00B8D   FFFF7654 A          DATA    X'FFFF7654'
3208                                  PAGE
3209   01 00B8E   FFFFFFF8 A  LCH05   DATA    -8                LCH  X   MB
3210   01 00B8F   5AC2046A            LCH,12  REPEAT,1
3211   01 00B90   37300136            K       3,7,3,SETPSW
3212   01 00B91   27300166            K       2,7,3,LOC+2
3213   01 00B92   FFFFFFED A          DATA    2*(MEMORY-REPEAT)+1
3214   01 00B93   00007FFF A          DATA    X'7FFF'
3215   01 00B94   00008001 A          DATA    X'8001'
3216   01 00B95   00008001 A          DATA    X'8001'
3217                                  PAGE
3218   01 00B96   FFFFFFF4 A  LCD01   DATA    -12               LCD      RE
3219   01 00B97   1AC00460            LCD,12  MEMORY
3220   01 00B98   17300136            K       1,7,3,SETPSW
3221   01 00B99   27300166            K       2,7,3,LOC+2
3222   01 00B9A   BBBBBBBB A          DATA    X'BBBBBBBB'
3223   01 00B9B   7FFFFFFF A          DATA    X'7FFFFFFF'
3224   01 00B9C   80000000 A          DATA    X'80000000'
3225   01 00B9D   80000000 A          DATA    X'80000000'
3226   01 00B9E   CCCCCCCC A          DATA    X'CCCCCCCC'
3227   01 00B9F   FFFFFFFF A          DATA    -1
3228   01 00BA0   00000001 A          DATA    1
3229   01 00BA1   00000001 A          DATA    1
3230   01 00BA2   FFFFFFF4 A  LCD02   DATA    -12               LCD  X RE
3231   01 00BA3   1AC2046A            LCD,12  REPEAT,1
3232   01 00BA4   27300136            K       2,7,3,SETPSW
3233   01 00BA5   17300166            K       1,7,3,LOC+2
3234   01 00BA6   FFFFFFFB A          DATA    (MEMORY-REPEAT)/2
3235   01 00BA7   80000000 A          DATA    X'80000000'
3236   01 00BA8   7FFFFFFF A          DATA    X'7FFFFFFF'
3237   01 00BA9   7FFFFFFF A          DATA    X'7FFFFFFF'
3238   01 00BAA   23476B9E A          DATA    X'23476B9E'
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3239  01 00BA8  00000001 A          DATA   1
3240  01 00BAC  FFFFFFFF A          DATA   -1
3241  01 00BAD  FFFFFFFF A          DATA   -1
3242                               PAGE
3243  01 00BAE  FFFFFFF4 A  LCD03   DATA   -12              LCD * RE
3244  01 00BAF  9AC0045A             LCD,12 *IA
3245  01 00BB0  37300136             K      3,7,3,SETPSW
3246  01 00BB1  07300166             K      0,7,3,L8C+2
3247  01 00BB2  FFFFFFFF A          DATA   -1
3248  01 00BB3  00000000 A          DATA   0
3249  01 00BB4  00000000 A          DATA   0
3250  01 00BB5  00000000 A          DATA   0
3251  01 00BB6  FFFFFFFF A          DATA   -1
3252  01 00BB7  00000000 A          DATA   0
3253  01 00BB8  00000000 A          DATA   0
3254  01 00BB9  00000000 A          DATA   0
3255                               PAGE
3256  01 00BBA  FFFFFFF4 A  LCD04   DATA   -12              LCD   RE 8F NTRAP
3257  01 00BBB  1AC00460             LCD,12 MEM8RY
3258  01 00BBC  27200136             K      2,7,2,SETPSW
3259  01 00BBD  57200166             K      5,7,2,L8C+2
3260  01 00BBE  FFFFFFFF A          DATA   -1
3261  01 00BBF  80000000 A          DATA   X'80000000'
3262  01 00BC0  80000000 A          DATA   X'80000000'
3263  01 00BC1  80000000 A          DATA   X'80000000'
3264  01 00BC2  FFFFFFFF A          DATA   -1
3265  01 00BC3  00000000 A          DATA   0
3266  01 00BC4  00000000 A          DATA   0
3267  01 00BC5  00000000 A          DATA   0
3268  01 00BC6  FFFFFFF4 A  LCD05   DATA   -12              LCD   R8 8F  TRAP
3269  01 00BC7  1AD00460             LCD,13 MEM8RY
3270  01 00BC8  973001C2             K      9,7,3,FXP8SW
3271  01 00BC9  D7300084             K      13,7,3,FP8RET+1
3272  01 00BCA  FEEDBEAD A          DATA   X'FEEDBEAD'
3273  01 00BCB  FEEDBEAD A          DATA   X'FEEDBEAD'
3274  01 00BCC  80000000 A          DATA   X'80000000'
3275  01 00BCD  80000000 A          DATA   X'80000000'
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3276  01 00BCE  FFFFFFFF A          DATA   -1
3277  01 00BCF  80000000 A          DATA   X'80000000'
3278  01 00BD0  00000000 A          DATA   0
3279  01 00BD1  00000000 A          DATA   0
3280  01 00BD2  FFFFFFF6 A  LCD06   DATA   -10              LCD   REGISTER T8 REGISTER
3281  01 00BD3  1AC0000C A          LCD,12 12
3282  01 00BD4  F7300136             K      15,7,3,SETPSW
3283  01 00BD5  A7300166             K      10,7,3,L8C+2
3284  01 00BD6  FFFFFFFF A          DATA   -1
3285  01 00BD7  00000000 A          DATA   0
3286  01 00BD8  00000000 A          DATA   0
3287  01 00BD9  00000000 A          DATA   0
3288  01 00BDA  FFFFFFFF A          DATA   -1
3289  01 00BDB  00000001 A          DATA   1
3290                               PAGE
3291  01 00BDC  FFFFFFF8 A  STH01   DATA   -8               STH
3292  01 00BDD  55C00460             STH,12 MEM8RY
3293  01 00BDE  F7300136             K      15,7,3,SETPSW
3294  01 00BDF  B7300166             K      11,7,3,L8C+2
3295  01 00BE0  FFFF8000 A          DATA   X'FFFF8000'
3296  01 00BE1  FFFF8000 A          DATA   X'FFFF8000'
3297  01 00BE2  FFFFFFFF A          DATA   -1
3298  01 00BE3  8000FFFF A          DATA   X'8000FFFF'
3299  01 00BE4  FFFFFFF8 A  STH02   DATA   -8               STH  X
3300  01 00BE5  55C3C461             STH,12 MEMORY-X'3FFF',1
3301  01 00BE6  67300136             K      6,7,3,SETPSW
3302  01 00BE7  27300166             K      2,7,3,L8C+2
3303  01 00BE8  00007FFF A          DATA   X'7FFF'
3304  01 00BE9  00007FFF A          DATA   X'7FFF'
3305  01 00BEA  12345678 A          DATA   X'12345678'
3306  01 00BEB  12347FFF A          DATA   X'12347FFF'
3307  01 00BEC  FFFFFFF8 A  STH03   DATA   -8               STH *
3308  01 00BED  D5C0045A             STH,12 *IA
3309  01 00BEE  A7300136             K      10,7,3,SETPSW
3310  01 00BEF  E7300166             K      14,7,3,L8C+2
3311  01 00BF0  0000FFFF A          DATA   X'FFFF'
3312  01 00BF1  0000FFFF A          DATA   X'FFFF'
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3313  01 00BF2  00000000 A          DATA    0
3314  01 00BF3  FFFF0000 A          DATA    X'FFFF0000'
3315  01 00BF4  FFFFFFF8 A  STH04   DATA    -8                STH
3316  01 00BF5  55C00460            STH,12  MEMORY
3317  01 00BF6  37300136            K       3,7,3,SETPSW
3318  01 00BF7  77300166            K       7,7,3,L0C+2
3319  01 00BF8  80001234 A          DATA    X'80001234'
3320  01 00BF9  80001234 A          DATA    X'80001234'
3321  01 00BFA  56781234 A          DATA    X'56781234'
3322  01 00BFB  12341234 A          DATA    X'12341234'
3323                                PAGE
3324  01 00BFC  FFFFFFF8 A  STH05   DATA    -8                STH
3325  01 00BFD  55CE0460            STH,12  MEMORY,7
3326  01 00BFE  97300136            K       9,7,3,SETPSW
3327  01 00BFF  D7300166            K       13,7,3,L0C+2
3328  01 00C00  FFFEF379 A          DATA    X'FFFEF379'
3329  01 00C01  FFFEF379 A          DATA    X'FFFEF379'
3330  01 00C02  67921113 A          DATA    X'67921113'
3331  01 00C03  6792F379 A          DATA    X'6792F379'
3332  01 00C04  FFFFFFF8 A  STH06   DATA    -8                STH
3333  01 00C05  55C00460            STH,12  MEMORY
3334  01 00C06  07300136            K       0,7,3,SETPSW
3335  01 00C07  47300166            K       4,7,3,L0C+2
3336  01 00C08  7FFF1692 A          DATA    X'7FFF1692'
3337  01 00C09  7FFF1692 A          DATA    X'7FFF1692'
3338  01 00C0A  00000000 A          DATA    0
3339  01 00C0B  16920000 A          DATA    X'16920000'
3340                                PAGE
3341  01 00C0C  FFFFFFF8 A  STB01   DATA    -8                STB       BYTE 0
3342  01 00C0D  75C00460            STB,12  MEMORY
3343  01 00C0E  F7300136            K       15,7,3,SETPSW
3344  01 00C0F  F7300166            K       15,7,3,L0C+2
3345  01 00C10  12345678 A          DATA    X'12345678'
3346  01 00C11  12345678 A          DATA    X'12345678'
3347  01 00C12  FFFFFFFF A          DATA    -1
3348  01 00C13  78FFFFFF A          DATA    X'78FFFFFF'
3349  01 00C14  FFFFFFF8 A  STB02   DATA    -8                STB  X    BYTE 1
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3350  01 00C15  75C20440            STB,12  MEMORY-X'20',1
3351  01 00C16  E7300136            K       14,7,3,SETPSW
3352  01 00C17  E7300166            K       14,7,3,L0C+2
3353  01 00C18  00000081 A          DATA    X'81'
3354  01 00C19  00000081 A          DATA    X'81'
3355  01 00C1A  FFFFFFFF A          DATA    -1
3356  01 00C1B  FF81FFFF A          DATA    X'FF81FFFF'
3357  01 00C1C  FFFFFFFA A  STB03   DATA    -6                STB  X    BYTE 2
3358  01 00C1D  75C20048 A          STB,12  12-X'1FFC4',1
3359  01 00C1E  D7300136            K       13,7,3,SETPSW
3360  01 00C1F  D7300166            K       13,7,3,L0C+2
3361  01 00C20  FFFFFF12 A          DATA    X'FFFFFF12'
3362  01 00C21  FFFF1212 A          DATA    X'FFFF1212'
3363  01 00C22  FFFFFFF8 A  STB04   DATA    -8                STB       BYTE 3
3364  01 00C23  75C28FCB            STB,12  MEMORY-X'17495',1
3365  01 00C24  C7300136            K       12,7,3,SETPSW
3366  01 00C25  C7300166            K       12,7,3,L0C+2
3367  01 00C26  6375D257 A          DATA    X'6375D257'
3368  01 00C27  6375D257 A          DATA    X'6375D257'
3369  01 00C28  FFFFFFFF A          DATA    -1
3370  01 00C29  FFFFFF57 A          DATA    X'FFFFFF57'
3371                                PAGE
3372  01 00C2A  FFFFFFF8 A  STB05   DATA    -8                STB       BYTE 0    ZERO
3373  01 00C2B  F5C0045A            STB,12  *IA
3374  01 00C2C  F7300136            K       15,7,3,SETPSW
3375  01 00C2D  F7300166            K       15,7,3,L0C+2
3376  01 00C2E  000000FF A          DATA    X'FF'
3377  01 00C2F  000000FF A          DATA    X'FF'
3378  01 00C30  00000000 A          DATA    0
3379  01 00C31  FF000000 A          DATA    X'FF000000'
3380                                PAGE
3381  01 00C32  FFFFFFF4 A  STD01   DATA    -12               STD
3382  01 00C33  15C00460            STD,12  MEMORY
3383  01 00C34  B7300136            K       11,7,3,SETPSW
3384  01 00C35  B7300166            K       11,7,3,L0C+2
3385  01 00C36  80000000 A          DATA    X'80000000'
3386  01 00C37  80000000 A          DATA    X'80000000'
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3387  01 00C38  7FFFFFFF A          DATA    X'7FFFFFFF'
3388  01 00C39  80000000 A          DATA    X'80000000'
3389  01 00C3A  00000000 A          DATA    0
3390  01 00C3B  00000000 A          DATA    0
3391  01 00C3C  FFFFFFFF A          DATA    -1
3392  01 00C3D  00000000 A          DATA    0
3393  01 00C3E  FFFFFFF4 A  STD02   DATA    -12                STD  X
3394  01 00C3F  15C2023C            STD,12  MEMORY-548,1
3395  01 00C40  A7300136            K       10,7,3,SETPSW
3396  01 00C41  A7300166            K       10,7,3,L0C+2
3397  01 00C42  00000112 A          DATA    274
3398  01 00C43  00000112 A          DATA    274
3399  01 00C44  FFFFFFFF A          DATA    -1
3400  01 00C45  00000112 A          DATA    274
3401  01 00C46  FFFFFFFF A          DATA    -1
3402  01 00C47  FFFFFFFF A          DATA    -1
3403  01 00C48  00000000 A          DATA    0
3404  01 00C49  FFFFFFFF A          DATA    -1
3405                          PAGE
3406  01 00C4A  FFFFFFF4 A  STD03   DATA    -12                STD *    R8
3407  01 00C4B  95D0045A            STD,13  *1A
3408  01 00C4C  97300136            K       9,7,3,SETPSW
3409  01 00C4D  97300166            K       9,7,3,L0C+2
3410  01 00C4E  12345678 A          DATA    X'12345678'
3411  01 00C4F  12345678 A          DATA    X'12345678'
3412  01 00C50  EC5D129E A          DATA    X'EC5D129E'
3413  01 00C51  9ABCDEF0 A          DATA    X'9ABCDEF0'
3414  01 00C52  9ABCDEF0 A          DATA    X'9ABCDEF0'
3415  01 00C53  9ABCDEF0 A          DATA    X'9ABCDEF0'
3416  01 00C54  56782349 A          DATA    X'56782349'
3417  01 00C55  9ABCDEF0 A          DATA    X'9ABCDEF0'
3418  01 00C56  FFFFFFF4 A  STD04   DATA    -12                STD      M8
3419  01 00C57  15C00461            STD,12  MEMORY+1
3420  01 00C58  87300136            K       8,7,3,SETPSW
3421  01 00C59  87300166            K       8,7,3,L0C+2
3422  01 00C5A  00000000 A          DATA    0
3423  01 00C5B  00000000 A          DATA    0
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3424  01 00C5C  FFFFFFFF A          DATA    -1
3425  01 00C5D  00000000 A          DATA    0
3426  01 00C5E  00000001 A          DATA    1
3427  01 00C5F  00000001 A          DATA    1
3428  01 00C60  FFFFFFFE A          DATA    -2
3429  01 00C61  00000001 A          DATA    1
3430                          PAGE
3431  01 00C62  FFFFFFF6 A  STS01   DATA    -10
3432  01 00C63  47C00460            STS,12  MEMORY              PH1:C(S) = EW.NRU1   = FFFF0000
3433  01 00C64  F7300136            K       15,7,3,SETPSW
3434  01 00C65  F7300166            K       15,7,3,L0C+2       PH3:C(S) = RR.RU1    = 0000FFFF
3435  01 00C66  0000FFFF A          DATA    X'FFFF'
3436  01 00C67  0000FFFF A          DATA    X'FFFF'            PH4:C(S) = PH1+PH3   = FFFFFFFF
3437  01 00C68  FFFF0000 A          DATA    X'FFFF0000'
3438  01 00C69  FFFFFFFF A          DATA    -1
3439  01 00C6A  0000FFFF A          DATA    X'FFFF'
3440  01 00C6B  0000FFFF A          DATA    X'FFFF'
3441                          ** USE ODD R FIELD AND EVEN R AS THE EW
3442  01 00C6C  FFFFFFF6 A  STS02   DATA    -10
3443  01 00C6D  47D0000C A          STS,13  12                 PH1:C(S) = EW.NRU1   = 0000FFFF
3444  01 00C6E  07300136            K       0,7,3,SETPSW
3445  01 00C6F  07300166            K       0,7,3,L0C+2        PH3:C(S) = RR.RU1    = FFFF0000
3446  01 00C70  0000FFFF A          DATA    X'FFFF'
3447  01 00C71  FFFFFFFF A          DATA    -1                 PH4:C(S) = PH1+PH3   = FFFFFFFF
3448  01 00C72  00000000 A          DATA    0
3449  01 00C73  00000000 A          DATA    0
3450  01 00C74  FFFF0000 A          DATA    X'FFFF0000'
3451  01 00C75  FFFF0000 A          DATA    X'FFFF0000'
3452                          PAGE
3453  01 00C76  FFFFFFF8 A  STCF01  DATA    -8                 STFC     BYTE 0
3454  01 00C77  74000460            STCF,0  MEMORY
3455  01 00C78  F7300136            K       15,7,3,SETPSW
3456  01 00C79  F7300166            K       15,7,3,L0C+2
3457  01 00C7A  00000000 A          DATA    0
3458  01 00C7B  00000000 A          DATA    0
3459  01 00C7C  00000000 A          DATA    0
3460  01 00C7D  F7000000 A          DATA    X'F7000000'
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3461  01 00C7E  FFFFFFF8 A  STCF02  DATA   -8              STFC  X   BYTE 1
3462  01 00C7F  74F2006A            STCF,15 NEIRET,1
3463  01 00C80  E6200136            K       14,6,2,SETPSW
3464  01 00C81  E6200166            K       14,6,2,L0C+2
3465  01 00C82  00000FD9 A          DATA    4*(MEMORY-NEIRET)+1
3466  01 00C83  00000FD9 A          DATA    4*(MEMORY-NEIRET)+1
3467  01 00C84  00000000 A          DATA    0
3468  01 00C85  00E60000 A          DATA    X'E60000'
3469  01 00C86  FFFFFFF8 A  STCF03  DATA    -8              STFC *X   BYTE 2
3470  01 00C87  F432045A            STCF,3  *IA,1
3471  01 00C88  D5300136            K       13,5,3,SETPSW
3472  01 00C89  D5300166            K       13,5,3,L0C+2
3473  01 00C8A  00000002 A          DATA    2
3474  01 00C8B  00000002 A          DATA    2
3475  01 00C8C  FFFFFFFF A          DATA    -1
3476  01 00C8D  FFFFD5FF A          DATA    X'FFFFD5FF'
3477  01 00C8E  FFFFFFF8 A  STCF04  DATA    -8              STCF X    BYTE 3
3478  01 00C8F  74120460            STCF,1  MEMORY,1
3479  01 00C90  34300136            K       3,4,3,SETPSW
3480  01 00C91  34300166            K       3,4,3,L0C+2
3481  01 00C92  00000003 A          DATA    3
3482  01 00C93  00000003 A          DATA    3
3483  01 00C94  FFFFFFFF A          DATA    -1
3484  01 00C95  FFFFFF34 A          DATA    X'FFFFFF34'
3485                                PAGE
3486  01 00C96  FFFFFFF8 A  XW01    DATA    -8              XW  RESULT IN R IS ZERO
3487  01 00C97  46C00460            XW,12   MEMORY
3488  01 00C98  F7300136            K       15,7,3,SETPSW
3489  01 00C99  C7300166            K       12,7,3,L0C+2
3490  01 00C9A  FFFFFFFF A          DATA    -1
3491  01 00C9B  00000000 A          DATA    0
3492  01 00C9C  00000000 A          DATA    0
3493  01 00C9D  FFFFFFFF A          DATA    -1
3494  01 00C9E  FFFFFFF8 A  XW02    DATA    -8              XW  RESULT IN R IS POS
3495  01 00C9F  46C00460            XW,12   MEMORY
3496  01 00CA0  37300136            K       3,7,3,SETPSW
3497  01 00CA1  27300166            K       2,7,3,L0C+2
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3498  01 00CA2  FFFFFFF6 A          DATA    MEMORY-REPEAT
3499  01 00CA3  7FFFFFFF A          DATA    X'7FFFFFFF'
3500  01 00CA4  7FFFFFFF A          DATA    X'7FFFFFFF'
3501  01 00CA5  FFFFFFF6 A          DATA    MEMORY-REPEAT
3502  01 00CA6  FFFFFFF8 A  XW03    DATA    -8              XW  RESULT IN R IS NEG
3503  01 00CA7  46C00460            XW,12   MEMORY
3504  01 00CA8  27300136            K       2,7,3,SETPSW
3505  01 00CA9  17300166            K       1,7,3,L0C+2
3506  01 00CAA  00000000 A          DATA    0
3507  01 00CAB  FFFFFFFF A          DATA    -1
3508  01 00CAC  FFFFFFFF A          DATA    -1
3509  01 00CAD  00000000 A          DATA    0
3510  01 00CAE  FFFFFFF6 A  XW04    DATA    -10             XW REGISTER TO REGISTER. RESULT NEG.
3511  01 00CAF  46C0000D A          XW,12   13
3512  01 00CB0  07300136            K       0,7,3,SETPSW
3513  01 00CB1  17300166            K       1,7,3,L0C+2
3514  01 00CB2  00000001 A          DATA    1
3515  01 00CB3  FFFFFFFF A          DATA    -1
3516  01 00CB4  00000000 A          DATA    0
3517  01 00CB5  00000000 A          DATA    0
3518  01 00CB6  FFFFFFFF A          DATA    -1
3519  01 00CB7  00000001 A          DATA    1
3520                                PAGE
3521  01 00CB8  FFFFFFF6 A  INT01   DATA    -10             INT
3522  01 00CB9  63C00460            INT,12  MEMORY
3523  01 00CBA  77300136            K       7,7,3,SETPSW
3524  01 00CBB  17300166            K       1,7,3,L0C+2
3525  01 00CBC  FFFFFFFF A          DATA    -1
3526  01 00CBD  00000234 A          DATA    X'234'
3527  01 00CBE  12345678 A          DATA    X'12345678'
3528  01 00CBF  12345678 A          DATA    X'12345678'
3529  01 00CC0  FFFFFFFF A          DATA    -1
3530  01 00CC1  00005678 A          DATA    X'5678'
3531  01 00CC2  FFFFFFF6 A  INT02   DATA    -10             INT
3532  01 00CC3  63C00460            INT,12  MEMORY
3533  01 00CC4  07300136            K       0,7,3,SETPSW
3534  01 00CC5  F7300166            K       15,7,3,L0C+2
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3535  01 00CC6  00000289 A          DATA    MEMORY-END
3536  01 00CC7  00000EDC A          DATA    X'EDC'
3537  01 00CC8  FEDCBA98 A          DATA    X'FEDCBA98'
3538  01 00CC9  FEDCBA98 A          DATA    X'FEDCBA98'
3539  01 00CCA  12345678 A          DATA    X'12345678'
3540  01 00CCB  0000BA98 A          DATA    X'BA98'
3541  01 00CCC  FFFFFFF6 A  INT03   DATA    -10                 INT BDD REG
3542  01 00CCD  68D00460            INT,13  MEMORY
3543  01 00CCE  77300136            K       7,7,3,SETPSW
3544  01 00CCF  87300166            K       8,7,3,LOC+2
3545  01 00CD0  FFFFFFFF A          DATA    -1
3546  01 00CD1  FFFFFFFF A          DATA    -1
3547  01 00CD2  89ABCDEF A          DATA    X'89ABCDEF'
3548  01 00CD3  89ABCDEF A          DATA    X'89ABCDEF'
3549  01 00CD4  FFFFFFFF A          DATA    -1
3550  01 00CD5  0000CDEF A          DATA    X'CDEF'
3551                                PAGE
3552  01 00CD6  FFFFFFF8 A  ANLZ01  DATA    -8                  ANLZ    HALFWORD *X
3553  01 00CD7  44C00460            ANLZ,12 MEMORY              PXS= FAS10.NFAIM.NANLZ.PRE3
3554                          *                                 S/MRQ/2 * PREOPER*PRE/12
3555                          *                                 PREOPER IS QUALIFIED WITH NANLZ
3556                          *                                 BRPH5= ANLZ.PRE3
3557  01 00CD8  F7300136            K       15,7,3,SETPSW
3558  01 00CD9  67300166            K       6,7,3,LOC+2
3559  01 00CDA  0000034F            DATA    HA(END)+1
3560  01 00CDB  0000056F A          DATA    ABSVAL(HA(CYCLE))+ABSVAL(HA(END)+1)
3561  01 00CDC  D2F2046A            LH,15   *REPEAT,1
3562  01 00CDD  D2F2046A            LH,15   *REPEAT,1
3563  01 00CDE  FFFFFFF8 A  ANLZ02  DATA    -8                  ANLZ  X     WORD *
3564  01 00CDF  44C2046A            ANLZ,12 REPEAT,1
3565  01 00CE0  77300136            K       7,7,3,SETPSW
3566  01 00CE1  A7300166            K       10,7,3,LOC+2
3567  01 00CE2  FFFFFFF6 A          DATA    MEMORY-REPEAT
3568  01 00CE3  00000460            DATA    MEMORY
3569  01 00CE4  B530045A            STW,3   *IA
3570  01 00CE5  B530045A            STW,3   *IA
3571  01 00CE6  FFFFFFF8 A  ANLZ03  DATA    -8                  ANLZ *      BYTE *X
```



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3572  01 00CE7  C4C0045A            ANLZ,12 *IA
3573  01 00CE8  77300136            K       7,7,3,SETPSW
3574  01 00CE9  27300166            K       2,7,3,LOC+2
3575  01 00CEA  00000143 A          DATA    X'143'
3576  01 00CEB  000012C3            DATA    BA(MEMORY)+X'143'
3577  01 00CEC  F102045A            CB,0    *IA,1
3578  01 00CED  F102045A            CB,0    *IA,1
3579  01 00CEE  FFFFFFF8 A  ANLZ04  DATA    -8                  ANLZ  DOUBLEWORD  X
3580  01 00CEF  44C00460            ANLZ,12 MEMORY
3581  01 00CF0  07300136            K       0,7,3,SETPSW
3582  01 00CF1  C7300166            K       12,7,3,LOC+2
3583  01 00CF2  00000725 A          DATA    X'725'
3584  01 00CF3  00000955            DATA    DA(MEMORY+1)+X'725'
3585  01 00CF4  18420461            LAD,4   MEMORY+1,1
3586  01 00CF5  18420461            LAD,4   MEMORY+1,1
3587                                PAGE
3588  01 00CF6  FFFFFFF8 A  ANLZ05  DATA    -8                  ANLZ  IMMED WORD *X
3589  01 00CF7  44C00460            ANLZ,12 MEMORY
3590  01 00CF8  07300136            K       0,7,3,SETPSW
3591  01 00CF9  B7300166            K       11,7,3,LOC+2
3592  01 00CFA  00001234 A          DATA    X'1234'
3593  01 00CFB  00001234 A          DATA    X'1234'
3594  01 00CFC  A2C0045A            LI,12   *IA,1
3595  01 00CFD  A2C0045A            LI,12   *IA,1
3596                          *  S/PRETR = PRE1*NANLZ
3597  01 00CFE  FFFFFFF8 A  ANLZ06  DATA    -8                  ANLZ ILLEGAL FAMILY (IMMEDIATE-BYTE)
3598  01 00CFF  44C00460            ANLZ,12 MEMORY
3599  01 00D00  07300136            K       0,7,3,SETPSW
3600  01 00D01  17300166            K       1,7,3,LOC+2
3601  01 00D02  FFFFFFFF A          DATA    -1
3602  01 00D03  FFFFFFFF A          DATA    -1
3603  01 00D04  61700752 A          MBS,7   X'752'
3604  01 00D05  61700752 A          MBS,7   X'752'
3605  01 00D06  FFFFFFF8 A  ANLZ07  DATA    -8                  ANLZ PRIV INST IN SLAVE MODE
3606  01 00D07  44C00460            ANLZ,12 MEMORY              DOUBLEWORD, DIRECT ADDRESSING
3607  01 00D08  07900136            K       0,7,9,SETPSW
3608  01 00D09  C7900165            K       12,7,9,LOC+1
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3609   01 00D0A   00000000 A          DATA    0
3610   01 00D0B   00000232            GEN     DA(RETURN)
3611   01 00D0C   0F000464            XPSD,0  RETURN
3612   01 00D0D   0F000464            XPSD,0  RETURN
3613                                  PAGE
3614                          *  ON FIRST PASS  THE INST IS  B  END.  IF NON-EXSISTENT MEMORY IS    *B
3615                          *  PRESENT AN  ANLZ,12 MEMORY INSTRUCTION WILL BE INSERTED            *B
3616   01 00D0E   FFFFFFF8 A  ANLZ08  DATA    -8
3617   01 00D0F   44C00460            ANLZ,12 MEMORY
3618   01 00D10   07300136            K       0,7,3,SETPSW
3619   01 00D11   07300164            K       0,7,3,L0C
3620   01 00D12   00000000 A          DATA    0
3621   01 00D13   00000000 A          DATA    0
3622   01 00D14   B2C00000 A          LW,12   *0              CHANGED TO LW,12  *(NON-EXSISTENT-*B
3623   01 00D15   B2C00000 A          LW,12   *0                MEMEMORY) AFTER ONE PASS          *B
3624                          *  S/MRQ/1 = FABRANCH*PRE/12*NANLZ
3625                          *  S/RW =  FUBDR*PRE3*NANLZ
3626   01 00D16   FFFFFFF6 A  ANLZ09  DATA    -10             ANALYZE A BRANCH THAT WILL BRANCH
3627   01 00D17   44C00460            ANLZ,12 MEMORY
3628   01 00D18   00000136            K       0,0,0,SETPSW
3629   01 00D19   A0000166            K       10,0,0,L0C+2
3630   01 00D1A   00000002 A          DATA    2
3631   01 00D1B   00001001 A          DATA    X'1001'
3632   01 00D1C   E4CE000D A          DATA    X'E4CE000D'     BDR,12 *13,7
3633   01 00D1D   E4CE000D A          DATA    X'E4CE000D'
3634   01 00D1E   00001000 A          DATA    X'1000'
3635   01 00D1F   00001000 A          DATA    X'1000'
3636   01 00D20   FFFFFFF8 A  ANLZ10  DATA    -8              ANALYZE A BRANCH THAT WONT BRANCH
3637   01 00D21   44C00460            ANLZ,12 MEMORY
3638   01 00D22   00000136            K       0,0,0,SETPSW
3639   01 00D23   A0000166            K       10,0,0,L0C+2
3640   01 00D24   00000000 A          DATA    0,1
       01 00D25   00000001 A
3641   01 00D26   E4CE000C A          DATA    X'E4CE000C'     BDR,12 *12,7
3642   01 00D27   E4CE000C A          DATA    X'E4CE000C'
3643                                  PAGE
3644                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
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3645                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3646                          * PXS =  FASEL*PRE3*N0L7*NANLZ
3647   01 00D28   FFFFFFF4 A  ANLZ11  DATA    -12
3648   01 00D29   44C00460            ANLZ,12 MEMORY
3649   01 00D2A   F7300136            K       15,7,3,SETPSW
3650   01 00D2B   87300166            K       8,7,3,L0C+2
3651   01 00D2C   00000000 A          DATA    0
3652   01 00D2D   00000466            DATA    RETURN+2
3653   01 00D2E   4AC00466            LS,12   RETURN+2
3654   01 00D2F   4AC00466            LS,12   RETURN+2
3655   01 00D30   FFFFFFFF A          DATA    -1
3656   01 00D31   FFFFFFFF A          DATA    -1
3657   01 00D32   0F000464            XPSD,0  RETURN
3658   01 00D33   0F000464            XPSD,0  RETURN
3659                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3660                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3661                          * PXS =  FJEXU*PRE3*NANLZ
3662                          * BRP10 =FJEXU*PRE3*NANLZ
3663   01 00D34   FFFFFFF4 A  ANLZ12  DATA    -12
3664   01 00D35   44C00460            ANLZ,12 MEMORY
3665   01 00D36   00000136            K       0,0,0,SETPSW
3666   01 00D37   80000166            K       8,0,0,L0C+2
3667   01 00D38   00000000 A          DATA    0
3668   01 00D39   00000460            DATA    MEMORY
3669   01 00D3A   67000460            EXU     MEMORY
3670   01 00D3B   67000460            EXU     MEMORY
3671   01 00D3C   FFFFFFFF A          DATA    -1,-1
       01 00D3D   FFFFFFFF A
3672   01 00D3E   0F000464            XPSD,0  RETURN
3673   01 00D3F   0F000464            XPSD,0  RETURN
3674                                  PAGE
3675                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3676                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3677                          * PXS =  FARWD*PRE3*NANLZ
3678   01 00D40   FFFFFFF4 A  ANLZ13  DATA    -12
3679   01 00D41   44C00460            ANLZ,12 MEMORY
3680   01 00D42   00000136            K       0,0,0,SETPSW
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3681  01 00D43  80000166            K       8,0,0,L0C+2
3682  01 00D44  FFFFFFFF A         DATA     -1
3683  01 00D45  00000041 A         DATA     X'41'
3684  01 00D46  6DC00041 A         WD,12    X'41'
3685  01 00D47  6DC00041 A         WD,12    X'41'
3686  01 00D48  5A5A5A5A A         DATA     X'5A5A5A5A'
3687  01 00D49  5A5A5A5A A         DATA     X'5A5A5A5A'
3688  01 00D4A  0F000464            XPSD,0   RETURN
3689  01 00D4B  0F000464            XPSD,0   RETURN
3690                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3691                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3692                          * PXS =  FAMDS.PRE3.NANLZ.NFAIM
3693                          * BRPH3 =FAMDS.PRE/3%.NBRPH5.NANLZ
3694  01 00D4C  FFFFFFF4 A    ANLZ14   DATA     -12
3695  01 00D4D  44C00460            ANLZ,12  MEMORY
3696  01 00D4E  00000136            K        0,0,0,SETPSW
3697  01 00D4F  80000166            K        8,0,0,L0C+2
3698  01 00D50  00000000 A         DATA     0
3699  01 00D51  00000047            DATA     BRANCH
3700  01 00D52  37C00047            MW,12    BRANCH
3701  01 00D53  37C00047            MW,12    BRANCH
3702  01 00D54  5A5A5A5A A         DATA     X'5A5A5A5A'
3703  01 00D55  5A5A5A5A A         DATA     X'5A5A5A5A'
3704  01 00D56  0F000464            XPSD,0   RETURN
3705  01 00D57  0F000464            XPSD,0   RETURN
3706                                PAGE
3707                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3708                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3709                          * S/RW  = FUXW.PRE3.NANLZ
3710  01 00D58  FFFFFFF4 A    ANLZ15   DATA     -12
3711  01 00D59  44C00460            ANLZ,12  MEMORY
3712  01 00D5A  00000136            K        0,0,0,SETPSW
3713  01 00D5B  80000166            K        8,0,0,L0C+2
3714  01 00D5C  FFFFFC18 A         DATA     -1000
3715  01 00D5D  00000460            DATA     MEMORY
3716  01 00D5E  46D00460            XW,13    MEMORY
3717  01 00D5F  46D00460            XW,13    MEMORY
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3718  01 00D60  5A5A5A5A A         DATA     X'5A5A5A5A'
3719  01 00D61  5A5A5A5A A         DATA     X'5A5A5A5A'
3720  01 00D62  0F000464            XPSD,0   RETURN
3721  01 00D63  0F000464            XPSD,0   RETURN
3722                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3723                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3724                          * S/RW  = FUBAL.PRE3.NANLZ
3725  01 00D64  FFFFFFF4 A    ANLZ16   DATA     -12
3726  01 00D65  44C00460            ANLZ,12  MEMORY
3727  01 00D66  00000136            K        0,0,0,SETPSW
3728  01 00D67  80000166            K        8,0,0,L0C+2
3729  01 00D68  000003E8 A         DATA     1000
3730  01 00D69  00000047            DATA     BRANCH
3731  01 00D6A  6AD00047            BAL,13   BRANCH
3732  01 00D6B  6AD00047            BAL,13   BRANCH
3733  01 00D6C  5A5A5A5A A         DATA     X'5A5A5A5A'
3734  01 00D6D  5A5A5A5A A         DATA     X'5A5A5A5A'
3735  01 00D6E  0F000464            XPSD,0   RETURN
3736  01 00D6F  0F000464            XPSD,0   RETURN
3737                                PAGE
3738                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3739                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3740                          * ANALYZE A BIR THAT WILL BRANCH
3741                          * S/RW = FUBIR.PRE3.NANLZ
3742  01 00D70  FFFFFFF4 A    ANLZ17   DATA     -12
3743  01 00D71  44C00460            ANLZ,12  MEMORY
3744  01 00D72  00000136            K        0,0,0,SETPSW
3745  01 00D73  80000166            K        8,0,0,L0C+2
3746  01 00D74  FFFFFFFE A         DATA     -2
3747  01 00D75  00000047            DATA     BRANCH
3748  01 00D76  65C00047            BIR,12   BRANCH
3749  01 00D77  65C00047            BIR,12   BRANCH
3750  01 00D78  5A5A5A5A A         DATA     X'5A5A5A5A'
3751  01 00D79  5A5A5A5A A         DATA     X'5A5A5A5A'
3752  01 00D7A  0F000464            XPSD,0   RETURN
3753  01 00D7B  0F000464            XPSD,0   RETURN
3754                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
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3755                                ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3756                                * ANALYZE A BIR THAT WILL NOT BRANCH
3757   01 00D7C   FFFFFFF4 A   ANLZ18   DATA     -12
3758   01 00D7D   44C00460              ANLZ,12  MEMORY
3759   01 00D7E   00000136              K        0,0,0,SETPSW
3760   01 00D7F   80000166              R        8,0,0,L0C+2
3761   01 00D80   00000001 A            DATA     1
3762   01 00D81   00000047              DATA     BRANCH
3763   01 00D82   65C00047              BIR,12   BRANCH
3764   01 00D83   65C00047              BIR,12   BRANCH
3765   01 00D84   5A5A5A5A A            DATA     X'5A5A5A5A'
3766   01 00D85   5A5A5A5A A            DATA     X'5A5A5A5A'
3767   01 00D86   0F000464              XPSD,0   RETURN
3768   01 00D87   0F000464              XPSD,0   RETURN
3769                                    PAGE
3770                                ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3771                                ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3772                                * BRPH3 = FUSF*PRE3*NANLZ*D23
3773   01 00D88   FFFFFFF4 A   ANLZ19   DATA     -12
3774   01 00D89   44C00460              ANLZ,12  MEMORY
3775   01 00D8A   00000136              K        0,0,0,SETPSW
3776   01 00D8B   80000166              K        8,0,0,L0C+2
3777   01 00D8C   00000064 A            DATA     100
3778   01 00D8D   00000177 A            DATA     X'177'
3779   01 00D8E   24D00177 A            SF,13    X'177'
3780   01 00D8F   24D00177 A            SF,13    X'177'
3781   01 00D90   5A5A5A5A A            DATA     X'5A5A5A5A'
3782   01 00D91   5A5A5A5A A            DATA     X'5A5A5A5A'
3783   01 00D92   0F000464              XPSD,0   RETURN
3784   01 00D93   0F000464              XPSD,0   RETURN
3785                                ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3786                                ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3787                                * BRPH3 = FAPSD*PRE3*NANLZ*N87
3788   01 00D94   FFFFFFF4 A   ANLZ20   DATA     -12
3789   01 00D95   44C00460              ANLZ,12  MEMORY
3790   01 00D96   00000136              K        0,0,0,SETPSW
3791   01 00D97   C0000166              K        12,0,0,L0C+2
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3792   01 00D98   00000165              DATA     L0C+1
3793   01 00D99   00000006 A            DATA     6
3794   01 00D9A   0E00000C A            LPSD,0   12
3795   01 00D9B   0E00000C A            LPSD,0   12
3796   01 00D9C   00000000 A            DATA     0
3797   01 00D9D   00000000 A            DATA     0
3798   01 00D9E   0F000464              XPSD,0   RETURN
3799   01 00D9F   0F000464              XPSD,0   RETURN
3800                                    PAGE
3801                                ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3802                                ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3803                                * PXS   = FAMDS*NFAIM*PRE3*NANLZ
3804   01 00DA0   FFFFFFF4 A   ANLZ21   DATA     -12
3805   01 00DA1   44C00460              ANLZ,12  MEMORY
3806   01 00DA2   00000136              K        0,0,0,SETPSW
3807   01 00DA3   A0000166              K        10,0,0,L0C+2
3808   01 00DA4   FFFFFFFF A            DATA     -1
3809   01 00DA5   0001FFFF A            DATA     X'1FFFF'
3810   01 00DA6   A5D0000C A            S,13     *12
3811   01 00DA7   A5D0000C A            S,13     *12
3812   01 00DA8   5A5A5A5A A            DATA     X'5A5A5A5A'
3813   01 00DA9   5A5A5A5A A            DATA     X'5A5A5A5A'
3814   01 00DAA   0F000464              XPSD,0   RETURN
3815   01 00DAB   0F000464              XPSD,0   RETURN
3816                                ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3817                                ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3818                                * BRPH6 = FAST/M*PRE3*N80*NANLZ
3819   01 00DAC   FFFFFFF4 A   ANLZ22   DATA     -12
3820   01 00DAD   44C00460              ANLZ,12  MEMORY
3821   01 00DAE   10000136              K        1,0,0,SETPSW
3822   01 00DAF   80000166              K        8,0,0,L0C+2
3823   01 00DB0   00000000 A            DATA     0
3824   01 00DB1   00000047              DATA     BRANCH
3825   01 00DB2   2AD00047              LM,13    BRANCH
3826   01 00DB3   2AD00047              LM,13    BRANCH
3827   01 00DB4   00000000 A            DATA     0,0
       01 00DB5   00000000 A
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3828  01 00DB6  0F000464              XPSD,0   RETURN
3829  01 00DB7  0F000464              XPSD,0   RETURN
3830                                   PAGE
3831                          ** ANLZ11 THROUGH ANLZ23 TEST NUMEROUS PRE PHASE TERMS: PXS, S/RW,
3832                          ** BRPH3, BRPH6, AND BRPH10. REFERENCE PHASE SEQUENCE CHARTS
3833                          * PXS * FUWAIT*PRE3*NANLZ
3834  01 00DB8  FFFFFFF4 A   ANLZ23  DATA    -12
3835  01 00DB9  44C00460             ANL2,12  MEMORY
3836  01 00DBA  73300136             K        7,3,3,SETPSW
3837  01 00DBB  83300166             K        8,3,3,LOC+2
3838  01 00DBC  00000000 A           DATA     0,100
      01 00DBD  00000064 A
3839  01 00DBE  2E000064 A           WAIT     100
3840  01 00DBF  2E000064 A           WAIT     100
3841  01 00DC0  FFFFFFFF A           DATA     -1,-1
      01 00DC1  FFFFFFFF A
3842  01 00DC2  0F000464             XPSD,0   RETURN
3843  01 00DC3  0F000464             XPSD,0   RETURN
3844                          *                BRPRE4 * (LI*LCFI)*PREL1*NANLZ*NCO
3845  01 00DC4  FFFFFFF8 A   ANLZ24  DATA    -8
3846  01 00DC5  44C00460             ANL2,12  MEMORY
3847  01 00DC6  07300136             K        0,7,3,SETPSW
3848  01 00DC7  97300166             K        9,7,3,LOC+2
3849  01 00DC8  00000001 A           DATA     1
3850  01 00DC9  00000001 A           DATA     1
3851  01 00DCA  023000FF A           LCFI,3   X'FF'
3852  01 00DCB  023000FF A           LCFI,3   X'FF'
3853                                   PAGE
3854                          ** CONDITION CODE SETTINGS FOR CI,CB,CH,CW
3855                          **  CC2  CC3  CC4
3856                          **   -    0    0   OPERANDS EQUAL
3857                          **   -    0    1   REGISTER WORD < EFFECTIVE WORD
3858                          **   -    1    0   REGISTER WORD > EFFECTIVE WORD
3859                          **   0    -    -   LOGICAL PRODUCT OF THE TWO OPERANDS IS ZERO
3860                          **   1    -    -   LOGICAL PRODUCT OF THE TWO OPERANDS IS NONZERO
3861                          ** COMPARE C(R) > C(EW). LOGIC PROD  ZERO
3862                          ** CHECK THAT SO.NFACOMP DOES NOT INHIBIT SGTZ (S1CC3) ALSO
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3863                          ** CHECK THAT SO.NFACOMP DOES NOT S/CC4
3864  01 00DCC  FFFFFFF8 A   CW01    DATA    -8
3865  01 00DCD  31C00460             CW,12    MEMORY
3866  01 00DCE  F7300136             K        15,7,3,SETPSW
3867  01 00DCF  A7300166             K        10,7,3,LOC+2
3868  01 00DD0  40000000 A           DATA     X'40000000'
3869  01 00DD1  40000000 A           DATA     X'40000000'
3870  01 00DD2  BFFFFFFF A           DATA     X'BFFFFFFF'
3871  01 00DD3  BFFFFFFF A           DATA     X'BFFFFFFF'
3872                          ** COMPARE C(R) < C(EW). LOGIC PROD NEZ
3873                          ** CHECK THAT SOO.FACOMP HOLD SGTZ FALSE INHIBITING SETTING CC3
3874                          ** CHECK THAT SOO.FACOMP CAUSES S/CC4
3875  01 00DD4  FFFFFFF8 A   CW02    DATA    -8
3876  01 00DD5  31C00460             CW,12    MEMORY
3877  01 00DD6  07300136             K        0,7,3,SETPSW
3878  01 00DD7  57300166             K        5,7,3,LOC+2
3879  01 00DD8  FFFFFFFE A           DATA     -2
3880  01 00DD9  FFFFFFFE A           DATA     -2
3881  01 00DDA  7FFFFFFF A           DATA     X'7FFFFFFF'
3882  01 00DDB  7FFFFFFF A           DATA     X'7FFFFFFF'
3883                          ** COMPARE EQUALS. LOGIC PRODUCT ZERO (OPERANDS BOTH ZERO)
3884  01 00DDC  FFFFFFFC A   CW03    DATA    -4
3885  01 00DDD  31C00460             CW,12    MEMORY
3886  01 00DDE  F7300136             K        15,7,3,SETPSW
3887  01 00DDF  87300166             K        8,7,3,LOC+2
3888                                   PAGE
3889                          ** R > EW. HALFWORD ZERO BEING COMPARED. LOGICAL PRODUCT  NEZ
3890  01 00DE0  FFFFFFF8 A   CH01    DATA    -8                  CH
3891  01 00DE1  51C00460             CH,12    MEMORY
3892  01 00DE2  F7300136             K        15,7,3,SETPSW
3893  01 00DE3  C7300166             K        12,7,3,LOC+2
3894  01 00DE4  FFFF8000 A           DATA     X'FFFF8000'
3895  01 00DE5  FFFF8000 A           DATA     X'FFFF8000'
3896  01 00DE6  8000F739 A           DATA     X'8000F739'
3897  01 00DE7  8000F739 A           DATA     X'8000F739'
3898                          ** R=EW  HALFWORD ONE BEING COMPARED. LOGICAL PRODUCT NEZ
3899  01 00DE8  FFFFFFF8 A   CH02    DATA    -8                  CH  X
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3900   01 00DE9    51CE0460            CH,12    MEMORY,7
3901   01 00DEA    77300136            K        7,7,3,SETPSW
3902   01 00DEB    47300166            K        4,7,3,LOC+2
3903   01 00DEC    00007F32 A          DATA     X'7F32'
3904   01 00DED    00007F32 A          DATA     X'7F32'
3905   01 00DEE    123E7F32 A          DATA     X'123E7F32'
3906   01 00DEF    123E7F32 A          DATA     X'123E7F32'
3907                           ** EW > R. HW ZERO BEING COMPARED. LOGICAL PRODUCT EZ
3908   01 00DF0    FFFFFFF8 A  CH03    DATA     -8
3909   01 00DF1    51C00460            CH,12    MEMORY
3910   01 00DF2    07300136            K        0,7,3,SETPSW
3911   01 00DF3    27300166            K        2,7,3,LOC+2
3912   01 00DF4    42008200 A          DATA     X'42008200'
3913   01 00DF5    42008200 A          DATA     X'42008200'
3914   01 00DF6    71140200 A          DATA     X'71140200'
3915   01 00DF7    71140200 A          DATA     X'71140200'
3916                                   PAGE
3917   01 00DF8    FFFFFFF8 A  CB01    DATA     -8                CB        BYTE 0
3918   01 00DF9    71C00460            CB,12    MEMORY
3919   01 00DFA    77300136            K        7,7,3,SETPSW
3920   01 00DFB    07300166            K        0,7,3,LOC+2
3921   01 00DFC    FFFFFF00 A          DATA     X'FFFFFF00'
3922   01 00DFD    FFFFFF00 A          DATA     X'FFFFFF00'
3923   01 00DFE    00FFFFFF A          DATA     X'FFFFFF'
3924   01 00DFF    00FFFFFF A          DATA     X'FFFFFF'
3925   01 00E00    FFFFFFF8 A  CB02    DATA     -8                CB        BYTE 1
3926   01 00E01    71C20440            CB,12    MEMORY-X'20',1
3927   01 00E02    77300136            K        7,7,3,SETPSW
3928   01 00E03    57300166            K        5,7,3,LOC+2
3929   01 00E04    00000081 A          DATA     X'81'
3930   01 00E05    00000081 A          DATA     X'81'
3931   01 00E06    FFFEFFFF A          DATA     X'FFFEFFFF'
3932   01 00E07    FFFEFFFF A          DATA     X'FFFEFFFF'
3933   01 00E08    FFFFFFF8 A  CB03    DATA     -8                CB        BYTE 0
3934   01 00E09    71C00460            CB,12    MEMORY
3935   01 00E0A    37300136            K        3,7,3,SETPSW
3936   01 00E0B    47300166            K        4,7,3,LOC+2
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3937   01 00E0C    000000FF A          DATA     X'FF'
3938   01 00E0D    000000FF A          DATA     X'FF'
3939   01 00E0E    FFEECCDD A          DATA     X'FFEECCDD'
3940   01 00E0F    FFEECCDD A          DATA     X'FFEECCDD'
3941   01 00E10    FFFFFFF8 A  CB04    DATA     -8                CB  X     BYTE 1
3942   01 00E11    71C2EEC2            CB,12    MEMORY-X'1159E',1
3943   01 00E12    F7300136            K        15,7,3,SETPSW
3944   01 00E13    C7300166            K        12,7,3,LOC+2
3945   01 00E14    12345679 A          DATA     X'12345679'
3946   01 00E15    12345679 A          DATA     X'12345679'
3947   01 00E16    26793355 A          DATA     X'26793355'
3948   01 00E17    26793355 A          DATA     X'26793355'
3949                                   PAGE
3950   01 00E18    FFFFFFF8 A  CB05    DATA     -8                CB *X     BYTE 2
3951   01 00E19    F1C2045A            CB,12    *1A,1
3952   01 00E1A    07300136            K        0,7,3,SETPSW
3953   01 00E1B    47300166            K        4,7,3,LOC+2
3954   01 00E1C    00000002 A          DATA     2
3955   01 00E1D    00000002 A          DATA     2
3956   01 00E1E    FFFF02FF A          DATA     X'FFFF02FF'
3957   01 00E1F    FFFF02FF A          DATA     X'FFFF02FF'
3958   01 00E20    FFFFFFF8 A  CB06    DATA     -8                CB        BYTE 3
3959   01 00E21    71C22310            CB,12    MEMORY-X'1D950',1
3960   01 00E22    07300136            K        0,7,3,SETPSW
3961   01 00E23    47300166            K        4,7,3,LOC+2
3962   01 00E24    ABC76543 A          DATA     X'ABC76543'
3963   01 00E25    ABC76543 A          DATA     X'ABC76543'
3964   01 00E26    54389A43 A          DATA     X'54389A43'
3965   01 00E27    54389A43 A          DATA     X'54389A43'
3966   01 00E28    FFFFFFF8 A  CB07    DATA     -8                CB        BYTE 2
3967   01 00E29    71CE0460            CB,12    MEMORY,7
3968   01 00E2A    77300136            K        7,7,3,SETPSW
3969   01 00E2B    17300166            K        1,7,3,LOC+2
3970   01 00E2C    00000059 A          DATA     X'59'
3971   01 00E2D    00000059 A          DATA     X'59'
3972   01 00E2E    58A65754 A          DATA     X'58A65754'
3973   01 00E2F    58A65754 A          DATA     X'58A65754'
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01 00E30   FFFFFFF8 A   CB08    DATA     -8                 CB        BYTE 0
01 00E31   71C00460             CB,12    MEMORY
01 00E32   77300136             K        7,7,3,SETPSW
01 00E33   27300166             K        2,7,3,LOC+2
01 00E34   FFFFFFBC A           DATA     X'FFFFFFBC'
01 00E35   FFFFFFBC A           DATA     X'FFFFFFBC'
01 00E36   43210567 A           DATA     X'43210567'
01 00E37   43210567 A           DATA     X'43210567'
                                PAGE
                        ** SIGN EXTEND '0' C(R)> EW. LOGIC PRODUCT NEZ
01 00E38   FFFFFFFA A   CI01    DATA     -6
01 00E39   21C7FFFD A           CI,12    X'7FFFD'
01 00E3A   07300136             K        0,7,3,SETPSW
01 00E3B   67300166             K        6,7,3,LOC+2
01 00E3C   0007FFFE A           DATA     X'7FFFE'
01 00E3D   0007FFFE A           DATA     X'7FFFE'
                        ** SIGN EXTEND '1' C(R) < EW.  LP = ZERO
01 00E3E   FFFFFFFA A   CI02    DATA     -6
01 00E3F   21C80000 A           CI,12    X'80000'
01 00E40   F7300136             K        15,7,3,SETPSW
01 00E41   A7300166             K        10,7,3,LOC+2
01 00E42   0007FFFF A           DATA     X'7FFFF'
01 00E43   0007FFFF A           DATA     X'7FFFF'
                                PAGE
01 00E44   FFFFFFF4 A   CD01    DATA     -12                CD
01 00E45   11C00460             CD,12    MEMORY
01 00E46   F7300136             K        15,7,3,SETPSW
01 00E47   C7300166             K        12,7,3,LOC+2
01 00E48   12345678 A           DATA     X'12345678'
01 00E49   12345678 A           DATA     X'12345678'
01 00E4A   12345678 A           DATA     X'12345678'
01 00E4B   12345678 A           DATA     X'12345678'
01 00E4C   9ABCDEF0 A           DATA     X'9ABCDEF0'
01 00E4D   9ABCDEF0 A           DATA     X'9ABCDEF0'
01 00E4E   9ABCDEF0 A           DATA     X'9ABCDEF0'
01 00E4F   9ABCDEF0 A           DATA     X'9ABCDEF0'
01 00E50   FFFFFFF4 A   CD02    DATA     -12                CD  X
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01 00E51   11C35770             CD,12    MEMORY-X'ACF0',1
01 00E52   07300136             K        0,7,3,SETPSW
01 00E53   27300166             K        2,7,3,LOC+2
01 00E54   12345678 A           DATA     X'12345678'
01 00E55   12345678 A           DATA     X'12345678'
01 00E56   12345678 A           DATA     X'12345678'
01 00E57   12345678 A           DATA     X'12345678'
01 00E58   9ABCDEF1 A           DATA     X'9ABCDEF1'
01 00E59   9ABCDEF1 A           DATA     X'9ABCDEF1'
01 00E5A   9ABCDEF0 A           DATA     X'9ABCDEF0'
01 00E5B   9ABCDEF0 A           DATA     X'9ABCDEF0'
                                PAGE
01 00E5C   FFFFFFF4 A   CD03    DATA     -12                CD *
01 00E5D   91C0045A             CD,12    *IA
01 00E5E   77300136             K        7,7,3,SETPSW
01 00E5F   57300166             K        5,7,3,LOC+2
01 00E60   76543210 A           DATA     X'76543210'
01 00E61   76543210 A           DATA     X'76543210'
01 00E62   76543210 A           DATA     X'76543210'
01 00E63   76543210 A           DATA     X'76543210'
01 00E64   FDECBA98 A           DATA     X'FDECBA98'
01 00E65   FDECBA98 A           DATA     X'FDECBA98'
01 00E66   FDECBA99 A           DATA     X'FDECBA99'
01 00E67   FDECBA99 A           DATA     X'FDECBA99'
01 00E68   FFFFFFF4 A   CD04    DATA     -12                CD
01 00E69   11D00460             CD,13    MEMORY
01 00E6A   F7300136             K        15,7,3,SETPSW
01 00E6B   D7300166             K        13,7,3,LOC+2
01 00E6C   ADDEBCAD A           DATA     X'ADDEBCAD'
01 00E6D   ADDEBCAD A           DATA     X'ADDEBCAD'
01 00E6E   76543210 A           DATA     X'76543210'
01 00E6F   76543210 A           DATA     X'76543210'
01 00E70   76543210 A           DATA     X'76543210'
01 00E71   76543210 A           DATA     X'76543210'
01 00E72   76543211 A           DATA     X'76543211'
01 00E73   76543211 A           DATA     X'76543211'
                                PAGE
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4048                                ** OPERANDS EQUAL
4049  01 00E74  FFFFFFF6 A  CS01    DATA    -10
4050  01 00E75  45C00460             CS,12   MEMORY          PH1: C(S)= EW=RU1  = A5A5A5A5
4051  01 00E76  F7300136             K       15,7,3,SETPSW
4052  01 00E77  C7300166             K       12,7,3,L0C+2    PH3: C(S)= R=RU1   = A5A5A5A5
4053  01 00E78  A5A5A5A5 A           DATA    X'A5A5A5A5'
4054  01 00E79  A5A5A5A5 A           DATA    X'A5A5A5A5'     PH4: C(S)= PH3-PH1 = 00000000
4055  01 00E7A  FFFFFFFF A           DATA    -1
4056  01 00E7B  FFFFFFFF A           DATA    -1
4057  01 00E7C  A5A5A5A5 A           DATA    X'A5A5A5A5'
4058  01 00E7D  A5A5A5A5 A           DATA    X'A5A5A5A5'
4059                                ** R < EW
4060  01 00E7E  FFFFFFF6 A  CS02    DATA    -10
4061  01 00E7F  45C00460             CS,12   MEMORY          PH1: C(S)= EW=RU1  = A5A5A5A5
4062  01 00E80  07300136             K       0,7,3,SETPSW
4063  01 00E81  17300166             K       1,7,3,L0C+2
4064  01 00E82  5A5A5A5A A           DATA    X'5A5A5A5A'
4065  01 00E83  5A5A5A5A A           DATA    X'5A5A5A5A'     PH4: C(S)= PH3-PH1 = B4B4B4B5
4066  01 00E84  A5A5A5A5 A           DATA    X'A5A5A5A5'
4067  01 00E85  A5A5A5A5 A           DATA    X'A5A5A5A5'
4068  01 00E86  FFFFFFFF A           DATA    -1
4069  01 00E87  FFFFFFFF A           DATA    -1
4070                                ** R > EW
4071  01 00E88  FFFFFFF6 A  CS03    DATA    -10
4072  01 00E89  45C00460             CS,12   MEMORY          PH1: C(S)= EW=RU1  = 5A5A0000
4073  01 00E8A  07300136             K       0,7,3,SETPSW
4074  01 00E8B  27300166             K       2,7,3,L0C+2     PH3: C(S)= R=RU1   = A5A50000
4075  01 00E8C  A5A5A5A5 A           DATA    X'A5A5A5A5'
4076  01 00E8D  A5A5A5A5 A           DATA    X'A5A5A5A5'     PH4: C(S)= PH3-PH1 = 4B4B0000
4077  01 00E8E  5A5A5A5A A           DATA    X'5A5A5A5A'
4078  01 00E8F  5A5A5A5A A           DATA    X'5A5A5A5A'
4079  01 00E90  FFFF0000 A           DATA    X'FFFF0000'
4080  01 00E91  FFFF0000 A           DATA    X'FFFF0000'
4081                                PAGE
4082                                ** C(R) < EW= C(RU1)=EW
4083  01 00E92  FFFFFFF6 A  CLR01   DATA    -10
4084  01 00E93  39C00460             CLR,12  MEMORY
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4085  01 00E94  F7300136             K       15,7,3,SETPSW
4086  01 00E95  47300166             K       4,7,3,L0C+2
4087  01 00E96  00000000 A           DATA    0
4088  01 00E97  00000000 A           DATA    0
4089  01 00E98  00000000 A           DATA    0
4090  01 00E99  00000000 A           DATA    0
4091  01 00E9A  FFFFFFFF A           DATA    -1
4092  01 00E9B  FFFFFFFF A           DATA    -1
4093                                ** C(R)=EW= C(RU1)< EW
4094  01 00E9C  FFFFFFFA A  CLR02   DATA    -6
4095  01 00E9D  39C00460             CLR,12  MEMORY
4096  01 00E9E  F7300136             K       15,7,3,SETPSW
4097  01 00E9F  17300166             K       1,7,3,L0C+2
4098  01 00EA0  FFFFFFFF A           DATA    -1
4099  01 00EA1  FFFFFFFF A           DATA    -1
4100                                ** C(R) > EW= C(RU1) < EW=
4101  01 00EA2  FFFFFFF6 A  CLR03   DATA    -10
4102  01 00EA3  39C00460             CLR,12  MEMORY
4103  01 00EA4  07300136             K       0,7,3,SETPSW
4104  01 00EA5  67300166             K       6,7,3,L0C+2
4105  01 00EA6  00000001 A           DATA    1
4106  01 00EA7  00000001 A           DATA    1
4107  01 00EA8  00000000 A           DATA    0
4108  01 00EA9  00000000 A           DATA    0
4109  01 00EAA  FFFFFFFF A           DATA    -1
4110  01 00EAB  FFFFFFFF A           DATA    -1
4111                                PAGE
4112                                ** C(R) <EW= C(RU1) > EW=
4113  01 00EAC  FFFFFFF6 A  CLR04   DATA    -10
4114  01 00EAD  39C00460             CLR,12  MEMORY
4115  01 00EAE  07300136             K       0,7,3,SETPSW
4116  01 00EAF  97300166             K       9,7,3,L0C+2
4117  01 00EB0  FFFFFFFF A           DATA    -1
4118  01 00EB1  FFFFFFFF A           DATA    -1
4119  01 00EB2  00000000 A           DATA    0
4120  01 00EB3  00000000 A           DATA    0
4121  01 00EB4  00000001 A           DATA    1
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4122  01 00EB5  00000001 A          DATA    1
4123                          ** USE ODD R FIELD. C(R)=C(RU1)>EW.
4124  01 00EB6  FFFFFFF6 A  CLR05  DATA    -10
4125  01 00EB7  39D00460           CLR,13  MEMORY
4126  01 00EB8  07300136           K       0,7,3,SETPSW
4127  01 00EB9  A7300166           K       10,7,3,LOC+2
4128  01 00EBA  FFFFFFFF A         DATA    -1
4129  01 00EBB  FFFFFFFF A         DATA    -1
4130  01 00EBC  00000000 A         DATA    0
4131  01 00EBD  00000000 A         DATA    0
4132  01 00EBE  00000001 A         DATA    1
4133  01 00EBF  00000001 A         DATA    1
4134                               PAGE
4135                          ** R > M+1. R < M
4136  01 00EC0  FFFFFFF4 A  CLM01  DATA    -12
4137  01 00EC1  19C00460           CLM,12  MEMORY
4138  01 00EC2  07300136           K       0,7,3,SETPSW
4139  01 00EC3  97300166           K       9,7,3,LOC+2
4140  01 00EC4  00000000 A         DATA    0
4141  01 00EC5  00000000 A         DATA    0
4142  01 00EC6  00000001 A         DATA    1
4143  01 00EC7  00000001 A         DATA    1
4144  01 00EC8  FFFFFFFF A         DATA    -1
4145  01 00EC9  FFFFFFFF A         DATA    -1
4146  01 00ECA  FFFFFFFF A         DATA    -1
4147  01 00ECB  FFFFFFFF A         DATA    -1
4148                          ** USE ODD MEMORY LOC. SHOULD STILL FETCH EVEN LOC AND ODD LOC
4149                          ** R < M+1. R > M
4150  01 00ECC  FFFFFFF4 A  CLM02  DATA    -12
4151  01 00ECD  19D00461           CLM,13  MEMORY+1
4152  01 00ECE  97300136           K       9,7,3,SETPSW
4153  01 00ECF  67300166           K       6,7,3,LOC+2
4154  01 00ED0  FFFFFFFF A         DATA    -1
4155  01 00ED1  FFFFFFFF A         DATA    -1
4156  01 00ED2  FFFFFFFF A         DATA    -1
4157  01 00ED3  FFFFFFFF A         DATA    -1
4158  01 00ED4  00000000 A         DATA    0
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4159  01 00ED5  00000000 A          DATA    0
4160  01 00ED6  00000001 A          DATA    1
4161  01 00ED7  00000001 A          DATA    1
4162                               PAGE
4163                          ** CHECK OVERFLOW NO TRAP
4164  01 00ED8  FFFFFFFA A  MTW01  DATA    -6                  MTW
4165  01 00ED9  33F0000C A         MTW,15  12
4166  01 00EDA  072001C2           K       0,7,2,FXPOSW
4167  01 00EDB  E7200166           K       14,7,2,LOC+2
4168  01 00EDC  80000000 A         DATA    X'80000000'
4169  01 00EDD  7FFFFFFF A         DATA    X'7FFFFFFF'
4170  01 00EDE  FFFFFFFA A  MTW02  DATA    -6                  MTW
4171  01 00EDF  3300000C A         MTW,0   12
4172  01 00EE0  07300136           K       0,7,3,SETPSW
4173  01 00EE1  17300166           K       1,7,3,LOC+2
4174  01 00EE2  80000000 A         DATA    X'80000000'
4175  01 00EE3  80000000 A         DATA    X'80000000'
4176  01 00EE4  FFFFFFF8 A  MTW03  DATA    -8                  MTW  X
4177  01 00EE5  33D211EA           MTW,13  MEMORY-X'1F276',1
4178  01 00EE6  77300136           K       7,7,3,SETPSW
4179  01 00EE7  87300166           K       8,7,3,LOC+2
4180  01 00EE8  0001F276 A         DATA    X'1F276'
4181  01 00EE9  0001F276 A         DATA    X'1F276'
4182  01 00EEA  00000003 A         DATA    3
4183  01 00EEB  00000000 A         DATA    0
4184                               PAGE
4185                          ** CHECK OVERFLOW TRAP
4186  01 00EEC  FFFFFFF8 A  MTW04  DATA    -8                  MTW *
4187  01 00EED  B3100A5A           MTW,1   *1A
4188  01 00EEE  073001C2           K       0,7,3,FXPOSW
4189  01 00EEF  57300084           K       5,7,3,FPORET+1
4190  01 00EF0  00000000 A         DATA    0
4191  01 00EF1  00000000 A         DATA    0
4192  01 00EF2  7FFFFFFF A         DATA    X'7FFFFFFF'
4193  01 00EF3  80000000 A         DATA    X'80000000'
4194  01 00EF4  FFFFFFF8 A  MTW05  DATA    -8                  MTW
4195  01 00EF5  33700460           MTW,7   MEMORY
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4196  01 00EF6  F7300136          K       15,7,3,SETPSW
4197  01 00EF7  17300166          K       1,7,3,LOC+2
4198  01 00EF8  FFFFFFFF A        DATA    -1
4199  01 00EF9  FFFFFFFF A        DATA    -1
4200  01 00EFA  FFFFFFF8 A        DATA    X'FFFFFFF8'
4201  01 00EFB  FFFFFFFF A        DATA    -1
4202                              PAGE
4203  01 00EFC  FFFFFFFA A  MTH01 DATA    -6                  MTH
4204  01 00EFD  5300000C A        MTH,0   12
4205  01 00EFE  07300136          K       0,7,3,SETPSW
4206  01 00EFF  27300166          K       2,7,3,LOC+2
4207  01 00F00  00010000 A        DATA    X'10000'
4208  01 00F01  00010000 A        DATA    X'10000'
4209  01 00F02  FFFFFFF8 A  MTH02 DATA    -8                  MTH  X
4210  01 00F03  5323C01C          MTH,2   MEMORY-X'4444',1
4211  01 00F04  77300136          K       7,7,3,SETPSW
4212  01 00F05  87300166          K       8,7,3,LOC+2
4213  01 00F06  00008889 A        DATA    X'8889'
4214  01 00F07  00008889 A        DATA    X'8889'
4215  01 00F08  7FFFFFFE A        DATA    X'7FFFFFFE'
4216  01 00F09  7FFF0000 A        DATA    X'7FFF0000'
4217                        ** CHECK OVERFLOW NO TRAP
4218  01 00F0A  FFFFFFF8 A  MTH03 DATA    -8                  MTH *
4219  01 00F0B  D3E2045A          MTH,14  *IA,1
4220  01 00F0C  172001C2          K       1,7,2,FXPOSW
4221  01 00F0D  E7200166          K       14,7,2,LOC+2
4222  01 00F0E  00000001 A        DATA    1
4223  01 00F0F  00000001 A        DATA    1
4224  01 00F10  FFFF8000 A        DATA    X'FFFF8000'
4225  01 00F11  FFFF7FFE A        DATA    X'FFFF7FFE'
4226                        ** CHECK OVERFLOW TRAP
4227  01 00F12  FFFFFFF8 A  MTH04 DATA    -8                  MTH  X
4228  01 00F13  53320460          MTH,3   MEMORY,1
4229  01 00F14  273001C2          K       2,7,3,FXPOSW
4230  01 00F15  57300084          K       5,7,3,FPORET+1
4231  01 00F16  00000001 A        DATA    1
4232  01 00F17  00000001 A        DATA    1
```



```
4233  01 00F18  7FFF7FFF A        DATA    X'7FFF7FFF'
4234  01 00F19  7FFF8002 A        DATA    X'7FFF8002'
4235                              PAGE
4236  01 00F1A  FFFFFFF8 A  MTH05 DATA    -8                  MTH  X(X=0)
4237  01 00F1B  53920460          MTH,9   MEMORY,1
4238  01 00F1C  F7300136          K       15,7,3,SETPSW
4239  01 00F1D  97300166          K       9,7,3,LOC+2
4240  01 00F1E  00000000 A        DATA    0
4241  01 00F1F  00000000 A        DATA    0
4242  01 00F20  FFF979AB A        DATA    X'FFF979AB'
4243  01 00F21  FFF279AB A        DATA    X'FFF279AB'
4244                              PAGE
4245  01 00F22  FFFFFFF8 A  MTB01 DATA    -8                  MTB       BYTE 0
4246  01 00F23  73000460          MTB,0   MEMORY
4247  01 00F24  F7300136          K       15,7,3,SETPSW
4248  01 00F25  07300166          K       0,7,3,LOC+2
4249  01 00F26  00000000 A        DATA    0
4250  01 00F27  00000000 A        DATA    0
4251  01 00F28  00FFFFFF A        DATA    X'FFFFFF'
4252  01 00F29  00FFFFFF A        DATA    X'FFFFFF'
4253  01 00F2A  FFFFFFF8 A  MTB02 DATA    -8                  MTB  X    BYTE 1
4254  01 00F2B  73C20460          MTB,12  MEMORY,1
4255  01 00F2C  F7300136          K       15,7,3,SETPSW
4256  01 00F2D  A7300166          K       10,7,3,LOC+2
4257  01 00F2E  00000001 A        DATA    1
4258  01 00F2F  00000001 A        DATA    1
4259  01 00F30  F0F5F300 A        DATA    X'F0F5F300'
4260  01 00F31  F0F1F300 A        DATA    X'F0F1F300'
4261  01 00F32  FFFFFFF8 A  MTB03 DATA    -8                  MTB *X    BYTE 2
4262  01 00F33  F342045A          MTB,4   *IA,1
4263  01 00F34  07300136          K       0,7,3,SETPSW
4264  01 00F35  A7300166          K       10,7,3,LOC+2
4265  01 00F36  00000002 A        DATA    2
4266  01 00F37  00000002 A        DATA    2
4267  01 00F38  F0F9FF03 A        DATA    X'F0F9FF03'
4268  01 00F39  F0F90303 A        DATA    X'F0F90303'
4269  01 00F3A  FFFFFFF8 A  MTB04 DATA    -8                  MTH  X    BYTE 3
```

```
4270  01 00F3B  738820460          MTB,11   MEMORY,1
4271  01 00F3C  77300138           K        7,7,3,SETPSW
4272  01 00F3D  87300166           K        8,7,3,L0C+2
4273  01 00F3E  00000003 A         DATA     3
4274  01 00F3F  00000003 A         DATA     3
4275  01 00F40  FFFFFF05 A         DATA     X'FFFFFF05'
4276  01 00F41  FFFFFF00 A         DATA     -256
4277                               PAGE
4278  01 00F42  FFFFFFFA A  MTB05  DATA     -6                MTB     BYTE 1
4279  01 00F43  738E000C A         MTB,8    12,7
4280  01 00F44  77300136           K        7,7,3,SETPSW
4281  01 00F45  87300166           K        8,7,3,L0C+2
4282  01 00F46  FF08FFFF A         DATA     X'FF08FFFF'
4283  01 00F47  FF00FFFF A         DATA     X'FF00FFFF'
4284  01 00F48  FFFFFFFA A  MTB06  DATA     -6                MTB     BYTE 2
4285  01 00F49  7352014C A         MTB,5    12-X'1FEC0',1
4286  01 00F4A  07300136           K        0,7,3,SETPSW
4287  01 00F4B  87300166           K        8,7,3,L0C+2
4288  01 00F4C  FFFFFB02 A         DATA     X'FFFFFB02'
4289  01 00F4D  FFFF0002 A         DATA     X'FFFF0002'
4290  01 00F4E  FFFFFFFA A  MTB07  DATA     -6                MTB     BYTE 0
4291  01 00F4F  73A0000C A         MTB,10   12
4292  01 00F50  37300136           K        3,7,3,SETPSW
4293  01 00F51  87300166           K        8,7,3,L0C+2
4294  01 00F52  06123457 A         DATA     X'61223457'
4295  01 00F53  00123457 A         DATA     X'1223457'
4296  01 00F54  FFFFFFFA A  MTB08  DATA     -6
4297  01 00F55  7360000C A         MTB,6    12
4298  01 00F56  57300136           K        5,7,3,SETPSW
4299  01 00F57  27300166           K        2,7,3,L0C+2
4300  01 00F58  00000000 A         DATA     0
4301  01 00F59  06000000 A         DATA     X'60000000'
4302                               PAGE
4303  01 00F5A  FFFFFFF8 A  AH01   DATA     -8                AH
4304  01 00F5B  50C00460           AH,12    MEMORY
4305  01 00F5C  673001C2           K        6,7,3,FXPBSW
4306  01 00F5D  97300166           K        9,7,3,L0C+2
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4307  01 00F5E  FFFF7654 A         DATA     X'FFFF7654'
4308  01 00F5F  FFFEFFFF A         DATA     X'FFFEFFFF'
4309  01 00F60  89AB0000 A         DATA     X'89AB0000'
4310  01 00F61  89AB0000 A         DATA     X'89AB0000'
4311  01 00F62  FFFFFFF8 A  AH02   DATA     -8                AH  X
4312  01 00F63  50CE0460           AH,12    MEMORY,7
4313  01 00F64  573001C2           K        5,7,3,FXPBSW
4314  01 00F65  27300166           K        2,7,3,L0C+2
4315  01 00F66  7FFFDC8B A         DATA     X'7FFFDC8B'
4316  01 00F67  7FFFFFFF A         DATA     X'7FFFFFFF'
4317  01 00F68  23452344 A         DATA     X'23452344'
4318  01 00F69  23452344 A         DATA     X'23452344'
4319  01 00F6A  FFFFFFF8 A  AH03   DATA     -8                AH *
4320  01 00F6B  D0CE045A           AH,12    *IA,7
4321  01 00F6C  072001C2           K        0,7,2,FXPBSW
4322  01 00F6D  E7200166           K        14,7,2,L0C+2
4323  01 00F6E  80000000 A         DATA     X'80000000'
4324  01 00F6F  7FFFFFFF A         DATA     X'7FFFFFFF'
4325  01 00F70  7FFFFFFF A         DATA     X'7FFFFFFF'
4326  01 00F71  7FFFFFFF A         DATA     X'7FFFFFFF'
4327  01 00F72  FFFFFFFA A  AH04   DATA     -6                AH
4328  01 00F73  50C0000C A         AH,12    12
4329  01 00F74  273001C2           K        2,7,3,FXPBSW
4330  01 00F75  57300084           K        5,7,3,FPBRET+1
4331  01 00F76  7FFF8001 A         DATA     X'7FFF8001'
4332  01 00F77  80000000 A         DATA     X'80000000'
4333                               PAGE
4334  01 00F78  FFFFFFFA A  AI01   DATA     -6                AI
4335  01 00F79  20C70000 A         AI,12    X'70000'
4336  01 00F7A  773001C2           K        7,7,3,FXPBSW
4337  01 00F7B  17300166           K        1,7,3,L0C+2
4338  01 00F7C  80000000 A         DATA     X'80000000'
4339  01 00F7D  80070000 A         DATA     X'80070000'
4340  01 00F7E  FFFFFFFA A  AI02   DATA     -6                AI
4341  01 00F7F  20C80000 A         AI,12    X'80000'
4342  01 00F80  173001C2           K        1,7,3,FXPBSW
4343  01 00F81  E7300084           K        14,7,3,FPBRET+1
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4344  01 00F82  80000000 A          DATA   X'80000000'
4345  01 00F83  7FF80000 A          DATA   X'7FF80000'
4346  01 00F84  FFFFFFFC A  AI03    DATA   -4                AI *
4347  01 00F85  A0C0045A            AI,12  *IA
4348  01 00F86  173001B7            K      1,7,3,RI9NA0
4349  01 00F87  97300063            K      9,7,3,NA0RET+1
4350                                PAGE
4351  01 00F88  FFFFFFF4 A  AD01    DATA   -12               AD
4352  01 00F89  10C00460            AD,12  MEM0RY
4353  01 00F8A  773001C2            K      7,7,3,FXP0SW
4354  01 00F8B  87300166            K      8,7,3,L0C+2
4355  01 00F8C  FFFFFFFF A          DATA   -1
4356  01 00F8D  00000000 A          DATA   0
4357  01 00F8E  00000000 A          DATA   0
4358  01 00F8F  00000000 A          DATA   0
4359  01 00F90  FFFFFFFF A          DATA   -1
4360  01 00F91  00000000 A          DATA   0
4361  01 00F92  00000001 A          DATA   1
4362  01 00F93  00000001 A          DATA   1
4363  01 00F94  FFFFFFF4 A  AD02    DATA   -12               AD  X     0F   TRAP
4364  01 00F95  10C20462            AD,12  MEM0RY+2,1
4365  01 00F96  273001C2            K      2,7,3,FXP0SW
4366  01 00F97  57300084            K      5,7,3,FP0RET+1
4367  01 00F98  7FFFFFFF A          DATA   X'7FFFFFFF'
4368  01 00F99  80000000 A          DATA   X'80000000'
4369  01 00F9A  00000000 A          DATA   0
4370  01 00F9B  00000000 A          DATA   0
4371  01 00F9C  FFFFFFFF A          DATA   -1
4372  01 00F9D  00000000 A          DATA   0
4373  01 00F9E  00000001 A          DATA   1
4374  01 00F9F  00000001 A          DATA   1
4375                                PAGE
4376  01 00FA0  FFFFFFF4 A  AD03    DATA   -12               AD *      9F  NTRAP
4377  01 00FA1  90C0045A            AD,12  *IA
4378  01 00FA2  172001C2            K      1,7,2,FXP0SW
4379  01 00FA3  E7200166            K      14,7,2,L0C+2
4380  01 00FA4  87654321 A          DATA   X'87654321'
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4381  01 00FA5  7FFFFFFF A          DATA   X'7FFFFFFF'
4382  01 00FA6  F89ABCDE A          DATA   X'F89ABCDE'
4383  01 00FA7  F89ABCDE A          DATA   X'F89ABCDE'
4384  01 00FA8  0FEDCBA9 A          DATA   X'0FEDCBA9'
4385  01 00FA9  FFFFFFFF A          DATA   -1
4386  01 00FAA  F0123456 A          DATA   X'F0123456'
4387  01 00FAB  F0123456 A          DATA   X'F0123456'
4388                                PAGE                                    A
4389  01 00FAC  FFFFFFF4 A  AD04    DATA   -12               AD    M0    TRAP  A
4390  01 00FAD  10C00461            AD,12  MEM0RY+1                         A
4391  01 00FAE  F73001C2            K      15,7,3,FXP0SW                     A
4392  01 00FAF  17300166            K      1,7,3,L0C+2                       A
4393  01 00FB0  83759624 A          DATA   X'83759624'
4394  01 00FB1  F5D02CDA A          DATA   X'F5D02CDA'
4395  01 00FB2  725A96B5 A          DATA   X'725A96B5'
4396  01 00FB3  725A96B5 A          DATA   X'725A96B5'
4397  01 00FB4  F65219AC A          DATA   X'F65219AC'
4398  01 00FB5  2FA47D20 A          DATA   X'2FA47D20'
4399  01 00FB6  39526374 A          DATA   X'39526374'
4400  01 00FB7  39526374 A          DATA   X'39526374'
4401                          ** CHECK THAT 0VERFL0W 0F LSW D0ES N0T CAUSE AN 0VERFL9W
4402  01 00FB8  FFFFFFF4 A  AD05    DATA   -12
4403  01 00FB9  10C00460            AD,12  MEM0RY
4404  01 00FBA  07300136            K      0,7,3,SETPSW
4405  01 00FBB  27300166            K      2,7,3,L0C+2
4406  01 00FBC  00000000 A          DATA   0,0,0,0,X'40000000',X'80000000'
      01 00FBD  00000000 A
      01 00FBE  00000000 A
      01 00FBF  00000000 A
      01 00FC0  40000000 A
      01 00FC1  80000000 A
4407  01 00FC2  40000000 A          DATA   X'40000000',X'40000000'
      01 00FC3  40000000 A
4408                                PAGE
4409                          ** CHECK  K15= PR16-31-K31, K19= PR20-31-K31, K23=PR24-31-K31
4410                          ** K27 = PR2831-K31
4411  01 00FC4  FFFFFFF4 A  AD06    DATA   -12
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4412  01 00FC5  10C00460          AD,12   MEMORY
4413  01 00FC6  07300136          K       0,7,3,SETPSW
4414  01 00FC7  27300166          K       2,7,3,LOC+2
4415  01 00FC8  00000000 A        DATA    0,X'10000',X'FFFF',X'FFFF'
      01 00FC9  00010000 A
      01 00FCA  0000FFFF A
      01 00FCB  0000FFFF A
4416  01 00FCC  80000000 A        DATA    X'80000000',0,X'80000000',X'80000000'
      01 00FCD  00000000 A
      01 00FCE  80000000 A
      01 00FCF  80000000 A
4417                        PAGE
4418                    ** CHECK  THAT AWM GENERATES PROBEOVER TO CHECK FOR OVERFLOW AND CAUSE
4419                    ** A TRAP
4420  01 00FD0  FFFFFFF8 A  AWM01   DATA    -8              AWM OF  TRAP
4421  01 00FD1  66C00460          AWM,12  MEMORY
4422  01 00FD2  273001C2          K       2,7,3,FXPBSW
4423  01 00FD3  57300084          K       5,7,3,FPBRET+1
4424  01 00FD4  2375694B A        DATA    X'2375694B'
4425  01 00FD5  2375694B A        DATA    X'2375694B'
4426  01 00FD6  7235641C A        DATA    X'7235641C'
4427  01 00FD7  95AACD67 A        DATA    X'95AACD67'
4428  01 00FD8  FFFFFFF8 A  AWM02   DATA    -8              AWM  X
4429  01 00FD9  66C26DEB          AWM,12  MEMORY-X'19675',1
4430  01 00FDA  F73001C2          K       15,7,3,FXPBSW
4431  01 00FDB  A7300166          K       10,7,3,LOC+2
4432  01 00FDC  F3219675 A        DATA    X'F3219675'
4433  01 00FDD  F3219675 A        DATA    X'F3219675'
4434  01 00FDE  691ABCDE A        DATA    X'691ABCDE'
4435  01 00FDF  5C3C5353 A        DATA    X'5C3C5353'
4436  01 00FE0  FFFFFFF8 A  AWM03   DATA    -8              AWM *
4437  01 00FE1  E6CD045A          AWM,12  *IA
4438  01 00FE2  773001C2          K       7,7,3,FXPBSW
4439  01 00FE3  87300166          K       8,7,3,LOC+2
4440  01 00FE4  00000007 A        DATA    7
4441  01 00FE5  00000007 A        DATA    7
4442  01 00FE6  FFFFFFF9 A        DATA    -7
```



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4443  01 00FE7  00000000 A        DATA    0
4444                        PAGE
4445                    ** AWM WITH IX AND IA
4446  01 00FE8  FFFFFFF4 A  AWM04   DATA    -12
4447  01 00FE9  E6CE045A          AWM,12  *IA,7
4448  01 00FEA  F0000136          K       15,0,0,SETPSW
4449  01 00FEB  20000166          K       2,0,0,LOC+2
4450  01 00FEC  00000007 A        DATA    7,7,MEMORY,MEMORY,-1,-1,1,8
      01 00FED  00000007 A
      01 00FEE  00000460
      01 00FEF  00000460
      01 00FF0  FFFFFFFF A
      01 00FF1  FFFFFFFF A
      01 00FF2  00000001 A
      01 00FF3  00000008 A
4451                        PAGE
4452  01 00FF4  FFFFFFF8 A  SH01    DATA    -8              SH      OF  NTRAP
4453  01 00FF5  58C00460          SH,12   MEMORY
4454  01 00FF6  072001C2          K       0,7,2,FXPBSW
4455  01 00FF7  E7200166          K       14,7,2,LOC+2
4456  01 00FF8  80003946 A        DATA    X'80003946'
4457  01 00FF9  7FFFFFFF A        DATA    X'7FFFFFFF'
4458  01 00FFA  3947F261 A        DATA    X'3947F261'
4459  01 00FFB  3947F261 A        DATA    X'3947F261'
4460  01 00FFC  FFFFFFF8 A  SH02    DATA    -8              SH  X   OF  TRAP
4461  01 00FFD  58CE0460          SH,12   MEMORY,7
4462  01 00FFE  773001C2          K       7,7,3,FXPBSW
4463  01 00FFF  57300084          K       5,7,3,FPBRET+1
4464  01 01000  7FFFB375 A        DATA    X'7FFFB375'
4465  01 01001  80002834 A        DATA    X'80002834'
4466  01 01002  7FFF8841 A        DATA    X'7FFF8841'
4467  01 01003  7FFF8841 A        DATA    X'7FFF8841'
4468  01 01004  FFFFFFF8 A  SH03    DATA    -8              SH *X
4469  01 01005  D8CE045A          SH,12   *IA,7
4470  01 01006  07300136          K       0,7,3,SETPSW
4471  01 01007  87300166          K       8,7,3,LOC+2
4472  01 01008  00000000 A        DATA    0
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4473  01 01009  00000000 A          DATA   0
4474  01 0100A  FFFF0000 A          DATA   X'FFFF0000'
4475  01 0100B  FFFF0000 A          DATA   X'FFFF0000'
4476                               PAGE
4477  01 0100C  FFFFFFF4 A  SD01   DATA   -12                SD
4478  01 0100D  18C00460           SD,12  MEMORY
4479  01 0100E  07300136           K      0,7,3,SETPSW
4480  01 0100F  17300166           K      1,7,3,L0C+2
4481  01 01010  37562981 A         DATA   X'37562981'
4482  01 01011  FFFFFFFF A         DATA   -1
4483  01 01012  37562981 A         DATA   X'37562981'
4484  01 01013  37562981 A         DATA   X'37562981'
4485  01 01014  854BA76C A         DATA   X'854BA76C'
4486  01 01015  FFFFFFFF A         DATA   -1
4487  01 01016  854BA76D A         DATA   X'854BA76D'
4488  01 01017  854BA76D A         DATA   X'854BA76D'
4489  01 01018  FFFFFFF4 A  SD02   DATA   -12                SD *      9F    TRAP
4490  01 01019  98C0045A           SD,12  *IA
4491  01 0101A  173001C2           K      1,7,3,FXP0SW
4492  01 0101B  E7300084           K      14,7,3,FP0RET+1
4493  01 0101C  80000000 A         DATA   X'80000000'
4494  01 0101D  7FFFFFFF A         DATA   X'7FFFFFFF'
4495  01 0101E  00000000 A         DATA   0
4496  01 0101F  00000000 A         DATA   0
4497  01 01020  00000000 A         DATA   0
4498  01 01021  FFFFFFFF A         DATA   -1
4499  01 01022  00000001 A         DATA   1
4500  01 01023  00000001 A         DATA   1
4501                               PAGE
4502  01 01024  FFFFFFF4 A  SD03   DATA   -12                SD  X
4503  01 01025  18C3577D           SD,12  MEMORY-X'ACF0',1
4504  01 01026  573001C2           K      5,7,3,FXP0SW
4505  01 01027  A7300166           K      10,7,3,L0C+2
4506  01 01028  12345678 A         DATA   X'12345678'
4507  01 01029  00000000 A         DATA   0
4508  01 0102A  12345678 A         DATA   X'12345678'
4509  01 0102B  12345678 A         DATA   X'12345678'
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4510  01 0102C  9ABCDEF1 A          DATA   X'9ABCDEF1'
4511  01 0102D  00000001 A         DATA   1
4512  01 0102E  9ABCDEF0 A         DATA   X'9ABCDEF0'
4513  01 0102F  9ABCDEF0 A         DATA   X'9ABCDEF0'
4514  01 01030  FFFFFFF4 A  SD04   DATA   -12                SD    MB  9F    TRAP
4515  01 01031  18C00461           SD,12  MEMORY+1
4516  01 01032  F73001C2           K      15,7,3,FXP0SW
4517  01 01033  57300084           K      5,7,3,FP0RET+1
4518  01 01034  798436AB A         DATA   X'798436AB'
4519  01 01035  F54ABF33 A         DATA   X'F54ABF33'
4520  01 01036  84397777 A         DATA   X'84397777'
4521  01 01037  84397777 A         DATA   X'84397777'
4522  01 01038  E319C566 A         DATA   X'E319C566'
4523  01 01039  EC87B211 A         DATA   X'EC87B211'
4524  01 0103A  F6921355 A         DATA   X'F6921355'
4525  01 0103B  F6921355 A         DATA   X'F6921355'
4526                               PAGE
4527                          ** LOGICAL SHIFT LEFT 0F 31, CHECKS THAT ALL SET AND RESET INPUTS
4528                          ** EXCEPTING BIT 0 AND 31 WORK PROPERLY
4529  01 0103C  FFFFFFF6 A  S001   DATA   -10
4530  01 0103D  25C0001F A         S,12   31
4531  01 0103E  F7300136           K      15,7,3,SETPSW
4532  01 0103F  77300166           K      7,7,3,L0C+2
4533  01 01040  00000001 A         DATA   1,X'80000000',-1,-1,-1,-1
      01 01041  80000000 A
      01 01042  FFFFFFFF A
      01 01043  FFFFFFFF A
      01 01044  FFFFFFFF A
      01 01045  FFFFFFFF A
4534                          ** ARITH SHIFT LEFT, VERIFIES BIT 0  AND EVEN PARITY, SHIFT 9F 8
4535  01 01046  FFFFFFF6 A  S002   DATA   -10
4536  01 01047  25C00408 A         S,12   X'408'
4537  01 01048  80000136           K      8,0,0,SETPSW
4538  01 01049  40000166           K      4,0,0,L0C+2
4539  01 0104A  C3A53C5A A         DATA   X'C3A53C5A',X'A53C5A00',0,0,-1,-1
      01 0104B  A53C5A00 A
      01 0104C  00000000 A
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          01 0104D    00000000 A
          01 0104E    FFFFFFFF A
          01 0104F    FFFFFFFF A
     4540                                 ** LOGICAL SHIFT LEFT DOUBLE.  CHECK B REG INPUTS. SHIFT OF 33 BITS
     4541 01 01050    FFFFFFF6 A   S003    DATA     -10
     4542 01 01051    25C00121 A           S,12     X'121'
     4543 01 01052    C0000136             K        12,0,0,SETPSW
     4544 01 01053    00000166             K        0,0,0,L0C+2
     4545 01 01054    00000000 A           DATA     0,2,-1,-1,1,0
          01 01055    00000002 A
          01 01056    FFFFFFFF A
          01 01057    FFFFFFFF A
          01 01058    00000001 A
          01 01059    00000000 A
     4546                                 PAGE
     4547                                 ** LOGICAL SHIFT LEFT DOUBLE. PARITY ODD. SHIFT OF 12 BITS
     4548 01 0105A    FFFFFFF6 A   S004    DATA     -10
     4549 01 0105B    25C0010C A           S,12     X'10C'
     4550 01 0105C    07300136             K        0,7,3,SETPSW
     4551 01 0105D    C7300166             K        12,7,3,L0C+2
     4552 01 0105E    B5C35A3C A           DATA     X'B5C35A3C',X'35A3C3CA',0,0,X'3CA5C35A',X'5C35A000'
          01 0105F    35A3C3CA A
          01 01060    00000000 A
          01 01061    00000000 A
          01 01062    3CA5C35A A
          01 01063    5C35A000 A
     4553                                 ** CYCLICAL SHIFT LEFT SINGLE. SHIFT 16 BITS
     4554 01 01064    FFFFFFF6 A   S005    DATA     -10
     4555 01 01065    25C00210 A           S,12     X'210'
     4556 01 01066    00000136             K        0,0,0,SETPSW
     4557 01 01067    40000166             K        4,0,0,L0C+2
     4558 01 01068    3CA5C35A A           DATA     X'3CA5C35A',X'C35A3CA5',0,0,X'FFFF',X'FFFF'
          01 01069    C35A3CA5 A
          01 0106A    00000000 A
          01 01068    00000000 A
          01 0106C    0000FFFF A
          01 0106D    0000FFFF A
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     4559                                 ** CYCLICAL SHIFT LEFT SINGLE. ODD REGISTER. SHIFT 16 BITS
     4560 01 0106E    FFFFFFF6 A   S006    DATA     -10
     4561 01 0106F    25D00210 A           S,13     X'210'
     4562 01 01070    00000136             K        0,0,0,SETPSW
     4563 01 01071    40000166             K        4,0,0,L0C+2
     4564 01 01072    A5A5C3C3 A           DATA     X'A5A5C3C3',X'A5A5C3C3',-1,-1,X'C53AA3C5',X'A3C5C53A'
          01 01073    A5A5C3C3 A
          01 01074    FFFFFFFF A
          01 01075    FFFFFFFF A
          01 01076    C53AA3C5 A
          01 01077    A3C5C53A A
     4565                                 PAGE
     4566                                 ** CYCLICAL LEFT SHIFT DOUBLE. SWAP R WITH RJ1 (32 BIT SHIFT)
     4567 01 01078    FFFFFFF6 A   S007    DATA     -10
     4568 01 01079    25C00320 A           S,12     X'320'
     4569 01 0107A    F7300136             K        15,7,3,SETPSW
     4570 01 0107B    77300166             K        7,7,3,L0C+2
     4571 01 0107C    EDB778DE A           DATA     X'EDB778DE',X'A53C5AC3',0,0,X'A53C5AC3',X'EDB778DE'
          01 0107D    A53C5AC3 A
          01 0107E    00000000 A
          01 0107F    00000000 A
          01 01080    A53C5AC3 A
          01 01081    EDB778DE A
     4572                                 ** CYCLICAL LEFT SHIFT DOUBLE. SHIFT OF MAX COUNT (EQUIVALENT TO SHIFT
     4573                                 ** RIGHT CYCLICAL BY 1 BIT)
     4574 01 01082    FFFFFFF6 A   S008    DATA     -10
     4575 01 01083    25C0033F A           S,12     X'33F'
     4576 01 01084    07300136             K        0,7,3,SETPSW
     4577 01 01085    47300166             K        4,7,3,L0C+2
     4578 01 01086    5A5A5A5A A           DATA     X'5A5A5A5A',X'2D2D2D2D',0,0,X'5A5A5A5A',X'2D2D2D2D'
          01 01087    2D2D2D2D A
          01 01088    00000000 A
          01 01089    00000000 A
          01 0108A    5A5A5A5A A
          01 0108B    2D2D2D2D A
     4579                                 PAGE
     4580                                 ** LOGICAL SHIFT RIGHT. ODD REGISTER. TEST SET OF ODD BITS. SHIFT OF 31
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4581  01 0108C  FFFFFFF6 A  S009  DATA   -10
4582  01 0108D  25D00061 A        S,13   X'61'
4583  01 0108E  F7300136           K      15,7,3,SETPSW
4584  01 0108F  37300166           K      3,7,3,L0C+2
4585  01 01090  00000000 A        DATA   0,0,0,0,X'80000000',1
      01 01091  00000000 A
      01 01092  00000000 A
      01 01093  00000000 A
      01 01094  80000000 A
      01 01095  00000001 A
4586                         ** LOGICAL SHIFT RIGHT. TEST SET OF EVEN BIT POSITIONS. SHIFT OF 30
4587  01 01096  FFFFFFFA A  S010  DATA   -6
4588  01 01097  25C00062 A        S,12   X'62'
4589  01 01098  00000136           K      0,0,0,SETPSW
4590  01 01099  00000166           K      0,0,0,L0C+2
4591  01 0109A  80000000 A        DATA   X'80000000',2
      01 0109B  00000002 A
4592                         ** ARITH SHIFT RIGHT. FILL WITH ONES. SHIFT OF 12 BITS
4593  01 0109C  FFFFFFFA A  S011  DATA   -6
4594  01 0109D  25C00474 A        S,12   X'474'
4595  01 0109E  00000136           DATA   SETPSW,L0C+2,X'A5A5A5A5',X'FFFA5A5A'
      01 0109F  00000166
      01 010A0  A5A5A5A5 A
      01 010A1  FFFA5A5A A
4596                               PAGE
4597                         ** ARITH SHIFT RIGHT. FILL WITH ZEROES. DOUBLE REG. SHIFT OF 34 BITS
4598                         ** CHECKS SET OF ODD 8 REG BITS
4599  01 010A2  FFFFFFF6 A  S012  DATA   -10
4600  01 010A3  25C0055E A        S,12   X'55E'
4601  01 010A4  00000136           DATA   SETPSW,L0C+2,5,0,7,7,0,1
      01 010A5  00000166
      01 010A6  00000005 A
      01 010A7  00000000 A
      01 010A8  00000007 A
      01 010A9  00000007 A
      01 010AA  00000000 A
      01 010AB  00000001 A
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4602                         ** ARITH SHIFT RIGHT. FILL WITH ONES. DOUBLE REG. SHIFT OF 31 BITS
4603  01 010AC  FFFFFFF6 A  S013  DATA   -10
4604  01 010AD  25C00561 A        S,12   X'561'
4605  01 010AE  00000136           DATA   SETPSW,L0C+2,X'C3C3C3C3',-1,0,0,X'80005AC3'
      01 010AF  00000166
      01 010B0  C3C3C3C3 A
      01 010B1  FFFFFFFF A
      01 010B2  00000000 A
      01 010B3  00000000 A
      01 010B4  80005AC3 A
4606  01 010B5  87878787 A        DATA   X'87878787'
4607                         ** CIRCULAR RIGHT SHIFT SINGLE REG.   13 BITS
4608  01 010B6  FFFFFFFA A  S014  DATA   -6
4609  01 010B7  25C00273 A        S,12   X'273'
4610  01 010B8  00000136           DATA   SETPSW,L0C+2,X'A5A5A5A5',X'2D2D2D2D'
      01 010B9  00000166
      01 010BA  A5A5A5A5 A
      01 010BB  2D2D2D2D A
4611                               PAGE
4612                         ** CIRCULAR RIGHT SHIFT SINGLE REGISTER.  13 BITS
4613  01 010BC  FFFFFFFA A  S015  DATA   -6
4614  01 010BD  25C00273 A        S,12   X'273'
4615  01 010BE  00000136           DATA   SETPSW,L0C+2,X'5A5A5A5A',X'D2D2D2D2'
      01 010BF  00000166
      01 010C0  5A5A5A5A A
      01 010C1  D2D2D2D2 A
4616                         ** CIRCULAR RIGHT SHIFT DOUBLE REGISTER  13 BITS
4617  01 010C2  FFFFFFF6 A  S016  DATA   -10
4618  01 010C3  25C00373 A        S,12   X'373'
4619  01 010C4  00000136           DATA   SETPSW,L0C+2,X'CA35CA35',X'2D2E51AE',0,0
      01 010C5  00000166
      01 010C6  CA35CA35 A
      01 010C7  2D2E51AE A
      01 010C8  00000000 A
      01 010C9  00000000 A
4620  01 010CA  A5A5A5A5 A        DATA   X'A5A5A5A5',X'51AD2D2D'
      01 010CB  51AD2D2D A
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4621                                    ** CIRCULAR RIGHT SHIFT DOUBLE REGISTER.  13 BITS
4622   01 010CC   FFFFFFF6 A   S017      DATA    -10
4623   01 010CD   25C00373 A             S,12    X'373'
4624   01 010CE   00000136              DATA    SETPSW,L0C+2,X'5C3A35AC',X'D2D2E1D1',0,0
       01 010CF   00000166
       01 010D0   5C3A35AC A
       01 010D1   D2D2E1D1 A
       01 010D2   00000000 A
       01 010D3   00000000 A
4625   01 010D4   5A5A5A5A A             DATA    X'5A5A5A5A',X'AD62D2D2'
       01 010D5   AD62D2D2 A
4626                                    PAGE
4627                                    ** CIRCULAR RIGHT SHIFT. IA. ODD REG. MAX SHIFT COUNT OF 64
4628   01 010D6   FFFFFFF6 A   S018      DATA    -10
4629   01 010D7   A5D00460             S,13    *MEMORY                                          *B
4630   01 010D8   00000136              DATA    SETPSW,L0C+2,-1,-1,X'340',X'340',1,1
       01 010D9   00000166
       01 010DA   FFFFFFFF A
       01 010DB   FFFFFFFF A
       01 010DC   00000340 A
       01 010DD   00000340 A
       01 010DE   00000001 A
       01 010DF   00000001 A
4631                                    ** ARITH RIGHT SHIFT. INDEXING. SHIFT OF 1
4632   01 010E0   FFFFFFF8 A   S019      DATA    -8
4633   01 010E1   25C2FFCF A             S,12    X'FFCF',1
4634   01 010E2   00000136              DATA    SETPSW,L0C+2
       01 010E3   00000166
4635   01 010E4   00000430 A             DATA    X'430',X'218',X'FFF4F',X'FFF4F'
       01 010E5   00000218 A
       01 010E6   000FFF4F A
       01 010E7   000FFF4F A
4636                                    ** ARITH LEFT SHIFT.  IA AND IX.  SHIFT OF 0
4637   01 010E8   FFFFFFF8 A   S020      DATA    -8
4638   01 010E9   A5CE000C A             S,12    *12,7
4639   01 010EA   00000136              DATA    SETPSW,L0C+2,X'47F',X'47F',1,1
       01 010EB   00000166
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       01 010EC   0000047F A
       01 010ED   0000047F A
       01 010EE   00000001 A
       01 010EF   00000001 A
4640                                    PAGE
4641                                    **** THE REMAINING SHIFT TESTS ARE REDUNDANT BUT MAY AID IN UNCOVERING
4642                                    **** PATTERN SENSITIVE FAILURE MODES
4643   01 010F0   FFFFFFFA A   S01       DATA    -6                  ALS  1    OF SL1 ALT 1'S + 0'S
4644   01 010F1   25C00401 A             S,12    X'401'              0 INTO A31
4645   01 010F2   073001C2               K       0,7,3,FXPOSW        OVF 01
4646   01 010F3   47300166               K       4,7,3,L0C+2
4647   01 010F4   55555555 A             DATA    X'55555555'
4648   01 010F5   AAAAAAAA A             DATA    X'AAAAAAAA'
4649   01 010F6   FFFFFFFA A   S02       DATA    -6                  ALS  1
4650   01 010F7   25C00401 A             S,12    X'401'
4651   01 010F8   373001C2               K       3,7,3,FXPOSW
4652   01 010F9   F7300166               K       15,7,3,L0C+2
4653   01 010FA   AAAAAAAA A             DATA    X'AAAAAAAA'
4654   01 010FB   55555554 A             DATA    X'55555554'
4655   01 010FC   FFFFFFFA A   S03       DATA    -6                  ALS  4       SL4 ALT 1'S + 0'S
4656   01 010FD   25C00404 A             S,12    X'404'              PARITY 1111
4657   01 010FE   373001C2               K       3,7,3,FXPOSW        OVF 10
4658   01 010FF   77300166               K       7,7,3,L0C+2
4659   01 01100   F0F0F0F0 A             DATA    X'F0F0F0F0'
4660   01 01101   0F0F0F00 A             DATA    X'0F0F0F00'
4661   01 01102   FFFFFFFA A   S04       DATA    -6                  ALS  4
4662   01 01103   25C00404 A             S,12    X'404'              PARITY 0000
4663   01 01104   F73001C2               K       15,7,3,FXPOSW
4664   01 01105   77300166               K       7,7,3,L0C+2
4665   01 01106   0F0F0F0F A             DATA    X'0F0F0F0F'
4666   01 01107   F0F0F0F0 A             DATA    X'F0F0F0F0'
4667   01 01108   FFFFFFFA A   S05       DATA    -6                  ALS  0       SJIFT 0
4668   01 01109   25C00400 A             S,12    X'400'
4669   01 0110A   F7300136               K       15,7,3,SETPSW
4670   01 01108   37300166               K       3,7,3,L0C+2
4671   01 0110C   40000000 A             DATA    X'40000000'
4672   01 0110D   40000000 A             DATA    X'40000000'
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4673                                        PAGE
4674   01 0110E   FFFFFFFA A   S06          DATA    -6                  ALS  2     2-SL1
4675   01 0110F   25C00402 A               S,12    X'402'
4676   01 01110   07300136                 K       0,7,3,SETPSW
4677   01 01111   47300166                 K       4,7,3,L0C+2
4678   01 01112   D2345678 A               DATA    X'D2345678'
4679   01 01113   48D159E0 A               DATA    X'48D159E0'
4680                                        PAGE
4681   01 01114   FFFFFFF8 A   S07          DATA    -8                  ALS  3 *   3-SL1
4682   01 01115   A5C00460                 S,12    *MEMORY
4683   01 01116   37300136                 K       3,7,3,SETPSW
4684   01 01117   B7300166                 K       11,7,3,L0C+2
4685   01 01118   F2345678 A               DATA    X'F2345678'
4686   01 01119   91A2B3C0 A               DATA    X'91A2B3C0'
4687   01 0111A   00000403 A               DATA    X'403'
4688   01 0111B   00000403 A               DATA    X'403'
4689   01 0111C   FFFFFFFA A   S08          DATA    -6                  ALS 29
4690   01 0111D   25C0041D A               S,12    X'41D'
4691   01 0111E   07300136                 K       0,7,3,SETPSW
4692   01 0111F   47300166                 K       4,7,3,L0C+2
4693   01 01120   12345674 A               DATA    X'12345674'
4694   01 01121   80000000 A               DATA    X'80000000'
4695   01 01122   FFFFFFFA A   S09          DATA    -6                  ALS 27 X
4696   01 01123   25C20428 A               S,12    X'428',1
4697   01 01124   07300136                 K       0,7,3,SETPSW
4698   01 01125   87300166                 K       8,7,3,L0C+2
4699   01 01126   FFFFFFF0 A               DATA    -16
4700   01 01127   80000000 A               DATA    X'80000000'
4701   01 01128   FFFFFFFA A   S10          DATA    -6                  LLS  1
4702   01 01129   25C00001 A               S,12    1                   0 INT8 A31
4703   01 0112A   77300136                 K       7,7,3,SETPSW        8VF 00
4704   01 0112B   37300166                 K       3,7,3,L0C+2
4705   01 0112C   3C3C3C3C A               DATA    X'3C3C3C3C'
4706   01 0112D   78787878 A               DATA    X'78787878'
4707   01 0112E   FFFFFFFA A   S11          DATA    -6                  LLS  1 X
4708   01 0112F   25C2003E A               S,12    X'3E',1
4709   01 01130   87300136                 K       8,7,3,SETPSW        8VF 11
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4710   01 01131   87300166                 K       8,7,3,L0C+2
4711   01 01132   C3C3C3C3 A               DATA    X'C3C3C3C3'
4712   01 01133   87878786 A               DATA    X'87878786'
4713                                        PAGE
4714   01 01134   FFFFFFF8 A   S12          DATA    -8                  LLS  4
4715   01 01135   A5C00460                 S,12    *MEMORY
4716   01 01136   07300136                 K       0,7,3,SETPSW
4717   01 01137   C7300166                 K       12,7,3,L0C+2
4718   01 01138   23456789 A               DATA    X'23456789'
4719   01 01139   34567890 A               DATA    X'34567890'
4720   01 0113A   00000004 A               DATA    4
4721   01 0113B   00000004 A               DATA    4
4722   01 0113C   FFFFFFFA A   S13          DATA    -6                  LLS  4
4723   01 0113D   25C00004 A               S,12    4                   PARITY 0001
4724   01 0113E   F7300136                 K       15,7,3,SETPSW
4725   01 0113F   F7300166                 K       15,7,3,L0C+2
4726   01 01140   12345678 A               DATA    X'12345678'
4727   01 01141   23456780 A               DATA    X'23456780'
4728   01 01142   FFFFFFFA A   S14          DATA    -6                  LLS  4
4729   01 01143   25C00004 A               S,12    4                   PARITY 0011
4730   01 01144   07300136                 K       0,7,3,SETPSW
4731   01 01145   47300166                 K       4,7,3,L0C+2
4732   01 01146   3456789A A               DATA    X'3456789A'
4733   01 01147   456789A0 A               DATA    X'456789A0'
4734   01 01148   FFFFFFFA A   S15          DATA    -6                  LLS  4
4735   01 01149   25C00004 A               S,12    4                   PARITY 0100
4736   01 0114A   07300136                 K       0,7,3,SETPSW
4737   01 0114B   C7300166                 K       12,7,3,L0C+2
4738   01 0114C   456789AB A               DATA    X'456789AB'
4739   01 0114D   56789AB0 A               DATA    X'56789AB0'
4740   01 0114E   FFFFFFFA A   S16          DATA    -6                  LLS 4
4741   01 0114F   25C00004 A               S,12    4                   PARITY 0101
4742   01 01150   37300136                 K       3,7,3,SETPSW
4743   01 01151   77300166                 K       7,7,3,L0C+2
4744   01 01152   56789ABC A               DATA    X'56789ABC'
4745   01 01153   6789A3C0 A               DATA    X'6789ABC0'
4746                                        PAGE
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4747  01 01154  FFFFFFFA A  S17  DATA  -6                    LLS  4
4748  01 01155  25C00004 A       S,12  4                     PARITY 0110
4749  01 01156  07300136          K     0,7,3,SETPSW
4750  01 01157  47300166          K     4,7,3,L8C+2
4751  01 01158  6789ABCD A        DATA  X'6789ABCD'
4752  01 01159  789ABCD0 A        DATA  X'789ABCD0'
4753  01 0115A  FFFFFFFA A  S18  DATA  -6                    LLS  4
4754  01 0115B  25C00004 A       S,12  4                     PARITY 0111
4755  01 0115C  A7300136          K     10,7,3,SETPSW
4756  01 0115D  E7300166          K     14,7,3,L8C+2
4757  01 0115E  789ABCDE A        DATA  X'789ABCDE'
4758  01 0115F  89ABCDE0 A        DATA  X'89ABCDE0'
4759  01 01160  FFFFFFFA A  S19  DATA  -6                    LLS 32
4760  01 01161  25C00020 A       S,12  X'20'
4761  01 01162  07300136          K     0,7,3,SETPSW
4762  01 01163  C7300166          K     12,7,3,L8C+2
4763  01 01164  00000001 A        DATA  1
4764  01 01165  00000000 A        DATA  0
4765  01 01166  FFFFFFFA A  S20  DATA  -6                    LLS 30
4766  01 01167  25C0001E A       S,12  X'1E'
4767  01 01168  37300136          K     3,7,3,SETPSW
4768  01 01169  F7300166          K     15,7,3,L8C+2
4769  01 0116A  89ABCDE7 A        DATA  X'89ABCDE7'
4770  01 0116B  C0000000 A        DATA  X'C0000000'
4771  01 0116C  FFFFFFFA A  S21  DATA  -6                    CLS  1
4772  01 0116D  25C00201 A       S,12  X'201'               A0(1) INT8 A31
4773  01 0116E  07300136          K     0,7,3,SETPSW
4774  01 0116F  C7300166          K     12,7,3,L8C+2         A0+A1(10)INT8 A30 A31
4775  01 01170  89ABCDE0 A        DATA  X'89ABCDE0'
4776  01 01171  135798C1 A        DATA  X'135798C1'
4777                              PAGE
4778  01 01172  FFFFFFFA A  S22  DATA  -6                    CLS  2  X
4779  01 01173  25C20222 A       S,12  X'222',1
4780  01 01174  F7300136          K     15,7,3,SETPSW
4781  01 01175  F7300166          K     15,7,3,L8C+2
4782  01 01176  91234560 A        DATA  X'91234560'
4783  01 01177  448D1582 A        DATA  X'448D1582'
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4784  01 01178  FFFFFFFA A  S23  DATA  -6                    CLS  3     3-SL1
4785  01 01179  25C00203 A       S,12  X'203'
4786  01 0117A  37300136          K     3,7,3,SETPSW
4787  01 0117B  77300166          K     7,7,3,L8C+2
4788  01 0117C  76543210 A        DATA  X'76543210'
4789  01 0117D  B2A19083 A        DATA  X'B2A19083'
4790  01 0117E  FFFFFFFA A  S24  DATA  -6                    CLS  4
4791  01 0117F  25C00204 A       S,12  X'204'               PARITY 1000
4792  01 01180  F7300136          K     15,7,3,SETPSW
4793  01 01181  F7300166          K     15,7,3,L8C+2
4794  01 01182  89ABCDEF A        DATA  X'89ABCDEF'
4795  01 01183  9ABCDEF8 A        DATA  X'9ABCDEF8'
4796  01 01184  FFFFFFFA A  S25  DATA  -6                    CLS  4
4797  01 01185  25C00204 A       S,12  X'204'               PARITY 1001
4798  01 01186  07300136          K     0,7,3,SETPSW
4799  01 01187  47300166          K     4,7,3,L8C+2
4800  01 01188  9ABCDEF0 A        DATA  X'9ABCDEF0'
4801  01 01189  ABCDEF09 A        DATA  X'ABCDEF09'
4802  01 0118A  FFFFFFFA A  S26  DATA  -6                    CLS  4
4803  01 0118B  25C00204 A       S,12  X'204'               PARITY 1010
4804  01 0118C  07300136          K     0,7,3,SETPSW
4805  01 0118D  47300166          K     4,7,3,L8C+2
4806  01 0118E  ABCDEF01 A        DATA  X'ABCDEF01'
4807  01 0118F  BCDEF01A A        DATA  X'BCDEF01A'
4808                              PAGE
4809  01 01190  FFFFFFFA A  S27  DATA  -6                    CLS  4
4810  01 01191  25C00204 A       S,12  X'204'               PARITY 1011
4811  01 01192  07300136          K     0,7,3,SETPSW
4812  01 01193  C7300166          K     12,7,3,L8C+2
4813  01 01194  BCDEF012 A        DATA  X'BCDEF012'
4814  01 01195  CDEF012B A        DATA  X'CDEF012B'
4815  01 01196  FFFFFFFA A  S28  DATA  -6                    CLS  4
4816  01 01197  25C00204 A       S,12  X'204'               PARITY 1100
4817  01 01198  07300136          K     0,7,3,SETPSW
4818  01 01199  47300166          K     4,7,3,L8C+2
4819  01 0119A  CDEF0123 A        DATA  X'CDEF0123'
4820  01 0119B  DEF0123C A        DATA  X'DEF0123C'
```

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4821                                    PAGE
4822   01 0119C  FFFFFFFA A   S29       DATA    -6              CLS  4
4823   01 0119D  25C00204 A             S,12    X'204'          PARITY 1101
4824   01 0119E  07300136              K       0,7,3,SETPSW
4825   01 0119F  C7300166              K       12,7,3,L0C+2
4826   01 011A0  DEF01234 A           DATA    X'DEF01234'
4827   01 011A1  EF01234D A           DATA    X'EF01234D'
4828   01 011A2  FFFFFFFA A   S30       DATA    -6              CLS  4
4829   01 011A3  25C00204 A             S,12    X'204'          PARITY 1110
4830   01 011A4  37300136              K       3,7,3,SETPSW
4831   01 011A5  F7300166              K       15,7,3,L0C+2
4832   01 011A6  EF012345 A           DATA    X'EF012345'
4833   01 011A7  F012345E A           DATA    X'F012345E'
4834   01 011A8  FFFFFFFA A   S31       DATA    -6              CLS 63
4835   01 011A9  25C0023F A             S,12    X'23F'
4836   01 011AA  07300136              K       0,7,3,SETPSW
4837   01 011AB  C7300166              K       12,7,3,L0C+2
4838   01 011AC  76543211 A           DATA    X'76543211'
4839   01 011AD  BB2A1908 A           DATA    X'BB2A1908'
4840   01 011AE  FFFFFFFA A   S32       DATA    -6              CLS 31
4841   01 011AF  25C0023F A             S,12    X'23F'
4842   01 011B0  07300136              K       0,7,3,SETPSW
4843   01 011B1  C7300166              K       12,7,3,L0C+2
4844   01 011B2  76543211 A           DATA    X'76543211'
4845   01 011B3  BB2A1908 A           DATA    X'BB2A1908'
4846   01 011B4  FFFFFFF6 A   S33       DATA    -10             ALD  1    30(0) INT0 A31
4847   01 011B5  25C00501 A             S,12    X'501'          (0) INT0 B31
4848   01 011B6  07300136              K       0,7,3,SETPSW
4849   01 011B7  07300166              K       0,7,3,L0C+2
4850   01 011B8  12345679 A           DATA    X'12345679'
4851   01 011B9  2468ACF2 A           DATA    X'2468ACF2'
4852   01 011BA  00000000 A           DATA    0
4853   01 011BB  00000000 A           DATA    0
4854   01 011BC  55555555 A           DATA    X'55555555'
4855   01 011BD  AAAAAAAA A           DATA    X'AAAAAAAA'
4856                                    PAGE
4857   01 011BE  FFFFFFF6 A   S34       DATA    -10             ALD  1    30(1) INT0 A31
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4858   01 011BF  25C00501 A             S,12    X'501'
4859   01 011C0  07300136              K       0,7,3,SETPSW
4860   01 011C1  07300166              K       0,7,3,L0C+2
4861   01 011C2  12345678 A           DATA    X'12345678'
4862   01 011C3  2468ACF1 A           DATA    X'2468ACF1'
4863   01 011C4  00000000 A           DATA    0
4864   01 011C5  00000000 A           DATA    0
4865   01 011C6  AAAAAAAB A           DATA    X'AAAAAAAB'
4866   01 011C7  55555556 A           DATA    X'55555556'
4867   01 011C8  FFFFFFF6 A   S35       DATA    -10             ALD 35  *
4868   01 011C9  A5C00460              S,12    *MEMBRY
4869   01 011CA  07300136              K       0,7,3,SETPSW
4870   01 011CB  47300166              K       4,7,3,L0C+2
4871   01 011CC  CABBEDED A           DATA    X'CABBEDED'
4872   01 011CD  91A283C0 A           DATA    X'91A283C0'
4873   01 011CE  00000523 A           DATA    X'523'
4874   01 011CF  00000523 A           DATA    X'523'
4875   01 011D0  12345678 A           DATA    X'12345678'
4876   01 011D1  00000000 A           DATA    0
4877   01 011D2  FFFFFFF6 A   S36       DATA    -10             ALD 17 X   R8
4878   01 011D3  25D20547 A             S,13    X'547',1
4879   01 011D4  07300136              K       0,7,3,SETPSW
4880   01 011D5  47300166              K       4,7,3,L0C+2
4881   01 011D6  1728394A A           DATA    X'1728394A'
4882   01 011D7  1728394A A           DATA    X'1728394A'
4883   01 011D8  00000000 A           DATA    0
4884   01 011D9  00000000 A           DATA    0
4885   01 011DA  92345678 A           DATA    X'92345678'
4886   01 011DB  ACF12468 A           DATA    X'ACF12468'
4887                                    PAGE
4888   01 011DC  FFFFFFF6 A   S37       DATA    -10             LLD 63
4889   01 011DD  25C0013F A             S,12    X'13F'
4890   01 011DE  07300136              K       0,7,3,SETPSW
4891   01 011DF  87300166              K       8,7,3,L0C+2
4892   01 011E0  FFFFFFFF A           DATA    -1
4893   01 011E1  80000000 A           DATA    X'80000000'
4894   01 011E2  00000000 A           DATA    0
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4895  01 011E3  00000000 A          DATA   0
4896  01 011E4  FFFFFFFF A          DATA   -1
4897  01 011E5  00000000 A          DATA   0
4898  01 011E6  FFFFFFF6 A  S38     DATA   -10              LLD 47 X   R0
4899  01 011E7  25D20107 A          S,13   X'107',1
4900  01 011E8  07300136            K      0,7,3,SETPSW
4901  01 011E9  C7300166            K      12,7,3,L0C+2
4902  01 011EA  584A3928 A          DATA   X'584A3928'
4903  01 011EB  584A3928 A          DATA   X'584A3928'
4904  01 011EC  00000000 A          DATA   0
4905  01 011ED  00000000 A          DATA   0
4906  01 011EE  23456789 A          DATA   X'23456789'
4907  01 011EF  B3C48000 A          DATA   X'B3C48000'
4908  01 011F0  FFFFFFF6 A  S39     DATA   -10              CLD 19
4909  01 011F1  25C00313 A          S,12   X'313'
4910  01 011F2  07300136            K      0,7,3,SETPSW
4911  01 011F3  47300166            K      4,7,3,L0C+2
4912  01 011F4  12345678 A          DATA   X'12345678'
4913  01 011F5  B3C4D5E6 A          DATA   X'B3C4D5E6'
4914  01 011F6  00000000 A          DATA   0
4915  01 011F7  00000000 A          DATA   0
4916  01 011F8  9ABCDEF0 A          DATA   X'9ABCDEF0'
4917  01 011F9  F78091A2 A          DATA   X'F78091A2'
4918                                PAGE
4919  01 011FA  FFFFFFFA A  S40     DATA   -6               ARS  2
4920  01 011FB  25C0047E A          S,12   X'47E'
4921  01 011FC  F73001C2            K      15,7,3,FXPBSW
4922  01 011FD  37300166            K      3,7,3,L0C+2
4923  01 011FE  CCCCCCCC A          DATA   X'CCCCCCCC'
4924  01 011FF  F3333333 A          DATA   X'F3333333'
4925  01 01200  FFFFFFFA A  S41     DATA   -6               ARS  2
4926  01 01201  25C0047E A          S,12   X'47E'
4927  01 01202  00000136            DATA   SETPSW
4928  01 01203  00000166            DATA   L0C+2
4929  01 01204  33333333 A          DATA   X'33333333'
4930  01 01205  0CCCCCCC A          DATA   X'0CCCCCCC'
4931  01 01206  FFFFFFFA A  S42     DATA   -6               ARS  1
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4932  01 01207  25C0047F A          S,12   X'47F'
4933  01 01208  00000136            DATA   SETPSW
4934  01 01209  00000166            DATA   L0C+2
4935  01 0120A  AAAAAAAA A          DATA   X'AAAAAAAA'
4936  01 0120B  D5555555 A          DATA   X'D5555555'
4937  01 0120C  FFFFFFFA A  S43     DATA   -6               ARS  1
4938  01 0120D  25C0047F A          S,12   X'47F'
4939  01 0120E  00000136            DATA   SETPSW
4940  01 0120F  00000166            DATA   L0C+2
4941  01 01210  55555555 A          DATA   X'55555555'
4942  01 01211  2AAAAAAA A          DATA   X'2AAAAAAA'
4943  01 01212  FFFFFFFA A  S44     DATA   -6               ARS 28  X
4944  01 01213  25C20471 A          S,12   X'471',1
4945  01 01214  00000136            DATA   SETPSW
4946  01 01215  00000166            DATA   L0C+2
4947  01 01216  800000F3 A          DATA   X'800000F3'
4948  01 01217  FFFFFFF8 A          DATA   -8
4949                                PAGE
4950  01 01218  FFFFFFFA A  S45     DATA   -6               LRS 13
4951  01 01219  25C00073 A          S,12   X'73'
4952  01 0121A  F73001C2            K      15,7,3,FXPBSW
4953  01 01213  37300166            K      3,7,3,L0C+2
4954  01 0121C  87654321 A          DATA   X'87654321'
4955  01 0121D  0004332A A          DATA   X'4332A'
4956  01 0121E  FFFFFFFA A  S46     DATA   -6               CRS 11
4957  01 0121F  25C00275 A          S,12   X'275'
4958  01 01220  F73001C2            K      15,7,3,FXPBSW
4959  01 01221  37300166            K      3,7,3,L0C+2
4960  01 01222  ABCDEF89 A          DATA   X'ABCDEF89'
4961  01 01223  F13579BD A          DATA   X'F13579BD'
4962  01 01224  FFFFFFFA A  S47     DATA   -6               CRS 64
4963  01 01225  25C00240 A          S,12   X'240'
4964  01 01226  00000136            DATA   SETPSW
4965  01 01227  00000166            DATA   L0C+2
4966  01 01228  99999999 A          DATA   X'99999999'
4967  01 01229  99999999 A          DATA   X'99999999'
4968                                PAGE
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4969  01 0122A  FFFFFFF6 A  S48   DATA   -10              ARD 33
4970  01 0122B  25C0055F A        S,12   X'55F'
4971  01 0122C  F73001C2          K      15,7,3,FXPSW
4972  01 0122D  37300166          K      3,7,3,L0C+2
4973  01 0122E  87654321 A        DATA   X'87654321'
4974  01 0122F  FFFFFFFF A        DATA   -1
4975  01 01230  00000000 A        DATA   0
4976  01 01231  00000000 A        DATA   0
4977  01 01232  0FEDCBA9 A        DATA   X'0FEDCBA9'
4978  01 01233  C3B2A190 A        DATA   X'C3B2A190'
4979  01 01234  FFFFFFF6 A  S49   DATA   -10              ARD 15  *
4980  01 01235  A5D00460          S,13   *MEMORY
4981  01 01236  00000136          DATA   SETPSW
4982  01 01237  00000166          DATA   L0C+2
4983  01 01238  789ABCDE A        DATA   X'789ABCDE'
4984  01 01239  789ABCDE A        DATA   X'789ABCDE'
4985  01 0123A  00000571 A        DATA   X'571'
4986  01 0123B  00000571 A        DATA   X'571'
4987  01 0123C  F0123456 A        DATA   X'F0123456'
4988  01 0123D  FFFFE024 A        DATA   X'FFFFE024'
4989  01 0123E  FFFFFFF6 A  S50   DATA   -10              LRD 54
4990  01 0123F  25C0014A A        S,12   X'14A'
4991  01 01240  F73001C2          K      15,7,3,FXPSW
4992  01 01241  37300166          K      3,7,3,L0C+2
4993  01 01242  87654321 A        DATA   X'87654321'
4994  01 01243  00000000 A        DATA   0
4995  01 01244  00000000 A        DATA   0
4996  01 01245  00000000 A        DATA   0
4997  01 01246  ABCDEF01 A        DATA   X'ABCDEF01'
4998  01 01247  00000210 A        DATA   X'210'
4999                              PAGE
5000  01 01248  FFFFFFF6 A  S51   DATA   -10              LRD 36     R0
5001  01 01249  25D0015C A        S,13   X'15C'
5002  01 0124A  00000136          DATA   SETPSW
5003  01 0124B  00000166          DATA   L0C+2
5004  01 0124C  12345678 A        DATA   X'12345678'
5005  01 0124D  12345678 A        DATA   X'12345678'
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5006  01 0124E  00000000 A        DATA   0
5007  01 0124F  00000000 A        DATA   0
5008  01 01250  9ABCDEF0 A        DATA   X'9ABCDEF0'
5009  01 01251  00000000 A        DATA   0
5010  01 01252  FFFFFFF6 A  S52   DATA   -10              CRD 62 *
5011  01 01253  A5C00460          S,12   *MEMORY
5012  01 01254  00000136          DATA   SETPSW
5013  01 01255  00000166          DATA   L0C+2
5014  01 01256  99999999 A        DATA   X'99999999'
5015  01 01257  66666666 A        DATA   X'66666666'
5016  01 01258  00000342 A        DATA   X'342'
5017  01 01259  00000342 A        DATA   X'342'
5018  01 0125A  99999999 A        DATA   X'99999999'
5019  01 0125B  66666666 A        DATA   X'66666666'
5020  01 0125C  FFFFFFF6 A  S53   DATA   -10              CRD 31 *X  R0
5021  01 0125D  A5D20460          S,13   *MEMORY,1
5022  01 0125E  F73001C2          K      15,7,3,FXPSW
5023  01 0125F  37300166          K      3,7,3,L0C+2
5024  01 01260  22222222 A        DATA   X'22222222'
5025  01 01261  22222222 A        DATA   X'22222222'
5026  01 01262  000003BF A        DATA   X'3BF'
5027  01 01263  000003BF A        DATA   X'3BF'
5028  01 01264  7BDE7BDE A        DATA   X'7BDE7BDE'
5029  01 01265  F7BCF7BC A        DATA   X'F7BCF7BC'
5030                              PAGE
5031                        ** NUMBER ALREADY NORMALIZED
5032  01 01266  FFFFFFFA A  SF001 DATA   -6
5033  01 01267  24C0000F A        SF,12  15
5034  01 01268  F7300136          K      15,7,3,SETPSW
5035  01 01269  A7300166          K      10,7,3,L0C+2
5036  01 0126A  0F100000 A        DATA   X'F100000',X'F100000'
      01 0126B  0F100000 A
5037                        ** NORMALIZED WHEN COUNT EQUALS ZERO
5038  01 0126C  FFFFFFF6 A  SF002 DATA   -10
5039  01 0126D  24C00104 A        SF,12  X'104'
5040  01 0126E  07300136          K      0,7,3,SETPSW
5041  01 0126F  A7300166          K      10,7,3,L0C+2
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5042  01 01270  0F00002F A          DATA    X'F00002F',X'B2FFFFF',0,0,-1,X'FFFF0000'
      01 01271  B32FFFFF A
      01 01272  00000000 A
      01 01273  00000000 A
      01 01274  FFFFFFFF A
      01 01275  FFFF0000 A
5043                               ** NORMALIZED BEFORE COUNT EQUALS ZERO
5044  01 01276  FFFFFFFA A  SF003  DATA    -6
5045  01 01277  24C00104 A        SF,12   X'104'
5046  01 01278  70000136          K       7,0,0,SETPSW
5047  01 01279  A0000166          K       10,0,0,LOC+2
5048  01 0127A  0F004FFF A        DATA    X'0F004FFF',X'D4FFF00'
      01 0127B  D04FFF00 A
5049                               PAGE
5050                               ** UNDERFLOW. NOT NORMALIZED COUNT NOT EQUAL ZERO   S/CC2 IN PH6
5051  01 0127C  FFFFFFF6 A  SF004  DATA    -10
5052  01 0127D  24C0013F A        SF,12   X'13F'
5053  01 0127E  97300136          K       9,7,3,SETPSW
5054  01 0127F  67300166          K       6,7,3,LOC+2
5055  01 01280  04000000 A        DATA    X'4000000',X'7F0F0000',0,0,X'F0000000',0
      01 01281  7F0F0000 A
      01 01282  00000000 A
      01 01283  00000000 A
      01 01284  F0000000 A
      01 01285  00000000 A
5056                               ** UNDERFLOW. NORMALIZED. COUNT EQUAL ZERO. S/CC2 IN PH7
5057  01 01286  FFFFFFFA A  SF005  DATA    -6
5058  01 01287  24C00005 A        SF,12   5
5059  01 01288  17300136          K       1,7,3,SETPSW
5060  01 01289  E7300166          K       14,7,3,LOC+2
5061  01 0128A  04000008 A        DATA    X'04000008',X'7F800000'
      01 0128B  7F800000 A
5062                               ** COUNT EQUALS ZERO. NOT NORMALIZED
5063  01 0128C  FFFFFFFA A  SF006  DATA    -6
5064  01 0128D  24C00004 A        SF,12   4
5065  01 0128E  D7300136          K       13,7,3,SETPSW
5066  01 0128F  27300166          K       2,7,3,LOC+2
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5067  01 01290  0F000001 A          DATA    X'F000001',X'0B010000'
      01 01291  0B010000 A
5068                               PAGE
5069                               ** TRUE ZERO   S/FL3 IN PH6
5070  01 01292  FFFFFFF6 A  SF007  DATA    -10
5071  01 01293  24C00004 A        SF,12   4
5072  01 01294  70300136          K       7,0,3,SETPSW
5073  01 01295  80300166          K       8,0,3,LOC+2
5074  01 01296  03000000 A        DATA    X'3000000',0,0,0,-1,-1
      01 01297  00000000 A
      01 01298  00000000 A
      01 01299  00000000 A
      01 0129A  FFFFFFFF A
      01 0129B  FFFFFFFF A
5075                               ** NEGATIVE CHARACTERISTIC
5076  01 0129C  FFFFFFF6 A  SF008  DATA    -10
5077  01 0129D  24C00004 A        SF,12   4
5078  01 0129E  E7000136          K       14,7,0,SETPSW
5079  01 0129F  17000166          K       1,7,0,LOC+2
5080  01 012A0  F0FFFFF1 A        DATA    X'F0FFFFF1',X'F4F10000',0,0,-1,-1
      01 012A1  F4F10000 A
      01 012A2  00000000 A
      01 012A3  00000000 A
      01 012A4  FFFFFFFF A
      01 012A5  FFFFFFFF A
5081                               ** NEG CHAR.  UNDERFLOW   ODD REG  NORMALIZED
5082  01 012A6  FFFFFFFA A  SF009  DATA    -6
5083  01 012A7  24C00004 A        SF,12   4
5084  01 012A8  27300136          K       2,7,3,SETPSW
5085  01 012A9  D7300166          K       13,7,3,LOC+2
5086  01 012AA  FEFFEFFF A        DATA    X'FEFFEFFF',X'80EFFF00'
      01 012AB  80EFFF00 A
5087                               PAGE
5088                               ** NEG CHAR TO CHECK NKOO IN PH4 AND PH9
5089  01 012AC  FFFFFFF6 A  SF010  DATA    -10
5090  01 012AD  24C00102 A        SF,12   X'102'
5091  01 012AE  00000136          K       0,0,0,SETPSW
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5092   01 012AF   90000166            K       9,0,0,L0C+2
5093   01 012B0   F0FF4321 A          DATA    X'F0FF4321',X'F24321FF',0,0,-1,X'FFFFFF00'
       01 012B1   F24321FF A
       01 012B2   00000000 A
       01 012B3   00000000 A
       01 012B4   FFFFFFFF A
       01 012B5   FFFFFF00 A
5094                               ** NEG CHAR TO CHECK K00 IN PH4 AND PH9
5095   01 012B6   FFFFFFFA A   SF011   DATA    -6
5096   01 012B7   24C00102 A          SF,12   X'102'
5097   01 012B8   63100136            K       6,3,1,SETPSW
5098   01 012B9   93100166            K       9,3,1,L0C+2
5099   01 012BA   F0FF4320 A          DATA    X'F0FF4320',X'F2432000'
       01 012BB   F2432000 A
5100                               ** TEST THAT MAX COUNT W/O NORMALIZING IS OK
5101   01 012BC   FFFFFFF6 A   SF012   DATA    -10
5102   01 012BD   24C0010C A          SF,12   X'10C'
5103   01 012BE   55100136            K       5,5,1,SETPSW
5104   01 012BF   25100166            K       2,5,1,L0C+2
5105   01 012C0   7F000000 A          DATA    X'7F000000',X'73010000',0,0,1,0
       01 012C1   73010000 A
       01 012C2   00000000 A
       01 012C3   00000000 A
       01 012C4   00000001 A
       01 012C5   00000000 A
5106                               PAGE
5107                               ** RIGHT SHIFT. TRUE ZERO BEFORE COUNT DONE.  S/FL3 IN PH6
5108   01 012C6   FFFFFFF6 A   SF013   DATA    -10
5109   01 012C7   24D0007B A          SF,13   X'7B'
5110   01 012C8   F7300136            K       15,7,3,SETPSW
5111   01 012C9   07300166            K       0,7,3,L0C+2
5112   01 012CA   04800000 A          DATA    X'04800000',X'04800000',0,0,X'20000100',0
       01 012CB   04800000 A
       01 012CC   00000000 A
       01 012CD   00000000 A
       01 012CE   20000100 A
       01 012CF   00000000 A
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5113                               ** RIGHT SHIFT OVERFLOW AT COUNT DONE. S/CC2 IN PH7
5114   01 012D0   FFFFFFF6 A   SF014   DATA    -10
5115   01 012D1   24C0017F A          SF,12   X'17F'
5116   01 012D2   07300136            K       0,7,3,SETPSW
5117   01 012D3   67300166            K       6,7,3,L0C+2
5118   01 012D4   7F453210 A          DATA    X'7F453210',X'00045321',0,0,-1,X'FFFFFFFF'
       01 012D5   00045321 A
       01 012D6   00000000 A
       01 012D7   00000000 A
       01 012D8   FFFFFFFF A
       01 012D9   0FFFFFFF A
5119                               ** RIGHT SHIFT. OVERFLOW BEFORE COUNT DONE.  S/CC2 IN PH6
5120   01 012DA   FFFFFFF6 A   SF015   DATA    -10
5121   01 012DB   24C00170 A          SF,12   X'170'
5122   01 012DC   F0000136            K       15,0,0,SETPSW
5123   01 012DD   50000166            K       5,0,0,L0C+2
5124   01 012DE   81FFFFFF A          DATA    X'81FFFFFF',-1,0,0,X'FFFFF222',X'FFFFFFF3'
       01 012DF   FFFFFFFF A
       01 012E0   00000000 A
       01 012E1   00000000 A
       01 012E2   FFFFF222 A
       01 012E3   FFFFFFF3 A
5125                               PAGE
5126                               ** RIGHT SHIFT.  OVERFLOW AND TRUE ZERO. AT COUNT DONE.  S/FL3 IN PH7
5127   01 012E4   FFFFFFF6 A   SF016   DATA    -10
5128   01 012E5   24C0017F A          SF,12   X'17F'
5129   01 012E6   00000136            DATA    SETPSW,L0C+2,X'7F000000',0,0,0,1,0
       01 012E7   00000166
       01 012E8   7F000000 A
       01 012E9   00000000 A
       01 012EA   00000000 A
       01 012EB   00000000 A
       01 012EC   00000001 A
       01 012ED   00000000 A
5130                               ** RIGHT SHIFT COUNT DONE. MAX COUNT W/O OVERFLOW OR TRUE ZERO
5131   01 012EE   FFFFFFF6 A   SF017   DATA    -10
5132   01 012EF   24C00173 A          SF,12   X'173'
```

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5133   01 012F0   00000136          DATA    SETPSW
5134   01 012F1   20000166          K       2,0,0,L0C+2
5135   01 012F2   01A5AC31 A        DATA    X'01A5AC31',X'0E000000',0,0,X'95A3C195',2
       01 012F3   0E000000 A
       01 012F4   00000000 A
       01 012F5   00000000 A
       01 012F6   95A3C195 A
       01 012F7   00000002 A
5136                             PAGE
5137                          ** THE NEXT 16 TESTS ARE LEFT SHIFTS WITH THE COUNT GOING TO ZERO
5138                          ** EACH TEST LEAVES A SINGLE BIT IN REG B TO VERIFY EACH BIT POSITION
5139                          ** WILL CAUSE BC031Z TO BE FALSE. CHARACTERISTICS ARE CHOSEN TO VERIFY
5140                          ** THAT THE A DOWN COUNT LOGIC IS FUNCTIONING
5141   01 012F8   FFFFFFF6 A  SF018  DATA    -10             B00
5142   01 012F9   A4C00460          SF,12   *MEMORY
5143   01 012FA   00000136          DATA    SETPSW
5144   01 012FB   20000166          K       2,0,0,L0C+2
5145   01 012FC   73000000 A        DATA    X'73000000',X'71000000',X'102',X'102',X'800000'
       01 012FD   71000000 A
       01 012FE   00000102 A
       01 012FF   00000102 A
       01 01300   00800000 A
5146   01 01301   80000000 A        DATA    X'80000000'
5147   01 01302   FFFFFFF6 A  SF019  DATA    -10             B01
5148   01 01303   24CE0100 A        SF,12   X'100',7        IX ADD 1 TO COUNT
5149   01 01304   00000136          DATA    SETPSW
5150   01 01305   20000166          K       2,0,0,L0C+2
5151   01 01306   70000000 A        DATA    X'70000000',X'6F000000',0,0,X'4000000',X'40000000'
       01 01307   6F000000 A
       01 01308   00000000 A
       01 01309   00000000 A
       01 0130A   04000000 A
       01 0130B   40000000 A
5152   01 0130C   FFFFFFF6 A  SF020  DATA    -10             B02
5153   01 0130D   A4CE0460          SF,12   *MEMORY,7
5154   01 0130E   00000136          DATA    SETPSW
5155   01 0130F   20000166          K       2,0,0,L0C+2
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```
5156   01 01310   60000000 A        DATA    X'60000000',X'5F000000',X'100',X'100',X'2000000'
       01 01311   5F000000 A
       01 01312   00000100 A
       01 01313   00000100 A
       01 01314   02000000 A
5157   01 01315   20000000 A        DATA    X'20000000'
5158                             PAGE
5159   01 01316   FFFFFFF6 A  SF021  DATA    -10             B03
5160   01 01317   24C00101 A        SF,12   X'101'
5161   01 01318   00000136          DATA    SETPSW
5162   01 01319   20000166          K       2,0,0,L0C+2
5163   01 0131A   50000000 A        DATA    X'50000000',X'4F000000',0,0,X'1000000',X'10000000'
       01 0131B   4F000000 A
       01 0131C   00000000 A
       01 0131D   00000000 A
       01 0131E   01000000 A
       01 0131F   10000000 A
5164   01 01320   FFFFFFF6 A  SF022  DATA    -10             B04
5165   01 01321   24C00101 A        SF,12   X'101'
5166   01 01322   00000136          DATA    SETPSW
5167   01 01323   20000166          K       2,0,0,L0C+2
5168   01 01324   40000000 A        DATA    X'40000000',X'3F000000',0,0,X'800000',X'8000000'
       01 01325   3F000000 A
       01 01326   00000000 A
       01 01327   00000000 A
       01 01328   00800000 A
       01 01329   08000000 A
5169   01 0132A   FFFFFFF6 A  SF023  DATA    -10             B05
5170   01 0132B   24C00101 A        SF,12   X'101'
5171   01 0132C   00000136          DATA    SETPSW
5172   01 0132D   20000166          K       2,0,0,L0C+2
5173   01 0132E   30000000 A        DATA    X'30000000',X'2F000000',0,0,X'400000',X'4000000'
       01 0132F   2F000000 A
       01 01330   00000000 A
       01 01331   00000000 A
       01 01332   00400000 A
       01 01333   04000000 A
```

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5174                                                PAGE
5175   01 01334   FFFFFFF6 A   SF024   DATA    -10                 B06
5176   01 01335   24C00101 A           SF,12   X'101'
5177   01 01336   00000136             DATA    SETPSW
5178   01 01337   20000166             K       2,0,0,L8C+2
5179   01 01338   20000000 A           DATA    X'20000000',X'1F000000',0,0,X'200000',X'2000000'
       01 01339   1F000000 A
       01 0133A   00000000 A
       01 0133B   00000000 A
       01 0133C   00200000 A
       01 0133D   02000000 A
5180   01 0133E   FFFFFFF6 A   SF025   DATA    -10                 B07
5181   01 0133F   24C00101 A           SF,12   X'101'
5182   01 01340   00000136             DATA    SETPSW
5183   01 01341   20000166             K       2,0,0,L8C+2
5184   01 01342   10000000 A           DATA    X'10000000',X'0F000000',0,0,X'100000',X'1000000'
       01 01343   0F000000 A
       01 01344   00000000 A
       01 01345   00000000 A
       01 01346   00100000 A
       01 01347   01000000 A
5185   01 01348   FFFFFFF6 A   SF026   DATA    -10                 B08
5186   01 01349   24C00101 A           SF,12   X'101'
5187   01 0134A   00000136             DATA    SETPSW
5188   01 0134B   20000166             K       2,0,0,L8C+2
5189   01 0134C   71000000 A           DATA    X'71000000',X'70000000',0,0,X'80000',X'800000'
       01 0134D   70000000 A
       01 0134E   00000000 A
       01 0134F   00000000 A
       01 01350   00080000 A
       01 01351   00800000 A
5190                                                PAGE
5191   01 01352   FFFFFFF6 A   SF027   DATA    -10                 B09
5192   01 01353   24C00101 A           SF,12   X'101'
5193   01 01354   00000136             DATA    SETPSW
5194   01 01355   20000166             K       2,0,0,L8C+2
5195   01 01356   61000000 A           DATA    X'61000000',X'60000000',0,0,X'40000',X'400000'
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       01 01357   60000000 A
       01 01358   00000000 A
       01 01359   00000000 A
       01 0135A   00040000 A
       01 0135B   00400000 A
5196   01 0135C   FFFFFFF6 A   SF028   DATA    -10                 B10
5197   01 0135D   24C00101 A           SF,12   X'101'
5198   01 0135E   00000136             DATA    SETPSW
5199   01 0135F   20000166             K       2,0,0,L8C+2
5200   01 01360   51000000 A           DATA    X'51000000',X'50000000',0,0,X'20000',X'200000'
       01 01361   50000000 A
       01 01362   00000000 A
       01 01363   00000000 A
       01 01364   00020000 A
       01 01365   00200000 A
5201   01 01366   FFFFFFF6 A   SF029   DATA    -10                 B11
5202   01 01367   24C00101 A           SF,12   X'101'
5203   01 01368   00000136             DATA    SETPSW
5204   01 01369   20000166             K       2,0,0,L8C+2
5205   01 0136A   41000000 A           DATA    X'41000000',X'40000000',0,0,X'10000',X'100000'
       01 0136B   40000000 A
       01 0136C   00000000 A
       01 0136D   00000000 A
       01 0136E   00010000 A
       01 0136F   00100000 A
5206                                                PAGE
5207   01 01370   FFFFFFF6 A   SF030   DATA    -10                 B12
5208   01 01371   24C00101 A           SF,12   X'101'
5209   01 01372   00000136             DATA    SETPSW
5210   01 01373   20000166             K       2,0,0,L8C+2
5211   01 01374   31000000 A           DATA    X'31000000',X'30000000',0,0,X'8000',X'80000'
       01 01375   30000000 A
       01 01376   00000000 A
       01 01377   00000000 A
       01 01378   00008000 A
       01 01379   00080000 A
5212   01 0137A   FFFFFFF6 A   SF031   DATA    -10                 B13
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5213   01 01378   24C00101 A            SF,12    X'101'
5214   01 0137C   00000136              DATA     SETPSW
5215   01 0137D   20000166              K        2,0,0,L8C+2
5216   01 0137E   21000000 A            DATA     X'21000000',X'20000000',0,0,X'4000',X'40000'
       01 0137F   20000000 A
       01 01380   00000000 A
       01 01381   00000000 A
       01 01382   00004000 A
       01 01383   00040000 A
5217                                    PAGE
5218   01 01384   FFFFFFF6 A  SF032     DATA     -10              B14
5219   01 01385   24C00101 A            SF,12    X'101'
5220   01 01386   00000136              DATA     SETPSW
5221   01 01387   20000166              K        2,0,0,L8C+2
5222   01 01388   11000000 A            DATA     X'11000000',X'10000000',0,0,X'2000',X'20000'
       01 01389   10000000 A
       01 0138A   00000000 A
       01 0138B   00000000 A
       01 0138C   00002000 A
       01 0138D   00020000 A
5223   01 0138E   FFFFFFF6 A  SF033     DATA     -10              B15
5224   01 0138F   24C00101 A            SF,12    X'101'
5225   01 01390   00000136              DATA     SETPSW
5226   01 01391   20000166              K        2,0,0,L8C+2
5227   01 01392   01000000 A            DATA     X'01000000',0,0,0,X'1000',X'10000'
       01 01393   00000000 A
       01 01394   00000000 A
       01 01395   00000000 A
       01 01396   00001000 A
       01 01397   00010000 A
5228                                    PAGE
5229                           ** THE NEXT 16 TESTS COMPLETE THE TEST OF B0031Z AND CHECK THE A UP
5230                           ** COUNT LOGIC.
5231   01 01398   FFFFFFF6 A  SF034     DATA     -10              B31
5232   01 01399   24C0017F A            SF,12    X'17F'
5233   01 0139A   00000136              DATA     SETPSW
5234   01 0139B   20000166              K        2,0,0,L8C+2
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5235   01 0139C   0F000000 A            DATA     X'0F000000',X'10000000',0,0,16,1
       01 0139D   10000000 A
       01 0139E   00000000 A
       01 0139F   00000000 A
       01 013A0   00000010 A
       01 013A1   00000001 A
5236   01 013A2   FFFFFFF6 A  SF035     DATA     -10              B30
5237   01 013A3   24C0017F A            SF,12    X'17F'
5238   01 013A4   00000136              DATA     SETPSW
5239   01 013A5   20000166              K        2,0,0,L8C+2
5240   01 013A6   1F000000 A            DATA     X'1F000000',X'20000000',0,0,32,2
       01 013A7   20000000 A
       01 013A8   00000000 A
       01 013A9   00000000 A
       01 013AA   00000020 A
       01 013AB   00000002 A
5241   01 013AC   FFFFFFF6 A  SF036     DATA     -10              B29
5242   01 013AD   24C0017F A            SF,12    X'17F'
5243   01 013AE   00000136              DATA     SETPSW
5244   01 013AF   20000166              K        2,0,0,L8C+2
5245   01 013B0   2F000000 A            DATA     X'2F000000',X'30000000',0,0,64,4
       01 013B1   30000000 A
       01 013B2   00000000 A
       01 013B3   00000000 A
       01 013B4   00000040 A
       01 013B5   00000004 A
5246                                    PAGE
5247   01 013B6   FFFFFFF6 A  SF037     DATA     -10              B28
5248   01 013B7   24C0017F A            SF,12    X'17F'
5249   01 013B8   00000136              DATA     SETPSW
5250   01 013B9   20000166              K        2,0,0,L8C+2
5251   01 013BA   3F000000 A            DATA     X'3F000000',X'40000000',0,0,128,8
       01 013BB   40000000 A
       01 013BC   00000000 A
       01 013BD   00000000 A
       01 013BE   00000080 A
       01 013BF   00000008 A
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5252   01 013C0   FFFFFFF6 A   SF038   DATA    -10              B27
5253   01 013C1   24C0017F A           SF,12   X'17F'
5254   01 013C2   00000136             DATA    SETPSW
5255   01 013C3   20000166             K       2,0,0,L8C+2
5256   01 013C4   4F000000 A           DATA    X'4F000000',X'50000000',0,0,256,16
       01 013C5   50000000 A
       01 013C6   00000000 A
       01 013C7   00000000 A
       01 013C8   00000100 A
       01 013C9   00000010 A
5257   01 013CA   FFFFFFF6 A   SF039   DATA    -10              B26
5258   01 013CB   24C0017F A           SF,12   X'17F'
5259   01 013CC   00000136             DATA    SETPSW
5260   01 013CD   20000166             K       2,0,0,L8C+2
5261   01 013CE   5F000000 A           DATA    X'5F000000',X'60000000',0,0,512,32
       01 013CF   60000000 A
       01 013D0   00000000 A
       01 013D1   00000000 A
       01 013D2   00000200 A
       01 013D3   00000020 A
5262                                   PAGE
5263   01 013D4   FFFFFFF6 A   SF040   DATA    -10              B25
5264   01 013D5   24C0017F A           SF,12   X'17F'
5265   01 013D6   00000136             DATA    SETPSW
5266   01 013D7   20000166             K       2,0,0,L8C+2
5267   01 013D8   6F000000 A           DATA    X'6F000000',X'70000000',0,0,1024,64
       01 013D9   70000000 A
       01 013DA   00000000 A
       01 013DB   00000000 A
       01 013DC   00000400 A
       01 013DD   00000040 A
5268   01 013DE   FFFFFFF6 A   SF041   DATA    -10              B24
5269   01 013DF   24C0017F A           SF,12   X'17F'
5270   01 013E0   00000136             DATA    SETPSW
5271   01 013E1   20000166             K       2,0,0,L8C+2
5272   01 013E2   06000000 A           DATA    X'6000000',X'7000000',0,0,2048,128
       01 013E3   07000000 A
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       01 013E4   00000000 A
       01 013E5   00000000 A
       01 013E6   00000800 A
       01 013E7   00000080 A
5273   01 013E8   FFFFFFF6 A   SF042   DATA    -10              B23
5274   01 013E9   24C0017F A           SF,12   X'17F'
5275   01 013EA   00000136             DATA    SETPSW
5276   01 013EB   20000166             K       2,0,0,L8C+2
5277   01 013EC   70000000 A           DATA    X'70000000',X'71000000',0,0,4096,256
       01 013ED   71000000 A
       01 013EE   00000000 A
       01 013EF   00000000 A
       01 013F0   00001000 A
       01 013F1   00000100 A
5278                                   PAGE
5279   01 013F2   FFFFFFF6 A   SF043   DATA    -10              B22
5280   01 013F3   24C0017F A           SF,12   X'17F'
5281   01 013F4   00000136             DATA    SETPSW
5282   01 013F5   20000166             K       2,0,0,L8C+2
5283   01 013F6   60000000 A           DATA    X'60000000',X'61000000',0,0,8192,512
       01 013F7   61000000 A
       01 013F8   00000000 A
       01 013F9   00000000 A
       01 013FA   00002000 A
       01 013FB   00000200 A
5284   01 013FC   FFFFFFF6 A   SF044   DATA    -10              B21
5285   01 013FD   24C0017F A           SF,12   X'17F'
5286   01 013FE   00000136             DATA    SETPSW
5287   01 013FF   20000166             K       2,0,0,L8C+2
5288   01 01400   50000000 A           DATA    X'50000000',X'51000000',0,0,16384,1024
       01 01401   51000000 A
       01 01402   00000000 A
       01 01403   00000000 A
       01 01404   00004000 A
       01 01405   00000400 A
5289   01 01406   FFFFFFF6 A   SF045   DATA    -10              B20
5290   01 01407   24C0017F A           SF,12   X'17F'
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5291   01 01408   00000136              DATA    SETPSW
5292   01 01409   20000166              K       2,0,0,L0C+2
5293   01 0140A   40000000 A            DATA    X'40000000',X'41000000',0,0,32768,2048
       01 0140B   41000000 A
       01 0140C   00000000 A
       01 0140D   00000000 A
       01 0140E   00008000 A
       01 0140F   00000800 A
5294                                    PAGE
5295   01 01410   FFFFFFF6 A  SF046     DATA    -10                 B19
5296   01 01411   24C0017F A            SF,12   X'17F'
5297   01 01412   00000136              DATA    SETPSW
5298   01 01413   20000166              K       2,0,0,L0C+2
5299   01 01414   30000000 A            DATA    X'30000000',X'31000000',0,0,65536,4096
       01 01415   31000000 A
       01 01416   00000000 A
       01 01417   00000000 A
       01 01418   00010000 A
       01 01419   00001000 A
5300   01 0141A   FFFFFFF6 A  SF047     DATA    -10                 B18
5301   01 0141B   24C0017F A            SF,12   X'17F'
5302   01 0141C   00000136              DATA    SETPSW
5303   01 0141D   20000166              K       2,0,0,L0C+2
5304   01 0141E   20000000 A            DATA    X'20000000',X'21000000',0,0,131072,8192
       01 0141F   21000000 A
       01 01420   00000000 A
       01 01421   00000000 A
       01 01422   00020000 A
       01 01423   00002000 A
5305   01 01424   FFFFFFF6 A  SF048     DATA    -10                 B17
5306   01 01425   24C0017F A            SF,12   X'17F'
5307   01 01426   00000136              DATA    SETPSW
5308   01 01427   20000166              K       2,0,0,L0C+2
5309   01 01428   10000000 A            DATA    X'10000000',X'11000000',0,0,262144,16384
       01 01429   11000000 A
       01 0142A   00000000 A
       01 0142B   00000000 A
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       01 0142C   00040000 A
       01 0142D   00004000 A
5310                                    PAGE
5311   01 0142E   FFFFFFF6 A  SF049     DATA    -10                 B16
5312   01 0142F   24C0017F A            SF,12   X'17F'
5313   01 01430   00000136              DATA    SETPSW
5314   01 01431   20000166              K       2,0,0,L0C+2
5315   01 01432   00000000 A            DATA    0,X'1000000',0,0,524288,32768
       01 01433   01000000 A
       01 01434   00000000 A
       01 01435   00000000 A
       01 01436   00080000 A
       01 01437   00008000 A
5316                       ** CHECK THAT UNUSED BITS IN ADDRESS FIELD HAVE NO EFFECT
5317                       ** ALSO THAT INDEXING WILL CHANGE A - COUNT TO A + COUNT
5318   01 01438   FFFFFFF4 A  SF050     DATA    -12
5319   01 01439   A4C20460              SF,12   *MEMORY,1
5320   01 0143A   00000136              K       0,0,0,SETPSW
5321   01 0143B   20000166              K       2,0,0,L0C+2
5322   01 0143C   04000011 A            DATA    X'04000011',X'03000110',X'FFFFFEF0',X'FFFFFEF0',-9,-9
       01 0143D   03000110 A
       01 0143E   FFFFFEF0 A
       01 0143F   FFFFFEF0 A
       01 01440   FFFFFFF7 A
       01 01441   FFFFFFF7 A
5323   01 01442   00000008 A            DATA    8,8
       01 01443   00000008 A
5324                                    PAGE
5325   01 01444   FFFFFFF4 A  SF01      DATA    -12                 SF
5326   01 01445   24C00101 A            SF,12   X'101'
5327   01 01446   073001C9              K       0,7,3,FLPFSW
5328   01 01447   A7300166              K       10,7,3,L0C+2
5329   01 01448   010F0F0F A            DATA    X'010F0F0F'
5330   01 01449   00F0F0F0 A            DATA    X'00F0F0F0'
5331   01 0144A   00000000 A            DATA    X'0'
5332   01 0144B   00000000 A            DATA    X'0'
5333   01 0144C   0F0F0F0F A            DATA    X'0F0F0F0F'
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5334   01 0144D   F0F0F0F0 A            DATA    X'F0F0F0F0'
5335   01 0144E   00000000 A            DATA    X'0'
5336   01 0144F   00000000 A            DATA    X'0'
5337   01 01450   FFFFFFF4 A  SF02      DATA    -12                SF
5338   01 01451   24C00101 A            SF,12   X'101'
5339   01 01452   073001C9              K       0,7,3,FLPFSW
5340   01 01453   27300166              K       2,7,3,L8C+2
5341   01 01454   0300F0F0 A            DATA    X'0300F0F0'
5342   01 01455   020F0F0F A            DATA    X'020F0F0F'
5343   01 01456   00000000 A            DATA    X'0'
5344   01 01457   00000000 A            DATA    X'0'
5345   01 01458   F0F0F0F0 A            DATA    X'F0F0F0F0'
5346   01 01459   0F0F0F00 A            DATA    X'0F0F0F00'
5347   01 0145A   00000000 A            DATA    X'0'
5348   01 0145B   00000000 A            DATA    X'0'
5349                                    PAGE
5350   01 0145C   FFFFFFF4 A  SF03      DATA    -12                SF
5351   01 0145D   24C0017F A            SF,12   X'17F'
5352   01 0145E   073001C9              K       0,7,3,FLPFSW
5353   01 0145F   27300166              K       2,7,3,L8C+2
5354   01 01460   010F0F0F A            DATA    X'010F0F0F'
5355   01 01461   0200F0F0 A            DATA    X'0200F0F0'
5356   01 01462   00000000 A            DATA    X'0'
5357   01 01463   00000000 A            DATA    X'0'
5358   01 01464   0F0F0F0F A            DATA    X'0F0F0F0F'
5359   01 01465   F0F0F0F0 A            DATA    X'F0F0F0F0'
5360   01 01466   00000000 A            DATA    X'0'
5361   01 01467   00000000 A            DATA    X'0'
5362                                    PAGE
5363   01 01468   FFFFFFF4 A  SF04      DATA    -12                SF
5364   01 01469   24C0017F A            SF,12   X'17F'
5365   01 0146A   073001C9              K       0,7,3,FLPFSW
5366   01 0146B   27300166              K       2,7,3,L8C+2
5367   01 0146C   03F0F0F0 A            DATA    X'03F0F0F0'
5368   01 0146D   040F0F0F A            DATA    X'040F0F0F'
5369   01 0146E   00000000 A            DATA    X'0'
5370   01 0146F   00000000 A            DATA    X'0'
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5371   01 01470   F0F0F0F0 A            DATA    X'F0F0F0F0'
5372   01 01471   0F0F0F0F A            DATA    X'0F0F0F0F'
5373   01 01472   00000000 A            DATA    X'0'
5374   01 01473   00000000 A            DATA    X'0'
5375   01 01474   FFFFFFF4 A  SF05      DATA    -12                SF
5376   01 01475   24C00101 A            SF,12   X'101'
5377   01 01476   073001C9              K       0,7,3,FLPFSW
5378   01 01477   87300166              K       8,7,3,L8C+2
5379   01 01478   7F000000 A            DATA    X'7F000000'
5380   01 01479   00000000 A            DATA    X'0'
5381   01 0147A   00000000 A            DATA    X'0'
5382   01 0147B   00000000 A            DATA    X'0'
5383   01 0147C   00000000 A            DATA    X'0'
5384   01 0147D   00000000 A            DATA    X'0'
5385   01 0147E   00000000 A            DATA    X'0'
5386   01 0147F   00000000 A            DATA    X'0'
5387                                    PAGE
5388   01 01480   FFFFFFF4 A  SF06      DATA    -12                SF
5389   01 01481   24C00041 A            SF,12   X'041'
5390   01 01482   073001C9              K       0,7,3,FLPFSW
5391   01 01483   07300166              K       0,7,3,L8C+2
5392   01 01484   7F000000 A            DATA    X'7F000000'
5393   01 01485   00000000 A            DATA    X'0'
5394   01 01486   00000000 A            DATA    X'0'
5395   01 01487   00000000 A            DATA    X'0'
5396   01 01488   00000000 A            DATA    X'0'
5397   01 01489   00000000 A            DATA    X'0'
5398   01 0148A   00000000 A            DATA    X'0'
5399   01 0148B   00000000 A            DATA    X'0'
5400   01 0148C   FFFFFFF4 A  SF07      DATA    -12                SF
5401   01 0148D   24C00101 A            SF,12   X'101'
5402   01 0148E   073001C9              K       0,7,3,FLPFSW
5403   01 0148F   57300166              K       5,7,3,L8C+2
5404   01 01490   FFFFFFFF A            DATA    X'FFFFFFFF'
5405   01 01491   80FFFFF0 A            DATA    X'80FFFFF0'
5406   01 01492   00000000 A            DATA    X'0'
5407   01 01493   00000000 A            DATA    X'0'
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5408  01 01494  00000000 A          DATA    X'0'
5409  01 01495  00000000 A          DATA    X'0'
5410  01 01496  00000000 A          DATA    X'0'
5411  01 01497  00000000 A          DATA    X'0'
5412                               PAGE
5413  01 01498  FFFFFFF4 A  SF08    DATA    -12                 SF
5414  01 01499  24C00141 A          SF,12   X'141'
5415  01 0149A  073001C9           K       0,7,3,FLPFSW
5416  01 0149B  07300166           K       0,7,3,L8C+2
5417  01 0149C  00FFFFFF A         DATA    X'00FFFFFF'
5418  01 0149D  00000000 A         DATA    X'0'
5419  01 0149E  00000000 A         DATA    X'0'
5420  01 0149F  00000000 A         DATA    X'0'
5421  01 014A0  FFFFFFFF A         DATA    X'FFFFFFFF'
5422  01 014A1  00000000 A         DATA    X'0'
5423  01 014A2  00000000 A         DATA    X'0'
5424  01 014A3  00000000 A         DATA    X'0'
5425  01 014A4  FFFFFFF4 A  SF09    DATA    -12                 SF
5426  01 014A5  24C00173 A          SF,12   X'173'
5427  01 014A6  073001C9           K       0,7,3,FLPFSW
5428  01 014A7  27300166           K       2,7,3,L8C+2
5429  01 014A8  72F00000 A         DATA    X'72F00000'
5430  01 014A9  7F000000 A         DATA    X'7F000000'
5431  01 014AA  00000000 A         DATA    X'0'
5432  01 014AB  00000000 A         DATA    X'0'
5433  01 014AC  00000000 A         DATA    X'0'
5434  01 014AD  0000000F A         DATA    X'0000000F'
5435  01 014AE  00000000 A         DATA    X'0'
5436  01 014AF  00000000 A         DATA    X'0'
5437                               PAGE
5438  01 014B0  FFFFFFF4 A  SF10    DATA    -12                 SF
5439  01 014B1  24C0013F A          SF,12   X'13F'
5440  01 014B2  073001C9           K       0,7,3,FLPFSW
5441  01 014B3  A7300166           K       10,7,3,L8C+2
5442  01 014B4  07080000 A         DATA    X'07080000'
5443  01 014B5  06800000 A         DATA    X'06800000'
5444  01 014B6  00000000 A         DATA    X'0'
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5445  01 014B7  00000000 A          DATA    X'0'
5446  01 014B8  00000000 A          DATA    X'0'
5447  01 014B9  00000000 A          DATA    X'0'
5448  01 014BA  00000000 A          DATA    X'0'
5449  01 014BB  00000000 A          DATA    X'0'
5450  01 014BC  FFFFFFF4 A  SF11    DATA    -12                 SF
5451  01 014BD  24C00172 A          SF,12   X'172'
5452  01 014BE  073001C9           K       0,7,3,FLPFSW
5453  01 014BF  07300166           K       0,7,3,L8C+2
5454  01 014C0  72FFFFFF A         DATA    X'72FFFFFF'
5455  01 014C1  00000000 A         DATA    X'0'
5456  01 014C2  00000000 A         DATA    X'0'
5457  01 014C3  00000000 A         DATA    X'0'
5458  01 014C4  FFFFFFFF A         DATA    X'FFFFFFFF'
5459  01 014C5  00000000 A         DATA    X'0'
5460  01 014C6  00000000 A         DATA    X'0'
5461  01 014C7  00000000 A         DATA    X'0'
5462                               PAGE
5463  01 014C8  FFFFFFF4 A  SF12    DATA    -12                 SF
5464  01 014C9  24C0010D A          SF,12   X'10D'
5465  01 014CA  073001C9           K       0,7,3,FLPFSW
5466  01 014CB  A7300166           K       10,7,3,L8C+2
5467  01 014CC  73000000 A         DATA    X'73000000'
5468  01 014CD  66100000 A         DATA    X'66100000'
5469  01 014CE  00000000 A         DATA    X'0'
5470  01 014CF  00000000 A         DATA    X'0'
5471  01 014D0  00000001 A         DATA    X'00000001'
5472  01 014D1  00000000 A         DATA    X'0'
5473  01 014D2  00000000 A         DATA    X'0'
5474  01 014D3  00000000 A         DATA    X'0'
5475  01 014D4  FFFFFFF4 A  SF13    DATA    -12                 SF
5476  01 014D5  24C0017E A          SF,12   X'17E'
5477  01 014D6  073001C9           K       0,7,3,FLPFSW
5478  01 014D7  67300166           K       6,7,3,L8C+2
5479  01 014D8  7FF00000 A         DATA    X'7FF00000'
5480  01 014D9  000F0000 A         DATA    X'000F0000'
5481  01 014DA  00000000 A         DATA    X'0'
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5482  01 014D8  00000000 A          DATA   X'0'
5483  01 014DC  0000000F A          DATA   X'0000000F'
5484  01 014DD  00000000 A          DATA   X'0'
5485  01 014DE  00000000 A          DATA   X'0'
5486  01 014DF  00000000 A          DATA   X'0'
5487                               PAGE
5488  01 014E0  FFFFFFF4 A  SF14    DATA   -12                SF
5489  01 014E1  24C00000 A          SF,12  X'000'
5490  01 014E2  073001C9            K      0,7,3,FLPFSW
5491  01 014E3  A7300166            K      10,7,3,L8C+2
5492  01 014E4  7F555555 A          DATA   X'7F555555'
5493  01 014E5  7F555555 A          DATA   X'7F555555'
5494  01 014E6  00000000 A          DATA   X'0'
5495  01 014E7  00000000 A          DATA   X'0'
5496  01 014E8  00000000 A          DATA   X'0'
5497  01 014E9  00000000 A          DATA   X'0'
5498  01 014EA  00000000 A          DATA   X'0'
5499  01 014EB  00000000 A          DATA   X'0'
5500                               PAGE
5501  01 014EC  FFFFFFF4 A  SF15    DATA   -12                SF
5502  01 014ED  24C00101 A          SF,12  X'101'
5503  01 014EE  073001C9            K      0,7,3,FLPFSW
5504  01 014EF  97300166            K      9,7,3,L8C+2
5505  01 014F0  FE000000 A          DATA   X'FE000000'
5506  01 014F1  FE000000 A          DATA   X'FE000000'
5507  01 014F2  00000000 A          DATA   X'0'
5508  01 014F3  00000000 A          DATA   X'0'
5509  01 014F4  FFFFFFFF A          DATA   X'FFFFFFFF'
5510  01 014F5  FFFFFFFF A          DATA   X'FFFFFFFF'
5511  01 014F6  00000000 A          DATA   X'0'
5512  01 014F7  00000000 A          DATA   X'0'
5513  01 014F8  FFFFFFF4 A  SF16    DATA   -12                SF
5514  01 014F9  24D0017E A          SF,13  X'17E'
5515  01 014FA  073001C9            K      0,7,3,FLPFSW
5516  01 014FB  27300166            K      2,7,3,L8C+2
5517  01 014FC  7FAAAAAA A          DATA   X'7FAAAAAA'
5518  01 014FD  7FAAAAAA A          DATA   X'7FAAAAAA'
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5519  01 014FE  00000000 A          DATA   X'0'
5520  01 014FF  00000000 A          DATA   X'0'
5521  01 01500  40555555 A          DATA   X'40555555'
5522  01 01501  42005555 A          DATA   X'42005555'
5523  01 01502  00000000 A          DATA   X'0'
5524  01 01503  00000000 A          DATA   X'0'
5525                               PAGE
5526  01 01504  FFFFFFF4 A  SF17    DATA   -12                SF
5527  01 01505  24D00104 A          SF,13  X'104'
5528  01 01506  073001C9            K      0,7,3,FLPFSW
5529  01 01507  A7300166            K      10,7,3,L8C+2
5530  01 01508  00000001 A          DATA   X'00000001'
5531  01 01509  00000001 A          DATA   X'1'
5532  01 0150A  00000000 A          DATA   X'0'
5533  01 0150B  00000000 A          DATA   X'0'
5534  01 0150C  40000FFF A          DATA   X'40000FFF'
5535  01 0150D  3DFFF400 A          DATA   X'3DFFF400'
5536  01 0150E  00000000 A          DATA   X'0'
5537  01 0150F  00000000 A          DATA   X'0'
5538  01 01510  FFFFFFF4 A  SF18    DATA   -12                SF
5539  01 01511  24C0007D A          SF,12  X'07D'
5540  01 01512  073001C9            K      0,7,3,FLPFSW
5541  01 01513  07300166            K      0,7,3,L8C+2
5542  01 01514  FF000000 A          DATA   X'FF000000'
5543  01 01515  00000000 A          DATA   X'0'
5544  01 01516  00000000 A          DATA   X'0'
5545  01 01517  00000000 A          DATA   X'0'
5546  01 01518  00000000 A          DATA   X'0'
5547  01 01519  00000000 A          DATA   X'0'
5548  01 0151A  00000000 A          DATA   X'0'
5549  01 01518  00000000 A          DATA   X'0'
5550                               PAGE
5551  01 0151C  FFFFFFF4 A  SF19    DATA   -12                SF
5552  01 0151D  24D00001 A          SF,13  X'001'
5553  01 0151E  073001C9            K      0,7,3,FLPFSW
5554  01 0151F  A7300166            K      10,7,3,L8C+2
5555  01 01520  00000000 A          DATA   X'0'
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5556  01 01521  00000000 A          DATA    X'0'
5557  01 01522  00000000 A          DATA    X'0'
5558  01 01523  00000000 A          DATA    X'0'
5559  01 01524  080F0F0F A          DATA    X'080F0F0F'
5560  01 01525  07F0F0F0 A          DATA    X'07F0F0F0'
5561  01 01526  00000000 A          DATA    X'0'
5562  01 01527  00000000 A          DATA    X'0'
5563  01 01528  FFFFFFF4 A  SF20    DATA    -12                 SF
5564  01 01529  24D0007F A          SF,13   X'07F'
5565  01 0152A  073001C9           K       0,7,3,FLPFSW
5566  01 0152B  27300166           K       2,7,3,L0C+2
5567  01 0152C  00000000 A          DATA    X'0'
5568  01 0152D  00000000 A          DATA    X'0'
5569  01 0152E  00000000 A          DATA    X'0'
5570  01 0152F  00000000 A          DATA    X'0'
5571  01 01530  07F0F0F0 A          DATA    X'07F0F0F0'
5572  01 01531  080F0F0F A          DATA    X'080F0F0F'
5573  01 01532  00000000 A          DATA    X'0'
5574  01 01533  00000000 A          DATA    X'0'
5575                               PAGE
5576  01 01534  FFFFFFF4 A  SF21    DATA    -12                 SF
5577  01 01535  A4C00460           SF,12   *MEMORY
5578  01 01536  073001C9           K       0,7,3,FLPFSW
5579  01 01537  A7300166           K       10,7,3,L0C+2
5580  01 01538  010F0F0F A          DATA    X'010F0F0F'
5581  01 01539  00F0F0F0 A          DATA    X'00F0F0F0'
5582  01 0153A  00000101 A          DATA    X'101'
5583  01 0153B  00000101 A          DATA    X'101'
5584  01 0153C  0F0F0F0F A          DATA    X'0F0F0F0F'
5585  01 0153D  F0F0F0F0 A          DATA    X'F0F0F0F0'
5586  01 0153E  00000000 A          DATA    X'0'
5587  01 0153F  00000000 A          DATA    X'0'
5588                               PAGE
5589  01 01540  FFFFFFF4 A  SF22    DATA    -12                 SF
5590  01 01541  24CE0101 A          SF,12   X'101',7
5591  01 01542  073001C9           K       0,7,3,FLPFSW
5592  01 01543  A7300166           K       10,7,3,L0C+2
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5593  01 01544  010F0F0F A          DATA    X'010F0F0F'
5594  01 01545  00F0F0F0 A          DATA    X'00F0F0F0'
5595  01 01546  00000000 A          DATA    X'0'
5596  01 01547  00000000 A          DATA    X'0'
5597  01 01548  0F0F0F0F A          DATA    X'0F0F0F0F'
5598  01 01549  F0F0F0F0 A          DATA    X'F0F0F0F0'
5599  01 0154A  00000000 A          DATA    X'0'
5600  01 0154B  00000000 A          DATA    X'0'
5601  01 0154C  FFFFFFF4 A  SF23    DATA    -12                 SF
5602  01 0154D  A4CE0460           SF,12   *MEMORY,7
5603  01 0154E  073001C9           K       0,7,3,FLPFSW
5604  01 0154F  A7300166           K       10,7,3,L0C+2
5605  01 01550  010F0F0F A          DATA    X'010F0F0F'
5606  01 01551  00F0F0F0 A          DATA    X'00F0F0F0'
5607  01 01552  00000100 A          DATA    X'100'
5608  01 01553  00000100 A          DATA    X'100'
5609  01 01554  0F0F0F0F A          DATA    X'0F0F0F0F'
5610  01 01555  F0F0F0F0 A          DATA    X'F0F0F0F0'
5611  01 01556  00000000 A          DATA    X'0'
5612  01 01557  00000000 A          DATA    X'0'
5613                               PAGE
5614                     ** CHECK COND CODE SETTINGS AND TRAP LOCATIONS. I9 SET FOR FIRST SIx
5615  01 01558  FFFFFFFC A  CAL01   DATA    -4
5616  01 01559  04301559           CAL1,3  $
5617  01 0155A  079001CF           K       0,7,9,SI9CL1        SLAVE MODE
5618  01 0155B  3710009E           K       3,7,1,C1RET+4
5619  01 0155C  FFFFFFFC A  CAL02   DATA    -4
5620  01 0155D  05C0155D           CAL2,12 $
5621  01 0155E  073001D5           K       0,7,3,SI9CL2        MASTER MODE
5622  01 0155F  C730008B           K       12,7,3,C2RET+13
5623  01 01560  FFFFFFFC A  CAL03   DATA    -4
5624  01 01561  06A01561           CAL3,10 $
5625  01 01562  008001DB           K       0,0,8,SI9CL3        SLAVE
5626  01 01563  A00000CD           K       10,0,0,C3RET+11
5627  01 01564  FFFFFFFC A  CAL04   DATA    -4
5628  01 01565  07501565           CAL4,5  $
5629  01 01566  000001E1           K       0,0,0,SI9CL4        MASTER
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     5630   01 01567    500000DC              K       5,0,0,C4RET+6
     5631                                     PAGE
     5632                          ** CHECK THAT IA AND IX HAS NO EFFECT
     5633   01 01568    FFFFFFF8 A  CAL05     DATA    -8
     5634   01 01569    870E0460              CAL4,0  *MEMORY,7
     5635   01 0156A    F08001E1              K       15,0,8,SI9CL4     SLAVE
     5636   01 0156B    F00000D7              K       15,0,0,C4RET+1
     5637   01 0156C    00000000 A            DATA    0
     5638   01 0156D    00000000 A            DATA    0
     5639   01 0156E    00000460              DATA    MEMORY
     5640   01 0156F    00000460              DATA    MEMORY
     5641   01 01570    FFFFFFFC A  CAL06     DATA    -4
     5642   01 01571    07F01571              CAL4,F  $
     5643   01 01572    000001E1              K       0,0,0,SI9CL4      MASTER
     5644   01 01573    F00000E6              K       15,0,0,C4RET+16
     5645                          ** I9 RESET
     5646   01 01574    FFFFFFFC A  CAL07     DATA    -4
     5647   01 01575    07F01575              CAL4,F  $
     5648   01 01576    000001E2              K       0,0,0,RI9CL4      MASTER
     5649   01 01577    F00000D7              K       15,0,0,C4RET+1
     5650                                     PAGE
     5651                          ***
     5652                          ***  CAUTION
     5653                          ***
     5654                          ***  PSW1 BIT IS DEPENDENT UPON THE SENSE SWITCH SETTING WHEN EXECUTING
     5655                          ***  FARWD INSTRUCTIONS. A FALSE ERROR COULD OCCUR IF SWITCHES ARE
     5656                          ***  OPERATED.
     5657                          ***  TO RECOVER USE THE CP INTERRUPT SET THE SENSE SWITCHES, ENTER
     5658                          ***  THE MODULE LOCATION IN R1, DISPLAY THE IA AND RUN.
     5659   01 01578    FFFFFFF2 A  FARWD01   DATA    -14
     5660   01 01579    6DC00037 A            WD,12   X'37'             SET ALL INTERRPUT INHIBITS IN PSW2
     5661   01 0157A    000001E7              DATA    FARWD
     5662   01 0157B    00000166              DATA    L8C+2
     5663   01 0157C    00000000 A            DATA    0,0,0,0,0,0,0,0,X'7000000'
            01 0157D    00000000 A
            01 0157E    00000000 A
            01 0157F    00000000 A
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            01 01580    00000000 A
            01 01581    00000000 A
            01 01582    00000000 A
            01 01583    00000000 A
            01 01584    00000000 A
            01 01585    07000000 A
     5664   01 01586    FFFFFFF2 A  FARWD02   DATA    -14               INTERRUPT INHIBIT TEST            *B
     5665   01 01587    6DC00030 A            WD,12   X'30'             TRY TO SET W/O SPECIFYING ANY BITS*B
     5666   01 01588    000001E7              DATA    FARWD
     5667   01 01589    00000166              DATA    L8C+2
     5668   01 0158A    FFFFFFFF A            DATA    -1,-1,-1,-1,-1,-1,-1,-1,0,0   PSW2 IN=0  PSW2 BUT=0 *B
            01 0158B    FFFFFFFF A
            01 0158C    FFFFFFFF A
            01 0158D    FFFFFFFF A
            01 0158E    FFFFFFFF A
            01 0158F    FFFFFFFF A
            01 01590    FFFFFFFF A
            01 01591    FFFFFFFF A
            01 01592    00000000 A
            01 01593    00000000 A
     5669                                     PAGE
     5670   01 01594    FFFFFFF2 A  FARWD03   DATA    -14               INTERRUPT INHIBIT TEST            *B
     5671   01 01595    6DC00027 A            WD,12   X'27'             RESET ALL BITS                    *B
     5672   01 01596    000001E7              DATA    FARWD                                             *B
     5673   01 01597    00000166              DATA    L8C+2                                             *B
     5674   01 01598    00000000 A            DATA    0,0,0,0,0,0,0,0                                   *B
            01 01599    00000000 A
            01 0159A    00000000 A
            01 0159B    00000000 A
            01 0159C    00000000 A
            01 0159D    00000000 A
            01 0159E    00000000 A
            01 0159F    00000000 A
     5675   01 015A0    07000000 A            GEN,8,24 7,0               PSW2 IN
     5676   01 015A1    00000000 A            DATA    0                  PSW2 BUT
     5677   01 015A2    FFFFFFF2 A  FARWD04   DATA    -14                INTERRUPT INHIBIT TEST            *B
     5678   01 015A3    6DC00020 A            WD,12   X'20'              TRY TO RESET W/O SPECIFYING BITS  *B
```

```
5679   01 015A4   000001E7              DATA    FARWD
5680   01 015A5   00000166              DATA    L0C+2
5681   01 015A6   00000000 A            DATA    0,0,0,0,0,0,0,0
       01 015A7   00000000 A
       01 015A8   00000000 A
       01 015A9   00000000 A
       01 015AA   00000000 A
       01 015AB   00000000 A
       01 015AC   00000000 A
       01 015AD   00000000 A
5682   01 015AE   07000000 A            GEN,8,24,8,24 7,0,7,0      PSW2 IN AND OUT
                  07000000
5683                                    PAGE
5684   01 015B0   FFFFFFF2 A  FARWD05   DATA    -14                INTERRUPT INHIBIT TEST          *B
5685   01 015B1   6CC00037 A            RD,12   X'37'              ONLY WD SHOULD SET BITS         *B
5686   01 015B2   000001E7              DATA    FARWD,L0C+2                                        *B
       01 015B3   00000166
5687   01 015B4   FFFFFFFF A            DATA    -1,0,0,0,0,0,0,0,0                                 *B
       01 015B5   00000000 A
       01 015B6   00000000 A
       01 015B7   00000000 A
       01 015B8   00000000 A
       01 015B9   00000000 A
       01 015BA   00000000 A
       01 015BB   00000000 A
       01 015BC   00000000 A
       01 015BD   00000000 A
5688                                    PAGE
5689                            ** CHECK THAT INDX=C4 C14
5690                            ** INDEXING ALIGNMENT IS CHECKED BY THE BYTE, HALF AND DOUBLEWORD MODULE
5691   01 015BE   FFFFFFF8 A  IX01      DATA    -8
5692   01 015BF   48C3EEA2 A            EOR,12  MEMORY-IX01,1
5693   01 015C0   00000136              DATA    SETPSW,L0C+2
       01 015C1   00000166
5694   01 015C2   000015BE              DATA    IX01,0,IX01,IX01
       01 015C3   00000000 A
       01 015C4   000015BE
```



```
       01 015C5   000015BE
5695                            ** CHECK THAT INDX=C3,C12
5696   01 015C6   FFFFFFF8 A  IX02      DATA    -8
5697   01 015C7   30C80004 A            AW,12   4,4                EFF ADDR IS 8. CONTENTS OF MEM IN 8
5698   01 015C8   00000136              DATA    SETPSW
5699   01 015C9   20000166              K       2,0,0,L0C+2
5700   01 015CA   00000064 A            DATA    100,300,200,200
       01 015CB   0000012C A
       01 015CC   000000C8 A
       01 015CD   000000C8 A
5701                            ** CHECK THAT INDX= C5,C13
5702   01 015CE   FFFFFFF6 A  IX03      DATA    -10
5703   01 015CF   24C40002 A            SF,12   2,2                IX2 CONTAINS A 1. CAUSING LS OF 3.
5704   01 015D0   00000136              K       0,0,0,SETPSW
5705   01 015D1   A0000166              K       10,0,0,L0C+2
5706   01 015D2   14000100 A            DATA    X'14000100'
5707   01 015D3   11100000 A            DATA    X'11100000'
5708   01 015D4   00000000 A            DATA    0
5709   01 015D5   00000000 A            DATA    0
5710   01 015D6   FFFFFFFF A            DATA    -1
5711   01 015D7   FFFFFFFF A            DATA    -1
5712                                    PAGE
5713                            ** TEST THAT A PRIVLEGED INSTRUCTION TRAPS IN SLAVE MODE
5714   01 015D8   FFFFFFFC A  FAPRIV01  DATA    -4
5715   01 015D9   0F000464              XPSD,0  RETURN
5716   01 015DA   F7B00186              K       15,7,11,SIGNAB     I9.1 CAUSING TRACC2 ADDITION TO ADDR
5717   01 015DB   F7300065              K       7,7,3,MVRET+1
5718                            ** TEST THAT FAPRIV IS FALSE WHEN 85 IS FALSE
5719   01 015DC   FFFFFFFC A  FAPRIV02  DATA    -4
5720   01 015DD   48C00460              EOR,12  MEMORY
5721   01 015DE   F7B00136              K       15,7,11,SETPSW
5722   01 015DF   C7B00165              K       12,7,11,L0C+1
5723                            ** TEST THAT FAPRIV IS FALSE WHEN 84 IS FALSE
5724   01 015E0   FFFFFFFC A  FAPRIV03  DATA    -4
5725   01 015E1   66C00460              AWM,12  MEMORY
5726   01 015E2   F7B00136              K       15,7,11,SETPSW
5727   01 015E3   07B00165              K       0,7,11,L0C+1
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5728                                ** TEST THAT FAPRIV IS FALSE WHEN B3 IS TRUE. NON-EXSISTENT TRAP SHOULD
5729                                ** OCCUR. A RETURN FROM NEIRET+2 INDICATES FAPRIV BECAME TRUE.
5730   01 015E4   FFFFFFFC A   FAPRIV04 DATA     -4
5731   01 015E5   7E000460              DL,0     MEMORY
5732   01 015E6   F7B001B6              K        15,7,11,SI9NAB
5733   01 015E7   F730006B              K        15,7,3,NEIRET+1
5734                                    PAGE
5735                                ** THE FOLLOWING ROUTINES CHECK THAT ALL TERMS FOR FAILL (FAM ILLEGAL)
5736                                ** ARE OPERATING PROPERLY. ALL CASES SHOULD TRAP TO 40.
5737                                ** CHECK  INPUT  IA.FAIM
5738   01 015E8   FFFFFFF8 A   FAILL01 DATA     -8
5739   01 015E9   A2C0045A N          GEN,16,16 X'A2C0',IA       LI,C *IA
5740   01 015EA   000001B6            DATA     SI9NAB
5741   01 015EB   8000006B            K        8,0,0,NEIRET+1
5742   01 015EC   00000000 A          DATA     0                 R IN
5743   01 015ED   00000000 A          DATA     0                 R OUT
5744   01 015EE   00000100 A          DATA     X'100'            M IN
5745   01 015EF   00000100 A          DATA     X'100'            M OUT
5746                                ** CHECK INPUT  OU1.NO4.O5.O6-1
5747   01 015F0   FFFFFFFC A   FAILL02 DATA     -4
5748   01 015F1   16000000 A          DATA     X'16000000'       ILLEGAL INST
5749   01 015F2   000001B6            DATA     SI9NAB
5750   01 015F3   8000006B            K        8,0,0,NEIRET+1
5751                                ** CHECK INPUT FUMMC.N(ND12.ND13.D14) WITH D12 TRUE
5752   01 015F4   FFFFFFFC A   FAILL03 DATA     -4
5753   01 015F5   6FCA0000 A          DATA     X'6FCA0000'       MMC,12  5
5754   01 015F6   000001B6            DATA     SI9NAB
5755   01 015F7   8000006B            K        8,0,0,NEIRET+1
5756                                ** CHECK INPUT FUMMC.N(ND12.ND13.D14) WITH D13 TRUE
5757   01 015F8   FFFFFFFC A   FAILL04 DATA     -4
5758   01 015F9   6FC60000 A          DATA     X'6FC60000'       MMC,12  3
5759   01 015FA   000001B6            DATA     SI9NAB
5760   01 015FB   8000006B            K        8,0,0,NEIRET+1
5761                                ** CHECK INPUT FUMMC.N(ND12.ND13.D14) WITH ND14 TRUE
5762   01 015FC   FFFFFFFC A   FAILL05 DATA     -4
5763   01 015FD   6FC00000 A          DATA     X'6FC00000'       MMC,12  0
5764   01 015FE   000001B6            DATA     SI9NAB
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5765   01 015FF   8000006B            K        8,0,0,NEIRET+1
5766                                    PAGE
5767                                ** CHECK INPUT OU2.O4.NO5.NO6
5768   01 01600   FFFFFFFC A   FAILL06 DATA     -4
5769   01 01601   28C00460            CVS,12   MEMORY
5770   01 01602   000001B6            DATA     SI9NAB
5771   01 01603   8000006B            K        8,0,0,NEIRET+1
5772                                ** CHECK INPUT OU7.MO4.O5.O6
5773   01 01604   FFFFFFFC A   FAILL07 DATA     -4
5774   01 01605   76C00460            PACK,12  MEMORY
5775   01 01606   000001B6            DATA     SI9NAB
5776   01 01607   8000006B            K        8,0,0,NEIRET+1
5777                                ** CHECK INPUT OU7.O4
5778   01 01608   FFFFFFFC A   FAILL08 DATA     -4
5779   01 01609   7FC00460            DST,12   MEMORY
5780   01 0160A   000001B6            DATA     SI9NAB
5781   01 0160B   8000006B            K        8,0,0,NEIRET+1
5782                                ** CHECK INPUT O1.NO3.NO4.NO5
5783   01 0160C   FFFFFFFC A   FAILL09 DATA     -4
5784   01 0160D   41C00460            TBS,12   MEMORY
5785   01 0160E   000001B6            DATA     SI9NAB
5786   01 0160F   8000006B            K        8,0,0,NEIRET+1
5787                                ** CHECK INPUT OU5.OL9
5788   01 01610   FFFFFFFC A   FAILL10 DATA     -4
5789   01 01611   59000000 A          DATA     X'59000000'
5790   01 01612   000001B6            DATA     SI9NAB
5791   01 01613   8000006B            K        8,0,0,NEIRET+1
5792                                ** CHECK INPUT OL4.B3.NFABYTE
5793   01 01614   FFFFFFFC A   FAILL11 DATA     -4
5794   01 01615   34000000 A          DATA     X'34000000'
5795   01 01616   000001B6            DATA     SI9NAB
5796   01 01617   8000006B            K        8,0,0,NEIRET+1
5797                                    PAGE
5798                                ** CHECK INPUT O4.O5.O1.O3
5799   01 01618   FFFFFFFC A   FAILL12 DATA     -4
5800   01 01619   7C000460            DSA      MEMORY
5801   01 0161A   000001B6            DATA     SI9NAB
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5802   01 01618   80000068            K       8,0,0,NEIRET+1
5803                          ** CHECK INPUT 84,85,N81,N83,N86
5804   01 0161C   FFFFFFFC A  FAILL13 DATA    -4
5805   01 0161D   0C000000 A          DATA    X'C000000'
5806   01 0161E   00000186            DATA    SIGNAL
5807   01 0161F   80000068            K       8,0,0,NEIRET+1
5808                          ** THIS TEST IS BYPASSED IF FLOATING POINT IS INSTALLED. IF NOT
5809                          ** INSTALLED, THIS TESTS NFAIMP + FAFL+NFPOPTION
5810   01 01620   FFFFFFFC A  NFAIMP01 DATA   -4
5811   01 01621   680001A7            B       END             BECOMES FAS,12MEMORY IF NFPOPTION
5812   01 01622   000001BC            K       0,0,0,UII$W
5813   01 01623   00000077            K       0,0,0,UIIRET+1
5814                                  PAGE
5815   01 01624   FFFFFFF6 A  MW01    DATA    -10             MW
5816   01 01625   37C00460            MW,12   MEMORY
5817   01 01626   073001C2            K       00,7,3,FXPOSW
5818   01 01627   57300166            K       5,7,3,L0C+2
5819   01 01628   55555555 A          DATA    X'55555555'
5820   01 01629   D58E3546 A          DATA    X'D58E3546'
5821   01 0162A   55555555 A          DATA    X'55555555'
5822   01 0162B   55555555 A          DATA    X'55555555'
5823   01 0162C   80AA9FD4 A          DATA    X'80AA9FD4'
5824   01 0162D   D51C7564 A          DATA    X'D51C7564'
5825   01 0162E   FFFFFFF6 A  MW02    DATA    -10             MW
5826   01 0162F   37C00460            MW,12   MEMORY
5827   01 01630   073001C2            K       00,7,3,FXPOSW
5828   01 01631   57300166            K       5,7,3,L0C+2
5829   01 01632   00000000 A          DATA    X'00000000'
5830   01 01633   FE40CB5E A          DATA    X'FE40CB5E'
5831   01 01634   FC7CF1CC A          DATA    X'FC7CF1CC'
5832   01 01635   FC7CF1CC A          DATA    X'FC7CF1CC'
5833   01 01636   7F56BA80 A          DATA    X'7F56BA80'
5834   01 01637   74AF1E00 A          DATA    X'74AF1E00'
5835   01 01638   FFFFFFF6 A  MW03    DATA    -10             MW
5836   01 01639   37C00460            MW,12   MEMORY
5837   01 0163A   073001C2            K       00,7,3,FXPOSW
5838   01 0163B   67300166            K       6,7,3,L0C+2
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5839   01 0163C   00000000 A          DATA    X'00000000'
5840   01 0163D   15BB908B A          DATA    X'15BB908B'
5841   01 0163E   59C61C18 A          DATA    X'59C61C18'
5842   01 0163F   59C61C18 A          DATA    X'59C61C18'
5843   01 01640   3DF91CF8 A          DATA    X'3DF91CF8'
5844   01 01641   AE55D740 A          DATA    X'AE55D740'
5845                                  PAGE
5846   01 01642   FFFFFFF6 A  MW04    DATA    -10             MW
5847   01 01643   37C00460            MW,12   MEMORY
5848   01 01644   073001C2            K       00,7,3,FXPOSW
5849   01 01645   57300166            K       5,7,3,L0C+2
5850   01 01646   00000000 A          DATA    X'00000000'
5851   01 01647   FAE49435 A          DATA    X'FAE49435'
5852   01 01648   F1C3C731 A          DATA    X'F1C3C731'
5853   01 01649   F1C3C731 A          DATA    X'F1C3C731'
5854   01 0164A   5BD80E1D A          DATA    X'5BD80E1D'
5855   01 0164B   946A3E8D A          DATA    X'946A3E8D'
5856   01 0164C   FFFFFFF6 A  MW05    DATA    -10             MW
5857   01 0164D   37C00460            MW,12   MEMORY
5858   01 0164E   073001C2            K       00,7,3,FXPOSW
5859   01 0164F   67300166            K       6,7,3,L0C+2
5860   01 01650   00000000 A          DATA    X'00000000'
5861   01 01651   1EC17468 A          DATA    X'1EC17468'
5862   01 01652   3F01FC03 A          DATA    X'3F01FC03'
5863   01 01653   3F01FC03 A          DATA    X'3F01FC03'
5864   01 01654   7CF5C8E1 A          DATA    X'7CF5C8E1'
5865   01 01655   907FD6A3 A          DATA    X'907FD6A3'
5866   01 01656   FFFFFFF6 A  MW06    DATA    -10             MW
5867   01 01657   37C00460            MW,12   MEMORY
5868   01 01658   073001C2            K       00,7,3,FXPOSW
5869   01 01659   57300166            K       5,7,3,L0C+2
5870   01 0165A   00000000 A          DATA    X'00000000'
5871   01 0165B   CD4A4EA5 A          DATA    X'CD4A4EA5'
5872   01 0165C   70000000 A          DATA    X'70000000'
5873   01 0165D   70000000 A          DATA    X'70000000'
5874   01 0165E   8C178F32 A          DATA    X'8C178F32'
5875   01 0165F   E0000000 A          DATA    X'E0000000'
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5876                                          PAGE
5877   01 01660   FFFFFFF6 A   MW07          DATA     -10                MW
5878   01 01661   37C00460                   MW,12    MEMORY
5879   01 01662   073001C2                   K        00,7,3,FXPOSW
5880   01 01663   57300166                   K        5,7,3,L0C+2
5881   01 01664   00000000 A                 DATA     X'00000000'
5882   01 01665   EC7E668F A                 DATA     X'EC7E668F'
5883   01 01666   CDB53C70 A                 DATA     X'CDB53C70'
5884   01 01667   CDB53C70 A                 DATA     X'CDB53C70'
5885   01 01668   634AC271 A                 DATA     X'634AC271'
5886   01 01669   ED2C8D70 A                 DATA     X'ED2C8D70'
5887   01 0166A   FFFFFFF6 A   MW08          DATA     -10                MW
5888   01 0166B   37C00460                   MW,12    MEMORY
5889   01 0166C   073001C2                   K        00,7,3,FXPOSW
5890   01 0166D   57300166                   K        5,7,3,L0C+2
5891   01 0166E   00000000 A                 DATA     X'00000000'
5892   01 0166F   FAA8C9D1 A                 DATA     X'FAA8C9D1'
5893   01 01670   31C3C1F0 A                 DATA     X'31C3C1F0'
5894   01 01671   31C3C1F0 A                 DATA     X'31C3C1F0'
5895   01 01672   E486C662 A                 DATA     X'E486C662'
5896   01 01673   B88FDDE0 A                 DATA     X'B88FDDE0'
5897   01 01674   FFFFFFF6 A   MW09          DATA     -10                MW
5898   01 01675   37C00460                   MW,12    MEMORY
5899   01 01676   073001C2                   K        00,7,3,FXPOSW
5900   01 01677   57300166                   K        5,7,3,L0C+2
5901   01 01678   00000000 A                 DATA     X'00000000'
5902   01 01679   F4764A4 A                  DATA     X'F4764A4'
5903   01 0167A   DF4F3C70 A                 DATA     X'DF4F3C70'
5904   01 0167B   DF4F3C70 A                 DATA     X'DF4F3C70'
5905   01 0167C   5A5ACF3B A                 DATA     X'5A5ACF3B'
5906   01 0167D   28817DD0 A                 DATA     X'28817DD0'
5907                                         PAGE
5908   01 0167E   FFFFFFF6 A   MW10          DATA     -10                MW
5909   01 0167F   37C00460                   MW,12    MEMORY
5910   01 01680   073001C2                   K        00,7,3,FXPOSW
5911   01 01681   17300166                   K        1,7,3,L0C+2
5912   01 01682   00000000 A                 DATA     X'00000000'
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5913   01 01683   FFFFFFFF A                 DATA     X'FFFFFFFF'
5914   01 01684   FFFFFFFF A                 DATA     X'FFFFFFFF'
5915   01 01685   FFFFFFFF A                 DATA     X'FFFFFFFF'
5916   01 01686   55555551 A                 DATA     X'55555551'
5917   01 01687   AAAAAAAF A                 DATA     X'AAAAAAAF'
5918   01 01688   FFFFFFF6 A   MW11          DATA     -10                MW
5919   01 01689   37C00460                   MW,12    MEMORY
5920   01 0168A   073001C2                   K        00,7,3,FXPOSW
5921   01 0168B   17300166                   K        1,7,3,L0C+2
5922   01 0168C   00000000 A                 DATA     X'00000000'
5923   01 0168D   FFFFFFFF A                 DATA     X'FFFFFFFF'
5924   01 0168E   FFFFFFFF A                 DATA     X'FFFFFFFF'
5925   01 0168F   FFFFFFFF A                 DATA     X'FFFFFFFF'
5926   01 01690   00000005 A                 DATA     X'00000005'
5927   01 01691   FFFFFFF8 A                 DATA     X'FFFFFFF8'
5928   01 01692   FFFFFFF6 A   MW12          DATA     -10                MW
5929   01 01693   37C00460                   MW,12    MEMORY
5930   01 01694   073001C2                   K        00,7,3,FXPOSW
5931   01 01695   67300166                   K        6,7,3,L0C+2
5932   01 01696   00000000 A                 DATA     X'00000000'
5933   01 01697   06D3A075 A                 DATA     X'06D3A075'
5934   01 01698   EEEEEEEE A                 DATA     X'EEEEEEEE'
5935   01 01699   EEEEEEEE A                 DATA     X'EEEEEEEE'
5936   01 0169A   99999922 A                 DATA     X'99999922'
5937   01 0169B   92C5F99C A                 DATA     X'92C5F99C'
5938                                         PAGE
5939   01 0169C   FFFFFFF6 A   MW13          DATA     -10                MW
5940   01 0169D   37C00460                   MW,12    MEMORY
5941   01 0169E   073001C2                   K        00,7,3,FXPOSW
5942   01 0169F   07300166                   K        0,7,3,L0C+2
5943   01 016A0   00000000 A                 DATA     X'00000000'
5944   01 016A1   00000000 A                 DATA     X'00000000'
5945   01 016A2   00000000 A                 DATA     X'00000000'
5946   01 016A3   00000000 A                 DATA     X'00000000'
5947   01 016A4   B3333334 A                 DATA     X'B3333334'
5948   01 016A5   00000000 A                 DATA     X'00000000'
5949   01 016A6   FFFFFFF6 A   MW14          DATA     -10                MW
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5950   01 016A7   37C00460              MW,12    MEMORY
5951   01 016A8   073001C2              K        00,7,3,FXPOSW
5952   01 016A9   67300166              K        6,7,3,L0C+2
5953   01 016AA   00000000 A            DATA     X'00000000'
5954   01 016AB   0E8851EA A            DATA     X'0E8851EA'
5955   01 016AC   CCCCCCCC A            DATA     X'CCCCCCCC'
5956   01 016AD   CCCCCCCC A            DATA     X'CCCCCCCC'
5957   01 016AE   8666666E A            DATA     X'8666666E'
5958   01 016AF   3AE147A8 A            DATA     X'3AE147A8'
5959   01 016B0   FFFFFFF6 A   MW15     DATA     -10                MW
5960   01 016B1   37C00460              MW,12    MEMORY
5961   01 016B2   073001C2              K        00,7,3,FXPOSW
5962   01 016B3   57300166              K        5,7,3,L0C+2
5963   01 016B4   00000000 A            DATA     X'00000000'
5964   01 016B5   F58F28C2 A            DATA     X'F58F28C2'
5965   01 016B6   33333333 A            DATA     X'33333333'
5966   01 016B7   33333333 A            DATA     X'33333333'
5967   01 016B8   CBCBCBCB A            DATA     X'CBCBCBCB'
5968   01 016B9   3DA40A71 A            DATA     X'3DA40A71'
5969                                    PAGE
5970   01 016BA   FFFFFFF6 A   MW16     DATA     -10                MW
5971   01 016BB   37C00460              MW,12    MEMORY
5972   01 016BC   073001C2              K        00,7,3,FXPOSW
5973   01 016BD   67300166              K        6,7,3,L0C+2
5974   01 016BE   00000000 A            DATA     X'00000000'
5975   01 016BF   36A45B36 A            DATA     X'36A45B36'
5976   01 016C0   6DB6DB6D A            DATA     X'6DB6DB6D'
5977   01 016C1   6DB6DB6D A            DATA     X'6DB6DB6D'
5978   01 016C2   7F7F7F7F A            DATA     X'7F7F7F7F'
5979   01 016C3   12A4EE13 A            DATA     X'12A4EE13'
5980   01 016C4   FFFFFFF6 A   MW17     DATA     -10                MW
5981   01 016C5   37C00460              MW,12    MEMORY
5982   01 016C6   073001C2              K        00,7,3,FXPOSW
5983   01 016C7   57300166              K        5,7,3,L0C+2
5984   01 016C8   00000000 A            DATA     X'00000000'
5985   01 016C9   FEFF1010 A            DATA     X'FEFF1010'
5986   01 016CA   DDDDDDDD A            DATA     X'DDDDDDDD'
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5987   01 016CB   DDDDDDDD A            DATA     X'DDDDDDDD'
5988   01 016CC   07870787 A            DATA     X'07870787'
5989   01 016CD   189C0A8B A            DATA     X'189C0A8B'
5990   01 016CE   FFFFFFF6 A   MW18     DATA     -10                MW
5991   01 016CF   37C00460              MW,12    MEMORY
5992   01 016D0   073001C2              K        00,7,3,FXPOSW
5993   01 016D1   17300166              K        1,7,3,L0C+2
5994   01 016D2   00000000 A            DATA     X'00000000'
5995   01 016D3   FFFFFFFF A            DATA     X'FFFFFFFF'
5996   01 016D4   FFFFFFFF A            DATA     X'FFFFFFFF'
5997   01 016D5   FFFFFFFF A            DATA     X'FFFFFFFF'
5998   01 016D6   6B6D36D9 A            DATA     X'6B6D36D9'
5999   01 016D7   9492C927 A            DATA     X'9492C927'
6000                                    PAGE
6001   01 016D8   FFFFFFF6 A   MW19     DATA     -10                MW
6002   01 016D9   37C00460              MW,12    MEMORY
6003   01 016DA   073001C2              K        00,7,3,FXPOSW
6004   01 016DB   57300166              K        5,7,3,L0C+2
6005   01 016DC   00000000 A            DATA     X'00000000'
6006   01 016DD   FB0DB4B6 A            DATA     X'FB0DB4B6'
6007   01 016DE   EEEEEEEE A            DATA     X'EEEEEEEE'
6008   01 016DF   EEEEEEEE A            DATA     X'EEEEEEEE'
6009   01 016E0   4A32694C A            DATA     X'4A32694C'
6010   01 016E1   656A8CA8 A            DATA     X'656A8CA8'
6011   01 016E2   FFFFFFF6 A   MW20     DATA     -10                MW
6012   01 016E3   37C00460              MW,12    MEMORY
6013   01 016E4   073001C2              K        00,7,3,FXPOSW
6014   01 016E5   67300166              K        6,7,3,L0C+2
6015   01 016E6   00000000 A            DATA     X'00000000'
6016   01 016E7   15555552 A            DATA     X'15555552'
6017   01 016E8   7FFFFFFF A            DATA     X'7FFFFFFF'
6018   01 016E9   7FFFFFFF A            DATA     X'7FFFFFFF'
6019   01 016EA   2AAAAAA6 A            DATA     X'2AAAAAA6'
6020   01 016EB   D555555A A            DATA     X'D555555A'
6021   01 016EC   FFFFFFF6 A   MW21     DATA     -10                MW
6022   01 016ED   37C00460              MW,12    MEMORY
6023   01 016EE   073001C2              K        00,7,3,FXPOSW
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6024   01 016EF   67300166          K       6,7,3,LOC+2
6025   01 016F0   00000000 A        DATA    X'00000000'
6026   01 016F1   00000000 A        DATA    X'00000000'
6027   01 016F2   FFFFFFFF A        DATA    X'FFFFFFFF'
6028   01 016F3   FFFFFFFF A        DATA    X'FFFFFFFF'
6029   01 016F4   80000000 A        DATA    X'80000000'
6030   01 016F5   80000000 A        DATA    X'80000000'
6031                                PAGE
6032   01 016F6   FFFFFFF6 A  MW22  DATA    -10                MW
6033   01 016F7   37C00460          MW,12   MEMORY
6034   01 016F8   073001C2          K       00,7,3,FXPOSW
6035   01 016F9   67300166          K       6,7,3,LOC+2
6036   01 016FA   00000000 A        DATA    X'00000000'
6037   01 016FB   3FFFFFFF A        DATA    X'3FFFFFFF'
6038   01 016FC   7FFFFFFF A        DATA    X'7FFFFFFF'
6039   01 016FD   7FFFFFFF A        DATA    X'7FFFFFFF'
6040   01 016FE   7FFFFFFF A        DATA    X'7FFFFFFF'
6041   01 016FF   00000001 A        DATA    X'00000001'
6042   01 01700   FFFFFFF6 A  MW23  DATA    -10                MW
6043   01 01701   37C00460          MW,12   MEMORY
6044   01 01702   073001C2          K       00,7,3,FXPOSW
6045   01 01703   67300166          K       6,7,3,LOC+2
6046   01 01704   00000000 A        DATA    X'00000000'
6047   01 01705   40000000 A        DATA    X'40000000'
6048   01 01706   80000000 A        DATA    X'80000000'
6049   01 01707   80000000 A        DATA    X'80000000'
6050   01 01708   80000000 A        DATA    X'80000000'
6051   01 01709   00000000 A        DATA    X'00000000'
6052   01 0170A   FFFFFFF6 A  MW24  DATA    -10                MW
6053   01 0170B   37C00460          MW,12   MEMORY
6054   01 0170C   073001C2          K       00,7,3,FXPOSW
6055   01 0170D   17300166          K       1,7,3,LOC+2
6056   01 0170E   00000000 A        DATA    X'00000000'
6057   01 0170F   FFFFFFFF A        DATA    X'FFFFFFFF'
6058   01 01710   00000001 A        DATA    X'00000001'
6059   01 01711   00000001 A        DATA    X'00000001'
6060   01 01712   80000000 A        DATA    X'80000000'
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6061   01 01713   80000000 A        DATA    X'80000000'
6062                                PAGE
6063   01 01714   FFFFFFF6 A  MW25  DATA    -10                MW
6064   01 01715   37C00460          MW,12   MEMORY
6065   01 01716   073001C2          K       00,7,3,FXPOSW
6066   01 01717   17300166          K       1,7,3,LOC+2
6067   01 01718   00000000 A        DATA    X'00000000'
6068   01 01719   FFFFFFFF A        DATA    X'FFFFFFFF'
6069   01 0171A   80000000 A        DATA    X'80000000'
6070   01 0171B   80000000 A        DATA    X'80000000'
6071   01 0171C   00000001 A        DATA    X'00000001'
6072   01 0171D   80000000 A        DATA    X'80000000'
6073   01 0171E   FFFFFFF6 A  MW26  DATA    -10                MW
6074   01 0171F   37C00460          MW,12   MEMORY
6075   01 01720   073001C2          K       00,7,3,FXPOSW
6076   01 01721   27300166          K       2,7,3,LOC+2
6077   01 01722   00000000 A        DATA    X'00000000'
6078   01 01723   00000000 A        DATA    X'00000000'
6079   01 01724   FFFFFFFF A        DATA    X'FFFFFFFF'
6080   01 01725   FFFFFFFF A        DATA    X'FFFFFFFF'
6081   01 01726   FFFFFFFF A        DATA    X'FFFFFFFF'
6082   01 01727   00000001 A        DATA    X'00000001'
6083   01 01728   FFFFFFF6 A  MW27  DATA    -10                MW
6084   01 01729   37C00460          MW,12   MEMORY
6085   01 0172A   073001C2          K       00,7,3,FXPOSW
6086   01 0172B   07300166          K       0,7,3,LOC+2
6087   01 0172C   7FFFFFFF A        DATA    X'7FFFFFFF'
6088   01 0172D   00000000 A        DATA    X'00000000'
6089   01 0172E   7FFFFFFF A        DATA    X'7FFFFFFF'
6090   01 0172F   7FFFFFFF A        DATA    X'7FFFFFFF'
6091   01 01730   00000000 A        DATA    X'00000000'
6092   01 01731   00000000 A        DATA    X'00000000'
6093                                PAGE
6094   01 01732   FFFFFFF6 A  MW28  DATA    -10                MW
6095   01 01733   37C00460          MW,12   MEMORY
6096   01 01734   073001C2          K       00,7,3,FXPOSW
6097   01 01735   07300166          K       0,7,3,LOC+2
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6098  01 01736  00000000 A        DATA    X'00000000'
6099  01 01737  00000000 A        DATA    X'00000000'
6100  01 01738  00000000 A        DATA    X'00000000'
6101  01 01739  00000000 A        DATA    X'00000000'
6102  01 0173A  00000000 A        DATA    0
6103  01 0173B  00000000 A        DATA    X'00000000'
6104  01 0173C  FFFFFFF6 A  MW29   DATA    -10                MW
6105  01 0173D  37C00460           MW,12   MEMORY
6106  01 0173E  073001C2           K       00,7,3,FXPSW
6107  01 0173F  67300166           K       6,7,3,L0C+2
6108  01 01740  00000000 A        DATA    X'00000000'
6109  01 01741  17A36285 A        DATA    X'17A36285'
6110  01 01742  79999999 A        DATA    X'79999999'
6111  01 01743  79999999 A        DATA    X'79999999'
6112  01 01744  31C3C1F0 A        DATA    X'31C3C1F0'
6113  01 01745  15575870 A        DATA    X'15575870'
6114  01 01746  FFFFFFF6 A  MW30   DATA    -10                MW
6115  01 01747  37C00460           MW,12   MEMORY
6116  01 01748  073001C2           K       00,7,3,FXPSW
6117  01 01749  57300166           K       5,7,3,L0C+2
6118  01 0174A  00000000 A        DATA    X'00000000'
6119  01 0174B  D3DC7674 A        DATA    X'D3DC7674'
6120  01 0174C  59C61C18 A        DATA    X'59C61C18'
6121  01 0174D  59C61C18 A        DATA    X'59C61C18'
6122  01 0174E  82222222 A        DATA    X'82222222'
6123  01 0174F  273AEB3D A        DATA    X'273AEB3D'
6124                              PAGE
6125  01 01750  FFFFFFF6 A  MW31   DATA    -10                MW
6126  01 01751  37C00460           MW,12   MEMORY
6127  01 01752  073001C2           K       00,7,3,FXPSW
6128  01 01753  57300166           K       5,7,3,L0C+2
6129  01 01754  00000000 A        DATA    X'00000000'
6130  01 01755  FF036C81 A        DATA    X'FF036C81'
6131  01 01756  87777777 A        DATA    X'87777777'
6132  01 01757  87777777 A        DATA    X'87777777'
6133  01 01758  021871E7 A        DATA    X'021871E7'
6134  01 01759  19B05361 A        DATA    X'19B05361'
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6135  01 0175A  FFFFFFF6 A  MW32   DATA    -10                MW
6136  01 0175B  37C00460           MW,12   MEMORY
6137  01 0175C  073001C2           K       00,7,3,FXPSW
6138  01 0175D  67300166           K       6,7,3,L0C+2
6139  01 0175E  00000000 A        DATA    X'00000000'
6140  01 0175F  012BAF66 A        DATA    X'012BAF66'
6141  01 01760  FC7CF1CC A        DATA    X'FC7CF1CC'
6142  01 01761  FC7CF1CC A        DATA    X'FC7CF1CC'
6143  01 01762  AAAAAAAA A        DATA    X'AAAAAAAA'
6144  01 01763  AD020978 A        DATA    X'AD020978'
6145  01 01764  FFFFFFF6 A  MW33   DATA    -10                MW
6146  01 01765  37C00460           MW,12   MEMORY
6147  01 01766  073001C2           K       00,7,3,FXPSW
6148  01 01767  57300166           K       5,7,3,L0C+2
6149  01 01768  00000000 A        DATA    X'00000000'
6150  01 01769  FBC79A5E A        DATA    X'FBC79A5E'
6151  01 0176A  15555555 A        DATA    X'15555555'
6152  01 0176B  15555555 A        DATA    X'15555555'
6153  01 0176C  CD5B3C70 A        DATA    X'CD5B3C70'
6154  01 0176D  B88C4130 A        DATA    X'B88C4130'
6155                              PAGE
6156  01 0176E  FFFFFFF6 A  MW34   DATA    -10                MW
6157  01 0176F  37C00460           MW,12   MEMORY
6158  01 01770  073001C2           K       00,7,3,FXPSW
6159  01 01771  67300166           K       6,7,3,L0C+2
6160  01 01772  00000000 A        DATA    X'00000000'
6161  01 01773  00345678 A        DATA    X'00345678'
6162  01 01774  03111111 A        DATA    X'3111111'
6163  01 01775  03111111 A        DATA    X'3111111'
6164  01 01776  11111111 A        DATA    X'11111111'
6165  01 01777  99654321 A        DATA    X'99654321'
6166  01 01778  FFFFFFF6 A  MW35   DATA    -10                MW
6167  01 01779  37C00460           MW,12   MEMORY
6168  01 0177A  073001C2           K       00,7,3,FXPSW
6169  01 0177B  57300166           K       5,7,3,L0C+2
6170  01 0177C  00000000 A        DATA    X'00000000'
6171  01 0177D  D5D5D5D8 A        DATA    X'D5D5D5D8'
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6172  01 0177E  66666666 A          DATA    X'66666666'
6173  01 0177F  66666666 A          DATA    X'66666666'
6174  01 01780  9696969D A          DATA    X'9696969D'
6175  01 01781  9090908E A          DATA    X'9090908E'
6176  01 01782  FFFFFFF6 A  MW36    DATA    -10                 MW
6177  01 01783  37C00460            MW,12   MEMORY
6178  01 01784  073001C2            K       00,7,3,FXPOSW
6179  01 01785  57300166            K       5,7,3,LOC+2
6180  01 01786  00000000 A          DATA    X'00000000'
6181  01 01787  E06D3A06 A          DATA    X'E06D3A06'
6182  01 01788  44444444 A          DATA    X'44444444'
6183  01 01789  44444444 A          DATA    X'44444444'
6184  01 0178A  89999999 A          DATA    X'89999999'
6185  01 0178B  CA3D70A4 A          DATA    X'CA3D70A4'
6186                               PAGE
6187  01 0178C  FFFFFFF6 A  MW37    DATA    -10                 MW
6188  01 0178D  37C00460            MW,12   MEMORY
6189  01 0178E  073001C2            K       00,7,3,FXPOSW
6190  01 0178F  67300166            K       6,7,3,LOC+2
6191  01 01790  00000000 A          DATA    X'00000000'
6192  01 01791  080FCAE0 A          DATA    X'080FCAE0'
6193  01 01792  E1C4C737 A          DATA    X'E1C4C737'
6194  01 01793  E1C4C737 A          DATA    X'E1C4C737'
6195  01 01794  BBBBBBBB A          DATA    X'BBBBBBBB'
6196  01 01795  5A6FB22D A          DATA    X'5A6FB22D'
6197  01 01796  FFFFFFF6 A  MW38    DATA    -10                 MW
6198  01 01797  37C00460            MW,12   MEMORY
6199  01 01798  073001C2            K       00,7,3,FXPOSW
6200  01 01799  67300166            K       6,7,3,LOC+2
6201  01 0179A  00000000 A          DATA    X'00000000'
6202  01 0179B  00000000 A          DATA    X'00000000'
6203  01 0179C  80000000 A          DATA    X'80000000'
6204  01 0179D  80000000 A          DATA    X'80000000'
6205  01 0179E  FFFFFFFF A          DATA    X'FFFFFFFF'
6206  01 0179F  80000000 A          DATA    X'80000000'
6207  01 017A0  FFFFFFF6 A  MW39    DATA    -10                 MW
6208  01 017A1  37C00460            MW,12   MEMORY
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6209  01 017A2  073001C2            K       00,7,3,FXPOSW
6210  01 017A3  67300166            K       6,7,3,LOC+2
6211  01 017A4  00000000 A          DATA    X'00000000'
6212  01 017A5  00486827 A          DATA    X'00486827'
6213  01 017A6  42468ACE A          DATA    X'42468ACE'
6214  01 017A7  42468ACE A          DATA    X'42468ACE'
6215  01 017A8  01234567 A          DATA    X'01234567'
6216  01 017A9  75F55EE2 A          DATA    X'75F55EE2'
6217                               PAGE
6218  01 017AA  FFFFFFF6 A  MW40    DATA    -10                 MW
6219  01 017AB  37C00460            MW,12   MEMORY
6220  01 017AC  073001C2            K       00,7,3,FXPOSW
6221  01 017AD  57300166            K       5,7,3,LOC+2
6222  01 017AE  00000000 A          DATA    X'00000000'
6223  01 017AF  EEA535DC A          DATA    X'EEA535DC'
6224  01 017B0  258BCDEF A          DATA    X'258BCDEF'
6225  01 017B1  258BCDEF A          DATA    X'258BCDEF'
6226  01 017B2  89ABCDEF A          DATA    X'89ABCDEF'
6227  01 017B3  7712A521 A          DATA    X'7712A521'
6228  01 017B4  FFFFFFF6 A  MW41    DATA    -10                 MW
6229  01 017B5  37C00460            MW,12   MEMORY
6230  01 017B6  073001C2            K       00,7,3,FXPOSW
6231  01 017B7  67300166            K       6,7,3,LOC+2
6232  01 017B8  00000000 A          DATA    X'00000000'
6233  01 017B9  0CB68AEE A          DATA    X'0CB68AEE'
6234  01 017BA  56AE37BF A          DATA    X'56AE37BF'
6235  01 017BB  56AE37BF A          DATA    X'56AE37BF'
6236  01 017BC  258BE147 A          DATA    X'258BE147'
6237  01 017BD  090554F9 A          DATA    X'090554F9'
6238  01 017BE  FFFFFFF6 A  MW42    DATA    -10                 MW
6239  01 017BF  37C00460            MW,12   MEMORY
6240  01 017C0  073001C2            K       00,7,3,FXPOSW
6241  01 017C1  67300166            K       6,7,3,LOC+2
6242  01 017C2  00000000 A          DATA    X'00000000'
6243  01 017C3  0AAC4A2C A          DATA    X'0AAC4A2C'
6244  01 017C4  DF1357BD A          DATA    X'DF1357BD'
6245  01 017C5  DF1357BD A          DATA    X'DF1357BD'
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6246   01 017C6   ADD369CF A          DATA    X'ADD369CF'
6247   01 017C7   0FD776D3 A          DATA    X'0FD776D3'
6248                                  PAGE
6249   01 017C8   FFFFFFF6 A  MW43    DATA    -10                MW
6250   01 017C9   37C00460           MW,12   MEMORY
6251   01 017CA   073001C2           K       00,7,3,FXPOSW
6252   01 017CB   67300166           K       6,7,3,LOC+2
6253   01 017CC   00000000 A         DATA    X'00000000'
6254   01 017CD   00CAFFF1 A         DATA    X'00CAFFF1'
6255   01 017CE   F2468ACE A         DATA    X'F2468ACE'
6256   01 017CF   F2468ACE A         DATA    X'F2468ACE'
6257   01 017D0   F13579BD A         DATA    X'F13579BD'
6258   01 017D1   E055D816 A         DATA    X'E055D816'
6259   01 017D2   FFFFFFF6 A  MW44    DATA    -10                MW
6260   01 017D3   37C00460           MW,12   MEMORY
6261   01 017D4   073001C2           K       00,7,3,FXPOSW
6262   01 017D5   67300166           K       6,7,3,LOC+2
6263   01 017D6   00000000 A         DATA    X'00000000'
6264   01 017D7   01B37451 A         DATA    X'01B37451'
6265   01 017D8   F147AD03 A         DATA    X'F147AD03'
6266   01 017D9   F147AD03 A         DATA    X'F147AD03'
6267   01 017DA   E26AE38D A         DATA    X'E26AE38D'
6268   01 017DB   8C21F3A7 A         DATA    X'8C21F3A7'
6269   01 017DC   FFFFFFF6 A  MW45    DATA    -10                MW
6270   01 017DD   37C00460           MW,12   MEMORY
6271   01 017DE   073001C2           K       00,7,3,FXPOSW
6272   01 017DF   67300166           K       6,7,3,LOC+2
6273   01 017E0   00000000 A         DATA    X'00000000'
6274   01 017E1   0330D831 A         DATA    X'0330D831'
6275   01 017E2   148BF37B A         DATA    X'148BF37B'
6276   01 017E3   148BF37B A         DATA    X'148BF37B'
6277   01 017E4   27C16805 A         DATA    X'27C16805'
6278   01 017E5   323B2A67 A         DATA    X'323B2A67'
6279                                  PAGE
6280   01 017E6   FFFFFFF6 A  MW46    DATA    -10                MW
6281   01 017E7   37C00460           MW,12   MEMORY
6282   01 017E8   073001C2           K       00,7,3,FXPOSW
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6283   01 017E9   67300166           K       6,7,3,LOC+2
6284   01 017EA   00000000 A         DATA    X'00000000'
6285   01 017EB   01723EB3 A         DATA    X'01723EB3'
6286   01 017EC   F378F49E A         DATA    X'F378F49E'
6287   01 017ED   F378F49E A         DATA    X'F378F49E'
6288   01 017EE   E26AF49F A         DATA    X'E26AF49F'
6289   01 017EF   248FB622 A         DATA    X'248FB622'
6290   01 017F0   FFFFFFF6 A  MW47    DATA    -10                MW
6291   01 017F1   37C00460           MW,12   MEMORY
6292   01 017F2   073001C2           K       00,7,3,FXPOSW
6293   01 017F3   57300166           K       5,7,3,LOC+2
6294   01 017F4   00000000 A         DATA    X'00000000'
6295   01 017F5   F9B2877E A         DATA    X'F9B2877E'
6296   01 017F6   457AE39F A         DATA    X'457AE39F'
6297   01 017F7   457AE39F A         DATA    X'457AE39F'
6298   01 017F8   F0259E49 A         DATA    X'F0259E49'
6299   01 017F9   9E820A57 A         DATA    X'9E820A57'
6300   01 017FA   FFFFFFF6 A  MW48    DATA    -10                MW
6301   01 017FB   37C00460           MW,12   MEMORY
6302   01 017FC   073001C2           K       00,7,3,FXPOSW
6303   01 017FD   57300166           K       5,7,3,LOC+2
6304   01 017FE   00000000 A         DATA    X'00000000'
6305   01 017FF   DDF466A3 A         DATA    X'DDF466A3'
6306   01 01800   679C05B2 A         DATA    X'679C05B2'
6307   01 01801   679C05B2 A         DATA    X'679C05B2'
6308   01 01802   ABE159F0 A         DATA    X'ABE159F0'
6309   01 01803   47B238E0 A         DATA    X'47B238E0'
6310                                  PAGE
6311   01 01804   FFFFFFF6 A  MW49    DATA    -10                MW
6312   01 01805   37C00460           MW,12   MEMORY
6313   01 01806   073001C2           K       00,7,3,FXPOSW
6314   01 01807   67300166           K       6,7,3,LOC+2
6315   01 01808   00000000 A         DATA    X'00000000'
6316   01 01809   0D5BB3FB A         DATA    X'0D5BB3FB'
6317   01 0180A   59D73C28 A         DATA    X'59D73C28'
6318   01 0180B   59D73C28 A         DATA    X'59D73C28'
6319   01 0180C   26106573 A         DATA    X'26106573'
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6320  01 0180D  F8EBCDF8 A          DATA    X'F8EBCDF8'
6321  01 0180E  FFFFFFF6 A  MW50    DATA    -10                MW
6322  01 0180F  37C00460            MW,12   MEMORY
6323  01 01810  073001C2            K       00,7,3,FXP0SW
6324  01 01811  67300166            K       6,7,3,L0C+2
6325  01 01812  00000000 A          DATA    X'00000000'
6326  01 01813  02DA0095 A          DATA    X'02DA0095'
6327  01 01814  CD2A3C71 A          DATA    X'CD2A3C71'
6328  01 01815  CD2A3C71 A          DATA    X'CD2A3C71'
6329  01 01816  F1A3C842 A          DATA    X'F1A3C842'
6330  01 01817  C10EDD22 A          DATA    X'C10EDD22'
6331  01 01818  FFFFFFF6 A  MW51    DATA    -10                MW
6332  01 01819  37C00460            MW,12   MEMORY
6333  01 0181A  073001C2            K       00,7,3,FXP0SW
6334  01 0181B  67300166            K       6,7,3,L0C+2
6335  01 0181C  00000000 A          DATA    X'00000000'
6336  01 0181D  FF1737FC A          DATA    X'FF1737FC'
6337  01 0181E  FC7CF1CC A          DATA    X'FC7CF1CC'
6338  01 0181F  FC7CF1CC A          DATA    X'FC7CF1CC'
6339  01 01820  42486CEA A          DATA    X'42486CEA'
6340  01 01821  19971478 A          DATA    X'19971478'
6341                                PAGE
6342  01 01822  FFFFFFF6 A  MW52    DATA    -10                MW
6343  01 01823  37C00460            MW,12   MEMORY
6344  01 01824  073001C2            K       00,7,3,FXP0SW
6345  01 01825  67300166            K       6,7,3,L0C+2
6346  01 01826  00000000 A          DATA    X'00000000'
6347  01 01827  0C654900 A          DATA    X'0C654900'
6348  01 01828  475E3AF9 A          DATA    X'475E3AF9'
6349  01 01829  475E3AF9 A          DATA    X'475E3AF9'
6350  01 0182A  2C76B150 A          DATA    X'2C76B150'
6351  01 0182B  6EFE96D0 A          DATA    X'6EFE96D0'
6352  01 0182C  FFFFFFF6 A  MW53    DATA    -10                MW
6353  01 0182D  37C00460            MW,12   MEMORY
6354  01 0182E  073001C2            K       00,7,3,FXP0SW
6355  01 0182F  67300166            K       6,7,3,L0C+2
6356  01 01830  00000000 A          DATA    X'00000000'
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6357  01 01831  F5C7652C A          DATA    X'F5C7652C'
6358  01 01832  38D27C16 A          DATA    X'38D27C16'
6359  01 01833  38D27C16 A          DATA    X'38D27C16'
6360  01 01834  D1F375DB A          DATA    X'D1F375DB'
6361  01 01835  8DA834D2 A          DATA    X'8DA834D2'
6362  01 01836  FFFFFFF6 A  MW54    DATA    -10                MW
6363  01 01837  37C00460            MW,12   MEMORY
6364  01 01838  073001C2            K       00,7,3,FXP0SW
6365  01 01839  67300166            K       6,7,3,L0C+2
6366  01 0183A  00000000 A          DATA    X'00000000'
6367  01 0183B  36F57A5C A          DATA    X'36F57A5C'
6368  01 0183C  8067C391 A          DATA    X'8067C891'
6369  01 0183D  8067C391 A          DATA    X'8067C891'
6370  01 0183E  918BA0E5 A          DATA    X'918BA0E5'
6371  01 0183F  8FFEB8B5 A          DATA    X'8FFEB8B5'
6372                                PAGE
6373  01 01840  FFFFFFF6 A  MW55    DATA    -10                MW
6374  01 01841  37C00460            MW,12   MEMORY
6375  01 01842  073001C2            K       00,7,3,FXP0SW
6376  01 01843  67300166            K       6,7,3,L0C+2
6377  01 01844  00000000 A          DATA    X'00000000'
6378  01 01845  1F5F1EB5 A          DATA    X'1F5F1EB5'
6379  01 01846  66E91F2E A          DATA    X'66E91F2E'
6380  01 01847  66E91F2E A          DATA    X'66E91F2E'
6381  01 01848  4E0A2D09 A          DATA    X'4E0A2D09'
6382  01 01849  D4792E9E A          DATA    X'D4792E9E'
6383  01 0184A  FFFFFFF6 A  MW56    DATA    -10                MW
6384  01 0184B  37C00460            MW,12   MEMORY
6385  01 0184C  073001C2            K       00,7,3,FXP0SW
6386  01 0184D  67300166            K       6,7,3,L0C+2
6387  01 0184E  00000000 A          DATA    X'00000000'
6388  01 0184F  2C6421FF A          DATA    X'2C6421FF'
6389  01 01850  9D289043 A          DATA    X'9D289043'
6390  01 01851  9D289043 A          DATA    X'9D289043'
6391  01 01852  8D06D9F2 A          DATA    X'8D06D9F2'
6392  01 01853  38332A56 A          DATA    X'38332A56'
6393  01 01854  FFFFFFF6 A  MW57    DATA    -10                MW
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6394  01 01855  37C00460          MW,12   MEMORY
6395  01 01856  073001C2          K       00,7,3,FXPSSW
6396  01 01857  67300166          K       6,7,3,L8C+2
6397  01 01858  00000000 A        DATA    X'00000000'
6398  01 01859  1176E788 A        DATA    X'1176E788'
6399  01 0185A  266C684E A        DATA    X'266C684E'
6400  01 0185B  266C684E A        DATA    X'266C684E'
6401  01 0185C  745BD382 A        DATA    X'745BD382'
6402  01 0185D  48BF419C A        DATA    X'48BF419C'
6403                              PAGE
6404  01 0185E  FFFFFFF6 A  MW58  DATA    -10             MW
6405  01 0185F  37C00460          MW,12   MEMORY
6406  01 01860  073001C2          K       00,7,3,FXPSSW
6407  01 01861  67300166          K       6,7,3,L8C+2
6408  01 01862  00000000 A        DATA    X'00000000'
6409  01 01863  0F673E9E A        DATA    X'0F673E9E'
6410  01 01864  CC1FC7CF A        DATA    X'CC1FC7CF'
6411  01 01865  CC1FC7CF A        DATA    X'CC1FC7CF'
6412  01 01866  B3FCA5A5 A        DATA    X'B3FCA5A5'
6413  01 01867  79083368 A        DATA    X'79083368'
6414  01 01868  FFFFFFF6 A  MW59  DATA    -10             MW
6415  01 01869  37C00460          MW,12   MEMORY
6416  01 0186A  073001C2          K       00,7,3,FXPSSW
6417  01 0186B  27300166          K       2,7,3,L8C+2
6418  01 0186C  00000000 A        DATA    X'00000000'
6419  01 0186D  00000000 A        DATA    X'00000000'
6420  01 0186E  00000001 A        DATA    X'00000001'
6421  01 0186F  00000001 A        DATA    X'00000001'
6422  01 01870  7FFFFFFF A        DATA    X'7FFFFFFF'
6423  01 01871  7FFFFFFF A        DATA    X'7FFFFFFF'
6424  01 01872  FFFFFFF6 A  MW60  DATA    -10             MW
6425  01 01873  37C00460          MW,12   MEMORY
6426  01 01874  073001C2          K       00,7,3,FXPSSW
6427  01 01875  27300166          K       2,7,3,L8C+2
6428  01 01876  00000000 A        DATA    X'00000000'
6429  01 01877  00000000 A        DATA    X'00000000'
6430  01 01878  7FFFFFFF A        DATA    X'7FFFFFFF'
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6431  01 01879  7FFFFFFF A        DATA    X'7FFFFFFF'
6432  01 0187A  00000001 A        DATA    X'00000001'
6433  01 0187B  7FFFFFFF A        DATA    X'7FFFFFFF'
6434                              PAGE
6435  01 0187C  FFFFFFF6 A  MW61  DATA    -10             MW
6436  01 0187D  37C00460          MW,12   MEMORY
6437  01 0187E  073001C2          K       00,7,3,FXPSSW
6438  01 0187F  67300166          K       6,7,3,L8C+2
6439  01 01880  00000000 A        DATA    X'00000000'
6440  01 01881  0ADAA050 A        DATA    X'0ADAA050'
6441  01 01882  B5631AF2 A        DATA    X'B5631AF2'
6442  01 01883  B5631AF2 A        DATA    X'B5631AF2'
6443  01 01884  DAC269A5 A        DATA    X'DAC269A5'
6444  01 01885  0E519FFA A        DATA    X'0E519FFA'
6445  01 01886  FFFFFFF6 A  MW62  DATA    -10             MW
6446  01 01887  37C00460          MW,12   MEMORY
6447  01 01888  073001C2          K       00,7,3,FXPSSW
6448  01 01889  57300166          K       5,7,3,L8C+2
6449  01 0188A  00000000 A        DATA    X'00000000'
6450  01 0188B  E8549FA9 A        DATA    X'E8549FA9'
6451  01 0188C  C7B51894 A        DATA    X'C7B51894'
6452  01 0188D  C7B51894 A        DATA    X'C7B51894'
6453  01 0188E  68A40763 A        DATA    X'68A40763'
6454  01 0188F  C9848D3C A        DATA    X'C9848D3C'
6455  01 01890  FFFFFFF6 A  MW63  DATA    -10             MW
6456  01 01891  37C00460          MW,12   MEMORY
6457  01 01892  073001C2          K       00,7,3,FXPSSW
6458  01 01893  57300166          K       5,7,3,L8C+2
6459  01 01894  00000000 A        DATA    0
6460  01 01895  FE179952 A        DATA    X'FE179952'
6461  01 01896  E9D73A96 A        DATA    X'E9D73A96'
6462  01 01897  E9D73A96 A        DATA    X'E9D73A96'
6463  01 01898  160A5DC9 A        DATA    X'160A5DC9'
6464  01 01899  F8217DC6 A        DATA    X'F8217DC6'
6465                              PAGE
6466  01 0189A  FFFFFFF6 A  MW64  DATA    -10             MW
6467  01 0189B  37C00460          MW,12   MEMORY
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6468  01 0189C  073001C2          K       00,7,3,FXPOSW
6469  01 0189D  67300166          K       6,7,3,L0C+2
6470  01 0189E  00000000 A        DATA    X'00000000'
6471  01 0189F  275BDC20 A        DATA    X'275BDC20'
6472  01 018A0  84FB2DDE A        DATA    X'84FB2DDE'
6473  01 018A1  84FB2DDE A        DATA    X'84FB2DDE'
6474  01 018A2  AE1A4FE0 A        DATA    X'AE1A4FE0'
6475  01 018A3  78DBA440 A        DATA    X'78DBA440'
6476  01 018A4  FFFFFFF6 A  MW65  DATA    -10                 MW
6477  01 018A5  37C00460          MW,12   MEMORY
6478  01 018A6  073001C2          K       00,7,3,FXPOSW
6479  01 018A7  67300166          K       6,7,3,L0C+2
6480  01 018A8  00000000 A        DATA    X'00000000'
6481  01 018A9  02F12C68 A        DATA    X'02F12C68'
6482  01 018AA  136AF5B2 A        DATA    X'136AF5B2'
6483  01 018AB  136AF5B2 A        DATA    X'136AF5B2'
6484  01 018AC  26C9AAD5 A        DATA    X'26C9AAD5'
6485  01 018AD  83E8A11A A        DATA    X'83E8A11A'
6486  01 018AE  FFFFFFF6 A  MW66  DATA    -10                 MW
6487  01 018AF  37C00460          MW,12   MEMORY
6488  01 018B0  073001C2          K       00,7,3,FXPOSW
6489  01 018B1  67300166          K       6,7,3,L0C+2
6490  01 018B2  00000000 A        DATA    X'00000000'
6491  01 018B3  00651680 A        DATA    X'00651680'
6492  01 018B4  158897C4 A        DATA    X'158897C4'
6493  01 018B5  158897C4 A        DATA    X'158897C4'
6494  01 018B6  04A766B3 A        DATA    X'04A766B3'
6495  01 018B7  CD66360C A        DATA    X'CD66360C'
6496                              PAGE
6497  01 018B8  FFFFFFF6 A  MW67  DATA    -10                 MW
6498  01 018B9  37C00460          MW,12   MEMORY
6499  01 018BA  073001C2          K       00,7,3,FXPOSW
6500  01 018BB  67300166          K       6,7,3,L0C+2
6501  01 018BC  00000000 A        DATA    X'00000000'
6502  01 018BD  13A5DB6D A        DATA    X'13A5DB6D'
6503  01 018BE  37DA99E6 A        DATA    X'37DA99E6'
6504  01 018BF  37DA99E6 A        DATA    X'37DA99E6'
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6505  01 018C0  5A0DC619 A        DATA    X'5A0DC619'
6506  01 018C1  340EE376 A        DATA    X'340EEB76'
6507  01 018C2  FFFFFFF6 A  MW68  DATA    -10                 MW
6508  01 018C3  37C00460          MW,12   MEMORY
6509  01 018C4  073001C2          K       00,7,3,FXPOSW
6510  01 018C5  67300166          K       6,7,3,L0C+2
6511  01 018C6  00000000 A        DATA    X'00000000'
6512  01 018C7  08DE7CC8 A        DATA    X'08DE7CC8'
6513  01 018C8  28FDD84E A        DATA    X'28FDD84E'
6514  01 018C9  28FDD84E A        DATA    X'28FDD84E'
6515  01 018CA  4A1FEA60 A        DATA    X'4A1FEA60'
6516  01 018CB  245A6940 A        DATA    X'245A6940'
6517  01 018CC  FFFFFFF6 A  MW69  DATA    -10                 MW
6518  01 018CD  37C00460          MW,12   MEMORY
6519  01 018CE  073001C2          K       00,7,3,FXPOSW
6520  01 018CF  57300166          K       5,7,3,L0C+2
6521  01 018D0  00000000 A        DATA    X'00000000'
6522  01 018D1  DFCF32C1 A        DATA    X'DFCF32C1'
6523  01 018D2  8508753F A        DATA    X'8508753F'
6524  01 018D3  8508753F A        DATA    X'8508753F'
6525  01 018D4  43043218 A        DATA    X'43043218'
6526  01 018D5  71AD43E8 A        DATA    X'71AD43E8'
6527                              PAGE
6528  01 018D6  FFFFFFF6 A  MW70  DATA    -10                 MW
6529  01 018D7  37C00460          MW,12   MEMORY
6530  01 018D8  073001C2          K       00,7,3,FXPOSW
6531  01 018D9  67300166          K       6,7,3,L0C+2
6532  01 018DA  00000000 A        DATA    X'00000000'
6533  01 018DB  0FDED2C2 A        DATA    X'0FDED2C2'
6534  01 018DC  285FA631 A        DATA    X'285FA631'
6535  01 018DD  285FA631 A        DATA    X'285FA631'
6536  01 018DE  5DAB9C62 A        DATA    X'5DAB9C62'
6537  01 018DF  B39E7AC2 A        DATA    X'B39E7AC2'
6538  01 018E0  FFFFFFF6 A  MW71  DATA    -10                 MW
6539  01 018E1  37C00460          MW,12   MEMORY
6540  01 018E2  073001C2          K       00,7,3,FXPOSW
6541  01 018E3  67300166          K       6,7,3,L0C+2
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6542  01 018E4  00000000 A        DATA   X'00000000'
6543  01 018E5  11BEA00E A        DATA   X'11BEA00E'
6544  01 018E6  4C798851 A        DATA   X'4C798851'
6545  01 018E7  4C798851 A        DATA   X'4C798851'
6546  01 018E8  3B667A40 A        DATA   X'3B667A40'
6547  01 018E9  3B0D6E40 A        DATA   X'3B0D6E40'
6548  01 018EA  FFFFFFF6 A  MW72   DATA   -10                MW
6549  01 018EB  37C00460          MW,12  MEMORY
6550  01 018EC  073001C2          K      00,7,3,FXPOSW
6551  01 018ED  57300166          K      5,7,3,LOC+2
6552  01 018EE  00000000 A        DATA   X'00000000'
6553  01 018EF  D03A60C4 A        DATA   X'D03A60C4'
6554  01 018F0  6E99AD73 A        DATA   X'6E99AD73'
6555  01 018F1  6E99AD73 A        DATA   X'6E99AD73'
6556  01 018F2  916CD0A5 A        DATA   X'916CD0A5'
6557  01 018F3  757E3B1F A        DATA   X'757E3B1F'
6558                             PAGE
6559  01 018F4  FFFFFFF6 A  MW73   DATA   -10                MW
6560  01 018F5  37C00460          MW,12  MEMORY
6561  01 018F6  073001C2          K      00,7,3,FXPOSW
6562  01 018F7  57300166          K      5,7,3,LOC+2
6563  01 018F8  00000000 A        DATA   X'00000000'
6564  01 018F9  FF4891C2 A        DATA   X'FF4891C2'
6565  01 018FA  E48DDF82 A        DATA   X'E48DDF82'
6566  01 018FB  E48DDF82 A        DATA   X'E48DDF82'
6567  01 018FC  06AEF1A4 A        DATA   X'06AEF1A4'
6568  01 018FD  F0A89148 A        DATA   X'F0A89148'
6569  01 018FE  FFFFFFF6 A  MW74   DATA   -10                MW
6570  01 018FF  37C00460          MW,12  MEMORY
6571  01 01900  073001C2          K      00,7,3,FXPOSW
6572  01 01901  67300166          K      6,7,3,LOC+2
6573  01 01902  00000000 A        DATA   X'00000000'
6574  01 01903  0645D91E A        DATA   X'0645D91E'
6575  01 01904  F3578058 A        DATA   X'F3578058'
6576  01 01905  F3578058 A        DATA   X'F3578058'
6577  01 01906  81234034 A        DATA   X'81234034'
6578  01 01907  31E411E0 A        DATA   X'31E411E0'
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6579  01 01908  FFFFFFF6 A  MW75   DATA   -10                MW
6580  01 01909  37C00460          MW,12  MEMORY
6581  01 0190A  073001C2          K      00,7,3,FXPOSW
6582  01 0190B  67300166          K      6,7,3,LOC+2
6583  01 0190C  00000000 A        DATA   X'00000000'
6584  01 0190D  0925E650 A        DATA   X'0925E650'
6585  01 0190E  BF6125A3 A        DATA   X'BF6125A3'
6586  01 0190F  BF6125A3 A        DATA   X'BF6125A3'
6587  01 01910  D8C25A96 A        DATA   X'D8C25A96'
6588  01 01911  40AD5B82 A        DATA   X'40AD5B82'
6589                             PAGE
6590  01 01912  FFFFFFF6 A  MW76   DATA   -10                MW
6591  01 01913  37C00460          MW,12  MEMORY
6592  01 01914  073001C2          K      00,7,3,FXPOSW
6593  01 01915  67300166          K      6,7,3,LOC+2
6594  01 01916  00000000 A        DATA   X'00000000'
6595  01 01917  0F90C493 A        DATA   X'0F90C493'
6596  01 01918  C9B14785 A        DATA   X'C9B14785'
6597  01 01919  C9B14785 A        DATA   X'C9B14785'
6598  01 0191A  B6A03674 A        DATA   X'B6A03674'
6599  01 0191B  0A8A7644 A        DATA   X'0A8A7644'
6600  01 0191C  FFFFFFF6 A  MW77   DATA   -10                MW
6601  01 0191D  37C00460          MW,12  MEMORY
6602  01 0191E  073001C2          K      00,7,3,FXPOSW
6603  01 0191F  57300166          K      5,7,3,LOC+2
6604  01 01920  00000000 A        DATA   X'00000000'
6605  01 01921  FD92A39E A        DATA   X'FD92A39E'
6606  01 01922  E9D369A7 A        DATA   X'E9D369A7'
6607  01 01923  E9D369A7 A        DATA   X'E9D369A7'
6608  01 01924  1C0596DA A        DATA   X'1C0596DA'
6609  01 01925  5232D236 A        DATA   X'5232D236'
6610  01 01926  FFFFFFF6 A  MW78   DATA   -10                MW
6611  01 01927  37C00460          MW,12  MEMORY
6612  01 01928  073001C2          K      00,7,3,FXPOSW
6613  01 01929  67300166          K      6,7,3,LOC+2
6614  01 0192A  00000000 A        DATA   X'00000000'
6615  01 0192B  21847A5E A        DATA   X'21847A5E'
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6616  01 0192C  4DF2E8D8 A          DATA    X'4DF2E8D8'
6617  01 0192D  4DF2E8D8 A          DATA    X'4DF2E8D8'
6618  01 0192E  6E140AFA A          DATA    X'6E140AFA'
6619  01 0192F  9D2FD2F0 A          DATA    X'9D2FD2F0'
6620                               PAGE
6621  01 01930  FFFFFFF6 A  MW79    DATA    -10                MW *
6622  01 01931  B7C0045A           MW,12   *IA
6623  01 01932  073001C2           K       00,7,3,FXP8SW
6624  01 01933  67300166           K       6,7,3,L8C+2
6625  01 01934  00000000 A         DATA    X'00000000'
6626  01 01935  0416A25D A         DATA    X'0416A25D'
6627  01 01936  3708F585 A         DATA    X'3708F585'
6628  01 01937  3708F585 A         DATA    X'3708F585'
6629  01 01938  13048243 A         DATA    X'13048243'
6630  01 01939  A919CBCF A         DATA    X'A919CBCF'
6631  01 0193A  FFFFFFF6 A  MW80    DATA    -10                MW  X
6632  01 0193B  37C3E067           MW,12   MEMORY-X'23F9',1
6633  01 0193C  073001C2           K       00,7,3,FXP8SW
6634  01 0193D  67300166           K       6,7,3,L8C+2
6635  01 0193E  000023F9 A         DATA    X'23F9'
6636  01 0193F  23CD8D6A A         DATA    X'23CD8D6A'
6637  01 01940  A56F321B A         DATA    X'A56F321B'
6638  01 01941  A56F321B A         DATA    X'A56F321B'
6639  01 01942  9AC8652D A         DATA    X'9AC8652D'
6640  01 01943  ECB975BF A         DATA    X'ECB975BF'
6641  01 01944  FFFFFFF6 A  MW81    DATA    -10                MW8
6642  01 01945  37D00460           MW,13   MEMORY
6643  01 01946  073001C2           K       00,7,3,FXP8SW
6644  01 01947  67300166           K       6,7,3,L8C+2
6645  01 01948  00000000 A         DATA    X'00000000'
6646  01 01949  00000000 A         DATA    0
6647  01 0194A  DFA08A94 A         DATA    X'DFA08A94'
6648  01 0194B  DFA08A94 A         DATA    X'DFA08A94'
6649  01 0194C  C1C7FCFC A         DATA    X'C1C7FCFC'
6650  01 0194D  777E19B0 A         DATA    X'777E19B0'
6651                               PAGE
6652  01 0194E  FFFFFFF6 A  MW82    DATA    -10                MW
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6653  01 0194F  37D00460           MW,13   MEMORY
6654  01 01950  073001C2           K       00,7,3,FXP8SW
6655  01 01951  57300166           K       5,7,3,L8C+2
6656  01 01952  00000000 A         DATA    X'00000000'
6657  01 01953  00000000 A         DATA    X'00000000'
6658  01 01954  8A5F76B0 A         DATA    X'8A5F76B0'
6659  01 01955  8A5F76B0 A         DATA    X'8A5F76B0'
6660  01 01956  1CC95618 A         DATA    X'1CC95618'
6661  01 01957  7B024080 A         DATA    X'7B024080'
6662  01 01958  FFFFFFF6 A  MW83    DATA    -10                MW
6663  01 01959  37D00460           MW,13   MEMORY
6664  01 0195A  073001C2           K       00,7,3,FXP8SW
6665  01 0195B  57300166           K       5,7,3,L8C+2
6666  01 0195C  00000000 A         DATA    X'00000000'
6667  01 0195D  00000000 A         DATA    X'00000000'
6668  01 0195E  FCFD3918 A         DATA    X'FCFD3918'
6669  01 0195F  FCFD3918 A         DATA    X'FCFD3918'
6670  01 01960  37C1F3C1 A         DATA    X'37C1F3C1'
6671  01 01961  4B31D318 A         DATA    X'4B31D318'
6672  01 01962  FFFFFFF6 A  MW84    DATA    -10                MW
6673  01 01963  37D00460           MW,13   MEMORY
6674  01 01964  073001C2           K       00,7,3,FXP8SW
6675  01 01965  67300166           K       6,7,3,L8C+2
6676  01 01966  00000000 A         DATA    X'00000000'
6677  01 01967  00000000 A         DATA    X'00000000'
6678  01 01968  1ED3580D A         DATA    X'1ED3580D'
6679  01 01969  1ED3580D A         DATA    X'1ED3580D'
6680  01 0196A  0C1031F3 A         DATA    X'0C1031F3'
6681  01 01968  62DF1157 A         DATA    X'62DF1157'
6682                               PAGE
6683  01 0196C  FFFFFFF6 A  MW85    DATA    -10                MW
6684  01 0196D  37D00460           MW,13   MEMORY
6685  01 0196E  073001C2           K       00,7,3,FXP8SW
6686  01 0196F  57300166           K       5,7,3,L8C+2
6687  01 01970  00000000 A         DATA    X'00000000'
6688  01 01971  00000000 A         DATA    X'00000000'
6689  01 01972  E8FC75C1 A         DATA    X'E8FC75C1'
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6690   01 01973   E8FC75C1 A          DATA    X'E8FC75C1'
6691   01 01974   3F1C8782 A          DATA    X'3F1C8782'
6692   01 01975   D2689302 A          DATA    X'D2689302'
6693   01 01976   FFFFFFF6 A  MW86     DATA    -10                MW
6694   01 01977   37D00460            MW,13   MEMORY
6695   01 01978   073001C2            K       00,7,3,FXPOSW
6696   01 01979   67300166            K       6,7,3,L0C+2
6697   01 0197A   00000000 A          DATA    X'00000000'
6698   01 0197B   00000000 A          DATA    X'00000000'
6699   01 0197C   7CBDC530 A          DATA    X'7CBDC530'
6700   01 0197D   7CBDC530 A          DATA    X'7CBDC530'
6701   01 0197E   72436AC1 A          DATA    X'72436AC1'
6702   01 0197F   9A478930 A          DATA    X'9A478930'
6703   01 01980   FFFFFFF6 A  MW87     DATA    -10                MW
6704   01 01981   37D00460            MW,13   MEMORY
6705   01 01982   073001C2            K       00,7,3,FXPOSW
6706   01 01983   57300166            K       5,7,3,L0C+2
6707   01 01984   00000000 A          DATA    X'00000000'
6708   01 01985   00000000 A          DATA    X'00000000'
6709   01 01986   F1C133C0 A          DATA    X'F1C133C0'
6710   01 01987   F1C133C0 A          DATA    X'F1C133C0'
6711   01 01988   6684E6C2 A          DATA    X'6684E6C2'
6712   01 01989   F7E7B780 A          DATA    X'F7E7B780'
6713                                  PAGE
6714   01 0198A   FFFFFFF6 A  MW88     DATA    -10                MW
6715   01 0198B   37D00460            MW,13   MEMORY
6716   01 0198C   073001C2            K       00,7,3,FXPOSW
6717   01 0198D   67300166            K       6,7,3,L0C+2
6718   01 0198E   00000000 A          DATA    X'00000000'
6719   01 0198F   00000000 A          DATA    X'00000000'
6720   01 01990   7CF4DF30 A          DATA    X'7CF4DF30'
6721   01 01991   7CF4DF30 A          DATA    X'7CF4DF30'
6722   01 01992   3F5A5ACB A          DATA    X'3F5A5ACB'
6723   01 01993   7383DB10 A          DATA    X'7383DB10'
6724   01 01994   FFFFFFF6 A  MW89     DATA    -10                MW
6725   01 01995   37D00460            MW,13   MEMORY
6726   01 01996   073001C2            K       00,7,3,FXPOSW
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6727   01 01997   67300166            K       6,7,3,L0C+2
6728   01 01998   00000000 A          DATA    X'00000000'
6729   01 01999   00000000 A          DATA    X'00000000'
6730   01 0199A   366B6D39 A          DATA    X'366B6D39'
6731   01 0199B   366B6D39 A          DATA    X'366B6D39'
6732   01 0199C   493A426C A          DATA    X'493A426C'
6733   01 0199D   A764C60C A          DATA    X'A764C60C'
6734   01 0199E   FFFFFFF6 A  MW90     DATA    -10                MW
6735   01 0199F   37D00460            MW,13   MEMORY
6736   01 019A0   073001C2            K       00,7,3,FXPOSW
6737   01 019A1   57300166            K       5,7,3,L0C+2
6738   01 019A2   00000000 A          DATA    X'00000000'
6739   01 019A3   00000000 A          DATA    0
6740   01 019A4   F1C133C0 A          DATA    X'F1C133C0'
6741   01 019A5   F1C133C0 A          DATA    X'F1C133C0'
6742   01 019A6   1CC95618 A          DATA    X'1CC95618'
6743   01 019A7   333F5A00 A          DATA    X'333F5A00'
6744                                  PAGE
6745   01 019A8   FFFFFFF6 A  MH01     DATA    -10                MH
6746   01 019A9   57C00460            MH,12   MEMORY
6747   01 019AA   073001C2            K       00,7,3,FXPOSW
6748   01 019AB   17300166            K       1,7,3,L0C+2
6749   01 019AC   0000FC7C A          DATA    X'0000FC7C'
6750   01 019AD   0000FC7C A          DATA    X'0000FC7C'
6751   01 019AE   37BF0000 A          DATA    X'37BF0000'
6752   01 019AF   37BF0000 A          DATA    X'37BF0000'
6753   01 019B0   00000000 A          DATA    X'00000000'
6754   01 019B1   FF3C0484 A          DATA    X'FF3C0484'
6755   01 019B2   FFFFFFF6 A  MH02     DATA    -10                MH
6756   01 019B3   57C00460            MH,12   MEMORY
6757   01 019B4   073001C2            K       00,7,3,FXPOSW
6758   01 019B5   17300166            K       1,7,3,L0C+2
6759   01 019B6   00000383 A          DATA    X'00000383'
6760   01 019B7   00000383 A          DATA    X'00000383'
6761   01 019B8   C8400000 A          DATA    X'C8400000'
6762   01 019B9   C8400000 A          DATA    X'C8400000'
6763   01 019BA   00000000 A          DATA    X'00000000'
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6764  01 019B8   FF3C38C0 A          DATA    X'FF3C38C0'
6765  01 019BC   FFFFFFF6 A  MH03    DATA    -10                MH  X
6766  01 019BD   57CE0460            MH,12   MEMORY,7
6767  01 019BE   073001C2            K       00,7,3,FXPOSW
6768  01 019BF   17300166            K       1,7,3,LOC+2
6769  01 019C0   0000E159 A          DATA    X'0000E159'
6770  01 019C1   0000E159 A          DATA    X'0000E159'
6771  01 019C2   000027C1 A          DATA    X'000027C1'
6772  01 019C3   000027C1 A          DATA    X'000027C1'
6773  01 019C4   00000000 A          DATA    X'00000000'
6774  01 019C5   FB3D7319 A          DATA    X'FB3D7319'
6775                                 PAGE
6776  01 019C6   FFFFFFF6 A  MH04    DATA    -10                MH  X
6777  01 019C7   57CE0460            MH,12   MEMORY,7
6778  01 019C8   073001C2            K       00,7,3,FXPOSW
6779  01 019C9   17300166            K       1,7,3,LOC+2
6780  01 019CA   00001EA6 A          DATA    X'00001EA6'
6781  01 019CB   00001EA6 A          DATA    X'00001EA6'
6782  01 019CC   0000D83E A          DATA    X'0000D83E'
6783  01 019CD   0000D83E A          DATA    X'0000D83E'
6784  01 019CE   00000000 A          DATA    X'00000000'
6785  01 019CF   FB3D7C34 A          DATA    X'FB3D7C34'
6786  01 019D0   FFFFFFF6 A  MH05    DATA    -10                MH9
6787  01 019D1   57D00460            MH,13   MEMORY
6788  01 019D2   073001C2            K       00,7,3,FXPOSW
6789  01 019D3   27300166            K       2,7,3,LOC+2
6790  01 019D4   00000000 A          DATA    X'00000000'
6791  01 019D5   00000000 A          DATA    X'00000000'
6792  01 019D6   30C90000 A          DATA    X'30C90000'
6793  01 019D7   30C90000 A          DATA    X'30C90000'
6794  01 019D8   000048C1 A          DATA    X'000048C1'
6795  01 019D9   0DDD4F89 A          DATA    X'0DDD4F89'
6796  01 019DA   FFFFFFF6 A  MH06    DATA    -10                MH
6797  01 019DB   57D00460            MH,13   MEMORY
6798  01 019DC   073001C2            K       00,7,3,FXPOSW
6799  01 019DD   27300166            K       2,7,3,LOC+2
6800  01 019DE   00000000 A          DATA    X'00000000'
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6801  01 019DF   00000000 A          DATA    X'00000000'
6802  01 019E0   C7360000 A          DATA    X'C7360000'
6803  01 019E1   C7360000 A          DATA    X'C7360000'
6804  01 019E2   0000B73E A          DATA    X'0000B73E'
6805  01 019E3   1023D914 A          DATA    X'1023D914'
6806                                 PAGE
6807  01 019E4   FFFFFFF6 A  MH07    DATA    -10                MH  X
6808  01 019E5   57DE0460            MH,13   MEMORY,7
6809  01 019E6   073001C2            K       00,7,3,FXPOSW
6810  01 019E7   27300166            K       2,7,3,LOC+2
6811  01 019E8   00000000 A          DATA    X'00000000'
6812  01 019E9   00000000 A          DATA    X'00000000'
6813  01 019EA   00005AF4 A          DATA    X'00005AF4'
6814  01 019EB   00005AF4 A          DATA    X'00005AF4'
6815  01 019EC   FFFF62EA A          DATA    X'FFFF62EA'
6816  01 019ED   23248808 A          DATA    X'23248808'
6817  01 019EE   FFFFFFF6 A  MH08    DATA    -10                MH *X
6818  01 019EF   D7D2045A            MH,13   *IA,1
6819  01 019F0   073001C2            K       00,7,3,FXPOSW
6820  01 019F1   27300166            K       2,7,3,LOC+2
6821  01 019F2   00000001 A          DATA    1
6822  01 019F3   00000001 A          DATA    1
6823  01 019F4   0000A50B A          DATA    X'0000A50B'
6824  01 019F5   0000A50B A          DATA    X'0000A50B'
6825  01 019F6   00009D15 A          DATA    X'00009D15'
6826  01 019F7   232548E7 A          DATA    X'232548E7'
6827                                 PAGE
6828  01 019F8   FFFFFFF6 A  MI01    DATA    -10                MI
6829  01 019F9   23C42EFD A          MI,12   X'42EFD'
6830  01 019FA   073001C2            K       00,7,3,FXPOSW
6831  01 019FB   57300166            K       5,7,3,LOC+2
6832  01 019FC   00000000 A          DATA    X'00000000'
6833  01 019FD   FFFFE994 A          DATA    X'FFFFE994'
6834  01 019FE   00000000 A          DATA    X'00000000'
6835  01 019FF   00000000 A          DATA    X'00000000'
6836  01 01A00   FAA401EB A          DATA    X'FAA401EB'
6837  01 01A01   341A1F3F A          DATA    X'341A1F3F'
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6838   01 01A02   FFFFFFF6 A   MI02   DATA    -10              MI
6839   01 01A03   23C65905 A          MI,12   X'65905'
6840   01 01A04   073001C2            K       00,7,3,FXP0SW
6841   01 01A05   67300166            K       6,7,3,L0C+2
6842   01 01A06   00000000 A          DATA    X'00000000'
6843   01 01A07   00015C36 A          DATA    X'00015C36'
6844   01 01A08   00000000 A          DATA    X'00000000'
6845   01 01A09   00000000 A          DATA    X'00000000'
6846   01 01A0A   36DAE799 A          DATA    X'36DAE799'
6847   01 01A0B   5137F3C5 A          DATA    X'5137F3C5'
6848   01 01A0C   FFFFFFF6 A   MI03   DATA    -10              MI
6849   01 01A0D   23DA7646 A          MI,13   X'A7646'
6850   01 01A0E   F73001C2            K       15,7,3,FXP0SW
6851   01 01A0F   E7300166            K       14,7,3,L0C+2
6852   01 01A10   00000000 A          DATA    X'00000000'
6853   01 01A11   00000000 A          DATA    0
6854   01 01A12   00000000 A          DATA    X'00000000'
6855   01 01A13   00000000 A          DATA    X'00000000'
6856   01 01A14   C59714B8 A          DATA    X'C59714B8'
6857   01 01A15   2E8C7A50 A          DATA    X'2E8C7A50'
6858                                  PAGE
6859   01 01A16   FFFFFFF6 A   MI04   DATA    -10              MI
6860   01 01A17   23D5C9D2 A          MI,13   X'5C9D2'
6861   01 01A18   F73001C2            K       15,7,3,FXP0SW
6862   01 01A19   E7300166            K       14,7,3,L0C+2
6863   01 01A1A   00000000 A          DATA    X'00000000'
6864   01 01A1B   00000000 A          DATA    0
6865   01 01A1C   00000000 A          DATA    X'00000000'
6866   01 01A1D   00000000 A          DATA    X'00000000'
6867   01 01A1E   26AB3F51 A          DATA    X'26AB3F51'
6868   01 01A1F   69C58972 A          DATA    X'69C58972'
6869   01 01A20   FFFFFFF6 A   MI05   DATA    -10              MI0
6870   01 01A21   23C44133 A          MI,12   X'44133'
6871   01 01A22   F73001C2            K       15,7,3,FXP0SW
6872   01 01A23   D7300166            K       13,7,3,L0C+2
6873   01 01A24   00000000 A          DATA    X'00000000'
6874   01 01A25   FFFE0253 A          DATA    X'FFFE0253'
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6875   01 01A26   00000000 A          DATA    X'00000000'
6876   01 01A27   00000000 A          DATA    X'00000000'
6877   01 01A28   88357F05 A          DATA    X'88357F05'
6878   01 01A29   B3FC92FF A          DATA    X'B3FC92FF'
6879   01 01A2A   FFFFFFF6 A   MI06   DATA    -10              MI
6880   01 01A2B   23CAE01A A          MI,12   X'AE01A'
6881   01 01A2C   F73001C2            K       15,7,3,FXP0SW
6882   01 01A2D   E7300166            K       14,7,3,L0C+2
6883   01 01A2E   00000000 A          DATA    X'00000000'
6884   01 01A2F   00024888 A          DATA    X'00024888'
6885   01 01A30   00000000 A          DATA    X'00000000'
6886   01 01A31   00000000 A          DATA    X'00000000'
6887   01 01A32   8DEF82D4 A          DATA    X'8DEF82D4'
6888   01 01A33   EBD4C988 A          DATA    X'EBD4C988'
6889                                  PAGE
6890   01 01A34   FFFFFFF6 A   MI07   DATA    -10              MI
6891   01 01A35   23D065D1 A          MI,13   X'065D1'
6892   01 01A36   F73001C2            K       15,7,3,FXP0SW
6893   01 01A37   D7300166            K       13,7,3,L0C+2
6894   01 01A38   00000000 A          DATA    X'00000000'
6895   01 01A39   00000000 A          DATA    0
6896   01 01A3A   00000000 A          DATA    X'00000000'
6897   01 01A3B   00000000 A          DATA    X'00000000'
6898   01 01A3C   D93AE796 A          DATA    X'D93AE796'
6899   01 01A3D   96753F76 A          DATA    X'96753F76'
6900   01 01A3E   FFFFFFF6 A   MI08   DATA    -10              MI
6901   01 01A3F   23D78463 A          MI,13   X'78463'
6902   01 01A40   F73001C2            K       15,7,3,FXP0SW
6903   01 01A41   D7300166            K       13,7,3,L0C+2
6904   01 01A42   00000000 A          DATA    X'00000000'
6905   01 01A43   00000000 A          DATA    0
6906   01 01A44   00000000 A          DATA    X'00000000'
6907   01 01A45   00000000 A          DATA    X'00000000'
6908   01 01A46   8C594B71 A          DATA    X'8C594B71'
6909   01 01A47   1FAAA0B3 A          DATA    X'1FAAA0B3'
6910   01 01A48   FFFFFFFA A   MI09   DATA    -6               MI *
6911   01 01A49   A3C0045A            MI,12   *IA
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01 01A4A   17300186             K       1,7,3,SIGNAØ
01 01A4B   97300068             K       9,7,3,NEIRET+1
01 01A4C   12345678 A           DATA    X'12345678'
01 01A4D   12345678 A           DATA    X'12345678'
                                PAGE
01 01A4E   FFFFFFF6 A   DW01    DATA    -10                   NDO*RN = ØVERFLØW
01 01A4F   36C00460             DW,12   MEMØRY
01 01A50   072001C2             K       0,7,2,FXPØSW
01 01A51   47200166             K       4,7,2,LØC+2
01 01A52   CF999999 A           DATA    X'CF999999'
01 01A53   CF999999 A           DATA    X'CF999999'
01 01A54   60000000 A           DATA    X'60000000'
01 01A55   60000000 A           DATA    X'60000000'
01 01A56   00000000 A           DATA    X'00000000'
01 01A57   00000000 A           DATA    X'00000000'
01 01A58   FFFFFFF6 A   DW02    DATA    -10                   DO*NRN*NAZ*BWZ = ØVERFLØW
01 01A59   36C00460             DW,12   MEMØRY
01 01A5A   F73001C2             K       15,7,3,FXPØSW
01 01A5B   F7300084             K       15,7,3,FPØRET+1
01 01A5C   60000000 A           DATA    X'60000000'
01 01A5D   60000000 A           DATA    X'60000000'
01 01A5E   BFFFFFFE A           DATA    X'BFFFFFFE'
01 01A5F   BFFFFFFE A           DATA    X'BFFFFFFE'
01 01A60   80000000 A           DATA    X'80000000'
01 01A61   80000000 A           DATA    X'80000000'
01 01A62   FFFFFFF6 A   DW03    DATA    -10                   DO*NRN*NAZ*NBWZ = ØVERFLØW
01 01A63   36C00460             DW,12   MEMØRY
01 01A64   F73001C2             K       15,7,3,FXPØSW
01 01A65   F7300084             K       15,7,3,FPØRET+1
01 01A66   3FFFFFFF A           DATA    X'3FFFFFFF'
01 01A67   3FFFFFFF A           DATA    X'3FFFFFFF'
01 01A68   7FFFFFFD A           DATA    X'7FFFFFFD'
01 01A69   7FFFFFFD A           DATA    X'7FFFFFFD'
01 01A6A   00000001 A           DATA    X'00000001'
01 01A6B   00000001 A           DATA    X'00000001'
                                PAGE
01 01A6C   FFFFFFF6 A   DW04    DATA    -10                   DO*AZ*BWZ*MWN,RN = ØVERFLØW
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01 01A6D   36C00460             DW,12   MEMØRY
01 01A6E   F73001C2             K       15,7,3,FXPØSW
01 01A6F   F7300084             K       15,7,3,FPØRET+1
01 01A70   C0000000 A           DATA    X'C0000000'
01 01A71   C0000000 A           DATA    X'C0000000'
01 01A72   80000000 A           DATA    X'80000000'
01 01A73   80000000 A           DATA    X'80000000'
01 01A74   00000000 A           DATA    X'00000000'
01 01A75   00000000 A           DATA    X'00000000'
01 01A76   FFFFFFF6 A   DW05    DATA    -10                   DO*AZ*BWZ*NMWN,NRN = ØVERFLØW
01 01A77   36C00460             DW,12   MEMØRY
01 01A78   F73001C2             K       15,7,3,FXPØSW
01 01A79   F7300084             K       15,7,3,FPØRET+1
01 01A7A   40000000 A           DATA    X'40000000'
01 01A7B   40000000 A           DATA    X'40000000'
01 01A7C   7FFFFFFF A           DATA    X'7FFFFFFF'
01 01A7D   7FFFFFFF A           DATA    X'7FFFFFFF'
01 01A7E   80000000 A           DATA    X'80000000'
01 01A7F   80000000 A           DATA    X'80000000'
01 01A80   FFFFFFF6 A   DW06    DATA    -10                   DW
01 01A81   36C00460             DW,12   MEMØRY
01 01A82   F73001C2             K       15,7,3,FXPØSW
01 01A83   A7300166             K       10,7,3,LØC+2
01 01A84   3FFFFFFF A           DATA    X'3FFFFFFF'
01 01A85   00000000 A           DATA    X'00000000'
01 01A86   7FFFFFFF A           DATA    X'7FFFFFFF'
01 01A87   7FFFFFFF A           DATA    X'7FFFFFFF'
01 01A88   00000001 A           DATA    X'00000001'
01 01A89   7FFFFFFF A           DATA    X'7FFFFFFF'
                                PAGE
01 01A8A   FFFFFFF6 A   DW07    DATA    -10                   DW
01 01A8B   36C00460             DW,12   MEMØRY
01 01A8C   F73001C2             K       15,7,3,FXPØSW
01 01A8D   97300166             K       9,7,3,LØC+2
01 01A8E   3FFFFFFF A           DATA    X'3FFFFFFF'
01 01A8F   00000000 A           DATA    X'00000000'
01 01A90   80000001 A           DATA    X'80000001'
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6986  01 01A91  80000001 A          DATA    X'80000001'
6987  01 01A92  00000001 A          DATA    X'00000001'
6988  01 01A93  80000001 A          DATA    X'80000001'
6989  01 01A94  FFFFFFF6 A  DW08    DATA    -10                 DW
6990  01 01A95  36C00460            DW,12   MEMORY
6991  01 01A96  F73001C2            K       15,7,3,FXPOSW
6992  01 01A97  97300166            K       9,7,3,LOC+2
6993  01 01A98  E0000000 A          DATA    X'E0000000'
6994  01 01A99  C0000001 A          DATA    X'C0000001'
6995  01 01A9A  7FFFFFFF A          DATA    X'7FFFFFFF'
6996  01 01A9B  7FFFFFFF A          DATA    X'7FFFFFFF'
6997  01 01A9C  FFFFFFFF A          DATA    X'FFFFFFFF'
6998  01 01A9D  C0000002 A          DATA    X'C0000002'
6999  01 01A9E  FFFFFFF6 A  DW09    DATA    -10                 DW
7000  01 01A9F  36C00460            DW,12   MEMORY
7001  01 01AA0  F73001C2            K       15,7,3,FXPOSW
7002  01 01AA1  A7300166            K       10,7,3,LOC+2
7003  01 01AA2  C0000000 A          DATA    X'C0000000'
7004  01 01AA3  00000000 A          DATA    X'00000000'
7005  01 01AA4  80000001 A          DATA    X'80000001'
7006  01 01AA5  80000001 A          DATA    X'80000001'
7007  01 01AA6  FFFFFFFF A          DATA    X'FFFFFFFF'
7008  01 01AA7  7FFFFFFF A          DATA    X'7FFFFFFF'
7009                                PAGE
7010  01 01AA8  FFFFFFF6 A  DW10    DATA    -10                 DW
7011  01 01AA9  36C00460            DW,12   MEMORY
7012  01 01AAA  F73001C2            K       15,7,3,FXPOSW
7013  01 01AAB  A7300166            K       10,7,3,LOC+2
7014  01 01AAC  FFFFFFFF A          DATA    X'FFFFFFFF'
7015  01 01AAD  FFFFFFFD A          DATA    X'FFFFFFFD'
7016  01 01AAE  FFFFFFFC A          DATA    X'FFFFFFFC'
7017  01 01AAF  FFFFFFFC A          DATA    X'FFFFFFFC'
7018  01 01AB0  FFFFFFE1 A          DATA    X'FFFFFFE1'
7019  01 01AB1  00000007 A          DATA    X'00000007'
7020  01 01AB2  FFFFFFF6 A  DW11    DATA    -10                 DW
7021  01 01AB3  36C00460            DW,12   MEMORY
7022  01 01AB4  F73001C2            K       15,7,3,FXPOSW
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7023  01 01AB5  A7300166            K       10,7,3,LOC+2
7024  01 01AB6  00000000 A          DATA    X'00000000'
7025  01 01AB7  00000000 A          DATA    X'00000000'
7026  01 01AB8  00000004 A          DATA    X'00000004'
7027  01 01AB9  00000004 A          DATA    X'00000004'
7028  01 01ABA  00000020 A          DATA    X'00000020'
7029  01 01ABB  00000008 A          DATA    X'00000008'
7030  01 01ABC  FFFFFFF6 A  DW12    DATA    -10                 DW
7031  01 01ABD  36C00460            DW,12   MEMORY
7032  01 01ABE  F73001C2            K       15,7,3,FXPOSW
7033  01 01ABF  97300166            K       9,7,3,LOC+2
7034  01 01AC0  FFFFFFFF A          DATA    X'FFFFFFFF'
7035  01 01AC1  00000000 A          DATA    X'00000000'
7036  01 01AC2  00000004 A          DATA    X'00000004'
7037  01 01AC3  00000004 A          DATA    X'00000004'
7038  01 01AC4  FFFFFFE0 A          DATA    X'FFFFFFE0'
7039  01 01AC5  FFFFFFF8 A          DATA    X'FFFFFFF8'
7040                                PAGE
7041  01 01AC6  FFFFFFF6 A  DW13    DATA    -10                 DW
7042  01 01AC7  36C00460            DW,12   MEMORY
7043  01 01AC8  F73001C2            K       15,7,3,FXPOSW
7044  01 01AC9  A7300166            K       10,7,3,LOC+2
7045  01 01ACA  FFFFFFFF A          DATA    X'FFFFFFFF'
7046  01 01ACB  FFFFFFFF A          DATA    X'FFFFFFFF'
7047  01 01ACC  FFFFFFFB A          DATA    X'FFFFFFFB'
7048  01 01ACD  FFFFFFFB A          DATA    X'FFFFFFFB'
7049  01 01ACE  FFFFFFE1 A          DATA    X'FFFFFFE1'
7050  01 01ACF  00000006 A          DATA    X'00000006'
7051  01 01AD0  FFFFFFF6 A  DW14    DATA    -10                 DW
7052  01 01AD1  36C00460            DW,12   MEMORY
7053  01 01AD2  F73001C2            K       15,7,3,FXPOSW
7054  01 01AD3  97300166            K       9,7,3,LOC+2
7055  01 01AD4  00000000 A          DATA    X'00000000'
7056  01 01AD5  00000000 A          DATA    X'00000000'
7057  01 01AD6  FFFFFFFC A          DATA    X'FFFFFFFC'
7058  01 01AD7  FFFFFFFC A          DATA    X'FFFFFFFC'
7059  01 01AD8  00000020 A          DATA    X'00000020'
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7060  01 01AD9  FFFFFFF8 A          DATA    X'FFFFFFF8'
7061  01 01ADA  FFFFFFF6 A  DW15    DATA    -10              DW
7062  01 01ADB  36C00460            DW,12   MEMORY
7063  01 01ADC  F73001C2            K       15,7,3,FXPOSW
7064  01 01ADD  97300166            K       9,7,3,LOC+2
7065  01 01ADE  FFFFFFFF A          DATA    X'FFFFFFFF'
7066  01 01ADF  FFFFFFFD A          DATA    X'FFFFFFFD'
7067  01 01AE0  00000004 A          DATA    X'00000004'
7068  01 01AE1  00000004 A          DATA    X'00000004'
7069  01 01AE2  FFFFFFE1 A          DATA    X'FFFFFFE1'
7070  01 01AE3  FFFFFFF9 A          DATA    X'FFFFFFF9'
7071                                PAGE
7072  01 01AE4  FFFFFFF6 A  DW16    DATA    -10              DW
7073  01 01AE5  36C00460            DW,12   MEMORY
7074  01 01AE6  F73001C2            K       15,7,3,FXPOSW
7075  01 01AE7  A7300166            K       10,7,3,LOC+2
7076  01 01AE8  FFFFFFFF A          DATA    X'FFFFFFFF'
7077  01 01AE9  00000000 A          DATA    X'00000000'
7078  01 01AEA  FFFFFFFC A          DATA    X'FFFFFFFC'
7079  01 01AEB  FFFFFFFC A          DATA    X'FFFFFFFC'
7080  01 01AEC  FFFFFFE0 A          DATA    X'FFFFFFE0'
7081  01 01AED  00000008 A          DATA    X'00000008'
7082  01 01AEE  FFFFFFF6 A  DW17    DATA    -10              DW
7083  01 01AEF  36C00460            DW,12   MEMORY
7084  01 01AF0  F73001C2            K       15,7,3,FXPOSW
7085  01 01AF1  A7300166            K       10,7,3,LOC+2
7086  01 01AF2  00000000 A          DATA    X'00000000'
7087  01 01AF3  00000003 A          DATA    X'00000003'
7088  01 01AF4  00000004 A          DATA    X'00000004'
7089  01 01AF5  00000004 A          DATA    X'00000004'
7090  01 01AF6  0000001F A          DATA    X'0000001F'
7091  01 01AF7  00000007 A          DATA    X'00000007'
7092  01 01AF8  FFFFFFF6 A  DW18    DATA    -10              DW
7093  01 01AF9  36C00460            DW,12   MEMORY
7094  01 01AFA  F73001C2            K       15,7,3,FXPOSW
7095  01 01AFB  A7300166            K       10,7,3,LOC+2
7096  01 01AFC  15555555 A          DATA    X'15555555'
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7097  01 01AFD  00000000 A          DATA    X'00000000'
7098  01 01AFE  7FFFFFFF A          DATA    X'7FFFFFFF'
7099  01 01AFF  7FFFFFFF A          DATA    X'7FFFFFFF'
7100  01 01B00  55555555 A          DATA    X'55555555'
7101  01 01B01  2AAAAAAB A          DATA    X'2AAAAAAB'
7102                                PAGE
7103  01 01B02  FFFFFFF6 A  DW19    DATA    -10              DW
7104  01 01B03  36C00460            DW,12   MEMORY
7105  01 01B04  F73001C2            K       15,7,3,FXPOSW
7106  01 01B05  A7300166            K       10,7,3,LOC+2
7107  01 01B06  31C3C1F0 A          DATA    X'31C3C1F0'
7108  01 01B07  3CBA3128 A          DATA    X'3CBA3128'
7109  01 01B08  79999999 A          DATA    X'79999999'
7110  01 01B09  79999999 A          DATA    X'79999999'
7111  01 01B0A  11111111 A          DATA    X'11111111'
7112  01 01B0B  68C48AD1 A          DATA    X'68C48AD1'
7113  01 01B0C  FFFFFFF6 A  DW20    DATA    -10              DW
7114  01 01B0D  36C00460            DW,12   MEMORY
7115  01 01B0E  F73001C2            K       15,7,3,FXPOSW
7116  01 01B0F  97300166            K       9,7,3,LOC+2
7117  01 01B10  FC7CF1CC A          DATA    X'FC7CF1CC'
7118  01 01B11  FAAAAAAA A          DATA    X'FAAAAAAA'
7119  01 01B12  70000000 A          DATA    X'70000000'
7120  01 01B13  70000000 A          DATA    X'70000000'
7121  01 01B14  AAAAAAAA A          DATA    X'AAAAAAAA'
7122  01 01B15  F7F9041D A          DATA    X'F7F9041D'
7123  01 01B16  FFFFFFF6 A  DW21    DATA    -10              DW
7124  01 01B17  36C00460            DW,12   MEMORY
7125  01 01B18  F73001C2            K       15,7,3,FXPOSW
7126  01 01B19  97300166            K       9,7,3,LOC+2
7127  01 01B1A  31111111 A          DATA    X'31111111'
7128  01 01B1B  584D7750 A          DATA    X'584D7750'
7129  01 01B1C  84444444 A          DATA    X'84444444'
7130  01 01B1D  84444444 A          DATA    X'84444444'
7131  01 01B1E  59C61C18 A          DATA    X'59C61C18'
7132  01 01B1F  9A789612 A          DATA    X'9A789612'
7133                                PAGE
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 01 01B20  FFFFFFF6 A  DW22   DATA   -10            DW
 01 01B21  36C00460           DW,12  MEMORY
 01 01B22  F73001C2           K      15,7,3,FXPOSW
 01 01B23  97300166           K      9,7,3,LOC+2
 01 01B24  D6666666 A         DATA   X'D6666666'
 01 01B25  BE7E7E7E A         DATA   X'BE7E7E7E'
 01 01B26  7EEEEEEE A         DATA   X'7EEEEEEE'
 01 01B27  7EEEEEEE A         DATA   X'7EEEEEEE'
 01 01B28  66666666 A         DATA   X'66666666'
 01 01B29  AC19D0AC A         DATA   X'AC19D0AC'
 01 01B2A  FFFFFFF6 A  DW23   DATA   -10            DW
 01 01B2B  36C00460           DW,12  MEMORY
 01 01B2C  F73001C2           K      15,7,3,FXPOSW
 01 01B2D  A7300166           K      10,7,3,LOC+2
 01 01B2E  F1C3C731 A         DATA   X'F1C3C731'
 01 01B2F  ED42FD57 A         DATA   X'ED42FD57'
 01 01B30  84444444 A         DATA   X'84444444'
 01 01B31  84444444 A         DATA   X'84444444'
 01 01B32  3F01FC03 A         DATA   X'3F01FC03'
 01 01B33  1D73C4FB A         DATA   X'1D73C4FB'
 01 01B34  FFFFFFF6 A  DW24   DATA   -10            DW
 01 01B35  36C00460           DW,12  MEMORY
 01 01B36  F73001C2           K      15,7,3,FXPOSW
 01 01B37  A7300166           K      10,7,3,LOC+2
 01 01B38  36666666 A         DATA   X'36666666'
 01 01B39  75555555 A         DATA   X'75555555'
 01 01B3A  7EEEEEEE A         DATA   X'7EEEEEEE'
 01 01B3B  7EEEEEEE A         DATA   X'7EEEEEEE'
 01 01B3C  99999999 A         DATA   X'99999999'
 01 01B3D  6DB6DB6E A         DATA   X'6DB6DB6E'
                              PAGE
 01 01B3E  FFFFFFF6 A  DW25   DATA   -10            DW
 01 01B3F  36C00460           DW,12  MEMORY
 01 01B40  F73001C2           K      15,7,3,FXPOSW
 01 01B41  A7300166           K      10,7,3,LOC+2
 01 01B42  27777777 A         DATA   X'27777777'
 01 01B43  6DB53C70 A         DATA   X'6DB53C70'
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 01 01B44  70000000 A         DATA   X'70000000'
 01 01B45  70000000 A         DATA   X'70000000'
 01 01B46  CDB53C70 A         DATA   X'CDB53C70'
 01 01B47  5A35A35A A         DATA   X'5A35A35A'
 01 01B48  FFFFFFF6 A  DW26   DATA   -10            DW
 01 01B49  36C00460           DW,12  MEMORY
 01 01B4A  F73001C2           K      15,7,3,FXPOSW
 01 01B4B  97300166           K      9,7,3,LOC+2
 01 01B4C  31C3C1F0 A         DATA   X'31C3C1F0'
 01 01B4D  44D906D0 A         DATA   X'44D906D0'
 01 01B4E  85555555 A         DATA   X'85555555'
 01 01B4F  85555555 A         DATA   X'85555555'
 01 01B50  77777777 A         DATA   X'77777777'
 01 01B51  9824AE0B A         DATA   X'9824AE0B'
 01 01B52  FFFFFFF6 A  DW27   DATA   -10            DW
 01 01B53  36C00460           DW,12  MEMORY
 01 01B54  F73001C2           K      15,7,3,FXPOSW
 01 01B55  97300166           K      9,7,3,LOC+2
 01 01B56  D6666666 A         DATA   X'D6666666'
 01 01B57  C45CB5B4 A         DATA   X'C45CB5B4'
 01 01B58  79999999 A         DATA   X'79999999'
 01 01B59  79999999 A         DATA   X'79999999'
 01 01B5A  DF4F3C70 A         DATA   X'DF4F3C70'
 01 01B5B  A86BCA1C A         DATA   X'A86BCA1C'
                              PAGE
 01 01B5C  FFFFFFF6 A  DW28   DATA   -10            DW
 01 01B5D  36C00460           DW,12  MEMORY
 01 01B5E  F73001C2           K      15,7,3,FXPOSW
 01 01B5F  97300166           K      9,7,3,LOC+2
 01 01B60  15555555 A         DATA   X'15555555'
 01 01B61  4FB8CDB4 A         DATA   X'4FB8CDB4'
 01 01B62  82222222 A         DATA   X'82222222'
 01 01B63  82222222 A         DATA   X'82222222'
 01 01B64  59C61C18 A         DATA   X'59C61C18'
 01 01B65  D49C3412 A         DATA   X'D49C3412'
 01 01B66  FFFFFFF6 A  DW29   DATA   -10            DW
 01 01B67  36C00460           DW,12  MEMORY
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7208  01 01B68  F73001C2          K       15,7,3,FXPOSW
7209  01 01B69  97300166          K       9,7,3,L0C+2
7210  01 01B6A  021871E7 A        DATA    X'021871E7'
7211  01 01B6B  09CE9631 A        DATA    X'09CE9631'
7212  01 01B6C  83333333 A        DATA    X'83333333'
7213  01 01B6D  83333333 A        DATA    X'83333333'
7214  01 01B6E  77777777 A        DATA    X'77777777'
7215  01 01B6F  FBB399A2 A        DATA    X'FBB399A2'
7216  01 01B70  FFFFFFF6 A  DW30  DATA    -10                 DW
7217  01 01B71  36C00460          DW,12   MEMORY
7218  01 01B72  F73001C2          K       15,7,3,FXPOSW
7219  01 01B73  A7300166          K       10,7,3,L0C+2
7220  01 01B74  E1111111 A        DATA    X'E1111111'
7221  01 01B75  BA64966C A        DATA    X'BA64966C'
7222  01 01B76  87777777 A        DATA    X'87777777'
7223  01 01B77  87777777 A        DATA    X'87777777'
7224  01 01B78  AAAAAAAA A        DATA    X'AAAAAAAA'
7225  01 01B79  41B2F932 A        DATA    X'41B2F932'
7226                              PAGE
7227  01 01B7A  FFFFFFF6 A  DW31  DATA    -10                 DW
7228  01 01B7B  36C00460          DW,12   MEMORY
7229  01 01B7C  F73001C2          K       15,7,3,FXPOSW
7230  01 01B7D  97300166          K       9,7,3,L0C+2
7231  01 01B7E  FC7CF1CC A        DATA    X'FC7CF1CC'
7232  01 01B7F  88E1079C A        DATA    X'88E1079C'
7233  01 01B80  7EEEEEEE A        DATA    X'7EEEEEEE'
7234  01 01B81  7EEEEEEE A        DATA    X'7EEEEEEE'
7235  01 01B82  CD5B3C70 A        DATA    X'CD5B3C70'
7236  01 01B83  F8EAC766 A        DATA    X'F8EAC766'
7237  01 01B84  FFFFFFF6 A  DW32  DATA    -10                 DW *
7238  01 01B85  B6C0045A          DW,12   *IA
7239  01 01B86  F73001C2          K       15,7,3,FXPOSW
7240  01 01B87  A7300166          K       10,7,3,L0C+2
7241  01 01B88  15555555 A        DATA    X'15555555'
7242  01 01B89  11111111 A        DATA    X'11111111'
7243  01 01B8A  70000000 A        DATA    X'70000000'
7244  01 01B8B  70000000 A        DATA    X'70000000'
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7245  01 01B8C  11111111 A        DATA    X'11111111'
7246  01 01B8D  30C30C30 A        DATA    X'30C30C30'
7247  01 01B8E  FFFFFFF6 A  DW33  DATA    -10                 DW  X
7248  01 01B8F  36C2F34F          DW,12   MEMORY-X'11111',1
7249  01 01B90  F73001C2          K       15,7,3,FXPOSW
7250  01 01B91  97300166          K       9,7,3,L0C+2
7251  01 01B92  31111111 A        DATA    X'31111111'
7252  01 01B93  1E4D06CC A        DATA    X'1E4D06CC'
7253  01 01B94  87777777 A        DATA    X'87777777'
7254  01 01B95  87777777 A        DATA    X'87777777'
7255  01 01B96  22222222 A        DATA    X'22222222'
7256  01 01B97  97C9A0DA A        DATA    X'97C9A0DA'
7257                              PAGE
7258  01 01B98  FFFFFFF6 A  DW34  DATA    -10                 DW
7259  01 01B99  36C00460          DW,12   MEMORY
7260  01 01B9A  F73001C2          K       15,7,3,FXPOSW
7261  01 01B9B  97300166          K       9,7,3,L0C+2
7262  01 01B9C  D6666666 A        DATA    X'D6666666'
7263  01 01B9D  93521CFB A        DATA    X'93521CFB'
7264  01 01B9E  71111111 A        DATA    X'71111111'
7265  01 01B9F  71111111 A        DATA    X'71111111'
7266  01 01BA0  33333333 A        DATA    X'33333333'
7267  01 01BA1  A1CFB2B8 A        DATA    X'A1CFB2B8'
7268  01 01BA2  FFFFFFF6 A  DW35  DATA    -10                 DW
7269  01 01BA3  36C00460          DW,12   MEMORY
7270  01 01BA4  F73001C2          K       15,7,3,FXPOSW
7271  01 01BA5  97300166          K       9,7,3,L0C+2
7272  01 01BA6  36666666 A        DATA    X'36666666'
7273  01 01BA7  274B2F83 A        DATA    X'274B2F83'
7274  01 01BA8  89999999 A        DATA    X'89999999'
7275  01 01BA9  89999999 A        DATA    X'89999999'
7276  01 01BAA  44444444 A        DATA    X'44444444'
7277  01 01BAB  8A60DD69 A        DATA    X'8A60DD69'
7278  01 01BAC  FFFFFFF6 A  DW36  DATA    -10                 DW
7279  01 01BAD  36C00460          DW,12   MEMORY
7280  01 01BAE  F73001C2          K       15,7,3,FXPOSW
7281  01 01BAF  A7300166          K       10,7,3,L0C+2
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7282  01 01B80  021871E7 A          DATA    X'021871E7'
7283  01 01B81  48888888 A          DATA    X'48888888'
7284  01 01B82  70000000 A          DATA    X'70000000'
7285  01 01B83  70000000 A          DATA    X'70000000'
7286  01 01B84  88888888 A          DATA    X'88888888'
7287  01 01B85  04CA28EC A          DATA    X'04CA28EC'
7288                                PAGE
7289  01 01B86  FFFFFFF6 A  DW37    DATA    -10                 DW
7290  01 01B87  36C00460            DW,12   MEMORY
7291  01 01B88  F73001C2            K       15,7,3,FXP0SW
7292  01 01B89  A7300166            K       10,7,3,L0C+2
7293  01 01B8A  E1111111 A          DATA    X'E1111111'
7294  01 01B8B  C870A77D A          DATA    X'C870A77D'
7295  01 01B8C  87777777 A          DATA    X'87777777'
7296  01 01B8D  87777777 A          DATA    X'87777777'
7297  01 01B8E  88888888 A          DATA    X'88888888'
7298  01 01B8F  4182F932 A          DATA    X'4182F932'
7299  01 01BC0  FFFFFFF6 A  DW38    DATA    -10                 DW
7300  01 01BC1  36C00460            DW,12   MEMORY
7301  01 01BC2  F73001C2            K       15,7,3,FXP0SW
7302  01 01BC3  97300166            K       9,7,3,L0C+2
7303  01 01BC4  F1C3C731 A          DATA    X'F1C3C731'
7304  01 01BC5  E79E5F51 A          DATA    X'E79E5F51'
7305  01 01BC6  79999999 A          DATA    X'79999999'
7306  01 01BC7  79999999 A          DATA    X'79999999'
7307  01 01BC8  CCCCCCCC A          DATA    X'CCCCCCCC'
7308  01 01BC9  E207F433 A          DATA    X'E207F433'
7309  01 01BCA  FFFFFFF6 A  DW39    DATA    -10                 DW
7310  01 01BCB  36C00460            DW,12   MEMORY
7311  01 01BCC  F73001C2            K       15,7,3,FXP0SW
7312  01 01BCD  A7300166            K       10,7,3,L0C+2
7313  01 01BCE  00000000 A          DATA    X'00000000'
7314  01 01BCF  00000000 A          DATA    X'00000000'
7315  01 01BD0  00000001 A          DATA    X'00000001'
7316  01 01BD1  00000001 A          DATA    X'00000001'
7317  01 01BD2  00000002 A          DATA    X'00000002'
7318  01 01BD3  00000002 A          DATA    X'00000002'
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7319                                PAGE
7320  01 01BD4  FFFFFFF6 A  DW40    DATA    -10                 DW
7321  01 01BD5  36C00460            DW,12   MEMORY
7322  01 01BD6  F73001C2            K       15,7,3,FXP0SW
7323  01 01BD7  A7300166            K       10,7,3,L0C+2
7324  01 01BD8  00000000 A          DATA    X'00000000'
7325  01 01BD9  00000000 A          DATA    X'00000000'
7326  01 01BDA  7FFFFFFF A          DATA    X'7FFFFFFF'
7327  01 01BDB  7FFFFFFF A          DATA    X'7FFFFFFF'
7328  01 01BDC  7FFFFFFF A          DATA    X'7FFFFFFF'
7329  01 01BDD  00000001 A          DATA    X'00000001'
7330  01 01BDE  FFFFFFF6 A  DW41    DATA    -10                 DW
7331  01 01BDF  36C00460            DW,12   MEMORY
7332  01 01BE0  F73001C2            K       15,7,3,FXP0SW
7333  01 01BE1  A7300166            K       10,7,3,L0C+2
7334  01 01BE2  00000000 A          DATA    X'00000000'
7335  01 01BE3  00000000 A          DATA    X'00000000'
7336  01 01BE4  00000001 A          DATA    X'00000001'
7337  01 01BE5  00000001 A          DATA    X'00000001'
7338  01 01BE6  7FFFFFFF A          DATA    X'7FFFFFFF'
7339  01 01BE7  7FFFFFFF A          DATA    X'7FFFFFFF'
7340  01 01BE8  FFFFFFF6 A  DW42    DATA    -10                 DW
7341  01 01BE9  36C00460            DW,12   MEMORY
7342  01 01BEA  F73001C2            K       15,7,3,FXP0SW
7343  01 01BEB  A7300166            K       10,7,3,L0C+2
7344  01 01BEC  FFFFFFFF A          DATA    X'FFFFFFFF'
7345  01 01BED  00000000 A          DATA    X'00000000'
7346  01 01BEE  FFFFFFFF A          DATA    X'FFFFFFFF'
7347  01 01BEF  FFFFFFFF A          DATA    X'FFFFFFFF'
7348  01 01BF0  FFFFFFFE A          DATA    X'FFFFFFFE'
7349  01 01BF1  00000002 A          DATA    X'00000002'
7350                                PAGE
7351  01 01BF2  FFFFFFF6 A  DW43    DATA    -10                 DW
7352  01 01BF3  36C00460            DW,12   MEMORY
7353  01 01BF4  F73001C2            K       15,7,3,FXP0SW
7354  01 01BF5  A7300166            K       10,7,3,L0C+2
7355  01 01BF6  FFFFFFFF A          DATA    X'FFFFFFFF'
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7356  01 018F7  00000000 A          DATA    X'00000000'
7357  01 018F8  80000001 A          DATA    X'80000001'
7358  01 018F9  80000001 A          DATA    X'80000001'
7359  01 018FA  80000001 A          DATA    X'80000001'
7360  01 018FB  00000001 A          DATA    X'00000001'
7361  01 018FC  FFFFFFF6 A  DW44    DATA    -10                 DW
7362  01 018FD  36C00460            DW,12   MEMORY
7363  01 018FE  F73001C2            K       15,7,3,FXPSSW
7364  01 018FF  A7300166            K       10,7,3,L0C+2
7365  01 01C00  FFFFFFFF A          DATA    X'FFFFFFFF'
7366  01 01C01  00000000 A          DATA    X'00000000'
7367  01 01C02  FFFFFFFF A          DATA    X'FFFFFFFF'
7368  01 01C03  FFFFFFFF A          DATA    X'FFFFFFFF'
7369  01 01C04  80000001 A          DATA    X'80000001'
7370  01 01C05  7FFFFFFF A          DATA    X'7FFFFFFF'
7371  01 01C06  FFFFFFF6 A  DW45    DATA    -10                 DW
7372  01 01C07  36C00460            DW,12   MEMORY
7373  01 01C08  F73001C2            K       15,7,3,FXPSSW
7374  01 01C09  97300166            K       9,7,3,L0C+2
7375  01 01C0A  00000000 A          DATA    X'00000000'
7376  01 01C0B  00000000 A          DATA    X'00000000'
7377  01 01C0C  FFFFFFFF A          DATA    X'FFFFFFFF'
7378  01 01C0D  FFFFFFFF A          DATA    X'FFFFFFFF'
7379  01 01C0E  00000002 A          DATA    X'00000002'
7380  01 01C0F  FFFFFFFE A          DATA    X'FFFFFFFE'
7381                                PAGE
7382  01 01C10  FFFFFFF6 A  DW46    DATA    -10                 DW
7383  01 01C11  36C00460            DW,12   MEMORY
7384  01 01C12  F73001C2            K       15,7,3,FXPSSW
7385  01 01C13  97300166            K       9,7,3,L0C+2
7386  01 01C14  00000000 A          DATA    X'00000000'
7387  01 01C15  00000000 A          DATA    X'00000000'
7388  01 01C16  80000001 A          DATA    X'80000001'
7389  01 01C17  80000001 A          DATA    X'80000001'
7390  01 01C18  7FFFFFFF A          DATA    X'7FFFFFFF'
7391  01 01C19  FFFFFFFF A          DATA    X'FFFFFFFF'
7392  01 01C1A  FFFFFFF6 A  DW47    DATA    -10                 DW
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7393  01 01C1B  36C00460            DW,12   MEMORY
7394  01 01C1C  F73001C2            K       15,7,3,FXPSSW
7395  01 01C1D  97300166            K       9,7,3,L0C+2
7396  01 01C1E  00000000 A          DATA    X'00000000'
7397  01 01C1F  00000000 A          DATA    X'00000000'
7398  01 01C20  FFFFFFFF A          DATA    X'FFFFFFFF'
7399  01 01C21  FFFFFFFF A          DATA    X'FFFFFFFF'
7400  01 01C22  7FFFFFFF A          DATA    X'7FFFFFFF'
7401  01 01C23  80000001 A          DATA    X'80000001'
7402  01 01C24  FFFFFFF6 A  DW48    DATA    -10                 DW
7403  01 01C25  36C00460            DW,12   MEMORY
7404  01 01C26  F73001C2            K       15,7,3,FXPSSW
7405  01 01C27  97300166            K       9,7,3,L0C+2
7406  01 01C28  FFFFFFFF A          DATA    X'FFFFFFFF'
7407  01 01C29  00000000 A          DATA    X'00000000'
7408  01 01C2A  00000001 A          DATA    X'00000001'
7409  01 01C2B  00000001 A          DATA    X'00000001'
7410  01 01C2C  FFFFFFFE A          DATA    X'FFFFFFFE'
7411  01 01C2D  FFFFFFFE A          DATA    X'FFFFFFFE'
7412                                PAGE
7413  01 01C2E  FFFFFFF6 A  DW49    DATA    -10                 DW
7414  01 01C2F  36C00460            DW,12   MEMORY
7415  01 01C30  F73001C2            K       15,7,3,FXPSSW
7416  01 01C31  97300166            K       9,7,3,L0C+2
7417  01 01C32  FFFFFFFF A          DATA    X'FFFFFFFF'
7418  01 01C33  00000000 A          DATA    X'00000000'
7419  01 01C34  7FFFFFFF A          DATA    X'7FFFFFFF'
7420  01 01C35  7FFFFFFF A          DATA    X'7FFFFFFF'
7421  01 01C36  80000001 A          DATA    X'80000001'
7422  01 01C37  FFFFFFFF A          DATA    X'FFFFFFFF'
7423  01 01C38  FFFFFFF6 A  DW50    DATA    -10                 DW
7424  01 01C39  36C00460            DW,12   MEMORY
7425  01 01C3A  F73001C2            K       15,7,3,FXPSSW
7426  01 01C3B  97300166            K       9,7,3,L0C+2
7427  01 01C3C  FFFFFFFF A          DATA    X'FFFFFFFF'
7428  01 01C3D  00000000 A          DATA    X'00000000'
7429  01 01C3E  00000001 A          DATA    X'00000001'
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7430  01 01C3F  00000001 A            DATA    X'00000001'
7431  01 01C40  80000001 A            DATA    X'80000001'
7432  01 01C41  80000001 A            DATA    X'80000001'
7433  01 01C42  FFFFFFF6 A  DW51      DATA    -10                DW
7434  01 01C43  36C00460               DW,12   MEMORY
7435  01 01C44  F73001C2               K       15,7,3,FXP0SW
7436  01 01C45  A7300166               K       10,7,3,L0C+2
7437  01 01C46  01234567 A             DATA    X'01234567'
7438  01 01C47  0DD441AF A             DATA    X'0DD441AF'
7439  01 01C48  42468ACE A             DATA    X'42468ACE'
7440  01 01C49  42468ACE A             DATA    X'42468ACE'
7441  01 01C4A  89ABCDEF A             DATA    X'89ABCDEF'
7442  01 01C4B  046514E0 A             DATA    X'046514E0'
7443                                   PAGE
7444  01 01C4C  FFFFFFF6 A  DW52      DATA    -10                DW
7445  01 01C4D  36C00460               DW,12   MEMORY
7446  01 01C4E  F73001C2               K       15,7,3,FXP0SW
7447  01 01C4F  A7300166               K       10,7,3,L0C+2
7448  01 01C50  2588E147 A             DATA    X'2588E147'
7449  01 01C51  55A20A6F A             DATA    X'55A20A6F'
7450  01 01C52  56AE37BF A             DATA    X'56AE37BF'
7451  01 01C53  56AE37BF A             DATA    X'56AE37BF'
7452  01 01C54  AD0369CF A             DATA    X'AD0369CF'
7453  01 01C55  6EE378A0 A             DATA    X'6EE378A0'
7454  01 01C56  FFFFFFF6 A  DW53      DATA    -10                DW
7455  01 01C57  36C00460               DW,12   MEMORY
7456  01 01C58  F73001C2               K       15,7,3,FXP0SW
7457  01 01C59  F7300084               K       15,7,3,FP0RET+1
7458  01 01C5A  DF1357BD A             DATA    X'DF1357BD'
7459  01 01C5B  DF1357BD A             DATA    X'DF1357BD'
7460  01 01C5C  E13579BD A             DATA    X'E13579BD'
7461  01 01C5D  E13579BD A             DATA    X'E13579BD'
7462  01 01C5E  F2468ACE A             DATA    X'F2468ACE'
7463  01 01C5F  F2468ACE A             DATA    X'F2468ACE'
7464  01 01C60  FFFFFFF6 A  DW54      DATA    -10                DW
7465  01 01C61  36C00460               DW,12   MEMORY
7466  01 01C62  F73001C2               K       15,7,3,FXP0SW
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7467  01 01C63  A7300166               K       10,7,3,L0C+2
7468  01 01C64  E26AE38D A             DATA    X'E26AE38D'
7469  01 01C65  92D13AE2 A             DATA    X'92D13AE2'
7470  01 01C66  8147AD03 A             DATA    X'8147AD03'
7471  01 01C67  8147AD03 A             DATA    X'8147AD03'
7472  01 01C68  27C16805 A             DATA    X'27C16805'
7473  01 01C69  3BC33661 A             DATA    X'3BC33661'
7474                                   PAGE
7475  01 01C6A  FFFFFFF6 A  DW55      DATA    -10                DW
7476  01 01C6B  36C00460               DW,12   MEMORY
7477  01 01C6C  F73001C2               K       15,7,3,FXP0SW
7478  01 01C6D  F7300084               K       15,7,3,FP0RET+1
7479  01 01C6E  148BF37B A             DATA    X'148BF37B'
7480  01 01C6F  148BF37B A             DATA    X'148BF37B'
7481  01 01C70  E26AF49F A             DATA    X'E26AF49F'
7482  01 01C71  E26AF49F A             DATA    X'E26AF49F'
7483  01 01C72  F37BF49E A             DATA    X'F37BF49E'
7484  01 01C73  F37BF49E A             DATA    X'F37BF49E'
7485  01 01C74  FFFFFFF6 A  DW56      DATA    -10                DW
7486  01 01C75  36C00460               DW,12   MEMORY
7487  01 01C76  F73001C2               K       15,7,3,FXP0SW
7488  01 01C77  97300166               K       9,7,3,L0C+2
7489  01 01C78  F0259E49 A             DATA    X'F0259E49'
7490  01 01C79  D8E59C60 A             DATA    X'D8E59C60'
7491  01 01C7A  457AE39F A             DATA    X'457AE39F'
7492  01 01C7B  457AE39F A             DATA    X'457AE39F'
7493  01 01C7C  ABE159F0 A             DATA    X'ABE159F0'
7494  01 01C7D  C596D870 A             DATA    X'C596D870'
7495  01 01C7E  FFFFFFF6 A  DW57      DATA    -10                DW
7496  01 01C7F  36C00460               DW,12   MEMORY
7497  01 01C80  F73001C2               K       15,7,3,FXP0SW
7498  01 01C81  97300166               K       9,7,3,L0C+2
7499  01 01C82  00000000 A             DATA    X'00000000'
7500  01 01C83  7FFFFFFF A             DATA    X'7FFFFFFF'
7501  01 01C84  80000000 A             DATA    X'80000000'
7502  01 01C85  80000000 A             DATA    X'80000000'
7503  01 01C86  FFFFFFFF A             DATA    X'FFFFFFFF'
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7504   01 01C87   FFFFFFFF A            DATA    X'FFFFFFFF'
7505                                    PAGE
7506   01 01C88   FFFFFFF6 A   DW58     DATA    -10                 DW
7507   01 01C89   36C00460              DW,12   MEMORY
7508   01 01C8A   F73001C2              K       15,7,3,FXPSSW
7509   01 01C8B   A7300166              K       10,7,3,L8C+2
7510   01 01C8C   C0000000 A            DATA    X'C0000000'
7511   01 01C8D   80000001 A            DATA    X'80000001'
7512   01 01C8E   80000000 A            DATA    X'80000000'
7513   01 01C8F   80000000 A            DATA    X'80000000'
7514   01 01C90   00000001 A            DATA    X'00000001'
7515   01 01C91   7FFFFFFF A            DATA    X'7FFFFFFF'
7516   01 01C92   FFFFFFF6 A   DW59     DATA    -10                 DW
7517   01 01C93   36C00460              DW,12   MEMORY
7518   01 01C94   F73001C2              K       15,7,3,FXPSSW
7519   01 01C95   A7300166              K       10,7,3,L8C+2
7520   01 01C96   F0000000 A            DATA    X'F0000000'
7521   01 01C97   00000000 A            DATA    X'00000000'
7522   01 01C98   80000000 A            DATA    X'80000000'
7523   01 01C99   80000000 A            DATA    X'80000000'
7524   01 01C9A   00000000 A            DATA    X'00000000'
7525   01 01C9B   20000000 A            DATA    X'20000000'
7526   01 01C9C   FFFFFFF6 A   DW60     DATA    -10                 DW
7527   01 01C9D   36C00460              DW,12   MEMORY
7528   01 01C9E   B73001C2              K       11,7,3,FXPSSW
7529   01 01C9F   F7300084              K       15,7,3,FPSRET+1
7530   01 01CA0   30000000 A            DATA    X'30000000'
7531   01 01CA1   30000000 A            DATA    X'30000000'
7532   01 01CA2   A0000000 A            DATA    X'A0000000'
7533   01 01CA3   A0000000 A            DATA    X'A0000000'
7534   01 01CA4   00000001 A            DATA    X'00000001'
7535   01 01CA5   00000001 A            DATA    X'00000001'
7536                                    PAGE
7537   01 01CA6   FFFFFFF6 A   DW61     DATA    -10                 DW
7538   01 01CA7   36C00460              DW,12   MEMORY
7539   01 01CA8   F73001C2              K       15,7,3,FXPSSW
7540   01 01CA9   97300166              K       9,7,3,L8C+2
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7541   01 01CAA   28CE58DF A            DATA    X'28CE58DF'
7542   01 01CAB   006C9928 A            DATA    X'006C9928'
7543   01 01CAC   8ACE9F8D A            DATA    X'8ACE9F8D'
7544   01 01CAD   8ACE9F8D A            DATA    X'8ACE9F8D'
7545   01 01CAE   5A3E6E7F A            DATA    X'5A3E6E7F'
7546   01 01CAF   A6DCA0A3 A            DATA    X'A6DCA0A3'
7547   01 01CB0   FFFFFFF6 A   DW62     DATA    -10                 DW
7548   01 01CB1   36C00460              DW,12   MEMORY
7549   01 01CB2   F73001C2              K       15,7,3,FXPSSW
7550   01 01CB3   97300166              K       9,7,3,L8C+2
7551   01 01CB4   28E45817 A            DATA    X'28E45817'
7552   01 01CB5   4F57573B A            DATA    X'4F57573B'
7553   01 01CB6   A13BF37D A            DATA    X'A13BF37D'
7554   01 01CB7   A13BF37D A            DATA    X'A13BF37D'
7555   01 01CB8   A09CD39F A            DATA    X'A09CD39F'
7556   01 01CB9   9188D334 A            DATA    X'9188D334'
7557   01 01CBA   FFFFFFF6 A   DW63     DATA    -10                 DW
7558   01 01CBB   36C00460              DW,12   MEMORY
7559   01 01CBC   F73001C2              K       15,7,3,FXPSSW
7560   01 01CBD   A7300166              K       10,7,3,L8C+2
7561   01 01CBE   FE8C26AE A            DATA    X'FE8C26AE'
7562   01 01CBF   F86A5FFC A            DATA    X'F86A5FFC'
7563   01 01CC0   F673159D A            DATA    X'F673159D'
7564   01 01CC1   F67B159D A            DATA    X'F67B159D'
7565   01 01CC2   F4A017D3 A            DATA    X'F4A017D3'
7566   01 01CC3   27102303 A            DATA    X'27102303'
7567                                    PAGE
7568   01 01CC4   FFFFFFF6 A   DW64     DATA    -10                 DW
7569   01 01CC5   36C00460              DW,12   MEMORY
7570   01 01CC6   F73001C2              K       15,7,3,FXPSSW
7571   01 01CC7   97300166              K       9,7,3,L8C+2
7572   01 01CC8   E6E82A3D A            DATA    X'E6E82A3D'
7573   01 01CC9   C0DD5EE4 A            DATA    X'C0DD5EE4'
7574   01 01CCA   78F74B3B A            DATA    X'78F74B3B'
7575   01 01CCB   78F74B3B A            DATA    X'78F74B3B'
7576   01 01CCC   2C6071B5 A            DATA    X'2C6071B5'
7577   01 01CCD   CAE54163 A            DATA    X'CAE54163'
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7578  01 01CCE  FFFFFFF6 A  DW65  DATA   -10                DW
7579  01 01CCF  36C00460          DW,12  MEMORY
7580  01 01CD0  F73001C2          K      15,7,3,FXPOSW
7581  01 01CD1  A7300166          K      10,7,3,LOC+2
7582  01 01CD2  F7F9354E A        DATA   X'F7F9354E'
7583  01 01CD3  F2D2BD30 A        DATA   X'F2D2BD30'
7584  01 01CD4  E6F22A4F A        DATA   X'E6F22A4F'
7585  01 01CD5  E6F22A4F A        DATA   X'E6F22A4F'
7586  01 01CD6  47E95A3F A        DATA   X'47E95A3F'
7587  01 01CD7  52037141 A        DATA   X'52037141'
7588  01 01CD8  FFFFFFF6 A  DW66  DATA   -10                DW
7589  01 01CD9  36C00460          DW,12  MEMORY
7590  01 01CDA  F73001C2          K      15,7,3,FXPOSW
7591  01 01CDB  97300166          K      9,7,3,LOC+2
7592  01 01CDC  F29405E9 A        DATA   X'F29405E9'
7593  01 01CDD  EDA31894 A        DATA   X'EDA31894'
7594  01 01CDE  690B7C52 A        DATA   X'690B7C52'
7595  01 01CDF  690B7C52 A        DATA   X'690B7C52'
7596  01 01CE0  AE588190 A        DATA   X'AE588190'
7597  01 01CE1  DF4A56CE A        DATA   X'DF4A56CE'
7598                              PAGE
7599  01 01CE2  FFFFFFF6 A  DW67  DATA   -10                DW
7600  01 01CE3  36C00460          DW,12  MEMORY
7601  01 01CE4  F73001C2          K      15,7,3,FXPOSW
7602  01 01CE5  A7300166          K      10,7,3,LOC+2
7603  01 01CE6  2D3297C8 A        DATA   X'2D3297C8'
7604  01 01CE7  1F22516F A        DATA   X'1F22516F'
7605  01 01CE8  77532167 A        DATA   X'77532167'
7606  01 01CE9  77532167 A        DATA   X'77532167'
7607  01 01CEA  C237DAC1 A        DATA   X'C237DAC1'
7608  01 01CEB  60F79EDE A        DATA   X'60F79EDE'
7609  01 01CEC  FFFFFFF6 A  DW68  DATA   -10                DW
7610  01 01CED  36C00460          DW,12  MEMORY
7611  01 01CEE  F73001C2          K      15,7,3,FXPOSW
7612  01 01CEF  A7300166          K      10,7,3,LOC+2
7613  01 01CF0  FAC41382 A        DATA   X'FAC41382'
7614  01 01CF1  EAC346BA A        DATA   X'EAC346BA'
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7615  01 01CF2  E0FC7F1C A        DATA   X'E0FC7F1C'
7616  01 01CF3  E0FC7F1C A        DATA   X'E0FC7F1C'
7617  01 01CF4  446E28CA A        DATA   X'446E28CA'
7618  01 01CF5  2834485C A        DATA   X'2834485C'
7619  01 01CF6  FFFFFFF6 A  DW69  DATA   -10                DW
7620  01 01CF7  36C00460          DW,12  MEMORY
7621  01 01CF8  F73001C2          K      15,7,3,FXPOSW
7622  01 01CF9  A7300166          K      10,7,3,LOC+2
7623  01 01CFA  253F7EA9 A        DATA   X'253F7EA9'
7624  01 01CFB  57824166 A        DATA   X'57824166'
7625  01 01CFC  6785C610 A        DATA   X'6785C610'
7626  01 01CFD  6785C610 A        DATA   X'6785C610'
7627  01 01CFE  3D7182C6 A        DATA   X'3D7182C6'
7628  01 01CFF  58F198D6 A        DATA   X'58F198D6'
7629                              PAGE
7630  01 01D00  FFFFFFF6 A  DW70  DATA   -10                DW
7631  01 01D01  36C00460          DW,12  MEMORY
7632  01 01D02  F73001C2          K      15,7,3,FXPOSW
7633  01 01D03  A7300166          K      10,7,3,LOC+2
7634  01 01D04  1353DF7D A        DATA   X'1353DF7D'
7635  01 01D05  19C47069 A        DATA   X'19C47069'
7636  01 01D06  67B980C1 A        DATA   X'67B980C1'
7637  01 01D07  67B980C1 A        DATA   X'67B980C1'
7638  01 01D08  9BAE1B05 A        DATA   X'9BAE1B05'
7639  01 01D09  2FC7759C A        DATA   X'2FC7759C'
7640  01 01D0A  FFFFFFF6 A  DW71  DATA   -10                DW8
7641  01 01D0B  36D00460          DW,13  MEMORY
7642  01 01D0C  F73001C2          K      15,7,3,FXPOSW
7643  01 01D0D  A7300166          K      10,7,3,LOC+2
7644  01 01D0E  FFFFFFFF A        DATA   X'FFFFFFFF'
7645  01 01D0F  FFFFFFFF A        DATA   -1
7646  01 01D10  26106573 A        DATA   X'26106573'
7647  01 01D11  26106573 A        DATA   X'26106573'
7648  01 01D12  59D73C28 A        DATA   X'59D73C28'
7649  01 01D13  00000002 A        DATA   X'00000002'
7650  01 01D14  FFFFFFF6 A  DW72  DATA   -10                DW
7651  01 01D15  36D00460          DW,13  MEMORY
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7652  01 01D16  F73001C2          K       15,7,3,FXP0SW
7653  01 01D17  A7300166          K       10,7,3,L0C+2
7654  01 01D18  00000000 A        DATA    X'00000000'
7655  01 01D19  00000000 A        DATA    X'00000000'
7656  01 01D1A  F1A3C842 A        DATA    X'F1A3C842'
7657  01 01D1B  F1A3C842 A        DATA    X'F1A3C842'
7658  01 01D1C  CD2A3C71 A        DATA    X'CD2A3C71'
7659  01 01D1D  00000003 A        DATA    X'00000003'
7660                              PAGE
7661  01 01D1E  FFFFFFF6 A  DW73  DATA    -10                 DW
7662  01 01D1F  36D00460          DW,13   MEMORY
7663  01 01D20  F73001C2          K       15,7,3,FXP0SW
7664  01 01D21  A7300166          K       10,7,3,L0C+2
7665  01 01D22  FFFFFFFF A        DATA    X'FFFFFFFF'
7666  01 01D23  FFFFFFFF A        DATA    X'FFFFFFFF'
7667  01 01D24  00000002 A        DATA    X'00000002'
7668  01 01D25  00000002 A        DATA    X'00000002'
7669  01 01D26  7FFFFFFF A        DATA    X'7FFFFFFF'
7670  01 01D27  3FFFFFFF A        DATA    X'3FFFFFFF'
7671  01 01D28  FFFFFFF6 A  DW74  DATA    -10                 DW
7672  01 01D29  36D00460          DW,13   MEMORY
7673  01 01D2A  F73001C2          K       15,7,3,FXP0SW
7674  01 01D2B  87300166          K       8,7,3,L0C+2
7675  01 01D2C  00000000 A        DATA    X'00000000'
7676  01 01D2D  00000000 A        DATA    X'00000000'
7677  01 01D2E  42486CEA A        DATA    X'42486CEA'
7678  01 01D2F  42486CEA A        DATA    X'42486CEA'
7679  01 01D30  FC7CF1CC A        DATA    X'FC7CF1CC'
7680  01 01D31  00000000 A        DATA    X'00000000'
7681  01 01D32  FFFFFFF6 A  DW75  DATA    -10                 DW
7682  01 01D33  36D00460          DW,13   MEMORY
7683  01 01D34  F73001C2          K       15,7,3,FXP0SW
7684  01 01D35  A7300166          K       10,7,3,L0C+2
7685  01 01D36  FFFFFFFF A        DATA    X'FFFFFFFF'
7686  01 01D37  FFFFFFFF A        DATA    X'FFFFFFFF'
7687  01 01D38  2C76B150 A        DATA    X'2C76B150'
7688  01 01D39  2C76B150 A        DATA    X'2C76B150'
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7689  01 01D3A  475E3AF9 A        DATA    X'475E3AF9'
7690  01 01D3B  00000001 A        DATA    X'00000001'
7691                              PAGE
7692  01 01D3C  FFFFFFF6 A  DW76  DATA    -10                 DW
7693  01 01D3D  36D00460          DW,13   MEMORY
7694  01 01D3E  F73001C2          K       15,7,3,FXP0SW
7695  01 01D3F  97300166          K       9,7,3,L0C+2
7696  01 01D40  00000000 A        DATA    X'00000000'
7697  01 01D41  00000000 A        DATA    X'00000000'
7698  01 01D42  00004444 A        DATA    X'00004444'
7699  01 01D43  00004444 A        DATA    X'00004444'
7700  01 01D44  D1F375DB A        DATA    X'D1F375DB'
7701  01 01D45  FFFF5351 A        DATA    X'FFFF5351'
7702  01 01D46  FFFFFFF6 A  DW77  DATA    -10                 DW
7703  01 01D47  36D00460          DW,13   MEMORY
7704  01 01D48  F73001C2          K       15,7,3,FXP0SW
7705  01 01D49  A7300166          K       10,7,3,L0C+2
7706  01 01D4A  FFFFFFFF A        DATA    X'FFFFFFFF'
7707  01 01D4B  FFFFFFFF A        DATA    X'FFFFFFFF'
7708  01 01D4C  7FFFFFFF A        DATA    X'7FFFFFFF'
7709  01 01D4D  7FFFFFFF A        DATA    X'7FFFFFFF'
7710  01 01D4E  7FFFFFFF A        DATA    X'7FFFFFFF'
7711  01 01D4F  00000001 A        DATA    X'00000001'
7712  01 01D50  FFFFFFF6 A  DW78  DATA    -10                 DW
7713  01 01D51  36D00460          DW,13   MEMORY
7714  01 01D52  F73001C2          K       15,7,3,FXP0SW
7715  01 01D53  97300166          K       9,7,3,L0C+2
7716  01 01D54  00000000 A        DATA    X'00000000'
7717  01 01D55  00000000 A        DATA    X'00000000'
7718  01 01D56  00000004 A        DATA    X'00000004'
7719  01 01D57  00000004 A        DATA    X'00000004'
7720  01 01D58  FFFFFFE1 A        DATA    X'FFFFFFE1'
7721  01 01D59  FFFFFFF9 A        DATA    X'FFFFFFF9'
7722                              PAGE
7723  01 01D5A  FFFFFFF6 A  DW79  DATA    -10                 DW
7724  01 01D5B  36D00460          DW,13   MEMORY
7725  01 01D5C  F73001C2          K       15,7,3,FXP0SW
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7726  01 01D5D  87300166          K       8,7,3,L8C+2
7727  01 01D5E  FFFFFFFF A       DATA    X'FFFFFFFF'
7728  01 01D5F  FFFFFFFF A       DATA    X'FFFFFFFF'
7729  01 01D60  55555555 A       DATA    X'55555555'
7730  01 01D61  55555555 A       DATA    X'55555555'
7731  01 01D62  0D0396FC A       DATA    X'0D0396FC'
7732  01 01D63  00000000 A       DATA    X'00000000'
7733  01 01D64  FFFFFFF6 A  DW80  DATA    -10                 DW
7734  01 01D65  36D00460          DW,13   MEMORY
7735  01 01D66  F73001C2          K       15,7,3,FXP8SW
7736  01 01D67  A7300166          K       10,7,3,L8C+2
7737  01 01D68  00000000 A       DATA    X'00000000'
7738  01 01D69  00000000 A       DATA    X'00000000'
7739  01 01D6A  FFFFFFFA A       DATA    X'FFFFFFFA'
7740  01 01D6B  FFFFFFFA A       DATA    X'FFFFFFFA'
7741  01 01D6C  80000001 A       DATA    X'80000001'
7742  01 01D6D  15555555 A       DATA    X'15555555'
7743                             PAGE
7744  01 01D6E  FFFFFFF6 A  DH01  DATA    -10                 DH
7745  01 01D6F  56C00460          DH,12   MEMORY
7746  01 01D70  F73001C2          K       15,7,3,FXP8SW
7747  01 01D71  A7300166          K       10,7,3,L8C+2
7748  01 01D72  3FFFFFFF A       DATA    X'3FFFFFFF'
7749  01 01D73  3FFFFFFF A       DATA    X'3FFFFFFF'
7750  01 01D74  00010000 A       DATA    X'00010000'
7751  01 01D75  00010000 A       DATA    X'00010000'
7752  01 01D76  00000000 A       DATA    X'00000000'
7753  01 01D77  00000000 A       DATA    X'00000000'
7754  01 01D78  FFFFFFF6 A  DH02  DATA    -10                 DH
7755  01 01D79  56C00460          DH,12   MEMORY
7756  01 01D7A  F73001C2          K       15,7,3,FXP8SW
7757  01 01D7B  A7300166          K       10,7,3,L8C+2
7758  01 01D7C  C0000000 A       DATA    X'C0000000'
7759  01 01D7D  20000000 A       DATA    X'20000000'
7760  01 01D7E  FFFE0000 A       DATA    X'FFFE0000'
7761  01 01D7F  FFFE0000 A       DATA    X'FFFE0000'
7762  01 01D80  00000000 A       DATA    X'00000000'
```



```
7763  01 01D81  00000000 A       DATA    X'00000000'
7764  01 01D82  FFFFFFF6 A  DH03  DATA    -10                 DH  X
7765  01 01D83  56CE0460          DH,12   MEMORY,7
7766  01 01D84  F73001C2          K       15,7,3,FXP8SW
7767  01 01D85  97300166          K       9,7,3,L8C+2
7768  01 01D86  AAAAAAAA A       DATA    X'AAAAAAAA'
7769  01 01D87  AAAAAAAA A       DATA    X'AAAAAAAA'
7770  01 01D88  00000001 A       DATA    X'00000001'
7771  01 01D89  00000001 A       DATA    X'00000001'
7772  01 01D8A  00000000 A       DATA    X'00000000'
7773  01 01D8B  00000000 A       DATA    X'00000000'
7774                             PAGE
7775  01 01D8C  FFFFFFF6 A  DH04  DATA    -10                 DH  X
7776  01 01D8D  56CE0460          DH,12   MEMORY,7
7777  01 01D8E  F73001C2          K       15,7,3,FXP8SW
7778  01 01D8F  97300166          K       9,7,3,L8C+2
7779  01 01D90  25555555 A       DATA    X'25555555'
7780  01 01D91  ED555556 A       DATA    X'ED555556'
7781  01 01D92  0000FFFE A       DATA    X'0000FFFE'
7782  01 01D93  0000FFFE A       DATA    X'0000FFFE'
7783  01 01D94  00000000 A       DATA    X'00000000'
7784  01 01D95  00000000 A       DATA    X'00000000'
7785  01 01D96  FFFFFFF6 A  DH05  DATA    -10                 DH8
7786  01 01D97  56D00460          DH,13   MEMORY
7787  01 01D98  F73001C2          K       15,7,3,FXP8SW
7788  01 01D99  A7300166          K       10,7,3,L8C+2
7789  01 01D9A  00000000 A       DATA    X'00000000'
7790  01 01D9B  00000000 A       DATA    X'00000000'
7791  01 01D9C  40000000 A       DATA    X'40000000'
7792  01 01D9D  40000000 A       DATA    X'40000000'
7793  01 01D9E  3FFFFFFF A       DATA    X'3FFFFFFF'
7794  01 01D9F  0000FFFF A       DATA    X'0000FFFF'
7795  01 01DA0  FFFFFFF6 A  DH06  DATA    -10                 DH
7796  01 01DA1  56D00460          DH,13   MEMORY
7797  01 01DA2  F73001C2          K       15,7,3,FXP8SW
7798  01 01DA3  A7300166          K       10,7,3,L8C+2
7799  01 01DA4  00000000 A       DATA    X'00000000'
```

```
7800   01 01DA5    00000000 A          DATA     X'00000000'
7801   01 01DA6    87770000 A          DATA     X'87770000'
7802   01 01DA7    87770000 A          DATA     X'87770000'
7803   01 01DA8    C0000000 A          DATA     X'C0000000'
7804   01 01DA9    0000E1ED A          DATA     X'0000E1ED'
7805                                   PAGE
7806   01 01DAA    FFFFFFF6 A  DH07     DATA     -10                DH  X
7807   01 01DAB    56DE0460            DH,13    MEMORY,7
7808   01 01DAC    F73001C2            K        15,7,3,FXP8SW
7809   01 01DAD    97300166            K        9,7,3,L8C+2
7810   01 01DAE    00000000 A          DATA     X'00000000'
7811   01 01DAF    00000000 A          DATA     X'00000000'
7812   01 01DB0    00004000 A          DATA     X'00004000'
7813   01 01DB1    00004000 A          DATA     X'00004000'
7814   01 01DB2    AAAAAAAA A          DATA     X'AAAAAAAA'
7815   01 01DB3    FFFEAAAB A          DATA     X'FFFEAAAB'
7816   01 01DB4    FFFFFFF6 A  DH08     DATA     -10                DH *X
7817   01 01DB5    D6D20454            DH,13    *IA,1
7818   01 01DB6    F73001C2            K        15,7,3,FXP8SW
7819   01 01DB7    97300166            K        9,7,3,L8C+2
7820   01 01DB8    00000001 A          DATA     1
7821   01 01DB9    00000001 A          DATA     1
7822   01 01DBA    00008777 A          DATA     X'00008777'
7823   01 01DBB    00008777 A          DATA     X'00008777'
7824   01 01DBC    25555555 A          DATA     X'25555555'
7825   01 01DBD    FFFF7C3E A          DATA     X'FFFF7C3E'
7826   01 01DBE    00000000 A          DATA     0
7827         01 0028C                 END      SETRPLY
```

SECTION V
CONCORDANCE LISTING

ABSVAL	63/DO	63/DO	93/SET	93/SET	94/DO	94/DO	95/ORG
	3560/DATA	3560/DATA					
AD01	4351-DATA						
AD02	4363-DATA						
AD03	4376-DATA						
AD04	4389-DATA						
AD05	4402-DATA						
AD06	4411-DATA						
AF	51/GEN	57/GEN	57/GEN	63/DO	77/GEN	77/GEN	86/GEN
	93/SET	93/SET	93/SET	94/DO	94/DO	94/DO	
AFA	77/GEN	86/GEN					
AH01	4303-DATA						
AH02	4311-DATA						
AH03	4319-DATA						
AH04	4327-DATA						
AI	70/OPEN						
AI	70/OPEN	80-CNAME					
AIO	916/EXU	917/EXU	918/EXU	921/DATA	922-AIO		
AI01	4334-DATA						
AI02	4340-DATA						

AI03	4346-DATA	
ANDF	739/STW	761-AND
ANDM	741/STW	750-AND
AND01	1732-DATA	
AND02	1736-DATA	
AND03	1744-DATA	
AND04	1753-DATA	
AND05	1761-DATA	
AND06	1769-DATA	
ANFR0	726/LW	986-AND
ANFR2	732/LW	987-AND
ANLZ01	3552-DATA	
ANLZ02	3563-DATA	
ANLZ03	3571-DATA	
ANLZ04	3579-DATA	
ANLZ05	3588-DATA	
ANLZ06	3597-DATA	
ANLZ07	3605-DATA	

```
ANLZ08
        414/STW         415/STW         417/STW         962/STW         963/STW         965/STW        3616-DATA
ANLZ09
        964/LW         3626-DATA
ANLZ10
       3636-DATA
ANLZ11
       3647-DATA
ANLZ12
       3663-DATA
ANLZ13
       3678-DATA
ANLZ14
       3694-DATA
ANLZ15
       3710-DATA
ANLZ16
       3725-DATA
ANLZ17
       3742-DATA
ANLZ18
       3757-DATA
ANLZ19
       3773-DATA
ANLZ20
       3788-DATA
ANLZ21
       3804-DATA
ANLZ22
       3819-DATA
ANLZ23
       3834-DATA
ANLZ24
       3845-DATA
ANMK
        733/LW          988-AND
AUTO
```



```
        410-LW          855/BCR         860/B
AWM01
       4420-DATA
AWM02
       4428-DATA
AWM03
       4436-DATA
AWM04
       4446-DATA
AW01
       1967-DATA
AW02
       1971-DATA
AW03
       1979-DATA
AW04
       1990-DATA
AW05
       2004-DATA
AW06
       2023-DATA
AW07
       2031-DATA
AW08
       2040-DATA
AW09
       2048-DATA
AW10
       2056-DATA
AW11
       2064-DATA
AW12
       2073-DATA
AW13
       2081-DATA
AW14
       2089-DATA
```

```
AW15
        2097-DATA
AW16
        2106-DATA
AW17
        2114-DATA
AW18
        2122-DATA
AW19
        2130-DATA
AW20
        2139-DATA
AW21
        2147-DATA
AW22
        2155-DATA
AW23
        2163-DATA
AW24
        2172-DATA
AW25
        2180-DATA
AW26
        2193-DATA
AW27
        2203-DATA
AW28
        2212-DATA
AW29
        2224-DATA
AW30
        2234-DATA
AW31
        2243-DATA
AW32
        2252-DATA
AW33
```



```
        2263-DATA
AW34
        2273-DATA
AW35
        2283-DATA
AW36
        2291-DATA
AW37
        2301-DATA
AW38
        2311-DATA
AW39
        2320-DATA
AW40
        2331-DATA
AW41
        2339-DATA
AW42
        2347-DATA
AW43
        2357-DATA
AW44
        2368-DATA
AW45
        2377-DATA
AW46
        2383-DATA
AW47
        2389-DATA
BA
          57/GEN          936/GEN          945/GEN          949/GEN         1154/GEN         2913/DATA        2914/DATA
        3576/DATA
BAL01
         957/LW          2472-DATA
BAL02
        2478-DATA
BAL03
```

```
        2488-DATA
BAL04
        2496-DATA
BAL05
         418/STW        959/STW       2506-DATA
BCR01
        1898-DATA
BCR02
        1907-DATA
BCR03
        1914-DATA
BCR04
        1920-DATA
BCR05
        1925-DATA
BCR06
        1930-DATA
BCS01
        1937-DATA
BCS02
        1943-DATA
BCS03
        1948-DATA
BDR01
        2458-DATA
BDR02
        2465-DATA
BEND
         416/LW         978-B
BIND
          91-CNAME
BIR01
        2441-DATA
BIR02
        2450-DATA
BIT
         748/LW         753/LW        1010/LW       1058-DATA
```



```
BITS
         746-STW        756/BIR
BLANK
        1199-DATA
BRANCH
          200-XPSD       637/EBR       1248/EQU      1294/EXU      1309/DATA     1310/DATA     1317/PZE
         1318/PZE       1915/BCR      1921/BCR      1926/BCR      1931/BCR      1938/BCS      1944/BCS
         2451/BIR       2459/BDR      2461/K        2466/BDR      2473/BAL      2475/K        2499/K
         2500/DATA      2680/LD       2683/DATA     2696/DATA     2904/LCF      2913/DATA     2914/DATA
         2915/DATA      2916/DATA     3201/LCH      3204/DATA     3699/DATA     3700/MW       3701/MW
         3730/DATA      3731/BAL      3732/BAL      3747/DATA     3748/BIR      3749/BIR      3762/DATA
         3763/BIR       3764/BIR      3824/DATA     3825/LM       3826/LM
BUMP
         752/LPSD      1230-PZE
BUMPER
         755-BIR       1230/PZE
BUSY
         834-SIO        836/BCR       841/BEZ
BYTE
         589/LW         760/LW        869/LW        870/FAS       1011/LW       1095-DATA     1245/EQU
BYTES
         739-STW        765/BIR
C
         441/LW         450/LW       1249-EQU
CAL01
        5615-DATA
CAL02
        5619-DATA
CAL03
        5623-DATA
CAL04
        5627-DATA
CAL05
        5633-DATA
CAL06
        5641-DATA
CAL07
```

```
        5646-DATA
CAL1    201/XPSD        288-PZE         646/STW         992/PZE         1004/XPSD
CAL1AD  645/EOR         992-PZE
CAL1TR  201-XPSD        644/STW
CAL1XD  643/EOR         1004-XPSD
CAL2    202/XPSD        311-PZE         653/STW         993/PZE         1005/XPSD
CAL2AD  652/EOR         993-PZE
CAL2TR  202-XPSD        651/STW
CAL2XD  650/EOR         1005-XPSD
CAL3    203/XPSD        334-PZE         660/STW         994/PZE         1006/XPSD
CAL3AD  659/EOR         994-PZE
CAL3TR  203-XPSD        658/STW
CAL3XD  657/EOR         1006-XPSD
CAL4    204/XPSD        357-PZE         667/STW         995/PZE         1007/XPSD
CAL4AD  666/EOR         995-PZE
CAL4TR  204-XPSD        665/STW
CAL4XD  664/EOR         1007-XPSD
CB01
        3917-DATA
CB02
        3925-DATA
```



```
CB03
        3933-DATA
CB04
        3941-DATA
CB05
        3950-DATA
CB06
        3958-DATA
CB07
        3966-DATA
CB08
        3974-DATA
CD01
        3998-DATA
CD02
        4010-DATA
CD03
        4023-DATA
CD04
        4035-DATA
CEE
         568/EOR        1028-DATA
CF
           77/GEN          86/GEN
CH01
        3890-DATA
CH02
        3899-DATA
CH03
        3908-DATA
CI
          70/OPEN
CI
          70/OPEN        81-CNAME
CI01
        3984-DATA
CI02
```

```
        3991-DATA
CLEAR
        436-STW         439/BIR         2575/DATA       2576/DATA       2577/DATA       2578/DATA       2922/LCF
        2925/DATA       2926/DATA
CLM01
        4136-DATA
CLM02
        4150-DATA
CLR01
        4083-DATA
CLR02
        4094-DATA
CLR03
        4101-DATA
CLR04
        4113-DATA
CLR05
        4124-DATA
CNT1CP
        207/MTW         1236-PZE
CNT2CP
        208/MTW         1237-PZE
CNT3CP
        209/MTW         1238-PZE
CNT3Z
        1255-EQU
CNT4CP
        210/MTW         1239-PZE
CNT4Z
        1256-EQU
COMP
        936/GEN         938-TEXTC
COMPAT
        970/BNE         980-BR
COND
        466/AND         471/AND         1023-DATA
COUNT
```



```
        722/STW         774/LW          1240-PZE
CPINT
        385/LW          395/LW          403/STW         420/STW         497/LW          900/STW         1047-DATA
        1266/LW         1280/STW
CPINTM
        405/STW         859/STW         895/LW          1048-DATA       1282/STW
CS01
        4049-DATA
CS02
        4060-DATA
CS03
        4071-DATA
CW01
        3864-DATA
CW02
        3875-DATA
CW03
        3884-DATA
CYCLE
        427-LW          596/BCS         886/BE          892/BNE         894/BNE         896/BEZ         901/B
        919/B           921/DATA        966/B           972/BNE         975/B           1232/PZE        2563/DATA
        2564/DATA       2565/DATA       2566/DATA       3560/DATA
C1RET
        292-XPSD        1326/PZE        1327/PZE        5618/K
C2RET
        315-XPSD        5622/K
C3RET
        338-XPSD        5626/K
C4RET
        361-XPSD        5630/K          5636/K          5644/K          5649/K
DA
        51/GEN          999/PZE         3584/DATA       3610/GEN
DF
        198/XPSD        272-PZE         276/LCF         996/PZE
DFAD
        996-PZE
DFRET
```

```
        277-XPSD
   DFTR
        198-XPSD
   DH01
        7744-DATA
   DH02
        7754-DATA
   DH03
        7764-DATA
   DH04
        7775-DATA
   DH05
        7785-DATA
   DH06
        7795-DATA
   DH07
        7806-DATA
   DH08
        7816-DATA
   DONE
        445/B           865-CI
   DONEMSG
        835/BCR         843-TIB         845/BCR         850/BEZ
   DW01
        6917-DATA
   DW02
        6927-DATA
   DW03
        6937-DATA
   DW04
        6948-DATA
   DW05
        6958-DATA
   DW06
        6968-DATA
   DW07
        6979-DATA
```



```
   DW08
        6989-DATA
   DW09
        6999-DATA
   DW10
        7010-DATA
   DW11
        7020-DATA
   DW12
        7030-DATA
   DW13
        7041-DATA
   DW14
        7051-DATA
   DW15
        7061-DATA
   DW16
        7072-DATA
   DW17
        7082-DATA
   DW18
        7092-DATA
   DW19
        7103-DATA
   DW20
        7113-DATA
   DW21
        7123-DATA
   DW22
        7134-DATA
   DW23
        7144-DATA
   DW24
        7154-DATA
   DW25
        7165-DATA
   DW26
```

```
          7175-DATA
   DW27
          7185-DATA
   DW28
          7196-DATA
   DW29
          7206-DATA
   DW30
          7216-DATA
   DW31
          7227-DATA
   DW32
          7237-DATA
   DW33
          7247-DATA
   DW34
          7258-DATA
   DW35
          7268-DATA
   DW36
          7278-DATA
   DW37
          7289-DATA
   DW38
          7299-DATA
   DW39
          7309-DATA
   DW40
          7320-DATA
   DW41
          7330-DATA
   DW42
          7340-DATA
   DW43
          7351-DATA
   DW44
          7361-DATA
```



```
   DW45
          7371-DATA
   DW46
          7382-DATA
   DW47
          7392-DATA
   DW48
          7402-DATA
   DW49
          7413-DATA
   DW50
          7423-DATA
   DW51
          7433-DATA
   DW52
          7444-DATA
   DW53
          7454-DATA
   DW54
          7464-DATA
   DW55
          7475-DATA
   DW56
          7485-DATA
   DW57
          7495-DATA
   DW58
          7506-DATA
   DW59
          7516-DATA
   DW60
          7526-DATA
   DW61
          7537-DATA
   DW62
          7547-DATA
   DW63
```

7587-DATA
DW64
7568-DATA
DW65
7578-DATA
DW66
7588-DATA
DW67
7599-DATA
DW68
7609-DATA
DW69
7619-DATA
DW70
7630-DATA
DW71
7640-DATA
DW72
7650-DATA
DW73
7661-DATA
DW74
7671-DATA
DW75
7681-DATA
DW76
7692-DATA
DW77
7702-DATA
DW78
7712-DATA
DW79
7723-DATA
DW80
7733-DATA
EDIT
698/BCR 713-LW

END
591-WD 978/B 1018/PZE 3535/DATA 3559/DATA 3560/DATA 5811/B
ERR01
1781-DATA
ERR02
1789-DATA
ERR03
1798-DATA
ERR04
1806-DATA
ERREXIT
511/BNE 516/B 523-LW
ERRIND
585/LW 590/STW 599-DATA 694/STW
ERROR
540/XPSD 544/XPSD 548/XPSD 553/XPSD 557/XPSD 561/XPSD 565/XPSD
571/XPSD 575/XPSD 579/XPSD 583/XPSD 679-PZE 686/LPSD 710/LPSD
ERRORS
398/LW 432/STW 527/LW 592/LW 688/STW 1241-PZE 1269/LW
EVEN
729-LW
EXITIO
838/B 842/B 844/BCR 847/B 851-LPSD
EXU01
1287-DATA
EXU02
1293-DATA
EXU03
1297-DATA
EXU04
1305-DATA
EXU05
1311-DATA
EXU06
1320-DATA
EXU07
1330-DATA

```
   EXUOS
          1338-DATA
   F
            29-EQU        1720/K        1721/K        5642/CAL4     5647/CAL4     5717/K
   FAILL01
          5738-DATA
   FAILL02
          5747-DATA
   FAILL03
          5752-DATA
   FAILL04
          5757-DATA
   FAILL05
          5762-DATA
   FAILL06
          5768-DATA
   FAILL07
          5773-DATA
   FAILL08
          5778-DATA
   FAILL09
          5783-DATA
   FAILL10
          5788-DATA
   FAILL11
          5793-DATA
   FAILL12
          5799-DATA
   FAILL13
          5804-DATA
   FAPRIV01
          5714-DATA
   FAPRIV04
          5730-DATA
   FAPRIV03
          5724-DATA
   FAPRIV02
```



```
          5719-DATA
   FAPSD01
          1816-DATA
   FAPSD02
          1836-DATA
   FAPSD03
          1851-DATA
   FARWD
           672-RD         5661/DATA     5666/DATA     5672/DATA     5679/DATA     5686/DATA
   FARWD01
          5659-DATA
   FARWD02
          5664-DATA
   FARWD03
          5670-DATA
   FARWD04
          5677-DATA
   FARWD05
          5684-DATA
   FASTCHK
           510-CD         522/BDR
   FILL
            61-CNAME
   FILTER
           761/AND        986/AND       987/AND       1082-DATA
   FIRST
           425/STW        781/LW        799/STW       1031-DATA
   FLM
           945/GEN        947-TEXTC
   FLNIN
           864/DATA       873-LW
   FLOAT
           870-FAS        873/LW
   FLOATP
           941/P          945-GEN
   FLPF
           197/XPSD       264-PZE       268/LCF       633/STW       997/PZE
```

FLPFAD
632/EOR 997-PZE

FLPFSW
632-EOR 5327/K 5339/K 5352/K 5365/K 5377/K 5390/K
5402/K 5415/K 5427/K 5440/K 5452/K 5465/K 5477/K
5490/K 5503/K 5515/K 5528/K 5540/K 5553/K 5565/K
5578/K 5591/K 5603/K

FLPFTR
197-XPSD

FLPRINT
872/B 876-XPSD

FLTRAP
864-DATA 940/XPSD

FPFRET
269-XPSD

FPORET
261-XPSD 2342/K 2410/K 2996/K 3093/K 3153/K 3271/K
4189/K 4230/K 4330/K 4343/K 4366/K 4423/K 4463/K
4492/K 4517/K 6930/K 6940/K 6951/K 6961/K 7457/K
7478/K 7529/K

FRAME
738/LW 1015/LW 1016/LW 1069-DATA

FROM
448/STW 450-LW 455/STW 597/LW

FXPO
196/XPSD 256-PZE 260/LCF 625/STW 630/DATA 998/PZE

FXPOA
627/EOR 630-DATA

FXPOAD
624/EOR 998-PZE

FXPOPSDW
637-EOR 2349/K

FXPOSW
624-EOR 2006/K 2025/K 2033/K 2042/K 2050/K 2058/K
2066/K 2075/K 2083/K 2091/K 2099/K 2108/K 2116/K
2124/K 2132/K 2141/K 2149/K 2157/K 2165/K 2174/K
2182/K 2195/K 2205/K 2214/K 2226/K 2236/K 2245/K

2254/K 2265/K 2275/K 2285/K 2293/K 2303/K 2313/K
2322/K 2333/K 2341/K 2405/K 2409/K 2418/K 2433/K
2995/K 3092/K 3152/K 3270/K 4166/K 4188/K 4220/K
4229/K 4305/K 4313/K 4321/K 4329/K 4336/K 4342/K
4353/K 4365/K 4378/K 4391/K 4422/K 4430/K 4438/K
4454/K 4462/K 4491/K 4504/K 4516/K 4645/K 4651/K
4657/K 4663/K 4921/K 4952/K 4958/K 4971/K 4991/K
5022/K 5817/K 5827/K 5837/K 5848/K 5858/K 5868/K
5879/K 5889/K 5899/K 5910/K 5920/K 5930/K 5941/K
5951/K 5961/K 5972/K 5982/K 5992/K 6003/K 6013/K
6023/K 6034/K 6044/K 6054/K 6065/K 6075/K 6085/K
6096/K 6106/K 6116/K 6127/K 6137/K 6147/K 6158/K
6168/K 6178/K 6189/K 6199/K 6209/K 6220/K 6230/K
6240/K 6251/K 6261/K 6271/K 6282/K 6292/K 6302/K
6313/K 6323/K 6333/K 6344/K 6354/K 6364/K 6375/K
6385/K 6395/K 6406/K 6416/K 6426/K 6437/K 6447/K
6457/K 6468/K 6478/K 6488/K 6499/K 6509/K 6519/K
6530/K 6540/K 6550/K 6561/K 6571/K 6581/K 6592/K
6602/K 6612/K 6623/K 6633/K 6643/K 6654/K 6664/K
6674/K 6685/K 6695/K 6705/K 6716/K 6726/K 6736/K
6747/K 6757/K 6767/K 6778/K 6788/K 6798/K 6809/K
6819/K 6830/K 6840/K 6850/K 6861/K 6871/K 6881/K
6892/K 6902/K 6919/K 6929/K 6939/K 6950/K 6960/K
6970/K 6981/K 6991/K 7001/K 7012/K 7022/K 7032/K
7043/K 7053/K 7063/K 7074/K 7084/K 7094/K 7105/K
7115/K 7125/K 7136/K 7146/K 7156/K 7167/K 7177/K
7187/K 7198/K 7208/K 7218/K 7229/K 7239/K 7249/K
7260/K 7270/K 7280/K 7291/K 7301/K 7311/K 7322/K
7332/K 7342/K 7353/K 7363/K 7373/K 7384/K 7394/K
7404/K 7415/K 7425/K 7435/K 7446/K 7456/K 7466/K
7477/K 7487/K 7497/K 7508/K 7518/K 7528/K 7539/K
7549/K 7559/K 7570/K 7580/K 7590/K 7601/K 7611/K
7621/K 7632/K 7642/K 7652/K 7663/K 7673/K 7683/K
7694/K 7704/K 7714/K 7725/K 7735/K 7746/K 7756/K
7766/K 7777/K 7787/K 7797/K 7808/K 7818/K

FXPOTR
196-XPSD 628/STW 638/STW

```
        36-FORM
LAD01
        3040-DATA
LAD02
        3052-DATA
LAD03
        3065-DATA
LAD04
        3077-DATA
LAD05
        3090-DATA
LAD06
        3102-DATA
LAD07
        3115-DATA
LAH01
        3015-DATA
LAH02
        3023-DATA
LAH03
        3031-DATA
LAW01
        2968-DATA
LAW02
        2976-DATA
LAW03
        2984-DATA
LAW04
        2993-DATA
LAW05
        3005-DATA
LB01
        2584-DATA
LB02
        2592-DATA
LB03
        2600-DATA
```



```
LB04
        2608-DATA
LB05
        2617-DATA
LB06
        2625-DATA
LB07
        2635-DATA
LB08
        2641-DATA
LB09
        2650-DATA
LCD01
        3218-DATA
LCD02
        3230-DATA
LCD03
        3243-DATA
LCD04
        3256-DATA
LCD05
        3268-DATA
LCD06
        3280-DATA
LCF
          70/8PEN
LCF
          70/8PEN          73-CNAME
LCFI
          70/8PEN
LCFI
          70/8PEN          79-CNAME
LCFI01
        2935-DATA
LCFI02
        2939-DATA
LCFI03
```

```
          2943-DATA
   LCFI04
          2947-DATA
   LCFI05
          2951-DATA
   LCFI06
          2959-DATA
   LCFI07
          2963-DATA
   LCF01
          1345-DATA
   LCF02
          1349-DATA
   LCF03
          1353-DATA
   LCF04
          1357-DATA
   LCF05
          1361-DATA
   LCF06
          2903-DATA
   LCF07
          2909-DATA
   LCF08
          2921-DATA
   LCF09
          2929-DATA
   LCH01
          3176-DATA
   LCH02
          3184-DATA
   LCH03
          3192-DATA
   LCH04
          3200-DATA
   LCH05
          3209-DATA
```



```
   LCW01
          3128-DATA
   LCW02
          3136-DATA
   LCW03
          3144-DATA
   LCW04
          3150-DATA
   LCW05
          3159-DATA
   LCW06
          3167-DATA
   LDREG
           719/STW          720-LW          775/LW          777/BIR
   LD01
          2657-DATA
   LD02
          2667-DATA
   LD03
          2679-DATA
   LD04
          2692-DATA
   LD05
          2704-DATA
   LD06
          2717-DATA
   LD07
          2729-DATA
   LD08
          2742-DATA
   LD09
          2754-DATA
   LD10
          2767-DATA
   LD11
          2779-DATA
   LD12
```

LD13 2792-DATA
LD14 2804-DATA
LF 51-GEN 57-GEN 77-GEN 86-GEN
LH01 2513-DATA
LH02 2521-DATA
LH03 2529-DATA
LH04 2538-DATA
LH05 2544-DATA
LH06 2551-DATA
LH07 2559-DATA
LH08 2571-DATA
LI 70/OPEN
LI 70/OPEN 82-CNAME
LINE 423/STW 780/LW 798/STW 1037-DATA
LINKAD 463/AND 1022-DATA
LINOUT 785/BIR 793-LW
LIST 441/LW 450/LW 1017/LW 1286-RES
LI01 2823-DATA
LI02 2829-DATA

LI03 2835-DATA
LI04 2841-DATA
LI05 2847-DATA
LOAD 426/LW 1017-LW
LOADR 718/LW 1012-LW
LOC

460/STW	520-EXU	542/LW	990/PZE	991/PZE	1039/I	1228/PZE
1288/EXU	1290/K	1296/DATA	1300/K	1308/K	1314/K	1323/K
1348/K	1352/K	1356/K	1360/K	1364/K	1374/K	1381/K
1391/K	1405/K	1413/K	1421/K	1429/K	1438/K	1446/K
1454/K	1462/K	1471/K	1479/K	1487/K	1495/K	1504/K
1512/K	1520/K	1528/K	1537/K	1545/K	1553/K	1561/K
1570/K	1578/K	1586/K	1594/K	1603/K	1611/K	1619/K
1627/K	1634/K	1640/K	1646/K	1653/K	1667/K	1671/K
1679/K	1688/K	1696/K	1704/K	1713/K	1721/K	1735/K
1739/K	1747/K	1756/K	1764/K	1772/K	1784/K	1792/K
1801/K	1809/K	1819/K	1832/K	1839/K	1842/K	1843/K
1854/K	1857/K	1858/K	1870/K	1885/K	1917/K	1923/K
1928/K	1933/K	1940/K	1946/K	1970/K	1974/K	1982/K
1993/K	2007/K	2026/K	2034/K	2043/K	2051/K	2059/K
2067/K	2076/K	2084/K	2092/K	2100/K	2109/K	2117/K
2125/K	2133/K	2142/K	2150/K	2158/K	2166/K	2175/K
2183/K	2196/K	2206/K	2215/K	2227/K	2237/K	2246/K
2255/K	2266/K	2276/K	2286/K	2294/K	2304/K	2314/K
2323/K	2334/K	2350/K	2360/K	2371/K	2380/K	2386/K
2392/K	2398/K	2406/K	2419/K	2425/K	2434/K	2453/K
2468/K	2477/DATA	2487/DATA	2493/DATA	2501/DATA	2511/DATA	2516/K
2524/K	2532/K	2541/K	2547/K	2554/K	2562/K	2574/K
2587/K	2595/K	2603/K	2611/K	2620/K	2628/K	2638/K
2644/K	2653/K	2660/K	2670/K	2682/K	2695/K	2707/K
2720/K	2732/K	2745/K	2757/K	2770/K	2782/K	2795/K
2807/K	2814/K	2820/K	2826/K	2832/K	2838/K	2844/K

2857/K	2867/K	2877/K	2888/K	2899/K	2906/K	2912/K
2924/K	2932/K	2938/DATA	2942/K	2946/K	2950/K	2964/K
2966/K	2971/K	2979/K	2987/K	3008/K	3018/K	3026/K
3034/K	3043/K	3055/K	3068/K	3080/K	3105/K	3118/K
3131/K	3139/K	3147/K	3162/K	3170/K	3179/K	3187/K
3195/K	3203/K	3212/K	3221/K	3233/K	3246/K	3259/K
3283/K	3294/K	3302/K	3310/K	3318/K	3327/K	3335/K
3344/K	3352/K	3360/K	3366/K	3375/K	3384/K	3396/K
3409/K	3421/K	3434/K	3445/K	3456/K	3464/K	3472/K
3480/K	3489/K	3497/K	3505/K	3513/K	3524/K	3534/K
3544/K	3558/K	3566/K	3574/K	3582/K	3591/K	3600/K
3608/K	3619/K	3629/K	3639/K	3650/K	3666/K	3681/K
3697/K	3713/K	3728/K	3745/K	3760/K	3776/K	3791/K
3792/DATA	3807/K	3822/K	3837/K	3848/K	3867/K	3878/K
3887/K	3893/K	3902/K	3911/K	3920/K	3928/K	3936/K
3944/K	3953/K	3961/K	3969/K	3977/K	3987/K	3994/K
4001/K	4013/K	4026/K	4038/K	4052/K	4063/K	4074/K
4086/K	4097/K	4104/K	4116/K	4127/K	4139/K	4153/K
4167/K	4173/K	4179/K	4197/K	4206/K	4212/K	4221/K
4239/K	4248/K	4256/K	4264/K	4272/K	4281/K	4287/K
4293/K	4299/K	4306/K	4314/K	4322/K	4337/K	4354/K
4379/K	4392/K	4405/K	4414/K	4431/K	4439/K	4449/K
4455/K	4471/K	4480/K	4505/K	4532/K	4538/K	4544/K
4551/K	4557/K	4563/K	4570/K	4577/K	4584/K	4590/K
4595/DATA	4601/DATA	4605/DATA	4610/DATA	4615/DATA	4619/DATA	4624/DATA
4630/DATA	4634/DATA	4639/DATA	4646/K	4652/K	4658/K	4664/K
4670/K	4677/K	4684/K	4692/K	4698/K	4704/K	4710/K
4717/K	4725/K	4731/K	4737/K	4743/K	4750/K	4756/K
4762/K	4768/K	4774/K	4781/K	4787/K	4793/K	4799/K
4805/K	4812/K	4818/K	4825/K	4831/K	4837/K	4843/K
4849/K	4860/K	4870/K	4880/K	4891/K	4901/K	4911/K
4922/K	4928/DATA	4934/DATA	4940/DATA	4946/DATA	4953/K	4969/K
4965/DATA	4972/K	4982/DATA	4992/K	5003/DATA	5013/DATA	5023/K
5035/K	5041/K	5047/K	5054/K	5060/K	5066/K	5073/K
5079/K	5085/K	5092/K	5098/K	5104/K	5111/K	5117/K
5123/K	5129/DATA	5134/K	5144/K	5150/K	5155/K	5162/K
5167/K	5172/K	5178/K	5183/K	5188/K	5194/K	5199/K

5204/K	5210/K	5215/K	5221/K	5226/K	5234/K	5239/K
5244/K	5250/K	5255/K	5260/K	5266/K	5271/K	5276/K
5282/K	5287/K	5292/K	5298/K	5303/K	5308/K	5314/K
5321/K	5328/K	5340/K	5353/K	5366/K	5378/K	5391/K
5403/K	5416/K	5428/K	5441/K	5453/K	5466/K	5478/K
5491/K	5504/K	5516/K	5529/K	5541/K	5554/K	5566/K
5579/K	5592/K	5604/K	5662/DATA	5667/DATA	5673/DATA	5680/DATA
5686/DATA	5693/DATA	5699/K	5705/K	5722/K	5727/K	5818/K
5828/K	5838/K	5849/K	5859/K	5869/K	5880/K	5890/K
5900/K	5911/K	5921/K	5931/K	5942/K	5952/K	5962/K
5973/K	5983/K	5993/K	6004/K	6014/K	6024/K	6035/K
6045/K	6055/K	6066/K	6076/K	6086/K	6097/K	6107/K
6117/K	6128/K	6138/K	6148/K	6159/K	6169/K	6179/K
6190/K	6200/K	6210/K	6221/K	6231/K	6241/K	6252/K
6262/K	6272/K	6283/K	6293/K	6303/K	6314/K	6324/K
6334/K	6345/K	6355/K	6365/K	6376/K	6386/K	6396/K
6407/K	6417/K	6427/K	6438/K	6448/K	6458/K	6469/K
6479/K	6489/K	6500/K	6510/K	6520/K	6531/K	6541/K
6551/K	6562/K	6572/K	6582/K	6593/K	6603/K	6613/K
6624/K	6634/K	6644/K	6655/K	6665/K	6675/K	6686/K
6696/K	6706/K	6717/K	6727/K	6737/K	6748/K	6758/K
6768/K	6779/K	6789/K	6799/K	6810/K	6820/K	6831/K
6841/K	6851/K	6862/K	6872/K	6882/K	6893/K	6903/K
6920/K	6971/K	6982/K	6992/K	7002/K	7013/K	7023/K
7033/K	7044/K	7054/K	7064/K	7075/K	7085/K	7095/K
7106/K	7116/K	7126/K	7137/K	7147/K	7157/K	7168/K
7178/K	7188/K	7199/K	7209/K	7219/K	7230/K	7240/K
7250/K	7261/K	7271/K	7281/K	7292/K	7302/K	7312/K
7323/K	7333/K	7343/K	7354/K	7364/K	7374/K	7385/K
7395/K	7405/K	7416/K	7426/K	7436/K	7447/K	7467/K
7488/K	7498/K	7509/K	7519/K	7540/K	7550/K	7560/K
7571/K	7581/K	7591/K	7602/K	7612/K	7622/K	7633/K
7643/K	7653/K	7664/K	7674/K	7684/K	7695/K	7705/K
7715/K	7726/K	7736/K	7747/K	7757/K	7767/K	7778/K
7788/K	7798/K	7809/K	7819/K			

LOCADD

472/EOR 991-PZE

```
   LOCBAD
          507/LW          990-PZE
   LONGL
         1117/P          1132-J
   LPERR
          817/LW          1120-P
   LPFORMAT
          824/LW          1119-P
   LPGOTOP
          822/LW          1118-P
   LPMSG
          817-LW          826/B
   LPO
          783/BLZ         806-TDV         812/BNEZ
   LPREPORT
          820/LW          1121-P
   LPTOP
          815/BNEZ        824-LW
   LRP01
         1867-DATA
   LRP02
         1882-DATA
   LS01
         2854-DATA
   LS02
         2864-DATA
   LS03
         2874-DATA
   LS04
         2885-DATA
   LS05
         2896-DATA
   LWB
          746/STW         748-LW
   LWBIT
          742/LW          1010-LW
   LWBT
```



```
          747/STW         751/BCS         753-LW
   LWBY
          759/STW         760-LW
   LWBYTE
          758/EOR         1011-LW
   LWFRM
          725/LW          1015-LW
   LWFRM2
          731/LW          1016-LW
   LWIX
         2811-DATA
   LWIXIA
         2817-DATA
   LWN
          724/LW          1013-LW
   LWN2
          730/LW          1014-LW
   LW01
         1371-DATA
   LW02
         1378-DATA
   LW03
          413/LW          960/LW          1388-DATA
   LW04
         1402-DATA
   LW05
         1410-DATA
   LW06
         1418-DATA
   LW07
         1426-DATA
   LW08
         1435-DATA
   LW09
         1443-DATA
   LW10
         1451-DATA
```

```
LW11
        1459-DATA
LW12
        1468-DATA
LW13
        1476-DATA
LW14
        1484-DATA
LW15
        1492-DATA
LW16
        1501-DATA
LW17
        1509-DATA
LW18
        1517-DATA
LW19
        1525-DATA
LW20
        1534-DATA
LW21
        1542-DATA
LW22
        1550-DATA
LW23
        1558-DATA
LW24
        1567-DATA
LW25
        1575-DATA
LW26
        1583-DATA
LW27
        1591-DATA
LW28
        1600-DATA
LW29
```



```
        1608-DATA
LW30
        1616-DATA
LW31
        1624-DATA
LW32
        1631-DATA
LW33
        1637-DATA
LW34
        1643-DATA
LW35
        1650-DATA
MASK
         402/AND      626/EOR      750/AND      757/AND      899/LW       988/AND      1074-DATA
        1279/AND
MAXCNT
         891/CW      1053-DATA
MEMAD
         999-PZE
MEMID
         576/LW      1044-I
MEMORY
         503/STW      504/STW      513/CD       517/STD      577/LW       581/LW       989/PZE
         999/PZE     1044/I       1254-EQU     1298/EXU     1302/LW      1303/LW      1304/LW
        1306/EXU     1309/DATA    1310/DATA    1312/EXU*    1321/EXU*    1331/EXU     1342/K
        1343/K       1346/LCF     1350/LCF     1354/LCF     1358/LCF     1372/LW      1379/LW
        1403/LW      1411/LW      1419/LW      1427/LW      1436/LW      1444/LW      1452/LW
        1460/LW      1469/LW      1477/LW      1485/LW      1493/LW      1502/LW      1510/LW
        1518/LW      1526/LW      1535/LW      1543/LW      1551/LW      1559/LW      1568/LW
        1576/LW      1584/LW      1592/LW      1601/LW      1609/LW      1617/LW      1625/LW
        1632/LW      1638/LW      1644/LW      1651/LW      1665/BR      1669/BR      1677/BR
        1686/BR      1694/BR      1702/BR      1711/STW     1719/STW     1733/AND     1737/AND
        1745/AND     1754/AND     1762/AND     1782/EOR     1790/EOR     1799/EOR     1807/EOR
        1837/LPSD    1852/LPSD    1868/LRP     1899/BCR     1901/K       1949/BCS     1951/K
        1968/AW      1980/AW      1991/AW      2005/AW      2024/AW      2032/AW      2041/AW
        2049/AW      2057/AW      2065/AW      2074/AW      2082/AW      2090/AW      2098/AW
```

2107/AW 2115/AW 2123/AW 2131/AW 2140/AW 2148/AW 2156/AW
2164/AW 2173/AW 2181/AW 2194/AW 2204/AW 2213/AW 2225/AW
2235/AW 2244/AW 2253/AW 2264/AW 2284/AW 2292/AW 2302/AW
2312/AW 2321/AW 2332/AW 2340/AW 2348/AW 2358/AW 2369/AW
2378/AW 2384/AW 2390/AW 2396/SW 2408/SW 2423/SW 2432/SW
2442/BIR 2444/K 2479/BAL 2481/K 2491/DATA 2497/BAL* 2514/LH
2522/LH 2552/LH 2560/LH* 2563/DATA 2564/DATA 2572/LH* 2577/DATA
2578/DATA 2585/LB 2593/LB 2601/LB 2629/DATA 2630/DATA 2642/LB
2651/LB* 2654/DATA 2654/DATA 2658/LD 2683/DATA 2696/DATA 2705/LD
2718/LD 2743/LD 2805/LD* 2808/DATA 2808/DATA 2808/DATA 2815/DATA
2815/DATA 2848/LI* 2855/LS 2865/LS 2875/LS 2886/LS 2910/LCF*
2915/DATA 2916/DATA 2925/DATA 2926/DATA 2930/LCF 2960/LCFI* 2969/LAW
2977/LAW 2994/LAW* 3003/DATA 3004/DATA 3006/LAW 3016/LAH 3024/LAH
3041/LAD 3053/LAD 3069/DATA 3091/LAD 3103/LAD 3116/LAD 3129/LCW
3137/LCW 3154/DATA 3168/LCW 3177/LCH 3188/DATA 3204/DATA 3213/DATA
3219/LCD 3234/DATA 3257/LCD 3269/LCD 3292/STH 3300/STH 3316/STH
3325/STH 3333/STH 3342/STB 3350/STB 3364/STB 3382/STD 3394/STD
3419/STD 3432/STS 3454/STCF 3465/DATA 3466/DATA 3478/STCF 3487/XW
3495/XW 3498/DATA 3501/DATA 3503/XW 3522/INT 3532/INT 3535/DATA
3542/INT 3553/ANLZ 3567/DATA 3568/DATA 3576/DATA 3580/ANLZ 3584/DATA
3585/LAD 3586/LAD 3589/ANLZ 3598/ANLZ 3606/ANLZ 3617/ANLZ 3627/ANLZ
3637/ANLZ 3648/ANLZ 3664/ANLZ 3668/DATA 3669/EXU 3670/EXU 3679/ANLZ
3695/ANLZ 3711/ANLZ 3715/DATA 3716/XW 3717/XW 3726/ANLZ 3743/ANLZ
3758/ANLZ 3774/ANLZ 3789/ANLZ 3805/ANLZ 3820/ANLZ 3835/ANLZ 3846/ANLZ
3865/CW 3876/CW 3885/CW 3891/CH 3900/CH 3909/CH 3918/CB
3926/CB 3934/CB 3942/CB 3959/CB 3967/CB 3975/CB 3999/CD
4011/CD 4036/CD 4050/CS 4061/CS 4072/CS 4084/CLR 4095/CLR
4102/CLR 4114/CLR 4125/CLR 4137/CLM 4151/CLM 4177/MTW 4195/MTW
4210/MTH 4228/MTH 4237/MTH 4246/MTB 4254/MTB 4270/MTB 4304/AH
4312/AH 4352/AD 4364/AD 4390/AD 4403/AD 4412/AD 4421/AWM
4429/AWM 4450/DATA 4480/DATA 4453/SH 4461/SH 4478/SD 4503/SD
4515/SD 4629/S* 4682/S* 4715/S* 4868/S* 4980/S* 5011/S*
5021/S* 5142/SF* 5153/SF* 5319/SF* 5577/SF* 5602/SF* 5634/CAL4
5639/DATA 5640/DATA 5692/EBR 5720/EBR 5725/AWM 5731/DL 5769/CVS
5774/PACK 5779/DST 5784/TBS 5800/DSA 5816/MW 5826/MW 5836/MW
5847/MW 5857/MW 5867/MW 5878/MW 5888/MW 5898/MW 5909/MW
5919/MW 5929/MW 5940/MW 5950/MW 5960/MW 5971/MW 5981/MW

5991/MW 6002/MW 6012/MW 6022/MW 6033/MW 6043/MW 6053/MW
6064/MW 6074/MW 6084/MW 6095/MW 6105/MW 6115/MW 6126/MW
6136/MW 6146/MW 6157/MW 6167/MW 6177/MW 6188/MW 6198/MW
6208/MW 6219/MW 6229/MW 6239/MW 6250/MW 6260/MW 6270/MW
6281/MW 6291/MW 6301/MW 6312/MW 6322/MW 6332/MW 6343/MW
6353/MW 6363/MW 6374/MW 6384/MW 6394/MW 6405/MW 6415/MW
6425/MW 6436/MW 6446/MW 6456/MW 6467/MW 6477/MW 6487/MW
6498/MW 6508/MW 6518/MW 6529/MW 6539/MW 6549/MW 6560/MW
6570/MW 6580/MW 6591/MW 6601/MW 6611/MW 6632/MW 6642/MW
6653/MW 6663/MW 6673/MW 6684/MW 6694/MW 6704/MW 6715/MW
6725/MW 6735/MW 6746/MH 6756/MH 6766/MH 6777/MH 6787/MH
6797/MH 6808/MH 6918/DW 6928/DW 6938/DW 6949/DW 6959/DW
6969/DW 6980/DW 6990/DW 7000/DW 7011/DW 7021/DW 7031/DW
7042/DW 7052/DW 7062/DW 7073/DW 7083/DW 7093/DW 7104/DW
7114/DW 7124/DW 7135/DW 7145/DW 7155/DW 7166/DW 7176/DW
7186/DW 7197/DW 7207/DW 7217/DW 7228/DW 7248/DW 7259/DW
7269/DW 7279/DW 7290/DW 7300/DW 7310/DW 7321/DW 7331/DW
7341/DW 7352/DW 7362/DW 7372/DW 7383/DW 7393/DW 7403/DW
7414/DW 7424/DW 7434/DW 7445/DW 7455/DW 7465/DW 7476/DW
7486/DW 7496/DW 7507/DW 7517/DW 7527/DW 7538/DW 7548/DW
7558/DW 7569/DW 7579/DW 7589/DW 7600/DW 7610/DW 7620/DW
7631/DW 7641/DW 7651/DW 7662/DW 7672/DW 7682/DW 7693/DW
7703/DW 7713/DW 7724/DW 7734/DW 7745/DH 7755/DH 7765/DH
7776/DH 7786/DH 7796/DH 7807/DH

MEMBUT
484/STW 485/STW 512/LD 602-DATA

MH01
6745-DATA

MH02
6755-DATA

MH03
6765-DATA

MH04
6776-DATA

MH05
6786-DATA

MH06

```
          6796-DATA
   MH07
          6807-DATA
   MH08
          6817-DATA
   MI
            70/8PEN
   MI
            70/8PEN          83-CNAME
   MINCR
           884/AW           979-DATA
   MI01
          6828-DATA
   MI02
          6838-DATA
   MI03
          6848-DATA
   MI04
          6859-DATA
   MI05
          6869-DATA
   MI06
          6879-DATA
   MI07
          6890-DATA
   MI08
          6900-DATA
   MI09
          6910-DATA
   MODULE
           598/LPSD        1257-EQU
   MOTION
           811/AND         1050-DATA
   MOVE
           448-STW          454/BIR
   MPVRET
          223-XPSD
```



```
   MSG
          1154/GEN        1156-TEXTC
   MT301
          4245-DATA
   MT302
          4253-DATA
   MT303
          4261-DATA
   MT304
          4269-DATA
   MT305
          4278-DATA
   MT306
          4284-DATA
   MT307
          4290-DATA
   MT308
          4296-DATA
   MTH01
          4203-DATA
   MTH02
          4209-DATA
   MTH03
          4218-DATA
   MTH04
          4227-DATA
   MTH05
          4236-DATA
   MTW01
          4164-DATA
   MTW02
          4170-DATA
   MTW03
          4176-DATA
   MTW04
          4186-DATA
   MTW05
```

```
          4194-DATA
   MVRET
          224-XPSD       1333/K          5717/K
   MW01
          5815-DATA
   MW02
          5825-DATA
   MW03
          5835-DATA
   MW04
          5846-DATA
   MW05
          5856-DATA
   MW06
          5866-DATA
   MW07
          5877-DATA
   MW08
          5887-DATA
   MW09
          5897-DATA
   MW10
          5908-DATA
   MW11
          5918-DATA
   MW12
          5928-DATA
   MW13
          5939-DATA
   MW14
          5949-DATA
   MW15
          5959-DATA
   MW16
          5970-DATA
   MW17
          5980-DATA
```



```
   MW18
          5990-DATA
   MW19
          6001-DATA
   MW20
          6011-DATA
   MW21
          6021-DATA
   MW22
          6032-DATA
   MW23
          6042-DATA
   MW24
          6052-DATA
   MW25
          6063-DATA
   MW26
          6073-DATA
   MW27
          6083-DATA
   MW28
          6094-DATA
   MW29
          6104-DATA
   MW30
          6114-DATA
   MW31
          6125-DATA
   MW32
          6135-DATA
   MW33
          6145-DATA
   MW34
          6156-DATA
   MW35
          6166-DATA
   MW36
```

```
          6176-DATA
   MW37
          6187-DATA
   MW38
          6197-DATA
   MW39
          6207-DATA
   MW40
          6218-DATA
   MW41
          6228-DATA
   MW42
          6238-DATA
   MW43
          6249-DATA
   MW44
          6259-DATA
   MW45
          6269-DATA
   MW46
          6280-DATA
   MW47
          6290-DATA
   MW48
          6300-DATA
   MW49
          6311-DATA
   MW50
          6321-DATA
   MW51
          6331-DATA
   MW52
          6342-DATA
   MW53
          6352-DATA
   MW54
          6362-DATA
```



```
   MW55
          6373-DATA
   MW56
          6383-DATA
   MW57
          6393-DATA
   MW58
          6404-DATA
   MW59
          6414-DATA
   MW60
          6424-DATA
   MW61
          6435-DATA
   MW62
          6445-DATA
   MW63
          6455-DATA
   MW64
          6466-DATA
   MW65
          6476-DATA
   MW66
          6486-DATA
   MW67
          6497-DATA
   MW68
          6507-DATA
   MW69
          6517-DATA
   MW70
          6528-DATA
   MW71
          6538-DATA
   MW72
          6548-DATA
   MW73
```

```
          6559-DATA
   MW74
          6569-DATA
   MW75
          6579-DATA
   MW76
          6590-DATA
   MW77
          6600-DATA
   MW78
          6610-DATA
   MW79
          6621-DATA
   MW80
          6631-DATA
   MW81
          6641-DATA
   MW82
          6652-DATA
   MW83
          6662-DATA
   MW84
          6672-DATA
   MW85
          6683-DATA
   MW86
          6693-DATA
   MW87
          6703-DATA
   MW88
          6714-DATA
   MW89
          6724-DATA
   MW90
          6734-DATA
   M1015
           443/AND        1024-DATA
```



```
   NAME
           77/GEN         86/GEN
   NAO
          193/XPSD       218-PZE        610/STW       1000/PZE       1008/XPSD
   NAOAD
          609/EOR       1000-PZE
   NAORET
          222-XPSD      4349/K
   NAOTR
          193-XPSD       461/STW        608/STW
   NAOXD
          607/EOR       1008-XPSD
   NEARET
          226-XPSD      2509/K
   NEG12
         1034-DATA
   NEG2
          424/LW         723/LW        1247-EQU
   NEG20
          435/LW        1035-DATA
   NEG3
          729/LW        1032-DATA
   NEG4
          717/LW         743/LW        1246-EQU
   NEG51
          422/LW         792/LW        1036-DATA
   NEG8
          714/LW        1033-DATA
   NEIRET
          230-XPSD      1341/K         2850/K        2962/K        3462/STCF      3465/DATA      3466/DATA
         5733/K        5741/K         5750/K        5755/K        5760/K         5765/K         5771/K
         5776/K        5781/K         5786/K        5791/K        5796/K         5802/K         5807/K
         6913/K
   NFAIMP01
          419/STW        874/STW       5810-DATA
   NFLM
          949/GEN        951-TEXTC
```

```
   NFLOATP
          942/P          949-GEN
   NIMP
          867/LW         940-XPSD
   NOHALT
          706/BCS        708-LW
   NOTEND
          442/BCS        446-LW
   NUMBER
          737/LW        1013/LW        1014/LW        1064-DATA      1246/EQU       1247/EQU
   ODD
          728/BCS        733-LW
   ODDBALL
          531/LW         955/LW        1062-DATA
   ONE
          480/LW         556/LW         727/AND       1030-DATA
   OR01
         1664-DATA
   OR02
         1668-DATA
   OR03
         1676-DATA
   OR04
         1685-DATA
   OR05
         1693-DATA
   OR06
         1701-DATA
   P
           49-CNAME
   PAGE
           40/OPEN
   PAGE
           40/OPEN         41-CNAME
   PARITY
          211/XPSD        380-PZE
   PASS
```



```
         1258-EQU        2626/LB        2629/DATA      2630/DATA
   PASSES
          397/LW          433/STW       1242-PZE       1268/LW
   PCPINT
          430/LW         1056-DATA
   PERR
         1120/P          1137-J
   PFLOATP
          871/LW          941-P
   PFORMAT
         1119/P          1145-J
   PGO
         1054-DATA       1135/J
   PGOTOP
         1118/P          1135-J
   PHEAD
          790/LW         1115-P
   PIOCOMP
          924/LW          932-P
   PLONGL
          793/LW         1117-P
   PNFLOATP
          875/LW          942-P
   PRELOC
          509-LPSD
   PREPORT
         1121/P          1141-J
   PRINT
          787/XPSD        789/XPSD       791/XPSD       797/XPSD       823/XPSD       825/XPSD       830-PZE
          851/LPSD        876/XPSD       898/XPSD
   PRTCMSG
          897/LW         1122-P
   PSDWID
          558/LW         1042-I
   PSHRTL
          796/LW         1116-P
   PSIXCR
```

```
          786/LW          1113-P
   PSW1
          464/STW         467/LPSD        473/STW         509/LPSD        519/LPSD        1234-PZE
   PSW2
          429/STW         475/STW         1235-PZE
   PTITLE
          788/LW          1114-P
   REGID
          567/LW          1043-I
   REPEAT
          388/LPSD        406/LPSD        1232-PZE        1257/EQU        1258/EQU        1283/LPSD       2997/DATA
          2998/DATA       3003/DATA       3004/DATA       3024/LAH        3027/DATA       3066/LAD        3069/DATA
          3185/LCH        3188/DATA       3210/LCH        3213/DATA       3231/LCD        3234/DATA       3498/DATA
          3501/DATA       3561/LH*        3562/LH*        3564/ANLZ       3567/DATA
   REPLAY
          852/LW          860-B
   REPORT
          716/BCS         717-LW
   RESET
          215/XPSD        391-PZE
   RETADDR
          880/LW          953-DATA
   RETEND
         1018-PZE
   RETURN
          200/XPSD        222/XPSD        223/XPSD        224/XPSD        225/XPSD        226/XPSD        227/XPSD
          228/XPSD        229/XPSD        230/XPSD        231/XPSD        232/XPSD        233/XPSD        234/XPSD
          235/XPSD        236/XPSD        237/XPSD        245/XPSD        252/XPSD        261/XPSD        269/XPSD
          277/XPSD        284/XPSD        292/XPSD        293/XPSD        294/XPSD        295/XPSD        296/XPSD
          297/XPSD        298/XPSD        299/XPSD        300/XPSD        301/XPSD        302/XPSD        303/XPSD
          304/XPSD        305/XPSD        306/XPSD        307/XPSD        315/XPSD        316/XPSD        317/XPSD
          318/XPSD        319/XPSD        320/XPSD        321/XPSD        322/XPSD        323/XPSD        324/XPSD
          325/XPSD        326/XPSD        327/XPSD        328/XPSD        329/XPSD        330/XPSD        338/XPSD
          339/XPSD        340/XPSD        341/XPSD        342/XPSD        343/XPSD        344/XPSD        345/XPSD
          346/XPSD        347/XPSD        348/XPSD        349/XPSD        350/XPSD        351/XPSD        352/XPSD
          353/XPSD        361/XPSD        362/XPSD        363/XPSD        364/XPSD        365/XPSD        366/XPSD
          367/XPSD        368/XPSD        369/XPSD        370/XPSD        371/XPSD        372/XPSD        373/XPSD
```



```
          374/XPSD        375/XPSD        376/XPSD        508/STW         521/XPSD        532/STW         881/STW
          956/STW         1226-PZE        1274/DATA       1336/XPSD       1337/XPSD       1904/XPSD       1905/XPSD
          1911/XPSD       1912/XPSD       1954/XPSD       1955/XPSD       2447/XPSD       2448/XPSD       2484/XPSD
          2485/XPSD       2494/XPSD       2495/XPSD       3151/LCW        3154/DATA       3610/GEN        3611/XPSD
          3612/XPSD       3652/DATA       3653/LS         3654/LS         3657/XPSD       3658/XPSD       3672/XPSD
          3673/XPSD       3688/XPSD       3689/XPSD       3704/XPSD       3705/XPSD       3720/XPSD       3721/XPSD
          3735/XPSD       3736/XPSD       3752/XPSD       3753/XPSD       3767/XPSD       3768/XPSD       3783/XPSD
          3784/XPSD       3798/XPSD       3799/XPSD       3814/XPSD       3815/XPSD       3828/XPSD       3829/XPSD
          3842/XPSD       3843/XPSD       5715/XPSD
   RINPUT
          492/STW         493/STW         518/LD          604-DATA
   RI9CL1
          643-E8R
   RI9CL2
          650-E8R
   RI9CL3
          657-E8R
   RI9CL4
          664-E8R         5648/K
   RI9NA8
          607-E8R         4348/K
   ROUTPUT
          488/STW         489/STW         510/CD          515/LD          603-DATA
   RTC
          891-CW          983/B
   RTCMSG
         1122/P          1154-GEN
   S
           70/8PEN
   S
           70/8PEN         72-CNAME
   SAVE
          399/LW          428/STW         441-LW          534/LW          1270/LW
   SAVE0
          923/STW         929/LW          933-DATA
   SD01
         4477-DATA
```

```
   SD02
          4489-DATA
   SD03
          4502-DATA
   SD04
          4514-DATA
   SETFRM
           735/STW         738-LW          768/LW
   SETINTR
           911/B           913-LI          982/BE
   SETN
           734/STW         737-LW          767/LW
   SETPSW
           470-LW          611/BCR         615/BCR         619/BCR         629/BCR         639/B           647/BCR
           654/BCR         661/BCR         668/BCR         674/B          1289/K          1295/DATA       1299/K
          1307/K          1313/K          1322/K          1347/K          1351/K          1355/K          1359/K
          1363/K          1373/K          1380/K          1390/K          1404/K          1412/K          1420/K
          1428/K          1437/K          1445/K          1453/K          1461/K          1470/K          1478/K
          1486/K          1494/K          1503/K          1511/K          1519/K          1527/K          1536/K
          1544/K          1552/K          1560/K          1569/K          1577/K          1585/K          1593/K
          1602/K          1610/K          1618/K          1626/K          1633/K          1639/K          1645/K
          1652/K          1666/K          1670/R          1678/K          1687/K          1695/K          1703/K
          1712/K          1720/K          1734/K          1738/K          1746/K          1755/K          1763/K
          1771/K          1783/K          1791/K          1800/K          1808/K          1818/K          1838/K
          1853/K          1869/K          1884/K          1900/K          1909/K          1916/K          1922/K
          1927/K          1932/K          1939/K          1945/K          1950/K          1969/K          1973/K
          1981/K          1992/K          2359/K          2370/K          2379/K          2385/K          2391/K
          2397/K          2424/K          2443/K          2452/K          2460/K          2467/K          2474/K
          2480/K          2490/DATA       2498/K          2515/K          2523/K          2531/K          2540/K
          2546/K          2553/K          2561/K          2573/K          2586/K          2594/K          2602/K
          2610/K          2619/K          2627/K          2637/K          2643/K          2652/K          2659/K
          2669/K          2681/K          2694/K          2706/K          2719/K          2731/K          2744/K
          2756/K          2769/K          2781/K          2794/K          2806/K          2813/K          2819/K
          2825/K          2831/K          2837/K          2843/K          2856/K          2866/K          2876/K
          2887/K          2898/K          2905/K          2911/K          2923/K          2931/K          2937/DATA
          2941/K          2945/K          2949/K          2953/DATA       2965/K          2970/K          2978/K
          2986/K          3007/K          3017/K          3025/K          3033/K          3042/K          3054/K
```



```
          3067/K          3079/K          3104/K          3117/K          3130/K          3138/K          3146/K
          3161/K          3169/K          3178/K          3186/K          3194/K          3202/K          3211/K
          3220/K          3232/K          3245/K          3258/K          3282/K          3293/K          3301/K
          3309/K          3317/K          3326/K          3334/K          3343/K          3351/K          3359/K
          3365/K          3374/K          3383/K          3395/K          3408/K          3420/K          3433/K
          3444/K          3455/K          3463/K          3471/K          3479/K          3488/K          3496/K
          3504/K          3512/K          3523/K          3533/K          3543/K          3557/K          3565/K
          3573/K          3581/K          3590/K          3599/K          3607/K          3618/K          3628/K
          3638/K          3649/K          3665/K          3680/K          3696/K          3712/K          3727/K
          3744/K          3759/K          3775/K          3790/K          3806/K          3821/K          3836/K
          3847/K          3866/K          3877/K          3886/K          3892/K          3901/K          3910/K
          3919/K          3927/K          3935/K          3943/K          3952/K          3960/K          3968/K
          3976/K          3986/K          3993/K          4000/K          4012/K          4025/K          4037/K
          4051/K          4062/K          4073/K          4085/K          4096/K          4103/K          4115/K
          4126/K          4138/K          4152/K          4172/K          4178/K          4196/K          4205/K
          4211/K          4238/K          4247/K          4255/K          4263/K          4271/K          4280/K
          4286/K          4292/K          4298/K          4404/K          4413/K          4448/K          4470/K
          4479/K          4531/K          4537/K          4543/K          4550/K          4556/K          4562/K
          4569/K          4576/K          4583/K          4589/K          4595/DATA       4601/DATA       4605/DATA
          4610/DATA       4615/DATA       4619/DATA       4624/DATA       4630/DATA       4634/DATA       4639/DATA
          4669/K          4676/K          4683/K          4691/K          4697/K          4703/K          4709/K
          4716/K          4724/K          4730/K          4736/K          4742/K          4749/K          4755/K
          4761/K          4767/K          4773/K          4780/K          4786/K          4792/K          4798/K
          4804/K          4811/K          4817/K          4824/K          4830/K          4836/K          4842/K
          4848/K          4859/K          4869/K          4879/K          4890/K          4900/K          4910/K
          4927/DATA       4933/DATA       4939/DATA       4945/DATA       4964/DATA       4981/DATA       5002/DATA
          5012/DATA       5034/K          5040/K          5046/K          5053/K          5059/K          5065/K
          5072/K          5078/K          5084/K          5091/K          5097/K          5103/K          5110/K
          5116/K          5122/K          5129/DATA       5133/DATA       5143/DATA       5149/DATA       5154/DATA
          5161/DATA       5166/DATA       5171/DATA       5177/DATA       5182/DATA       5187/DATA       5193/DATA
          5198/DATA       5203/DATA       5209/DATA       5214/DATA       5220/DATA       5225/DATA       5233/DATA
          5238/DATA       5243/DATA       5249/DATA       5254/DATA       5259/DATA       5265/DATA       5270/DATA
          5275/DATA       5281/DATA       5286/DATA       5291/DATA       5297/DATA       5302/DATA       5307/DATA
          5313/DATA       5320/K          5693/DATA       5698/DATA       5704/K          5721/K          5726/K
   SETRPLY
           852-LW          7827/END
   SF
```

```
          70/8PEN
   SF
          70/8PEN          71-CNAME
   SF001
          5032-DATA
   SF002
          5038-DATA
   SF003
          5044-DATA
   SF004
          5051-DATA
   SF005
          5057-DATA
   SF006
          5063-DATA
   SF007
          5070-DATA
   SF008
          5076-DATA
   SF009
          5082-DATA
   SF01
          5325-DATA
   SF010
          5089-DATA
   SF011
          5095-DATA
   SF012
          5101-DATA
   SF013
          5108-DATA
   SF014
          5114-DATA
   SF015
          5120-DATA
   SF016
          5127-DATA
```



```
   SF017
          5131-DATA
   SF018
          5141-DATA
   SF019
          5147-DATA
   SF02
          5337-DATA
   SF020
          5152-DATA
   SF021
          5159-DATA
   SF022
          5164-DATA
   SF023
          5169-DATA
   SF024
          5175-DATA
   SF025
          5180-DATA
   SF026
          5185-DATA
   SF027
          5191-DATA
   SF028
          5196-DATA
   SF029
          5201-DATA
   SF03
          5350-DATA
   SF030
          5207-DATA
   SF031
          5212-DATA
   SF032
          5218-DATA
   SF033
```

```
          5223-DATA
   SF034
          5231-DATA
   SF035
          5236-DATA
   SF036
          5241-DATA
   SF037
          5247-DATA
   SF038
          5252-DATA
   SF039
          5257-DATA
   SF04
          5363-DATA
   SF040
          5263-DATA
   SF041
          5268-DATA
   SF042
          5273-DATA
   SF043
          5279-DATA
   SF044
          5284-DATA
   SF045
          5289-DATA
   SF046
          5295-DATA
   SF047
          5300-DATA
   SF048
          5305-DATA
   SF049
          5311-DATA
   SF05
          5375-DATA
```



```
   SF050
          5318-DATA
   SF06
          5388-DATA
   SF07
          5400-DATA
   SF08
          5413-DATA
   SF09
          5425-DATA
   SF10
          5438-DATA
   SF11
          5450-DATA
   SF12
          5463-DATA
   SF13
          5475-DATA
   SF14
          5488-DATA
   SF15
          5501-DATA
   SF16
          5513-DATA
   SF17
          5526-DATA
   SF18
          5538-DATA
   SF19
          5551-DATA
   SF20
          5563-DATA
   SF21
          5576-DATA
   SF22
          5589-DATA
   SF23
```

```
          5601-DATA
   SHORT
          503-STW         525/BCS
   SHORTER
          514/BE          517-STD
   SHRTL
          1116/P          1130-J
   SHO1
          4452-DATA
   SHO2
          4460-DATA
   SHO3
          4468-DATA
   SIX
          554/EOR         1029-DATA
   SIXCR
          1113/P          1124-J
   SI9CL1
          642-LW          5617/K
   SI9CL2
          649-LW          5621/K
   SI9CL3
          656-LW          5625/K
   SI9CL4
          663-LW          5629/K          5635/K          5643/K
   SI9NAO
          606-LW          1332/K          1340/K          2508/K          2849/K          2961/K          5716/K
          5732/K          5740/DATA       5749/DATA       5754/DATA       5759/DATA       5764/DATA       5770/DATA
          5775/DATA       5780/DATA       5785/DATA       5790/DATA       5795/DATA       5801/DATA       5806/DATA
          6912/K
   SKIP6
          784/BIR         788-LW
   SL
          195/XPSD        248-PZE         618/STW         1001/PZE
   SLAD
          617/EOR         1001-PZE
   SLRET
```



```
          252-XPSD
   SLSW
          617-EOR
   SLTR
          195-XPSD
   SPACE
          1049-TEXT       1137/J          1141/J          1145/J          1149/J
   SPUR
          1260/XPSD       1262-PZE
   SPURTRAP
          1062/DATA       1260-XPSD
   ST301
          3341-DATA
   ST302
          3349-DATA
   ST303
          3357-DATA
   ST304
          3363-DATA
   ST305
          3372-DATA
   STCF
            70/OPEN
   STCF
            70/OPEN         74-CNAME
   STCF01
          3453-DATA
   STCF02
          3461-DATA
   STCF03
          3469-DATA
   STCF04
          3477-DATA
   STD01
          3381-DATA
   STD02
          3393-DATA
```

```
STD03
        3406-DATA
STD04
        3418-DATA
STH01
        3291-DATA
STH02
        3299-DATA
STH03
        3307-DATA
STH04
        3315-DATA
STH05
        3324-DATA
STH06
        3332-DATA
STORE
         434/LW          446/LW          1019-STW
STRMG1
         713/LW         1020-STW
STRWD
         736/STW         766-STW         769/LW
STS01
        3431-DATA
STS02
        3442-DATA
STW01
        1710-DATA
STW02
        1718-DATA
SW01
        2395-DATA
SW02
        2403-DATA
SW03
        2407-DATA
SW04
```



```
        2416-DATA
SW05
        2422-DATA
SW06
        2431-DATA
S001
        4529-DATA
S002
        4535-DATA
S003
        4541-DATA
S004
        4548-DATA
S005
        4554-DATA
S006
        4560-DATA
S007
        4567-DATA
S008
        4574-DATA
S009
        4581-DATA
S01
        4643-DATA
S010
        4587-DATA
S011
        4593-DATA
S012
        4599-DATA
S013
        4603-DATA
S014
        4608-DATA
S015
        4613-DATA
```

S016
4617-DATA
S017
4622-DATA
S018
4628-DATA
S019
4632-DATA
S02
4649-DATA
S020
4637-DATA
S03
4655-DATA
S04
4661-DATA
S05
4667-DATA
S06
4674-DATA
S07
4681-DATA
S08
4689-DATA
S09
4695-DATA
S10
4701-DATA
S11
4707-DATA
S12
4714-DATA
S13
4722-DATA
S14
4728-DATA
S15

4734-DATA
S16
4740-DATA
S17
4747-DATA
S18
4753-DATA
S19
4759-DATA
S20
4765-DATA
S21
4771-DATA
S22
4778-DATA
S23
4784-DATA
S24
4790-DATA
S25
4796-DATA
S26
4802-DATA
S27
4809-DATA
S28
4815-DATA
S29
4822-DATA
S30
4828-DATA
S31
4834-DATA
S32
4840-DATA
S33
4846-DATA

S34
4857-DATA
S35
4867-DATA
S36
4877-DATA
S37
4888-DATA
S38
4898-DATA
S39
4908-DATA
S40
4919-DATA
S41
4925-DATA
S42
4931-DATA
S43
4937-DATA
S44
4943-DATA
S45
4950-DATA
S46
4956-DATA
S47
4962-DATA
S48
4969-DATA
S49
4979-DATA
S50
4989-DATA
S51
5000-DATA
S52

5010-DATA
S53
5020-DATA
TABLE
437/STW 451/STW 458/LW 462/LW 470/LW 474/LW 477/LW
482/LW 483/LW 486/LW 487/LW 490/LW 491/LW 495/LW
496/LW 505/LW 506/LW 539/LW 552/LW 560/LW 564/LW
570/LW 574/LW 578/LW 582/LW 673/STCF 1019/STW 1202-RES
1817/XPSD
TEMP
810/STW 813/LW 1051-DATA
TEST
530/STW 533/STW 535/STW 536/STW 538/LW 551/LW 555/LW
559/LW 563/LW 569/LW 573/LW 1223-RES 1252/EQU 1253/EQU
1254/EQU
TESTIO
696-AIO 699/BCR 704/BEZ
TITLE
1114/P 1126-J
TO
449/STW 451-STW
TOP
814/AND 1052-DATA
TSTDVC
685/BCS 687-BIR
TTL
1124/J 1126/J 1147/J 1160-DATA
TYPE
400/LW 404/STW 697/TIO* 782/LW 806/TDV* 834/SIO* 843/TIO*
1055-DATA 1271/LW 1281/STW
UII
194/XPSD 241-PZE 614/STW 939/XPSD 1002/PZE
UIIAD
613/EOR 1002-PZE
UIIRET
245-XPSD 5813/K
UIISW

```
          613-EOR        634/BCR        5812/K
   UIITR
          194-XPSD       868/STW        878/STW
   WDTR
          199/XPSD       280-PZE        1003/PZE
   WDTRAD
         1003-PZE
   WDTRET
          284-XPSD
   WDTRTR
          199-XPSD
   WKO
          740/STW        762/EOR        1243-PZE
   WORD
          721/STW        749/AND        1244-PZE
   WORDS
          734-STW        773/BIR
   XP
           93-SET         95/ORG
   XPSD
          459/LW         543/LW         1248-EQU
   XPSDID
          541/LW        1039-I
   XRTC
          901-B
   XW01
         3486-DATA
   XW02
         3494-DATA
   XW03
         3502-DATA
   XW04
         3510-DATA
   Y
         1251-EQU
   ZERO
          410/LW         411/LW         427/LW         465/LW         584/LW         744/LW         858/LW
```



```
         1245-EQU       1255/EQU       1256/EQU
   ZIOA
          910/STW        912-DATA       928/SIO*
   ZIOAIN
          120/DATA       125/DATA       908-B
   ZR
          588/BCS        690-LW
   2Q3
         1026-DATA
   6Q3
          693/LW         702/AND        703/EOR        839/AND        840/EOR        848/AND        849/EOR
         1025-GEN
   *
           63/DO          93/SET         93/SET         94/DO          94/DO          95/ORG         220/PZE
          243/PZE        250/PZE        258/PZE        266/PZE        274/PZE        282/PZE        290/PZE
          313/PZE        336/PZE        359/PZE        382/PZE        393/PZE        436/STW        438/BIR
          452/BIR        453/BIR        562/BIR        572/BIR        580/BIR        586/BCS        594/BIR
          681/PZE        687/BIR        700/BCR        755/BIR        763/BIR        764/BIR        770/BIR
          771/BIR        772/BIR        776/BIR        807/BCR        808/BCR        819/BCS        832/PZE
          837/BCR        846/BCR        887/B          908/B          953/DATA       969/CW        1198/FILL
         1224/FILL      1264/PZE       1278/ORG       5616/CAL1      5620/CAL2      5624/CAL3      5628/CAL4
         5642/CAL4      5647/CAL4
```

APPENDIX A

This appendix contains the T-charts for the multiply instructions. T-charts, essentially, are snapshots of various registers at specific phase and clock times.

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0001

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	80AA9FD4	1	1	80AA9FD4	00000000	0	0	0	55555555
6-	00	1	1	80AA9FD4	0	0	00000000	80AA9FD4	0	0	0	55555555
6-	01	0	0	00000000	0	0	00000000	202AA7F5	0	0	0	AAAAAAAA
6-	02	0	0	00000000	0	0	55555555	080AA9FD	0	0	0	55555555
6-	03	0	0	15555555	0	0	6AAAAAAA	4202AA7F	0	0	0	55555555
6-	04	0	0	1AAAAAAA	1	1	C5555555	9080AA9F	1	0	0	55555555
6-	05	1	1	F1555555	1	1	F1555555	64202AA7	1	0	0	AAAAAAAA
6-	06	1	1	FC555555	1	1	FC555555	59080AA9	1	0	0	AAAAAAAA
6-	07	1	1	FF155555	0	0	A9BFFFFF	564202AA	0	0	0	AAAAAAAA
6-	08	0	0	2A6FFFFF	0	0	D51AAAA9	D59080AA	0	0	0	AAAAAAAA
6-	09	0	0	3546AAAA	0	0	DFF15554	7564202A	0	0	0	AAAAAAAA
6-	10	0	0	37FC5555	0	0	E2A6FFFF	1D59080A	0	0	0	AAAAAAAA
6-	11	0	0	3BA9BFFF	0	0	E3546AA9	C7564202	0	0	0	AAAAAAAA
6-	12	0	0	38D51AAA	0	0	E37FC554	71D59080	0	0	0	AAAAAAAA
6-	13	0	0	38DFF155	0	0	38DFF155	1C756420	0	0	0	AAAAAAAA
6-	14	0	0	0E37FC55	0	0	0E37FC55	471D5908	0	0	0	AAAAAAAA
6-	15	0	0	038DFF15	0	0	038DFF15	51C75642	0	0	0	AAAAAAAA
6-	16	0	0	00E37FC5	0	0	AB8E2A6F	5471D593	0	0	0	AAAAAAAA
7		0	0	2AE3BA9B	1	1	D58E3546	D51C7564	1	0	0	55555555
9		1	1	D58E3546	0	0	2A71CA8D	D51C7564	1	0	0	55555555
10		1	1	D58E3546	1	1	D51C7564	D51C7564	1	0	0	55555555

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0002

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	7F568A80	0	0	7F568A80	00000000	0	1	1	FC7CF1CC
6-	00	0	0	7F568A80	0	0	00000000	7F568A80	0	1	1	FC7CF1CC
6-	01	0	0	00000000	0	0	00000000	1FD5AEA0	0	1	1	F8F9E398
6-	02	0	0	00000000	0	0	00000000	07F56A8	0	1	1	F8F9E398
6-	03	0	0	00000000	0	0	00000000	01FD5AEA	0	1	1	F8F9E398
6-	04	0	0	00000000	1	1	F8F9E398	007F56BA	0	1	1	F8F9E398
6-	05	1	1	FE3E78E6	1	1	F7385C7E	001FD5AE	0	1	1	F8F9E398
6-	06	1	1	FDCE171F	1	1	F6C7FAB7	8007F56B	0	1	1	F8F9E398
6-	07	1	1	FD31FEAD	0	0	01350CE1	E001FD5A	1	1	1	FC7CF1CC
6-	08	0	0	00434338	0	0	03D0516C	78007F56	1	1	1	FC7CF1CC
6-	09	0	0	00F41458	0	0	0477228F	1E001FD5	1	1	1	FC7CF1CC
6-	10	0	0	011DC8A3	1	1	FA17AC3B	C78007F5	0	1	1	F8F9E398
6-	11	1	1	FE35E80E	1	1	F8020CDA	F1E001FD	0	1	1	FC7CF1CC
6-	12	1	1	FEC3B736	1	1	FB3DA902	3C78007F	0	1	1	FC7CF1CC
6-	13	1	1	FECF6A40	0	0	02527874	AF1E001F	1	1	1	F8F9E398
6-	14	0	0	00949E1D	0	0	00949E1D	23C78007	1	1	1	F8F9E398
6-	15	0	0	00252787	0	0	00252787	4AF1E001	1	1	1	F8F9E398
6-	16	0	0	0009349E1	1	1	F90320D79	928C7800	0	1	1	F8F9E398
7		1	1	FE40CB5E	1	1	FE40CB5E	74AF1E00	0	1	1	F8F9E398
9		1	1	FE40CB5E	1	1	FE40CB5E	74AF1E00	0	1	1	F8F9E398
10		1	1	FE40CB5E	0	0	74AF1E00	74AF1E00	0	1	1	F8F9E398

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0003

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 0000	29L28 000	C(D)
3		0	0	3DF91CF8	0	0	3DF91CF8	00000000	0	0	0	59C61C18
6-	00	0	0	3DF91CF8	0	0	00000000	3DF91CF8	0	0	0	59C61C18
6-	01	0	0	00000000	0	0	00000000	0F7E473E	0	0	0	B38C3830
6-	02	0	0	00000000	0	0	B38C3830	03DF91CF	0	0	0	B38C3830
6-	03	0	0	2CE30E0C	1	1	D31CF1F4	00F7E473	1	0	0	59C61C18
6-	04	1	1	F4C73C7D	1	1	F4C73C7D	003DF91C	1	0	0	B38C3830
6-	05	1	1	FD31CF1F	0	0	56F7EB37	400F7E47	0	0	0	59C61C18
6-	06	0	0	153DFACD	1	1	BBF7DE85	0003DF91	1	0	0	59C61C18
6-	07	1	1	EEFDF7AD	0	0	A28A2FDD	7400F7E4	0	0	0	B38C3830
6-	08	0	0	28A28BF7	0	0	28A28BF7	5D003DF9	0	0	0	B38C3830
6-	09	0	0	0A28A2FD	0	0	63EE8F15	07400F7E	0	0	0	59C61C18
6-	10	0	0	18FBAFC5	0	0	CC87E7F5	75D003DF	0	0	0	B38C3830
6-	11	0	0	3321F9FD	1	1	D95BDDE5	5D7400F7	1	0	0	59C61C18
6-	12	1	1	F656F779	1	1	F656F779	575D003D	1	0	0	B38C3830
6-	13	1	1	FD95BDDE	0	0	B121F60E	55D7400F	0	0	0	B38C3830
6-	14	0	0	2C487DB3	1	1	D2826163	9575D003	1	0	0	59C61C18
6-	15	1	1	F4A0985A	1	1	F4A0985A	E55D7400	1	0	0	B38C3830
6-	16	1	1	FD282616	0	0	56EE422E	B9575D00	0	0	0	59C61C18
7		0	0	153B908B	0	0	153B908B	AE55D740	0	0	0	B38C3830
9		0	0	153B908B	1	1	EA446F74	AE55D740	0	0	0	B38C3830
10		0	0	153B908B	1	1	AE55D740	AE55D740	0	0	0	B38C3830

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0004

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 0000	29L28 000	C(D)
3		0	0	5BD80E1D	0	0	5BD80E1D	00000000	0	1	1	F1C3C731
6-	00	0	0	5BD80E1D	0	0	00000000	5BD80E1D	0	1	1	F1C3C731
6-	01	0	0	00000000	1	1	F1C3C731	16F60387	0	1	1	F1C3C731
6-	02	1	1	FC70F1CC	0	0	0AAD2A93	45BD80E1	1	1	1	F1C3C731
6-	03	0	0	02AB4AA6	1	1	E632D908	D16F6038	0	1	1	E3878E62
6-	04	1	1	F98C3642	1	1	F98C3642	345BD80E	0	1	1	E3878E62
6-	05	1	1	FE632D90	1	1	E1EA3BF2	8D16F603	0	1	1	E3878E62
6-	06	1	1	F87AAEFC	0	0	06B6E7C3	A345BD80	1	1	1	F1C3C731
6-	07	0	0	01AD39F2	1	1	F3718123	E8D16F60	0	1	1	F1C3C731
6-	08	1	1	FCDC6048	1	1	FCDC6048	FA345BD8	0	1	1	E3878E62
6-	09	1	1	FF371812	1	1	FF371812	3E8D16F6	0	1	1	E3878E62
6-	10	1	1	FFCDC604	1	1	E3555466	8FA345BD	0	1	1	E3878E62
6-	11	1	1	F8D55519	1	1	EA991C4A	A3E8D16F	0	1	1	F1C3C731
6-	12	1	1	FAA64712	0	0	08E27FE1	A8FA345B	1	1	1	F1C3C731
6-	13	0	0	02389FF8	0	0	02389FF8	6A3E8D16	1	1	1	E3878E62
6-	14	0	0	008E27FE	0	0	0ECA60CD	1A8FA345	1	1	1	F1C3C731
6-	15	0	0	03B29833	1	1	E73A2695	46A3E8D1	0	1	1	E3878E62
6-	16	1	1	F9CE89A5	1	1	EB925CD6	51A8FA34	0	1	1	F1C3C731
7		1	1	FAE49435	1	1	FAE49435	946A3E8D	0	1	1	E3878E62
9		1	1	FAE49435	0	0	05136BCA	946A3E8D	0	1	1	E3878E62
10		1	1	FAE49435	1	1	946A3E8D	946A3E8D	0	1	1	E3878E62

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0005

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

				17P42	-TEST POINTS-		29L19		29L17		-TEST POINTS-			29L23		29L28
PHASE	CLOCK	A000	A00	C(A)			S000	S00	C(S)		C(B)	BC31		D000	D00	C(D)
3		0	0	7CF5C8E1			0	0	7CF5C8E1		00000000	0		0	0	3F01FC03
6- 00		0	0	7CF5C8E1			0	0	00000000		7CF5C8E1	0		0	0	3F01FC03
6- 01		0	0	00000000			0	0	3F01FC03		1F3D7238	0		0	0	3F01FC03
6- 02		0	0	0FC07F00			0	0	0FC07F00		C7CF5C8E	0		0	0	7E03F806
6- 03		0	0	03F01FC0			0	0	81F417C6		31F3D723	0		0	0	7E03F806
6- 04		0	0	207D05F1			1	1	E17B09EE		8C7CF5C8	1		0	0	3F01FC03
6- 05		1	1	FB1EC27B			0	0	37608E7E		A31F3D72	0		0	0	3F01FC03
6- 06		0	0	7DC82F9F			0	0	8BDC27A5		A8C7CF5C	0		0	0	7E03F806
6- 07		0	0	22F709E9			0	0	22F709E9		6A31F3D7	0		0	0	7E03F806
6- 08		0	0	08BDC27A			1	1	C9BBC677		5A8C7CF5	1		0	0	3F01FC03
6- 09		1	1	F26EF19D			0	0	7072E9A3		D6A31F3D	0		0	0	7E03F806
6- 10		0	0	1C1CBA68			0	0	5B1EB66B		F5A8C7CF	0		0	0	3F01FC03
6- 11		0	0	16C7AD9A			1	1	D7C5B197		FD6A31F3	1		0	0	3F01FC03
6- 12		1	1	F5F16C65			1	1	F5F16C65		FF5A8C7C	1		0	0	7E03F806
6- 13		1	1	FD7C5B19			0	0	3C7E571C		7FD6A31F	0		0	0	3F01FC03
6- 14		0	0	0F1F95C7			1	1	D01D99C4		1FF5A8C7	1		0	0	3F01FC03
6- 15		1	1	F4076671			1	1	F4076671		07FD6A31	1		0	0	7E03F806
6- 16		1	1	F001D99C			0	0	7B05D1A2		41FF5A8C	0		0	0	7E03F806
7		0	0	1EC17468			0	0	1EC17468		907FD6A3	0		0	0	7E03F806
9		0	0	1EC17468			1	1	E13E8B97		907FD6A3	0		0	0	7E03F806
10		0	0	1EC17468			1	1	907FD6A3		907FD6A3	0		0	0	7E03F806

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0006

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

				17P42	-TEST POINTS-		29L19		29L17		-TEST POINTS-			29L23		29L28
PHASE	CLOCK	A000	A00	C(A)			S000	S00	C(S)		C(B)	BC31		D000	D00	C(D)
3		1	1	8C178F32			1	1	8C178F32		00000000	0		0	0	70000000
6- 00		1	1	8C178F32			0	0	00000000		8C178F32	0		0	0	70000000
6- 01		0	0	00000000			0	0	E0000000		2305E3CC	0		0	0	E0000000
6- 02		0	0	38000000			0	0	38000000		08C178F3	0		0	0	E0000000
6- 03		0	0	0E000000			1	1	9E000000		02305E3C	1		0	0	70000000
6- 04		1	1	E7800000			0	0	57800000		008C178F	0		0	0	70000000
6- 05		0	0	1E000000			1	1	A5E00000		002305E3	1		0	0	70000000
6- 06		1	1	E9780000			1	1	E9780000		0008C178	1		0	0	E0000000
6- 07		1	1	FA5E0000			0	0	6A5E0000		0002305E	0		0	0	70000000
6- 08		0	0	1A978000			0	0	FA978000		00008C17	0		0	0	E0000000
6- 09		0	0	3EA5E000			1	1	CEA5E000		00002305	1		0	0	70000000
6- 10		1	1	F3A97800			0	0	D3A97800		000008C1	0		0	0	E0000000
6- 11		0	0	34EA5E00			0	0	A4EA5E00		00000230	0		0	0	70000000
6- 12		0	0	293A9780			0	0	293A9780		0000008C	0		0	0	E0000000
6- 13		0	0	0A4EA5E0			0	0	0A4EA5E0		00000023	0		0	0	E0000000
6- 14		0	0	9293A978			1	1	9293A978		00000008	1		0	0	70000000
6- 15		1	1	E4A4EA5E			0	0	54A4EA5E		00000002	0		0	0	70000000
6- 16		0	0	F5293A97			0	0	F5293A97		80000003	0		0	0	E0000000
7		0	0	CD4A4EA5			1	1	CD4A4EA5		E0000000	1		0	0	70000000
9		1	1	CD4A4EA5			0	0	3285B15A		E0000000	1		0	0	70000000
10		1	1	CD4A4EA5			1	1	E0000000		E0000000	1		0	0	70000000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0007

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	•TEST POINTS• C(A)	29L19 S000	29L17 S00	C(S)	•TEST POINTS• C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	634AC271	0	0	634AC271	00000000	0	1	1	CDB53C70
6-	00	0	0	634AC271	0	0	00000000	634AC271	0	1	1	CDB53C70
6-	01	0	0	00000000	1	1	CDB53C70	18D2B09C	0	1	1	CDB53C70
6-	02	1	1	F36D4F1C	1	1	F36D4F1C	0634AC27	0	1	1	9B6A78E0
6-	03	1	1	FCDB53C7	0	0	2F261757	018D2B09	1	1	1	CDB53C70
6-	04	0	0	08C985D5	1	1	A733FEB5	C0634AC2	0	1	1	9B6A78E0
6-	05	1	1	E9CCFFAD	1	1	8537788D	7018D2B0	0	1	1	9B6A78E0
6-	06	1	1	E14DDE23	1	1	E14DDE23	5C0634AC	0	1	1	9B6A78E0
6-	07	1	1	F8537788	1	1	F8537788	D7018D2B	0	1	1	9B6A78E0
6-	08	1	1	FE14DDE2	0	0	305FA172	35C0634A	1	1	1	CDB53C70
6-	09	0	0	0C17E85C	0	0	3E62ABEC	8D7018D2	1	1	1	CDB53C70
6-	10	0	0	0F98AAFB	0	0	41E36E83	235C0634	1	1	1	CDB53C70
6-	11	0	0	1078DBA2	1	1	DE2E1812	C8D7018D	0	1	1	CDB53C70
6-	12	1	1	F78B8604	1	1	C540C274	B235C063	0	1	1	CDB53C70
6-	13	1	1	F150309D	0	0	239AF42D	2C8D7018	1	1	1	CDB53C70
6-	14	0	0	08E6B00B	1	1	D693F973	4B235C06	0	1	1	CDB53C70
6-	15	1	1	F5A6FE5E	1	1	9111773E	D2C8D701	0	1	1	9B6A78E0
6-	16	1	1	E4445D0F	1	1	B1F99A3F	B4B235C0	0	1	1	CDB53C70
7		1	1	EC7E668F	1	1	EC7E668F	ED2C8D70	0	1	1	9B6A78E0
9		1	1	EC7E668F	0	0	13819970	ED2C8D70	0	1	1	9B6A78E0
10		1	1	EC7E668F	1	1	ED2C8D70	ED2C8D70	0	1	1	9B6A78E0

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0008

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	•TEST POINTS• C(A)	29L19 S000	29L17 S00	C(S)	•TEST POINTS• C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	E486C662	1	1	E486C662	00000000	0	0	0	31C3C1F0
6-	00	1	1	E486C662	0	0	00000000	E486C662	0	0	0	31C3C1F0
6-	01	0	0	00000000	0	0	638783E0	3921B198	0	0	0	638783E0
6-	02	0	0	18E1E0F8	0	0	18E1E0F8	0E486C66	0	0	0	638783E0
6-	03	0	0	0638783E	0	0	693FFC1E	03921B19	0	0	0	638783E0
6-	04	0	0	1A6FFF07	0	0	4C33C0F7	80E486C6	0	0	0	31C3C1F0
6-	05	0	0	1B0CF03D	0	0	76947410	E03921B1	0	0	0	638783E0
6-	06	0	0	1DA51D07	0	0	4F68DEF7	780E486C	0	0	0	31C3C1F0
6-	07	0	0	13DA373D	0	0	13DA373D	DE03921B	0	0	0	638783E0
6-	08	0	0	04F68DEF	1	1	D332CBFF	7780E486	1	0	0	31C3C1F0
6-	09	1	1	F4CCB2FF	1	1	C308F10F	DDE03921	1	0	0	31C3C1F0
6-	10	1	1	F0C23C43	0	0	5449C023	F7780E48	0	0	0	638783E0
6-	11	0	0	15127008	0	0	15127008	FDDE0392	0	0	0	638783E0
6-	12	0	0	05449C02	0	0	68CC1FE2	3F7780E4	0	0	0	638783E0
6-	13	0	0	1A3307F8	0	0	1A3307F8	8FDDE039	0	0	0	638783E0
6-	14	0	0	68CC1FE	0	0	385083EE	23F7780E	0	0	0	31C3C1F0
6-	15	0	0	0E1420FB	0	0	7193A4D3	88FDDE03	0	0	0	638783E0
6-	16	0	0	1C66E936	1	1	EAA32746	E23F7783	1	0	0	31C3C1F0
7		1	1	FAA8C9D1	1	1	FAA8C9D1	B88FDDE0	1	0	0	638783E0
9		1	1	FAA8C9D1	0	0	0557362E	B88FDDE0	1	0	0	638783E0
10		1	1	FAA8C9D1	1	1	B88FDDE0	B88FDDE0	1	0	0	638783E0

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0009

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	•TEST POINTS•		29L19	29L17	•TEST POINTS•			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	5A5ACF3B	0	0	5A5ACF3B	00000000	0	1	1	DF4F3C70
6-	00	0	0	5A5ACF3B	0	0	00000000	5A5ACF3B	0	1	1	DF4F3C70
6-	01	0	0	00000000	0	0	20B0C390	1696B3CE	1	1	1	DF4F3C70
6-	02	0	0	082C30E4	0	0	28DCF474	05A5ACF3	1	1	1	DF4F3C70
6-	03	0	0	0A373D1D	0	0	0A373D1D	01696B3C	1	1	1	BE9E78E0
6-	04	0	0	028DCF47	1	1	E1DD0B87	405A5ACF	0	1	1	DF4F3C70
6-	05	1	1	F87742ED	0	0	19280670	D01696B3	1	1	1	DF4F3C70
6-	06	0	0	064A019F	0	0	064A019F	7405A5AC	1	1	1	BE9E78E0
6-	07	0	0	01928067	1	1	E0E18CD7	DD01696B	0	1	1	DF4F3C70
6-	08	1	1	F8386F35	0	0	18E932C5	F7405A5A	1	1	1	DF4F3C70
6-	09	0	0	063A4CB1	0	0	26EB1041	7DD01696	1	1	1	DF4F3C70
6-	10	0	0	093AC410	0	0	2A6B87A0	5F7405A5	1	1	1	DF4F3C70
6-	11	0	0	0A9AE1E8	1	1	C9395AC8	17DD0169	0	1	1	BE9E78E0
6-	12	1	1	F24E56B2	1	1	D19D9322	05F7405A	0	1	1	DF4F3C70
6-	13	1	1	F46764C8	1	1	B305DDA8	817DD016	0	1	1	BE9E78E0
6-	14	1	1	ECC1776A	1	1	AB5FF04A	205F7405	0	1	1	BE9E78E0
6-	15	1	1	EAD7FC12	1	1	CA273882	8817DD01	0	1	1	DF4F3C70
6-	16	1	1	F289CE20	1	1	D1D90A90	A205F740	0	1	1	DF4F3C70
7		1	1	F47642A4	1	1	F47642A4	28817DD0	0	1	1	BE9E78E0
9		1	1	F47642A4	1	1	F47642A4	28817DD0	0	1	1	BE9E78E0
10		1	1	F47642A4	0	0	28817DD0	28817DD0	0	1	1	BE9E78E0

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0010

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	•TEST POINTS•		29L19	29L17	•TEST POINTS•			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	55555551	0	0	55555551	00000000	0	1	1	FFFFFFFF
6-	00	0	0	55555551	0	0	00000000	55555551	0	1	1	FFFFFFFF
6-	01	0	0	00000000	1	1	FFFFFFFF	15555554	0	1	1	FFFFFFFF
6-	02	1	1	FFFFFFFF	1	1	FFFFFFFF	C5555555	0	1	1	FFFFFFFE
6-	03	1	1	FFFFFFFF	1	1	FFFFFFFE	F1555555	0	1	1	FFFFFFFF
6-	04	1	1	FFFFFFFF	1	1	FFFFFFFE	BC555555	0	1	1	FFFFFFFF
6-	05	1	1	FFFFFFFF	1	1	FFFFFFFE	AF155555	0	1	1	FFFFFFFF
6-	06	1	1	FFFFFFFF	1	1	FFFFFFFE	ABC55555	0	1	1	FFFFFFFF
6-	07	1	1	FFFFFFFF	1	1	FFFFFFFE	AAF15555	0	1	1	FFFFFFFF
6-	08	1	1	FFFFFFFF	1	1	FFFFFFFE	AABC5555	0	1	1	FFFFFFFF
6-	09	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAF1555	0	1	1	FFFFFFFF
6-	10	1	1	FFFFFFFF	1	1	FFFFFFFE	AAABC555	0	1	1	FFFFFFFF
6-	11	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAAF155	0	1	1	FFFFFFFF
6-	12	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAABC55	0	1	1	FFFFFFFF
6-	13	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAAAF15	0	1	1	FFFFFFFF
6-	14	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAAABC5	0	1	1	FFFFFFFF
6-	15	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAAAAF1	0	1	1	FFFFFFFF
6-	16	1	1	FFFFFFFF	1	1	FFFFFFFE	AAAAAABC	0	1	1	FFFFFFFF
7		1	1	FFFFFFFF	1	1	FFFFFFFF	AAAAAAAF	0	1	1	FFFFFFFE
9		1	1	FFFFFFFF	0	0	00000000	AAAAAAAF	0	1	1	FFFFFFFE
10		1	1	FFFFFFFF	1	1	AAAAAAAF	AAAAAAAF	0	1	1	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0011

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	S000	S00	29L19 29L17 C(S)	-TEST POINTS- C(B)	BC31	D000	D00	29L23 29L28 C(D)
3		0	0	00000005	0	0	00000005	00000000	0	1	1	FFFFFFFF
6-	00	0	0	00000005	0	0	00000000	00000005	0	1	1	FFFFFFFF
6-	01	0	0	00000000	1	1	FFFFFFFF	00000001	0	1	1	FFFFFFFF
6-	02	1	1	FFFFFFFF	1	1	FFFFFFFE	C0000000	0	1	1	FFFFFFFF
6-	03	1	1	FFFFFFFF	1	1	FFFFFFFF	B0000000	0	1	1	FFFFFFFE
6-	04	1	1	FFFFFFFF	1	1	FFFFFFFF	EC000000	0	1	1	FFFFFFFE
6-	05	1	1	FFFFFFFF	1	1	FFFFFFFF	FB000000	0	1	1	FFFFFFFE
6-	06	1	1	FFFFFFFF	1	1	FFFFFFFF	FEC00000	0	1	1	FFFFFFFE
6-	07	1	1	FFFFFFFF	1	1	FFFFFFFF	FFB00000	0	1	1	FFFFFFFE
6-	08	1	1	FFFFFFFF	1	1	FFFFFFFF	FFEC0000	0	1	1	FFFFFFFE
6-	09	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFB0000	0	1	1	FFFFFFFE
6-	10	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFEC000	0	1	1	FFFFFFFE
6-	11	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFB000	0	1	1	FFFFFFFE
6-	12	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFEC00	0	1	1	FFFFFFFE
6-	13	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFB00	0	1	1	FFFFFFFE
6-	14	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFEC0	0	1	1	FFFFFFFE
6-	15	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFFB0	0	1	1	FFFFFFFE
6-	16	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFFEC	0	1	1	FFFFFFFE
7		1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFFFB	0	1	1	FFFFFFFE
9		1	1	FFFFFFFF	0	0	00000000	FFFFFFFB	0	1	1	FFFFFFFE
10		1	1	FFFFFFFF	1	1	FFFFFFFB	FFFFFFFB	0	1	1	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0012

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	S000	S00	29L19 29L17 C(S)	-TEST POINTS- C(B)	BC31	D000	D00	29L23 29L28 C(D)
3		1	1	99999922	1	1	99999922	00000000	0	1	1	EEEEEEEE
6-	00	1	1	99999922	0	0	00000000	99999922	0	1	1	EEEEEEEE
6-	01	0	0	00000000	1	1	DDDDDDDC	26666648	0	1	1	DDDDDDDC
6-	02	1	1	F7777777	1	1	F7777777	09999992	0	1	1	DDDDDDDC
6-	03	1	1	FDDDDDDD	1	1	DBBB3B39	C2666664	0	1	1	DDDDDDDC
6-	04	1	1	F6EEEEEE	1	1	F6EEEEEE	70999999	0	1	1	DDDDDDDC
6-	05	1	1	FD3BBB3B	1	1	ECAAAAA9	9C266666	0	1	1	EEEEEEEE
6-	06	1	1	FB2AAAAA	1	1	D9088886	67099999	0	1	1	DDDDDDDC
6-	07	1	1	F6422221	1	1	E531110F	99C26666	0	1	1	EEEEEEEE
6-	08	1	1	F94C4443	1	1	D72A221F	E6709999	0	1	1	DDDDDDDC
6-	09	1	1	F5CA8887	1	1	E4B97775	F99C2666	0	1	1	EEEEEEEE
6-	10	1	1	F92E5DDD	1	1	D70C3B39	7E670999	0	1	1	DDDDDDDC
6-	11	1	1	F5C30EEE	1	1	E4B1FDDC	5F99C266	0	1	1	EEEEEEEE
6-	12	1	1	F92C7F77	1	1	D70A5D53	17E67099	0	1	1	DDDDDDDC
6-	13	1	1	F5C29754	1	1	E4B18642	C5F99C26	0	1	1	EEEEEEEE
6-	14	1	1	F92C6190	1	1	D70A3F6C	B17E6709	0	1	1	DDDDDDDC
6-	15	1	1	F5C28FDB	1	1	E4B17EC9	2C5F99C2	0	1	1	EEEEEEEE
6-	16	1	1	F92C5F32	1	1	D70A3D8E	4317E673	0	1	1	DDDDDDDC
7		1	1	F5C28F63	0	0	06D3A075	92C5F99C	1	1	1	EEEEEEEE
9		0	0	06D3A075	1	1	F92C5F8A	92C5F99C	1	1	1	EEEEEEEE
10		0	0	06D3A075	1	1	92C5F99C	92C5F99C	1	1	1	EEEEEEEE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0013

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 *TEST POINTS* A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 *TEST POINTS* C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	B3333334	1	1	B3333334	00000000	0	0	0	00000000
6-	00	1	1	B3333334	0	0	00000000	B3333334	0	0	0	00000000
6-	01	0	0	00000000	0	0	00000000	2CCCCCCD	0	0	0	00000000
6-	02	0	0	00000000	0	0	00000000	0B333333	0	0	0	00000000
6-	03	0	0	00000000	0	0	00000000	02CCCCCC	1	0	0	00000000
6-	04	0	0	00000000	0	0	00000000	00B33333	0	0	0	00000000
6-	05	0	0	00000000	0	0	00000000	002CCCCC	1	0	0	00000000
6-	06	0	0	00000000	0	0	00000000	000B3333	0	0	0	00000000
6-	07	0	0	00000000	0	0	00000000	0002CCCC	1	0	0	00000000
6-	08	0	0	00000000	0	0	00000000	0000B333	0	0	0	00000000
6-	09	0	0	00000000	0	0	00000000	00002CCC	1	0	0	00000000
6-	10	0	0	00000000	0	0	00000000	00000B33	0	0	0	00000000
6-	11	0	0	00000000	0	0	00000000	000002CC	1	0	0	00000000
6-	12	0	0	00000000	0	0	00000000	000000B3	0	0	0	00000000
6-	13	0	0	00000000	0	0	00000000	0000002C	1	0	0	00000000
6-	14	0	0	00000000	0	0	00000000	0000000B	0	0	0	00000000
6-	15	0	0	00000000	0	0	00000000	00000002	1	0	0	00000000
6-	16	0	0	00000000	0	0	00000000	00000003	1	0	0	00000000
7		0	0	00000000	0	0	00000000	00000000	1	0	0	00000000
9		0	0	00000000	0	0	00000000	00000000	1	0	0	00000000
10		0	0	00000000	0	0	00000000	00000000	1	0	0	00000000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0014

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 -TEST POINTS- A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 -TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	B666666E	1	1	B666666E	00000000	0	1	1	CCCCCCCC
6-	00	1	1	B666665E	0	0	00000000	B666666E	0	1	1	CCCCCCCC
6-	01	0	0	00000000	1	1	99999998	2D99999B	0	1	1	99999998
6-	02	1	1	E6666666	0	0	1999999A	0B666666	1	1	1	CCCCCCCC
6-	03	0	0	06666666	0	0	3999999A	82D99999	1	1	1	CCCCCCCC
6-	04	0	0	0E666666	1	1	A7FFFFFE	A0B66666	0	1	1	99999998
6-	05	1	1	E9FFFFFF	1	1	83999997	A82D9999	0	1	1	99999998
6-	06	1	1	E0E66665	1	1	ADB33331	EA0B6666	0	1	1	CCCCCCCC
6-	07	1	1	EB6CCCCC	1	1	85066664	7A82D999	0	1	1	99999998
6-	08	1	1	E1419999	1	1	AE0E6665	1EA0B666	0	1	1	CCCCCCCC
6-	09	1	1	EB839999	1	1	851D3331	47A82D99	0	1	1	99999998
6-	10	1	1	E1474CCC	1	1	AE141998	51EA0B66	0	1	1	CCCCCCCC
6-	11	1	1	EB850666	1	1	851E9FFE	147A82D9	0	1	1	99999998
6-	12	1	1	E147A7FF	1	1	AE1474CB	851EA0B6	0	1	1	CCCCCCCC
6-	13	1	1	EB851D32	1	1	851E86CA	E147A82D	0	1	1	99999998
6-	14	1	1	E147AD32	1	1	AE147A7E	B851EA0B	0	1	1	CCCCCCCC
6-	15	1	1	EB851E9F	0	0	1EB851D3	AE147A82	1	1	1	CCCCCCCC
6-	16	0	0	07AE1474	0	0	3AE147A8	EB851EA3	1	1	1	CCCCCCCC
7		0	0	0E3851EA	0	0	0EB851EA	3AE147A8	1	1	1	99999998
9		0	0	0E3851EA	0	0	0EB851EA	3AE147A8	1	1	1	99999998
10		0	0	0E3851EA	0	0	3AE147A8	3AE147A8	1	1	1	99999998

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0015

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PROOO

		17P42	-TEST POINTS-		29L19	29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	CBCBCBCB	1	1	CBCBCBCB	00000000	0	0	0	33333333
6- 00		1	1	CBCBCBCB	0	0	00000000	CBCBCBCB	0	0	0	33333333
6- 01		0	0	00000000	1	1	CCCCCCCD	32F2F2F2	1	0	0	33333333
6- 02		1	1	F3333333	1	1	C0000000	4CBC3CBC	1	0	0	33333333
6- 03		1	1	F0000000	0	0	23333333	132F2F2F	0	0	0	33333333
6- 04		0	0	08CCCCCC	1	1	D5999999	C4CBCBCB	1	0	0	33333333
6- 05		1	1	F5666666	1	1	F5666666	7132F2F2	1	0	0	66666666
6- 06		1	1	FD599999	1	1	CA266666	9C4CBCBC	1	0	0	33333333
6- 07		1	1	F2899999	0	0	25BCCCCC	A7132F2F	0	0	0	33333333
6- 08		0	0	096F3333	1	1	D63C0000	29C4CBCB	1	0	0	33333333
6- 09		1	1	F58F0000	1	1	F58F0000	0A7132F2	1	0	0	66666666
6- 10		1	1	FD63C000	1	1	CA3D8CCD	029C4CBC	1	0	0	33333333
6- 11		1	1	F28C2333	0	0	25BF5666	40A7132F	0	0	0	33333333
6- 12		0	0	096FD599	1	1	D63CA266	9029C4CB	1	0	0	33333333
6- 13		1	1	F58F2899	1	1	F58F2899	A40A7132	1	0	0	66666666
6- 14		1	1	FD63CA26	1	1	CA3096F3	69029C4C	1	0	0	33333333
6- 15		1	1	F28C25BC	0	0	25BF58EF	DA40A713	0	0	0	33333333
6- 16		0	0	096FD63B	1	1	D63CA308	F69029C7	1	0	0	33333333
7		1	1	F58F28C2	1	1	F58F28C2	3DA40A71	1	0	0	66666666
9		1	1	F58F28C2	1	1	F58F28C2	3DA40A71	1	0	0	66666666
10		1	1	F58F28C2	0	0	3DA40A71	3DA40A71	1	0	0	66666666

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0016

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PROOO

		17P42	-TEST POINTS-		29L19	29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	7F7F7F7F	0	0	7F7F7F7F	00000000	0	0	0	6DB6DB6D
6- 00		0	0	7F7F7F7F	0	0	00000000	7F7F7F7F	0	0	0	6DB6DB6D
6- 01		0	0	00000000	1	1	92492493	1FDFDFDF	1	0	0	6DB6DB6D
6- 02		1	1	E4924924	1	1	E4924924	C7F7F7F7	1	0	0	DB6DB6DA
6- 03		1	1	F9249249	1	1	F9249249	31FDFDFD	1	0	0	DB6DB6DA
6- 04		1	1	FE492492	0	0	D9B6DB6C	4C7F7F7F	0	0	0	DB6DB6DA
6- 05		0	0	366DB6DB	1	1	C8B6DB6E	131FDFDF	1	0	0	6DB6DB6D
6- 06		1	1	F22DB6DB	1	1	F22DB6DB	84C7F7F7	1	0	0	DB6DB6DA
6- 07		1	1	FC8B6DB6	1	1	FC8B6DB6	E131FDFD	1	0	0	DB6DB6DA
6- 08		1	1	FF22DB6D	0	0	DA909247	B84C7F7F	0	0	0	DB6DB6DA
6- 09		0	0	36A42491	1	1	C8ED4924	EE131FDF	1	0	0	6DB6DB6D
6- 10		1	1	F23B5249	1	1	F23B5249	3B84C7F7	1	0	0	DB6DB6DA
6- 11		1	1	FC8ED492	1	1	FC8ED492	4EE131FD	1	0	0	DB6DB6DA
6- 12		1	1	FF23B524	0	0	DA916BFE	93B84C7F	0	0	0	DB6DB6DA
6- 13		0	0	36A45AFF	1	1	C8ED7F92	A4EE131F	1	0	0	6DB6DB6D
6- 14		1	1	F23B5FE4	1	1	F23B5FE4	A93B84C7	1	0	0	DB6DB6DA
6- 15		1	1	FC8ED7F9	1	1	FC8ED7F9	2A4EE131	1	0	0	DB6DB6DA
6- 16		1	1	FF23B5FE	0	0	DA916CD8	4A93B84C	0	0	0	DB6DB6DA
7		0	0	36A45B36	0	0	36A45B36	12A4EE13	0	0	0	DB6DB6DA
9		0	0	36A45B36	0	0	36A45B36	12A4EE13	0	0	0	DB6DB6DA
10		0	0	36A45B36	0	0	12A4EE13	12A4EE13	0	0	0	DB6DB6DA

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0017

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PROOO

		17P42 -TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B) BC31	D000	D00	C(D)
3		0	0	07870787	0	0	07870787	00000000 0	1	1	DDDDDDDD
6- 00		0	0	07870787	0	0	00000000	07870787 0	1	1	DDDDDDDD
6- 01		0	0	00000000	0	0	22222223	01E1C1E1 1	1	1	DDDDDDDD
6- 02		0	0	08888888	1	1	C4444442	C0787078 0	1	1	BBBBBBBA
6- 03		1	1	F1111110	1	1	F1111110	B01E1C1E 0	1	1	BBBBBBBA
6- 04		1	1	FC444444	1	1	B7FFFFFE	2C078707 0	1	1	BBBBBBBA
6- 05		1	1	EDFFFFFF	0	0	10222222	8B01E1C1 1	1	1	DDDDDDDD
6- 06		0	0	04088888	1	1	BFC44442	A2C07870 0	1	1	BBBBBBBA
6- 07		1	1	EFF11110	1	1	EFF11110	A8B01E1C 0	1	1	BBBBBBBA
6- 08		1	1	FBFC4444	1	1	FBFC4444	2A2C0787 0	1	1	BBBBBBBA
6- 09		1	1	FEFF1111	0	0	21213334	0A8B01E1 1	1	1	DDDDDDDD
6- 10		0	0	08484CCD	1	1	C4040887	02A2C078 0	1	1	BBBBBBBA
6- 11		1	1	F1010221	1	1	F1010221	C0A8B01E 0	1	1	BBBBBBBA
6- 12		1	1	FC404088	1	1	B7FBFC42	702A2C07 0	1	1	BBBBBBBA
6- 13		1	1	EDFEFF10	0	0	10212133	9C0A8B01 1	1	1	DDDDDDDD
6- 14		0	0	0408484C	1	1	BFC40406	E702A2C0 0	1	1	BBBBBBBA
6- 15		1	1	EFF10101	1	1	EFF10101	B9C0A8B0 0	1	1	BBBBBBBA
6- 16		1	1	FBFC4040	1	1	FBFC4040	6E702A2C 0	1	1	BBBBBBBA
7		1	1	FEFF1010	1	1	FEFF1010	1B9C0A8B 0	1	1	BBBBBBBA
9		1	1	FEFF1010	1	1	FEFF1010	1B9C0A8B 0	1	1	BBBBBBBA
10		1	1	FEFF1010	0	0	1B9C0A8B	1B9C0A8B 0	1	1	BBBBBBBA

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0018

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PROOO

		17P42 -TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B) BC31	D000	D00	C(D)
3		0	0	686D36D9	0	0	686D36D9	00000000 0	1	1	FFFFFFFF
6- 00		0	0	686D36D9	0	0	00000000	686D36D9 0	1	1	FFFFFFFF
6- 01		0	0	00000000	1	1	FFFFFFFF	1ADB4DB6 0	1	1	FFFFFFFF
6- 02		1	1	FFFFFFFF	1	1	FFFFFFFD	C6B6D36D 0	1	1	FFFFFFFE
6- 03		1	1	FFFFFFFF	1	1	FFFFFFFE	71ADB4DB 0	1	1	FFFFFFFF
6- 04		1	1	FFFFFFFF	0	0	00000000	9C6B6D36 1	1	1	FFFFFFFF
6- 05		0	0	00000000	0	0	00000001	271ADB4D 1	1	1	FFFFFFFF
6- 06		0	0	00000000	1	1	FFFFFFFE	49C6B6D3 0	1	1	FFFFFFFE
6- 07		1	1	FFFFFFFF	0	0	00000000	9271ADB4 1	1	1	FFFFFFFF
6- 08		0	0	00000000	1	1	FFFFFFFF	249C6B6D 0	1	1	FFFFFFFF
6- 09		1	1	FFFFFFFF	1	1	FFFFFFFE	C9271ADB 0	1	1	FFFFFFFF
6- 10		1	1	FFFFFFFF	0	0	00000000	3249C6B6 1	1	1	FFFFFFFF
6- 11		0	0	00000000	0	0	00000001	2C9271AD 1	1	1	FFFFFFFF
6- 12		0	0	00000000	1	1	FFFFFFFE	4B249C6B 0	1	1	FFFFFFFE
6- 13		1	1	FFFFFFFF	0	0	00000000	92C9271A 1	1	1	FFFFFFFF
6- 14		0	0	00000000	0	0	00000001	24B249C6 1	1	1	FFFFFFFF
6- 15		0	0	00000000	0	0	00000001	492C9271 1	1	1	FFFFFFFF
6- 16		0	0	00000000	1	1	FFFFFFFE	524B249C 0	1	1	FFFFFFFE
7		1	1	FFFFFFFF	1	1	FFFFFFFF	9492C927 0	1	1	FFFFFFFE
9		1	1	FFFFFFFF	0	0	00000000	9492C927 0	1	1	FFFFFFFE
10		1	1	FFFFFFFF	1	1	94920927	9492C927 0	1	1	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0019

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	4A32694C	0	0	4A32694C	00000000	0		1	1	EEEEEEEE
6- 00		0	0	4A32694C	0	0	00000000	4A32694C	0		1	1	EEEEEEEE
6- 01		0	0	00000000	0	0	00000000	128C9A53	0		1	1	DDDDDDDC
6- 02		0	0	00000000	0	0	11111112	04A32694	1		1	1	EEEEEEEE
6- 03		0	0	04444444	1	1	F3333332	8128C9A5	0		1	1	EEEEEEEE
6- 04		1	1	FCCCCCCC	1	1	EBB3BBBA	A04A3269	0		1	1	EEEEEEEE
6- 05		1	1	FAEEEEEE	1	1	E9DDDDDC	A8128C9A	0		1	1	EEEEEEEE
6- 06		1	1	FA777777	1	1	D8555553	2A04A326	0		1	1	DDDDDDDC
6- 07		1	1	F6155554	1	1	D3F33330	CA8128C9	0		1	1	DDDDDDDC
6- 08		1	1	F4FCCCCC	1	1	E3E3BBBA	32A04A32	0		1	1	EEEEEEEE
6- 09		1	1	F8FAEEEE	1	1	D6D8CCCA	8CA8128C	0		1	1	DDDDDDDC
6- 10		1	1	F5363332	1	1	F5B63332	A32A04A3	0		1	1	DDDDDDDC
6- 11		1	1	FD6D8CCC	0	0	0E7E9DDE	A8CA8128	1		1	1	EEEEEEEE
6- 12		0	0	033FA777	1	1	F28E9665	AA32A04A	0		1	1	EEEEEEEE
6- 13		1	1	FCA3A599	1	1	DA818375	6A8CA812	0		1	1	DDDDDDDC
6- 14		1	1	F6A060DD	1	1	D47E3E89	5AA32A04	0		1	1	DDDDDDDC
6- 15		1	1	F51F8FAE	1	1	F51F8FAE	56A8CA81	0		1	1	DDDDDDDC
6- 16		1	1	FD47E3EB	1	1	EC3632D9	95AA32A0	0		1	1	EEEEEEEE
7		1	1	FB0DB486	1	1	FB0DB486	656A8CA8	0		1	1	DDDDDDDC
9		1	1	FB0DB486	1	1	FB0DB486	656A8CA8	0		1	1	DDDDDDDC
10		1	1	FB0DB486	0	0	656A8CA8	656A8CA8	0		1	1	DDDDDDDC

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0020

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	2AAAAAA6	0	0	2AAAAAA6	00000000	0		0	0	7FFFFFFF
6- 00		0	0	2AAAAAA6	0	0	00000000	2AAAAAA6	0		0	0	7FFFFFFF
6- 01		0	0	00000000	0	0	FFFFFFFE	0AAAAAA9	0		0	0	FFFFFFFE
6- 02		0	0	3FFFFFFF	0	0	BFFFFFFE	82AAAAAA	0		0	0	7FFFFFFF
6- 03		0	0	2FFFFFFF	0	1	2FFFFFFD	A0AAAAAA	0		0	0	FFFFFFFE
6- 04		0	0	4BFFFFFF	0	1	4BFFFFFD	682AAAAA	0		0	0	FFFFFFFE
6- 05		0	0	52FFFFFF	0	1	52FFFFFD	5A0AAAAA	0		0	0	FFFFFFFE
6- 06		0	0	548FFFFF	0	1	548FFFFD	5682AAAA	0		0	0	FFFFFFFE
6- 07		0	0	552FFFFF	0	1	552FFFFD	55A0AAAA	0		0	0	FFFFFFFE
6- 08		0	0	554BFFFF	0	1	554BFFFD	55682AAA	0		0	0	FFFFFFFE
6- 09		0	0	5552FFFF	0	1	5552FFFD	555A0AAA	0		0	0	FFFFFFFE
6- 10		0	0	55543FFF	0	1	55543FFD	555682AA	0		0	0	FFFFFFFE
6- 11		0	0	55552FFF	0	1	55552FFD	5555A0AA	0		0	0	FFFFFFFE
6- 12		0	0	555548FF	0	1	555548FD	5555682A	0		0	0	FFFFFFFE
6- 13		0	0	555552FF	0	1	555552FD	55555A0A	0		0	0	FFFFFFFE
6- 14		0	0	5555543F	0	1	55555543D	55555682	0		0	0	FFFFFFFE
6- 15		0	0	5555552F	0	1	55555552D	555555A0	0		0	0	FFFFFFFE
6- 16		0	0	55555548	0	0	55555548	55555568	0		0	0	FFFFFFFE
7		0	0	15555552	0	0	15555552	0555555A	0		0	0	FFFFFFFE
9		0	0	15555552	1	1	EAAAAAAD	0555555A	0		0	0	FFFFFFFE
10		0	0	15555552	1	1	0555555A	0555555A	0		0	0	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0021

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	80000000	1	1	80000000	00000000	0	1	1	FFFFFFFF
6- 00		1	1	80000000	0	0	00000000	80000000	0	1	1	FFFFFFFF
6- 01		0	0	00000000	0	0	00000000	20000000	0	1	1	FFFFFFFE
6- 02		0	0	00000000	0	0	00000000	08000000	0	1	1	FFFFFFFE
6- 03		0	0	00000000	0	0	00000000	02000000	0	1	1	FFFFFFFE
6- 04		0	0	00000000	0	0	00000000	00800000	0	1	1	FFFFFFFE
6- 05		0	0	00000000	0	0	00000000	00200000	0	1	1	FFFFFFFE
6- 06		0	0	00000000	0	0	00000000	00080000	0	1	1	FFFFFFFE
6- 07		0	0	00000000	0	0	00000000	00020000	0	1	1	FFFFFFFE
6- 08		0	0	00000000	0	0	00000000	00008000	0	1	1	FFFFFFFE
6- 09		0	0	00000000	0	0	00000000	00002000	0	1	1	FFFFFFFE
6- 10		0	0	00000000	0	0	00000000	00000800	0	1	1	FFFFFFFE
6- 11		0	0	00000000	0	0	00000000	00000200	0	1	1	FFFFFFFE
6- 12		0	0	00000000	0	0	00000000	00000080	0	1	1	FFFFFFFE
6- 13		0	0	00000000	0	0	00000000	00000020	0	1	1	FFFFFFFE
6- 14		0	0	00000000	0	0	00000000	00000008	0	1	1	FFFFFFFE
6- 15		0	0	00000000	0	0	00000000	00000002	0	1	1	FFFFFFFE
6- 16		0	0	00000000	1	1	FFFFFFFE	00000003	0	1	1	FFFFFFFE
7		1	1	FFFFFFFF	0	0	00000000	80000000	1	1	1	FFFFFFFF
9		0	0	00000000	1	1	FFFFFFFF	80000000	1	1	1	FFFFFFFF
10		0	0	00000000	1	1	80000000	80000000	1	1	1	FFFFFFFF

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0022

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	7FFFFFFF	0	0	7FFFFFFF	00000000	0	0	0	7FFFFFFF
6- 00		0	0	7FFFFFFF	0	0	00000000	7FFFFFFF	0	0	0	7FFFFFFF
6- 01		0	0	00000000	1	1	80000001	1FFFFFFF	1	0	0	7FFFFFFF
6- 02		1	1	80000000	1	1	E0000000	47FFFFFF	1	0	0	FFFFFFFE
6- 03		1	1	F8000000	1	1	F8000000	11FFFFFF	1	0	0	FFFFFFFE
6- 04		1	1	FE000000	1	1	FE000000	047FFFFF	1	0	0	FFFFFFFE
6- 05		1	1	FF800000	1	1	FF800000	011FFFFF	1	0	0	FFFFFFFE
6- 06		1	1	FFE00000	1	1	FFE00000	0047FFFF	1	0	0	FFFFFFFE
6- 07		1	1	FFF80000	1	1	FFF80000	0011FFFF	1	0	0	FFFFFFFE
6- 08		1	1	FFFE0000	1	1	FFFE0000	00047FFF	1	0	0	FFFFFFFE
6- 09		1	1	FFFF8000	1	1	FFFF8000	00011FFF	1	0	0	FFFFFFFE
6- 10		1	1	FFFFE000	1	1	FFFFE000	000047FF	1	0	0	FFFFFFFE
6- 11		1	1	FFFFF800	1	1	FFFFF800	000011FF	1	0	0	FFFFFFFE
6- 12		1	1	FFFFFE00	1	1	FFFFFE00	00000047F	1	0	0	FFFFFFFE
6- 13		1	1	FFFFFF80	1	1	FFFFFF80	00000011F	1	0	0	FFFFFFFE
6- 14		1	1	FFFFFFE0	1	1	FFFFFFE0	00000047	1	0	0	FFFFFFFE
6- 15		1	1	FFFFFFF8	1	1	FFFFFFF8	00000011	1	0	0	FFFFFFFE
6- 16		1	1	FFFFFFFE	0	0	FFFFFFFC	00000004	0	0	0	FFFFFFFE
7		0	0	3FFFFFFF	0	0	3FFFFFFF	00000001	0	0	0	FFFFFFFE
9		0	0	3FFFFFFF	0	0	3FFFFFFF	00000001	0	0	0	FFFFFFFE
10		0	0	3FFFFFFF	0	0	00000001	00000001	0	0	0	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0023

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	80000000	1	1	80000000	00000000	0	1	1	80000000
6-	00	1	1	80000000	0	0	00000000	80000000	0	1	1	80000000
6-	01	0	0	00000000	0	0	00000000	20000000	0	1	1	00000000
6-	02	0	0	00000000	0	0	00000000	08000000	0	1	1	00000000
6-	03	0	0	00000000	0	0	00000000	02000000	0	1	1	00000000
6-	04	0	0	00000000	0	0	00000000	00800000	0	1	1	00000000
6-	05	0	0	00000000	0	0	00000000	00200000	0	1	1	00000000
6-	06	0	0	00000000	0	0	00000000	00080000	0	1	1	00000000
6-	07	0	0	00000000	0	0	00000000	00020000	0	1	1	00000000
6-	08	0	0	00000000	0	0	00000000	00008000	0	1	1	00000000
6-	09	0	0	00000000	0	0	00000000	00002000	0	1	1	00000000
6-	10	0	0	00000000	0	0	00000000	00000800	0	1	1	00000000
6-	11	0	0	00000000	0	0	00000000	00000200	0	1	1	00000000
6-	12	0	0	00000000	0	0	00000000	00000080	0	1	1	00000000
6-	13	0	0	00000000	0	0	00000000	00000020	0	1	1	00000000
6-	14	0	0	00000000	0	0	00000000	00000008	0	1	1	00000000
6-	15	0	0	00000000	0	0	00000000	00000002	0	1	1	00000000
6-	16	0	0	00000000	1	1	00000000	00000003	0	1	1	00000000
7		1	1	80000000	0	0	40000000	00000000	1	1	1	80000000
9		0	0	40000000	0	0	40000000	00000000	1	1	1	80000000
10		0	0	40000000	0	0	00000000	00000000	1	1	1	80000000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0024

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	80000000	1	1	80000000	00000000	0	0	0	00000001
6-	00	1	1	80000000	0	0	00000000	80000000	0	0	0	00000001
6-	01	0	0	00000000	0	0	00000000	20000000	0	0	0	00000002
6-	02	0	0	00000000	0	0	00000000	08000000	0	0	0	00000002
6-	03	0	0	00000000	0	0	00000000	02000000	0	0	0	00000002
6-	04	0	0	00000000	0	0	00000000	00800000	0	0	0	00000002
6-	05	0	0	00000000	0	0	00000000	00200000	0	0	0	00000002
6-	06	0	0	00000000	0	0	00000000	00080000	0	0	0	00000002
6-	07	0	0	00000000	0	0	00000000	00020000	0	0	0	00000002
6-	08	0	0	00000000	0	0	00000000	00008000	0	0	0	00000002
6-	09	0	0	00000000	0	0	00000000	00002000	0	0	0	00000002
6-	10	0	0	00000000	0	0	00000000	00000800	0	0	0	00000002
6-	11	0	0	00000000	0	0	00000000	00000200	0	0	0	00000002
6-	12	0	0	00000000	0	0	00000000	00000080	0	0	0	00000002
6-	13	0	0	00000000	0	0	00000000	00000020	0	0	0	00000002
6-	14	0	0	00000000	0	0	00000000	00000008	0	0	0	00000002
6-	15	0	0	00000000	0	0	00000000	00000002	0	0	0	00000002
6-	16	0	0	00000000	0	0	00000002	00000003	0	0	0	00000002
7		0	0	00000000	1	1	FFFFFFFF	80000000	1	0	0	00000001
9		1	1	FFFFFFFF	0	0	00000000	80000000	1	0	0	00000001
10		1	1	FFFFFFFF	1	1	80000000	80000000	1	0	0	00000001

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0025

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	00000001	0	0	00000001	00000000	0	1	1	80000000
6-	00	0	0	00000001	0	0	00000000	00000001	0	1	1	80000000
6-	01	0	0	00000000	1	1	80000000	00000000	0	1	1	00000000
6-	02	1	1	E0000000	1	1	E0000000	00000000	0	1	1	00000000
6-	03	1	1	F8000000	1	1	F8000000	00000000	0	1	1	00000000
6-	04	1	1	FE000000	1	1	FE000000	00000000	0	1	1	00000000
6-	05	1	1	FF800000	1	1	FF800000	00000000	0	1	1	00000000
6-	06	1	1	FFE00000	1	1	FFE00000	00000000	0	1	1	00000000
6-	07	1	1	FFF80000	1	1	FFF80000	00000000	0	1	1	00000000
6-	08	1	1	FFFE0000	1	1	FFFE0000	00000000	0	1	1	00000000
6-	09	1	1	FFFF8000	1	1	FFFF8000	00000000	0	1	1	00000000
6-	10	1	1	FFFFE000	1	1	FFFFE000	00000000	0	1	1	00000000
6-	11	1	1	FFFFF800	1	1	FFFFF800	00000000	0	1	1	00000000
6-	12	1	1	FFFFFE00	1	1	FFFFFE00	00000000	0	1	1	00000000
6-	13	1	1	FFFFFF80	1	1	FFFFFF80	00000000	0	1	1	00000000
6-	14	1	1	FFFFFFE0	1	1	FFFFFFE0	00000000	0	1	1	00000000
6-	15	1	1	FFFFFFF8	1	1	FFFFFFF8	00000000	0	1	1	00000000
6-	16	1	1	FFFFFFFE	1	1	FFFFFFFE	00000000	0	1	1	00000000
7		1	1	FFFFFFFF	1	1	FFFFFFFF	80000000	0	1	1	00000000
9		1	1	FFFFFFFF	0	0	00000000	80000000	0	1	1	00000000
10		1	1	FFFFFFFF	1	1	80000000	80000000	0	1	1	00000000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0026

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	FFFFFFFF	1	1	FFFFFFFF	00000000	0	1	1	FFFFFFFF
6-	00	1	1	FFFFFFFF	0	0	00000000	FFFFFFFF	0	1	1	FFFFFFFF
6-	01	0	0	00000000	0	0	00000001	3FFFFFFF	1	1	1	FFFFFFFF
6-	02	0	0	00000000	0	0	00000000	4FFFFFFF	1	1	1	FFFFFFFE
6-	03	0	0	00000000	0	0	00000000	13FFFFFF	1	1	1	FFFFFFFE
6-	04	0	0	00000000	0	0	00000000	04FFFFFF	1	1	1	FFFFFFFE
6-	05	0	0	00000000	0	0	00000000	013FFFFF	1	1	1	FFFFFFFE
6-	06	0	0	00000000	0	0	00000000	004FFFFF	1	1	1	FFFFFFFE
6-	07	0	0	00000000	0	0	00000000	0013FFFF	1	1	1	FFFFFFFE
6-	08	0	0	00000000	0	0	00000000	0004FFFF	1	1	1	FFFFFFFE
6-	09	0	0	00000000	0	0	00000000	00013FFF	1	1	1	FFFFFFFE
6-	10	0	0	00000000	0	0	00000000	00004FFF	1	1	1	FFFFFFFE
6-	11	0	0	00000000	0	0	00000000	000013FF	1	1	1	FFFFFFFE
6-	12	0	0	00000000	0	0	00000000	000004FF	1	1	1	FFFFFFFE
6-	13	0	0	00000000	0	0	00000000	0000013F	1	1	1	FFFFFFFE
6-	14	0	0	00000000	0	0	00000000	0000004F	1	1	1	FFFFFFFE
6-	15	0	0	00000000	0	0	00000000	00000013	1	1	1	FFFFFFFE
6-	16	0	0	00000000	0	0	00000000	00000007	1	1	1	FFFFFFFE
7		0	0	00000000	0	0	00000000	00000001	1	1	1	FFFFFFFE
9		0	0	00000000	0	0	00000000	00000001	1	1	1	FFFFFFFE
10		0	0	00000000	0	0	00000001	00000001	1	1	1	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0027

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-		29L23		29L28
3		0	0	00000000	0	0	00000000	00000000	0	0	0	7FFFFFFF
6-	00	0	0	00000000	0	0	00000000	00000000	0	0	0	7FFFFFFF
6-	01	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	02	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	03	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	04	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	05	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	06	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	07	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	08	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	09	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	10	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	11	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	12	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	13	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	14	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	15	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
6-	16	0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
7		0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
9		0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE
10		0	0	00000000	0	0	00000000	00000000	0	0	0	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0028

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-		29L23		29L28
3		0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	00	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	01	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	02	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	03	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	04	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	05	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	06	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	07	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	08	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	09	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	10	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	11	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	12	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	13	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	14	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	15	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
6-	16	0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
7		0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
9		0	0	00000000	0	0	00000000	00000000	0	0	0	00000000
10		0	0	00000000	0	0	00000000	00000000	0	0	0	00000000

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MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0029

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	17P42 -TEST POINTS- A00	C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	31C3C1F0	0	0	31C3C1F0	00000000	0	0	0	79999999
6-	00	0	0	31C3C1F0	0	0	00000000	31C3C1F0	0	0	0	79999999
6-	01	0	0	00000000	0	0	00000000	0C70F07C	0	0	0	F3333332
6-	02	0	0	00000000	0	0	00000000	031C3C1F	0	0	0	F3333332
6-	03	0	0	00000000	1	1	86666667	00C70F07	1	0	0	79999999
6-	04	1	1	E1999999	1	1	E1999999	C031C3C1	1	0	0	F3333332
6-	05	1	1	F8666666	0	0	E8999998	700C70F0	0	0	0	F3333332
6-	06	0	0	3AE66666	0	0	3AE66666	1C031C3C	0	0	0	F3333332
6-	07	0	0	0E399999	0	0	0EB99999	8700C70F	0	0	0	F3333332
6-	08	0	0	03AE6666	1	1	8A14CCCD	61C031C3	1	0	0	79999999
6-	09	1	1	E2853333	1	1	E2853333	58700C70	1	0	0	F3333332
6-	10	1	1	F8A14CCC	0	0	723AE665	D61C031C	0	0	0	79999999
6-	11	0	0	1C8EB999	0	0	1C8EB999	758700C7	0	0	0	F3333332
6-	12	0	0	07238AE6	1	1	8D8A14CD	5D61C031	1	0	0	79999999
6-	13	1	1	E3628533	0	0	D6953865	5758700C	0	0	0	F3333332
6-	14	0	0	35A56E19	0	0	35A56E19	55D61C03	0	0	0	F3333332
6-	15	0	0	0D695B86	1	1	93CFC1ED	55758700	1	0	0	79999999
6-	16	1	1	E4F3F07B	0	0	5E8D8A14	555D61C0	0	0	0	79999999
7		0	0	17A36285	0	0	17A36285	15575870	0	0	0	F3333332
9		0	0	17A36285	0	0	17A36285	15575870	0	0	0	F3333332
10		0	0	17A36285	0	0	15575870	15575870	0	0	0	F3333332

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0030

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	17P42 -TEST POINTS- A00	C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	82222222	1	1	82222222	00000000	0	0	0	59C61C18
6-	00	1	1	82222222	0	0	00000000	82222222	0	0	0	59C61C18
6-	01	0	0	00000000	0	0	B38C3830	20888888	0	0	0	B38C3830
6-	02	0	0	2CE30E0C	0	0	2CE30E0C	08222222	0	0	0	B38C3830
6-	03	0	0	0B38C383	0	0	BEC4FBB3	02088888	0	0	0	B38C3830
6-	04	0	0	2FB13EEC	0	0	2FB13EEC	C0822222	0	0	0	B38C3830
6-	05	0	0	0BEC4FBB	0	0	BF7887EB	30208888	0	0	0	B38C3830
6-	06	0	0	2FDE21FA	0	0	2FDE21FA	CC082222	0	0	0	B38C3830
6-	07	0	0	0BF787EE	0	0	BF83C0AE	B3020888	0	0	0	B38C3830
6-	08	0	0	2FE0F02B	0	0	2FE0F02B	ACC08222	0	0	0	B38C3830
6-	09	0	0	0BF83C0A	0	0	BF84743A	EB302088	0	0	0	B38C3830
6-	10	0	0	2FE11D0E	0	0	2FE11D0E	BACC0822	0	0	0	B38C3830
6-	11	0	0	0BF84743	0	0	BF847F73	AEB30208	0	0	0	B38C3830
6-	12	0	0	2FE11FDC	0	0	2FE11FDC	EBACC082	0	0	0	B38C3830
6-	13	0	0	0BF847F7	0	0	BF848027	BAEB3020	0	0	0	B38C3830
6-	14	0	0	2FE12009	0	0	2FE12009	CEBACC08	0	0	0	B38C3830
6-	15	0	0	0BF84802	0	0	0BF84802	73AEB3C2	0	0	0	B38C3830
6-	16	0	0	02FE1200	0	0	B68A4A30	9CEBACC3	0	0	0	B38C3830
7		0	0	2DA282BC	1	1	D3DC7674	273AEB30	1	0	0	59C61C18
9		1	1	D3DC7674	1	1	D3DC7674	273AEB30	1	0	0	59C61C18
10		1	1	D3DC7674	0	0	273AEB30	273AEB30	1	0	0	59C61C18

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0031

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	021871E7	0	0	021871E7	00000000	0		1	1	87777777
6- 00		0	0	021871E7	0	0	00000000	021871E7	0		1	1	87777777
6- 01		0	0	00000000	0	0	78888889	00861C79	1		1	1	87777777
6- 02		0	0	1E222222	1	1	2D111110	4021871E	0		1	1	DEEEEEEE
6- 03		1	1	CB444444	1	0	DA333332	100861C7	0		1	1	DEEEEEEE
6- 04		1	1	B6BCCCCC	0	0	2F155555	84021871	1		1	1	87777777
6- 05		0	0	0BC55555	1	1	1AB44443	6100861C	0		1	1	DEEEEEEE
6- 06		1	1	C6AD1110	1	1	C6AD1110	D8402187	0		1	1	DEEEEEEE
6- 07		1	1	F1AB4444	0	0	6A33CCCD	36100861	1		1	1	87777777
6- 08		0	0	1A8CF333	1	1	2973E221	4D840218	0		1	1	DEEEEEEE
6- 09		1	1	CA5EF888	1	1	CA5EF888	53610086	0		1	1	DEEEEEEE
6- 10		1	1	F2978E22	1	1	0186AD10	14D84021	0		1	1	DEEEEEEE
6- 11		1	1	C061AB44	1	1	47D9223B	05361008	0		1	1	87777777
6- 12		1	1	D1F648AE	1	1	D1F648AE	C14D8402	0		1	1	DEEEEEEE
6- 13		1	1	F47D922B	1	1	036C8119	B0536100	0		1	1	DEEEEEEE
6- 14		1	1	C0DB2046	1	1	C0DB2046	6C14D840	0		1	1	DEEEEEEE
6- 15		1	1	F036C811	1	1	F036C811	9B053610	0		1	1	DEEEEEEE
6- 16		1	1	FC0DB204	1	1	FC0DB204	66C14D84	0		1	1	DEEEEEEE
7		1	1	FF036C81	1	1	FF036C81	19B05361	0		1	1	DEEEEEEE
9		1	1	FF036C81	1	1	FF036C81	19B05361	0		1	1	DEEEEEEE
10		1	1	FF036C81	0	0	19B05361	19B05361	0		1	1	DEEEEEEE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0032

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		1	1	AAAAAAAA	1	1	AAAAAAAA	00000000	0		1	1	FC7CF1CC
6- 00		1	1	AAAAAAAA	0	0	00000000	AAAAAAAA	0		1	1	FC7CF1CC
6- 01		0	0	00000000	1	1	F8F9E398	2AAAAAAA	0		1	1	F8F9E398
6- 02		1	1	FE3E78E6	1	1	F7385C7E	0AAAAAAA	0		1	1	F8F9E398
6- 03		1	1	FDCE171F	1	1	F6C7FAB7	82AAAAAA	0		1	1	F8F9E398
6- 04		1	1	FDB1FEAD	1	1	F6A3E245	E0AAAAAA	0		1	1	F8F9E398
6- 05		1	1	FDAAF891	1	1	F6A4DC29	782AAAAA	0		1	1	F8F9E398
6- 06		1	1	FDA9370A	1	1	F6A31AA2	5E0AAAAA	0		1	1	F8F9E398
6- 07		1	1	FDA8C6A8	1	1	F6A2AA40	9782AAAA	0		1	1	F8F9E398
6- 08		1	1	FDA8AA90	1	1	F6A28E28	25E0AAAA	0		1	1	F8F9E398
6- 09		1	1	FDA8A3BA	1	1	F6A28722	09782AAA	0		1	1	F8F9E398
6- 10		1	1	FDA8A1C8	1	1	F6A28560	825E0AAA	0		1	1	F8F9E398
6- 11		1	1	FDA8A158	1	1	F6A284F0	209782AA	0		1	1	F8F9E398
6- 12		1	1	FDA8A13C	1	1	F6A284D4	0825E0AA	0		1	1	F8F9E398
6- 13		1	1	FDA8A135	1	1	F6A284CD	0209782A	0		1	1	F8F9E398
6- 14		1	1	FDA8A133	1	1	F6A284CB	40825E0A	0		1	1	F8F9E398
6- 15		1	1	FDA8A132	1	1	F6A284CA	D0209782	0		1	1	F8F9E398
6- 16		1	1	FDA8A132	1	1	F6A284CA	B40825E3	0		1	1	F8F9E398
7		1	1	FDA8A132	0	0	012BAF66	AD020978	1		1	1	FC7CF1CC
9		0	0	012BAF66	1	1	FED45039	AD020978	1		1	1	FC7CF1CC
10		0	0	012BAF66	1	1	AD020978	AD020978	1		1	1	FC7CF1CC

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0033

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	CD5B3C70	1	1	CD5B3C70	00000000	0	0	0	15555555
6-	00	1	1	CD5B3C70	0	0	00000000	CD5B3C70	0	0	0	15555555
6-	01	0	0	00000000	0	0	00000000	3356CF1C	0	0	0	2AAAAAAA
6-	02	0	0	00000000	0	0	00000000	0CD5B3C7	0	0	0	2AAAAAAA
6-	03	0	0	00000000	1	1	EAAAAAAB	03356CF1	1	0	0	15555555
6-	04	1	1	FAAAAAAA	0	0	25555554	C0CD5B3C	0	0	0	2AAAAAAA
6-	05	0	0	09555555	0	0	09555555	303356CF	0	0	0	2AAAAAAA
6-	06	0	0	02555555	1	1	ED000000	4C0CD5B3	1	0	0	15555555
6-	07	1	1	FB400000	1	1	FB400000	1303356C	1	0	0	2AAAAAAA
6-	08	1	1	FED00000	0	0	14255555	04C0CD5B	0	0	0	15555555
6-	09	0	0	05095555	1	1	EFB40000	41303356	1	0	0	15555555
6-	10	1	1	FBED0000	1	1	E697AAAB	104C0CD5	1	0	0	15555555
6-	11	1	1	F9A5EAAA	0	0	24509554	C4130335	0	0	0	2AAAAAAA
6-	12	0	0	09142555	0	0	1E697AAA	3104C0CD	0	0	0	15555555
6-	13	0	0	079A5EAA	0	0	1CEF33FF	8C413033	0	0	0	15555555
6-	14	0	0	073BECFF	1	1	F1E697AA	E3104C0C	1	0	0	15555555
6-	15	1	1	FC79A5EA	0	0	11CEF33F	B8C41303	0	0	0	15555555
6-	16	0	0	04738ECF	1	1	EF1E697A	EE3104C3	1	0	0	15555555
7		1	1	FBC79A5E	1	1	FBC79A5E	BB8C4130	1	0	0	2AAAAAAA
9		1	1	FBC79A5E	0	0	043865A1	BB8C4130	1	0	0	2AAAAAAA
10		1	1	FBC79A5E	1	1	BB8C4130	BB8C4130	1	0	0	2AAAAAAA

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0034

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	11111111	0	0	11111111	00000000	0	0	0	03111111
6-	00	0	0	11111111	0	0	00000000	11111111	0	0	0	03111111
6-	01	0	0	00000000	0	0	03111111	04444444	0	0	0	03111111
6-	02	0	0	00044444	0	0	00044444	41111111	0	0	0	06222222
6-	03	0	0	00311111	0	0	03422222	10444444	0	0	0	03111111
6-	04	0	0	00008888	0	0	00008888	84111111	0	0	0	06222222
6-	05	0	0	00342222	0	0	03453333	21044444	0	0	0	03111111
6-	06	0	0	00014CCC	0	0	00014CCC	C8411111	0	0	0	06222222
6-	07	0	0	00345333	0	0	03456444	32104444	0	0	0	03111111
6-	08	0	0	00015911	0	0	00015911	0C841111	0	0	0	06222222
6-	09	0	0	00345644	0	0	03456755	43210444	0	0	0	03111111
6-	10	0	0	00015905	0	0	00015905	50C84111	0	0	0	06222222
6-	11	0	0	00345675	0	0	03456786	54321044	0	0	0	03111111
6-	12	0	0	000159E1	0	0	000159E1	950C8411	0	0	0	06222222
6-	13	0	0	00345678	0	0	03456789	65432104	0	0	0	03111111
6-	14	0	0	000159E2	0	0	000159E2	5950C841	0	0	0	06222222
6-	15	0	0	00345678	0	0	03456789	96543210	0	0	0	03111111
6-	16	0	0	000159E2	0	0	000159E2	65950C84	0	0	0	06222222
7		0	0	00345678	0	0	00345678	99654321	0	0	0	06222222
9		0	0	00345678	1	1	FFC3A987	99654321	0	0	0	06222222
10		0	0	00345678	1	1	99654321	99654321	0	0	0	06222222

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0035

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 *TEST POINTS* C(A)	29L19 S000	S00	C(S)	29L17 *TEST POINTS* C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	96969690	1	1	96969690	00000000	0	0	0	66666666
6- 00		1	1	96969690	0	0	00000000	9696969D	0	0	0	66666666
6- 01		0	0	00000000	0	0	66666666	25A5A5A7	0	0	0	66666666
6- 02		0	0	19999999	1	1	B3333333	89696969	1	0	0	66666666
6- 03		1	1	ECCCCCCC	0	0	B9999998	E25A5A5A	0	0	0	CCCCCCCC
6- 04		0	0	2E666666	0	0	FB333332	38969696	0	0	0	CCCCCCCC
6- 05		0	0	3ECCCCCC	0	1	08999998	8E25A5A5	0	0	0	CCCCCCCC
6- 06		0	0	42E66666	0	0	A94CCCCC	23896969	0	0	0	66666666
6- 07		0	0	2A533333	0	0	90899999	08E25A5A	0	0	0	66666666
6- 08		0	0	242E6666	0	0	F0FB3332	42389696	0	0	0	CCCCCCCC
6- 09		0	0	3C3ECCCC	0	1	090B9998	908E25A5	0	0	0	CCCCCCCC
6- 10		0	0	4242E666	0	0	A8A94CCC	24238969	0	0	0	66666666
6- 11		0	0	2A2A5333	0	0	9090B999	0908E25A	0	0	0	66666666
6- 12		0	0	24242E66	0	0	F0F0FB32	42423896	0	0	0	CCCCCCCC
6- 13		0	0	3C3C3ECC	0	1	09090B98	90908E25	0	0	0	CCCCCCCC
6- 14		0	0	4242242E	0	0	A8A8A94C	24242389	0	0	0	66666666
6- 15		0	0	2A2A2A53	0	0	90909089	090908E2	0	0	0	66666666
6- 16		0	0	2424242E	0	0	F0F0F0FA	4242423B	0	0	0	CCCCCCCC
7		0	0	3C3C3C3E	1	1	D5D5D5D8	9090908E	1	0	0	66666666
9		1	1	D5D5D5D8	0	0	2A2A2A27	9090908E	1	0	0	66666666
10		1	1	D5D5D5D8	1	1	9090908E	9090908E	1	0	0	66666666

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0036

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 *TEST POINTS* C(A)	29L19 S000	S00	C(S)	29L17 *TEST POINTS* C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	89999999	1	1	89999999	00000000	0	0	0	44444444
6- 00		1	1	89999999	0	0	00000000	89999999	0	0	0	44444444
6- 01		0	0	00000000	0	0	44444444	22666666	0	0	0	44444444
6- 02		0	0	11111111	0	0	99999999	08999999	0	0	0	88888888
6- 03		0	0	26666666	0	0	6AAAAAAA	42266666	0	0	0	44444444
6- 04		0	0	1AAAAAAA	0	0	A3333332	90899999	0	0	0	88888888
6- 05		0	0	28CCCCCC	0	0	6D111110	A4226666	0	0	0	44444444
6- 06		0	0	13444444	0	0	A3CCCCCC	29089999	0	0	0	88888888
6- 07		0	0	28F33333	0	0	6D377777	0A422666	0	0	0	44444444
6- 08		0	0	184DDDDD	0	0	A3D66665	C2908999	0	0	0	88888888
6- 09		0	0	28F59999	0	0	6D39DDDD	70A42266	0	0	0	44444444
6- 10		0	0	184E7777	0	0	A3D6FFFF	5C290899	0	0	0	88888888
6- 11		0	0	28F58FFF	0	0	6D3A0443	D70A4226	0	0	0	44444444
6- 12		0	0	184E8110	0	0	A3D70998	F5C29089	0	0	0	88888888
6- 13		0	0	28F5C266	0	0	6D3A06AA	3D70A422	0	0	0	44444444
6- 14		0	0	184E81AA	0	0	A3D70A32	8F5C2908	0	0	0	88888888
6- 15		0	0	28F5C28C	0	0	28F5C28C	A3D70A42	0	0	0	88888888
6- 16		0	0	0A3D70A3	0	0	92C5F928	28F5C293	0	0	0	88888888
7		0	0	24317E4A	1	1	E06D3A06	CA3D70A4	1	0	0	44444444
9		1	1	E06D3A06	0	0	1F92C5F9	CA3D70A4	1	0	0	44444444
10		1	1	E06D3A06	1	1	CA3D70A4	CA3D70A4	1	0	0	44444444

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MX 0037

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	17P42	S000	S00	29L19	C(S)	29L17	C(B)	BC31	*TEST POINTS*	D000	D00	29L23 29L28 C(D)
3		1	1	BBBBBBBB		1	1		BBBBBBBB		00000000	0		1	1	E1C4C737
6-	00	1	1	BBBBBBBB		0	0		00000000		BBBBBBBB	0		1	1	E1C4C737
6-	01	0	0	00000000		0	0		1E3B38C9		2EEEEEEE	1		1	1	E1C4C737
6-	02	0	0	078ECE32		0	0		25CA06F3		4BBBBBBB	1		1	1	E1C4C737
6-	03	0	0	0972813E		0	0		0972813E		D2EEEEEE	1		1	1	C3898E6E
6-	04	0	0	025CA06F		0	0		2097D938		B4BBBBBB	1		1	1	E1C4C737
6-	05	0	0	0825F64E		0	0		0825F64E		2D2EEEEE	1		1	1	C3898E6E
6-	06	0	0	02097D93		0	0		2044B65C		8B4B8BBB	1		1	1	E1C4C737
6-	07	0	0	08112D97		0	0		08112D97		22D2EEEE	1		1	1	C3898E6E
6-	08	0	0	02044B65		0	0		203F842E		C8B43BBB	1		1	1	E1C4C737
6-	09	0	0	080FE10B		0	0		080FE10B		B22D2EEE	1		1	1	C3898E6E
6-	10	0	0	0203F842		0	0		203F310B		EC8B4BBB	1		1	1	E1C4C737
6-	11	0	0	080FCC42		0	0		080FCC42		FB22D2EE	1		1	1	C3898E6E
6-	12	0	0	0203F310		0	0		203F2BD9		BEC8B4BB	1		1	1	E1C4C737
6-	13	0	0	080FCAF6		0	0		080FCAF6		6FB22D2E	1		1	1	C3898E6E
6-	14	0	0	0203F2BD		0	0		203F2B86		9BEC8B4B	1		1	1	E1C4C737
6-	15	0	0	080FCAE1		0	0		080FCAE1		A6FB22D2	1		1	1	C3898E6E
6-	16	0	0	0203F2B8		0	0		203F2B81		69BEC8B7	1		1	1	E1C4C737
7		0	0	080FCAE0		0	0		080FCAE0		5A6FB22D	1		1	1	C3898E6E
9		0	0	080FCAE0		0	0		080FCAE0		5A6FB22D	1		1	1	C3898E6E
10		0	0	080FCAE0		0	0		5A6FB22D		5A6FB22D	1		1	1	C3898E6E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MX 0038

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	17P42	S000	S00	29L19	C(S)	29L17	C(B)	BC31	*TEST POINTS*	D000	D00	29L23 29L28 C(D)
3		1	1	FFFFFFFF		1	1		FFFFFFFF		00000000	0		1	1	80000000
6-	00	1	1	FFFFFFFF		0	0		00000000		FFFFFFFF	0		1	1	80000000
6-	01	0	0	00000000		0	0		80000000		3FFFFFFF	1		1	1	80000000
6-	02	0	0	80000000		0	0		20000000		0FFFFFFF	1		1	1	00000000
6-	03	0	0	08000000		0	0		08000000		03FFFFFF	1		1	1	00000000
6-	04	0	0	02000000		0	0		02000000		00FFFFFF	1		1	1	00000000
6-	05	0	0	00800000		0	0		00800000		003FFFFF	1		1	1	00000000
6-	06	0	0	00200000		0	0		00200000		000FFFFF	1		1	1	00000000
6-	07	0	0	00080000		0	0		00080000		0003FFFF	1		1	1	00000000
6-	08	0	0	00020000		0	0		00020000		0000FFFF	1		1	1	00000000
6-	09	0	0	00008000		0	0		00008000		00003FFF	1		1	1	00000000
6-	10	0	0	00002000		0	0		00002000		00000FFF	1		1	1	00000000
6-	11	0	0	00000800		0	0		00000800		000003FF	1		1	1	00000000
6-	12	0	0	00000200		0	0		00000200		000000FF	1		1	1	00000000
6-	13	0	0	00000080		0	0		00000080		0000003F	1		1	1	00000000
6-	14	0	0	00000020		0	0		00000020		0000000F	1		1	1	00000000
6-	15	0	0	00000008		0	0		00000008		00000003	1		1	1	00000000
6-	16	0	0	00000002		0	0		00000002		00000003	1		1	1	00000000
7		0	0	00000000		0	0		00000000		80000000	1		1	1	00000000
9		0	0	00000000		1	1		FFFFFFFF		80000000	1		1	1	00000000
10		0	0	00000000		1	1		80000000		80000000	1		1	1	00000000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0039

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	01234567	0	0	01234567	00000000	0		0	0	42468ACE
6- 00		0	0	01234567	0	0	00000000	01234567	0		0	0	42468ACE
6- 01		0	0	00000000	1	1	BDB97532	0048D159	1		0	0	42468ACE
6- 02		1	1	EF6E5D4C	0	0	73FB72E8	80123456	0		0	0	848D159C
6- 03		0	0	1CFEDCBA	0	0	A18BF256	20048D15	0		0	0	848D159C
6- 04		0	0	2862FC96	0	0	6AA98763	88012345	0		0	0	42468ACE
6- 05		0	0	1AAA61D8	0	0	5CF0ECA6	E20048D1	0		0	0	42468ACE
6- 06		0	0	173C3B29	0	0	5982C5F7	B8801234	0		0	0	42468ACE
6- 07		0	0	1660B17D	0	0	1660B17D	EE20048D	0		0	0	848D159C
6- 08		0	0	05982C5F	0	0	47DEB72D	7B880123	0		0	0	42468ACE
6- 09		0	0	11F7ADCB	1	1	CFB122FD	5EE20048	1		0	0	42468ACE
6- 10		1	1	F3EC483F	0	0	3632D38D	57B88012	0		0	0	42468ACE
6- 11		0	0	0D8CB4E3	0	0	9219CA7F	55EE2004	0		0	0	848D159C
6- 12		0	0	2486729F	0	0	2486729F	D57B8801	0		0	0	848D159C
6- 13		0	0	09219CA7	0	0	4B682775	F55EE200	0		0	0	42468ACE
6- 14		0	0	12DAC9DD	0	0	12DAC9DD	7D57B880	0		0	0	848D159C
6- 15		0	0	04368277	0	0	04B68277	5F55EE20	0		0	0	848D159C
6- 16		0	0	012DAC9D	0	0	012DAC9D	D7D57B88	0		0	0	848D159C
7		0	0	004B6827	0	0	004B6827	75F55EE2	0		0	0	848D159C
9		0	0	004B6827	0	0	004B6827	75F55EE2	0		0	0	848D159C
10		0	0	004B6827	0	0	75F55EE2	75F55EE2	0		0	0	848D159C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0040

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		1	1	89ABCDEF	1	1	89ABCDEF	00000000	0		0	0	258BCDEF
6- 00		1	1	89ABCDEF	0	0	00000000	89ABCDEF	0		0	0	258BCDEF
6- 01		0	0	00000000	1	1	DA743211	226AF37B	1		0	0	258BCDEF
6- 02		1	1	F69D0C84	1	1	F69D0C84	489ABCDE	1		0	0	43179BDE
6- 03		1	1	FDA74321	1	1	D81B7532	1226AF37	1		0	0	258BCDEF
6- 04		1	1	F6D6D04C	1	1	F6D6D04C	8489ABCD	1		0	0	43179BDE
6- 05		1	1	FD81B753	0	0	4899E331	21226AF3	0		0	0	43179BDE
6- 06		0	0	122654CC	1	1	EC9A86DD	48489ABC	1		0	0	258BCDEF
6- 07		1	1	FB26A137	0	0	20926FA6	521226AF	0		0	0	258BCDEF
6- 08		0	0	082C9BE9	1	1	E2A0CDFA	948489AB	1		0	0	258BCDEF
6- 09		1	1	F8A8337E	1	1	F8A8337E	A521226A	1		0	0	43179BDE
6- 10		1	1	FE2A0CDF	1	1	D89E3EF0	A948489A	1		0	0	258BCDEF
6- 11		1	1	F6278F8C	1	1	D09BC1CD	2A521226	1		0	0	258BCDEF
6- 12		1	1	F426F073	1	1	CE9B2284	4A948489	1		0	0	258BCDEF
6- 13		1	1	F3A6C8A1	0	0	3E9E647F	12A52122	0		0	0	43179BDE
6- 14		0	0	0FAF991F	0	0	5AC734FD	C4A94848	0		0	0	43179BDE
6- 15		0	0	1631CD3F	0	0	1631CD3F	712A5212	0		0	0	43179BDE
6- 16		0	0	05AC734F	0	0	50C40F2D	0C4A9487	0		0	0	43179BDE
7		0	0	143103CB	1	1	EEA535DC	7712A521	1		0	0	258BCDEF
9		1	1	EEA535DC	1	1	EEA535DC	7712A521	1		0	0	258BCDEF
10		1	1	EEA535DC	0	0	7712A521	7712A521	1		0	0	258BCDEF

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0041

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 C(A)	S000	S00	29L19 29L17 C(S)	C(B)	BC31	29L23 29L28 D000	D00	C(D)
3		0	0	258BE147	0	0	258BE147	00000000	0	0	0	56AE37BF
6- 00		0	0	258BE147	0	0	00000000	258BE147	0	0	0	56AE37BF
6- 01		0	0	00000000	1	1	A951C841	0962F851	1	0	0	56AE37BF
6- 02		1	1	EA547210	0	0	9780E18E	4258BE14	0	0	0	AD5C6F7E
6- 03		0	0	25EC3863	0	0	25EC3863	90962F85	0	0	0	AD5C6F7E
6- 04		0	0	097B0E18	0	0	602945D7	E4258BE1	0	0	0	56AE37BF
6- 05		0	0	18CA5175	0	0	6EB88934	F90962F8	0	0	0	56AE37BF
6- 06		0	0	1BAE224D	0	0	1BAE224D	3E4258BE	0	0	0	AD5C6F7E
6- 07		0	0	06EB8893	0	0	B447F811	4F90962F	0	0	0	AD5C6F7E
6- 08		0	0	2D11FE04	1	1	D663C645	53E4258B	1	0	0	56AE37BF
6- 09		1	1	F598F191	1	1	F598F191	54F90962	1	0	0	AD5C6F7E
6- 10		1	1	FD663C64	1	1	A6B804A5	553E4258	1	0	0	56AE37BF
6- 11		1	1	E9AE0129	0	0	405C38E8	554F9096	0	0	0	56AE37BF
6- 12		0	0	10170E3A	0	0	BD737D88	1553E425	0	0	0	AD5C6F7E
6- 13		0	0	2F5CDF6E	0	0	86081720	0554F909	0	0	0	56AE37BF
6- 14		0	0	01A2C5CB	0	0	7830FD8A	41553E42	0	0	0	56AE37BF
6- 15		0	0	1E0C3F62	0	0	CB68AEED	00554F90	0	0	0	AD5C6F7E
6- 16		0	0	32DA2B38	0	0	32DA2B38	241553E4	0	0	0	AD5C6F7E
7		0	0	0CB68AEE	0	0	0CB68AEE	090554F9	0	0	0	AD5C6F7E
9		0	0	0CB68AEE	0	0	0CB68AEE	090554F9	0	0	0	AD5C6F7E
10		0	0	0CB68AEE	0	0	090554F9	090554F9	0	0	0	AD5C6F7E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0042

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 C(A)	S000	S00	29L19 29L17 C(S)	C(B)	BC31	29L23 29L28 D000	D00	C(D)
3		1	1	AD0369CF	1	1	AD0369CF	00000000	0	1	1	DF13573D
6- 00		1	1	AD0369CF	0	0	00000000	AD0369CF	0	1	1	DF13573D
6- 01		0	0	00000000	0	0	20ECA843	2B40DA73	1	1	1	DF13573D
6- 02		0	0	083B2A10	0	0	083B2A10	CAD0369C	1	1	1	BE26AF7A
6- 03		0	0	020ECA84	1	1	E1222241	32B40DA7	0	1	1	DF13573D
6- 04		1	1	F8488890	0	0	19353003	4CAD0369	1	1	1	DF13573D
6- 05		0	0	064D4C34	1	1	C473FBAE	D32B40DA	0	1	1	BE26AF7A
6- 06		1	1	F11CFEEB	1	1	AF43AE65	B4CAD036	0	1	1	BE26AF7A
6- 07		1	1	FBD0EB99	1	1	A9F79B13	6D32B40D	0	1	1	BE26AF7A
6- 08		1	1	EA7DE6C4	1	1	C9913E81	DB4CAD03	0	1	1	DF13573D
6- 09		1	1	F2644FA0	0	0	1350F7E3	76D32B40	1	1	1	DF13573D
6- 10		0	0	04D43DF8	1	1	E3E79535	DDB4CAD0	0	1	1	DF13573D
6- 11		1	1	FBF9E56D	1	1	F8F9E56D	776D32B4	0	1	1	BE26AF7A
6- 12		1	1	FE3E795B	1	1	FE3E795B	5DDB4CAD	0	1	1	BE26AF7A
6- 13		1	1	FF8F9E56	1	1	DEA2F613	D776D32B	0	1	1	DF13573D
6- 14		1	1	F7A83DB4	0	0	189545C7	F5DDB4CA	1	1	1	DF13573D
6- 15		0	0	06255971	0	0	27120134	FD776D32	1	1	1	DF13573D
6- 16		0	0	09C4806D	0	0	2AB128B0	3F5DDB4F	1	1	1	DF13573D
7		0	0	0AAC4A2C	0	0	0AAC4A2C	0FD776D3	1	1	1	BE26AF7A
9		0	0	0AAC4A2C	0	0	0AAC4A2C	0FD776D3	1	1	1	BE26AF7A
10		0	0	0AAC4A2C	0	0	0FD776D3	0FD776D3	1	1	1	BE26AF7A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0043

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 -TEST POINTS- A000	A00	C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	F135793D	1	1	F135793D	00000000	0	1	1	F2468ACE
6-	00	1	1	F135793D	0	0	00000000	F135793D	0	1	1	F2468ACE
6-	01	0	0	00000000	1	1	F2468ACE	3C4D5E6F	0	1	1	F2468ACE
6-	02	1	1	FC91A233	0	0	0A4B17E5	8F13579B	1	1	1	F2468ACE
6-	03	0	0	0292C5F9	0	0	0292C5F9	63C4D5E6	1	1	1	E48D159C
6-	04	0	0	00A4B17E	0	0	0E5E26B0	58F13579	1	1	1	F2468ACE
6-	05	0	0	039789AC	1	1	E8249F48	163C4D5E	0	1	1	E48D159C
6-	06	1	1	FA0927D2	1	1	DE963D6E	058F1357	0	1	1	E48D159C
6-	07	1	1	F7A58F5B	0	0	055F048D	8163C4D5	1	1	1	F2468ACE
6-	08	0	0	0157C123	1	1	E5E4D68F	6058F135	0	1	1	E48D159C
6-	09	1	1	F97935AF	1	1	EBBFC07D	D8163C4D	0	1	1	F2468ACE
6-	10	1	1	FAEFF01F	1	1	ED367AED	76058F13	0	1	1	F2468ACE
6-	11	1	1	FB4D9E3B	0	0	090713ED	5D8163C4	1	1	1	F2468ACE
6-	12	0	0	0241C4FB	1	1	F4884FC9	576058F1	0	1	1	F2468ACE
6-	13	1	1	FD2213F2	1	1	EF689EC0	55D8163C	0	1	1	F2468ACE
6-	14	1	1	FBDA2780	1	1	FBDA2780	1576058F	0	1	1	E48D159C
6-	15	1	1	FEF689EC	0	0	0CAFFF1E	055D8163	1	1	1	F2468ACE
6-	16	0	0	032BFFC7	0	0	032BFFC7	81576058	1	1	1	E48D159C
7		0	0	00CAFFF1	0	0	00CAFFF1	E055D816	1	1	1	E48D159C
9		0	0	00CAFFF1	1	1	FF35000E	E055D816	1	1	1	E48D159C
10		0	0	00CAFFF1	1	1	E055D816	E055D816	1	1	1	E48D159C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0044

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 -TEST POINTS- A000	A00	C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	E26AE38D	1	1	E26AE38D	00000000	0	1	1	F147AD03
6-	00	1	1	E26AE38D	0	0	00000000	E26AE38D	0	1	1	F147AD03
6-	01	0	0	00000000	1	1	F147AD03	389AB8E3	0	1	1	F147AD03
6-	02	1	1	FC51EB40	0	0	0B0A3E3D	CE26AE38	1	1	1	F147AD03
6-	03	0	0	02B28F8F	1	1	F40A3C92	7389AB8E	0	1	1	F147AD03
6-	04	1	1	FD28F24	1	1	DF91E92A	9CE26AE3	0	1	1	E28F5A06
6-	05	1	1	F7E47A4A	0	0	069CCD47	A7389AB8	1	1	1	F147AD03
6-	06	0	0	01A73351	1	1	F2EEF054	E9CE26AE	0	1	1	F147AD03
6-	07	1	1	FC3B8815	1	1	DF431213	3A7389AB	0	1	1	E28F5A06
6-	08	1	1	F7D2C486	0	0	068B17B3	CE9CE26A	1	1	1	F147AD03
6-	09	0	0	01A2C5E0	0	0	105B18DD	F3A7389A	1	1	1	F147AD03
6-	10	0	0	0416C637	0	0	12CF1934	7CE9CE26	1	1	1	F147AD03
6-	11	0	0	0433C64D	0	0	136C194A	1F3A7389	1	1	1	F147AD03
6-	12	0	0	043B0652	1	1	E76A6058	87CE9CE2	0	1	1	E28F5A06
6-	13	1	1	F90A9816	1	1	DC69F21C	21F3A738	0	1	1	E28F5A06
6-	14	1	1	F71A7C87	1	1	F71A7C87	087CE9CE	0	1	1	E28F5A06
6-	15	1	1	FDC69F21	1	1	E055F927	C21F3A73	0	1	1	E28F5A06
6-	16	1	1	F8157E49	0	0	06CDD146	F087CE9F	1	1	1	F147AD03
7		0	0	01B37451	0	0	01B37451	BC21F3A7	1	1	1	E28F5A06
9		0	0	01B37451	1	1	FE4C8BAE	BC21F3A7	1	1	1	E28F5A06
10		0	0	01B37451	1	1	BC21F3A7	BC21F3A7	1	1	1	E28F5A06

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0045

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	27C16B05	0	0	27C16B05	00000000	0	0	0	148BF37B
6-	00	0	0	27C16B05	0	0	00000000	27C16B05	0	0	0	148BF37B
6-	01	0	0	00000000	0	0	148BF37B	09F05AC1	0	0	0	148BF37B
6-	02	0	0	0522FCDE	0	0	19AEF059	C27C16B0	0	0	0	148BF37B
6-	03	0	0	06633C16	0	0	06633C16	709F05AC	0	0	0	2917E6F6
6-	04	0	0	019AEF05	0	0	019AEF05	9C27C16B	0	0	0	2917E6F6
6-	05	0	0	00663BC1	1	1	EBDAC846	6709F05A	1	0	0	148BF37B
6-	06	1	1	FAF63211	1	1	E66A3E96	99C27C16	1	0	0	148BF37B
6-	07	1	1	F99AAFA5	1	1	E50E3C2A	A6709F05	1	0	0	148BF37B
6-	08	1	1	F943AF0A	0	0	225B9600	A99C27C1	0	0	0	2917E6F6
6-	09	0	0	0896E580	0	0	1D22D8F3	2A6709F0	0	0	0	148BF37B
6-	10	0	0	0748363E	0	0	0748363E	CA99C27C	0	0	0	2917E6F6
6-	11	0	0	01D22D8F	0	0	01D22D8F	B2A6709F	0	0	0	2917E6F6
6-	12	0	0	00748363	1	1	EBE897E8	ECA99C27	1	0	0	148BF37B
6-	13	1	1	FAFA25FA	1	1	FAFA25FA	3B2A6709	1	0	0	2917E6F6
6-	14	1	1	FEBE897E	0	0	27D67074	BECA99C2	0	0	0	2917E6F6
6-	15	0	0	09F59C1D	0	0	330D8313	23B2A670	0	0	0	2917E6F6
6-	16	0	0	00C360C4	0	0	00C360C4	C8ECA99C	0	0	0	2917E6F6
7		0	0	03300831	0	0	03300831	323B2A67	0	0	0	2917E6F6
9		0	0	03300831	0	0	03300831	323B2A67	0	0	0	2917E6F6
10		0	0	03300831	0	0	323B2A67	323B2A67	0	0	0	2917E6F6

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0046

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	E26AF49F	1	1	E26AF49F	00000000	0	1	1	F373F49E
6-	00	1	1	E26AF49F	0	0	00000000	E26AF49F	0	1	1	F373F49E
6-	01	0	0	00000000	0	0	0C840B62	389A3D27	1	1	1	F373F49E
6-	02	0	0	03810208	0	0	03210208	8E26AF49	1	1	1	E6F7E93C
6-	03	0	0	00C84086	1	1	E7C029F2	2389A3D2	0	1	1	E6F7E93C
6-	04	1	1	F9F00A7C	1	1	E0E7F338	88E26AF4	0	1	1	E6F7E93C
6-	05	1	1	F839FCEE	1	1	F839FCEE	22389ABD	0	1	1	E6F7E93C
6-	06	1	1	FE3E7F3B	1	1	F18A73D9	888E26AF	0	1	1	F373F49E
6-	07	1	1	FC629CF6	0	0	08E6A858	622389AB	1	1	1	F373F49E
6-	08	0	0	0239AA16	0	0	0239AA16	1888E26A	1	1	1	E6F7E93C
6-	09	0	0	008E6A85	0	0	0D1275E7	8622389A	1	1	1	F373F49E
6-	10	0	0	03449D79	0	0	0FC8A8D3	E1888E26	1	1	1	F373F49E
6-	11	0	0	03F22A36	0	0	10763598	F8622389	1	1	1	F373F49E
6-	12	0	0	0410BD66	1	1	E31576A2	3E1888E2	0	1	1	E6F7E93C
6-	13	1	1	FAC85DA8	1	1	E1BD46E4	BF862238	0	1	1	E6F7E93C
6-	14	1	1	F86F5139	1	1	F86F5139	23E1888E	0	1	1	E6F7E93C
6-	15	1	1	FE1BD46E	1	1	E5133DAA	48F86223	0	1	1	E6F7E93C
6-	16	1	1	F944EF6A	0	0	05C8FACC	923E188B	1	1	1	F373F49E
7		0	0	01723E83	0	0	01723E83	248F8622	1	1	1	E6F7E93C
9		0	0	01723E83	0	0	01723E83	248F8622	1	1	1	E6F7E93C
10		0	0	01723E83	0	0	248F8622	248F8622	1	1	1	E6F7E93C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0047

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	F0259E49	1	1	F0259E49	00000000	0	0	0	457AE39F
6-	00	1	1	F0259E49	0	0	00000000	F0259E49	0	0	0	457AE39F
6-	01	0	0	00000000	0	0	457AE39F	3C096792	0	0	0	457AE39F
6-	02	0	0	115E88E7	0	0	9C548025	CF0259E4	0	0	0	8AF5C73E
6-	03	0	0	27152009	0	0	27152009	73C09679	0	0	0	8AF5C73E
6-	04	0	0	09C54802	0	0	4F402BA1	5CF0259E	0	0	0	457AE39F
6-	05	0	0	13D00AE8	0	0	9EC5D226	573C0967	0	0	0	8AF5C73E
6-	06	0	0	27317489	1	1	E23690EA	95CF0259	1	0	0	457AE39F
6-	07	1	1	F88DA43A	0	0	83836B78	A573C096	0	0	0	8AF5C73E
6-	08	0	0	20E0DADE	0	0	ABD6A21C	295CF025	0	0	0	8AF5C73E
6-	09	0	0	2AF5A887	0	0	70708C26	0A573C09	0	0	0	457AE39F
6-	10	0	0	1C1C2309	0	0	619706A8	8295CF02	0	0	0	457AE39F
6-	11	0	0	1865C1AA	0	0	A35B88E8	20A573C0	0	0	0	8AF5C73E
6-	12	0	0	28D6E23A	0	0	28D6E23A	08295CF0	0	0	0	8AF5C73E
6-	13	0	0	0A35B88E	0	0	0A35B88E	820A573C	0	0	0	8AF5C73E
6-	14	0	0	028D6E23	0	0	028D6E23	A08295CF	0	0	0	8AF5C73E
6-	15	0	0	00A35B88	1	1	BB2877E9	E820A573	1	0	0	457AE39F
6-	16	1	1	EECA1DFA	1	1	EECA1DFA	7A08295F	1	0	0	8AF5C73E
7		1	1	FBB2877E	1	1	FBB2877E	9E820A57	1	0	0	8AF5C73E
9		1	1	FBB2877E	0	0	044D7881	9E820A57	1	0	0	8AF5C73E
10		1	1	FBB2877E	1	1	9E820A57	9E820A57	1	0	0	8AF5C73E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0048

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	29L17 C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	ABE159F0	1	1	ABE159F0	00000000	0	0	0	679C0532
6-	00	1	1	ABE159F0	0	0	00000000	ABE159F0	0	0	0	679C0532
6-	01	0	0	00000000	0	0	00000000	2AF8567C	0	0	0	CF380B64
6-	02	0	0	00000000	0	0	00000000	0ABE159F	0	0	0	CF380B64
6-	03	0	0	00000000	1	1	9863FA4E	02AF8567	1	0	0	679C0532
6-	04	1	1	E618FE93	1	1	E618FE93	80ABE159	1	0	0	CF380B64
6-	05	1	1	F9863FA4	0	0	C88E4B08	E02AF856	0	0	0	CF380B64
6-	06	0	0	322F92C2	0	1	01679E26	380ABE15	0	0	0	CF380B64
6-	07	0	0	4059E789	0	0	A7F5ED3B	8E02AF85	0	0	0	679C0532
6-	08	0	0	295D784E	0	0	91998100	E380ABE1	0	0	0	679C0532
6-	09	0	0	24666040	0	0	8C0265F2	38E02AF8	0	0	0	679C0532
6-	10	0	0	2300997C	0	0	2300997C	8E380ABE	0	0	0	CF380B64
6-	11	0	0	08C0265F	0	0	D7F831C3	238E02AF	0	0	0	CF380B64
6-	12	0	0	35FE0C7D	1	1	CE62063E	C8E380AB	1	0	0	679C0532
6-	13	1	1	F39881AF	1	1	F39881AF	B238E02A	1	0	0	CF380B64
6-	14	1	1	FCE6206B	1	1	954A1AB9	EC8E380A	1	0	0	679C0532
6-	15	1	1	E55286AE	1	1	7D9680FC	7B238E02	1	0	0	679C0532
6-	16	1	1	DF6DA03F	1	1	77D19A8D	1EC8E383	1	0	0	679C0532
7		1	1	DDF466A3	1	1	DDF466A3	47B238E0	1	0	0	CF380B64
9		1	1	DDF466A3	1	1	DDF466A3	47B238E0	1	0	0	CF380B64
10		1	1	DDF466A3	0	0	47B238E0	47B238E0	1	0	0	CF380B64

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0049

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42	-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)		S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	26106573		0	0	26106573	00000000	0	0	0	59D73C28
6-	00	0	0	26106573		0	0	00000000	26106573	0	0	0	59D73C28
6-	01	0	0	00000000		1	1	A628C3D8	0984195C	1	0	0	59D73C28
6-	02	1	1	E98A30F6		0	0	43616D1E	02610657	0	0	0	59D73C28
6-	03	0	0	1CD85B47		1	1	B7011F1F	80984195	1	0	0	59D73C28
6-	04	1	1	E0C047C7		0	0	A16EC017	E0261065	0	0	0	B3AE7850
6-	05	0	0	98BB8005		0	0	8232EC2D	F8098419	0	0	0	59D73C28
6-	06	0	0	80C8B0B		0	0	7A63F733	7E026106	0	0	0	59D73C28
6-	07	0	0	1E08FDCC		0	0	D2477610	DF809841	0	0	0	B3AE7850
6-	08	0	0	3401DD87		0	0	BE6919AF	37E02610	0	0	0	59D73C28
6-	09	0	0	239A4663		0	0	239A4663	CDF80984	0	0	0	B3AE7850
6-	10	0	0	08E6919A		0	0	08E6919A	F37E0261	0	0	0	B3AE7850
6-	11	0	0	0239A466		0	0	5C10ED8E	BCDF8098	0	0	0	59D73C28
6-	12	0	0	17043823		0	0	17043823	AF37E026	0	0	0	B3AE7850
6-	13	0	0	05C10E08		0	0	B96F8658	EBCDF809	0	0	0	B3AE7850
6-	14	0	0	BE8BE196		0	0	88331D8E	BAF37E02	0	0	0	59D73C28
6-	15	0	0	82CCC76F		0	0	D5B83FBF	8EBCDF80	0	0	0	B3AE7850
6-	16	0	0	356ECFEF		0	0	356ECFEF	E3AF37E0	0	0	0	B3AE7850
7		0	0	0D5B83FB		0	0	0D5B83FB	F8EBCDF8	0	0	0	B3AE7850
9		0	0	0D5B83FB		1	1	F2A44C04	F8EBCDF8	0	0	0	B3AE7850
10		0	0	0DEB83FB		1	1	F8EBCDF8	F8EBCDF8	0	0	0	B3AE7850

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0050

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42	-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)		S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	F1A3C842		1	1	F1A3C842	00000000	0	1	1	CD2A3C71
6-	00	1	1	F1A3C842		0	0	00000000	F1A3C842	0	1	1	CD2A3C71
6-	01	0	0	00000000		1	1	9A5478E2	3C68F210	0	1	1	9A5478E2
6-	02	1	1	E6951E38		1	1	E6951E38	8F1A3C84	0	1	1	9A5478E2
6-	03	1	1	F9A5478E		1	1	F9A5478E	23C68F21	0	1	1	9A5478E2
6-	04	1	1	FE6951E3		1	1	CB938E54	88F1A3C8	0	1	1	CD2A3C71
6-	05	1	1	F2E4E395		1	1	F2E4E395	223C68F2	0	1	1	9A5478E2
6-	06	1	1	FCB938E5		1	1	970D81C7	488F1A3C	0	1	1	9A5478E2
6-	07	1	1	E5C34C71		1	1	E5C34C71	D223C68F	0	1	1	9A5478E2
6-	08	1	1	F970D81C		0	0	2C469EA3	7488F1A3	1	1	1	CD2A3C71
6-	09	0	0	0B11A7AA		0	0	0B11A7AA	DD223C68	1	1	1	9A5478E2
6-	10	0	0	02C469EA		1	1	CFEEA653	B7488F1A	0	1	1	CD2A3C71
6-	11	1	1	F3F3A996		1	1	8E502278	EDD223C6	0	1	1	9A5478E2
6-	12	1	1	E3B4089E		1	1	7DE88180	B37488F1	0	1	1	9A5478E2
6-	13	1	1	DF7A2060		1	1	ACA45CD1	DEDD223C	0	1	1	CD2A3C71
6-	14	1	1	EB291734		1	1	EB291734	43B7488F	0	1	1	9A5478E2
6-	15	1	1	FACA45CD		0	0	2DA0095C	10EDD223	1	1	1	CD2A3C71
6-	16	0	0	09A80257		0	0	0B680257	043B748B	1	1	1	9A5478E2
7		0	0	02DA0095		0	0	02DA0095	C10EDD22	1	1	1	9A5478E2
9		0	0	02DA0095		1	1	FD25FF6A	C10EDD22	1	1	1	9A5478E2
10		0	0	02DA0095		1	1	C10EDD22	C10EDD22	1	1	1	9A5478E2

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0051

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-	29L19	29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000 A00	C(A)	S000 S00	C(S)	C(B)	BC31	D000 D00	C(D)	
3		0 0	42486CEA	0 0	42486CEA	00000000	0	1 1	FC7CF1CC	
6- 00		0 0	42486CEA	0 0	00000000	42486CEA	0	1 1	FC7CF1CC	
6- 01		0 0	00000000	1 1	F8F9E398	10921B3A	0	1 1	F8F9E398	
6- 02		1 1	FE3E78E6	1 1	F7385C7E	042486CE	0	1 1	F8F9E398	
6- 03		1 1	FDCE171F	1 1	F6C7FAB7	810921B3	0	1 1	F8F9E398	
6- 04		1 1	FD31FEAD	0 0	01350CE1	E042486C	1	1 1	FC7CF1CC	
6- 05		0 0	004D4338	1 1	FCCA3504	7810921B	0	1 1	FC7CF1CC	
6- 06		1 1	FF328041	0 0	02B59B75	1E042486	1	1 1	FC7CF1CC	
6- 07		0 0	00AD66DD	0 0	04307511	47810921	1	1 1	FC7CF1CC	
6- 08		0 0	010C1D44	1 1	FA0600DC	51E04248	0	1 1	F8F9E398	
6- 09		1 1	FE818037	1 1	FE818037	14781092	0	1 1	F8F9E398	
6- 10		1 1	FFA06000	1 1	F89A43A5	C51E0424	0	1 1	F8F9E398	
6- 11		1 1	FE2690E9	1 1	FE2690E9	71478109	0	1 1	F8F9E398	
6- 12		1 1	FF89A43A	1 1	FC069606	5C51E042	0	1 1	FC7CF1CC	
6- 13		1 1	FF01A581	1 1	F7FB8919	97147810	0	1 1	F8F9E398	
6- 14		1 1	FDFEE246	1 1	FDFEE246	65C51E04	0	1 1	F8F9E398	
6- 15		1 1	FF7FB891	1 1	FF7FB891	99714781	0	1 1	F8F9E398	
6- 16		1 1	FFDFEEF4	1 1	FC5CDFF0	665C51E0	0	1 1	FC7CF1CC	
7		1 1	FF1737FC	1 1	FF1737FC	19971478	0	1 1	F8F9E398	
9		1 1	FF1737FC	1 1	FF1737FC	19971478	0	1 1	F8F9E398	
10		1 1	FF1737FC	0 0	19971478	19971478	0	1 1	F8F9E398	

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0052

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-	29L19	29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000 A00	C(A)	S000 S00	C(S)	C(B)	BC31	D000 D00	C(D)	
3		0 0	2C763150	0 0	2C763150	00000000	0	0 0	475E3AF9	
6- 00		0 0	2C763150	0 0	00000000	2C763150	0	0 0	475E3AF9	
6- 01		0 0	00000000	0 0	00000000	0B1DAC54	0	0 0	8EBC75F2	
6- 02		0 0	00000000	0 0	00000000	02C76B15	0	0 0	8EBC75F2	
6- 03		0 0	00000000	0 0	475E3AF9	00B1DAC5	0	0 0	475E3AF9	
6- 04		0 0	11D78E8E	0 0	59359937	402C76B1	0	0 0	475E3AF9	
6- 05		0 0	164D726D	0 0	5DA3AD66	D00B1DAC	0	0 0	475E3AF9	
6- 06		0 0	176AEB59	0 0	176AEB59	B402C76B	0	0 0	8EBC75F2	
6- 07		0 0	05DA3AD6	1 1	BE7C7FDD	6D00B1DA	1	0 0	475E3AF9	
6- 08		1 1	EF9F1FF7	1 1	A840E4FE	5B402C76	1	0 0	475E3AF9	
6- 09		1 1	EA10393F	1 1	A2B1FE46	96D00B1D	1	0 0	475E3AF9	
6- 10		1 1	E8AC7F91	0 0	7768F583	A5B402C7	0	0 0	8EBC75F2	
6- 11		0 0	1DDA3D60	1 1	D67C0267	E96D00B1	1	0 0	475E3AF9	
6- 12		1 1	F59F0099	0 0	845B7683	FA5B402C	0	0 0	8EBC75F2	
6- 13		0 0	2116DDA2	0 0	2116DDA2	FE96D00B	0	0 0	8EBC75F2	
6- 14		0 0	08453768	1 1	C0E77C6F	BFA5B402	1	0 0	475E3AF9	
6- 15		1 1	F039DF13	1 1	A8D3A422	EFE96D00	1	0 0	475E3AF9	
6- 16		1 1	EA36E908	0 0	31952401	BBFA5B40	0	0 0	475E3AF9	
7		0 0	0C654900	0 0	0C654900	6EFE96D0	0	0 0	8EBC75F2	
9		0 0	0C654900	0 0	0C654900	6EFE96D0	0	0 0	8EBC75F2	
10		0 0	0C654900	0 0	6EFE96D0	6EFE96D0	0	0 0	8EBC75F2	

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0053

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE ACC INPUT TO PROOO

PHASE	CLOCK	17P42 A000	ACC	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	29L17 BC31	29L23 D000	29L28 D00	C(D)
3		1	1	D1F375DB	1	1	D1F375DB	00000000	0	0	0	38D27C16
6-	00	1	1	D1F375DB	0	0	00000000	D1F375DB	0	0	0	38D27C16
6-	01	0	0	00000000	1	1	C72D83EA	347CDD76	1	0	0	38D27C16
6-	02	1	1	F1CB60FA	1	1	B8F8E4E4	8D1F375D	1	0	0	38D27C16
6-	03	1	1	EE3E3939	0	0	5FE33165	2347CDD7	0	0	0	71A4F82C
6-	04	0	0	17F8CC59	1	1	DF265043	48D1F375	1	0	0	38D27C16
6-	05	1	1	F7C89410	0	0	696E8C3C	D2347CDD	0	0	0	71A4F82C
6-	06	0	0	1A58A30F	0	0	532E1F25	348D1F37	0	0	0	38D27C16
6-	07	0	0	14CB87C9	1	1	DBF90B83	4D2347CD	1	0	0	38D27C16
6-	08	1	1	F6FE42EC	0	0	68A33B18	D348D1F3	0	0	0	71A4F82C
6-	09	0	0	1A28CEC6	1	1	E1565280	34D2347C	1	0	0	38D27C16
6-	10	1	1	F85594AC	0	0	312810C2	0D348D1F	0	0	0	38D27C16
6-	11	0	0	CC4A0430	1	1	D377881A	834D2347	1	0	0	38D27C16
6-	12	1	1	F4DDE206	1	1	F4DDE206	A0D348D1	1	0	0	71A4F82C
6-	13	1	1	FD377881	0	0	6EDC70AD	A834D234	0	0	0	71A4F82C
6-	14	0	0	1BB71C2B	0	0	1BB71C2B	6A0D348D	0	0	0	71A4F82C
6-	15	0	0	06EDC70A	0	0	3FC04320	DA834D23	0	0	0	38D27C16
6-	16	0	0	0FF01CCB	1	1	D71D9432	36A0D34B	1	0	0	38D27C16
7		1	1	F5C7652C	1	1	F5C7652C	8DA834D2	1	0	0	71A4F82C
9		1	1	F5C7652C	0	0	0A389AD3	8DA834D2	1	0	0	71A4F82C
10		1	1	F5C7652C	1	1	8DA834D2	8DA834D2	1	0	0	71A4F82C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0054

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE ACC INPUT TO PROOO

PHASE	CLOCK	17P42 A000	ACC	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	29L17 BC31	29L23 D000	29L28 D00	C(D)
3		1	1	9133A0E5	1	1	9133A0E5	00000000	0	1	1	8067CB91
6-	00	1	1	9133A0E5	0	0	00000000	9133A0E5	0	1	1	8067CB91
6-	01	0	0	00000000	1	1	8067CB91	246EE839	0	1	1	8067CB91
6-	02	1	1	EC13F2E4	1	1	60813E75	4913BA0E	0	1	1	8067CB91
6-	03	1	1	D8D06F9D	1	0	D8F0063F	5246EE83	0	1	1	00CF9722
6-	04	1	1	B63C01AF	0	0	35D4361E	D4913BA0	1	1	1	8067CB91
6-	05	0	0	CD75CD87	1	1	8DDCD918	B5246EE8	0	1	1	8067CB91
6-	06	1	1	E3773646	1	1	E3773646	2D491BBA	0	1	1	00CF9722
6-	07	1	1	F8DDCD91	1	0	F9AD6433	B35246EE	0	1	1	00CF9722
6-	08	1	1	FE6B592C	1	0	3F3AF04E	E2D491BB	0	1	1	00CF9722
6-	09	1	1	AFCE3C13	0	0	2F66F082	3B35246E	1	1	1	8067CB91
6-	10	0	0	C3D93C20	0	0	8871F08F	AE2D491B	1	1	1	8067CB91
6-	11	0	0	22DC7C23	0	0	22DC7C23	E3B35246	1	1	1	00CF9722
6-	12	0	0	08371F08	0	0	884F5377	FAE2D491	1	1	1	8067CB91
6-	13	0	0	2213D4DD	1	1	22E363FF	FE3B3524	0	1	1	00CF9722
6-	14	1	1	C838DAFF	1	1	C838DAFF	FFAE2D49	0	1	1	00CF9722
6-	15	1	1	F22E363F	1	1	72960250	FFEB3B52	0	1	1	8067CB91
6-	16	1	1	DCA58094	1	0	DD751736	3FFAE2D7	0	1	1	00CF9722
7		1	1	375D45ED	0	0	36F57A5C	8FFE3B85	1	1	1	8067CB91
9		0	0	36F57A5C	1	1	C90AF5A3	8FFE3B85	1	1	1	8067CB91
10		0	0	36F57A5C	1	1	8FFE3B85	8FFE3B85	1	1	1	8067CB91

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0055

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	4E0A2D09	0	0	4E0A2D09	00000000	0	0	0	66E91F2E
6- 00		0	0	4E0A2D09	0	0	00000000	4E0A2D09	0	0	0	66E91F2E
6- 01		0	0	00000000	0	0	66E91F2E	13828B42	0	0	0	66E91F2E
6- 02		0	0	193A47CB	0	0	E78C8627	84E0A2D0	0	0	0	CDD23E5C
6- 03		0	0	39E32189	0	0	39E32189	E13828B4	0	0	0	CDD23E5C
6- 04		0	0	DE78C862	0	0	DE78C862	784E0A2D	0	0	0	CDD23E5C
6- 05		0	0	039E3218	0	0	6A875146	9E13828B	0	0	0	66E91F2E
6- 06		0	0	1AA1D451	1	1	B3B8B523	A784E0A2	1	0	0	66E91F2E
6- 07		1	1	ECEE2D48	1	1	86050E1A	E9E13828	1	0	0	66E91F2E
6- 08		1	1	E1814386	0	0	486A6284	BA784E0A	0	0	0	66E91F2E
6- 09		0	0	121A98AD	0	0	DFECD709	2E9E1382	0	0	0	CDD23E5C
6- 10		0	0	37FB35C2	0	1	05CD741E	4BA784E0	0	0	0	CDD23E5C
6- 11		0	0	41735D07	0	0	41735D07	92E9E138	0	0	0	CDD23E5C
6- 12		0	0	105CD741	0	0	105CD741	E4BA784E	0	0	0	CDD23E5C
6- 13		0	0	04173520	0	0	D1E9742C	792E9E13	0	0	0	CDD23E5C
6- 14		0	0	347A5D08	1	1	CD913DDD	1E4BA784	1	0	0	66E91F2E
6- 15		1	1	F3644F77	0	0	5A4D6EA5	4792E9E1	0	0	0	66E91F2E
6- 16		0	0	16935BA9	0	0	7D7C7AD7	51E4BA78	0	0	0	66E91F2E
7		0	0	1F5F1E35	0	0	1F5F1E35	D4792E9E	0	0	0	CDD23E5C
9		0	0	1F5F1E35	1	1	E0A0E14A	D4792E9E	0	0	0	CDD23E5C
10		0	0	1F5F1E35	1	1	D4792E9E	D4792E9E	0	0	0	CDD23E5C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0056

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	8D06D9F2	1	1	8D06D9F2	00000000	0	1	1	9D289043
6- 00		1	1	8D06D9F2	0	0	00000000	8D06D9F2	0	1	1	9D289043
6- 01		0	0	00000000	1	1	3A512086	2341B67C	0	1	1	3A512086
6- 02		1	1	CE944821	1	1	CE944821	88D06D9F	0	1	1	3A512086
6- 03		1	1	F3A51208	0	0	567C81C5	62341B67	1	1	1	9D289043
6- 04		0	0	159F2071	0	0	159F2071	588D06D9	1	1	1	3A512086
6- 05		0	0	0567C81C	1	1	3FB8E8A2	562341B6	0	1	1	3A512086
6- 06		1	1	CFEE3A28	1	1	0A3F5AAE	9588D06D	0	1	1	3A512086
6- 07		1	1	C28FD6AB	1	1	5F8866EE	A562341B	0	1	1	9D289043
6- 08		1	1	D7EE193B	0	0	3AC58978	A9588D06	1	1	1	9D289043
6- 09		0	0	CE31625E	0	0	7188D213	2A562341	1	1	1	9D289043
6- 10		0	0	1C623486	1	1	56835500	CA9588D0	0	1	1	3A512086
6- 11		1	1	D5ACD543	1	1	D5ACD543	32A56234	0	1	1	3A512086
6- 12		1	1	F56B3550	1	1	F56B3550	CCA9588D	0	1	1	3A512086
6- 13		1	1	FD5ACD54	1	1	9A835D97	332A5623	0	1	1	9D289043
6- 14		1	1	E6A0D765	0	0	49784722	CCCA9588	1	1	1	9D289043
6- 15		0	0	125E1128	1	1	AF86A208	B332A562	0	1	1	9D289043
6- 16		1	1	EBE1A882	1	1	2632C908	ECCCA95B	0	1	1	3A512086
7		1	1	C98CB242	0	0	2C6421FF	3B332A56	1	1	1	9D289043
9		0	0	2C6421FF	0	0	2C6421FF	3B332A56	1	1	1	9D289043
10		0	0	2C6421FF	0	0	3B332A56	3B332A56	1	1	1	9D289043

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0057

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	745BD382	0	0	745BD382	00000000	0	0	0	266C684E
4-	00	0	0	745BD382	0	0	00000000	745BD382	0	0	0	266C684E
4-	01	0	0	00000000	0	0	4CD8D09C	1D16F4E0	0	0	0	4CD8D09C
4-	02	0	0	13363427	0	0	13363427	0745BD38	0	0	0	4CD8D09C
4-	03	0	0	04CD8D09	0	0	04CD8D09	C1D16F4E	0	0	0	4CD8D09C
4-	04	0	0	01336342	0	0	4E0C33DE	70745BD3	0	0	0	4CD8D09C
4-	05	0	0	13830CF7	1	1	ED16A4A9	9C1D16F4	1	0	0	266C684E
4-	06	1	1	F845A92A	0	0	21B21178	670745BD	0	0	0	266C684E
4-	07	0	0	286C845E	0	0	2ED8ECAC	19C1D16F	0	0	0	266C684E
4-	08	0	0	0B363B2B	1	1	E549D2DD	0670745B	1	0	0	266C684E
4-	09	1	1	F9527487	1	1	F9527487	419C1D16	1	0	0	4CD8D09C
4-	10	1	1	FE549D2D	1	1	D7E834DF	D0670745	1	0	0	266C684E
4-	11	1	1	F5FA0D37	0	0	42D2DDD3	F419C1D1	0	0	0	4CD8D09C
4-	12	0	0	10B4B774	0	0	37211FC2	FD067074	0	0	0	266C684E
4-	13	0	0	0DC847F0	0	0	0DC847F0	BF419C1D	0	0	0	4CD8D09C
4-	14	0	0	037211FC	0	0	29DE7A4A	2FD06707	0	0	0	266C684E
4-	15	0	0	DA779E92	1	1	E40B3644	8BF419C1	1	0	0	266C684E
4-	16	1	1	F902CD91	0	0	45D3DE2D	22FD0670	0	0	0	4CD8D09C
7		0	0	1176E78B	0	0	1176E78B	48BF419C	0	0	0	4CD8D09C
8		0	0	1176E78B	0	0	1176E78B	48BF419C	0	0	0	4CD8D09C
11		0	0	1176E78B	0	0	48BF419C	48BF419C	0	0	0	4CD8D09C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0058

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	B3FCA5A5	1	1	B3FCA5A5	00000000	0	1	1	CC1FC7CF
4-	00	1	1	B3FCA5A5	0	0	00000000	B3FCA5A5	0	1	1	CC1FC7CF
4-	01	0	0	00000000	1	1	CC1FC7CF	2CFF2969	0	1	1	CC1FC7CF
4-	02	1	1	F3D7F1F3	1	1	8F2789C2	CB3FCA5A	0	1	1	CC1FC7CF
4-	03	1	1	EFC9EE70	1	1	88097E0E	B2CFF296	0	1	1	983F8F9E
4-	04	1	1	E2025FB3	1	1	7A41EF21	ACB3FCA5	0	1	1	983F8F9E
4-	05	1	1	DE3073C8	1	1	AA304397	6B2CFF29	0	1	1	CC1FC7CF
4-	06	1	1	EAAC10E5	1	1	B6CBD834	DACB3FCA	0	1	1	CC1FC7CF
4-	07	1	1	ED32F62D	1	1	85F285C3	36B2CFF2	0	1	1	983F8F9E
4-	08	1	1	E17CA172	1	1	793C3110	CDACB3FC	0	1	1	983F8F9E
4-	09	1	1	DE6F0C44	1	1	DE6F0C44	336B2CFF	0	1	1	983F8F9E
4-	10	1	1	F793C311	0	0	2B73FB42	0CDACB3F	1	1	1	CC1FC7CF
4-	11	0	0	0ADEFED0	0	0	0ADEFED0	8336B2CF	1	1	1	983F8F9E
4-	12	0	0	02373F34	0	0	02373F34	20CDACB3	1	1	1	983F8F9E
4-	13	0	0	00ADEFED	0	0	00ADEFED	08336B2C	1	1	1	983F8F9E
4-	14	0	0	002B73F8	1	1	CC43430A	420CDACB	0	1	1	CC1FC7CF
4-	15	1	1	F313D0F2	0	0	26F30923	908336B2	1	1	1	CC1FC7CF
4-	16	0	0	093CC248	0	0	3D9CFA79	E420CDAF	1	1	1	CC1FC7CF
7		0	0	0F673E9E	0	0	0F673E9E	79083368	1	1	1	983F8F9E
8		0	0	0F673E9E	0	0	0F673E9E	79083368	1	1	1	983F8F9E
11		0	0	0F673E9E	0	0	79083368	79083368	1	1	1	983F8F9E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0059

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	S000	S00	29L19 29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	7FFFFFFF	0	0	7FFFFFFF	00000000	0	0	0	00000001
6-	00	0	0	7FFFFFFF	0	0	00000000	7FFFFFFF	0	0	0	00000001
6-	01	0	0	00000000	1	1	FFFFFFFF	1FFFFFFF	1	0	0	00000001
6-	02	1	1	FFFFFFFF	1	1	FFFFFFFF	C7FFFFFF	1	0	0	00000002
6-	03	1	1	FFFFFFFF	1	1	FFFFFFFF	F1FFFFFF	1	0	0	00000002
6-	04	1	1	FFFFFFFF	1	1	FFFFFFFF	FC7FFFFF	1	0	0	00000002
6-	05	1	1	FFFFFFFF	1	1	FFFFFFFF	FF1FFFFF	1	0	0	00000002
6-	06	1	1	FFFFFFFF	1	1	FFFFFFFF	FFC7FFFF	1	0	0	00000002
6-	07	1	1	FFFFFFFF	1	1	FFFFFFFF	FFF1FFFF	1	0	0	00000002
6-	08	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFC7FFF	1	0	0	00000002
6-	09	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFF1FFF	1	0	0	00000002
6-	10	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFC7FF	1	0	0	00000002
6-	11	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFF1FF	1	0	0	00000002
6-	12	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFC7F	1	0	0	00000002
6-	13	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFF1F	1	0	0	00000002
6-	14	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFFC7	1	0	0	00000002
6-	15	1	1	FFFFFFFF	1	1	FFFFFFFF	FFFFFFF1	1	0	0	00000002
6-	16	1	1	FFFFFFFF	0	0	00000001	FFFFFFFC	0	0	0	00000002
7		0	0	00000000	0	0	00000000	7FFFFFFF	0	0	0	00000002
9		0	0	00000000	0	0	00000000	7FFFFFFF	0	0	0	00000002
10		0	0	00000000	0	0	7FFFFFFF	7FFFFFFF	0	0	0	00000002

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0060

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	S000	S00	29L19 29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	00000001	0	0	00000001	00000000	0	0	0	7FFFFFFF
6-	00	0	0	00000001	0	0	00000000	00000001	0	0	0	7FFFFFFF
6-	01	0	0	00000000	0	0	7FFFFFFF	00000000	0	0	0	7FFFFFFF
6-	02	0	0	1FFFFFFF	0	0	1FFFFFFF	C0000000	0	0	0	FFFFFFFE
6-	03	0	0	07FFFFFF	0	0	07FFFFFF	F0000000	0	0	0	FFFFFFFE
6-	04	0	0	01FFFFFF	0	0	01FFFFFF	FC000000	0	0	0	FFFFFFFE
6-	05	0	0	007FFFFF	0	0	007FFFFF	FF000000	0	0	0	FFFFFFFE
6-	06	0	0	001FFFFF	0	0	001FFFFF	FFC00000	0	0	0	FFFFFFFE
6-	07	0	0	0007FFFF	0	0	0007FFFF	FFF00000	0	0	0	FFFFFFFE
6-	08	0	0	0001FFFF	0	0	0001FFFF	FFFC0000	0	0	0	FFFFFFFE
6-	09	0	0	00007FFF	0	0	00007FFF	FFFF0000	0	0	0	FFFFFFFE
6-	10	0	0	00001FFF	0	0	00001FFF	FFFFC000	0	0	0	FFFFFFFE
6-	11	0	0	000007FF	0	0	000007FF	FFFFF000	0	0	0	FFFFFFFE
6-	12	0	0	000001FF	0	0	000001FF	FFFFFC00	0	0	0	FFFFFFFE
6-	13	0	0	0000007F	0	0	0000007F	FFFFFF00	0	0	0	FFFFFFFE
6-	14	0	0	0000001F	0	0	0000001F	FFFFFFC0	0	0	0	FFFFFFFE
6-	15	0	0	00000007	0	0	00000007	FFFFFFF0	0	0	0	FFFFFFFE
6-	16	0	0	00000001	0	0	00000001	FFFFFFFC	0	0	0	FFFFFFFE
7		0	0	00000000	0	0	00000000	7FFFFFFF	0	0	0	FFFFFFFE
9		0	0	00000000	0	0	00000000	7FFFFFFF	0	0	0	FFFFFFFE
10		0	0	00000000	0	0	7FFFFFFF	7FFFFFFF	0	0	0	FFFFFFFE

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0061

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42	-TEST POINTS-	29L19		29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)		S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3			1	1	DAC269A5	1	1	DAC269A5	00000000	0	1	1	B5631AF2
6- 00			1	1	DAC269A5	0	0	00000000	DAC269A5	0	1	1	B5631AF2
6- 01			0	0	00000000	1	1	B5631AF2	36B09A69	0	1	1	B5631AF2
6- 02			1	1	5D58C69C	1	1	A2BBE1AE	8DAC269A	0	1	1	B5631AF2
6- 03			1	1	E8AEF86B	1	1	53752E4F	A36B09A6	0	1	1	6AC635E4
6- 04			1	1	D4DD4893	1	1	3FA38177	E8DAC269	0	1	1	6AC635E4
6- 05			1	1	0FE8E05D	1	1	8543F94F	FA36B09A	0	1	1	B5631AF2
6- 06			1	1	C1B2FED3	1	1	4C193437	FE8DAC26	0	1	1	6AC635E4
6- 07			1	1	D3D642DD	1	1	3DCC8311	FFA36B09	0	1	1	6AC635E4
6- 08			1	1	CF732DC4	1	1	84D63BB6	7FE8DAC2	0	1	1	B5631AF2
6- 09			1	1	E1358EED	1	1	4BFBC401	9FFA36B0	0	1	1	6AC635E4
6- 10			1	1	D2FEF134	1	1	D2FEF134	67FE8DAC	0	1	1	6AC635E4
6- 11			1	1	F4BFBC4D	1	1	F4BFBC4D	19FFA36B	0	1	1	6AC635E4
6- 12			1	1	FD2FEF13	0	0	47CCD421	467FE8DA	1	1	1	B5631AF2
6- 13			0	0	11F33508	0	0	5C901A16	519FFA36	1	1	1	B5631AF2
6- 14			0	0	17240685	0	0	61C0EB93	9467FE8D	1	1	1	B5631AF2
6- 15			0	0	18703AE4	1	1	833670C8	E519FFA3	0	1	1	6AC635E4
6- 16			1	1	EC0D9C32	0	0	2B6A8140	39467FEB	1	1	1	B5631AF2
7			0	0	0ADAA050	0	0	0ADAA050	0E519FFA	1	1	1	6AC635E4
9			0	0	0ADAA050	0	0	0ADAA050	0E519FFA	1	1	1	6AC635E4
10			0	0	0ADAA050	0	0	0E519FFA	0E519FFA	1	1	1	6AC635E4

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0062

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42	-TEST POINTS-	29L19		29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)		S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3			0	0	6BA40763	0	0	6BA40763	00000000	0	1	1	C7351894
6- 00			0	0	6BA40763	0	0	00000000	6BA40763	0	1	1	C7351894
6- 01			0	0	00000000	0	0	384AE75C	1AE901D8	1	1	1	C7351894
6- 02			0	0	9E1289D8	1	1	D5C7D26F	D6BA4076	0	1	1	C7351894
6- 03			1	1	F5715498	1	1	84DC25C3	C1AE901D	0	1	1	8F6A3128
6- 04			1	1	E1370970	1	1	A8EC2204	F06BA407	0	1	1	C7351894
6- 05			1	1	EA3B0881	0	0	2285FFED	3C1AE901	1	1	1	C7351894
6- 06			0	0	08A178F8	1	1	9808AD23	4F06BA40	0	1	1	8F6A3128
6- 07			1	1	E602E848	1	1	E602E848	D3C1AE90	0	1	1	8F6A3128
6- 08			1	1	F9808AD2	1	1	F9808AD2	34F06BA4	0	1	1	8F6A3128
6- 09			1	1	FE602E84	1	1	FE602E84	8D3C1AE9	0	1	1	8F6A3128
6- 10			1	1	FF9808AD	1	1	C74D2441	234F06BA	0	1	1	C7351894
6- 11			1	1	F1D34910	1	1	813D7A38	48D3C1AE	0	1	1	8F6A3128
6- 12			1	1	EC4FFE8E	1	1	6F398F36	1234F06B	0	1	1	8F6A3128
6- 13			1	1	DBEE63ED	0	0	143948E9	848D3C1A	1	1	1	C7351894
6- 14			0	0	25CE52D6	0	0	3D593A42	61234F06	1	1	1	C7351894
6- 15			0	0	CF864E90	0	0	47A135FC	9848D3C1	1	1	1	C7351894
6- 16			0	0	11E84D7F	1	1	A1527EA7	261234F0	0	1	1	8F6A3128
7			1	1	E8549FA9	1	1	E8549FA9	C9848D3C	0	1	1	8F6A3128
9			1	1	E8549FA9	0	0	17A36C56	C9848D3C	0	1	1	8F6A3128
10			1	1	E8549FA9	1	1	C9848D3C	C9848D3C	0	1	1	8F6A3128

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0063

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	160A5DC9	0	0	160A5DC9	00000000	0	1	1	E9D73A96
6-	00	0	0	160A5DC9	0	0	00000000	160A5DC9	0	1	1	E9D73A96
6-	01	0	0	00000000	1	1	E9D73A96	05829772	0	1	1	E9D73A96
6-	02	1	1	FA75CEA5	1	1	CE2443D1	8160A5DC	0	1	1	D3AE752C
6-	03	1	1	F3B910F4	1	1	F38910F4	60582977	0	1	1	D3AE752C
6-	04	1	1	FCE2443D	0	0	130B09A7	18160A5D	1	1	1	E9D73A96
6-	05	0	0	04C2C269	1	1	D8713795	C6058297	0	1	1	D3AE752C
6-	06	1	1	F6124DE5	0	0	0C45134F	718160A5	1	1	1	E9D73A96
6-	07	0	0	03114403	1	1	D6BF89FF	DC605829	0	1	1	D3AE752C
6-	08	1	1	F5AFEE7F	1	1	DF872915	F718160A	0	1	1	E9D73A96
6-	09	1	1	F7E1CA45	1	1	C8903F71	7DC60582	0	1	1	D3AE752C
6-	10	1	1	F2E40FDC	1	1	C6928508	5F718160	0	1	1	D3AE752C
6-	11	1	1	F1A4A142	1	1	F1A4A142	17DC6058	0	1	1	D3AE752C
6-	12	1	1	FC692850	1	1	FC692850	85F71816	0	1	1	D3AE752C
6-	13	1	1	FF1A4A14	1	1	D2C88F40	217DC605	0	1	1	D3AE752C
6-	14	1	1	F4322FD0	1	1	DE896A66	085F7181	0	1	1	E9D73A96
6-	15	1	1	F7A25499	1	1	C1720D3F	8217DC60	0	1	1	E9D73A96
6-	16	1	1	F85E6543	1	1	F85E6543	E085F718	0	1	1	D3AE752C
7		1	1	FE179952	1	1	FE179952	F8217DC6	0	1	1	D3AE752C
9		1	1	FE179952	0	0	01E866AD	F8217DC6	0	1	1	D3AE752C
10		1	1	FE179952	1	1	F8217DC6	F8217DC6	0	1	1	D3AE752C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0064

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	AE1A4FE0	1	1	AE1A4FE0	00000000	0	1	1	84F82DDE
6-	00	1	1	AE1A4FE0	0	0	00000000	AE1A4FE0	0	1	1	84F82DDE
6-	01	0	0	00000000	0	0	00000000	2B8693F8	0	1	1	09F05B3C
6-	02	0	0	00000000	0	0	00000000	0AE1A4FE	0	1	1	09F05B3C
6-	03	0	0	00000000	1	1	09F05B3C	02B8693F	0	1	1	09F05B3C
6-	04	1	1	02A216EF	0	0	3D83E911	00AE1A4F	1	1	1	84F82DDE
6-	05	0	0	0F60FA44	0	0	0F60FA44	402B8693	1	1	1	09F05B3C
6-	06	0	0	03D83E91	0	0	03D83E91	100AE1A4	1	1	1	09F05B3C
6-	07	0	0	00F60FA4	1	1	85EE3D92	4402B869	0	1	1	84F82DDE
6-	08	1	1	E17B8F60	1	1	6673BDBE	9100AE1A	0	1	1	84F82DDE
6-	09	1	1	D990EF4F	1	0	E38D4BC8	A4402B86	0	1	1	09F05B3C
6-	10	1	1	58E352C2	1	0	C2D3AE7E	E9100AE1	0	1	1	09F05B3C
6-	11	1	1	B034E39F	1	1	35AD197D	BA4402B8	0	1	1	84F82DDE
6-	12	1	1	CD68465F	1	1	CD68465F	6E9100AE	0	1	1	09F05B3C
6-	13	1	1	F3EAD197	1	0	FD4B2D53	DBA4402B	0	1	1	09F05B3C
6-	14	1	1	BFF8CB54	0	0	3A5A9D76	F6E9100A	1	1	1	84F82DDE
6-	15	0	0	DE96A75D	0	0	899E797F	BDBA4402	1	1	1	84F82DDE
6-	16	0	0	22679E5F	0	0	9D6F7081	EF6E9103	1	1	1	84F82DDE
7		0	0	275BDC20	0	0	275BDC20	7BDBA440	1	1	1	09F05B3C
9		0	0	275BDC20	0	0	275BDC20	7BDBA440	1	1	1	09F05B3C
10		0	0	275BDC20	0	0	7BDBA440	7BDBA440	1	1	1	09F05B3C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0065

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

			17P42	-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
5		0	0	26C9AAD5	0	0	26C9AAD5	00000000	0	0	0	136AF582
6-	00	0	0	26C9AAD5	0	0	00000000	26C9AAD5	0	0	0	136AF582
6-	01	0	0	00000000	0	0	136AF582	09826AB5	0	0	0	136AF582
6-	02	0	0	04DAB06C	0	0	1845B31E	826C9AAD	0	0	0	136AF582
6-	03	0	0	06116CC7	0	0	197C6279	A09826AB	0	0	0	136AF582
6-	04	0	0	069F189E	1	1	F2F422EC	6826C9AA	1	0	0	136AF582
6-	05	1	1	FC0D0838	1	1	E9521309	1A09826A	1	0	0	136AF582
6-	06	1	1	FAB48402	1	1	E6E98F10	46826C9A	1	0	0	136AF582
6-	07	1	1	F93A63C4	1	1	E64F6E12	11A09826	1	0	0	136AF582
6-	08	1	1	F993D884	1	1	E628E5D2	846826C9	1	0	0	136AF582
6-	09	1	1	F95A3974	0	0	20602408	A11A09B2	0	0	0	26D5EB64
6-	10	0	0	08180936	0	0	2EED6F49A	2846826C	0	0	0	26D5EB64
6-	11	0	0	0BBB7D26	0	0	0BBB7D26	8A11A09B	0	0	0	26D5EB64
6-	12	0	0	02EEDF49	1	1	EF83E997	A2846826	1	0	0	136AF582
6-	13	1	1	FBE0FA65	1	1	E8760483	E8A11A09	1	0	0	136AF582
6-	14	1	1	FA1D812C	0	0	20F36C90	FA284682	0	0	0	26D5EB64
6-	15	0	0	0832C824	0	0	2F12C688	3E8A11A0	0	0	0	26D5EB64
6-	16	0	0	08C491A2	0	0	08C491A2	0FA28468	0	0	0	26D5EB64
7		0	0	02F12C68	0	0	02F12C68	83E8A11A	0	0	0	26D5EB64
9		0	0	02F12C68	1	1	FD0ED307	83E8A11A	0	0	0	26D5EB64
10		0	0	02F12C68	1	1	83E8A11A	83E8A11A	0	0	0	26D5EB64

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MN 0066

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

			17P42	-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
5		0	0	04A76683	0	0	04A76683	00000000	0	0	0	153897C4
6-	00	0	0	04A76683	0	0	00000000	04A766B3	0	0	0	153897C4
6-	01	0	0	00000000	1	1	EA476B3C	0129D9AC	1	0	0	153897C4
6-	02	1	1	FAB1DA0F	0	0	104A71D3	004A766B	0	0	0	153897C4
6-	03	0	0	04129C74	1	1	EE5A0480	C0129D9A	1	0	0	153897C4
6-	04	1	1	FB5A912C	1	1	E5DDE968	3004A766	1	0	0	153897C4
6-	05	1	1	F9777A5A	1	1	E3BEE296	0C0129D9	1	0	0	153897C4
6-	06	1	1	F9CFB8A5	0	0	2460E8BD	83004A76	0	0	0	23712F88
6-	07	0	0	03183A0B	0	0	34896933	60C0129D	0	0	0	23712F88
6-	08	0	0	0DB85A64	0	0	22DAF228	083004A7	0	0	0	153897C4
6-	09	0	0	0836BC8A	1	1	F2FE2406	360C0129	1	0	0	153897C4
6-	10	1	1	FC1F8931	0	0	28300B0D	8D83004A	0	0	0	23712F88
6-	11	0	0	0AC0E2E2	0	0	357D5D36	6360C012	0	0	0	23712F88
6-	12	0	0	0DF55763	0	0	38D0B6F5	98D83004	0	0	0	23712F88
6-	13	0	0	0E34213D	0	0	0E34213D	66360C01	0	0	0	23712F88
6-	14	1	0	F3D086F	0	0	1945A033	598D8300	0	0	0	153897C4
6-	15	0	0	0AE1680C	0	0	06516B0C	D66360C0	0	0	0	23712F88
6-	16	0	0	01945A03	0	0	01945A03	3598D830	0	0	0	23712F88
7		0	0	00651680	0	0	00651680	CD66360C	0	0	0	23712F88
9		0	0	00651680	1	1	FF9AE97F	CD66360C	0	0	0	23712F88
10		0	0	00651680	1	1	CD66360C	CD66360C	0	0	0	23712F88

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0067

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PROOO

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	5A0DC619	0	0	5A0DC619	00000000	0	0	0	37DA99E6
6- 00		0	0	5A0DC619	0	0	00000000	5A0DC619	0	0	0	37DA99E6
6- 01		0	0	00000000	0	0	37DA99E6	16837186	0	0	0	37DA99E6
6- 02		0	0	0DF6A679	0	0	7DA3DA45	85A0DC61	0	0	0	6FB533CC
6- 03		0	0	1F6AF691	0	0	57459077	61683718	0	0	0	37DA99E6
6- 04		0	0	15D1641D	0	0	15D1641D	D85A0DC6	0	0	0	6FB533CC
6- 05		0	0	05745907	0	0	75298CD3	76168371	0	0	0	6FB533CC
6- 06		0	0	1D4A6334	0	0	5524FD1A	DD85A0DC	0	0	0	37DA99E6
6- 07		0	0	15493F46	0	0	15493F46	B7616837	0	0	0	6FB533CC
6- 08		0	0	05524FD1	1	1	CD7735E3	ADD85A0D	1	0	0	37DA99E6
6- 09		1	1	F35DED7A	0	0	63132146	EB761683	0	0	0	6FB533CC
6- 10		0	0	18C4C851	1	1	E0EA2E63	BADD85A0	1	0	0	37DA99E6
6- 11		1	1	F83A8B9A	0	0	30152580	EEB76168	0	0	0	37DA99E6
6- 12		0	0	0C054960	0	0	0C054960	3BADD85A	0	0	0	6FB533CC
6- 13		0	0	03C15258	0	0	72368624	0EEB7616	0	0	0	6FB533CC
6- 14		0	0	1CADA189	0	0	8C62D555	03BADD85	0	0	0	6FB533CC
6- 15		0	0	2318B555	0	0	5AF34F3B	40EEB761	0	0	0	37DA99E6
6- 16		0	0	168CD3CE	0	0	4E976D34	D03BADD8	0	0	0	37DA99E6
7		0	0	13A5DB6D	0	0	13A5DB6D	340EEB76	0	0	0	6FB533CC
9		0	0	13A5DB6D	0	0	13A5DB6D	340EEB76	0	0	0	6FB533CC
10		0	0	13A5DB6D	0	0	340EEB76	340EEB76	0	0	0	6FB533CC

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0068

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PROOO

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	4A1FEA60	0	0	4A1FEA60	00000000	0	0	0	28FDD84E
6- 00		0	0	4A1FEA60	0	0	00000000	4A1FEA60	0	0	0	28FDD84E
6- 01		0	0	00000000	0	0	00000000	1287FA98	0	0	0	51FB309C
6- 02		0	0	00000000	0	0	00000000	04A1FEA6	0	0	0	51FB309C
6- 03		0	0	00000000	0	0	51FB309C	01287FA9	0	0	0	51FB309C
6- 04		0	0	147EEC27	0	0	3D7CC475	004A1FEA	0	0	0	28FDD84E
6- 05		0	0	CF8F311D	0	0	615AE189	401287FA	0	0	0	51FB309C
6- 06		0	0	1856386E	0	0	6A52690A	5004A1FE	0	0	0	51FB309C
6- 07		0	0	1A949A42	0	0	6C904ADE	9401287F	0	0	0	51FB309C
6- 08		0	0	13241287	1	1	F2263A69	A5004A1F	1	0	0	28FDD84E
6- 09		1	1	FC898E9A	1	1	FC898E9A	69401287	1	0	0	51FB309C
6- 10		1	1	FF2263A6	1	1	FF2263A6	9A5004A1	1	0	0	51FB309C
6- 11		1	1	FFC898E9	0	0	51C44985	A6940128	0	0	0	51FB309C
6- 12		0	0	14711261	0	0	14711261	69A5004A	0	0	0	51FB309C
6- 13		0	0	051C4498	0	0	5717F534	5A694012	0	0	0	51FB309C
6- 14		0	0	1505FD4D	0	0	67C1ADE9	169A5004	0	0	0	51FB309C
6- 15		0	0	19F06B7A	0	0	19F06B7A	45A69401	0	0	0	51FB309C
6- 16		0	0	067C1ADE	0	0	2F79F32C	9169A500	0	0	0	28FDD84E
7		0	0	0BDE7CCB	0	0	0BDE7CCB	245A6940	0	0	0	51FB309C
9		0	0	0BDE7CCB	0	0	0BDE7CCB	245A6940	0	0	0	51FB309C
10		0	0	0BDE7CCB	0	0	245A6940	245A6940	0	0	0	51FB309C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0069

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	-TEST POINTS- 29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	43043218	0	0	43043218	00000000	0	1	1	8508753F
6-	00	0	0	43043218	0	0	00000000	43043218	0	1	1	8508753F
6-	01	0	0	00000000	0	0	00000000	10C10C86	0	1	1	0A10EA7E
6-	02	0	0	00000000	1	1	0A10EA7E	04304321	0	1	1	0A10EA7E
6-	03	1	1	02843A8F	1	1	478CAFDE	810C10C8	0	1	1	8508753F
6-	04	1	1	D1E32BF7	1	1	D1E32BF7	A0430432	0	1	1	0A10EA7E
6-	05	1	1	F478CAFD	1	0	FE893573	E810C10C	0	1	1	0A10EA7E
6-	06	1	1	BFA26D5E	1	1	BFA26D5E	FA043043	0	1	1	0A10EA7E
6-	07	1	1	EFE89B57	0	0	6AE02618	BE810C10	1	1	1	8508753F
6-	08	0	0	1A880986	1	1	9FC07EC5	2FA04304	0	1	1	8508753F
6-	09	1	1	E7F01F81	1	1	E7F01F81	4BE810C1	0	1	1	0A10EA7E
6-	10	1	1	F9FC07EC	1	1	7F047D23	52FA0430	0	1	1	8508753F
6-	11	1	1	DFC11F4A	1	1	DFC11F4A	D4BE810C	0	1	1	0A10EA7E
6-	12	1	1	F7F047D2	1	1	F7F047D2	B52FA043	0	1	1	0A10EA7E
6-	13	1	1	FDFC11F4	0	0	78F39C85	AD4BE810	1	1	1	8508753F
6-	14	0	0	1B3CE72D	1	1	A3455C6C	6B52FA04	0	1	1	8508753F
6-	15	1	1	E8D15713	1	1	E8D15713	1AD4BE81	0	1	1	0A10EA7E
6-	16	1	1	FA345526	1	1	7F3CCB05	C6B52FA0	0	1	1	8508753F
7		1	1	DFCF32C1	1	1	DFCF32C1	71AD4BE8	0	1	1	0A10EA7E
9		1	1	DFCF32C1	1	1	DFCF32C1	71AD4BE8	0	1	1	0A10EA7E
10		1	1	DFCF32C1	0	0	71AD4BE8	71AD4BE8	0	1	1	0A10EA7E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0070

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	-TEST POINTS- 29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	5DAB9C62	0	0	5DAB9C62	00000000	0	0	0	235FA631
6-	00	0	0	5DAB9C62	0	0	00000000	5DAB9C62	0	0	0	235FA631
6-	01	0	0	00000000	0	0	568F4C62	176AE718	0	0	0	568F4C62
6-	02	0	0	154FD318	0	0	15AFD318	85DAB9C6	0	0	0	568F4C62
6-	03	0	0	0568F4C6	0	0	5C2B4128	2176AE71	0	0	0	568F4C62
6-	04	0	0	17DAD04A	0	0	426A7673	085DAB9C	0	0	0	235FA631
6-	05	0	0	10B4B09E	0	0	109A9D9E	C2176AE7	0	0	0	568F4C62
6-	06	0	0	042BA767	1	1	D8C70136	B085DAB9	1	0	0	235FA631
6-	07	1	1	F6810040	0	0	4CF10CAF	AC2176AE	0	0	0	568F4C62
6-	08	0	0	1330438B	0	0	69F38F8D	B3085DAB	0	0	0	568F4C62
6-	09	0	0	1A7EE3E3	1	1	EF1F3D32	7AC2176A	1	0	0	235FA631
6-	10	1	1	FBC7CF6C	1	1	D0682933	9B3085DA	1	0	0	235FA631
6-	11	1	1	F41A0A4E	1	1	C8BA641D	E7AC2176	1	0	0	235FA631
6-	12	1	1	F22E9907	1	1	C6CEF2D6	79EB085D	1	0	0	235FA631
6-	13	1	1	F133BC85	0	0	48730917	9E7AC217	0	0	0	568F4C62
6-	14	0	0	121CC245	1	1	E68D1C14	E79EB085	1	0	0	235FA631
6-	15	1	1	F9AF4705	0	0	506E9367	39E7AC21	0	0	0	568F4C62
6-	16	0	0	1413A4D9	0	0	3F734B0A	CE79EB08	0	0	0	235FA631
7		0	0	0FDED2C2	0	0	0FDED2C2	B39E7AC2	0	0	0	568F4C62
9		0	0	0FDED2C2	1	1	F0218D3D	B39E7AC2	0	0	0	568F4C62
10		0	0	0FDED2C2	1	1	B39E7AC2	B39E7AC2	0	0	0	568F4C62

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0071

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	3B667A40	0	0	3B667A40	00000000	0	0	0	4C798B51
6- 00		0	0	3B667A40	0	0	00000000	3B667A40	0	0	0	4C798B51
6- 01		0	0	00000000	0	0	00000000	0ED99E90	0	0	0	98F316A2
6- 02		0	0	00000000	0	0	00000000	03B667A4	0	0	0	98F316A2
6- 03		0	0	00000000	0	0	00000000	00ED99E9	0	0	0	98F316A2
6- 04		0	0	00000000	0	0	4C798B51	003B667A	0	0	0	4C798B51
6- 05		0	0	131E62D4	0	0	AC117976	400ED99E	0	0	0	98F316A2
6- 06		0	0	2B045E5D	0	0	C3F774FF	9003B667	0	0	0	98F316A2
6- 07		0	0	30FDDD3F	1	1	E48451EE	E400ED99	1	0	0	4C798B51
6- 08		1	1	F9211478	0	0	92142B1D	39003B66	0	0	0	98F316A2
6- 09		0	0	24850AC7	0	0	BD782169	6E400ED9	0	0	0	98F316A2
6- 10		0	0	2F5E085A	0	0	7BD793AB	5B9003B6	0	0	0	4C798B51
6- 11		0	0	1EF6E4EA	0	0	B7E8F38C	D6E400ED	0	0	0	98F316A2
6- 12		0	0	2DFA3EE3	0	0	7A73CA34	35B9003B	0	0	0	4C798B51
6- 13		0	0	1E90F28D	1	1	D223673C	0D6E400E	1	0	0	4C798B51
6- 14		1	1	F488D9CF	1	1	A80F4E7E	035B9003	1	0	0	4C798B51
6- 15		1	1	EA03D39F	1	1	EA03D39F	80D6E400	1	0	0	98F316A2
6- 16		1	1	FA0DF4E7	0	0	46FA8038	E0353900	0	0	0	4C798B51
7		0	0	113EA00E	0	0	113EA00E	380D6E40	0	0	0	98F316A2
9		0	0	113EA00E	0	0	113EA00E	380D6E40	0	0	0	98F316A2
10		0	0	113EA00E	0	0	380D6E40	380D6E40	0	0	0	98F316A2

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0072

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	29L17 C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	916CD0A5	1	1	916CD0A5	00000000	0	0	0	6E99AD73
6- 00		1	1	916CD0A5	0	0	00000000	916CD0A5	0	0	0	6E99AD73
6- 01		0	0	00000000	0	0	6E99AD73	245B3429	0	0	0	6E99AD73
6- 02		0	0	1B466B5C	0	0	8A4018CF	C916CD0A	0	0	0	6E99AD73
6- 03		0	0	82B90633	0	0	FFC36119	F245B342	0	0	0	DD335AE6
6- 04		0	0	3FFDD846	0	1	1D24332C	7C916CD0	0	0	0	DD335AE6
6- 05		0	0	47490CCB	0	0	47490CC3	1F245B34	0	0	0	DD335AE6
6- 06		0	0	11D24332	0	0	11D24332	C7C916CD	0	0	0	DD335AE6
6- 07		0	0	047490CC	0	0	730E3E3F	31F245B3	0	0	0	6E99AD73
6- 08		0	0	1CC3FF8F	1	1	AE29E21C	EC7C916C	1	0	0	6E99AD73
6- 09		1	1	E33A78B7	0	0	5A2425FA	3B1F245B	0	0	0	6E99AD73
6- 10		0	0	1683C97E	1	1	A7EF5C03	8EC7C916	1	0	0	6E99AD73
6- 11		1	1	E9FBD702	1	1	736229BF	E3B1F245	1	0	0	6E99AD73
6- 12		1	1	DE088A63	0	0	3C0BE549	F8EC7C91	0	0	0	DD335AE6
6- 13		0	0	2F02F952	0	0	9D9CA6C5	7E3B1F24	0	0	0	6E99AD73
6- 14		0	0	27672931	0	0	27672931	5F8EC7C9	0	0	0	DD335AE6
6- 15		0	0	09D9CA6C	0	0	7873772F	57E3B1F2	0	0	0	6E99AD73
6- 16		0	0	1E1CDDF7	0	0	F8503BDD	D5F8EC7F	0	0	0	DD335AE6
7		0	0	3ED40E37	1	1	D03A60C4	757E3B1F	1	0	0	6E99AD73
9		1	1	D03A60C4	1	1	D03A60C4	757E3B1F	1	0	0	6E99AD73
10		1	1	D03A60C4	0	0	757E3B1F	757E3B1F	1	0	0	6E99AD73

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MX 073

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
8		0	0	06AEF1A4	0	0	06AEF1A4	00000000	0	1	1	E48DDF82
9-	00	0	0	06AEF1A4	0	0	00000000	06AEF1A4	0	1	1	E48DDF82
9-	01	0	0	00000000	0	0	00000000	01ABBC69	0	1	1	C91B3F04
9-	02	0	0	00000000	1	1	E48DDF82	006AEF1A	0	1	1	E48DDF82
9-	03	1	1	F9C377E0	1	1	C23F36E4	801ABBC6	0	1	1	C91B3F04
9-	04	1	1	FC3FC0B9	1	1	B9A8C8D	2006AEF1	0	1	1	C91B3F04
9-	05	1	1	EE6AE32F	1	1	D2F8C281	4801ABBC	0	1	1	E48DDF82
9-	06	1	1	F43E30AC	1	1	F43E30AC	52006AEF	0	1	1	C91B3F04
9-	07	1	1	FD2F8C2B	0	0	18A1ACA9	14801ABB	1	1	1	E48DDF82
9-	08	0	0	06286B2A	0	0	06286B2A	452006AE	1	1	1	C91B3F04
9-	09	0	0	018A1ACA	0	0	1CFC3B48	914801AB	1	1	1	E48DDF82
9-	10	0	0	073F0ED2	0	0	073F0ED2	2452006A	1	1	1	C91B3F04
9-	11	0	0	01CFC3B4	0	0	1D41E432	8914801A	1	1	1	E48DDF82
9-	12	0	0	07307900	0	0	22C2998A	A2452006	1	1	1	E48DDF82
9-	13	0	0	0C30A662	0	0	2422C6E0	A8914801	1	1	1	E48DDF82
9-	14	0	0	0908B188	1	1	D224708C	2A245200	0	1	1	C91BBF04
9-	15	1	1	F4891C2F	1	1	F4891C2F	0A891480	0	1	1	C91BBF04
9-	16	1	1	FD224708	1	1	FD224708	C2A24520	0	1	1	C91BBF04
7		1	1	FF4891C2	1	1	FF4891C2	F0A89148	0	1	1	C91B3F04
8		1	1	FF4891C2	0	0	00B76E3D	F0A89148	0	1	1	C91B3F04
10		1	1	FF4891C2	1	1	F0A89148	F0A89148	0	1	1	C91B3F04

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MX 0074

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
8		1	1	81234034	1	1	81234034	00000000	0	1	1	F3578058
9-	00	1	1	81234034	0	0	00000000	81234034	0	1	1	F3578058
9-	01	0	0	00000000	0	0	00000000	20480D0D	0	1	1	E6AF0030
9-	02	0	0	00000000	1	1	F3578058	081234C3	0	1	1	F3578058
9-	03	1	1	FC05E016	0	0	097E5F3E	02048D00	1	1	1	F3578058
9-	04	0	0	025F97EF	1	1	F5371847	80812340	0	1	1	F3578058
9-	05	1	1	FD6DC611	1	1	FD6DC611	E0204800	0	1	1	E6AF0030
9-	06	1	1	FF537184	1	1	FF537184	78081234	0	1	1	E6AF0030
9-	07	1	1	FFD6DC61	1	1	FFD6DC61	1E02048D	0	1	1	E6AF0030
9-	08	1	1	FFF53718	1	1	F34D3770	47808123	0	1	1	F3578058
9-	09	1	1	FC034DDC	0	0	0973CDB4	11E02048	1	1	1	F3578058
9-	10	0	0	025EF361	1	1	F5367339	04780812	0	1	1	F3578058
9-	11	1	1	FD6D9CEE	1	1	E41C9D9E	411E0204	0	1	1	E6AF0030
9-	12	1	1	F9072767	1	1	F9072767	90478081	0	1	1	E6AF0030
9-	13	1	1	FE41C939	1	1	F1994A31	E411E020	0	1	1	F3578058
9-	14	1	1	FC06528C	1	1	FC06528C	79047808	0	1	1	E6AF0030
9-	15	1	1	FF1994A3	1	1	FF1994A3	1E411E02	0	1	1	E6AF0030
9-	16	1	1	FF006528	1	1	E67565D8	C7904783	0	1	1	E6AF0030
7		1	1	F83D5976	0	0	0645D91E	31E411E0	1	1	1	F3578058
8		0	0	0645D91E	0	0	0645D91E	31E411E0	1	1	1	F3578058
10		0	0	0645D91E	0	0	31E411E0	31E411E0	1	1	1	F3578058

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0075

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	DBC25A96	1	1	DBC25A96	00000000	0	1	1	BF6125A3
6-	00	1	1	DBC25A96	0	0	00000000	DBC25A96	0	1	1	BF6125A3
6-	01	0	0	00000000	1	1	7EC24B46	36F096A5	0	1	1	7EC24B46
6-	02	1	1	DF809201	1	1	9F113874	8D8C25A9	0	1	1	BF6125A3
6-	03	1	1	E7C46E1D	1	1	A72593C0	236F096A	0	1	1	BF6125A3
6-	04	1	1	E9C964F0	1	1	688BB036	08D8C25A	0	1	1	7EC24B46
6-	05	1	1	DA22EC0D	1	1	58E53753	8236F096	0	1	1	7EC24B46
6-	06	1	1	D6394DD4	1	1	54FB991A	E08D8C25	0	1	1	7EC24B46
6-	07	1	1	D53EE646	1	1	94A008E9	B8236F09	0	1	1	BF6125A3
6-	08	1	1	E52802FA	1	1	A4892B9D	6E08D8C2	0	1	1	BF6125A3
6-	09	1	1	E9224A27	1	1	67E4956D	5B8236F0	0	1	1	7EC24B46
6-	10	1	1	D9F9255B	1	1	D9F9255B	56E08D8C	0	1	1	7EC24B46
6-	11	1	1	F67E4956	1	1	F67E4956	D5B8236F	0	1	1	7EC24B46
6-	12	1	1	FD9F9255	0	0	3E3E6CB2	B56E08DB	1	1	1	BF6125A3
6-	13	0	0	0F8F982C	0	0	0F8F982C	AD5B8236	1	1	1	7EC24B46
6-	14	0	0	03E3E6CB	0	0	4482C128	2B56E08D	1	1	1	BF6125A3
6-	15	0	0	1120B04A	1	1	8FE2FB90	0AD5B823	0	1	1	7EC24B46
6-	16	1	1	E3F88EE4	0	0	24979941	02B56E0B	1	1	1	BF6125A3
7		0	0	0925E650	0	0	0925E650	40AD5B82	1	1	1	7EC24B46
9		0	0	0925E650	0	0	0925E650	40AD5B82	1	1	1	7EC24B46
10		0	0	0925E650	0	0	40AD5B82	40AD5B82	1	1	1	7EC24B46

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0076

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		1	1	B6A03674	1	1	B6A03674	00000000	0	1	1	C9B14785
6-	00	1	1	B6A03674	0	0	00000000	B6A03674	0	1	1	C9B14785
6-	01	0	0	00000000	0	0	00000000	2DA80D9D	0	1	1	93628F0A
6-	02	0	0	00000000	1	1	C9B147B5	0B6A0367	0	1	1	C9B14785
6-	03	1	1	F26C51E1	0	0	28BBCA5C	42DA80D9	1	1	1	C9B14785
6-	04	0	0	CA2EC297	1	1	9D9151A1	10B6A036	0	1	1	93628F0A
6-	05	1	1	E7645468	1	1	7AC6E372	442DA80D	0	1	1	93628F0A
6-	06	1	1	DE3138DC	1	1	A8630061	910B6A03	0	1	1	C9B14785
6-	07	1	1	EA18C018	0	0	20677893	6442DA80	1	1	1	C9B14785
6-	08	0	0	0818DE24	1	1	D1CB25A9	D910B6A0	0	1	1	C9B14785
6-	09	1	1	F472C96A	1	1	F472C96A	76442DA8	0	1	1	93628F0A
6-	10	1	1	FD1CB25A	1	1	FD1CB25A	9D910B6A	0	1	1	93628F0A
6-	11	1	1	FF472C96	1	1	92A93BA0	A76442DA	0	1	1	93628F0A
6-	12	1	1	E4AA6EE8	1	1	780CFDF2	29D910B6	0	1	1	93628F0A
6-	13	1	1	DEC33F7C	1	1	7165CE86	8A76442D	0	1	1	93628F0A
6-	14	1	1	DC5973A1	1	1	A60A3B26	A29D910B	0	1	1	C9B14785
6-	15	1	1	E982AEC9	0	0	1FD16744	A8A76442	1	1	1	C9B14785
6-	16	0	0	07F459D1	0	0	3E43124C	2A29D913	1	1	1	C9B14785
7		0	0	0F90C493	0	0	0F90C493	0A8A7644	1	1	1	93628F0A
9		0	0	0F90C493	0	0	0F90C493	0A8A7644	1	1	1	93628F0A
10		0	0	0F90C493	0	0	0A8A7644	0A8A7644	1	1	1	93628F0A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0077

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42 -TEST POINTS-			29L19	29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)			S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	1C0596DA			0	0	1C0596DA	00000000	0	1	1	E9D369A7
6- 00		0	0	1C0596DA			0	0	00000000	1C0596DA	0	1	1	E9D369A7
6- 01		0	0	00000000			1	1	D3A6D34E	070165B6	0	1	1	D3A6D34E
6- 02		1	1	F4E934D3			1	1	C8908821	81C0596D	0	1	1	D3A6D34E
6- 03		1	1	F2242208			1	1	DBF78BAF	60701658	0	1	1	E9D369A7
6- 04		1	1	F6FDE2EB			0	0	0D2A7944	D81C0596	1	1	1	E9D369A7
6- 05		0	0	034A9E51			0	0	197734AA	36070165	1	1	1	E9D369A7
6- 06		0	0	065DCD2A			1	1	DA04A078	8D81C059	0	1	1	D3A6D34E
6- 07		1	1	F6A1281E			1	1	E05491C5	23607016	0	1	1	E9D369A7
6- 08		1	1	F8152471			1	1	CBBBF7BF	48D81C05	0	1	1	D3A6D34E
6- 09		1	1	F2EEFDEF			1	1	DCC26796	D2360701	0	1	1	E9D369A7
6- 10		1	1	F73D99E5			1	1	E10403BC	B48D81C0	0	1	1	E9D369A7
6- 11		1	1	F84100E3			1	1	F84100E3	2D236070	0	1	1	D3A6D34E
6- 12		1	1	FE104038			1	1	FE104038	CB48D81C	0	1	1	D3A6D34E
6- 13		1	1	FF84100E			1	1	FF84100E	32D23607	0	1	1	D3A6D34E
6- 14		1	1	FFE10403			0	0	160D9A5C	8CB48D81	1	1	1	E9D369A7
6- 15		0	0	05836697			1	1	D92A39E5	232D2360	0	1	1	D3A6D34E
6- 16		1	1	F64A8E79			1	1	F64A8E79	48CB48D8	0	1	1	D3A6D34E
7		1	1	FD92A39E			1	1	FD92A39E	5232D236	0	1	1	D3A6D34E
9		1	1	FD92A39E			1	1	FD92A39E	5232D236	0	1	1	D3A6D34E
10		1	1	FD92A39E			0	0	5232D236	5232D236	0	1	1	D3A6D34E

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0078

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO P000

				17P42 -TEST POINTS-			29L19	29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)			S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	6E140AFA			0	0	6E140AFA	00000000	0	0	0	4DF2E8D8
6- 00		0	0	6E140AFA			0	0	00000000	6E140AFA	0	0	0	4DF2E8D8
6- 01		0	0	00000000			0	0	9BE5D1B0	1B8502BE	0	0	0	9BE5D1B0
6- 02		0	0	26F0746C			0	0	C2DF461C	D6E140AF	0	0	0	9BE5D1B0
6- 03		0	0	B037D187			1	1	E2C4E8AF	01B8502B	1	0	0	4DF2E8D8
6- 04		1	1	F8313A2B			1	1	F8313A2B	C06E140A	1	0	0	9BE5D1B0
6- 05		1	1	FEFC4E8A			1	1	B0396582	F01B8502	1	0	0	4DF2E8D8
6- 06		1	1	ECCE596C			1	1	9E1B7094	BC06E140	1	0	0	4DF2E8D8
6- 07		1	1	E744DC25			0	0	3579C4FD	2F01B850	0	0	0	4DF2E8D8
6- 08		0	0	00B5E713F			0	0	0D5E713F	4BC06E14	0	0	0	9BE5D1B0
6- 09		0	0	03579C4F			0	0	03579C4F	D2F01B85	0	0	0	9BE5D1B0
6- 10		0	0	000B5E713			0	0	4EC8CFE3	F4BC06E1	0	0	0	4DF2E8D8
6- 11		0	0	13B233FA			0	0	61A51CD2	FD2F01B8	0	0	0	4DF2E8D8
6- 12		0	0	18694734			0	0	18694734	BF4BC06E	0	0	0	9BE5D1B0
6- 13		0	0	C61A51CD			0	0	A2002370	2FD2F01B	0	0	0	9BE5D1B0
6- 14		0	0	288D08DF			1	1	DA8D2007	4BF4BC06	1	0	0	4DF2E8D8
6- 15		1	1	F6A34801			1	1	A8B05F29	D2FD2F01	1	0	0	4DF2E8D8
6- 16		1	1	EA2C17CA			0	0	8611E97A	74BF4BC0	0	0	0	9BE5D1B0
7		0	0	21847A5E			0	0	21847A5E	9D2FD2F0	0	0	0	9BE5D1B0
9		0	0	21847A5E			1	1	DE7385A1	9D2FD2F0	0	0	0	9BE5D1B0
10		0	0	21847A5E			1	1	9D2FD2F0	9D2FD2F0	0	0	0	9BE5D1B0

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0079

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	13048243	0	0	13048243	00000000	0	0	0	3708F585
6- 00		0	0	13048243	0	0	00000000	13048243	0	0	0	3708F585
6- 01		0	0	00000000	1	1	C8F70A7B	04C12090	1	0	0	3708F585
6- 02		1	1	F23DC29E	0	0	29463823	C1304824	0	0	0	3708F585
6- 03		0	0	0A51AE08	0	0	0A51AE08	F04C1209	0	0	0	6E11EB0A
6- 04		0	0	02946B82	0	0	399D6107	3C130482	0	0	0	3708F585
6- 05		0	0	0E675841	0	0	7C794343	CF04C120	0	0	0	6E11EB0A
6- 06		0	0	1F1E50D2	0	0	1F1E50D2	F3C13048	0	0	0	6E11EB0A
6- 07		0	0	07C79434	0	0	07C79434	BCF04C12	0	0	0	6E11EB0A
6- 08		0	0	01F1E50D	0	0	7003D017	2F3C1304	0	0	0	6E11EB0A
6- 09		0	0	1C00F405	0	0	1C00F405	CBCF04C1	0	0	0	6E11EB0A
6- 10		0	0	07003D01	0	0	3E093286	72F3C130	0	0	0	3708F585
6- 11		0	0	0F824CA1	0	0	0F824CA1	9CBCF04C	0	0	0	6E11EB0A
6- 12		0	0	03E09328	0	0	03E09328	672F3C13	0	0	0	6E11EB0A
6- 13		0	0	00F824CA	1	1	C9EF2F45	19CBCF04	1	0	0	3708F585
6- 14		1	1	F273CBD1	0	0	2984C156	4672F3C1	0	0	0	3708F585
6- 15		0	0	0A613055	0	0	416A25DA	919CBCF0	0	0	0	3708F585
6- 16		0	0	105A8976	0	0	105A8976	A4672F3C	0	0	0	6E11EB0A
7		0	0	0416A25D	0	0	0416A25D	A919CBCF	0	0	0	6E11EB0A
9		0	0	0416A25D	1	1	FBE95DA2	A919CBCF	0	0	0	6E11EB0A
10		0	0	0416A25D	1	1	A919CBCF	A919CBCF	0	0	0	6E11EB0A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0080

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	9ACB652D	1	1	9ACB652D	00000000	0	1	1	A56F3213
6- 00		1	1	9ACB652D	0	0	00000000	9ACB652D	0	1	1	A56F3213
6- 01		0	0	00000000	1	1	A56F3213	26B2D94B	0	1	1	A56F3213
6- 02		1	1	E98CC86	0	0	43EC9A6B	C9ACB652	1	1	1	A56F3213
6- 03		0	0	10FB269A	0	0	6B8BF47F	F26B2D94	1	1	1	A56F3213
6- 04		0	0	1AEEFD1F	1	1	C0522F3A	FC9ACB65	0	1	1	A56F3213
6- 05		1	1	F0148BCE	1	1	95833DE9	BF2632D9	0	1	1	A56F3213
6- 06		1	1	E562EF7A	1	1	8AD02195	6FC9ACB6	0	1	1	A56F3213
6- 07		1	1	E2340865	1	1	2D926CDB	5BF26B2D	0	1	1	4ADE6436
6- 08		1	1	C8449B26	1	1	7003CD41	D6FC9ACB	0	1	1	A56F3213
6- 09		1	1	DC34F350	0	0	36C5C135	75BF26B2	1	1	1	A56F3213
6- 10		0	0	0D31704D	0	0	68423E32	5D6FC9AC	1	1	1	A56F3213
6- 11		0	0	1A108F8C	1	1	BF7FC1A7	975BF26B	0	1	1	A56F3213
6- 12		1	1	EF3FF069	0	0	4A70BE4E	E5D6FC9A	1	1	1	A56F3213
6- 13		0	0	123C2F93	0	0	6D2CFD78	B975BF26	1	1	1	A56F3213
6- 14		0	0	13483F5E	0	0	75DC0D43	2E5D6FC9	1	1	1	A56F3213
6- 15		0	0	1D770350	1	1	68556786	CB975BF2	0	1	1	4ADE6436
6- 16		1	1	DA1559E1	1	1	24F33E17	B2E5D6FF	0	1	1	4ADE6436
7		1	1	C93CEF85	0	0	23CD3D6A	ECB975BF	1	1	1	A56F3213
9		0	0	23CD3D6A	1	1	DC324295	ECB975BF	1	1	1	A56F3213
10		0	0	23CD3D6A	1	1	ECB975BF	ECB975BF	1	1	1	A56F3213

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0081

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		1	1	C1C7FCFC	1	1	C1C7FCFC	00000000	0	1	1	DFA08A94
6-	00	1	1	C1C7FCFC	0	0	00000000	C1C7FCFC	0	1	1	DFA08A94
6-	01	0	0	00000000	0	0	00000000	3071FF3F	0	1	1	BF411528
6-	02	0	0	00000000	0	0	205F756C	0C1C7FCF	1	1	1	DFA08A94
6-	03	0	0	0817DD5B	0	0	0817DD5B	03071FF3	1	1	1	BF411528
6-	04	0	0	0205F756	0	0	0205F756	C0C1C7FC	1	1	1	BF411528
6-	05	0	0	00817DD5	1	1	E0220869	B03071FF	0	1	1	DFA08A94
6-	06	1	1	F808821A	0	0	1867F786	6C0C1C7F	1	1	1	DFA08A94
6-	07	0	0	0619FDE1	0	0	0619FDE1	9B03071F	1	1	1	BF411528
6-	08	0	0	01867F78	0	0	01867F78	66C0C1C7	1	1	1	BF411528
6-	09	0	0	00619FDE	0	0	00619FDE	19B03071	1	1	1	BF411528
6-	10	0	0	001867F7	1	1	BF597D1F	866C0C1C	0	1	1	BF411528
6-	11	1	1	EFD65F47	1	1	EFD65F47	E19B0307	0	1	1	BF411528
6-	12	1	1	FBF597D1	0	0	1C550D3D	F866C0C1	1	1	1	DFA08A94
6-	13	0	0	0715434F	1	1	C6565877	7E19B030	0	1	1	BF411528
6-	14	1	1	F195961D	1	1	F195961D	DF866C0C	0	1	1	BF411528
6-	15	1	1	FC656587	1	1	FC656587	77E19B03	0	1	1	BF411528
6-	16	1	1	FF195961	0	0	1F78CECD	DDF866C3	1	1	1	DFA08A94
7		0	0	07DE3383	0	0	07DE3383	777E19B0	1	1	1	BF411528
9		0	0	07DE3383	0	0	07DE3383	777E19B0	1	1	1	BF411528
10		0	0	07DE3383	0	0	777E19B0	777E19B0	1	1	1	BF411528

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0082

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	C(A)	29L19 S000	S00	C(S)	C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	1CC95618	0	0	1CC95618	00000000	0	1	1	8A5F7630
6-	00	0	0	1CC95618	0	0	00000000	1CC95618	0	1	1	8A5F7630
6-	01	0	0	00000000	0	0	00000000	07325586	0	1	1	14BEED60
6-	02	0	0	00000000	1	1	14BEED60	01CC9561	0	1	1	14BEED60
6-	03	1	1	C52F8B58	1	1	4F8F3208	00732558	0	1	1	8A5F7630
6-	04	1	1	D3E3CC82	1	1	D3E3CC82	001CC956	0	1	1	14BEED60
6-	05	1	1	F4F8F320	1	1	09B7E080	80073255	0	1	1	14BEED60
6-	06	1	1	C26DF820	1	1	4CCD6ED0	2001CC95	0	1	1	8A5F7630
6-	07	1	1	D3335B34	1	1	5D92D264	08007325	0	1	1	8A5F7630
6-	08	1	1	D7648499	1	1	61C42B49	02001CC9	0	1	1	8A5F7630
6-	09	1	1	D8710AD2	1	1	62D08182	40800732	0	1	1	8A5F7630
6-	10	1	1	D8342060	1	0	ED730DC0	902001CC	0	1	1	14BEED60
6-	11	1	1	BB5CC370	1	1	BB5CC370	24080073	0	1	1	14BEED60
6-	12	1	1	EED730DC	0	0	64773A2C	09020010	1	1	1	8A5F7630
6-	13	0	0	191DEE88	1	1	A37D6538	02408007	0	1	1	8A5F7630
6-	14	1	1	E8DF594E	0	0	5E7FE29E	C0902001	1	1	1	8A5F7630
6-	15	0	0	179FF8A7	1	1	2C5EE627	B0240800	0	1	1	14BEED60
6-	16	1	1	CB17B981	1	1	CB17B981	EC090200	0	1	1	14BEED60
7		1	1	F2C5EE60	1	1	F2C5EE60	7B024080	0	1	1	14BEED60
9		1	1	F2C5EE60	1	1	F2C5EE60	7B024080	0	1	1	14BEED60
10		1	1	F2C5EE60	0	0	7B024080	7B024080	0	1	1	14BEED60

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0083

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PROOO

PHASE	CLOCK	17P42 A000	A00	*TEST POINTS* C(A)	29L19 S000	S00	C(S)	29L17 *TEST POINTS* C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	37C1F3C1	0	0	37C1F3C1	00000000	0	1	1	FCFD3918
6-	00	0	0	37C1F3C1	0	0	00000000	37C1F3C1	0	1	1	FCFD3918
6-	01	0	0	00000000	1	1	FCFD3918	0DF07CF0	0	1	1	FCFD3918
6-	02	1	1	FF3F4E46	1	1	FF3F4E46	037C1F3C	0	1	1	F9FA7230
6-	03	1	1	FFCFD391	1	1	FFCFD391	80DF07CF	0	1	1	F9FA7230
6-	04	1	1	FFF3F4E4	0	0	02F6BBCC	6037C1F3	1	1	1	FCFD3918
6-	05	0	0	003DAEF3	0	0	00BDAEF3	180DF07C	1	1	1	F9FA7230
6-	06	0	0	002F6BBC	1	1	FD2CA4D4	C6037C1F	0	1	1	FCFD3918
6-	07	1	1	FF4B2935	0	0	024DF01D	3180DF07	1	1	1	FCFD3918
6-	08	0	0	00937C07	0	0	00937C07	4C6037C1	1	1	1	F9FA7230
6-	09	0	0	0024DF01	1	1	FA1F5131	D3180DF0	0	1	1	F9FA7230
6-	10	1	1	FE87D44C	1	1	FE87D44C	74C6037C	0	1	1	F9FA7230
6-	11	1	1	FFA1F513	1	1	FFA1F513	1D3180DF	0	1	1	F9FA7230
6-	12	1	1	FFE87D44	0	0	02EB442C	C74C6037	1	1	1	FCFD3918
6-	13	0	0	003AD10B	0	0	00BAD10B	31D3180D	1	1	1	F9FA7230
6-	14	0	0	002EB442	1	1	FA292672	CC74C603	0	1	1	F9FA7230
6-	15	1	1	FE8A499C	0	0	018D10B4	B31D3180	1	1	1	FCFD3918
6-	16	0	0	00634421	1	1	FD607D39	2CC74C60	0	1	1	FCFD3918
7		1	1	FF581F4E	1	1	FF581F4E	4B31D318	0	1	1	F9FA7230
9		1	1	FF581F4E	1	1	FF581F4E	4B31D318	0	1	1	F9FA7230
10		1	1	FF581F4E	0	0	4B31D318	4B31D318	0	1	1	F9FA7230

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0084

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PROOO

PHASE	CLOCK	17P42 A000	A00	*TEST POINTS* C(A)	29L19 S000	S00	C(S)	29L17 *TEST POINTS* C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	0C1031F3	0	0	0C1031F3	00000000	0	0	0	1ED8580D
6-	00	0	0	0C1031F3	0	0	00000000	0C1031F3	0	0	0	1ED8580D
6-	01	0	0	00000000	1	1	E124A7F3	03040C7C	1	0	0	1ED8580D
6-	02	1	1	F84929FC	0	0	17248209	C0C1031F	0	0	0	1ED8580D
6-	03	0	0	05C92082	1	1	E6EDC875	703040C7	1	0	0	1ED8580D
6-	04	1	1	F93B721D	1	1	F93B721D	5C0C1031	1	0	0	3DB6801A
6-	05	1	1	FE6EDC87	0	0	3C258CA1	5703040C	0	0	0	3DB6801A
6-	06	0	0	0F096328	0	0	0F096328	55C0C103	0	0	0	3DB6801A
6-	07	0	0	03C258CA	1	1	E4E7008D	15703040	1	0	0	1ED8580D
6-	08	1	1	F939C02F	0	0	1815183C	455C0C10	0	0	0	1ED8580D
6-	09	0	0	0605460F	0	0	0605460F	11570304	0	0	0	3DB6801A
6-	10	0	0	01815183	0	0	01815183	C455C0C1	0	0	0	3DB6801A
6-	11	0	0	00605460	0	0	1F3BAC6D	F1157030	0	0	0	1ED8580D
6-	12	0	0	07CEEB1B	0	0	07CEEB1B	7C455C0C	0	0	0	3DB6801A
6-	13	0	0	01F3BAC6	0	0	01F3BAC6	DF115703	0	0	0	3DB6801A
6-	14	0	0	007CEEB1	1	1	E1A196A4	B7C455C0	1	0	0	1ED8580D
6-	15	1	1	F86865A9	0	0	17433D86	2DF11570	0	0	0	1ED8580D
6-	16	0	0	05D0EF6D	0	0	05D0EF6D	8B7C455C	0	0	0	3DB6801A
7		0	0	01743BDB	0	0	01743BDB	62DF1157	0	0	0	3DB6801A
9		0	0	01743BDB	0	0	01743BDB	62DF1157	0	0	0	3DB6801A
10		0	0	01743BDB	0	0	62DF1157	62DF1157	0	0	0	3DB6801A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0085

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42		-TEST POINTS-	29L19		29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	3F1C8782	0	0	3F1C8782	00000000	0	1	1	E8FC75C1
6- 00		0	0	3F1C8782	0	0	00000000	3F1C8782	0	1	1	E8FC75C1
6- 01		0	0	00000000	1	1	D1F8EB82	0FC721E0	0	1	1	D1F8EB82
6- 02		1	1	F47E3AE0	1	1	F47E3AE0	83F1C878	0	1	1	D1F8EB82
6- 03		1	1	FD1F8E38	1	1	FD1F8E38	20FC721E	0	1	1	D1F8EB82
6- 04		1	1	FF47E3AE	1	1	D140CF30	083F1C87	0	1	1	D1F8EB82
6- 05		1	1	F45033CC	0	0	0B539E08	020FC721	1	1	1	E8FC75C1
6- 06		0	0	0204EFF2	1	1	D4CDDBC4	C083F1C8	0	1	1	D1F8EB82
6- 07		1	1	F53376C1	1	1	F53376C1	3020FC72	0	1	1	D1F8EB82
6- 08		1	1	FD4CDD80	1	1	CF45C932	4C083F1C	0	1	1	D1F8EB82
6- 09		1	1	F3D1724C	1	1	F3D1724C	93020FC7	0	1	1	D1F8EB82
6- 10		1	1	FCF45C93	0	0	13F7E6D2	24C083F1	1	1	1	E8FC75C1
6- 11		0	0	04FDF984	1	1	D6F6E536	893020FC	0	1	1	D1F8EB82
6- 12		1	1	F58D894D	1	1	F58D894D	A24C083F	0	1	1	D1F8EB82
6- 13		1	1	FD6F6E53	0	0	1472F832	6893020F	1	1	1	E8FC75C1
6- 14		0	0	051CBE24	0	0	051CBE24	9A24C083	1	1	1	D1F8EB82
6- 15		0	0	01472F89	0	0	01472F89	26893020	1	1	1	D1F8EB82
6- 16		0	0	0051CBE2	1	1	E94E41A3	49A24C08	0	1	1	E8FC75C1
7		1	1	FA539068	1	1	FA539068	D2689302	0	1	1	D1F8EB82
9		1	1	FA539068	0	0	05AC6F97	D2689302	0	1	1	D1F8EB82
10		1	1	FA539068	1	1	D2689302	D2689302	0	1	1	D1F8EB82

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0086

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42		-TEST POINTS-	29L19		29L17	-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	72436AC1	0	0	72436AC1	00000000	0	0	0	7CBDC530
6- 00		0	0	72436AC1	0	0	00000000	72436AC1	0	0	0	7CBDC530
6- 01		0	0	00000000	0	0	7CBDC530	1C90DAB0	0	0	0	7CBDC530
6- 02		0	0	1F2F714C	0	0	1F2F714C	072436AC	0	0	0	F97B8A60
6- 03		0	0	07CBDC53	0	0	07CBDC53	01C90DAB	0	0	0	F97B8A60
6- 04		0	0	01F2F714	1	1	853531E4	C072436A	1	0	0	7CBDC530
6- 05		1	1	E14D4C79	1	1	648F8749	301C90DA	1	0	0	7CBDC530
6- 06		1	1	D9B3E1D2	1	1	5C661CA2	4C072436	1	0	0	7CBDC530
6- 07		1	1	D7198728	1	1	5A5BC1F8	9301C90D	1	0	0	7CBDC530
6- 08		1	1	D686F07E	0	0	D0127ADE	24C07243	0	0	0	F97B8A60
6- 09		0	0	34C49E87	1	1	B746D987	89301C90	1	0	0	7CBDC530
6- 10		1	1	ED018661	0	0	6A8F7B91	E24C0724	0	0	0	7CBDC530
6- 11		0	0	1AA3DEE4	0	0	1AA3DEE4	789301C9	0	0	0	F97B8A60
6- 12		0	0	06A8F739	0	0	83668CE9	1E24C072	0	0	0	7CBDC530
6- 13		0	0	9DD9AF3A	0	1	1A55399A	4789301C	0	0	0	F97B8A60
6- 14		0	0	46854E66	0	0	46954E66	91E24C07	0	0	0	F97B8A60
6- 15		0	0	11A55399	1	1	94E79E69	A4789301	1	0	0	7CBDC530
6- 16		1	1	E539E39A	0	0	DE356DFA	691E24C0	0	0	0	F97B8A60
7		0	0	37AD5B7E	0	0	37AD5B7E	9A478930	0	0	0	F97B8A60
9		0	0	37AD5B7E	1	1	C852A481	9A478930	0	0	0	F97B8A60
10		0	0	37AD5B7E	1	1	9A478930	9A478930	0	0	0	F97B8A60

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0087

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	6684E6C2	0	0	6684E6C2	00000000	0		1	1	F1C133C0
6- 00		0	0	6684E6C2	0	0	00000000	6684E6C2	0		1	1	F1C133C0
6- 01		0	0	00000000	1	1	E3826780	19A139B0	0		1	1	E3826780
6- 02		1	1	F8E099E0	1	1	F8E099E0	06684E6C	0		1	1	E3826780
6- 03		1	1	FE382678	1	1	FE382678	019A139B	0		1	1	E3826780
6- 04		1	1	FF8E099E	0	0	0DCCD5DE	006684E6	1		1	1	F1C133C0
6- 05		0	0	03733577	0	0	11B201B7	8019A139	1		1	1	F1C133C0
6- 06		0	0	046C806D	1	1	E7EEE7ED	E006684E	0		1	1	E3826780
6- 07		1	1	F9FBB9FB	1	1	DD7E217B	78019A13	0		1	1	E3826780
6- 08		1	1	F75F885E	0	0	059E549E	DE006684	1		1	1	F1C133C0
6- 09		0	0	01679527	1	1	F328C8E7	B78019A1	0		1	1	F1C133C0
6- 10		1	1	FCCA3239	1	1	EE8B65F9	EDE00668	0		1	1	F1C133C0
6- 11		1	1	FBA2D97E	1	1	FBA2D97E	7B78019A	0		1	1	E3826780
6- 12		1	1	FEE8B65F	1	1	E2631DDF	9EDE0066	0		1	1	E3826780
6- 13		1	1	F89AC777	1	1	DC1D2EF7	E7B78019	0		1	1	E3826780
6- 14		1	1	F7D74BBD	1	1	E8C87F7D	F9EDE006	0		1	1	F1C133C0
6- 15		1	1	FA321FDF	1	1	DDB4875F	7E7B7801	0		1	1	E3826780
6- 16		1	1	F76D21D7	1	1	E92E5597	DF9EDE00	0		1	1	F1C133C0
7		1	1	FA4B9565	1	1	FA4B9565	F7E7B780	0		1	1	E3826780
9		1	1	FA4B9565	0	0	05846A9A	F7E7B780	0		1	1	E3826780
10		1	1	FA4B9565	1	1	F7E7B780	F7E7B780	0		1	1	E3826780

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0088

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-			29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		0	0	3F5A5ACB	0	0	3F5A5ACB	00000000	0		0	0	7CF4DF30
6- 00		0	0	3F5A5ACB	0	0	00000000	3F5A5ACB	0		0	0	7CF4DF30
6- 01		0	0	00000000	1	1	830B2DD0	0FD696B2	1		0	0	7CF4DF30
6- 02		1	1	E0C2C834	1	1	63CDE904	03F5A5AC	1		0	0	7CF4DF30
6- 03		1	1	D8F37A41	0	0	55E85971	00FD696B	0		0	0	7CF4DF30
6- 04		0	0	157A165C	1	1	9885372C	403F5A5A	1		0	0	7CF4DF30
6- 05		1	1	E6214DCB	1	1	692C6E93	100FD696	1		0	0	7CF4DF30
6- 06		1	1	DA481BA6	1	1	5D563C76	C403F5A5	1		0	0	7CF4DF30
6- 07		1	1	D7558F1D	0	0	D13F4D7D	B100FD69	0		0	0	F9E93E60
6- 08		0	0	344FD35F	0	0	B1443285	6C403F5A	0		0	0	7CF4DF30
6- 09		0	0	2C512CA3	0	1	263AEBC3	DB100FD6	0		0	0	F9E93E60
6- 10		0	0	498EBAC0	0	1	43787920	F6C403F5	0		0	0	F9E93E60
6- 11		0	0	5CDE1E48	0	0	CDD2FD78	3DB100FD	0		0	0	7CF4DF30
6- 12		0	0	3374BF5E	0	0	B0699E8E	0F6C403F	0		0	0	7CF4DF30
6- 13		0	0	2C1A67A3	1	1	AF258873	83DB100F	1		0	0	7CF4DF30
6- 14		1	1	EBC9621C	1	1	EBC9621C	E0F6C403	1		0	0	F9E93E60
6- 15		1	1	FAF25887	1	1	FAF25887	383DB100	1		0	0	F9E93E60
6- 16		1	1	FEBC9621	0	0	7BB17551	CE0F6C40	0		0	0	7CF4DF30
7		0	0	1EEC5D54	0	0	1EEC5D54	7383DB10	0		0	0	F9E93E60
9		0	0	1EEC5D54	0	0	1EEC5D54	7383DB10	0		0	0	F9E93E60
10		0	0	1EEC5D54	0	0	7383DB10	7383DB10	0		0	0	F9E93E60

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0089

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	493A426C	0	0	493A426C	00000000	0	0	0	366B6D39
6-	00	0	0	493A426C	0	0	00000000	493A426C	0	0	0	6CD6DA72
6-	01	0	0	00000000	0	0	00000000	124E909B	0	0	0	6CD6DA72
6-	02	0	0	00000000	1	1	C9949BC7	0493A426	1	0	0	366B6D39
6-	03	1	1	F2652431	1	1	BBF93778	C124E909	1	0	0	366B6D39
6-	04	1	1	EEFE6DDE	0	0	5BD54850	30493A42	0	0	0	6CD6DA72
6-	05	0	0	16F55214	0	0	83CCFC86	0C124E90	0	0	0	6CD6DA72
6-	06	0	0	20F30B21	0	0	20F30B21	830493A4	0	0	0	6CD6DA72
6-	07	0	0	083CC2C8	0	0	083CC2C8	60C124E9	0	0	0	6CD6DA72
6-	08	0	0	820F3082	0	0	387A9DEB	1830493A	0	0	0	366B6D39
6-	09	0	0	81EA77A	0	0	7AF581EC	C60C124E	0	0	0	6CD6DA72
6-	10	0	0	1F5D607B	0	0	88943AED	31830493	0	0	0	6CD6DA72
6-	11	0	0	82E50E3B	1	1	EC79A182	4C60C124	1	0	0	366B6D39
6-	12	1	1	FB1E6860	0	0	3189D599	93183049	0	0	0	366B6D39
6-	13	0	0	CC627566	0	0	42CDE29F	64C60C12	0	0	0	366B6D39
6-	14	0	0	1C9378A7	0	0	7D8A5319	D9318304	0	0	0	6CD6DA72
6-	15	0	0	1F6294C6	0	0	1F6294C6	764C60C1	0	0	0	6CD6DA72
6-	16	0	0	C7D8A531	0	0	3E44126A	9D931830	0	0	0	366B6D39
7		0	0	0F91049A	0	0	0F91049A	A764C60C	0	0	0	6CD6DA72
9		0	0	0F91049A	1	1	F06EFB65	A764C60C	0	0	0	6CD6DA72
10		0	0	0F91049A	1	1	A764C60C	A764C60C	0	0	0	6CD6DA72

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MW 0090

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	17P42 A000	A00	-TEST POINTS- C(A)	29L19 S000	S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	D00	29L28 C(D)
3		0	0	1CC95618	0	0	1CC95618	00000000	0	1	1	F1C133C0
6-	00	0	0	1CC95618	0	0	00000000	1CC95618	0	1	1	F1C133C0
6-	01	0	0	00000000	0	0	00000000	07325586	0	1	1	E3826780
6-	02	0	0	00000000	1	1	E3826780	01CC9561	0	1	1	E3826780
6-	03	1	1	F8EC99E0	1	1	EAA1CDA0	00732558	0	1	1	F1C133C0
6-	04	1	1	FAA87368	1	1	FAA87368	001CC956	0	1	1	E3826780
6-	05	1	1	FEAA1CDA	1	1	E22C845A	00073255	0	1	1	E3826780
6-	06	1	1	F8882116	1	1	EA4C54D6	8001CC95	0	1	1	F1C133C0
6-	07	1	1	FA931535	1	1	EC5448F5	A0007325	0	1	1	F1C133C0
6-	08	1	1	FB151230	1	1	ECD645FD	68001CC9	0	1	1	F1C133C0
6-	09	1	1	FB35917F	1	1	ECF6C53F	5A000732	0	1	1	F1C133C0
6-	10	1	1	FB3DB14F	1	1	DEC018CF	D68001CC	0	1	1	E3826780
6-	11	1	1	F7300633	1	1	F7300633	F5A00073	0	1	1	E3826780
6-	12	1	1	FDEC018C	0	0	0C2ACDCC	FD68001C	1	1	1	F1C133C0
6-	13	0	0	030AB373	1	1	F4CBF733	3F5A0007	0	1	1	F1C133C0
6-	14	1	1	FD32F9CC	0	0	CB71C60C	CFD68001	1	1	1	F1C133C0
6-	15	0	0	02DC7183	1	1	E65ED903	33F5A000	0	1	1	E3826780
6-	16	1	1	F9979640	1	1	F9979640	CCFD6800	0	1	1	E3826780
7		1	1	FE65ED90	1	1	FE65ED90	333F5A00	0	1	1	E3826780
9		1	1	FE65ED90	1	1	FE65ED90	333F5A00	0	1	1	E3826780
10		1	1	FE65ED90	0	0	333F5A00	333F5A00	0	1	1	E3826780

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0001

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	FAA401EB	1	1	FAA401EB	00000000	0	0	0	00042EFD
6- 00		1	1	FAA401EB	0	0	00000000	FAA401EB	0	0	0	00042EFD
6- 01		0	0	00000000	1	1	FFFBD103	3EA9007A	1	0	0	00042EFD
6- 02		1	1	FFFEF440	1	1	FFFAC543	CFAA401E	1	0	0	00042EFD
6- 03		1	1	FFFEB150	1	1	FFFA8253	F3EA9007	1	0	0	00042EFD
6- 04		1	1	FFFEA094	1	1	FFFEA094	FCFAA401	1	0	0	00085DFA
6- 05		1	1	FFFFA825	0	0	0008061F	3F3EA900	0	0	0	00085DFA
6- 06		0	0	00020187	0	0	00020187	CFCFAA40	0	0	0	00085DFA
6- 07		0	0	00008061	0	0	00008061	F3F3EA90	0	0	0	00085DFA
6- 08		0	0	00002018	0	0	00002018	7CFCFAA4	0	0	0	00085DFA
6- 09		0	0	00000806	0	0	00000806	1F3F3EA9	0	0	0	00085DFA
6- 10		0	0	00000201	0	0	000430FE	87CFCFAA	0	0	0	00042EFD
6- 11		0	0	00010C3F	0	0	00096A39	A1F3F3EA	0	0	0	00085DFA
6- 12		0	0	00025A8E	0	0	000A3888	687CFCFA	0	0	0	00085DFA
6- 13		0	0	0002AE22	0	0	000B0C1C	1A1F3F3E	0	0	0	00085DFA
6- 14		0	0	0002C307	0	0	000B2101	0687CFCF	0	0	0	00085DFA
6- 15		0	0	0002C840	1	1	FFFE9943	41A1F3F3	1	0	0	00042EFD
6- 16		1	1	-FFFA650	1	1	FFFFA650	D0687CFF	1	0	0	00085DFA
7		1	1	FFFFE994	1	1	FFFFE994	341A1F3F	1	0	0	00085DFA
9		1	1	FFFFE994	1	1	FFFFE994	341A1F3F	1	0	0	00085DFA
10		1	1	FFFFE994	0	0	341A1F3F	341A1F3F	1	0	0	00085DFA

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0002

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	36DAE799	0	0	36DAE799	00000000	0	0	0	00065900
6- 00		0	0	36DAE799	0	0	00000000	36DAE799	0	0	0	00065900
6- 01		0	0	00000000	0	0	00065900	00B689E6	0	0	0	00065900
6- 02		0	0	00019643	0	0	000E485D	436DAE79	0	0	0	000C821A
6- 03		0	0	00039217	0	0	0009EB24	50D36B9E	0	0	0	00065900
6- 04		0	0	00027A89	0	0	000F3CE3	1436DAE7	0	0	0	000C821A
6- 05		0	0	0003CB38	1	1	FFFD7223	C50DB6B9	1	0	0	00065900
6- 06		1	1	FFFF5C8A	0	0	000C0EA4	F1436DAE	0	0	0	000C821A
6- 07		0	0	0003D3A9	0	0	000F35C3	3C50DB6B	0	0	0	000C821A
6- 08		0	0	0003ED70	1	1	FFFD9463	CF1436DA	1	0	0	00065900
6- 09		1	1	FFFF6518	1	1	FFF90C08	F3C50DB6	1	0	0	00065900
6- 10		1	1	FFFE4302	1	1	FFF7E9F5	FCF1436D	1	0	0	00065900
6- 11		1	1	FFFDFA7D	0	0	000AAC97	7F3C50DB	0	0	0	000C821A
6- 12		0	0	0002AB25	1	1	FFFC5218	DFCF1436	1	0	0	00065900
6- 13		1	1	FFFF1486	1	1	FFF83379	37F3C50D	1	0	0	00065900
6- 14		1	1	FFFE2EDE	0	0	000AE0F8	4DFCF143	0	0	0	000C821A
6- 15		0	0	0002B83E	1	1	FFFC5F31	137F3C50	1	0	0	00065900
6- 16		1	1	FFFF17CC	0	0	000570D9	44DFCF14	0	0	0	00065900
7		0	0	00015C36	0	0	00015C36	5137F3C5	0	0	0	000C821A
9		0	0	00015C36	0	0	00015C36	5137F3C5	0	0	0	000C821A
10		0	0	00015C36	0	0	5137F3C5	5137F3C5	0	0	0	000C821A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0003

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO P000

				17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)		C(B)	BC31	D000	D00	C(D)
3		1	1	C5971438	1	1	C5971438		00000000	0	1	1	FFFA7646
6- 00		1	1	C5971438	0	0	00000000		C59714B8	0	1	1	FFFA7646
6- 01		0	0	00000000	0	0	00000000		3165C52E	0	1	1	FFF4EC8C
6- 02		0	0	00000000	1	1	FFF4EC8C		0C59714B	0	1	1	FFF4EC8C
6- 03		1	1	FFFD3B23	0	0	0002C4DD		03165C52	1	1	1	FFFA7646
6- 04		0	0	00003197	0	0	00063AF1		40C59714	1	1	1	FFFA7646
6- 05		0	0	00018E8C	1	1	FFFC0502		503165C5	0	1	1	FFFA7646
6- 06		1	1	FFFF0140	1	1	FFF97786		940C5971	0	1	1	FFFA7646
6- 07		1	1	FFFE5DE1	1	1	FFF8D427		A503165C	0	1	1	FFFA7646
6- 08		1	1	FFFE3509	1	1	FFFE3509		E940C597	0	1	1	FFF4EC8C
6- 09		1	1	FFFF8D42	0	0	000516FC		7A503165	1	1	1	FFFA7646
6- 10		0	0	0001458F	1	1	FFF63243		1E940C59	0	1	1	FFF4EC8C
6- 11		1	1	FFFD8C92	1	1	FFF80208		C7A50316	0	1	1	FFFA7646
6- 12		1	1	FFFE0086	1	1	FFF2ED42		31E940C5	0	1	1	FFF4EC8C
6- 13		1	1	FFFC3B50	1	1	FFF73196		8C7A5031	0	1	1	FFFA7646
6- 14		1	1	FFFDCC65	1	1	FFF842A3		A31E940C	0	1	1	FFFA7646
6- 15		1	1	FFFE10AA	1	1	FFFE10AA		E8C7A503	0	1	1	FFF4EC8C
6- 16		1	1	FFFF842A	0	0	00050DE4		BA31E943	1	1	1	FFFA7646
7		0	0	00014379	0	0	00014379		2E8C7A50	1	1	1	FFF4EC8C
9		0	0	00014379	0	0	00014379		2E8C7A50	1	1	1	FFF4EC8C
10		0	0	00014379	0	0	2E8C7A50		2E8C7A50	1	1	1	FFF4EC8C

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0004

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO P000

				17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)		C(B)	BC31	D000	D00	C(D)
3		0	0	826AB3F51	0	0	26AB3F51		00000000	0	0	0	0005C9D2
6- 00		0	0	826AB3F51	0	0	00000000		26AB3F51	0	0	0	0005C9D2
6- 01		0	0	00000000	0	0	0005C9D2		D9AACFD4	0	0	0	0005C9D2
6- 02		0	0	00017274	0	0	00017274		826AB3F5	0	0	0	000B93A4
6- 03		0	0	0005C9D	0	0	0006266F		209AACFD	0	0	0	0005C9D2
6- 04		0	0	00018998	0	0	00075360		C826AB3F	0	0	0	0005C9D2
6- 05		0	0	0001D4D8	1	1	FFFC0B09		7209AACF	1	0	0	0005C9D2
6- 06		1	1	FFFF02C2	1	1	FFFF02C2		5C826AB3	1	0	0	000B93A4
6- 07		1	1	FFFFC030	1	1	FFFFC030		97209AAC	1	0	0	000B93A4
6- 08		1	1	FFFFF02C	0	0	0005B9FE		25C826AB	0	0	0	0005C9D2
6- 09		0	0	00016E7F	1	1	FFFBA4AD		897209AA	1	0	0	0005C9D2
6- 10		1	1	FFFEE98B	1	1	FFF91F59		625C826A	1	0	0	0005C9D2
6- 11		1	1	FFFE47D6	1	1	FFF87E04		5897209A	1	0	0	0005C9D2
6- 12		1	1	FFFE1F81	1	1	FFF855AF		1625C826	1	0	0	0005C9D2
6- 13		1	1	FFFE156B	1	1	FFF84B99		C5897209	1	0	0	0005C9D2
6- 14		1	1	FFFE12E6	0	0	0009A68A		71625C82	0	0	0	000B93A4
6- 15		0	0	000269A2	0	0	000DFD46		9C589720	0	0	0	000B93A4
6- 16		0	0	00037F51	0	0	00037F51		A71625C8	0	0	0	000B93A4
7		0	0	00000FD4	0	0	00000FD4		69C58972	0	0	0	000B93A4
9		0	0	00000FD4	0	0	00000FD4		69C58972	0	0	0	000B93A4
10		0	0	00000FD4	0	0	69C58972		69C58972	0	0	0	000B93A4

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0005

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		1	1	88357F05	1	1	88357F05	00000000	0		0	0	00044133
6-	00	1	1	88357F05	0	0	00000000	88357F05	0		0	0	00044133
6-	01	0	0	00000000	0	0	00044133	220D5FC1	0		0	0	00044133
6-	02	0	0	00011040	0	0	0005517F	C88357F0	0		0	0	00044133
6-	03	0	0	0001545F	0	0	0001545F	F220D5FC	0		0	0	00088266
6-	04	0	0	00005517	0	0	00005517	FC88357F	0		0	0	00088266
6-	05	0	0	00001545	1	1	FFFBD412	FF220D5F	1		0	0	00044133
6-	06	1	1	FFFEF504	1	1	FFFEF504	3FC88357	1		0	0	00088266
6-	07	1	1	FFFFBD41	1	1	FFFFBD41	2FF220D5	1		0	0	00088266
6-	08	1	1	FFFFEF50	0	0	00087136	4BFC8835	0		0	0	00088266
6-	09	0	0	00021C6D	0	0	00065DA0	92FF220D	0		0	0	00044133
6-	10	0	0	00019768	0	0	0005D893	24BFC883	0		0	0	00044133
6-	11	0	0	00017626	1	1	FFFD34F3	C92FF220	1		0	0	00044133
6-	12	1	1	FFFF4D3C	0	0	00038E6F	F24BFC88	0		0	0	00044133
6-	13	0	0	0000E39B	0	0	0000E39B	FC92FF22	0		0	0	00088266
6-	14	0	0	000038E6	0	0	00038B4C	FF24BFC8	0		0	0	00088266
6-	15	0	0	00022ED3	0	0	00022ED3	3FC92FF2	0		0	0	00088266
6-	16	0	0	00008B34	0	0	00090E1A	CFF24BFF	0		0	0	00088266
7		0	0	00024386	1	1	FFFE0253	B3FC92FF	1		0	0	00044133
9		1	1	FFFE0253	0	0	0001FDAC	B3FC92FF	1		0	0	00044133
10		1	1	FFFE0253	1	1	B3FC92FF	B3FC92FF	1		0	0	00044133

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0006

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31		D000	D00	C(D)
3		1	1	8DEF82D4	1	1	8DEF82D4	00000000	0		1	1	FFFAE01A
6-	00	1	1	8DEF82D4	0	0	00000000	8DEF82D4	0		1	1	FFFAE01A
6-	01	0	0	00000000	0	0	00000000	2378E0B5	0		1	1	FFF5C034
6-	02	0	0	00000000	1	1	FFFAE01A	08DEF82D	0		1	1	FFFAE01A
6-	03	1	1	FFFE8806	1	1	FFF99820	82378E0B	0		1	1	FFFAE01A
6-	04	1	1	FFFE6608	0	0	00038EEE	208DEF82	1		1	1	FFFAE01A
6-	05	0	0	0010E17B	0	0	00060161	882378E0	1		1	1	FFFAE01A
6-	06	0	0	00018058	1	1	FFFC6072	6208DEF8	0		1	1	FFFAE01A
6-	07	1	1	FFFF181C	1	1	FFFF181C	988237BE	0		1	1	FFF5C034
6-	08	1	1	FFFFC607	1	1	FFF5861B	26208DEF	0		1	1	FFF5C034
6-	09	1	1	FFFD618E	0	0	0002B174	C9882378	1		1	1	FFFAE01A
6-	10	0	0	0000A05D	0	0	0000A05D	3262208E	1		1	1	FFF5C034
6-	11	0	0	00002817	0	0	0000547F	4C988237	1		1	1	FFFAE01A
6-	12	0	0	000151FF	0	0	000151FF	53262208	1		1	1	FFF5C034
6-	13	0	0	0000547F	1	1	FFF61483	D4C98823	0		1	1	FFF5C034
6-	14	1	1	FFFD852C	0	0	0002A512	F5326208	1		1	1	FFFAE01A
6-	15	0	0	0000A944	1	1	FFFBB95E	BD4C9882	0		1	1	FFFAE01A
6-	16	1	1	FFFEE257	1	1	FFF4A283	AF532623	0		1	1	FFF5C034
7		1	1	FFFD28A2	0	0	00024888	EBD4C988	1		1	1	FFFAE01A
9		0	0	00024888	1	1	FFFD3777	EBD4C988	1		1	1	FFFAE01A
10		0	0	00024888	1	1	EBD4C988	EBD4C988	1		1	1	FFFAE01A

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0007

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	D93AE796	1	1	D93AE796	00000000	0	0	0	00006501
4- 00		1	1	D93AE796	0	0	00000000	D93AE796	0	0	0	00006501
4- 01		0	0	00000000	0	0	0000CBA2	364EB9E5	0	0	0	0000CBA2
4- 02		0	0	000032E8	0	0	00009889	8D93AE79	0	0	0	00006501
4- 03		0	0	0000262E	0	0	00008BFF	6364EB9E	0	0	0	00006501
4- 04		0	0	000022FF	0	0	0000EEA1	D8D93AE7	0	0	0	0000CBA2
4- 05		0	0	00003BA8	1	1	FFFFD5D7	76364EB9	1	0	0	00006501
4- 06		1	1	FFFFF575	0	0	0000C117	DD8D93AE	0	0	0	0000CBA2
4- 07		0	0	00003045	0	0	0000FBE7	F76364EB	0	0	0	0000CBA2
4- 08		0	0	00003EF9	1	1	FFFFD928	FDD8D93A	1	0	0	00006501
4- 09		1	1	FFFFF64A	1	1	FFFF9079	3F76364E	1	0	0	00006501
4- 10		1	1	FFFFE41E	1	1	FFFF7E4D	4FDD8D93	1	0	0	00006501
4- 11		1	1	FFFFDF93	1	1	FFFFDF93	53F76364	1	0	0	0000CBA2
4- 12		1	1	FFFFF7E4	0	0	00005D85	D4FDD8D9	0	0	0	00006501
4- 13		0	0	0000176D	0	0	00007D3E	753F7636	0	0	0	00006501
4- 14		0	0	00001F4F	0	0	0000EAF1	9D4FDD8D	0	0	0	0000CBA2
4- 15		0	0	00003A3C	0	0	0000A08D	6753F763	0	0	0	00006501
4- 16		0	0	00002823	1	1	FFFFC252	59D4FDDB	1	0	0	00006501
7		1	1	FFFFF094	1	1	FFFFF094	96753F76	1	0	0	0000CBA2
9		1	1	FFFFF094	0	0	00000F63	96753F76	1	0	0	0000CBA2
10		1	1	FFFFF094	1	1	96753F76	96753F76	1	0	0	0000CBA2

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MI 0008

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS, IT REPRESENTS THE A00 INPUT TO PR000

		17P42	-TEST POINTS-		29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		1	1	8C594B71	1	1	8C594B71	00000000	0	0	0	00073463
4- 00		1	1	8C594B71	0	0	00000000	8C594B71	0	0	0	00073463
4- 01		0	0	00000000	0	0	00073463	231652DC	0	0	0	00073463
4- 02		0	0	0001ED18	0	0	0001FD18	C8C594B7	0	0	0	000F68C6
4- 03		0	0	00007B46	1	1	FFF8C6E3	3231652D	1	0	0	00073463
4- 04		1	1	FFFE3138	0	0	000D9A7E	CC8C594B	0	0	0	000F68C6
4- 05		0	0	0003669F	1	1	FFF33233	B3231652	1	0	0	00073463
4- 06		1	1	FFFEEC8F	1	1	FFF73822	2CC8C594	1	0	0	00073463
4- 07		1	1	FFFDCE0B	0	0	0005826E	CB323165	0	0	0	00073463
4- 08		0	0	0001609B	0	0	000914FE	82CC8C59	0	0	0	00073463
4- 09		0	0	0002453F	0	0	0009F9A2	A0B32316	0	0	0	00073463
4- 10		0	0	00027E68	0	0	0011E72E	A82CC8C5	0	0	0	000F68C6
4- 11		0	0	0004798B	0	0	000C2E2E	AA0B3231	0	0	0	00073463
4- 12		0	0	00030B8B	0	0	000A3FEE	AA82CC8C	0	0	0	00073463
4- 13		0	0	0002AFFB	0	0	0002AFFB	AAA0B323	0	0	0	000F68C6
4- 14		0	0	0000A8FE	1	1	FFF8F79B	EAA82CC8	1	0	0	00073463
4- 15		1	1	FFFE3DE6	0	0	0005F249	FAAA0B32	0	0	0	00073463
4- 16		0	0	00017C92	0	0	0010E558	7EAA82CF	0	0	0	000F68C6
7		0	0	00043956	1	1	FFFC84F3	1FAAA0B3	1	0	0	00073463
9		1	1	FFFC84F3	1	1	FFFC84F3	1FAAA0B3	1	0	0	00073463
10		1	1	FFFC84F3	0	0	1FAAA0B3	1FAAA0B3	1	0	0	00073463

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0001

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-		29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	0000FC7C	0	0	0000FC7C	00000000	0	0	0	37BF0000
4		0	0	0000FC7C	0	0	00000000	0000FC7C	0	0	0	37BF0000
5		0	0	0000FC7C	0	0	37BF0000	0000FC7C	0	0	0	37BF0000
6- 00		0	0	0000FC7C	0	0	00000000	0000FC7C	0	0	0	37BF0000
6- 01		0	0	00000000	0	0	00000000	00003F1F	0	0	0	6F7E0000
6- 02		0	0	00000000	1	1	C8410000	00000FC7	1	0	0	37BF0000
6- 03		1	1	F2104000	1	1	F2104000	000003F1	1	0	0	6F7E0000
6- 04		1	1	FC841000	0	0	6C021000	000000FC	0	0	0	6F7E0000
6- 05		0	0	1B008400	0	0	1B008400	0000003F	0	0	0	6F7E0000
6- 06		0	0	06C02100	1	1	CF012100	0000000F	1	0	0	37BF0000
6- 07		1	1	F3C04840	1	1	F3C04840	00000003	1	0	0	6F7E0000
6- 08		1	1	FCF01210	1	1	FCF01210	00000003	1	0	0	6F7E0000
10		1	1	FF3C0484	1	1	FF3C0484	00000000	1	0	0	6F7E0000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0002

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42 -TEST POINTS-		29L19		29L17	-TEST POINTS-			29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	00000383	0	0	00000383	00000000	0	1	1	C8400000
4		0	0	00000383	0	0	00000000	00000383	0	1	1	C8400000
5		0	0	00000383	0	0	C8400000	00000383	0	1	1	C8400000
6- 00		0	0	00000383	0	0	00000000	00000383	0	1	1	C8400000
6- 01		0	0	00000000	0	0	37C00000	000000E0	1	1	1	C8400000
6- 02		0	0	38F00000	1	1	D6300000	00000038	0	1	1	C8400000
6- 03		1	1	F58C0000	1	1	F58C0000	0000000E	0	1	1	90800000
6- 04		1	1	FD630000	1	1	8DE30000	00000003	0	1	1	90800000
6- 05		1	1	E378C000	0	0	1B38C000	00000000	1	1	1	C8400000
6- 06		0	0	06CE3000	1	1	CF0E3000	00000000	0	1	1	C8400000
6- 07		1	1	F3C38C00	1	1	F3C38C00	00000000	0	1	1	90800000
6- 08		1	1	FCF0E300	1	1	FCF0E300	00000000	0	1	1	90800000
10		1	1	FF3C38C0	1	1	FF3C38C0	00000000	0	1	1	90800000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0003

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42		-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	0000E159	0	0	0000E159	00000000	0	0	0	000027C1
4		0	0	0000E159	0	0	00000000	0000E159	0	0	0	C1000027
5		0	0	0000E159	0	0	27C10000	0000E159	0	0	0	27C10000
6- 00		0	0	0000E159	0	0	00000000	0000E159	0	0	0	27C10000
6- 01		0	0	00000000	0	0	27C10000	00003856	0	0	0	27C10000
6- 02		0	0	09F04000	0	0	59724000	00000E15	0	0	0	4F820000
6- 03		0	0	16609000	0	0	3E109000	00000385	0	0	0	27C10000
6- 04		0	0	0F876400	0	0	37486400	000000E1	0	0	0	27C10000
6- 05		0	0	00021900	0	0	35931900	00000038	0	0	0	27C10000
6- 06		0	0	0D642640	0	0	0D642640	0000000E	0	0	0	4F820000
6- 07		0	0	03693190	0	0	52D93190	00000003	0	0	0	4F820000
6- 08		0	0	14360C64	1	1	ECF5CC64	00000003	1	0	0	27C10000
10		1	1	FB3D7319	1	1	FB3D7319	00000000	1	0	0	4F820000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0004

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

		17P42		-TEST POINTS-	29L19	29L17		-TEST POINTS-		29L23	29L28	
PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
3		0	0	00001EA6	0	0	00001EA6	00000000	0	0	0	0000383E
4		0	0	00001EA6	0	0	00000000	00001EA6	0	0	0	3E000038
5		0	0	00001EA6	0	0	D83E0000	00001EA6	0	0	0	D83E0000
6- 00		0	0	00001EA6	0	0	00000000	00001EA6	0	0	0	D83E0000
6- 01		0	0	00000000	1	1	B07C0000	000007A9	0	1	1	B07C0000
6- 02		1	1	EC1F0000	1	1	C4500000	000001EA	0	1	1	D83E0000
6- 03		1	1	F1074000	1	1	A1934000	0000007A	0	1	1	B07C0000
6- 04		1	1	F841C000	1	1	98E50000	0000001E	0	1	1	B07C0000
6- 05		1	1	E60A3400	1	1	96843400	00000007	0	1	1	B07C0000
6- 06		1	1	E5ED0D00	0	0	0D6F0D00	00000001	1	1	1	D83E0000
6- 07		0	0	03BBC340	1	1	B3D7C340	00000000	0	1	1	B07C0000
6- 08		1	1	ECF5F0D0	1	1	ECF5F0D0	00000000	0	1	1	B07C0000
10		1	1	FB3D7C34	1	1	FB3D7C34	00000000	0	1	1	B07C0000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0005

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	29L19 S000	29L17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	000048C1	0	0	000048C1	00000000	0	0	0	30C90000
4		0	0	000048C1	0	0	00000000	000048C1	0	0	0	30C90000
5		0	0	000048C1	0	0	30C90000	000048C1	0	0	0	30C90000
6- 00		0	0	000048C1	0	0	00000000	000048C1	0	0	0	30C90000
6- 01		0	0	00000000	0	0	30C90000	00001230	0	0	0	30C90000
6- 02		0	0	0C324000	0	0	0C324000	0000048C	0	0	0	61920000
6- 03		0	0	030C9000	0	0	030C9000	00000123	0	0	0	61920000
6- 04		0	0	00C32400	1	1	CFFA2400	00000048	1	0	0	30C90000
6- 05		1	1	F3FE8900	0	0	24C78900	00000012	0	0	0	30C90000
6- 06		0	0	0931E240	0	0	6AC3E240	00000004	0	0	0	61920000
6- 07		0	0	1AB0F890	0	0	1AB0F890	00000001	0	0	0	61920000
6- 08		0	0	06AC3E24	0	0	37753E24	00000000	0	0	0	30C90000
10		0	0	0DDD4F89	0	0	0DDD4F89	00000000	0	0	0	61920000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MH 0006

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	17P42 -TEST POINTS- C(A)	29L19 S000	29_17 S00	C(S)	-TEST POINTS- C(B)	BC31	29L23 D000	29L28 D00	C(D)
3		0	0	0000B73E	0	0	0000B73E	00000000	0	1	1	C7360000
4		0	0	0000B73E	0	0	00000000	0000B73E	0	1	1	C7360000
5		0	0	0000B73E	0	0	C7360000	0000B73E	0	1	1	C7360000
6- 00		0	0	0000B73E	0	0	00000000	0000B73E	0	1	1	C7360000
6- 01		0	0	00000000	1	1	8E6C0000	00002DCF	0	1	1	8E6C0000
6- 02		1	1	E3B80000	0	0	1C650000	00000B73	1	1	1	C7360000
6- 03		0	0	07194000	0	0	07194000	000002DC	1	1	1	8E6C0000
6- 04		0	0	01065000	1	1	C8FC5000	000000B7	0	1	1	C7360000
6- 05		1	1	F23F1400	0	0	28091400	0000002D	1	1	1	C7360000
6- 06		0	0	CAC24500	1	1	992E4500	0000000B	0	1	1	8E6C0000
6- 07		1	1	E64B9140	0	0	1F159140	00000002	1	1	1	C7360000
6- 08		0	0	07C56450	0	0	408F6450	00000003	1	1	1	C7360000
10		0	0	10230914	0	0	10230914	00000000	1	1	1	8E6C0000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MM 0007

A000 DOES NOT ACTUALLY EXIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
		17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
3		1	1	FFFF62EA	1	1	FFFF62EA	00000000	0	0	0	00005AF4
4		1	1	FFFF62EA	1	1	00000000	FFFF62EA	0	0	0	F400005A
5		1	1	FFFF62EA	1	1	5AF40000	FF0062EA	0	0	0	5AF40000
6- 00		1	1	FFFF62EA	0	0	00000000	FF0062EA	0	0	0	5AF40000
6- 01		0	0	00000000	0	0	B5E80000	3FC018BA	0	0	0	B5E80000
6- 02		0	0	FD7A0000	0	0	E3620000	0FF0062E	0	0	0	B5E80000
6- 03		0	0	88088000	0	0	EEC08000	03FC018B	0	0	0	B5E80000
6- 04		0	0	88802000	1	1	E0BC2000	00FF0062	1	0	0	5AF40000
6- 05		1	1	F82FC800	1	1	9D3B0800	003FC018	1	0	0	5AF40000
6- 06		1	1	E74EC200	0	0	4242C200	000FF006	0	0	0	5AF40000
6- 07		0	0	1000B080	0	0	C678B080	0003FC01	0	0	0	B5E80000
6- 08		0	0	810E2C20	0	0	8C922C20	0000FF00	0	0	0	5AF40000
10		0	0	83248B08	0	0	23248B08	00003FC0	0	0	0	B5E80000

MULTIPLY SIMULATOR (SIGMA 5 ONLY)

MM 0008

A000 DOES NOT ACTUALLY EXSIST IN THE LOGIC EQUATIONS. IT REPRESENTS THE A00 INPUT TO PR000

PHASE	CLOCK	A000	A00	C(A)	S000	S00	C(S)	C(B)	BC31	D000	D00	C(D)
		17P42 -TEST POINTS-			29L19	29L17		-TEST POINTS-		29L23	29L28	
3		0	0	00009D15	0	0	00009D15	00000000	0	0	0	0000A503
4		0	0	00009D15	0	0	00000000	00009D15	0	0	0	0B0000A5
5		0	0	00009D15	0	0	A50B0000	00009D15	0	0	0	A50B0000
6- 00		0	0	00009D15	0	0	00000000	00009D15	0	0	0	A50B0000
6- 01		0	0	00000000	1	1	A50B0000	00002745	0	1	1	A50B0000
6- 02		1	1	5942C000	1	1	8E4DC000	000009D1	0	1	1	A50B0000
6- 03		1	1	E3837000	1	1	889E7000	00000274	0	1	1	A50B0000
6- 04		1	1	E2279C00	1	1	E2279C00	0000009D	0	1	1	4A160000
6- 05		1	1	F889E700	1	1	9D94E700	00000027	0	1	1	A50B0000
6- 06		1	1	E74539C0	0	0	425A39C0	00000009	1	1	1	A50B0000
6- 07		0	0	10968E70	1	1	5AAC8E70	00000002	0	1	1	4A160000
6- 08		1	1	D6AB239C	1	1	20C1239C	00000003	0	1	1	4A160000
10		1	1	C83048E7	0	0	23254BE7	00000000	1	1	1	A5030000

APPENDIX B

This appendix contains the T-charts for the divide instructions.

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 001

DW C1	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		CF999999	00000000	60000000	00000000	0
	C4		00000000	00000000	60000000	00000000	1
	C6	CC	CF999999	00000000	60000000	30666667	1
	C6	C1	60000000	00000001	60000000	00000000	1
	C6	C2	C199999C	00000003	60000000	A199999C	0
	1C		C199999C	00000003	60000000	00000000	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 002

DW C2	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		60000000	00000000	BFFFFFFE	00000000	0
	C4		80000000	00000000	BFFFFFFF	80000000	0
	C6	CC	60000000	80000000	BFFFFFFE	60000000	1
	C6	C1	00000001	00000001	BFFFFFFE	7FFFFFFF	1
	C6	C2	FFFFFFFE	00000003	BFFFFFFE	BFFFFFFC	1
	1C		FFFFFFFE	00000003	BFFFFFFE	00000000	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 003

DW C3

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		3FFFFFFF	00000000	7FFFFFFD	00000000	0
C4		00000001	00000000	7FFFFFFD	00000001	0
C6	CC	3FFFFFFF	00000001	7FFFFFFD	3FFFFFFF	1
C6	C1	7FFFFFFE	00000003	7FFFFFFD	00000001	1
C6	C2	00000002	00000007	7FFFFFFD	80000005	0
1C		00000002	00000007	7FFFFFFD	00000000	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 004

DW C4

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		00000000	00000000	80000000	00000000	0
C4		00000000	00000000	80000000	00000000	1
C6	CC	00000000	00000000	80000000	40000000	1
C6	C1	80000000	00000001	80000000	00000000	1
C6	C2	00000000	00000003	80000000	80000000	0
1C		00000000	00000003	80000000	00000000	0

DW C5

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	ADD
C3		40000000	00000000	7FFFFFFF	00000000	0
C4		80000000	00000000	7FFFFFFF	80000000	0
C6	CC	40000000	80000000	7FFFFFFF	40000000	1
C6	C1	80000001	00000001	7FFFFFFF	00000002	1
C6	C2	00000004	00000003	7FFFFFFF	80000005	0
1C		00000004	00000003	7FFFFFFF	00000000	0

DW C6

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	ADD
C3		3FFFFFFF	00000000	7FFFFFFF	00000000	0
C4		00000001	00000000	7FFFFFFF	00000001	0
C6	CC	3FFFFFFF	00000001	7FFFFFFF	3FFFFFFF	1
C6	C1	7FFFFFFE	00000003	7FFFFFFF	FFFFFFFF	0
C6	C2	FFFFFFFE	00000006	7FFFFFFF	7FFFFFFD	1
C6	C3	FFFFFFFA	0000000D	7FFFFFFF	7FFFFFF3	1
C6	C4	FFFFFFF6	0000001B	7FFFFFFF	7FFFFFE7	1
C6	C5	FFFFFFEE	00000037	7FFFFFFF	7FFFFFCF	1
C6	C6	FFFFFFDE	0000006F	7FFFFFFF	7FFFFF9F	1
C6	C7	FFFFFFBE	000000DF	7FFFFFFF	7FFFFF3F	1
C6	C8	FFFFFF7E	000001BF	7FFFFFFF	7FFFFE7F	1
C6	C9	FFFFFEFE	0000037F	7FFFFFFF	7FFFFCFF	1
C6	10	FFFFFDFE	000006FF	7FFFFFFF	7FFFF9FF	1
C6	11	FFFFFBFE	000000DF	7FFFFFFF	7FFFF3FF	1
C6	12	FFFFF7FE	000001BF	7FFFFFFF	7FFFE7FF	1
C6	13	FFFEFFFE	00000379	7FFFFFFF	7FFECFFF	1
C6	14	FFFDFFFE	000006FF	7FFFFFFF	7FFD9FFF	1
C6	15	FFFBFFFE	00000DFF	7FFFFFFF	7FF3FFFF	1
C6	16	FFF7FFFE	00001BFF	7FFFFFFF	7FE7FFFF	1
C6	17	FFEFFFFE	00037FFF	7FFFFFFF	7FCFFFFF	1
C6	18	FFDFFFFE	00006FFF	7FFFFFFF	7F9FFFFF	1
C6	19	FFBFFFFE	0000DFFF	7FFFFFFF	7F3FFFFF	1
C6	20	FF7FFFFE	0001BFFF	7FFFFFFF	7E7FFFFF	1
C6	21	FEFFFFFE	00037FFF	7FFFFFFF	7CFFFFFF	1
C6	22	FDFFFFFE	0006FFFF	7FFFFFFF	79FFFFFF	1
C6	23	FBFFFFFE	000DFFFF	7FFFFFFF	73FFFFFF	1
C6	24	F7FFFFFE	001BFFFF	7FFFFFFF	67FFFFFF	1
C6	25	EFFFFFFE	0037FFFF	7FFFFFFF	4FFFFFFF	1
C6	26	DFFFFFFE	006FFFFF	7FFFFFFF	1FFFFFFF	1
C6	27	BFFFFFFE	00DFFFFF	7FFFFFFF	3FFFFFFF	1
C6	28	7FFFFFFE	01BFFFFF	7FFFFFFF	7FFFFFFF	1
C6	29	FFFFFFFE	037FFFFF	7FFFFFFF	6FFFFFFF	1
C6	30	DFFFFFFE	06FFFFFF	7FFFFFFF	5FFFFFFF	1
C6	31	BFFFFFFE	0DFFFFFF	7FFFFFFF	3FFFFFFF	1
C6	32	7FFFFFFF	1BFFFFFF	7FFFFFFF	00000000	1
C7		00000000	7FFFFFFF	7FFFFFFF	80000001	0
C8		00000000	7FFFFFFF	7FFFFFFF	00000000	0
C9		00000000	7FFFFFFF	7FFFFFFF	7FFFFFFF	0
1C		7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	0

DW 07

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
03		3FFFFFFF	00000000	80000001	00000000	0
04		00000001	00000000	80000001	00000001	0
06	00	3FFFFFFF	00000001	80000001	3FFFFFFF	1
06	01	7FFFFFFE	00000003	80000001	FFFFFFFF	0
06	02	FFFFFFFE	00000006	80000001	7FFFFFFD	1
06	03	FFFFFFFA	0000000D	80000001	7FFFFFF9	1
06	04	FFFFFFF6	0000001B	80000001	7FFFFFF7	1
06	05	FFFFFFEE	00000037	80000001	7FFFFFEF	1
06	06	FFFFFFDE	0000006F	80000001	7FFFFFDF	1
06	07	FFFFFFBE	000000DF	80000001	7FFFFFBF	1
06	08	FFFFFF7E	000001BF	80000001	7FFFFF7F	1
06	09	FFFFFEFE	0000037F	80000001	7FFFFEFF	1
06	10	FFFFFDFE	000006FF	80000001	7FFFFDFF	1
06	11	FFFFFBFE	00000DFF	80000001	7FFFFBFF	1
06	12	FFFFF7FE	00001BFF	80000001	7FFFF7FF	1
06	13	FFFFEFFE	00003FFF	80000001	7FFFEFFF	1
06	14	FFFDFFFE	00006FFF	80000001	7FFFDFFF	1
06	15	FFFBFFFE	0000DFFF	80000001	7FFBFFFF	1
06	16	FFF7FFFE	0001BFFF	80000001	7FF7FFFF	1
06	17	FFEFFFFE	0003FFFF	80000001	7FEFFFFF	1
06	18	FFDFFFFE	0006FFFF	80000001	7FDFFFFF	1
06	19	FFBFFFFE	000DFFFF	80000001	7FBFFFFF	1
06	20	FF7FFFFE	001BFFFF	80000001	7F7FFFFF	1
06	21	FEFFFFFE	003FFFFF	80000001	7EFFFFFF	1
06	22	FDFFFFFE	006FFFFF	80000001	7DFFFFFF	1
06	23	FBFFFFFE	00DFFFFF	80000001	7BFFFFFF	1
06	24	F7FFFFFE	01BFFFFF	80000001	77FFFFFF	1
06	25	EFFFFFFE	037FFFFF	80000001	6FFFFFFF	1
06	26	DFFFFFFE	06FFFFFF	80000001	5FFFFFFF	1
06	27	BFFFFFFE	0DFFFFFF	80000001	3FFFFFFF	1
06	28	7FFFFFFE	1BFFFFFF	80000001	00000000	1
07		00000000	7FFFFFFF	80000001	80000001	0
08		00000000	7FFFFFFF	80000001	00000000	0
09		00000000	7FFFFFFF	80000001	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	80000001	80000001	0

DW 08

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
03		E0000000	00000000	7FFFFFFF	00000000	0
04		FFFFFFFF	00000000	7FFFFFFF	00000001	0
06	00	E0000000	00000001	7FFFFFFF	1FFFFFFF	1
06	01	3FFFFFFE	00000003	7FFFFFFF	BFFFFFFF	0
06	02	7FFFFFFE	00000006	7FFFFFFF	FFFFFFFD	0
06	03	FFFFFFFA	0000000C	7FFFFFFF	7FFFFFF3	1
06	04	FFFFFFF2	00000019	7FFFFFFF	7FFFFFF3	1
06	05	FFFFFFE6	00000033	7FFFFFFF	7FFFFFE7	1
06	06	FFFFFFCE	00000067	7FFFFFFF	7FFFFFCF	1
06	07	FFFFFF9E	000000CF	7FFFFFFF	7FFFFF9F	1
06	08	FFFFFF3E	0000019F	7FFFFFFF	7FFFFF3F	1
06	09	FFFFFE7E	0000033F	7FFFFFFF	7FFFFE7F	1
06	10	FFFFFCFE	0000067F	7FFFFFFF	7FFFFCFF	1
06	11	FFFFF9FE	000000CFF	7FFFFFFF	7FFFF9FF	1
06	12	FFFFF3FE	000019FF	7FFFFFFF	7FFFF3FF	1
06	13	FFFFE7FE	000033FF	7FFFFFFF	7FFFE7FF	1
06	14	FFFFCFFE	000067FF	7FFFFFFF	7FFFCFFF	1
06	15	FFFF9FFE	0000CFFF	7FFFFFFF	7FFF9FFF	1
06	16	FFFF3FFE	00019FFF	7FFFFFFF	7FFF3FFF	1
06	17	FFFE7FFE	00033FFF	7FFFFFFF	7FFE7FFF	1
06	18	FFFCFFFE	00067FFF	7FFFFFFF	7FFCFFFF	1
06	19	FFF9FFFE	000CFFFF	7FFFFFFF	7FF9FFFF	1
06	20	FFF3FFFE	0019FFFF	7FFFFFFF	7FF3FFFF	1
06	21	FFE7FFFE	0033FFFF	7FFFFFFF	7FE7FFFF	1
06	22	FFCFFFFE	0067FFFF	7FFFFFFF	7FCFFFFF	1
06	23	FF9FFFFE	00CFFFFF	7FFFFFFF	7F9FFFFF	1
06	24	FF3FFFFE	019FFFFF	7FFFFFFF	7F3FFFFF	1
06	25	FE7FFFFE	033FFFFF	7FFFFFFF	7E7FFFFF	1
06	26	FCFFFFFE	067FFFFF	7FFFFFFF	7CFFFFFF	1
06	27	F9FFFFFE	0CFFFFFF	7FFFFFFF	79FFFFFF	1
06	28	F3FFFFFE	19FFFFFF	7FFFFFFF	73FFFFFF	1
06	29	E7FFFFFE	33FFFFFF	7FFFFFFF	67FFFFFF	1
06	30	CFFFFFFE	67FFFFFF	7FFFFFFF	4FFFFFFF	1
06	31	9FFFFFFE	CFFFFFFF	7FFFFFFF	1FFFFFFF	1
06	32	3FFFFFFF	9FFFFFFF	7FFFFFFF	00000000	0
07		00000000	3FFFFFFE	7FFFFFFF	3FFFFFFF	1
08		3FFFFFFF	3FFFFFFE	7FFFFFFF	00000001	0
09		3FFFFFFF	3FFFFFFE	7FFFFFFF	3FFFFFFE	0
10		3FFFFFFE	3FFFFFFE	7FFFFFFF	00000002	0

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DW 09

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
03		00000000	00000000	80000001	00000000	0
04		FFFFFFFF	00000000	80000001	00000001	0
06	00	00000000	00000001	80000001	3FFFFFFF	1
06	01	7FFFFFFE	00000003	80000001	FFFFFFFF	0
06	02	FFFFFFFE	00000006	80000001	7FFFFFFD	1
06	03	FFFFFFFA	0000000D	80000001	7FFFFFFB	1
06	04	FFFFFFF6	0000001B	80000001	7FFFFFF7	1
06	05	FFFFFFEE	00000037	80000001	7FFFFFEF	1
06	06	FFFFFFDE	0000006F	80000001	7FFFFFDF	1
06	07	FFFFFFBE	000000DF	80000001	7FFFFFBF	1
06	08	FFFFFF7E	000001BF	80000001	7FFFFF7F	1
06	09	FFFFFEFE	0000037F	80000001	7FFFFEFF	1
06	10	FFFFFDFE	0000006FF	80000001	7FFFDFFF	1
06	11	FFFFFBFE	000000DFF	80000001	7FFFBFFF	1
06	12	FFFFF7FE	000001BFF	80000001	7FFF7FFF	1
06	13	FFFFEFFE	000037FF	80000001	7FFEFFFF	1
06	14	FFFDFFFE	000006FFF	80000001	7FFDFFFF	1
06	15	FFFBFFFE	000000FFF	80000001	7FFBFFFF	1
06	16	FFF7FFFE	000001BFF	80000001	7FF7FFFF	1
06	17	FFEFFFFE	000037FFF	80000001	7FEFFFFF	1
06	18	FFDFFFFE	000006FFF	80000001	7FDFFFFF	1
06	19	FFBFFFFE	000000FFF	80000001	7FBFFFFF	1
06	20	FF7FFFFE	000001BFF	80000001	7F7FFFFF	1
06	21	FEFFFFFE	000037FFF	80000001	7EFFFFFF	1
06	22	FDFFFFFE	000006FFF	80000001	7DFFFFFF	1
06	23	FBFFFFFE	000000FFF	80000001	7BFFFFFF	1
06	24	F7FFFFFE	000001BFF	80000001	77FFFFFF	1
06	25	EFFFFFFE	000037FFF	80000001	6FFFFFFF	1
06	26	DFFFFFFE	000006FFF	80000001	5FFFFFFF	1
06	27	BFFFFFFE	000000FFF	80000001	3FFFFFFF	1
06	28	7FFFFFFE	000001BFF	80000001	00000000	1
07		00000000	7FFFFFFF	80000001	80000001	0
08		00000000	7FFFFFFF	80000001	00000000	0
09		00000000	7FFFFFFF	80000001	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	80000001	7FFFFFFF	0

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DW 10

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
03		FFFFFFFF	00000000	FFFFFFFC	00000000	0
04		FFFFFFE1	00000000	FFFFFFFC	0000001F	0
06	00	FFFFFFFF	0000001F	FFFFFFFC	00000000	1
06	01	00000000	0000003F	FFFFFFFC	FFFFFFFC	0
06	02	FFFFFFF8	0000007E	FFFFFFFC	FFFFFFFC	0
06	03	FFFFFFF8	000000FC	FFFFFFFC	FFFFFFFC	0
06	04	FFFFFFF8	000001F8	FFFFFFFC	FFFFFFFC	0
06	05	FFFFFFF8	000003F0	FFFFFFFC	FFFFFFFC	0
06	06	FFFFFFF8	000007E0	FFFFFFFC	FFFFFFFC	0
06	07	FFFFFFF8	00000FC0	FFFFFFFC	FFFFFFFC	0
06	08	FFFFFFF8	00001F80	FFFFFFFC	FFFFFFFC	0
06	09	FFFFFFF8	00003F00	FFFFFFFC	FFFFFFFC	0
06	10	FFFFFFF8	00007E00	FFFFFFFC	FFFFFFFC	0
06	11	FFFFFFF8	0000FC00	FFFFFFFC	FFFFFFFC	0
06	12	FFFFFFF8	0001F800	FFFFFFFC	FFFFFFFC	0
06	13	FFFFFFF8	0003F000	FFFFFFFC	FFFFFFFC	0
06	14	FFFFFFF8	0007E000	FFFFFFFC	FFFFFFFC	0
06	15	FFFFFFF8	000FC000	FFFFFFFC	FFFFFFFC	0
06	16	FFFFFFF8	001F8000	FFFFFFFC	FFFFFFFC	0
06	17	FFFFFFF8	003F0000	FFFFFFFC	FFFFFFFC	0
06	18	FFFFFFF8	007E0000	FFFFFFFC	FFFFFFFC	0
06	19	FFFFFFF8	00FC0000	FFFFFFFC	FFFFFFFC	0
06	20	FFFFFFF8	01F80000	FFFFFFFC	FFFFFFFC	0
06	21	FFFFFFF8	03F00000	FFFFFFFC	FFFFFFFC	0
06	22	FFFFFFF8	07E00000	FFFFFFFC	FFFFFFFC	0
06	23	FFFFFFF8	0FC00000	FFFFFFFC	FFFFFFFC	0
06	24	FFFFFFF8	1F800000	FFFFFFFC	FFFFFFFC	0
06	25	FFFFFFF8	3F000000	FFFFFFFC	FFFFFFFC	0
06	26	FFFFFFF8	7E000000	FFFFFFFC	FFFFFFFC	0
06	27	FFFFFFF8	FC000000	FFFFFFFC	FFFFFFFC	0
06	28	FFFFFFF9	F8000000	FFFFFFFC	FFFFFFFD	0
06	29	FFFFFFFB	F0000000	FFFFFFFC	FFFFFFFF	0
06	30	FFFFFFFF	E0000000	FFFFFFFC	00000003	1
06	31	00000007	00000001	FFFFFFFC	00000003	1
06	32	00000007	80000003	FFFFFFFC	00000003	1
07		00000003	00000007	FFFFFFFC	FFFFFFFF	0
08		00000003	00000007	FFFFFFFC	FFFFFFFD	0
09		00000003	00000007	FFFFFFFC	00000007	0
10		00000007	00000007	FFFFFFFC	00000007	0

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DW 11	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		CCCCCCCC	00000000	CCCCCCC4	CCCCCCCC	C
	C4		CCCCCC20	00000000	CCCCCCC4	CCCCCC20	C
	C6	CC	CCCCCCCC	CCCCCC20	CCCCCCC4	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCC041	CCCCCCC4	FFFFFFFC	C
	C6	C2	FFFFFFF8	CCCCC082	CCCCCCC4	FFFFFFFC	C
	C6	C3	FFFFFFF8	CCCC1C4	CCCCCCC4	FFFFFFFC	C
	C6	C4	FFFFFFF8	CCCC208	CCCCCCC4	FFFFFFFC	C
	C6	C5	FFFFFFF8	CCCC410	CCCCCCC4	FFFFFFFC	C
	C6	C6	FFFFFFF8	CCCC820	CCCCCCC4	FFFFFFFC	C
	C6	C7	FFFFFFF8	CCC1040	CCCCCCC4	FFFFFFFC	C
	C6	C8	FFFFFFF8	CCC2080	CCCCCCC4	FFFFFFFC	C
	C6	C9	FFFFFFF8	CCC4100	CCCCCCC4	FFFFFFFC	C
	C6	1C	FFFFFFF8	CCC8200	CCCCCCC4	FFFFFFFC	C
	C6	11	FFFFFFF8	CC1C400	CCCCCCC4	FFFFFFFC	C
	C6	12	FFFFFFF8	CC2C800	CCCCCCC4	FFFFFFFC	C
	C6	13	FFFFFFF8	CC41000	CCCCCCC4	FFFFFFFC	C
	C6	14	FFFFFFF8	CC82000	CCCCCCC4	FFFFFFFC	C
	C6	15	FFFFFFF8	CC1C4000	CCCCCCC4	FFFFFFFC	C
	C6	16	FFFFFFF8	CC208000	CCCCCCC4	FFFFFFFC	C
	C6	17	FFFFFFF8	CC410000	CCCCCCC4	FFFFFFFC	C
	C6	18	FFFFFFF8	CC820000	CCCCCCC4	FFFFFFFC	C
	C6	19	FFFFFFF8	C1C40000	CCCCCCC4	FFFFFFFC	C
	C6	2C	FFFFFFF8	C2C80000	CCCCCCC4	FFFFFFFC	C
	C6	21	FFFFFFF8	C4100000	CCCCCCC4	FFFFFFFC	C
	C6	22	FFFFFFF8	C8200000	CCCCCCC4	FFFFFFFC	C
	C6	23	FFFFFFF8	1C400000	CCCCCCC4	FFFFFFFC	C
	C6	24	FFFFFFF8	2C800000	CCCCCCC4	FFFFFFFC	C
	C6	25	FFFFFFF8	41000000	CCCCCCC4	FFFFFFFC	C
	C6	26	FFFFFFF8	82000000	CCCCCCC4	FFFFFFFC	C
	C6	27	FFFFFFF9	C4000000	CCCCCCC4	FFFFFFFD	C
	C6	28	FFFFFFFA	C8000000	CCCCCCC4	FFFFFFFE	C
	C6	29	FFFFFFFC	10000000	CCCCCCC4	CCCCCCCC	1
	C6	3C	CCCCCCCC	20000001	CCCCCCC4	FFFFFFFC	C
	C6	31	FFFFFFF8	40000002	CCCCCCC4	FFFFFFFC	C
	C6	32	FFFFFFF8	80000004	CCCCCCC4	FFFFFFFC	C
	C7		FFFFFFFC	CCCCCCC8	CCCCCCC4	CCCCCCCC	1
	C8		CCCCCCCC	CCCCCC08	CCCCCCC4	CCCCCCCC	C
	C9		CCCCCCCC	CCCCCC08	CCCCCCC4	CCCCCC08	C
	1C		CCCCCC08	CCCCCC08	CCCCCCC4	CCCCCC08	C

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DW 12	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		FFFFFFFF	CCCCCCCC	CCCCCCC4	CCCCCCCC	C
	C4		FFFFFFEC	CCCCCCCC	CCCCCCC4	CCCCCC2C	C
	C6	CC	FFFFFFFF	CCCCCC2C	CCCCCCC4	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCC041	CCCCCCC4	FFFFFFFC	C
	C6	C2	FFFFFFF8	CCCCC082	CCCCCCC4	FFFFFFFC	C
	C6	C3	FFFFFFF8	CCCC1C4	CCCCCCC4	FFFFFFFC	C
	C6	C4	FFFFFFF8	CCCC208	CCCCCCC4	FFFFFFFC	C
	C6	C5	FFFFFFF8	CCCC410	CCCCCCC4	FFFFFFFC	C
	C6	C6	FFFFFFF8	CCCC820	CCCCCCC4	FFFFFFFC	C
	C6	C7	FFFFFFF8	CCC1040	CCCCCCC4	FFFFFFFC	C
	C6	C8	FFFFFFF8	CCC2080	CCCCCCC4	FFFFFFFC	C
	C6	C9	FFFFFFF8	CCC4100	CCCCCCC4	FFFFFFFC	C
	C6	1C	FFFFFFF8	CCC8200	CCCCCCC4	FFFFFFFC	C
	C6	11	FFFFFFF8	CC1C400	CCCCCCC4	FFFFFFFC	C
	C6	12	FFFFFFF8	CC2C800	CCCCCCC4	FFFFFFFC	C
	C6	13	FFFFFFF8	CC41000	CCCCCCC4	FFFFFFFC	C
	C6	14	FFFFFFF8	CC82000	CCCCCCC4	FFFFFFFC	C
	C6	15	FFFFFFF8	CC1C4000	CCCCCCC4	FFFFFFFC	C
	C6	16	FFFFFFF8	CC208000	CCCCCCC4	FFFFFFFC	C
	C6	17	FFFFFFF8	CC410000	CCCCCCC4	FFFFFFFC	C
	C6	18	FFFFFFF8	CC820000	CCCCCCC4	FFFFFFFC	C
	C6	19	FFFFFFF8	C1C40000	CCCCCCC4	FFFFFFFC	C
	C6	2C	FFFFFFF8	C2C80000	CCCCCCC4	FFFFFFFC	C
	C6	21	FFFFFFF8	C4100000	CCCCCCC4	FFFFFFFC	C
	C6	22	FFFFFFF8	C8200000	CCCCCCC4	FFFFFFFC	C
	C6	23	FFFFFFF8	1C400000	CCCCCCC4	FFFFFFFC	C
	C6	24	FFFFFFF8	2C800000	CCCCCCC4	FFFFFFFC	C
	C6	25	FFFFFFF8	41000000	CCCCCCC4	FFFFFFFC	C
	C6	26	FFFFFFF8	82000000	CCCCCCC4	FFFFFFFC	C
	C6	27	FFFFFFF9	C4000000	CCCCCCC4	FFFFFFFD	C
	C6	28	FFFFFFFA	C8000000	CCCCCCC4	FFFFFFFE	C
	C6	29	FFFFFFFC	10000000	CCCCCCC4	CCCCCCCC	1
	C6	3C	CCCCCCCC	20000001	CCCCCCC4	FFFFFFFC	C
	C6	31	FFFFFFF8	40000002	CCCCCCC4	FFFFFFFC	C
	C6	32	FFFFFFF8	80000004	CCCCCCC4	FFFFFFFC	C
	C7		FFFFFFFC	CCCCCCC8	CCCCCCC4	CCCCCCCC	1
	C8		CCCCCCCC	CCCCCC08	CCCCCCC4	CCCCCCCC	C
	C9		CCCCCCCC	CCCCCC08	CCCCCCC4	CCCCCC08	C
	1C		CCCCCC08	CCCCCC08	CCCCCCC4	FFFFFFF8	C

DW 13

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FFFFFFFF	00000000	FFFFFFFB	00000000	0
C4		FFFFFFE1	C0000000	FFFFFFFB	0000001F	0
C6	C0	FFFFFFFF	C000001F	FFFFFFFB	00000000	1
C6	C1	C0000000	C000003F	FFFFFFFB	FFFFFFFB	0
C6	C2	FFFFFFF6	C000007E	FFFFFFFB	FFFFFFFB	0
C6	C3	FFFFFFF6	C00000FC	FFFFFFFB	FFFFFFFB	0
C6	C4	FFFFFFF6	C00001F8	FFFFFFFB	FFFFFFFB	0
C6	C5	FFFFFFF6	C00003F0	FFFFFFFB	FFFFFFFB	0
C6	C6	FFFFFFF6	C00007E0	FFFFFFFB	FFFFFFFB	0
C6	C7	FFFFFFF6	C0000FC0	FFFFFFFB	FFFFFFFB	0
C6	C8	FFFFFFF6	C0001F80	FFFFFFFB	FFFFFFFB	0
C6	C9	FFFFFFF6	C0003F00	FFFFFFFB	FFFFFFFB	0
C6	10	FFFFFFF6	C0007E00	FFFFFFFB	FFFFFFFB	0
C6	11	FFFFFFF6	C000FC00	FFFFFFFB	FFFFFFFB	0
C6	12	FFFFFFF6	C001F800	FFFFFFFB	FFFFFFFB	0
C6	13	FFFFFFF6	C003F000	FFFFFFFB	FFFFFFFB	0
C6	14	FFFFFFF6	C007E000	FFFFFFFB	FFFFFFFB	0
C6	15	FFFFFFF6	C00FC000	FFFFFFFB	FFFFFFFB	0
C6	16	FFFFFFF6	C01F8000	FFFFFFFB	FFFFFFFB	0
C6	17	FFFFFFF6	C03F0000	FFFFFFFB	FFFFFFFB	0
C6	18	FFFFFFF6	C07E0000	FFFFFFFB	FFFFFFFB	0
C6	19	FFFFFFF6	C0FC0000	FFFFFFFB	FFFFFFFB	0
C6	20	FFFFFFF6	C1F80000	FFFFFFFB	FFFFFFFB	0
C6	21	FFFFFFF6	C3F00000	FFFFFFFB	FFFFFFFB	0
C6	22	FFFFFFF6	C7E00000	FFFFFFFB	FFFFFFFB	0
C6	23	FFFFFFF6	CFC00000	FFFFFFFB	FFFFFFFB	0
C6	24	FFFFFFF6	1F800000	FFFFFFFB	FFFFFFFB	0
C6	25	FFFFFFF6	3F000000	FFFFFFFB	FFFFFFFB	0
C6	26	FFFFFFF6	7E000000	FFFFFFFB	FFFFFFFB	0
C6	27	FFFFFFF6	FC000000	FFFFFFFB	FFFFFFFB	0
C6	28	FFFFFFF7	F8000000	FFFFFFFB	FFFFFFFC	0
C6	29	FFFFFFF9	F0000000	FFFFFFFB	FFFFFFFE	0
C6	30	FFFFFFFD	E0000000	FFFFFFFB	00000002	1
C6	31	C0000005	C0000001	FFFFFFFB	00000000	1
C6	32	C0000001	80000003	FFFFFFFB	FFFFFFFC	0
C7		FFFFFFFC	00000006	FFFFFFFB	00000001	1
C8		C0000001	00000006	FFFFFFFB	FFFFFFFF	0
C9		C0000001	00000006	FFFFFFFB	00000006	0
10		C0000006	00000006	FFFFFFFB	00000006	0

DW 14

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		00000000	00000000	FFFFFFFC	00000000	0
C4		00000020	00000000	FFFFFFFC	00000020	0
C6	C0	00000000	00000020	FFFFFFFC	00000000	1
C6	C1	00000000	00000041	FFFFFFFC	FFFFFFFC	0
C6	C2	FFFFFFF8	00000082	FFFFFFFC	FFFFFFFC	0
C6	C3	FFFFFFF8	00000104	FFFFFFFC	FFFFFFFC	0
C6	C4	FFFFFFF8	00000208	FFFFFFFC	FFFFFFFC	0
C6	C5	FFFFFFF8	00000410	FFFFFFFC	FFFFFFFC	0
C6	C6	FFFFFFF8	00000820	FFFFFFFC	FFFFFFFC	0
C6	C7	FFFFFFF8	00001040	FFFFFFFC	FFFFFFFC	0
C6	C8	FFFFFFF8	00002080	FFFFFFFC	FFFFFFFC	0
C6	C9	FFFFFFF8	00004100	FFFFFFFC	FFFFFFFC	0
C6	10	FFFFFFF8	00008200	FFFFFFFC	FFFFFFFC	0
C6	11	FFFFFFF8	0001040C	FFFFFFFC	FFFFFFFC	0
C6	12	FFFFFFF8	00020800	FFFFFFFC	FFFFFFFC	0
C6	13	FFFFFFF8	00041000	FFFFFFFC	FFFFFFFC	0
C6	14	FFFFFFF8	00082000	FFFFFFFC	FFFFFFFC	0
C6	15	FFFFFFF8	00104000	FFFFFFFC	FFFFFFFC	0
C6	16	FFFFFFF8	00208000	FFFFFFFC	FFFFFFFC	0
C6	17	FFFFFFF8	00410000	FFFFFFFC	FFFFFFFC	0
C6	18	FFFFFFF8	00820000	FFFFFFFC	FFFFFFFC	0
C6	19	FFFFFFF8	01040000	FFFFFFFC	FFFFFFFC	0
C6	20	FFFFFFF8	02080000	FFFFFFFC	FFFFFFFC	0
C6	21	FFFFFFF8	04100000	FFFFFFFC	FFFFFFFC	0
C6	22	FFFFFFF8	08200000	FFFFFFFC	FFFFFFFC	0
C6	23	FFFFFFF8	10400000	FFFFFFFC	FFFFFFFC	0
C6	24	FFFFFFF8	20800000	FFFFFFFC	FFFFFFFC	0
C6	25	FFFFFFF8	41000000	FFFFFFFC	FFFFFFFC	0
C6	26	FFFFFFF8	82000000	FFFFFFFC	FFFFFFFC	0
C6	27	FFFFFFF9	04000000	FFFFFFFC	FFFFFFFD	0
C6	28	FFFFFFFA	08000000	FFFFFFFC	FFFFFFFE	0
C6	29	FFFFFFFC	10000000	FFFFFFFC	00000000	1
C6	30	C0000000	20000001	FFFFFFFC	FFFFFFFC	0
C6	31	FFFFFFF8	40000002	FFFFFFFC	FFFFFFFC	0
C6	32	FFFFFFF8	80000004	FFFFFFFC	FFFFFFFC	0
C7		FFFFFFFC	00000008	FFFFFFFC	00000000	1
C8		C0000000	00000008	FFFFFFFC	00000000	0
C9		C0000000	00000008	FFFFFFFC	00000008	0
10		C0000008	00000008	FFFFFFFC	FFFFFFFF	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 015

DW	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	CC
15	C3		FFFFFFFF	00000000	00000004	00000000	0
	C4		FFFFFFE1	00000000	00000004	0000001F	0
	C6	CC	FFFFFFFF	00000001F	00000004	00000000	1
	C6	C1	C0000000	00000003F	00000004	FFFFFFFC	0
	C6	C2	FFFFFFF8	00000007E	00000004	FFFFFFFC	0
	C6	C3	FFFFFFF8	0000000FC	00000004	FFFFFFFC	0
	C6	C4	FFFFFFF8	000001F8	00000004	FFFFFFFC	0
	C6	C5	FFFFFFF8	000003F0	00000004	FFFFFFFC	0
	C6	C6	FFFFFFF8	000007E0	00000004	FFFFFFFC	0
	C6	C7	FFFFFFF8	00000FC0	00000004	FFFFFFFC	0
	C6	C8	FFFFFFF8	00001F80	00000004	FFFFFFFC	0
	C6	C9	FFFFFFF8	00003F00	00000004	FFFFFFFC	0
	C6	1C	FFFFFFF8	00007E00	00000004	FFFFFFFC	0
	C6	11	FFFFFFF8	0000FC00	00000004	FFFFFFFC	0
	C6	12	FFFFFFF8	0001F800	00000004	FFFFFFFC	0
	C6	13	FFFFFFF8	0003F000	00000004	FFFFFFFC	0
	C6	14	FFFFFFF8	0007E000	00000004	FFFFFFFC	0
	C6	15	FFFFFFF8	000FC000	00000004	FFFFFFFC	0
	C6	16	FFFFFFF8	001F8000	00000004	FFFFFFFC	0
	C6	17	FFFFFFF8	003F0000	00000004	FFFFFFFC	0
	C6	18	FFFFFFF8	007E0000	00000004	FFFFFFFC	0
	C6	19	FFFFFFF8	00FC0000	00000004	FFFFFFFC	0
	C6	2C	FFFFFFF8	01F80000	00000004	FFFFFFFC	0
	C6	21	FFFFFFF8	03F00000	00000004	FFFFFFFC	0
	C6	22	FFFFFFF8	07E00000	00000004	FFFFFFFC	0
	C6	23	FFFFFFF8	0FC00000	00000004	FFFFFFFC	0
	C6	24	FFFFFFF8	1F800000	00000004	FFFFFFFC	0
	C6	25	FFFFFFF8	3F000000	00000004	FFFFFFFC	0
	C6	26	FFFFFFF8	7E000000	00000004	FFFFFFFC	0
	C6	27	FFFFFFF8	FC000000	00000004	FFFFFFFC	0
	C6	28	FFFFFFF9	F8000000	00000004	FFFFFFFD	0
	C6	29	FFFFFFFB	F0000000	00000004	FFFFFFFF	0
	C6	3C	FFFFFFFF	E0000000	00000004	00000003	1
	C6	31	00000007	C0000001	00000004	00000003	1
	C6	32	00000007	80000003	00000004	00000003	1
	C7		00000003	00000007	00000004	FFFFFFFF	0
	C8		00000003	00000007	00000004	FFFFFFFD	0
	C9		00000003	00000007	00000004	00000007	0
	1C		00000007	00000007	00000004	FFFFFFF9	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 016

DW	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	CC
16	C3		FFFFFFFF	00000000	FFFFFFFC	00000000	0
	C4		FFFFFFE0	00000000	FFFFFFFC	00000020	0
	C6	CC	FFFFFFFF	00000020	FFFFFFFC	00000000	1
	C6	C1	C0000000	00000041	FFFFFFFC	FFFFFFFC	0
	C6	C2	FFFFFFF8	00000082	FFFFFFFC	FFFFFFFC	0
	C6	C3	FFFFFFF8	00000104	FFFFFFFC	FFFFFFFC	0
	C6	C4	FFFFFFF8	00000208	FFFFFFFC	FFFFFFFC	0
	C6	C5	FFFFFFF8	00000410	FFFFFFFC	FFFFFFFC	0
	C6	C6	FFFFFFF8	00000820	FFFFFFFC	FFFFFFFC	0
	C6	C7	FFFFFFF8	00001040	FFFFFFFC	FFFFFFFC	0
	C6	C8	FFFFFFF8	00002080	FFFFFFFC	FFFFFFFC	0
	C6	C9	FFFFFFF8	00004100	FFFFFFFC	FFFFFFFC	0
	C6	1C	FFFFFFF8	00008200	FFFFFFFC	FFFFFFFC	0
	C6	11	FFFFFFF8	00010400	FFFFFFFC	FFFFFFFC	0
	C6	12	FFFFFFF8	00020800	FFFFFFFC	FFFFFFFC	0
	C6	13	FFFFFFF8	00041000	FFFFFFFC	FFFFFFFC	0
	C6	14	FFFFFFF8	00082000	FFFFFFFC	FFFFFFFC	0
	C6	15	FFFFFFF8	00104000	FFFFFFFC	FFFFFFFC	0
	C6	16	FFFFFFF8	00208000	FFFFFFFC	FFFFFFFC	0
	C6	17	FFFFFFF8	00410000	FFFFFFFC	FFFFFFFC	0
	C6	18	FFFFFFF8	00820000	FFFFFFFC	FFFFFFFC	0
	C6	19	FFFFFFF8	01040000	FFFFFFFC	FFFFFFFC	0
	C6	2C	FFFFFFF8	02080000	FFFFFFFC	FFFFFFFC	0
	C6	21	FFFFFFF8	04100000	FFFFFFFC	FFFFFFFC	0
	C6	22	FFFFFFF8	08200000	FFFFFFFC	FFFFFFFC	0
	C6	23	FFFFFFF8	10400000	FFFFFFFC	FFFFFFFC	0
	C6	24	FFFFFFF8	20800000	FFFFFFFC	FFFFFFFC	0
	C6	25	FFFFFFF8	41000000	FFFFFFFC	FFFFFFFC	0
	C6	26	FFFFFFF8	82000000	FFFFFFFC	FFFFFFFC	0
	C6	27	FFFFFFF9	04000000	FFFFFFFC	FFFFFFFD	0
	C6	28	FFFFFFFA	08000000	FFFFFFFC	FFFFFFFE	0
	C6	29	FFFFFFFC	10000000	FFFFFFFC	00000000	1
	C6	3C	00000000	20000001	FFFFFFFC	FFFFFFFC	0
	C6	31	FFFFFFF8	40000002	FFFFFFFC	FFFFFFFC	0
	C6	32	FFFFFFF8	80000004	FFFFFFFC	FFFFFFFC	0
	C7		FFFFFFFC	00000008	FFFFFFFC	00000000	1
	C8		00000000	00000008	FFFFFFFC	00000000	0
	C9		00000000	00000008	FFFFFFFC	00000008	0
	1C		00000008	00000008	FFFFFFFC	00000008	0

DW 17

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		00000000	00000000	00000004	00000000	0
C4		0000001F	00000000	00000004	0000001F	0
C6	00	00000000	0000001F	00000004	00000000	1
C6	01	00000000	0000003F	00000004	FFFFFFFC	0
C6	02	FFFFFFF8	0000007E	00000004	FFFFFFFC	0
C6	03	FFFFFFF8	000000FC	00000004	FFFFFFFC	0
C6	04	FFFFFFF8	000001F8	00000004	FFFFFFFC	0
C6	05	FFFFFFF8	000003F0	00000004	FFFFFFFC	0
C6	06	FFFFFFF8	000007E0	00000004	FFFFFFFC	0
C6	07	FFFFFFF8	00000FC0	00000004	FFFFFFFC	0
C6	08	FFFFFFF8	00001F80	00000004	FFFFFFFC	0
C6	09	FFFFFFF8	00003F00	00000004	FFFFFFFC	0
C6	10	FFFFFFF8	00007E00	00000004	FFFFFFFC	0
C6	11	FFFFFFF8	0000FC00	00000004	FFFFFFFC	0
C6	12	FFFFFFF8	0001F800	00000004	FFFFFFFC	0
C6	13	FFFFFFF8	0003F000	00000004	FFFFFFFC	0
C6	14	FFFFFFF8	0007E000	00000004	FFFFFFFC	0
C6	15	FFFFFFF8	000FC000	00000004	FFFFFFFC	0
C6	16	FFFFFFF8	001F8000	00000004	FFFFFFFC	0
C6	17	FFFFFFF8	003F0000	00000004	FFFFFFFC	0
C6	18	FFFFFFF8	007E0000	00000004	FFFFFFFC	0
C6	19	FFFFFFF8	00FC0000	00000004	FFFFFFFC	0
C6	20	FFFFFFF8	01F80000	00000004	FFFFFFFC	0
C6	21	FFFFFFF8	03F00000	00000004	FFFFFFFC	0
C6	22	FFFFFFF8	07E00000	00000004	FFFFFFFC	0
C6	23	FFFFFFF8	0FC00000	00000004	FFFFFFFC	0
C6	24	FFFFFFF8	1F800000	00000004	FFFFFFFC	0
C6	25	FFFFFFF8	3F000000	00000004	FFFFFFFC	0
C6	26	FFFFFFF8	7E000000	00000004	FFFFFFFC	0
C6	27	FFFFFFF8	FC000000	00000004	FFFFFFFC	0
C6	28	FFFFFFF9	F8000000	00000004	FFFFFFFD	0
C6	29	FFFFFFFB	F0000000	00000004	FFFFFFFF	0
C6	30	FFFFFFFF	E0000000	00000004	00000003	1
C6	31	00000007	00000001	00000004	00000003	1
C6	32	00000007	80000003	00000004	00000003	1
C7		00000003	00000007	00000004	FFFFFFFF	0
C8		00000003	00000007	00000004	00000003	0
C9		00000003	00000007	00000004	00000007	0
10		00000007	00000007	00000004	00000007	0

DW 18

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		15555555	00000000	7FFFFFFF	00000000	0
C4		55555555	00000000	7FFFFFFF	55555555	0
C6	00	15555555	55555555	7FFFFFFF	15555555	1
C6	01	2AAAAAAA	AAAAAAAB	7FFFFFFF	AAAAAAAA	0
C6	02	55555557	55555556	7FFFFFFF	55555556	0
C6	03	AAAAAAAC	AAAAAAAC	7FFFFFFF	2AAAAAAB	1
C6	04	55555557	55555559	7FFFFFFF	55555558	0
C6	05	AAAAAABC	AAAAAAB2	7FFFFFFF	2AAAAAAF	1
C6	06	5555555F	55555565	7FFFFFFF	55555560	0
C6	07	AAAAAACC	AAAAAACA	7FFFFFFF	2AAAAABF	1
C6	08	5555557F	55555595	7FFFFFFF	55555580	0
C6	09	AAAAABCC	AAAAAB2A	7FFFFFFF	2AAAAAFF	1
C6	10	555555FF	55556655	7FFFFFFF	55556600	0
C6	11	AAAAACCC	AAAAACAA	7FFFFFFF	2AAAABFF	1
C6	12	555557FF	55555955	7FFFFFFF	55558000	0
C6	13	AAAABCCC	AAAAB2AA	7FFFFFFF	2AAAAFFF	1
C6	14	55555FFF	55566555	7FFFFFFF	55560000	0
C6	15	AAAACCCC	AAAACAAA	7FFFFFFF	2AAABFFF	1
C6	16	55557FFF	55599555	7FFFFFFF	55580000	0
C6	17	AAABCCCC	AAAB2AAA	7FFFFFFF	2AAAFFFF	1
C6	18	5555FFFF	55665555	7FFFFFFF	55600000	0
C6	19	AAACCCCC	AAACAAAA	7FFFFFFF	2AABFFFF	1
C6	20	5557FFFF	55955555	7FFFFFFF	55800000	0
C6	21	AAB0CCCC	AAB2AAAA	7FFFFFFF	2AAFFFFF	1
C6	22	555FFFFF	56655555	7FFFFFFF	56000000	0
C6	23	AAC0CCCC	AACAAAAA	7FFFFFFF	2ABFFFFF	1
C6	24	557FFFFF	59955555	7FFFFFFF	58000000	0
C6	25	AB0CCCCC	AB2AAAAA	7FFFFFFF	2AFFFFFF	1
C6	26	55FFFFFF	56555555	7FFFFFFF	60000000	0
C6	27	AC0CCCCC	ACAAAAAA	7FFFFFFF	2BFFFFFF	1
C6	28	57FFFFFF	59555555	7FFFFFFF	80000000	0
C6	29	B0CCCCCC	B2AAAAAA	7FFFFFFF	2FFFFFFF	1
C6	30	5FFFFFFF	65555555	7FFFFFFF	E0000000	0
C6	31	C0CCCCCC	CAAAAAAA	7FFFFFFF	3FFFFFFF	1
C6	32	7FFFFFFF	95555555	7FFFFFFF	C0000000	1
C7		00000000	2AAAAAAB	7FFFFFFF	80000001	0
C8		00000000	2AAAAAAB	7FFFFFFF	00000000	0
C9		00000000	2AAAAAAB	7FFFFFFF	2AAAAAAA	0
10		2AAAAAAB	2AAAAAAB	7FFFFFFF	2AAAAAAB	0

DW 19

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		31C3C1F0	00000000	79999999	00000000	0
C4		11111111	00000000	79999999	11111111	0
C6	00	31C3C1F0	11111111	79999999	31C3C1F0	1
C6	C1	638783E0	22222223	79999999	E9EDEA47	0
C6	C2	C3DBD48E	44444446	79999999	4D756E27	1
C6	C3	9AEADC4E	8888888D	79999999	215142B5	1
C6	C4	42A2856B	1111111B	79999999	C908E8D2	0
C6	C5	9211D7A4	22222236	79999999	CBAB713D	1
C6	C6	1756E27A	4444446D	79999999	9DBD48E1	0
C6	C7	3B7A91C2	888888DA	79999999	B5142B5B	0
C6	C8	6A2856B7	111111B4	79999999	E3C1F050	0
C6	C9	C783E0A0	22222368	79999999	411D7A39	1
C6	10	823AF472	444446D1	79999999	08A15AD9	1
C6	11	1142B5B2	88888DA3	79999999	97A91C19	0
C6	12	2F523833	11111B46	79999999	A8EBD1CC	0
C6	13	51D7A398	2222368C	79999999	CB713D31	0
C6	14	96E27A62	44446D18	79999999	107C13FB	1
C6	15	2CF827F6	8888DA31	79999999	A75E8F5D	0
C6	16	4EBD1CBB	1111B462	79999999	C856B654	0
C6	17	9CAD6CA8	222368C4	79999999	0A470641	1
C6	18	148ECC82	4446D189	79999999	9AF472E9	0
C6	19	35E8E5D2	888DA312	79999999	AF827F6B	0
C6	20	5FC4FED7	111B4624	79999999	D85E9870	0
C6	21	B13D3CE0	2368C48	79999999	2AD6CA79	1
C6	22	55AD94F2	446D1891	79999999	DC13FB59	0
C6	23	B827F6B2	88DA3122	79999999	31C19C4B	1
C6	24	63832097	11B46245	79999999	E9E984FE	0
C6	25	D3D3CDFC	2368C48A	79999999	4D6CA795	1
C6	26	9AD94F2A	46D18915	79999999	213FB591	1
C6	27	427F6B22	8DA3122B	79999999	C8E5D189	0
C6	28	91CBA313	1B462456	79999999	0B653CAC	1
C6	29	16CA7958	368C48AD	79999999	9D3CDFBF	0
C6	3C	3A61BF7E	6D18915A	79999999	B3FB5917	0
C6	31	67F6B22E	DA3122B4	79999999	E19C4BC7	0
C6	32	C320978F	B4624568	79999999	3CBA3128	1
C7		3CBA3128	68C48AD1	79999999	C320978F	0
C8		3CBA3128	68C48AD1	79999999	3CBA3128	0
C9		3CBA3128	68C48AD1	79999999	68C48AD1	0
10		68C48AD1	68C48AD1	79999999	68C48AD1	0

DW 20

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FC7CF1CC	CCCCCCCC	70000000	00000000	0
C4		AAAAAAAA	CCCCCCCC	70000000	55555556	0
C6	CC	FC7CF1CC	55555556	70000000	C3830E33	1
C6	C1	C7C61C66	AAAAAAAC	70000000	97C61C66	0
C6	C2	2F0C38CD	5555555A	70000000	9F0C38CD	0
C6	C3	3C18719A	AAAAAAB4	70000000	AC18719A	0
C6	C4	5830E335	5555568	70000000	C830E335	0
C6	C5	9C61C66A	AAAAAAD0	70000000	0C61C66A	1
C6	C6	C0C38CD5	555555A1	70000000	9CC38CD5	0
C6	C7	218719AA	AAAAAB42	70000000	918719AA	0
C6	C8	230E3355	55555684	70000000	930E3355	0
C6	C9	261C66AA	AAAAADC8	70000000	961C66AA	0
C6	1C	2C38CD55	55555A1C	70000000	9C38CD55	0
C6	11	38719AAA	AAAAB42C	70000000	A8719AAA	0
C6	12	5CE33555	5555684C	70000000	CCE33555	0
C6	13	81C66AAA	AAAADC8C	70000000	F1C66AAA	0
C6	14	E38CD555	5555A1CC	70000000	538CD555	1
C6	15	A719AAAA	AAAB42C1	70000000	3719AAAA	1
C6	16	6E335555	555684C3	70000000	FE335555	0
C6	17	FC66AAAA	AAADC8C6	70000000	6C66AAAA	1
C6	18	D8CD5555	555A1CCD	70000000	68CD5555	1
C6	19	D19AAAAA	AAB42C1B	70000000	619AAAAA	1
C6	2C	C3355555	55684C37	70000000	53355555	1
C6	21	A66AAAAA	AADC8C6F	70000000	366AAAAA	1
C6	22	6CD55555	55A1CDDF	70000000	FCD55555	0
C6	23	F9AAAAAA	AB42C1BE	70000000	69AAAAAA	1
C6	24	D3555555	5684C37D	70000000	63555555	1
C6	25	C6AAAAAA	ADC8C6FB	70000000	56AAAAAA	1
C6	26	AD555555	5A1CDDF7	70000000	3D555555	1
C6	27	7AAAAAAA	B42C1BEF	70000000	CAAAAAAA	1
C6	28	15555555	684C37DF	70000000	A5555555	0
C6	29	4AAAAAAA	DC8C6FBE	70000000	BAAAAAAA	0
C6	3C	75555555	A1CDDF7C	70000000	E5555555	0
C6	31	CAAAAAAB	42C1BEF8	70000000	3AAAAAAB	1
C6	32	75555556	84C37DF1	70000000	05555556	1
C7		C5555556	C8C6FBE3	70000000	95555556	0
C8		C5555556	C8C6FBE3	70000000	FAAAAAAA	0
C9		C5555556	C8C6FBE3	70000000	C8C6FBE3	0
1C		C8C6FBE3	C8C6FBE3	70000000	F7F9C41D	0

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DW 21	PHASE	CLOCK	A(CC-31)	B(CC-31)	D(CC-31)	S(CC-31)	<CC
	C3		31111111	CCCCCCCC	84444444	CCCCCCCC	C
	C4		59C61C18	CCCCCCCC	84444444	59C61C18	C
	C6	CC	31111111	59C61C18	84444444	31111111	1
	C6	C1	62222222	B38C3831	84444444	E6666666	C
	C6	C2	CCCCCCCD	67187062	84444444	48888889	1
	C6	C3	91111112	CE3CECC5	84444444	15555556	1
	C6	C4	2AAAAAAD	9C61C18B	84444444	AEEEEEF1	C
	C6	C5	5DDDDDE3	38C38316	84444444	D999999F	C
	C6	C6	B333333E	71870620	84444444	2EEEEEFA	1
	C6	C7	5DDDDDF4	E3CECC59	84444444	E2222238	C
	C6	C8	C4444471	C61C18B2	84444444	4CCCCC2D	1
	C6	C9	8CCCCC5B	8C383165	84444444	C444449F	1
	C6	1C	C888893F	187062CB	84444444	8CCCCD83	C
	C6	11	19999BC6	3CEOC596	84444444	955556C2	C
	C6	12	2AAAAC84	61C18B2C	84444444	A6666940	C
	C6	13	4CCCD28C	C3831658	84444444	C8888E3C	C
	C6	14	51111C79	87062CBC	84444444	CCCCD835	1
	C6	15	1999BC6B	CECC5961	84444444	9DDDF4AF	C
	C6	16	3BBBE95E	1C18B2C2	84444444	B777A51A	C
	C6	17	6EEF4A34	38316584	84444444	EAARC5F0	C
	C6	18	D556CBEC	7C62CBC8	84444444	5111C79C	1
	C6	19	A2238F38	ECC59611	84444444	2667D37C	1
	C6	2C	4CCFA6F9	C18B2C23	84444444	D113E83D	C
	C6	21	A227D67B	83165846	84444444	1DE39237	1
	C6	22	3BC7246F	C62CBC8D	84444444	CCCB68B3	C
	C6	23	8C16D166	CC59611A	84444444	FBD28D22	C
	C6	24	F7A51444	18B2C234	84444444	736CD6CC	1
	C6	25	E6C1ACCC	31658469	84444444	6BCFFC44	1
	C6	26	D60BEC88	62CBC8D3	84444444	5A5024CC	1
	C6	27	B4A04998	C59611A7	84444444	38E48DDC	1
	C6	28	71C91BB9	8B2C234F	84444444	F6CD5FFD	C
	C6	29	EC1ABFFB	1658469E	84444444	67D67BB7	1
	C6	3C	CFACF76E	2CBC8D3D	84444444	53F13BB2	1
	C6	31	A7E27764	59611A7B	84444444	2C268BA8	1
	C6	32	584D775C	B2C234F7	84444444	DC913894	C
	C7		DC91BB94	658469EE	84444444	584D775C	1
	C8		584D775C	658469EE	84444444	584D775C	C
	C9		584D775C	658469EE	84444444	658469EE	C
	1C		658469EE	658469EE	84444444	9A7B9612	C

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DW 22	PHASE	CLOCK	A(CC-31)	B(CC-31)	D(CC-31)	S(CC-31)	<CC
	C3		D6666666	CCCCCCCC	7EEEEEEE	CCCCCCCC	C
	C4		66666666	CCCCCCCC	7FFFFFFF	9999999A	C
	C6	CC	D6666666	9999999A	7EEEEEEE	29999999	1
	C6	C1	53333333	33333335	7FFFFFFF	D4444445	C
	C6	C2	A888888A	6666666A	7FFFFFFF	27777778	1
	C6	C3	4EEEEEFC	CCCCCCD5	7FEFEEEE	DCCCCCC2	C
	C6	C4	ACCCCCC5	999999AA	7FEEEEEF	1EEEEEF3	1
	C6	C5	3DDDDDE7	33333355	7FEFEEEE	BFEEEFF9	C
	C6	C6	7DDDDDF2	666666AA	7FEEEEEF	FCCCCCE0	C
	C6	C7	F99999CC	CCCCCD54	7FEEEEEE	78888BAE	1
	C6	C8	F111115D	99999AA9	7FEEEEEE	7222276F	1
	C6	C9	E44444DF	33333553	7FEEEFEF	655555F1	1
	C6	1C	CAAAABE2	66666AA7	7FEEEEEE	4BBB3CF4	1
	C6	11	977779E8	CCCCD54F	7FEFEEEE	1888AFA	1
	C6	12	311115F5	9999AA9F	7FEFEEEE	B2222707	C
	C6	13	64444FCF	3333553E	7FEEFEEE	E3333CFC	C
	C6	14	C66679FA	6666AA7C	7FEFEEEE	455568E8	1
	C6	15	8AAAD1DC	CCCD54F9	7FEEEEEF	CBBBE2E2	1
	C6	16	1777C5C5	999AA5F3	7FEEFEEF	9888D6D7	C
	C6	17	3111ADAF	333553E6	7FEEFEEF	BCCC9C9C	C
	C6	18	6CC1393A	666AA7CC	7FEEEEEE	DEFC2823	C
	C6	19	BDE05C5C	CCD54F98	7FEEEEEE	3CCF3F3E	1
	C6	2C	799E7E7D	99AA9F31	7EEEEEEE	FAAF8F8F	C
	C6	21	F55F1F1F	33553E62	7FEEEEEE	744FCECD	1
	C6	22	E89C1C1A	66AA7CC5	7FEEEFEE	69AD2D2C	1
	C6	23	D35A5A58	CC54F98B	7EEEEEEF	546B6B6A	1
	C6	24	A8D6D6D5	9AA9F317	7FEEEEEE	29E7E7E7	1
	C6	25	53CFCFCF	3553E62F	7FEFEEEE	D4ECECE1	C
	C6	26	A9C1C1C2	6AA7CC5E	7FECEEEE	28BCBCBC	1
	C6	27	51616160	554F98BD	7EEEEEEE	D2727272	C
	C6	28	A4E4E4E5	AA9F317A	7FEEEFEE	23C3D3D3	1
	C6	29	47A7A7A7	553E62F5	7FEEEEEE	C8B8B8B9	C
	C6	3C	91717172	AA7CC5EA	7FEEEEEE	1C6C6C6C	1
	C6	31	2CCCCCC1	54F98BD5	7FEEEEEE	A1C1C1C3	C
	C6	32	43A3A3A6	A9F317AA	7EEFEEEE	C2929294	C
	C7		C2929294	53E62F54	7FEEEEEE	41818182	1
	C8		41818182	53E62F54	7FEEEEEF	BE7E7E7E	C
	C9		41818182	53E62F54	7FEEEEEE	53E62F54	C
	1C		53E62F54	53E62F54	7FEEEEEF	AC19DCAC	C

DW 23

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	XCC
C3		F1C3C731	00000000	84444444	00000000	0
C4		3F01FC03	00000000	84444444	C0FE03FD	0
C6	C0	F1C3C731	C0FE03FD	84444444	0E3C38CE	1
C6	C1	1C78719D	81FC07FB	84444444	ACBCB5E1	0
C6	C2	41796BC3	C3F80FF6	84444444	BD35277F	0
C6	C3	7A6A4EFE	C7FC1FEC	84444444	F6260ABA	0
C6	C4	EC4C1574	CFE03FD8	84444444	6807D130	1
C6	C5	DC0FA260	1FC07FB1	84444444	5453E6A4	1
C6	C6	A8A7CD48	3F80FF63	84444444	2CEC118C	1
C6	C7	59D82318	7FC1FEC7	84444444	DE1C675C	0
C6	C8	BC38CEB8	FE03FD8E	84444444	37F48A74	1
C6	C9	6FE914E9	FC07FB1D	84444444	F42D592D	0
C6	1C	E85AB25B	F80FF63A	84444444	64166E17	1
C6	11	C82CDC2F	FC1FEC75	84444444	4C712073	1
C6	12	9AE240E7	FC3FD8EB	84444444	1D26852B	1
C6	13	3A4D0A57	CC7FB1D7	84444444	BE914E9B	0
C6	14	7D229D37	80FF63AE	84444444	F8DE58F3	0
C6	15	F1BCB1E7	C1FEC75C	84444444	6D786DA3	1
C6	16	DAF0DB46	C3FD8EB9	84444444	5F351F8A	1
C6	17	BE6A3F14	C7FB1D73	84444444	42AE835B	1
C6	18	855D06BC	CFF63AE7	84444444	C9A14AF4	1
C6	19	134295E8	1FEC75CF	84444444	9786DA2C	0
C6	2C	2FCDB458	3FD8EB9E	84444444	AAC97C14	0
C6	21	5592EC28	7FB1D73C	84444444	D14E9AE4	0
C6	22	A29D37C8	FF63AE78	84444444	1E5AF384	1
C6	23	3CB1E7C9	FEC75CF1	84444444	C0F62A4D	0
C6	24	81EC5493	FD8EB9E2	84444444	FDA81257	0
C6	25	FB5024AF	FB1D73C4	84444444	77CBEC6B	1
C6	26	EE17C0D7	F63AE789	84444444	725C0518	1
C6	27	E4B8CA37	EC75CF13	84444444	68FC4E7B	1
C6	28	D1F89CF7	D8EB9E27	84444444	563CE13B	1
C6	29	AC79C277	B1D73C4F	84444444	3CBE06BB	1
C6	3C	617CCD77	63AE789F	84444444	E5CC51B3	0
C6	31	C880A376	C75CF13E	84444444	473C5F32	1
C6	32	8E78BE65	8EB9E27D	84444444	12BDC2A9	1
C7		12BDC2A9	1D73C4FB	84444444	97C146ED	0
C8		12BDC2A9	1D73C4FB	84444444	ED42FD57	0
C9		12BDC2A9	1D73C4FB	84444444	1D73C4F3	0
1C		1D73C4FB	1D73C4FB	84444444	1D73C4FB	0

DW 24

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	XCC
C3		36666666	00000000	7EEEEEEE	00000000	0
C4		99999999	00000000	7EEEEEEE	99999999	0
C6	C0	36666666	99999999	7FEEEEEE	36666666	1
C6	C1	6CCCCCCD	33333333	7EEEEEEE	EDDDDDDF	0
C6	C2	D8888B8E	66666666	7FEEEEEE	5AAAAAAC	1
C6	C3	B5555558	CCCCCCCD	7FEEEEEF	3666666A	1
C6	C4	6CCCCCD5	99999998	7EEEEEEE	EDDDDDE7	0
C6	C5	D8888BCF	33333336	7FEEEEEE	5AAAAABD	1
C6	C6	B555557A	6666666D	7EEEEEEE	36666680	1
C6	C7	6CCCCD18	CCCCCCDB	7EEEEEEE	EDDDDE2A	0
C6	C8	D8888C55	99999986	7FEEEEEF	5AAAA943	1
C6	C9	B5555687	3333336D	7EEEEEEE	36666799	1
C6	1C	6CCCCF32	666666DB	7EEEEEEE	EDDDEC44	0
C6	11	D888C088	CCCCCDB6	7EEEEEEE	5AAAAF76	1
C6	12	B5555EED	99999B6D	7FEEEEEF	36666FFF	1
C6	13	6CCCDFFF	333336DB	7EEEEEEF	EDDDF111	0
C6	14	D888E222	66666DB6	7EEEEEEE	5AAAD110	1
C6	15	B555A22C	CCCCDB6D	7FEEEEEE	36663332	1
C6	16	6CCD6665	9999B6DB	7EEEEEEE	EDDE7777	0
C6	17	D88CEEEF	3336DB6D	7FEEEEEF	5AAFDDDD	1
C6	18	B557BBBA	6666DB6D	7FEEEEEF	3668CCCC	1
C6	19	6CD19998	CCCDB6DB	7EEEEEEE	EDE2AAAA	0
C6	2C	D8C55555	9996DB6D	7EEEEEEE	5AB44443	1
C6	21	B5688887	3336DB6D	7EEEEEEF	36799999	1
C6	22	6CF33332	666DB6DB	7EEEEEEE	EEC44444	0
C6	23	DC088888	CCDB6DB6	7EEEEEEE	5AF77776	1
C6	24	B5EEEEED	99B6DB6D	7FEEEEEF	36FFFFFF	1
C6	25	6DFFFFFF	336DB6DB	7FEEEEEE	EF111111	0
C6	26	DE222222	66DB6DB6	7FEEEEEF	5D111110	1
C6	27	BA222220	CDB6DB6D	7FEEEEEF	3B333332	1
C6	28	76666665	9B6DB6DB	7EEEEEEE	F7777777	0
C6	29	EEEEEEEF	36DB6DB6	7FEEEEEE	6DDDDDDD	1
C6	3C	D3BBBBBA	6DB6DB6D	7EEEEEEE	5CCCCCCC	1
C6	31	B9999998	DB6DB6DB	7EEEEEEE	3AAAAAAA	1
C6	32	75555555	B6DB6DB7	7FEEEEEE	F6666667	0
C7		F6666667	6DB6DB6E	7EEEEEEF	75555555	1
C8		75555555	6DB6DB6E	7FEEEEEE	75555555	0
C9		75555555	6DB6DB6E	7FEEEEEF	6DB6DB6E	0
1C		6DB6DB6E	6DB6DB6E	7EEEEEEE	6DB6DB6E	0

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DW 25	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		27777777	00000000	70000000	00000000	0
	C4		CDB53C7C	00000000	70000000	CDB53C7C	0
	C6	CC	27777777	CDB53C7C	70000000	27777777	1
	C6	C1	4EEEEEEF	9B6A78E1	70000000	DEEEEEEF	0
	C6	C2	BDDDDDDF	36D4F1C2	70000000	2DDDDDDF	1
	C6	C3	5B8B8B8E	6DA9E385	70000000	EBBBBB8E	0
	C6	C4	D777777C	DB53C7CA	70000000	4777777C	1
	C6	C5	8EEEEEF9	B6A78E15	70000000	1EEEEEF9	1
	C6	C6	3DDDDDF3	6D4F1C2B	70000000	CDDDDDF3	0
	C6	C7	9B8B8BE6	DA9E3856	70000000	0B8B8BE6	1
	C6	C8	177777CD	B53C7CAD	70000000	A77777CD	0
	C6	C9	4EEEEF9B	6A78E15A	70000000	BEEEEF9B	0
	C6	1C	7DDDDF36	D4F1C2B4	70000000	EDDDDF36	0
	C6	11	D8B8BE6D	A9E38568	70000000	4B8B8E6D	1
	C6	12	97777CDB	53C7CAD1	70000000	27777CDB	1
	C6	13	4EEEF9B6	A78E15A3	70000000	DEEEF9B6	0
	C6	14	BDDDF36D	4F1C2B46	70000000	2DDDF36D	1
	C6	15	5B8BE6DA	9E38568D	70000000	EB8BE6DA	0
	C6	16	D777CDB5	3C7CAD1A	70000000	4777CDB5	1
	C6	17	8EEF9B6A	78E15A35	70000000	1EEF9B6A	1
	C6	18	3DDF36D4	F1C2B46B	70000000	CDDF36D4	0
	C6	19	9B8E6DA9	E38568D6	70000000	0B8E6DA9	1
	C6	2C	177CDB53	C7CAD1AD	70000000	A77CDB53	0
	C6	21	4EF9B6A7	8E15A35A	70000000	BEF9B6A7	0
	C6	22	7DF36D4F	1C2B46B4	70000000	EDF36D4F	0
	C6	23	D8E6DA9E	38568D68	70000000	4B8E6DA9E	1
	C6	24	97CDB53C	7CAD1AD1	70000000	27CDB53C	1
	C6	25	4F9B6A78	E15A35A3	70000000	DF9B6A78	0
	C6	26	BF36D4F1	C2B46B46	70000000	2F36D4F1	1
	C6	27	5E6DA9E3	8568D68D	70000000	EE6DA9E3	0
	C6	28	DCDB53C7	CAD1AD1A	70000000	4CDB53C7	1
	C6	29	99B6A78E	15A35A35	70000000	29B6A78E	1
	C6	3C	536D4F1C	2B46B46B	70000000	E36D4F1C	0
	C6	31	C6DA9E38	568D68D6	70000000	36DA9E38	1
	C6	32	6DB53C7C	AD1AD1AD	70000000	FDB53C7C	0
	C7		FDB53C7C	5A35A35A	70000000	6DB53C7C	1
	C8		6DB53C7C	5A35A35A	70000000	6DB53C7C	0
	C9		6DB53C7C	5A35A35A	70000000	5A35A35A	0
	1C		5A35A35A	5A35A35A	70000000	5A35A35A	0

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DW 26	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		31C3C1FC	00000000	85555555	00000000	0
	C4		77777777	00000000	85555555	77777777	0
	C6	CC	31C3C1FC	77777777	85555555	31C3C1FC	1
	C6	C1	638783EC	EEEEEEEF	85555555	E8DCD935	0
	C6	C2	C1B9B26B	DDDDDDDE	85555555	4C645D16	1
	C6	C3	98C8BA2D	BBBBBBBD	85555555	1E1E0F82	1
	C6	C4	3C3C1FC5	7777777B	85555555	C191745A	0
	C6	C5	8322E8B4	EEEEEEF6	85555555	FDCD935F	0
	C6	C6	FA9B26BF	DDDDDDEC	85555555	7645D16A	1
	C6	C7	EC88A2D5	BBBBBBD9	85555555	71E0F82A	1
	C6	C8	E3C1FC55	777777B3	85555555	691745AA	1
	C6	C9	D22E8B54	EEEEEF67	85555555	5783E0A9	1
	C6	1C	AFC7C153	DDDDDECF	85555555	345D16A8	1
	C6	11	68BA2D51	BBBBBD9F	85555555	EE0F82A6	0
	C6	12	DC1FC54D	77777B3E	85555555	56C9AFF8	1
	C6	13	AD935FFC	EEEEF67D	85555555	32E8BF45	1
	C6	14	65D16A8B	DDDDECFB	85555555	EB26BFE0	0
	C6	15	D64D7FC1	BBBBD9F6	85555555	5CF82A6C	1
	C6	16	A1FC54D9	7777B3ED	85555555	2745AA2E	1
	C6	17	4E8B545C	EEEF67DB	85555555	D3E0A9B1	0
	C6	18	A7C15363	DDDECFB6	85555555	226BFE0E	1
	C6	19	44D7FC1D	BBBD9F6D	85555555	CA2D5172	0
	C6	2C	945AA2E5	777B3EDA	85555555	0FC54D90	1
	C6	21	1FCA9B2C	EEF67DB5	85555555	A35FFC75	0
	C6	22	46BFE0EB	DDECFB6A	85555555	C16A8B96	0
	C6	23	82D5172D	BBD9F6D4	85555555	FD7FC1D8	0
	C6	24	FAFF83B1	77B3EDA8	85555555	75AA2E5C	1
	C6	25	EB545CB8	EF67DB51	85555555	7CA9B20D	1
	C6	26	E153641B	DECFB6A3	85555555	66A8B970	1
	C6	27	CD5172E1	BD9F6D47	85555555	52A6C836	1
	C6	28	A54D9C6D	7B3EDA8F	85555555	2AA2EFC2	1
	C6	29	5545CB84	F67DB51F	85555555	DA9B20D9	0
	C6	3C	B53641B3	ECFB6A3E	85555555	2FECEC5E	1
	C6	31	5FC1D8BD	D9F6D47D	85555555	E5172E12	0
	C6	32	CA2E5C25	B3EDA8FA	85555555	44D9C6D0	1
	C7		44D9C6DC	67DB51F5	85555555	CA2E5C25	0
	C8		44D9C6DC	67DB51F5	85555555	44D9C6D0	0
	C9		44D9C6DC	67DB51F5	85555555	67DB51F5	0
	1C		67DB51F5	67DB51F5	85555555	9824AFC3	0

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DW 27

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
C3		D6666666	00000000	79999999	00000000	0
C4		DF4F3C70	00000000	79999999	20B0C390	0
C6	CC	D6666666	20B0C390	79999999	29999999	1
C6	C1	53333332	41618721	79999999	D9999999	0
C6	C2	B3333332	82C3CE42	79999999	2CCCCCCB	1
C6	C3	59999997	05861C85	79999999	DFFFFFFE	0
C6	C4	BFFFFFFC	0B0C390A	79999999	39999995	1
C6	C5	7333332A	16187215	79999999	F9999991	0
C6	C6	F3333322	2C30E42A	79999999	6CCCCCBB	1
C6	C7	D9999976	5861C855	79999999	5FFFFFDD	1
C6	C8	BFFFFFBA	B0C390AB	79999999	46666621	1
C6	C9	8CCCCC43	61872157	79999999	133332AA	1
C6	1C	E6666554	C30E42AF	79999999	ACCCC9BB	0
C6	11	59999777	861C855E	79999999	D3333110	0
C6	12	A6666221	0C390ABC	79999999	1FFFF8BA	1
C6	13	3FFFF774	18721579	79999999	C6665DD8	0
C6	14	8CCCBBB6	30E42AF2	79999999	0666554F	1
C6	15	CCCCAA5E	61C855E5	79999999	93331105	0
C6	16	E666220A	C390ABCA	79999999	9FFF8BA3	0
C6	17	3FFF7747	87215794	79999999	B9991CEC	0
C6	18	733221C1	0E42AF28	79999999	ECCBB85A	0
C6	19	D99776B4	1C855E50	79999999	53311040	1
C6	2C	A6622C9A	390ABCA1	79999999	2CC88701	1
C6	21	5991CEC2	72157943	79999999	DFF77469	0
C6	22	BFEEE8D2	E42AF286	79999999	3988826B	1
C6	23	7311C4D7	C855E5CD	79999999	F9776B3E	0
C6	24	F2EED47D	90ABCA1A	79999999	6C887016	1
C6	25	D91CE02D	21579435	79999999	5F774694	1
C6	26	BEEE8D28	42AF286B	79999999	45E4F38F	1
C6	27	8AA9E71E	855E5CD7	79999999	11104D85	1
C6	28	22209B0B	CABCA1AF	79999999	A8F70172	0
C6	29	51CE0FE4	1579435E	79999999	CAA79C7D	0
C6	3C	954F38FA	2AF286BC	79999999	CEE8D203	1
C6	31	1DD1A526	55E5CD79	79999999	A438C887	0
C6	32	4870171A	ABCA1AF2	79999999	C2C98CB3	0
C7		C2C9B0B3	57943BE4	79999999	3BA34A4C	1
C8		3BA34A4C	579435E4	79999999	C45CB5B4	0
C9		3BA34A4C	579435E4	79999999	57943FE4	0
1C		579435E4	579435E4	79999999	A86BCA1C	0

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DW 28

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
C3		15555555	00000000	82222222	00000000	0
C4		59C61C18	00000000	82222222	59C61C18	0
C6	CC	15555555	59C61C18	82222222	15555555	1
C6	C1	2AAAAAAA	B38C3831	82222222	AC000000	0
C6	C2	59999999	67187062	82222222	D7777777	0
C6	C3	AFEEEEEE	CE30EDC4	82222222	2CCCCCCC	1
C6	C4	59999999	9C61C189	82222222	DHB83B3B	0
C6	C5	B7777777	38C38312	82222222	35555555	1
C6	C6	6AAAAAAA	7187C625	82222222	ECCCCCCC	0
C6	C7	D9999998	E30EDC4A	82222222	57777776	1
C6	C8	AEEEEEED	C61C1895	82222222	3111110F	1
C6	C9	6222221F	8C383128	82222222	E4444441	0
C6	1C	C8888883	187C6256	82222222	46666661	1
C6	11	8CCCCCC2	30EDC4AD	82222222	CEEFEEE4	1
C6	12	1DDDDDC8	61C1895B	82222222	9FFFFFEA	0
C6	13	3FFFFFD4	C38312B6	82222222	BDDDDB82	0
C6	14	7BBBBB65	87C6256C	82222222	F9999943	0
C6	15	F3333287	0EDC4AD8	82222222	71111065	1
C6	16	E2222CCA	1C1895B1	82222222	64444EEC	1
C6	17	C8885D8	38312B63	82222222	4AAAA7FA	1
C6	18	95554FF4	7C6256C7	82222222	17777F16	1
C6	19	2EEEE42C	EDC4AD8F	82222222	B1110C4E	0
C6	2C	6222CC9D	C1895B1E	82222222	DFFFEA73	0
C6	21	BFFFD4F7	8312B63C	82222222	3DDDB2D5	1
C6	22	7BBB65AB	C6256C79	82222222	FDDD87CD	0
C6	23	F8B9CF9A	CC4AD6F2	82222222	7998E078	1
C6	24	F331DAFC	1895B1E5	82222222	7553FC12	1
C6	25	EAA7FA24	312B63CB	82222222	6CCA1C46	1
C6	26	D994388C	6256C797	82222222	5BB65AAE	1
C6	27	B76CB55C	C4AD8F2F	82222222	398ED77E	1
C6	28	731DAEFD	895B1E5F	82222222	F53FD11F	0
C6	29	EA7FA23F	12B63CBE	82222222	685C8C1D	1
C6	3C	DCBBCC3A	256C797D	82222222	5FDD225C	1
C6	31	A5BA44B8	4AD8F2FB	82222222	27DC66DA	1
C6	32	4FB8CDB4	95B1E5F7	82222222	D1DAEFD6	0
C7		D1DAEFD6	2B63CBEE	82222222	4FB8CDB4	1
C8		4FB8CDB4	2B63CBEE	82222222	4FB8CDB4	0
C9		4FB8CDB4	2B63CBEE	82222222	2B63CBEE	0
1C		2B63CBEE	2B63CBEE	82222222	D49C3412	0

DW 29

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		C21871E7	CCCCCCCC	83333333	CCCCCCCC	0
C4		77777777	CCCCCCCC	83333333	77777777	0
C6	CC	C21871E7	77777777	83333333	C21871E7	1
C6	C1	C430E3CE	EEEEEEEF	83333333	87641701	0
C6	C2	CEC82EC3	DDDDDDDE	83333333	8B94FADC	0
C6	C3	1729F5A1	BBBBBBBC	83333333	93F6C26E	0
C6	C4	27ED84DD	77777778	83333333	A4BA51AA	0
C6	C5	4974A354	EEEEEEF0	83333333	C6417021	0
C6	C6	8C82EC43	DDDDDDE0	83333333	C94FAD1C	1
C6	C7	193F5A21	BBBBBBC1	83333333	95C28D54	0
C6	C8	28A51AA9	77777782	83333333	A871E776	0
C6	C9	5CE3CEEC	EEEEEF04	83333333	CDBC9BB9	0
C6	1C	9B613773	DDDDDEC8	83333333	182E0440	1
C6	11	305CC881	BBBBBC11	83333333	B38F3BB4	0
C6	12	671E7769	77777822	83333333	E3EB4436	0
C6	13	C7D6886C	EEEEF044	83333333	44A35539	1
C6	14	8946AA73	DDDDEC89	83333333	0C79DDA6	1
C6	15	18F3BB4D	BBBBC113	83333333	9C26EE80	0
C6	16	384DDDC1	77778226	83333333	B51AA9CE	0
C6	17	6A35539C	EEEFC44C	83333333	E7022069	0
C6	18	CE044CD3	DDDEC898	83333333	4AD1DDA0	1
C6	19	95A21B41	BBBC1131	83333333	18D54E74	1
C6	20	31AA9CE9	77782263	83333333	B4DDDC1C	0
C6	21	69BBAC38	EEFC44C6	83333333	E6886DC5	0
C6	22	CD10DACB	DDEC898C	83333333	49DDA6D8	1
C6	23	93BB4DB1	BBC11319	83333333	16EE80E4	1
C6	24	2DDDC1C9	77822633	83333333	B11034FC	0
C6	25	622069F8	EFC44C66	83333333	DEED36C5	0
C6	26	BDDA6D8B	DEC898CC	83333333	3AA73A58	1
C6	27	754E74B1	BC113199	83333333	F881A7E4	0
C6	28	F1034FC9	78226332	83333333	6DDC1C96	1
C6	29	DBAC32EC	FC44C665	83333333	5EC36C5F	1
C6	30	BDA6D8BF	EC898CCB	83333333	4CDA0BF2	1
C6	31	81B417E5	C1131997	83333333	C4E74B18	1
C6	32	C9CE9631	8226332F	83333333	8DC1C964	0
C7		8DC1C964	C44C665E	83333333	09CE9631	1
C8		C9CE9631	C44C665E	83333333	C9CE9631	0
C9		C9CE9631	C44C665E	83333333	C44C665E	0
1C		C44C665E	C44C665E	83333333	FFB399A2	0

DW 30

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		E1111111	CCCCCCCC	87777777	CCCCCCCC	0
C4		AAAAAAAA	CCCCCCCC	87777777	55555556	0
C6	CC	E1111111	55555556	87777777	1EEEEEEE	1
C6	C1	3DDDDDDC	AAAAAAAD	87777777	C5555553	0
C6	C2	8AAAAAA7	5555555A	87777777	C3333330	1
C6	C3	C6666660	AAAAAAB5	87777777	8CCCCCC7	0
C6	C4	1BBBBBAF	5555556A	87777777	94444438	0
C6	C5	28888870	AAAAAAD4	87777777	A1111CF9	0
C6	C6	422221F3	555555A8	87777777	BAAAAA7C	0
C6	C7	755554F8	AAAAAB5C	87777777	E8CCCC81	0
C6	C8	CBB8BHC3	555556AC	87777777	54444380	1
C6	C9	A8888718	AAAAAD41	87777777	2FFFFE8F	1
C6	1C	5FFFFC1F	55555A83	87777777	E7777496	0
C6	11	CEEEE92C	AAAAB5C6	87777777	477771B5	1
C6	12	8FEEE36B	55556ACD	87777777	16665AE2	1
C6	13	2CCCB5C4	AAAAD41B	87777777	B4442B3B	0
C6	14	68885A77	5555A836	87777777	E110E300	0
C6	15	C221C4C0	AAAB5C6C	87777777	3AAA4E89	1
C6	16	75549C13	5556ACD9	87777777	FCCC148A	0
C6	17	F9982914	AAAD41B2	87777777	7220B19D	1
C6	18	E441633B	555A8365	87777777	6BB8DAB2	1
C6	19	D771B564	AAB5C6CB	87777777	5EE92CD3	1
C6	2C	BDD259B7	556ACD97	87777777	4549D12E	1
C6	21	8A93A25C	AAD41B2F	87777777	120B19D3	1
C6	22	241633A7	55A8365F	87777777	AB8DAB1E	0
C6	23	571B563C	AB5C6CBE	87777777	CFA3DFC5	0
C6	24	9F47BD8B	56ACD97C	87777777	17DC4614	1
C6	25	2FA08C28	AD41B2F9	87777777	B7180C9F	0
C6	26	6E30C73F	5A8365F2	87777777	E6B88FC8	0
C6	27	CD711F9C	B5C6CBE4	87777777	45F9AB19	1
C6	28	8BF35C33	6ACD97C9	87777777	136AC7AA	1
C6	29	26D58F54	D41B2F93	87777777	AE4DC6CB	0
C6	3C	5C9ACD97	A8365F26	87777777	D5229620	0
C6	31	AA452C41	5C6CBE4C	87777777	22CCB34A	1
C6	32	459B6994	ACD97C99	87777777	CD12E1CB	0
C7		CD12E1CB	41B2F932	87777777	459B6994	1
C8		459B6994	41B2F932	87777777	BAE49660	0
C9		459B6994	41B2F932	87777777	41B2F932	0
1C		41B2F932	41B2F932	87777777	41B2F932	0

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DW 31

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FC7CF1CC	00000000	7FEEEEEE	00000000	0
C4		CD5B3C70	00000000	7FEEEEEE	32A4C390	0
C6	C0	FC7CF1CC	32A4C390	7FEEEEEF	03830F33	1
C6	C1	C7061C66	65498721	7FEEEFEE	88172D78	0
C6	C2	1C2E5AFC	CA93CE42	7FEEEEEE	8F1D49DE	0
C6	C3	1E3A93BD	95261C84	7FEEEEEF	9D2982AB	0
C6	C4	3A530557	2A4C39C8	7FEEEEEE	B941F445	0
C6	C5	7283E88A	54987210	7FEEEEEE	F172D778	0
C6	C6	E2E5AEFC	A930E420	7FEEEFEE	61D49DDE	1
C6	C7	C3A93BBD	5261C841	7FEEEEEE	44BA4CCF	1
C6	C8	8974999E	A4C39083	7FEEEEEE	CA85AAB0	1
C6	C9	150B5561	498721C7	7FEEEEEF	961C6673	0
C6	10	2C38CCE6	930E420E	7FEEEEEE	AB27BBD4	0
C6	11	564F77A9	261C841C	7FEEEEEE	D53E6697	0
C6	12	AA7CCD2E	4C390838	7FEEEEEF	296BBC1C	1
C6	13	52D77838	98721071	7FEEEEEE	D3EA894A	0
C6	14	A7D11295	30E420E2	7FEEEEEE	26C00183	1
C6	15	4D8003C6	61C841C5	7FEEEEEE	CE911418	0
C6	16	9D22283C	C390838A	7FEEEEEE	1C11171E	1
C6	17	38222E3D	8721C715	7FEEEEEE	B9333F4F	0
C6	18	72667E9F	0E420E2A	7FEEEEEE	F1556D8D	0
C6	19	E2AADB1A	1C841C54	7FEEEFEE	6199CAC8	1
C6	20	C3339410	390838A9	7FEEEEEE	4444A522	1
C6	21	88894A44	721C7153	7FEFEEEE	099A5B56	1
C6	22	1334B6AC	E420E2A7	7FEEEEEE	9445C7BE	0
C6	23	288B8F7D	C841C54E	7FEEEEEE	A77A7E6B	0
C6	24	45F4FCD7	90838A9C	7FEEEEEE	CDE3CBC9	0
C6	25	98C7D78B	21071538	7FEEEEEE	1AB6C679	1
C6	26	356D8CF2	420E2A71	7FEEEEEE	B67E9E04	0
C6	27	6CFD3CC8	841C54E2	7FEEEEEF	EBEC2AF6	0
C6	28	D7D855ED	0838A9C4	7FEEEEEE	56C744DB	1
C6	29	AD8E89B6	10715389	7FEEEEEE	2E9F9AC3	1
C6	30	5D3F359C	20E2A713	7FEEEEEF	DE5046A2	0
C6	31	BCA08D44	41C54E26	7FEFEEEE	3B8F7C32	1
C6	32	771EF864	838A9C4D	7FEEEFEF	F8300976	0
C7		F8300976	C715389A	7FEFEEEE	771EF864	1
C8		771EF864	0715389A	7FEEEEEE	88E1C79C	0
C9		771EF864	C715389A	7FEEEEEE	C715389A	0
10		C715389A	C715389A	7FEEEFEE	F8EAC766	0

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DW 32

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		15555555	00000000	7C000000	00000000	0
C4		11111111	00000000	7C000000	11111111	0
C6	C0	15555555	11111111	7C000000	15555555	1
C6	C1	2AAAAAAA	22222223	7C000000	8AAAAAAA	0
C6	C2	75555554	44444446	7C000000	E5555554	0
C6	C3	CAAAAAA8	8888888C	7C000000	3AAAAAA8	1
C6	C4	75555551	11111119	7C000000	C5555551	1
C6	C5	CAAAAAA2	22222233	7C000000	9AAAAAA2	0
C6	C6	35555544	44444466	7C000000	A5555544	0
C6	C7	4AAAAA88	888888CC	7C000000	8AAAAA88	0
C6	C8	75555511	11111198	7C000000	E5555511	0
C6	C9	CAAAAA22	2222233C	7C000000	3AAAAA22	1
C6	10	75555444	44444661	7C000000	05555444	1
C6	11	CAAAA888	88888CC3	7C000000	9AAAA888	0
C6	12	35555111	11111986	7C000000	A5555111	0
C6	13	4AAAA222	222233CC	7C000000	8AAAA222	0
C6	14	75554444	44446618	7C000000	E5554444	0
C6	15	CAAA8888	8888CC30	7C000000	3AAA8888	1
C6	16	75551111	11119861	7C000000	05551111	1
C6	17	CAAA2222	222330C3	7C000000	9AAA2222	0
C6	18	35544444	44466186	7C000000	A5544444	0
C6	19	4AA88888	888CC30C	7C000000	8AA88888	0
C6	20	75511111	11198618	7C000000	E5511111	0
C6	21	CAA22222	2233CC30	7C000000	3AA22222	1
C6	22	75444444	44661861	7C000000	05444444	1
C6	23	CA888888	88CC30C3	7C000000	9A888888	0
C6	24	35111111	119861R6	7C000000	A5111111	0
C6	25	4A222222	233CC30C	7C000000	8A222222	0
C6	26	74444444	46618618	7C000000	E4444444	0
C6	27	C8888888	8CC3CC30	7C000000	38888888	1
C6	28	71111111	19861861	7C000000	01111111	1
C6	29	C2222222	330C30C3	7C000000	92222222	0
C6	30	24444444	661861R6	7C000000	94444444	0
C6	31	28888888	CC30C30C	7C000000	98888888	0
C6	32	31111111	98618618	7C000000	A1111111	0
C7		A1111111	30C3CC30	7C000000	11111111	1
C8		11111111	30C30C30	7C000000	11111111	0
C9		11111111	30C3CC30	7C000000	30C30C30	0
10		30C30C30	30C30C30	7C000000	30C30C30	0

DW 33

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		31111111	CCCCCCCC	87777777	CCCCCCCC	0
C4		22222222	CCCCCCCC	87777777	22222222	0
C6	CC	31111111	22222222	87777777	31111111	1
C6	C1	62222222	44444445	87777777	E9999999	0
C6	C2	D3333332	8888888A	87777777	4BBB8BBB	1
C6	C3	97777777	11111115	87777777	1EEEEEEE	1
C6	C4	3DDDDDDC	2222222B	87777777	CF555553	0
C6	C5	8AAAAAA6	44444456	87777777	C333332F	1
C6	C6	C666665E	888888AD	87777777	8DDDDDD5	0
C6	C7	1B8BBBAB	1111115A	87777777	94444434	0
C6	C8	28888868	222222B4	87777777	A1111CF1	0
C6	C9	422221E2	44444568	87777777	BAAAAA6B	0
C6	1C	755554D6	88888ADC	87777777	EDDDDD5F	0
C6	11	D8BBBABF	111115AC	87777777	54444348	1
C6	12	A8888650	22222B41	87777777	2FFFFFC7	1
C6	13	5FFFFCCE	44445683	87777777	E7777385	0
C6	14	CFEEE7CA	8888ADC6	87777777	47776F93	1
C6	15	8FEEDF27	1115ACD	87777777	1666569E	1
C6	16	2CCCAD3C	2222B41B	87777777	B44424B3	0
C6	17	68884966	44456636	87777777	E11CD1EF	0
C6	18	C221A3DE	888ADC6C	87777777	3AAA2C67	1
C6	19	755458CF	1115ACD9	87777777	FCCBDC46	0
C6	2C	F997AC8C	222B41B2	87777777	72202915	1
C6	21	E440522A	44568365	87777777	6BB7C9A1	1
C6	22	D76F9342	88ADC6CB	87777777	5EE70AB9	1
C6	23	BCCE1573	115ACD97	87777777	45458CEA	1
C6	24	8A8B19D4	22B41B2F	87777777	12C29143	1
C6	25	24C52256	4568365F	87777777	AB7C9ACD	0
C6	26	56F9341A	8ADC6CBE	87777777	CF81BCA3	0
C6	27	9FC37947	15ACD97C	87777777	178C01D0	1
C6	28	2F18C3AC	2B41B2F9	87777777	B68F7B17	0
C6	29	6D1EF62E	568365F2	87777777	E5A77EB7	0
C6	3C	C54EFD6E	ADC6CBE4	87777777	43D785F7	1
C6	31	87AFCBEF	5ACD97C9	87777777	CF268366	1
C6	3P	1F4DC6CC	B41B2F93	87777777	A5C47E43	0
C7		A5C47E43	68365F26	87777777	1E4DC6CC	1
C8		1E4DC6CC	68365F26	87777777	1E4DC6CC	0
C9		1E4DC6CC	68365F26	87777777	68365F26	0
1C		68365F26	68365F26	87777777	97C9ACDA	0

DW 34

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		C6666666	CCCCCCCC	71111111	CCCCCCCC	0
C4		33333333	CCCCCCCC	71111111	CCCCCCCD	0
C6	CC	D6666666	CCCCCCCD	71111111	28999999	1
C6	C1	53333333	9999999B	71111111	E2222222	0
C6	C2	C4444445	33333336	71111111	35555556	1
C6	C3	6AAAAAAC	6666666D	71111111	F999999B	0
C6	C4	F3333336	CCCCCCDA	71111111	64444447	1
C6	C5	C888888F	99999985	71111111	5777777E	1
C6	C6	AEEEEEFD	33333368	71111111	3DDDDDEC	1
C6	C7	7BBBBBD8	666666D7	71111111	CAAAAAC7	1
C6	C8	1555558E	CCCCCDAF	71111111	A4444470	0
C6	C9	488888FB	99999B5E	71111111	B9999ACC	0
C6	1C	73333419	333336BC	71111111	E444452A	0
C6	11	C8888A54	66666D78	71111111	35999B65	1
C6	12	733336CA	CCCCDAF1	71111111	02222589	1
C6	13	C4444B73	9999B5E3	71111111	93333A62	0
C6	14	266674C5	33336BC6	71111111	977785D6	0
C6	15	2EEFC9AC	6666D78C	71111111	ACCC1CBD	0
C6	16	4CCC397A	CCCDAF18	71111111	B1114A8B	0
C6	17	62229517	999B5E3C	71111111	D333AF23	0
C6	18	A6674C51	3336BC60	71111111	17785D62	1
C6	19	2EFCBAC4	666D78C1	71111111	BDDFA9B3	0
C6	2C	7BBF5366	CCDAF182	71111111	ECCC6477	0
C6	21	D9A0C8EF	99B5E3C4	71111111	4AB1DACC	1
C6	22	95638401	336BC6C9	71111111	2452A2F0	1
C6	23	48A545EC	66D78C13	71111111	D7E434CF	0
C6	24	AF2B699E	CDAF1826	71111111	2C397AAF	1
C6	25	4C72F55F	9B5E3C4D	71111111	CF61E44E	0
C6	26	9EC3C89D	36BC6C9A	71111111	0FD4D9AE	1
C6	27	1FA9B35C	6D78C135	71111111	AE58A248	0
C6	28	5D314496	DAF1826A	71111111	CE4255A7	0
C6	29	9C84AB4F	B5E3C4D4	71111111	0D95BC6C	1
C6	3C	1B2978C1	6BC6C9A9	71111111	AA1A67BC	0
C6	31	E434CF6C	D78C1352	71111111	C545EC71	0
C6	32	8A8BCCE3	AF1826A4	71111111	FB9CD1F4	0
C7		FB9CD1F4	5E3C4D48	71111111	6CADE3C5	1
C8		6CADE3C5	5E3C4D48	71111111	93521CFB	0
C9		6CADE3C5	5E3C4D48	71111111	5E3C4D48	0
1C		5E3C4D4B	5E3C4D48	71111111	A1CFB2B6	0

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DW 35	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	C3		36666666	00000000	89999999	00000000	0
	C4		44444444	00000000	89999999	44444444	0
	C6	CC	36666666	44444444	89999999	36666666	1
	C6	C1	6CCCCCCC	88888889	89999999	F6666665	0
	C6	C2	ECCCCCCB	11111112	89999999	63333332	1
	C6	C3	C6666664	22222225	89999999	4FFFFFFD	1
	C6	C4	9FFFFFFA	4444444B	89999999	29999993	1
	C6	C5	53333326	88888897	89999999	DCCCCCBF	0
	C6	C6	B999997F	1111112E	89999999	2FFFFFE6	1
	C6	C7	5FFFFFCC	2222225D	89999999	E9999965	0
	C6	C8	D33332CA	444444BA	89999999	49999931	1
	C6	C9	93333262	88888975	89999999	1CCCC3F8	1
	C6	1C	399997F7	111112EB	89999999	C3333190	0
	C6	11	86666320	222225D6	89999999	FCCCC987	0
	C6	12	F99993CE	44444BAC	89999999	6FFFF975	1
	C6	13	DFFFF2EA	88889759	89999999	69998C83	1
	C6	14	D3331907	11112EB3	89999999	5CCCB2A0	1
	C6	15	B9996540	22225D67	89999999	4332FED9	1
	C6	16	8665FDB2	4444BACF	89999999	0FFF974B	1
	C6	17	1FFF2E96	8889759F	89999999	A998C82F	0
	C6	18	5331905F	1112EB3E	89999999	C997F6C6	0
	C6	19	932FED8C	2225D67C	89999999	C99653F3	1
	C6	2C	132CA7E6	444BACF9	89999999	9CC6417F	0
	C6	21	398C82FE	889759F2	89999999	AFF2E965	0
	C6	22	5FE5D2CB	112EB3E4	89999999	D64C3932	0
	C6	23	AC987264	225D67C8	89999999	22FEDFCB	1
	C6	24	45FDB196	44BACF91	89999999	CF974B2F	0
	C6	25	9F2E965E	89759F22	89999999	1594FCC5	1
	C6	26	2829F98B	12EB3E45	89999999	B4C39324	0
	C6	27	69872648	25D67C8A	89999999	DFED8CAF	0
	C6	28	BFDB195E	4BACF914	89999999	36417FC5	1
	C6	29	6C82FF8A	9759F229	89999999	F61C9923	0
	C6	3C	EC393247	2EB3E452	89999999	629F98AE	1
	C6	31	C53F315C	5D67C8A5	89999999	4ED8CAF5	1
	C6	32	9DB195EA	BACF914B	89999999	274B2F83	1
	C7		274B2F83	759F2297	89999999	BCE4C91C	0
	C8		274B2F83	759F2297	89999999	274B2F83	0
	C9		274B2F83	759F2297	89999999	759F2297	0
	1C		759F2297	759F2297	89999999	8A60D969	0

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DW 36	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	C3		C21871E7	00000000	70000000	00000000	0
	C4		88888888	00000000	70000000	88888888	0
	C6	CC	C21871E7	88888888	70000000	C21871E7	1
	C6	C1	C430E3CF	11111111	70000000	9430E3CF	0
	C6	C2	2861C79E	22222222	70000000	9861C79E	0
	C6	C3	3CC38F3C	44444444	70000000	ACC38F3C	0
	C6	C4	41871E78	88888888	70000000	B1871E78	0
	C6	C5	63CE3CF1	11111110	70000000	D3CE3CF1	0
	C6	C6	A61C79E2	22222220	70000000	161C79E2	1
	C6	C7	2C38F3C4	44444441	70000000	BC3BF3C4	0
	C6	C8	7871E788	88888882	70000000	E871E788	0
	C6	C9	DCE3CF11	111111C4	70000000	4CE3CF11	1
	C6	1C	81C79E22	22222209	70000000	11C79E22	1
	C6	11	238F3C44	44444413	70000000	B38F3C44	0
	C6	12	671E7888	88888826	70000000	D71E7888	0
	C6	13	AE3CF111	1111104C	70000000	1E3CF111	1
	C6	14	3C79E222	22222099	70000000	CC79E222	0
	C6	15	98F3C444	44444132	70000000	C8F3C444	1
	C6	16	11E78888	88888265	70000000	A1E78888	0
	C6	17	43CF1111	1111C4CA	70000000	B3CF1111	0
	C6	18	679E2222	22220994	70000000	D79E2222	0
	C6	19	AF3C4444	44441328	70000000	1F3C4444	1
	C6	2C	3E788888	88882651	70000000	CE788888	0
	C6	21	9CF11111	111C4CA2	70000000	CCF11111	1
	C6	22	19E22222	22209945	70000000	A9E22222	0
	C6	23	53C44444	4441328A	70000000	C3C44444	0
	C6	24	87888888	88826514	70000000	F7888883	0
	C6	25	EF111111	11C4CA28	70000000	5F111111	1
	C6	26	BE222222	22C99451	70000000	4E222222	1
	C6	27	9C444444	441328A3	70000000	2C444444	1
	C6	28	58888888	88265147	70000000	E8888888	0
	C6	29	D1111111	1C4CA28E	70000000	41111111	1
	C6	3C	82222222	2099451D	70000000	12222222	1
	C6	31	24444444	41328A3B	70000000	B4444444	0
	C6	32	68888888	82651476	70000000	D8888888	0
	C7		D8888888	C4CA28EC	70000000	48888888	1
	C8		48888888	C4CA28EC	70000000	48888888	0
	C9		48888888	C4CA28EC	70000000	C4CA28EC	0
	1C		C4CA28EC	C4CA28EC	70000000	C4CA28EC	0

DW 37

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		E1111111	CCCCCCCC	87777777	CCCCCCCC	C
C4		BBBBBBBB	CCCCCCCC	87777777	44444445	C
C6	CC	E1111111	44444445	87777777	1EEEEEEE	1
C6	C1	3DDDDDDC	8888888B	87777777	C5555553	C
C6	C2	8AAAAAA7	11111116	87777777	C3333330	1
C6	C3	C666666C	22222220	87777777	8DDDDDD7	C
C6	C4	1BBBBBAE	4444445A	87777777	54444437	C
C6	C5	2888886E	88888B4	87777777	A1111CF7	C
C6	C6	422221EF	11111168	87777777	BAAAAA78	C
C6	C7	755554FC	222222DC	87777777	EDDDDD79	C
C6	C8	D8BBBAF2	444445AC	87777777	5444437B	1
C6	C9	A88886F6	88888B41	87777777	2FFFFF6D	1
C6	1C	5FFFFCDB	11111683	87777777	E7777452	C
C6	11	CEEEE8A4	22222DC6	87777777	47777120	1
C6	12	8EEEE25A	44445ACD	87777777	166659D1	1
C6	13	2CCCB3A2	8888B41B	87777777	B4442B19	C
C6	14	68885633	11116836	87777777	E11CDEBC	C
C6	15	C221BD78	2222DC6C	87777777	3AAA46C1	1
C6	16	75548CC2	4445ACD9	87777777	FCCCC379	C
C6	17	F998C6F2	888B41B2	87777777	72208F7B	1
C6	18	E4411EF7	11168365	87777777	6BB8966E	1
C6	19	D7712CDC	222DC6CB	87777777	5EE8A453	1
C6	2C	BDD148A6	445ACD97	87777777	4548C01D	1
C6	21	8A918C3A	88B41B2F	87777777	1208F7B1	1
C6	22	2411EF63	1168365F	87777777	AB8966DA	C
C6	23	5712CDB4	22DC6CBE	87777777	CF9B5A3D	C
C6	24	9F36AC7A	45ACD97C	87777777	17BF35C3	1
C6	25	2F7E6AC6	8B41B2F9	87777777	B6F5E17D	C
C6	26	6DEBC2FB	168365F2	87777777	E6744B84	C
C6	27	CCE897C8	2DC6CBE4	87777777	45711F91	1
C6	28	8AE23F22	5ACD97C9	87777777	1259B699	1
C6	29	2436D32	B41B2F93	87777777	AC2AE4A9	C
C6	3C	5F55C953	68365F26	87777777	DCDE51DC	C
C6	31	A1BCA3B8	DC6CBE4C	87777777	1A452C41	1
C6	32	348A5883	ACD97C99	87777777	BCC1CFFA	C
C7		BCC1CFFA	41B2F932	87777777	348A5883	1
C8		348A5883	41B2F932	87777777	CB75A77D	C
C9		348A5883	41B2F932	87777777	41B2F932	C
1C		41B2F932	41B2F932	87777777	41B2F932	C

DW 38

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		F1C3C731	CCCCCCCC	79999999	CCCCCCCC	C
C4		CCCCCCCC	CCCCCCCC	79999999	33333334	C
C6	CC	F1C3C731	33333334	79999999	CF3C3BCE	1
C6	C1	1C78719C	66666669	79999999	A2FFD2D3	C
C6	C2	45BDBCC6	CCCCCCD2	79999999	BFE7499F	C
C6	C3	7EAE933F	999999A4	79999999	F84B2CD8	C
C6	C4	FC9059B1	33333348	79999999	6A29F34A	1
C6	C5	D453E654	66666691	79999999	5ABA4CFB	1
C6	C6	BE7499F6	CCCCCD23	79999999	3BDB0C5D	C
C6	C7	77B6CC3B	99999A47	79999999	FE1C6722	C
C6	C8	FC3BCE45	3333348E	79999999	75D2670E	1
C6	C9	EBA4CFBC	6666691D	79999999	72C53623	1
C6	1C	E4166C46	CCCCD23B	79999999	6A7CD2AD	1
C6	11	D4F9A55B	9999A477	79999999	5B6CCBC2	1
C6	12	B6C01785	333348EF	79999999	3D2E7CEC	1
C6	13	7A4CFAD8	666691DF	79999999	CCB3623F	1
C6	14	C166C47E	CCCD23BF	79999999	87CD2AE5	C
C6	15	CF9A55CB	999A477E	79999999	8933EF64	C
C6	16	1267DEC9	33348EFC	79999999	8CC17862	C
C6	17	18C2FCC4	6691DF8	79999999	919C8A5D	C
C6	18	233914BA	CCD23BF0	79999999	9CD2AF53	C
C6	19	39A55CA7	9A477EC	79999999	B33EF64C	C
C6	2C	667DEC81	3348EFC0	79999999	EC17861A	C
C6	21	CC2FCC34	6691DF80	79999999	39CAA5CD	1
C6	22	7391489A	CD23BFC1	79999999	F9F7B2C1	C
C6	23	F3EF64C3	9A477EC2	79999999	6D88FD9C	1
C6	24	D911FB39	348EFC05	79999999	617861AC	1
C6	25	C2FCC34C	691DF8CB	79999999	495723A7	1
C6	26	92AE534E	D23BFC17	79999999	191439B5	1
C6	27	3229736B	A477EC2F	79999999	B88FD9D2	C
C6	28	711FB3A5	48EFC05E	79999999	EAB94D3E	C
C6	29	D5729A7C	91DF8CBC	79999999	4FCC3415	1
C6	3C	9E186828	23BFC179	79999999	247FCE92	1
C6	31	48FD9D24	477EC2F3	79999999	CF640384	C
C6	32	9EC8C716	8EFC5E6	79999999	1861ACAF	1
C7		1861ACAF	1DF8CBCD	79999999	9EC8C716	C
C8		1861ACAF	1DF8CBCD	79999999	E79E5F51	C
C9		1861ACAF	1DF8CBCD	79999999	1DF8CBCD	C
1C		1DF8CBCD	1DF8CBCD	79999999	E2C7F433	C

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DW 39	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	C3		CCCCCCCC	CCCCCCCC	00000001	00000000	0
	C4		CCCCCCC2	00000000	CCCCCCC1	00000002	0
	C6	CC	CCCCCCCC	CCCCCCC2	CCCCCCC1	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCCC05	CCCCCCC1	FFFFFFFF	0
	C6	C2	FFFFFFFE	0000000A	CCCCCCC1	FFFFFFFF	0
	C6	C3	FFFFFFFE	CCCCCC14	CCCCCCC1	FFFFFFFF	0
	C6	C4	FFFFFFFE	CCCCCC28	CCCCCCC1	FFFFFFFF	0
	C6	C5	FFFFFFFE	CCCCCC50	CCCCCCC1	FFFFFFFF	0
	C6	C6	FFFFFFFE	CCCCCCA0	CCCCCCC1	FFFFFFFF	0
	C6	C7	FFFFFFFE	CCCCC140	CCCCCCC1	FFFFFFFF	0
	C6	C8	FFFFFFFE	CCCCC280	CCCCCCC1	FFFFFFFF	0
	C6	C9	FFFFFFFE	CCCCC500	CCCCCCC1	FFFFFFFF	0
	C6	1C	FFFFFFFE	CCCCCA00	CCCCCCC1	FFFFFFFF	0
	C6	11	FFFFFFFE	CCCC1400	CCCCCCC1	FFFFFFFF	0
	C6	12	FFFFFFFE	CCCC2800	CCCCCCC1	FFFFFFFF	0
	C6	13	FFFFFFFE	CCCC5000	CCCCCCC1	FFFFFFFF	0
	C6	14	FFFFFFFE	CCCCA000	CCCCCCC1	FFFFFFFF	0
	C6	15	FFFFFFFE	CCC14CCC	CCCCCCC1	FFFFFFFF	0
	C6	16	FFFFFFFE	CCC28CCC	CCCCCCC1	FFFFFFFF	0
	C6	17	FFFFFFFE	CCC5CCCC	CCCCCCC1	FFFFFFFF	0
	C6	18	FFFFFFFE	CCCACCCC	CCCCCCC1	FFFFFFFF	0
	C6	19	FFFFFFFE	CC14CCCC	CCCCCCC1	FFFFFFFF	0
	C6	2C	FFFFFFFE	CC28CCCC	CCCCCCC1	FFFFFFFF	0
	C6	21	FFFFFFFE	CC5CCCCC	CCCCCCC1	FFFFFFFF	0
	C6	22	FFFFFFFE	CCACCCCC	CCCCCCC1	FFFFFFFF	0
	C6	23	FFFFFFFE	C14CCCCC	CCCCCCC1	FFFFFFFF	0
	C6	24	FFFFFFFE	C28CCCCC	CCCCCCC1	FFFFFFFF	0
	C6	25	FFFFFFFE	C5CCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	26	FFFFFFFE	CACCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	27	FFFFFFFE	14CCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	28	FFFFFFFE	28CCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	29	FFFFFFFE	5CCCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	3C	FFFFFFFE	ACCCCCCC	CCCCCCC1	FFFFFFFF	0
	C6	31	FFFFFFFF	4CCCCCCC	CCCCCCC1	CCCCCCCC	1
	C6	32	CCCCCCCC	8CCCCCC1	CCCCCCC1	FFFFFFFF	0
	C7		FFFFFFFF	CCCCCCC2	CCCCCCC1	00000000	1
	C8		CCCCCCCC	CCCCCCC2	CCCCCCC1	CCCCCCCC	0
	C9		CCCCCCCC	CCCCCCC2	CCCCCCC1	CCCCCCC2	0
	1C		CCCCCCC2	CCCCCCC2	CCCCCCC1	CCCCCCC2	0

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DW 4C	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	C3		CCCCCCCC	CCCCCCCC	7FFFFFFF	CCCCCCCC	0
	C4		7FFFFFFF	CCCCCCCC	7FFFFFFF	7FFFFFFF	0
	C6	CC	CCCCCCCC	7FFFFFFF	7FFFFFFF	CCCCCCCC	1
	C6	C1	CCCCCCCC	FFFFFFFF	7FFFFFFF	8CCCCCC1	0
	C6	C2	CCCCCCC3	FFFFFFFE	7FFFFFFF	8CCCCCC2	0
	C6	C3	CCCCCCC5	FFFFFFFC	7FFFFFFF	8CCCCCC4	0
	C6	C4	CCCCCC09	FFFFFFF8	7FFFFFFF	8CCCCCC8	0
	C6	C5	CCCCCC11	FFFFFFF0	7FFFFFFF	8CCCCC10	0
	C6	C6	CCCCCC21	FFFFFFEC	7FFFFFFF	8CCCCC2C	0
	C6	C7	CCCCCC41	FFFFFFC0	7FFFFFFF	8CCCCC40	0
	C6	C8	CCCCCC81	FFFFFF80	7FFFFFFF	8CCCCC80	0
	C6	C9	CCCCC1C1	FFFFFFC0	7FFFFFFF	8CCCC1C0	0
	C6	1C	CCCCC2C1	FFFFFEC0	7FFFFFFF	8CCCC2C0	0
	C6	11	CCCCC4C1	FFFFFCC0	7FFFFFFF	8CCCC4C0	0
	C6	12	CCCCC8C1	FFFFF8C0	7FFFFFFF	8CCCC8C0	0
	C6	13	CCCC1CC1	FFFFFCC0	7FFFFFFF	8CCC1CC0	0
	C6	14	CCCC2CC1	FFFFECC0	7FFFFFFF	8CCC2CC0	0
	C6	15	CCCC4CC1	FFFFCCC0	7FFFFFFF	8CCC4CC0	0
	C6	16	CCCC8CC1	FFFF8CC0	7FFFFFFF	8CCC8CC0	0
	C6	17	CCC1CCC1	FFFFCCC0	7FFFFFFF	8CC1CCC0	0
	C6	18	CCC2CCC1	FFFECCC0	7FFFFFFF	8CC2CCC0	0
	C6	19	CCC4CCC1	FFFCCCC0	7FFFFFFF	8CC4CCC0	0
	C6	2C	CCC8CCC1	FFF8CCC0	7FFFFFFF	8CC8CCC0	0
	C6	21	CC1CCCC1	FFF0CCC0	7FFFFFFF	8C1CCCC0	0
	C6	22	CC2CCCC1	FFE0CCC0	7FFFFFFF	8C2CCCC0	0
	C6	23	CC4CCCC1	FFC0CCC0	7FFFFFFF	8C4CCCC0	0
	C6	24	CC8CCCC1	FF80CCC0	7FFFFFFF	8C8CCCC0	0
	C6	25	C1CCCCC1	FF0CCCC0	7FFFFFFF	81CCCCC0	0
	C6	26	C2CCCCC1	FE0CCCC0	7FFFFFFF	82CCCCC0	0
	C6	27	C4CCCCC1	FC0CCCC0	7FFFFFFF	84CCCCC0	0
	C6	28	C8CCCCC1	F80CCCC0	7FFFFFFF	88CCCCC0	0
	C6	29	1CCCCCC1	FCCCCCC0	7FFFFFFF	9CCCCCC0	0
	C6	3C	2CCCCCC1	ECCCCCC0	7FFFFFFF	ACCCCCC0	0
	C6	31	4CCCCCC1	CCCCCCC0	7FFFFFFF	CCCCCCC0	0
	C6	32	8CCCCCC1	8CCCCCC0	7FFFFFFF	CCCCCCC0	1
	C7		CCCCCCCC	CCCCCCC1	7FFFFFFF	8CCCCCC1	0
	C8		CCCCCCCC	CCCCCCC1	7FFFFFFF	CCCCCCC0	0
	C9		CCCCCCC0	CCCCCCC1	7FFFFFFF	CCCCCCC1	0
	1C		CCCCCCC1	CCCCCCC1	7FFFFFFF	CCCCCCC1	0

DW 41	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		CCCCCCCC	00000000	CCCCCCC1	0C000000	0
	C4		7FFFFFFE	0000C000	00000001	7FFFFFFF	C
	C6	CC	CCCCC000	7FFFFFFF	00000001	00000000	1
	C6	C1	CCCCCCC0	FFFFFFFF	CCCCCCC1	FFFFFFFF	C
	C6	C2	FFFFFFFF	FFFFFFFE	CCCCCCC1	0C000C00	1
	C6	C3	CCCCCCC1	FFFFFFFD	CCCCCCC1	0CCCCC00	1
	C6	C4	CCCCCCC1	FFFFFFFB	CCCCCCC1	0CCCCC00	1
	C6	C5	CCCCCCC1	FFFFFFF7	CCCCCCC1	0CCCCC00	1
	C6	C6	CCCCCCC1	FFFFFFEF	CCCCCCC1	0CCCCC00	1
	C6	C7	CCCCCCC1	FFFFFFDF	CCCCCCC1	0CCCCC00	1
	C6	C8	CCCCCCC1	FFFFFFBF	CCCCCCC1	0CCCCC00	1
	C6	C9	CCCCCCC1	FFFFFF7F	CCCCCCC1	0CCCCC00	1
	C6	1C	CCCCCCC1	FFFFFEFF	CCCCCCC1	0CCCCC00	1
	C6	11	CCCCCCC1	FFFFFDFF	CCCCCCC1	0CCCCC00	1
	C6	12	CCCCCCC1	FFFFFBFF	CCCCCCC1	0CCCCC00	1
	C6	13	CCCCCCC1	FFFFF7FF	CCCCCCC1	0CCCCC00	1
	C6	14	CCCCCCC1	FFFFEFFF	CCCCCCC1	0CCCCC00	1
	C6	15	CCCCCCC1	FFFFDFFF	CCCCCCC1	0CCCCC00	1
	C6	16	CCCCCCC1	FFFFBFFF	CCCCCCC1	0CCCCC00	1
	C6	17	CCCCCCC1	FFFF7FFF	CCCCCCC1	0CCCCC00	1
	C6	18	CCCCCCC1	FFFEFFFF	CCCCCCC1	0CCCCC00	1
	C6	19	CCCCCCC1	FFFDFFFF	CCCCCCC1	0CCCCC00	1
	C6	2C	CCCCCCC1	FFFBFFFF	CCCCCCC1	0CCCCC00	1
	C6	21	CCCCCCC1	FFF7FFFF	CCCCCCC1	0CCCCC00	1
	C6	22	CCCCCCC1	FFEFFFFF	CCCCCCC1	0CCCCC00	1
	C6	23	CCCCCCC1	FFDFFFFF	CCCCCCC1	0CCCCC00	1
	C6	24	CCCCCCC1	FFBFFFFF	CCCCCCC1	0CCCCC00	1
	C6	25	CCCCCCC1	FF7FFFFF	CCCCCCC1	0CCCCC00	1
	C6	26	CCCCCCC1	FEFFFFFF	CCCCCCC1	0CCCCC00	1
	C6	27	CCCCCCC1	FDFFFFFF	CCCCCCC1	0CCCCC00	1
	C6	28	CCCCCCC1	FBFFFFFF	CCCCCCC1	0CCCCC00	1
	C6	29	CCCCCCC1	F7FFFFFF	CCCCCCC1	0CCCCC00	1
	C6	3C	CCCCCCC1	EFFFFFFF	CCCCCCC1	0CCCCC00	1
	C6	31	CCCCCCC1	DFFFFFFF	CCCCCCC1	0CCCCC00	1
	C6	32	CCCCCCC1	BFFFFFFF	CCCCCCC1	0CCCCC00	1
	C7		CCCCCCC0	7FFFFFFF	CCCCCCC1	FFFFFFFF	C
	C8		CCCCCCCC	7FFFFFFF	CCCCCCC1	CCCCCCCC	0
	C9		CCCCCCC0	7FFFFFFF	CCCCCCC1	7FFFFFFF	C
	1C		7FFFFFFF	7FFFFFFF	CCCCCCC1	7FFFFFFF	0

DW 42	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		FFFFFFFF	CCCCCCC0	FFFFFFFF	CCCCCCCC	C
	C4		FFFFFFFE	0CCCCCC0	FFFFFFFF	CCCCCCC2	C
	C6	CC	FFFFFFFF	CCCCCCC2	FFFFFFFF	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCCCC5	FFFFFFFF	FFFFFFFF	C
	C6	C2	FFFFFFFE	CCCCCCCA	FFFFFFFF	FFFFFFFF	C
	C6	C3	FFFFFFFE	CCCCCC14	FFFFFFFF	FFFFFFFF	C
	C6	C4	FFFFFFFE	CCCCCC28	FFFFFFFF	FFFFFFFF	C
	C6	C5	FFFFFFFE	CCCCCC50	FFFFFFFF	FFFFFFFF	C
	C6	C6	FFFFFFFE	CCCCCCA0	FFFFFFFF	FFFFFFFF	C
	C6	C7	FFFFFFFE	CCCCC140	FFFFFFFF	FFFFFFFF	C
	C6	C8	FFFFFFFE	CCCCC280	FFFFFFFF	FFFFFFFF	C
	C6	C9	FFFFFFFE	CCCCC500	FFFFFFFF	FFFFFFFF	C
	C6	1C	FFFFFFFE	CCCCCA00	FFFFFFFF	FFFFFFFF	C
	C6	11	FFFFFFFE	CCC014C0	FFFFFFFF	FFFFFFFF	C
	C6	12	FFFFFFFE	CCC02800	FFFFFFFF	FFFFFFFF	C
	C6	13	FFFFFFFE	CCC05CC0	FFFFFFFF	FFFFFFFF	C
	C6	14	FFFFFFFE	CCC0A0C0	FFFFFFFF	FFFFFFFF	C
	C6	15	FFFFFFFE	CC014CC0	FFFFFFFF	FFFFFFFF	C
	C6	16	FFFFFFFE	CC028CC0	FFFFFFFF	FFFFFFFF	C
	C6	17	FFFFFFFE	CC05CCC0	FFFFFFFF	FFFFFFFF	C
	C6	18	FFFFFFFE	CC0ACCC0	FFFFFFFF	FFFFFFFF	C
	C6	19	FFFFFFFE	CC14CCC0	FFFFFFFF	FFFFFFFF	C
	C6	2C	FFFFFFFE	CC28CCC0	FFFFFFFF	FFFFFFFF	C
	C6	21	FFFFFFFE	CC5CCCC0	FFFFFFFF	FFFFFFFF	C
	C6	22	FFFFFFFE	CCACCCC0	FFFFFFFF	FFFFFFFF	C
	C6	23	FFFFFFFE	C14CCCC0	FFFFFFFF	FFFFFFFF	C
	C6	24	FFFFFFFE	C28CCCC0	FFFFFFFF	FFFFFFFF	C
	C6	25	FFFFFFFE	C5CCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	26	FFFFFFFE	CACCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	27	FFFFFFFE	14CCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	28	FFFFFFFE	28CCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	29	FFFFFFFE	5CCCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	3C	FFFFFFFE	ACCCCCC0	FFFFFFFF	FFFFFFFF	C
	C6	31	FFFFFFFF	4CCCCCC0	FFFFFFFF	CCCCCCCC	1
	C6	32	CCCCCCCC	8CCCCCC1	FFFFFFFF	FFFFFFFF	C
	C7		FFFFFFFF	CCCCCCC2	FFFFFFFF	CCCCCCCC	1
	C8		CCCCCCCC	CCCCCCC2	FFFFFFFF	CCCCCCCC	C
	C9		CCCCCCCC	CCCCCCC2	FFFFFFFF	CCCCCCC2	C
	1C		CCCCCCC2	CCCCCCC2	FFFFFFFF	CCCCCCC2	C

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DW 43

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FFFFFFFF	00000000	80000001	00000000	0
C4		80000001	00000000	80000001	7FFFFFFF	0
C6	CC	FFFFFFFF	7FFFFFFF	80000001	00000000	1
C6	C1	00000000	FFFFFFFF	80000001	80000001	0
C6	02	00000003	FFFFFFFE	80000001	80000002	0
C6	C3	00000005	FFFFFFFC	80000001	80000004	0
C6	C4	00000009	FFFFFFF8	80000001	80000008	0
C6	C5	00000011	FFFFFFF0	80000001	80000010	0
C6	C6	00000021	FFFFFFE0	80000001	80000020	0
C6	C7	00000041	FFFFFFC0	80000001	80000040	0
C6	C8	00000081	FFFFFF80	80000001	80000080	0
C6	C9	00000101	FFFFFF00	80000001	80000100	0
C6	10	00000201	FFFFFE00	80000001	80000200	0
C6	11	00000401	FFFFFC00	80000001	80000400	0
C6	12	00000801	FFFFF800	80000001	80000800	0
C6	13	00001001	FFFFF000	80000001	80001000	0
C6	14	00002001	FFFFE000	80000001	80002000	0
C6	15	00004001	FFFFC000	80000001	80004000	0
C6	16	00008001	FFFF8000	80000001	80008000	0
C6	17	00010001	FFFF0000	80000001	80010000	0
C6	18	00020001	FFFE0000	80000001	80020000	0
C6	19	00040001	FFFC0000	80000001	80040000	0
C6	20	00080001	FFF80000	80000001	80080000	0
C6	21	00100001	FFF00000	80000001	80100000	0
C6	22	00200001	FFE00000	80000001	80200000	0
C6	23	00400001	FFC00000	80000001	80400000	0
C6	24	00800001	FF800000	80000001	80800000	0
C6	25	01000001	FF000000	80000001	81000000	0
C6	26	02000001	FE000000	80000001	82000000	0
C6	27	04000001	FC000000	80000001	84000000	0
C6	28	08000001	F8000000	80000001	88000000	0
C6	29	10000001	F0000000	80000001	90000000	0
C6	30	20000001	E0000000	80000001	A0000000	0
C6	31	40000001	C0000000	80000001	C0000000	0
C6	32	80000001	80000000	80000001	00000000	1
C7		00000000	00000001	80000001	80000001	0
C8		00000000	00000001	80000001	00000000	0
C9		00000000	00000001	80000001	00000001	0
10		00000001	00000001	80000001	00000001	0

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DW 44

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FFFFFFFF	00000000	FFFFFFFF	00000000	0
C4		80000001	00000000	FFFFFFFF	7FFFFFFF	0
C6	CC	FFFFFFFF	7FFFFFFF	FFFFFFFF	00000000	1
C6	C1	00000000	FFFFFFFF	FFFFFFFF	FFFFFFFF	0
C6	C2	FFFFFFFF	FFFFFFFE	FFFFFFFF	00000000	1
C6	C3	00000001	FFFFFFFD	FFFFFFFF	00000000	1
C6	C4	00000001	FFFFFFFB	FFFFFFFF	00000000	1
C6	C5	00000001	FFFFFFF7	FFFFFFFF	00000000	1
C6	C6	00000001	FFFFFFEF	FFFFFFFF	00000000	1
C6	C7	00000001	FFFFFFDF	FFFFFFFF	00000000	1
C6	C8	00000001	FFFFFFBF	FFFFFFFF	00000000	1
C6	C9	00000001	FFFFFF7F	FFFFFFFF	00000000	1
C6	10	00000001	FFFFFEFF	FFFFFFFF	00000000	1
C6	11	00000001	FFFFFDFF	FFFFFFFF	00000000	1
C6	12	00000001	FFFFFBFF	FFFFFFFF	00000000	1
C6	13	00000001	FFFFF7FF	FFFFFFFF	00000000	1
C6	14	00000001	FFFFEFFF	FFFFFFFF	00000000	1
C6	15	00000001	FFFFDFFF	FFFFFFFF	00000000	1
C6	16	00000001	FFFFBFFF	FFFFFFFF	00000000	1
C6	17	00000001	FFFF7FFF	FFFFFFFF	00000000	1
C6	18	00000001	FFFEFFFF	FFFFFFFF	00000000	1
C6	19	00000001	FFFDFFFF	FFFFFFFF	00000000	1
C6	20	00000001	FFFBFFFF	FFFFFFFF	00000000	1
C6	21	00000001	FFF7FFFF	FFFFFFFF	00000000	1
C6	22	00000001	FFEFFFFF	FFFFFFFF	00000000	1
C6	23	00000001	FFDFFFFF	FFFFFFFF	00000000	1
C6	24	00000001	FFBFFFFF	FFFFFFFF	00000000	1
C6	25	00000001	FF7FFFFF	FFFFFFFF	00000000	1
C6	26	00000001	FEFFFFFF	FFFFFFFF	00000000	1
C6	27	00000001	FDFFFFFF	FFFFFFFF	00000000	1
C6	28	00000001	FBFFFFFF	FFFFFFFF	00000000	1
C6	29	00000001	F7FFFFFF	FFFFFFFF	00000000	1
C6	30	00000001	EFFFFFFF	FFFFFFFF	00000000	1
C6	31	00000001	DFFFFFFF	FFFFFFFF	00000000	1
C6	32	00000001	BFFFFFFF	FFFFFFFF	00000000	1
C7		00000000	7FFFFFFF	FFFFFFFF	FFFFFFFF	0
C8		00000000	7FFFFFFF	FFFFFFFF	00000000	0
C9		00000000	7FFFFFFF	FFFFFFFF	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	FFFFFFFF	7FFFFFFF	0

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Dw 45	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		CCCCCCCC	CCCCCCCC	FFFFFFFF	CCCCCCCC	C
	C4		CCCCCCC2	CCCCCCCC	FFFFFFFF	CCCCCCC2	C
	C6	CC	CCCCCCCC	CCCCCCC2	FFFFFFFF	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCCCC5	FFFFFFFF	FFFFFFFF	C
	C6	C2	FFFFFFFE	CCCCCCCA	FFFFFFFF	FFFFFFFF	C
	C6	C3	FFFFFFFE	CCCCCC14	FFFFFFFF	FFFFFFFF	C
	C6	C4	FFFFFFFE	CCCCC028	FFFFFFFF	FFFFFFFF	C
	C6	C5	FFFFFFFE	CCCCC050	FFFFFFFF	FFFFFFFF	C
	C6	C6	FFFFFFFE	CCCCC0AC	FFFFFFFF	FFFFFFFF	C
	C6	C7	FFFFFFFE	CCCCC140	FFFFFFFF	FFFFFFFF	C
	C6	C8	FFFFFFFE	CCCCC280	FFFFFFFF	FFFFFFFF	C
	C6	C9	FFFFFFFE	CCCC5CC	FFFFFFFF	FFFFFFFF	C
	C6	1C	FFFFFFFE	CCCC0ACC	FFFFFFFF	FFFFFFFF	C
	C6	11	FFFFFFFE	CCCC1400	FFFFFFFF	FFFFFFFF	C
	C6	12	FFFFFFFE	CCCC2800	FFFFFFFF	FFFFFFFF	C
	C6	13	FFFFFFFE	CCCC5000	FFFFFFFF	FFFFFFFF	C
	C6	14	FFFFFFFE	CCCCA000	FFFFFFFF	FFFFFFFF	C
	C6	15	FFFFFFFE	CCC14000	FFFFFFFF	FFFFFFFF	C
	C6	16	FFFFFFFE	CCC28000	FFFFFFFF	FFFFFFFF	C
	C6	17	FFFFFFFE	CCC5C000	FFFFFFFF	FFFFFFFF	C
	C6	18	FFFFFFFE	CCCACCCC	FFFFFFFF	FFFFFFFF	C
	C6	19	FFFFFFFE	CC14CCCC	FFFFFFFF	FFFFFFFF	C
	C6	2C	FFFFFFFE	CC28CCCC	FFFFFFFF	FFFFFFFF	C
	C6	21	FFFFFFFE	CC5CCCCC	FFFFFFFF	FFFFFFFF	C
	C6	22	FFFFFFFE	CCACCCCC	FFFFFFFF	FFFFFFFF	C
	C6	23	FFFFFFFE	C14CCCCC	FFFFFFFF	FFFFFFFF	C
	C6	24	FFFFFFFE	C28CCCCC	FFFFFFFF	FFFFFFFF	C
	C6	25	FFFFFFFE	C5CCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	26	FFFFFFFE	CACCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	27	FFFFFFFE	14CCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	28	FFFFFFFE	28CCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	29	FFFFFFFE	5CCCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	3C	FFFFFFFE	ACCCCCCC	FFFFFFFF	FFFFFFFF	C
	C6	31	FFFFFFFF	4CCCCCCC	FFFFFFFF	CCCCCCCC	1
	C6	32	CCCCCCCC	8CCCCCC1	FFFFFFFF	FFFFFFFF	C
	C7		FFFFFFFF	CCCCCCC2	FFFFFFFF	CCCCCCCC	1
	C8		CCCCCCCC	CCCCCCC2	FFFFFFFF	CCCCCCCC	C
	C9		CCCCCCCC	CCCCCCC2	FFFFFFFF	CCCCCCC2	C
	1C		CCCCCCC2	CCCCCCC2	FFFFFFFF	FFFFFFFE	C

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Dw 46	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		CCCCCCCC	CCCCCCCC	8CCCCCC1	CCCCCCCC	C
	C4		7FFFFFFF	CCCCCCCC	8CCCCCC1	7FFFFFFF	C
	C6	CC	CCCCCCCC	7FFFFFFF	8CCCCCC1	CCCCCCCC	1
	C6	C1	CCCCCCCC	FFFFFFFF	8CCCCCC1	8CCCCCC1	C
	C6	C2	CCCCCCC3	FFFFFFFE	8CCCCCC1	8CCCCCC2	C
	C6	C3	CCCCCCC5	FFFFFFFC	8CCCCCC1	8CCCCCC4	C
	C6	C4	CCCCCCC9	FFFFFFF8	8CCCCCC1	8CCCCCC8	C
	C6	C5	CCCCCC11	FFFFFFF0	8CCCCCC1	8CCCCC10	C
	C6	C6	CCCCCC21	FFFFFFE0	8CCCCCC1	8CCCCC20	C
	C6	C7	CCCCCC41	FFFFFFC0	8CCCCCC1	8CCCCC40	C
	C6	C8	CCCCCC81	FFFFFF80	8CCCCCC1	8CCCCC8C	C
	C6	C9	CCCCC1C1	FFFFFF00	8CCCCCC1	8CCCC100	C
	C6	1C	CCCCC2C1	FFFFFE00	8CCCCCC1	8CCCC200	C
	C6	11	CCCCC4C1	FFFFFC00	8CCCCCC1	8CCCC400	C
	C6	12	CCCCC8C1	FFFFF800	8CCCCCC1	8CCCC800	C
	C6	13	CCCC1CC1	FFFFF000	8CCCCCC1	8CCC1000	C
	C6	14	CCCC2CC1	FFFFE000	8CCCCCC1	8CCC2000	C
	C6	15	CCCC4CC1	FFFFC000	8CCCCCC1	8CCC4000	C
	C6	16	CCCC8CC1	FFFF8000	8CCCCCC1	8CCC8000	C
	C6	17	CCC1CCC1	FFFF0000	8CCCCCC1	8CC10000	C
	C6	18	CCC2CCC1	FFFE0000	8CCCCCC1	8CC20000	C
	C6	19	CCC4CCC1	FFFC0000	8CCCCCC1	8CC40000	C
	C6	2C	CCC8CCC1	FFF80000	8CCCCCC1	8CC80000	C
	C6	21	CC1CCCC1	FFF00000	8CCCCCC1	8C100000	C
	C6	22	CC2CCCC1	FFE00000	8CCCCCC1	8C200000	C
	C6	23	CC4CCCC1	FFC00000	8CCCCCC1	8C400000	C
	C6	24	CC8CCCC1	FF800000	8CCCCCC1	8C800000	C
	C6	25	C1CCCCC1	FF000000	8CCCCCC1	81000000	C
	C6	26	C2CCCCC1	FE000000	8CCCCCC1	82000000	C
	C6	27	C4CCCCC1	FC000000	8CCCCCC1	84000000	C
	C6	28	C8CCCCC1	F8000000	8CCCCCC1	88000000	C
	C6	29	1CCCCCC1	F0000000	8CCCCCC1	90000000	C
	C6	3C	2CCCCCC1	E0000000	8CCCCCC1	A0000000	C
	C6	31	4CCCCCC1	C0000000	8CCCCCC1	C0000000	C
	C6	32	8CCCCCC1	80000000	8CCCCCC1	00000000	1
	C7		CCCCCCCC	CCCCCCC1	8CCCCCC1	8CCCCCC1	C
	C8		CCCCCCCC	CCCCCCC1	8CCCCCC1	CCCCCCCC	C
	C9		CCCCCCCC	CCCCCCC1	8CCCCCC1	CCCCCCC1	C
	1C		CCCCCCC1	CCCCCCC1	8CCCCCC1	FFFFFFFF	C

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DW 47

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
03		00000000	00000000	FFFFFFFF	00000000	0
04		7FFFFFFF	00000000	FFFFFFFF	7FFFFFFF	0
06	00	00000000	7FFFFFFF	FFFFFFFF	00000000	1
06	01	00000000	FFFFFFFF	FFFFFFFF	FFFFFFFF	0
06	02	FFFFFFFF	FFFFFFFE	FFFFFFFF	00000000	1
06	03	00000001	FFFFFFFD	FFFFFFFF	00000000	1
06	04	00000001	FFFFFFFB	FFFFFFFF	00000000	1
06	05	00000001	FFFFFFF7	FFFFFFFF	00000000	1
06	06	00000001	FFFFFFEF	FFFFFFFF	00000000	1
06	07	00000001	FFFFFFDF	FFFFFFFF	00000000	1
06	08	00000001	FFFFFFBF	FFFFFFFF	00000000	1
06	09	00000001	FFFFFF7F	FFFFFFFF	00000000	1
06	10	00000001	FFFFFEFF	FFFFFFFF	00000000	1
06	11	00000001	FFFFFDFF	FFFFFFFF	00000000	1
06	12	00000001	FFFFFBFF	FFFFFFFF	00000000	1
06	13	00000001	FFFFF7FF	FFFFFFFF	00000000	1
06	14	00000001	FFFEFFFF	FFFFFFFF	00000000	1
06	15	00000001	FFFDFFFF	FFFFFFFF	00000000	1
06	16	00000001	FFFBFFFF	FFFFFFFF	00000000	1
06	17	00000001	FFF7FFFF	FFFFFFFF	00000000	1
06	18	00000001	FFEFFFFF	FFFFFFFF	00000000	1
06	19	00000001	FFDFFFFF	FFFFFFFF	00000000	1
06	20	00000001	FFBFFFFF	FFFFFFFF	00000000	1
06	21	00000001	FF7FFFFF	FFFFFFFF	00000000	1
06	22	00000001	FEFFFFFF	FFFFFFFF	00000000	1
06	23	00000001	FDFFFFFF	FFFFFFFF	00000000	1
06	24	00000001	FBFFFFFF	FFFFFFFF	00000000	1
06	25	00000001	F7FFFFFF	FFFFFFFF	00000000	1
06	26	00000001	EFFFFFFF	FFFFFFFF	00000000	1
06	27	00000001	DFFFFFFF	FFFFFFFF	00000000	1
06	28	00000001	BFFFFFFF	FFFFFFFF	00000000	1
06	29	00000001	7FFFFFFF	FFFFFFFF	00000000	1
06	30	00000001	FFFFFFFF	FFFFFFFF	00000000	1
06	31	00000001	FFFFFFFF	FFFFFFFF	00000000	1
06	32	00000001	BFFFFFFF	FFFFFFFF	00000000	1
07		00000000	7FFFFFFF	FFFFFFFF	FFFFFFFF	0
08		00000000	7FFFFFFF	FFFFFFFF	00000000	0
09		00000000	7FFFFFFF	FFFFFFFF	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	FFFFFFFF	80000001	0

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DW 48

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
03		FFFFFFFF	00000000	00000001	00000000	0
04		FFFFFFFE	00000000	00000001	00000002	0
06	00	FFFFFFFF	00000002	00000001	00000000	1
06	01	00000000	00000005	00000001	FFFFFFFF	0
06	02	FFFFFFFE	0000000A	00000001	FFFFFFFF	0
06	03	FFFFFFFE	00000014	00000001	FFFFFFFF	0
06	04	FFFFFFFE	00000028	00000001	FFFFFFFF	0
06	05	FFFFFFFE	00000050	00000001	FFFFFFFF	0
06	06	FFFFFFFE	000000A0	00000001	FFFFFFFF	0
06	07	FFFFFFFE	00000140	00000001	FFFFFFFF	0
06	08	FFFFFFFE	00000280	00000001	FFFFFFFF	0
06	09	FFFFFFFE	00000500	00000001	FFFFFFFF	0
06	10	FFFFFFFE	00000A00	00000001	FFFFFFFF	0
06	11	FFFFFFFE	00001400	00000001	FFFFFFFF	0
06	12	FFFFFFFE	00002800	00000001	FFFFFFFF	0
06	13	FFFFFFFE	00005000	00000001	FFFFFFFF	0
06	14	FFFFFFFE	0000A000	00000001	FFFFFFFF	0
06	15	FFFFFFFE	00014000	00000001	FFFFFFFF	0
06	16	FFFFFFFE	00028000	00000001	FFFFFFFF	0
06	17	FFFFFFFE	00050000	00000001	FFFFFFFF	0
06	18	FFFFFFFE	000A0000	00000001	FFFFFFFF	0
06	19	FFFFFFFE	00140000	00000001	FFFFFFFF	0
06	20	FFFFFFFE	00280000	00000001	FFFFFFFF	0
06	21	FFFFFFFE	00500000	00000001	FFFFFFFF	0
06	22	FFFFFFFE	00A00000	00000001	FFFFFFFF	0
06	23	FFFFFFFE	01400000	00000001	FFFFFFFF	0
06	24	FFFFFFFE	02800000	00000001	FFFFFFFF	0
06	25	FFFFFFFE	05000000	00000001	FFFFFFFF	0
06	26	FFFFFFFE	0A000000	00000001	FFFFFFFF	0
06	27	FFFFFFFE	14000000	00000001	FFFFFFFF	0
06	28	FFFFFFFE	28000000	00000001	FFFFFFFF	0
06	29	FFFFFFFE	50000000	00000001	FFFFFFFF	0
06	30	FFFFFFFE	A0000000	00000001	FFFFFFFF	0
06	31	FFFFFFFF	40000000	00000001	00000000	1
06	32	00000000	80000001	00000001	FFFFFFFF	0
07		FFFFFFFF	00000002	00000001	00000000	1
08		00000000	00000002	00000001	00000000	0
09		00000000	00000002	00000001	00000002	0
10		00000002	00000002	00000001	FFFFFFFE	0

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DW 49

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FFFFFFFF	00000000	7FFFFFFF	00000000	0
C4		8C000001	00000000	7FFFFFFF	7FFFFFFF	0
C6	CC	FFFFFFFF	7FFFFFFF	7FFFFFFF	00000000	1
C6	C1	CC000000	FFFFFFFF	7FFFFFFF	80000001	0
C6	C2	C0000003	FFFFFFFE	7FFFFFFF	80000002	0
C6	C3	CC000005	FFFFFFFC	7FFFFFFF	80000004	0
C6	C4	CC000009	FFFFFFF8	7FFFFFFF	80000008	0
C6	C5	C0000011	FFFFFFF0	7FFFFFFF	80000010	0
C6	C6	C0000021	FFFFFFE0	7FFFFFFF	80000020	0
C6	C7	CC000041	FFFFFFC0	7FFFFFFF	80000040	0
C6	C8	C0000081	FFFFFF80	7FFFFFFF	80000080	0
C6	C9	CC0001C1	FFFFFF00	7FFFFFFF	80000100	0
C6	1C	CC000201	FFFFFE00	7FFFFFFF	80000200	0
C6	11	CC000401	FFFFFC00	7FFFFFFF	80000400	0
C6	12	CC000801	FFFFF800	7FFFFFFF	80000800	0
C6	13	CC001001	FFFFF000	7FFFFFFF	80001000	0
C6	14	CC002001	FFFFE000	7FFFFFFF	80002000	0
C6	15	CC004001	FFFFC000	7FFFFFFF	80004000	0
C6	16	CC008001	FFFF8000	7FFFFFFF	80008000	0
C6	17	CC010001	FFFF0000	7FFFFFFF	80010000	0
C6	18	CC020001	FFFE0000	7FFFFFFF	80020000	0
C6	19	CC040001	FFFC0000	7FFFFFFF	80040000	0
C6	2C	CC080001	FFF80000	7FFFFFFF	80080000	0
C6	21	CC100001	FFF00000	7FFFFFFF	80100000	0
C6	22	CC200001	FFE00000	7FFFFFFF	80200000	0
C6	23	CC400001	FFC00000	7FFFFFFF	80400000	0
C6	24	CC800001	FF800000	7FFFFFFF	80800000	0
C6	25	C1000001	FF000000	7FFFFFFF	81000000	0
C6	26	C2000001	FE000000	7FFFFFFF	82000000	0
C6	27	C4000001	FC000000	7FFFFFFF	84000000	0
C6	28	C8000001	F8000000	7FFFFFFF	88000000	0
C6	29	10000001	F0000000	7FFFFFFF	90000000	0
C6	3C	20000001	E0000000	7FFFFFFF	A0000000	0
C6	31	40000001	C0000000	7FFFFFFF	C0000000	0
C6	32	80000001	80000000	7FFFFFFF	00000000	1
C7		C0000000	00000001	7FFFFFFF	80000001	0
C8		C0000000	00000001	7FFFFFFF	00000000	0
C9		C0000000	00000001	7FFFFFFF	00000001	0
10		CC000001	CC000001	7FFFFFFF	FFFFFFFF	0

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DW 50

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		FFFFFFFF	00000000	00000001	00000000	0
C4		8C000001	00000000	00000001	7FFFFFFF	0
C6	CC	FFFFFFFF	7FFFFFFF	00000001	00000000	1
C6	C1	CC000000	FFFFFFFF	00000001	FFFFFFFF	0
C6	C2	FFFFFFFF	FFFFFFFE	00000001	00000000	1
C6	C3	CC000001	FFFFFFFD	00000001	00000000	1
C6	C4	CC000001	FFFFFFFB	00000001	00000000	1
C6	C5	CC000001	FFFFFFF7	00000001	00000000	1
C6	C6	CC000001	FFFFFFEF	00000001	00000000	1
C6	C7	CC000001	FFFFFFDF	00000001	00000000	1
C6	C8	CC000001	FFFFFFBF	00000001	00000000	1
C6	C9	CC000001	FFFFFF7F	00000001	00000000	1
C6	1C	CC000001	FFFFFEFF	00000001	00000000	1
C6	11	CC000001	FFFFFDFF	00000001	00000000	1
C6	12	CC000001	FFFFFBFF	00000001	00000000	1
C6	13	CC000001	FFFFF7FF	00000001	00000000	1
C6	14	CC000001	FFFFEFFF	00000001	00000000	1
C6	15	CC000001	FFFFDFFF	00000001	00000000	1
C6	16	CC000001	FFFFBFFF	00000001	00000000	1
C6	17	CC000001	FFFF7FFF	00000001	00000000	1
C6	18	CC000001	FFFEFFFF	00000001	00000000	1
C6	19	CC000001	FFFDFFFF	00000001	00000000	1
C6	2C	CC000001	FFFBFFFF	00000001	00000000	1
C6	21	CC000001	FFF7FFFF	00000001	00000000	1
C6	22	CC000001	FFEFFFFF	00000001	00000000	1
C6	23	CC000001	FFDFFFFF	00000001	00000000	1
C6	24	CC000001	FFBFFFFF	00000001	00000000	1
C6	25	CC000001	FF7FFFFF	00000001	00000000	1
C6	26	CC000001	FEFFFFFF	00000001	00000000	1
C6	27	CC000001	FDFFFFFF	00000001	00000000	1
C6	28	CC000001	FBFFFFFF	00000001	00000000	1
C6	29	CC000001	F7FFFFFF	00000001	00000000	1
C6	3C	CC000001	EFFFFFFF	00000001	00000000	1
C6	31	CC000001	DFFFFFFF	00000001	00000000	1
C6	32	CC000001	BFFFFFFF	00000001	00000000	1
C7		CC000000	7FFFFFFF	00000001	FFFFFFFF	0
C8		CC000000	7FFFFFFF	00000001	00000000	0
C9		CC000000	7FFFFFFF	00000001	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	00000001	80000001	0

DW 51

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
03		C1234567	00000000	42468ACE	00000000	0
04		89ABCDEF	00000000	42468ACE	89ABCDEF	0
C6	00	C1234567	89ABCDEF	42468ACE	01234567	1
C6	C1	C2468ACF	13579BDF	42468ACE	CC000001	0
C6	C2	80000002	26AF37BE	42468ACE	C2468AD0	0
C6	C3	848D15AC	4D5E6F7C	42468ACE	C6D3A06E	0
C6	C4	8DA740DC	9ABCDEF8	42468ACE	CFEDCBAA	0
C6	C5	9FDB9755	3579BDF0	42468ACE	E2222223	0
C6	C6	C4444446	6AF37BE0	42468ACE	068ACF14	1
C6	C7	CD159E28	D5E6F7C1	42468ACE	CACF135A	0
C6	C8	959E26B5	ABCDEF82	42468ACE	D7E4B183	0
C6	C9	AFC963C7	579BDF04	42468ACE	F2CFEDD5	0
C6	10	E41FDBAA	AF37BEC8	42468ACE	26666678	1
C6	11	4CCCCCF1	5E6F7C11	42468ACE	0A864223	1
C6	12	150C8446	BCDEF823	42468ACE	D2C5F978	0
C6	13	A588F2F1	79BDF046	42468ACE	E7D27DBF	0
C6	14	CFA4FB7E	F37BE08C	42468ACE	11EB864C	1
C6	15	23D70C99	E6F7C119	42468ACE	E19081CB	0
C6	16	C3210397	CDEF8232	42468ACE	05678E65	1
C6	17	CACF1CCB	9BDFC465	42468ACE	C88891FD	0
C6	18	911123FB	37BEC8CA	42468ACE	D357AEC9	0
C6	19	A6AF5D92	6F7C1194	42468ACE	E8F5E860	0
C6	20	D1EBDCC0	DEF82328	42468ACE	14325B8E	1
C6	21	2864B71D	BDF04651	42468ACE	E61E2C4F	0
C6	22	CC3C589F	7BE08CA2	42468ACE	0E82E36D	1
C6	23	1D05C6DA	F7C11945	42468ACE	DABF3C0C	0
C6	24	B57E7819	EF82328A	42468ACE	F7C502E7	0
C6	25	EF8AC5CF	DFC46514	42468ACE	31DC9C9D	1
C6	26	63A1213B	BEC8CA29	42468ACE	215A966D	1
C6	27	42B52CDB	7C119453	42468ACE	0C6EA2CD	1
C6	28	CCDD441A	F82328A7	42468ACE	BE96B94C	0
C6	29	7D2D7299	FC046514	42468ACE	BF73FD67	0
C6	3C	7EE7FACF	EC8CA29C	42468ACE	C12E859D	0
C6	31	825D0B3B	C1194538	42468ACE	C4A39609	0
C6	32	89472C13	82328A70	42468ACE	CB8DB6E1	0
C7		CB8DB6E1	C46514E0	42468ACE	0DD441AF	1
C8		CDD441AF	C46514E0	42468ACE	0DD441AF	0
C9		CDD441AF	C46514E0	42468ACE	C46514E0	0
10		C46514E0	C46514E0	42468ACE	C46514E0	0

DW 52

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		258BE147	00000000	56AE37BF	00000000	0
C4		ADC369CF	00000000	56AE37BF	ADC369CF	0
C6	CC	258BE147	ADC369CF	56AE37BF	258BE147	1
C6	C1	4B17C28F	5AC6D39F	56AE37BF	F4698ADC	0
C6	C2	E8D315A0	B40DA73E	56AE37BF	3F814D5F	1
C6	C3	7FC29ABF	681B4E7D	56AE37BF	28546300	1
C6	C4	5CA8C600	DC369CFB	56AE37BF	F9FA8E41	0
C6	C5	F3F51C83	AC6D39F6	56AE37BF	4AA35442	1
C6	C6	9546A885	40DA73ED	56AE37BF	3E987CC6	1
C6	C7	7D30E18C	81B4E7DB	56AE37BF	2682A9CD	1
C6	C8	4DC5539B	C369CFB7	56AE37BF	F6571BDC	0
C6	C9	ECAE37B8	C6D39F6E	56AE37BF	435C6F77	1
C6	1C	86B8DEEE	CDA73EDD	56AE37BF	3C0AA72F	1
C6	11	6C154E5E	1B4E7DBB	56AE37BF	0967169F	1
C6	12	12CE2D3E	369CFB77	56AE37BF	BC1FF57F	0
C6	13	783FEAFE	6D39F6EE	56AE37BF	CEEE22BD	0
C6	14	9DDC457A	DA73EDDC	56AE37BF	F48A7D39	0
C6	15	E914FA73	B4E7DBB8	56AE37BF	3FC33232	1
C6	16	7F866465	69CFB771	56AE37BF	28D82CA6	1
C6	17	51B0594C	D39F6EE3	56AE37BF	FBC2218D	0
C6	18	F6044318	A73EDDC6	56AE37BF	4CB27ADA	1
C6	19	9964F5B5	4E7DBB8D	56AE37BF	42B6BDF6	1
C6	2C	856D7BEC	9CFB771B	56AE37BF	2EBF442D	1
C6	21	5D7E885B	39F6EE37	56AE37BF	C6D05C9C	1
C6	22	CDA0A138	73EDDC6F	56AE37BF	B6F26979	0
C6	23	6DE4D2F2	E7DBB8DE	56AE37BF	C4930AB1	0
C6	24	89261563	CFB771BC	56AE37BF	DFD44D22	0
C6	25	BFA89A45	9F6EE378	56AE37BF	1656D204	1
C6	26	2CADA4C9	3EDDC6F1	56AE37BF	D5FF6C4A	0
C6	27	ABFED894	7DBB8DE2	56AE37BF	C2AD1C53	1
C6	28	C55A2CA6	FB771BC5	56AE37BF	AEABE8E7	0
C6	29	5D57D1CF	F6EE378A	56AE37BF	B4C6098E	0
C6	3C	68CC131D	EDDC6F14	56AE37BF	BEBA4ADC	0
C6	31	7D7495B9	DBB8DE28	56AE37BF	D422CD78	0
C6	32	A8459AF1	B771BC50	56AE37BF	FEF3D2B0	0
C7		FEF3D2B0	6EE378A0	56AE37BF	55A2CA6F	1
C8		55A2CA6F	6EE378A0	56AE37BF	55A2CA6F	0
C9		55A2CA6F	6EE378A0	56AE37BF	6EE378A0	0
10		6EE378A0	6EE378A0	56AE37BF	6EE378A0	0

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DW 53

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
03		DF1357BD	00000000	E13579BD	00000000	0
C4		F2468ACE	00000000	E13579BD	0DB97532	0
06	C0	DF1357BD	0DB97532	E13579BD	20ECA842	1
C6	C1	41D95084	1B72EA65	E13579BD	230ECA41	1
C6	C2	461D9482	36E5D4CB	E13579BD	27530E3F	1
10		461D9482	36E5D4CB	E13579BD	00000000	0

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DW 54

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
C3		E26AE38D	C0000000	8147ADC3	00000000	C
C4		27C16B05	00000000	8147ADC3	D83E94FB	C
C6	CC	E26AE38D	D83E94FB	8147ADC3	1D951C72	1
C6	C1	3B2A38E5	BC7D29F7	8147ADC3	BC71E5E8	C
C6	C2	78E3C8D1	6CFA53EE	8147ADC3	F79C1ECE	C
C6	C3	EF383D9C	C1F4A7DC	8147ADC3	6DF09C99	1
C6	C4	DBE12133	83E94FB9	8147ADC3	5D28CE36	1
C6	C5	BA519C6D	C7D29F73	8147ADC3	3B994970	1
C6	C6	773292E0	CFA53EE7	8147ADC3	F87A3FE3	C
C6	C7	FCF47FC6	1F4A7DCE	8147ADC3	6FACD2C3	1
C6	C8	DF59A586	3E94FB9D	8147ADC3	6CA15289	1
C6	C9	C142A512	7D29F73B	8147ADC3	428A5215	1
C6	1C	8514A42A	FA53EE77	8147ADC3	065C512D	1
C6	11	CCB8A25B	F4A7DCEF	8147ADC3	8EC04F5E	C
C6	12	1C009EBD	E94FB9DE	8147ADC3	9AB8F1BA	C
C6	13	3571E375	D29F73BC	8147ADC3	B42A3672	C
C6	14	68546CE5	A53EE778	8147ADC3	E7CCBFE2	C
C6	15	CE197FC5	4A7DCEF0	8147ADC3	4CD1D2C2	1
C6	16	99A3A584	94FB9DE1	8147ADC3	1AEB5287	1
C6	17	35D6A50F	29F73BC3	8147ADC3	B71E5212	C
C6	18	6E3CA424	53EE7786	8147ADC3	ECF4F721	C
C6	19	D9E9EE42	A7DCEF0C	8147ADC3	58A2413F	1
C6	2C	B144827F	4FB9DE19	8147ADC3	328C2F82	1
C6	21	65185F04	9F73BC33	8147ADC3	E6600C07	C
C6	22	CCC0180F	3EE77866	8147ADC3	4B786B0C	1
C6	23	96F0D618	7DCEF0CD	8147ADC3	1838831B	1
C6	24	3C71C636	FB9DE19B	8147ADC3	B1B8B339	C
C6	25	63716673	F73BC336	8147ADC3	E229B970	C
C6	26	C45372E1	EE77866C	8147ADC3	430BC5DE	1
C6	27	86178BBD	DCEF0CD9	8147ADC3	075F38C0	1
C6	28	CE8E7181	B9DE19B3	8147ADC3	9CC61E84	C
C6	29	2C0C3C09	73BC3366	8147ADC3	9EC49CC6	C
C6	3C	3D89200C	E77866CC	8147ADC3	BC417309	C
C6	31	7882E613	CEF0CD98	8147ADC3	F73B3910	C
C6	32	EE767221	9DE19B30	8147ADC3	6D2EC51E	1
C7		6D2EC51E	3BC33661	8147ADC3	EE767221	C
C8		6D2EC51E	3BC33661	8147ADC3	92D13AE2	C
C9		6D2EC51E	3BC33661	8147ADC3	3BC33661	C
10		3BC33661	3BC33661	8147ADC3	3BC33661	C

DW 55

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
03		148BF37B	00000000	E26AF49F	00000000	0
04		F37BF49E	00000000	E26AF49F	F37BF49E	0
06	00	148BF37B	F37BF49E	E26AF49F	148BF37B	1
06	01	2917E6F7	E6F7E93D	E26AF49F	0B82DB96	1
06	02	1705B72D	CDEFD27B	E26AF49F	F970ABCC	0
10		1705B72D	CDEFD27B	E26AF49F	00000000	0

DW 56

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
03		FC259E49	00000000	457AE39F	00000000	0
04		ABE159FC	00000000	457AE39F	541EA610	0
06	00	FC259E49	541EA610	457AE39F	0FDA61B6	1
06	01	1FB4C36C	A83D4C21	457AE39F	DA39DFCD	0
06	02	B473BF98	5C7A9842	457AE39F	F9EEA33A	0
06	03	F3DD4674	ACF53C84	457AE39F	39582A13	1
06	04	72B05427	41EA61C9	457AE39F	2D357C88	1
06	05	5A6AE11C	83D4C213	457AE39F	14EFFD71	1
06	06	29DFFAE3	C7A98427	457AE39F	E4651744	0
06	07	C8CA2E88	CF53C84E	457AE39F	0E451227	1
06	08	1C8A244E	1EA6109D	457AE39F	D7CF40AF	0
06	09	AE1E815E	3D4C213A	457AE39F	F39964FD	0
06	1C	E732C9FA	7A984274	457AE39F	2CADAD99	1
06	11	595B5B32	F53084E9	457AE39F	13EC7793	1
06	12	27C0EF27	EA6109D3	457AE39F	E2460B88	0
06	13	C48C1711	D4C213A6	457AE39F	0AC6FAB0	1
06	14	140DF561	A984274D	457AE39F	CE9311C2	0
06	15	9D262385	53C84E9A	457AE39F	E2A10724	0
06	16	C5420E48	A6109D34	457AE39F	0ABCF1E7	1
06	17	1579E3CF	4C213A69	457AE39F	CFFF0C30	0
06	18	9FFEC060	984274D2	457AE39F	E578E3FF	0
06	19	CAF1C7FF	3084E9A4	457AE39F	1C6CAB9E	1
06	2C	2CD9573C	6109D349	457AE39F	DB5E739D	0
06	21	B6BCE73A	C213A692	457AE39F	FC37CAD9	0
06	22	F86F95B3	84274D24	457AE39F	3DEA7952	1
06	23	7BD4F2A5	C84E9A49	457AE39F	365A0F06	1
06	24	6CB41E0C	109D3493	457AE39F	27393A6D	1
06	25	4E7274DA	213A6927	457AE39F	08F7913B	1
06	26	11EF2276	4274D24F	457AE39F	CC743ED7	0
06	27	98E87DAE	84E9A49E	457AE39F	DE63614D	0
06	28	BCC6C298	C9D3493C	457AE39F	0241A63A	1
06	29	C4834C74	13A69279	457AE39F	BFC868D5	0
06	3C	7E10D1AA	274D24F2	457AE39F	C38BB549	0
06	31	87176A92	4E9A49E4	457AE39F	CC924E31	0
06	32	99249C62	9D3493C8	457AE39F	DE9F8001	0
07		DE9F8001	3A692790	457AE39F	241A63A0	1
08		241A63A0	3A692790	457AE39F	DBE59C60	0
09		241A63A0	3A692790	457AE39F	3A692790	0
1C		3A692790	3A692790	457AE39F	C596D870	0

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DW 57

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		00000000	00000000	80000000	00000000	0
C4		FFFFFFFF	00000000	80000000	FFFFFFFF	0
C6	00	00000000	FFFFFFFF	80000000	00000000	1
C6	01	00000001	FFFFFFFF	80000000	80000001	0
C6	02	00000003	FFFFFFFE	80000000	80000003	0
C6	03	00000007	FFFFFFFC	80000000	80000007	0
C6	04	0000000F	FFFFFFF8	80000000	8000000F	0
C6	05	0000001F	FFFFFFF0	80000000	8000001F	0
C6	06	0000003F	FFFFFFE0	80000000	8000003F	0
C6	07	0000007F	FFFFFFC0	80000000	8000007F	0
C6	08	000000FF	FFFFFF80	80000000	800000FF	0
C6	09	000001FF	FFFFFF00	80000000	800001FF	0
C6	10	000003FF	FFFFFE00	80000000	800003FF	0
C6	11	000007FF	FFFFFC00	80000000	800007FF	0
C6	12	00000FFF	FFFFF800	80000000	80000FFF	0
C6	13	00001FFF	FFFFF000	80000000	80001FFF	0
C6	14	00003FFF	FFFFE000	80000000	80003FFF	0
C6	15	00007FFF	FFFFC000	80000000	80007FFF	0
C6	16	0000FFFF	FFFF8000	80000000	8000FFFF	0
C6	17	0001FFFF	FFFF0000	80000000	8001FFFF	0
C6	18	0003FFFF	FFFE0000	80000000	8003FFFF	0
C6	19	0007FFFF	FFFC0000	80000000	8007FFFF	0
C6	20	000FFFFF	FFF80000	80000000	800FFFFF	0
C6	21	001FFFFF	FFF00000	80000000	801FFFFF	0
C6	22	003FFFFF	FFE00000	80000000	803FFFFF	0
C6	23	007FFFFF	FFC00000	80000000	807FFFFF	0
C6	24	00FFFFFF	FF800000	80000000	80FFFFFF	0
C6	25	01FFFFFF	FF000000	80000000	81FFFFFF	0
C6	26	03FFFFFF	FE000000	80000000	83FFFFFF	0
C6	27	07FFFFFF	FC000000	80000000	87FFFFFF	0
C6	28	0FFFFFFF	F8000000	80000000	8FFFFFFF	0
C6	29	1FFFFFFF	F0000000	80000000	9FFFFFFF	0
C6	30	3FFFFFFF	E0000000	80000000	BFFFFFFF	0
C6	31	7FFFFFFF	C0000000	80000000	FFFFFFFF	0
C6	32	FFFFFFFF	80000000	80000000	7FFFFFFF	1
C7		7FFFFFFF	00000001	80000000	FFFFFFFF	0
C8		7FFFFFFF	00000001	80000000	7FFFFFFF	0
C9		7FFFFFFF	00000001	80000000	00000001	0
10		00000001	00000001	80000000	FFFFFFFF	0

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DW 58

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		00000000	00000000	80000000	00000000	0
C4		00000001	00000000	80000000	FFFFFFFF	0
C6	00	00000000	FFFFFFFF	80000000	3FFFFFFF	1
C6	01	7FFFFFFF	FFFFFFFF	80000000	FFFFFFFF	0
C6	02	FFFFFFFF	FFFFFFFE	80000000	7FFFFFFF	1
C6	03	FFFFFFFF	FFFFFFFD	80000000	7FFFFFFF	1
C6	04	FFFFFFFF	FFFFFFFB	80000000	7FFFFFFF	1
C6	05	FFFFFFFF	FFFFFFF7	80000000	7FFFFFFF	1
C6	06	FFFFFFFF	FFFFFFEF	80000000	7FFFFFFF	1
C6	07	FFFFFFFF	FFFFFFDF	80000000	7FFFFFFF	1
C6	08	FFFFFFFF	FFFFFFBF	80000000	7FFFFFFF	1
C6	09	FFFFFFFF	FFFFFF7F	80000000	7FFFFFFF	1
C6	10	FFFFFFFF	FFFFFEFF	80000000	7FFFFFFF	1
C6	11	FFFFFFFF	FFFFFDFF	80000000	7FFFFFFF	1
C6	12	FFFFFFFF	FFFFFBFF	80000000	7FFFFFFF	1
C6	13	FFFFFFFF	FFFFF7FF	80000000	7FFFFFFF	1
C6	14	FFFFFFFF	FFFFEFFF	80000000	7FFFFFFF	1
C6	15	FFFFFFFF	FFFFDFFF	80000000	7FFFFFFF	1
C6	16	FFFFFFFF	FFFFBFFF	80000000	7FFFFFFF	1
C6	17	FFFFFFFF	FFFF7FFF	80000000	7FFFFFFF	1
C6	18	FFFFFFFF	FFFEFFFF	80000000	7FFFFFFF	1
C6	19	FFFFFFFF	FFFDFFFF	80000000	7FFFFFFF	1
C6	20	FFFFFFFF	FFFBFFFF	80000000	7FFFFFFF	1
C6	21	FFFFFFFF	FFF7FFFF	80000000	7FFFFFFF	1
C6	22	FFFFFFFF	FFEFFFFF	80000000	7FFFFFFF	1
C6	23	FFFFFFFF	FFDFFFFF	80000000	7FFFFFFF	1
C6	24	FFFFFFFF	FFBFFFFF	80000000	7FFFFFFF	1
C6	25	FFFFFFFF	FF7FFFFF	80000000	7FFFFFFF	1
C6	26	FFFFFFFF	FEFFFFFF	80000000	7FFFFFFF	1
C6	27	FFFFFFFF	FDFFFFFF	80000000	7FFFFFFF	1
C6	28	FFFFFFFF	FBFFFFFF	80000000	7FFFFFFF	1
C6	29	FFFFFFFF	F7FFFFFF	80000000	7FFFFFFF	1
C6	30	FFFFFFFF	EFFFFFFF	80000000	7FFFFFFF	1
C6	31	FFFFFFFF	DFFFFFFF	80000000	7FFFFFFF	1
C6	32	FFFFFFFF	BFFFFFFF	80000000	7FFFFFFF	1
C7		7FFFFFFF	7FFFFFFF	80000000	FFFFFFFF	0
C8		7FFFFFFF	7FFFFFFF	80000000	80000001	0
C9		7FFFFFFF	7FFFFFFF	80000000	7FFFFFFF	0
10		7FFFFFFF	7FFFFFFF	80000000	7FFFFFFF	0

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DW 59	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		F0000000	00000000	80000000	00000000	0
	C4		C0000000	00000000	80000000	00000000	1
	C6	C0	F0000000	00000000	80000000	10000000	1
	C6	C1	20000000	00000001	80000000	A0000000	0
	C6	C2	40000000	00000002	80000000	40000000	0
	C6	C3	80000000	00000004	80000000	00000000	1
	C6	C4	C0000000	00000009	80000000	80000000	0
	C6	C5	C0000000	00000012	80000000	80000000	0
	C6	C6	C0000000	00000024	80000000	80000000	0
	C6	C7	C0000000	00000048	80000000	80000000	0
	C6	C8	C0000000	00000090	80000000	80000000	0
	C6	C9	C0000000	00000120	80000000	80000000	0
	C6	10	C0000000	00000240	80000000	80000000	0
	C6	11	C0000000	00000480	80000000	80000000	0
	C6	12	C0000000	00000900	80000000	80000000	0
	C6	13	C0000000	00001200	80000000	80000000	0
	C6	14	C0000000	00002400	80000000	80000000	0
	C6	15	C0000000	00004800	80000000	80000000	0
	C6	16	C0000000	00009000	80000000	80000000	0
	C6	17	C0000000	00012000	80000000	80000000	0
	C6	18	C0000000	00024000	80000000	80000000	0
	C6	19	C0000000	00048000	80000000	80000000	0
	C6	20	C0000000	00090000	80000000	80000000	0
	C6	21	C0000000	00120000	80000000	80000000	0
	C6	22	C0000000	00240000	80000000	80000000	0
	C6	23	C0000000	00480000	80000000	80000000	0
	C6	24	C0000000	00900000	80000000	80000000	0
	C6	25	C0000000	01200000	80000000	80000000	0
	C6	26	C0000000	02400000	80000000	80000000	0
	C6	27	C0000000	04800000	80000000	80000000	0
	C6	28	C0000000	09000000	80000000	80000000	0
	C6	29	C0000000	12000000	80000000	80000000	0
	C6	30	C0000000	24000000	80000000	80000000	0
	C6	31	C0000000	48000000	80000000	80000000	0
	C6	32	C0000000	90000000	80000000	80000000	0
	C7		80000000	20000000	80000000	00000000	1
	C8		C0000000	20000000	80000000	00000000	0
	C9		C0000000	20000000	80000000	20000000	0
	10		20000000	20000000	80000000	20000000	0

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DW 60	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		30000000	00000000	A0000000	00000000	0
	C4		C0000001	00000000	A0000000	00000001	0
	C6	C0	30000000	00000001	A0000000	30000000	1
	C6	C1	60000000	00000003	A0000000	00000000	1
	C6	C2	C0000000	00000007	A0000000	A0000000	0
	10		C0000000	00000007	A0000000	00000000	0

DW 61

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		28CE5BDF	00000000	8ACE9FBD	00000000	0
C4		5A3E6E7F	00000000	8ACE9FBD	5A3E6E7F	0
C6	00	28CE5BDF	5A3E6E7F	8ACE9FBD	28CE5BDF	1
C6	01	519CB7BE	B47CDCFF	8ACE9FBD	DC6B577B	0
C6	02	B8D6AEF7	68F9B9FE	8ACE9FBD	2EC80F3A	1
C6	03	5C101E74	D1F373FD	8ACE9FBD	E6DEBE31	0
C6	04	CDBD7C63	A3E6E7FA	8ACE9FBD	42EEDCA6	1
C6	05	85DDB94D	47CDCFF5	8ACE9FBD	10AC590A	1
C6	06	2158B214	8F9B9FEB	8ACE9FBD	AC2751D1	0
C6	07	584EA3A3	1F373FD6	8ACE9FBD	CD8003E6	0
C6	08	9B0007CC	3E6E7FAC	8ACE9FBD	1031680F	1
C6	09	2062D01E	7CDCFF59	8ACE9FBD	AB316FDB	0
C6	10	5662DFB6	F9B9FEB2	8ACE9FBD	CB943FF9	0
C6	11	97287FF3	F373FD64	8ACE9FBD	0C59E036	1
C6	12	18B3C06D	E6E7FAC9	8ACE9FBD	A3826C2A	0
C6	13	47C4C055	CDCFF592	8ACE9FBD	BC362098	0
C6	14	786C4131	9B9FEB24	8ACE9FBD	ED9DA174	0
C6	15	DB3B42E9	373FD648	8ACE9FBD	5C6CA32C	1
C6	16	ACD94658	6E7FAC91	8ACE9FBD	2BA7E615	1
C6	17	574FCC2A	DCFF5923	8ACE9FBD	E21E6BE7	0
C6	18	C43CD7CF	B9FEB246	8ACE9FBD	396E3812	1
C6	19	72DC7025	73FD648D	8ACE9FBD	FDAB0FE2	0
C6	20	FB561FC4	E7FAC91A	8ACE9FBD	70878007	1
C6	21	E10F00CF	CFF59235	8ACE9FBD	6BDD9FCC	1
C6	22	D7BB3F99	9FEB246B	8ACE9FBD	6289DF56	1
C6	23	C513BEAD	3FD648D7	8ACE9FBD	4FE25E6A	1
C6	24	9FC4BCD4	7FAC91AF	8ACE9FBD	2A935C91	1
C6	25	5526B922	FF59235F	8ACE9FBD	DFF558DF	0
C6	26	BFEAB1BF	FEB246BE	8ACE9FBD	351C1202	1
C6	27	6A382405	FD648D7D	8ACE9FBD	F506C3C2	0
C6	28	EACD8785	FAC91AFA	8ACE9FBD	5F3EE7C8	1
C6	29	BE7DCF91	F59235F5	8ACE9FBD	494C6F4E	1
C6	30	9298DE9D	EB246BEB	8ACE9FBD	1D677E5A	1
C6	31	3ACEFCB5	D648D7D7	8ACE9FBD	C59D9C72	0
C6	32	8B3B38E5	AC91AFAE	8ACE9FBD	0C6C9928	1
C7		CC6C9928	59235F5D	8ACE9FBD	8B3B38E5	0
C8		CC6C9928	59235F5D	8ACE9FBD	0C6C9928	0
C9		CC6C9928	59235F5D	8ACE9FBD	59235F5D	0
10		59235F5D	59235F5D	8ACE9FBD	A6DCACA3	0

DW 62

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		28E45B17	CCCCCCCC	A13BF37D	0CCCCCCC	0
C4		AC9CD39F	CCCCCCCC	A13BF37D	AC9CD39F	0
C6	00	28E45B17	AC9CD39F	A13BF37D	28E45B17	1
C6	01	51C8B62F	4139A73F	A13BF37D	F3C4A9AC	0
C6	02	E6C95358	82734E7E	A13BF37D	44CD5FDB	1
C6	03	899ABFB7	04E69CFD	A13BF37D	2AD6B334	1
C6	04	55AD6668	09CD39FB	A13BF37D	F6E959E5	0
C6	05	EDD2B3CA	139A73F6	A13BF37D	4C96CC4D	1
C6	06	992D8C9A	2734E7ED	A13BF37D	3A697417	1
C6	07	74D2E82E	4E69CFDB	A13BF37D	16CEDBAB	1
C6	08	2C1DB756	9CD39FB7	A13BF37D	CD59AAD3	0
C6	09	9AB355A7	39A73F6E	A13BF37D	F977622A	0
C6	10	F2EEC454	734E7EDC	A13BF37D	51B2DCD7	1
C6	11	A365A1AE	E69CFDB9	A13BF37D	44A1952B	1
C6	12	89432A57	CD39FB73	A13BF37D	2A7F1DD4	1
C6	13	54FE3BA9	9A73F6E7	A13BF37D	F63A2F26	0
C6	14	EC745E4D	34E7EDCE	A13BF37D	4B386AD0	1
C6	15	9670D5AC	69CFDB9D	A13BF37D	37ACC91D	1
C6	16	6F59923A	D39FB73B	A13BF37D	1C9585B7	1
C6	17	212B0B6F	A73F6E77	A13BF37D	C266FFEC	0
C6	18	84CDFDD9	4E7EDCEE	A13BF37D	E3920A5C	0
C6	19	C72414B8	9CFDB9DC	A13BF37D	25E82133	1
C6	20	4BDC4277	39FB73B9	A13BF37D	EDCC35F4	0
C6	21	DA186BE8	73F6E772	A13BF37D	38DC786B	1
C6	22	7188F0D6	E7EDCEE5	A13BF37D	12F4E453	1
C6	23	25E9C8A7	CFDB9DCB	A13BF37D	C725BC24	0
C6	24	8E4B7849	9FB73B96	A13BF37D	EDCF84CC	0
C6	25	DA1FC999	3F6E772C	A13BF37D	38E3161C	1
C6	26	71C62C38	7EDCEE59	A13BF37D	13C21FB5	1
C6	27	26C43F6A	FDB9DCB3	A13BF37D	C74C32E7	0
C6	28	8E8065CF	FB73B966	A13BF37D	ED447252	0
C6	29	DA88E4A5	F6E772CC	A13BF37D	394CF128	1
C6	30	7299E251	EDCEE599	A13BF37D	13D5D5CE	1
C6	31	27ABAB9D	DB9DCB33	A13BF37D	C8E79F1A	0
C6	32	91CF3E35	B73B9666	A13BF37D	F0934AB8	0
C7		F0934AB8	6E772CCC	A13BF37D	4F57573B	1
C8		4F57573B	6E772CCC	A13BF37D	4F57573B	0
C9		4F57573B	6E772CCC	A13BF37D	6E772CCC	0
10		6E772CCC	6E772CCC	A13BF37D	91880334	0

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DW 63

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
C3		FE8C26AE	00000000	F67B159D	00000000	0
C4		F4A017D3	00000000	F67B159D	0B5FE82D	0
C6	CC	FE8C26AE	0B5FE82D	F67B159D	0173D951	1
C6	C1	C2E7B2A2	16BFD05B	F67B159D	F962C83F	0
C6	C2	F2C5907E	2D7FA0B6	F67B159D	FC4A7AE1	0
C6	C3	F894F5C2	5AFF416C	F67B159D	0219E025	1
C6	C4	C433C04A	B5FE82D9	F67B159D	FAAED5E7	0
C6	C5	F55DABCF	6BFD05B2	F67B159D	FEE29632	0
C6	C6	FDC52C64	D7FA0B64	F67B159D	074A16C7	1
C6	C7	CE942D8F	AFF416C9	F67B159D	050F432C	1
C6	C8	CA1E8659	5FE82D93	F67B159D	00999BF6	1
C6	C9	C13337EC	BFD05B27	F67B159D	F7AE4D89	0
C6	10	EF5C9B13	7FA0B64E	F67B159D	F8E18576	0
C6	11	F1C30AEC	FF416C9C	F67B159D	FB47F54F	0
C6	12	F68FEA9F	FE82D938	F67B159D	0C14D502	1
C6	13	C029AA05	FD05B271	F67B159D	F6A4BFA2	0
C6	14	ED497F45	FA0B64E2	F67B159D	F6CE69A8	0
C6	15	ED9CD351	F416C9C4	F67B159D	F721BDB4	0
C6	16	EE437B69	E82D9388	F67B159D	F7C865CC	0
C6	17	EF90CB99	D05B2710	F67B159D	F915B5FC	0
C6	18	F22B6BF9	A0B64E20	F67B159D	FBB0565C	0
C6	19	F760ACB9	416C9C40	F67B159D	0CE5971C	1
C6	2C	C1CB2E38	82D93881	F67B159D	F84643D5	0
C6	21	F08C87AB	05B27102	F67B159D	FA1172CE	0
C6	22	F422E41C	0B64E2C4	F67B159D	FDA7CE7F	0
C6	23	FB4F9CFE	16C9C408	F67B159D	04D48761	1
C6	24	C9A90EC2	2D938811	F67B159D	0024245F	1
C6	25	CC4848BE	5B271023	F67B159D	F6C35E5B	0
C6	26	ED86BCB6	B64E2C46	F67B159D	F70BA719	0
C6	27	EE174E33	6C9C408C	F67B159D	F79C3896	0
C6	28	EF38712C	D9388118	F67B159D	F8BD5B8F	0
C6	29	F17AB71F	B2710230	F67B159D	FAFFA182	0
C6	3C	F5FF43C5	64E2C460	F67B159D	FF842D68	0
C6	31	FFC85ADC	C9C4C8C0	F67B159D	C88D4533	1
C6	32	111A8A67	93881181	F67B159D	C795ACC4	1
C7		C795ACC4	27102303	F67B159D	FE10B5A1	0
C8		C795ACC4	27102303	F67B159D	F86A5FFC	0
C9		C795ACC4	27102303	F67B159D	27102303	0
1C		27102303	27102303	F67B159D	27102303	0

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DW 64

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
C3		E6E82A3D	CCCCCCCC	78F74B3B	00000000	0
C4		2C6071B5	CCCCCCCC	78F74B3B	D39F8E4B	0
C6	CC	E6E82A3D	D39F8E4B	78F74B3B	1917D5C2	1
C6	C1	322FAB85	A73F1C97	78F74B3B	B9386C4A	0
C6	C2	7270CC95	4E7E392E	78F74B3B	EB680BD0	0
C6	C3	D6D017A0	9CFC725C	78F74B3B	4FC762DB	1
C6	C4	9F8EC5B7	39F8E4B9	78F74B3B	26977A7C	1
C6	C5	4D2EF4F8	73F1C973	78F74B3B	D437A98D	0
C6	C6	A86F537A	E7E392E6	78F74B3B	21669EB5	1
C6	C7	42CD3D6B	CFC725CD	78F74B3B	C9D5F230	0
C6	C8	93ABE461	9F8E4B9A	78F74B3B	0CA32F9C	1
C6	C9	19465F39	3F1C9735	78F74B3B	AC4F13FE	0
C6	1C	4C9E27FC	7E392E6A	78F74B3B	B9957337	0
C6	11	732AE66E	FC725CD4	78F74B3B	EC2231A9	0
C6	12	D8446353	F8E4B9A8	78F74B3B	513BAE8E	1
C6	13	A2775D1D	F1C97351	78F74B3B	298011E2	1
C6	14	53C023C5	E392E6A3	78F74B3B	DAC8DF8A	0
C6	15	B411B115	C725CD46	78F74B3B	2DC8FC50	1
C6	16	5A11F8A1	8E4B9A8D	78F74B3B	E11AAD66	0
C6	17	C2355ACD	1C97351A	78F74B3B	3B2CA6C8	1
C6	18	76594C1C	392E6A35	78F74B3B	FD62CCD5	0
C6	19	FAC4C1AA	725CD46A	78F74B3B	73BB4CE5	1
C6	2C	E77699CA	E4B9A8D5	78F74B3B	6E7F4E8F	1
C6	21	DCFE9D1F	C97351AB	78F74B3B	64C751E4	1
C6	22	C8CEA3C9	92E6A357	78F74B3B	4F17588E	1
C6	23	9E2EB11D	25CD46AF	78F74B3B	253765E2	1
C6	24	4A6ECBC4	4B9A8D5F	78F74B3B	D1778C89	0
C6	25	A2EF0112	97351ABE	78F74B3B	1BE64C4D	1
C6	26	37CC989B	2E6A357D	78F74B3B	BED54D60	0
C6	27	7DAA9ACC	5CD46AFA	78F74B3B	F6A1E5F3	0
C6	28	ED43CBF6	B9A8D5F4	78F74B3B	663B1731	1
C6	29	CC762E63	7351ABE9	78F74B3B	537EE328	1
C6	3C	A6FDC650	E6A357D3	78F74B3B	2EC67B15	1
C6	31	5C0CF62B	CD46AFA7	78F74B3B	E315AAF0	0
C6	32	C62B55E1	9A8D5F4E	78F74B3B	3F22A11C	1
C7		3F22A11C	351ABE9D	78F74B3B	C62B55E1	0
C8		3F22A11C	351ABE9D	78F74B3B	C0DD5EE4	0
C9		3F22A11C	351ABE9D	78F74B3B	351ABE9D	0
1C		351ABE9D	351ABE9D	78F74B3B	CAE54163	0

DW 65

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		F7F93B4E	00000000	E6F22A4F	00000000	0
C4		47E95A3F	00000000	E6F22A4F	B816A5C1	0
C6	C0	F7F93B4E	B816A5C1	E6F22A4F	C806C4B1	1
C6	C1	1CCD8963	702D4B83	E6F22A4F	F6FFB3B2	0
C6	C2	EDFF6764	E05A9706	E6F22A4F	C70D3D15	1
C6	C3	CE1A7A2B	C0B52ECD	E6F22A4F	F5CCA47A	0
C6	C4	EA1948F5	816A5C1A	E6F22A4F	03271EA6	1
C6	C5	C64E3D4D	C2D4B835	E6F22A4F	ED40679C	0
C6	C6	DA80CF38	05A9706A	E6F22A4F	F38EA4E9	0
C6	C7	E71D49D2	0B52ECD4	E6F22A4F	002B1F83	1
C6	C8	C0563F06	16A5C1A9	E6F22A4F	E7486955	0
C6	C9	CE90D2AA	2D4B8352	E6F22A4F	E79EA85B	0
C6	1C	CF3D50B6	5A9706A4	E6F22A4F	E84B2667	0
C6	11	DC964CCE	B52ECD48	E6F22A4F	E9A4227F	0
C6	12	D34844FF	6A5C1A90	E6F22A4F	EC561AB0	0
C6	13	D8AC356C	D4B83520	E6F22A4F	F1BA0B11	0
C6	14	E3741623	A9706A40	E6F22A4F	FC81EBD4	0
C6	15	F9C3D7A9	52E0D480	E6F22A4F	1211AD5A	1
C6	16	24235AB4	A5C1A9C1	E6F22A4F	0B1585C3	1
C6	17	162B0AC7	4B8352C3	E6F22A4F	FD1D3456	0
C6	18	FA3A68AC	9706A4C6	E6F22A4F	13483E5D	1
C6	19	26907CBB	2EC0D48D	E6F22A4F	0D82A7CA	1
C6	2C	1BC54E14	5C1A9C1B	E6F22A4F	C1F77863	1
C6	21	C3EEF0C6	B8352C37	E6F22A4F	EAE11B15	0
C6	22	D5C2362B	706A4C6E	E6F22A4F	EED0CBDC	0
C6	23	DDA017B8	E0D480DC	E6F22A4F	F6ADED69	0
C6	24	ED5BDAD3	C1A9C1B8	E6F22A4F	0669BC84	1
C6	25	CCD36109	8352C371	E6F22A4F	F3C58B58	0
C6	26	E78B16B1	C6A4C6E2	E6F22A4F	0098EC62	1
C6	27	C131D8C4	C0D480C5	E6F22A4F	E8240313	0
C6	28	DC480626	1A9C1B8A	E6F22A4F	E955DBD7	0
C6	29	D2ABB7AE	352C3714	E6F22A4F	EBB98D5F	0
C6	3C	D7731ABE	6A4C6E28	E6F22A4F	FC80FC6F	0
C6	31	E1C1ECDE	D480DC50	E6F22A4F	FACFB68F	0
C6	32	F41F6D1F	A9C1B8A0	E6F22A4F	0D2D42D0	1
C7		CD2D42DC	52C37141	E6F22A4F	F41F6D1F	0
C8		CD2D42DC	52C37141	E6F22A4F	F2D2BD30	0
C9		CD2D42DC	52C37141	E6F22A4F	52C37141	0
1C		52C37141	52C37141	E6F22A4F	52C37141	0

DW 66

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		F294C5E9	00000000	69CB7C52	00000000	0
C4		AE58B19C	00000000	69CB7C52	51A74E70	0
C6	C0	F294C5E9	51A74E70	69CB7C52	0D68FA16	1
C6	C1	1AD7F42C	A34E9CE1	69CB7C52	B1CC77DA	0
C6	C2	6398EFB5	469D39C2	69CB7C52	CCA46C07	0
C6	C3	9948D8CE	8D3A7384	69CB7C52	02545460	1
C6	C4	C4A8A8C1	1A74E709	69CB7C52	9B9D2C6F	0
C6	C5	373A58DE	34E9CE12	69CB7C52	AC45D530	0
C6	C6	4C8BAA6C	69D39C24	69CB7C52	A99726B2	0
C6	C7	532E4D64	D3A73848	69CB7C52	BC39C9B6	0
C6	C8	7873936D	A74E7090	69CB7C52	E17F0FBF	0
C6	C9	C2FE1F7F	4E9CE120	69CB7C52	2CC99BD1	1
C6	1C	581337A2	9D39C241	69CB7C52	EFC7BB50	0
C6	11	DF0F76A1	3A738482	69CB7C52	471AF2F3	1
C6	12	8E35E5E6	74E7090C5	69CB7C52	252A6994	1
C6	13	4A54D328	E9CE120B	69CB7C52	E14956D6	0
C6	14	C292ADAD	D39C2416	69CB7C52	2B9E29FF	1
C6	15	573C53FF	A738482D	69CB7C52	EE30D7AD	0
C6	16	DC61AF5B	4E7C905A	69CB7C52	456D2BAD	1
C6	17	8ADA575A	9CE12CB5	69CB7C52	21CEDBC8	1
C6	18	439DB611	39C2416B	69CB7C52	DA9239BF	0
C6	19	B524737E	738482D6	69CB7C52	1E2FEFD0	1
C6	2C	3C5FDFAC	E7C9C5AD	69CB7C52	D354634E	0
C6	21	A6A8C69D	CE12CB5A	69CB7C52	CFB442EF	1
C6	22	1F6885DF	9C2416B5	69CB7C52	B65D098D	0
C6	23	6CBA131B	3B482D6A	69CB7C52	D5C58F6D	0
C6	24	AB8B1EDA	7C9C5AD4	69CB7C52	14969B2C	1
C6	25	292D3658	E12CB5A9	69CB7C52	CC21BAC6	0
C6	26	8043740D	C2416B52	69CB7C52	E94EFC5F	0
C6	27	D29DE0BF	8482D6A4	69CB7C52	3BA95D11	1
C6	28	7752BA23	C9C5AD49	69CB7C52	CE473DD1	1
C6	29	1C8E7BA2	12CB5A93	69CB7C52	B382FF5C	0
C6	3C	67C5FEAC	2416B526	69CB7C52	DC117AFC	0
C6	31	AC22F5E4	482D6A4C	69CB7C52	C92E7236	1
C6	32	125CE46C	9C5AD499	69CB7C52	A9516B1A	0
C7		A951681A	2CB5A932	69CB7C52	125CE46C	1
C8		125CE46C	2CB5A932	69CB7C52	EDA31B94	0
C9		125CE46C	2CB5A932	69CB7C52	2CB5A932	0
1C		2CB5A932	2CB5A932	69CB7C52	DF4A56CE	0

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DW 67	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	03		2D3297C8	00000000	77532167	00000000	0
	04		C237DAC1	00000000	77532167	C237DAC1	0
	06	00	2D3297C8	C237DAC1	77532167	2D3297C8	1
	06	01	5A652F91	846FB583	77532167	E3120E2A	0
	06	02	C6241C55	08DF6B06	77532167	3D773DBC	1
	06	03	7AEE7B78	11BED60D	77532167	039B5A11	1
	06	04	C7368422	237DAC1B	77532167	8FE392BB	0
	06	05	1FC72576	46FB5836	77532167	971A46DD	0
	06	06	2E348DBA	8DF6B06C	77532167	A587AF21	0
	06	07	4B0F5E43	1BED60D8	77532167	C2627FAA	0
	06	08	84C4FF54	37DAC1B0	77532167	FC1820BB	0
	06	09	F8304176	6FB58360	77532167	6F8362DD	1
	06	10	DF06C5BA	DF6B06C1	77532167	67B3A453	1
	06	11	CF6748A7	BED60D83	77532167	58142740	1
	06	12	BC284E81	7DAC1B07	77532167	38D52D1A	1
	06	13	71AA5A34	FB58360F	77532167	FA5738CD	0
	06	14	F4AE719B	F6B06C1E	77532167	6C019302	1
	06	15	D8C32605	ED60D83D	77532167	60B0049E	1
	06	16	C160093D	DAC1B07B	77532167	4A0CE7D6	1
	06	17	9419CFAD	B58360F7	77532167	1CC6AE46	1
	06	18	398D5C8D	6B0C6C1EF	77532167	C23A3B26	0
	06	19	8474764C	D60D83DE	77532167	FBC797B3	0
	06	20	F78F2F67	AC1B07BC	77532167	6EE250CE	1
	06	21	DDC4A19D	5836CF79	77532167	66718036	1
	06	22	CCE3006C	B0C6C1EF3	77532167	558FDF05	1
	06	23	AB1FBE0B	6CD83DE7	77532167	33CC9CA4	1
	06	24	67993948	C1B07BCF	77532167	F04617E1	0
	06	25	E08C2FC3	836CF79E	77532167	57DF512A	1
	06	26	AFBEA255	06C1EF3D	77532167	386B80EE	1
	06	27	70D701DC	0D83DE7B	77532167	F983EC75	0
	06	28	F307C0EA	1B07BCF6	77532167	6A5AE251	1
	06	29	D4B5C4A2	360F79ED	77532167	5D62A33B	1
	06	30	BAC54676	6C1EF3DB	77532167	437225CF	1
	06	31	86E44A1E	D83DE7B7	77532167	0F9128B7	1
	06	32	1F22516F	B07BCF6F	77532167	A7CF30C8	0
	07		A7CF30C8	6CF79EDE	77532167	1F22516F	1
	08		1F22516F	6CF79EDE	77532167	1F22516F	0
	09		1F22516F	6CF79EDE	77532167	6CF79EDE	0
	10		6CF79EDE	6CF79EDE	77532167	6CF79EDE	0

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DW 68	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	03		FAC41382	00000000	ECFC7F1C	00000000	0
	04		446E28CA	00000000	ECFC7F1C	BB91D736	0
	06	00	FAC41382	BB91D736	ECFC7F1C	053BEC7D	1
	06	01	CA77D8FB	7723AE6D	ECFC7F1C	EB745817	0
	06	02	D6E8B02E	EE475CDA	ECFC7F1C	F5EC3112	0
	06	03	EBD86225	DC8EB9B4	ECFC7F1C	0ADBE309	1
	06	04	15B7C613	B91D7369	ECFC7F1C	F6B4452F	0
	06	05	ED688A5F	723AE6D2	ECFC7F1C	0C6C0B43	1
	06	06	18D81686	E475CDA5	ECFC7F1C	F9D495A2	0
	06	07	F3A92B45	C8EB9B4A	ECFC7F1C	12ACAC29	1
	06	08	25595853	91D73695	ECFC7F1C	0655D76F	1
	06	09	CCABAEDF	23AE6D2B	ECFC7F1C	EDA82DFB	0
	06	10	DB505BF6	475CDA56	ECFC7F1C	FA53DCDA	0
	06	11	F4A7B9B4	8EB9B4AC	ECFC7F1C	13AB3A98	1
	06	12	27567531	1D736959	ECFC7F1C	0852F44D	1
	06	13	1CA5E89A	3AE6D2B3	ECFC7F1C	F1A267B6	0
	06	14	E344CF6C	75CDA566	ECFC7F1C	C2485C5C	1
	06	15	C490ACAC	EB9B4ACD	ECFC7F1C	E58D1FBC	0
	06	16	CB1A3F79	D736959A	ECFC7F1C	EA1DCC5D	0
	06	17	D43B80BB	AE6D2B34	ECFC7F1C	F33FC19F	0
	06	18	E67EC33F	5CDA5668	ECFC7F1C	05818423	1
	06	19	CBC3C846	B9B4ACD1	ECFC7F1C	EBFF8762	0
	06	20	D7FF0EC5	736959A2	ECFC7F1C	F7028FA9	0
	06	21	EE051F52	E6D2B344	ECFC7F1C	0DC8AC36	1
	06	22	1A11406D	CDA56689	ECFC7F1C	FBCDBF89	0
	06	23	F61B7F13	9B4ACD12	ECFC7F1C	151EFFF7	1
	06	24	2A3DFFEF	36959A25	ECFC7F1C	0B3A7F0B	1
	06	25	1674FE16	6D2B344B	ECFC7F1C	F7717D32	0
	06	26	EEE2FA64	DA566896	ECFC7F1C	0DE67B48	1
	06	27	1BCCF691	B4ACD12D	ECFC7F1C	FCC975AD	0
	06	28	F992EB5B	6959A25A	ECFC7F1C	18966C3F	1
	06	29	312CD87E	D2B344B5	ECFC7F1C	1229579A	1
	06	30	2452AF35	A566896B	ECFC7F1C	054F2E51	1
	06	31	CA9E5CA3	4ACD12D7	ECFC7F1C	EB9ADB8F	0
	06	32	D735B77E	959A25AE	ECFC7F1C	F6393862	0
	07		F6393862	2B344B5C	ECFC7F1C	153C3946	1
	08		153CB946	2B344B5C	ECFC7F1C	EAC346BA	0
	09		153CB946	2B344B5C	ECFC7F1C	2B344B5C	0
	10		2B344B5C	2B344B5C	ECFC7F1C	2B344B5C	0

DW 69

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		253F7EA9	00000000	67B5C610	00000000	0
C4		3D7182C6	00000000	67B5C610	3D7182C6	0
C6	CC	253F7EA9	3D7182C6	67B5C610	253F7EA9	1
C6	C1	4A7EFD52	7AE3C58D	67B5C610	E2C93742	0
C6	C2	C5926E84	F5C6CB1A	67B5C610	2D483494	1
C6	C3	5A906929	EB8C1635	67B5C610	F2DAA319	0
C6	C4	E5B54633	D7182C6A	67B5C610	4D6B0C43	1
C6	C5	9AD61887	AE3C58D5	67B5C610	33205277	1
C6	C6	6640A4EF	5C6CB1AB	67B5C610	FE8ADEDF	0
C6	C7	FD15BDBE	B8C16356	67B5C610	64CB83CE	1
C6	C8	C997C79D	7182C6AD	67B5C610	61E1418D	1
C6	C9	C3C2831A	E3C58D5B	67B5C610	5C0CBD0A	1
C6	10	B8197A15	C6CB1AB7	67B5C610	5C63B405	1
C6	11	ACC7680B	8C16356F	67B5C610	3911A1FB	1
C6	12	722343F7	182C6ADF	67B5C610	0A6D7DE7	1
C6	13	14DAFBCE	3C58D5BF	67B5C610	AD2535BE	0
C6	14	5A4A6B7C	6CB1AB7E	67B5C610	C2C0318C	0
C6	15	84006318	C16356FC	67B5C610	EBB62928	0
C6	16	D76C5251	82C6ADF8	67B5C610	3F221861	1
C6	17	7E443CC3	C58D5BF1	67B5C610	168E6AB3	1
C6	18	2D1CD566	CB1AB7E3	67B5C610	C5670F56	0
C6	19	8ACE1EAC	16356FC6	67B5C610	F283E4BC	0
C6	20	E507C978	2C6ADF8C	67B5C610	4CBD8F88	1
C6	21	997B1F10	58D5BF19	67B5C610	31C55900	1
C6	22	638AB200	B1AB7E33	67B5C610	FBD4EBF0	0
C6	23	F7A9D7E1	6356FC66	67B5C610	5F5F9DF1	1
C6	24	BEBF3BE2	C6ADF8CD	67B5C610	570975D2	1
C6	25	AE12EBA5	8D5BF19B	67B5C610	465D2595	1
C6	26	8CBA4B2B	1AB7E337	67B5C610	2504851B	1
C6	27	4AC9CA36	356FC66F	67B5C610	E2534426	0
C6	28	C4A6884C	6ADF8CDE	67B5C610	2C5C4E5C	1
C6	29	58B89CB8	D5BF19BD	67B5C610	F1C2D6A8	0
C6	30	E205AD51	AB7E337A	67B5C610	49BB7361	1
C6	31	9376E6C3	56FC66F5	67B5C610	2BC12CB3	1
C6	32	57824166	ADF8CDEB	67B5C610	EFCC7B56	0
C7		EFCC7B56	5BF19BD6	67B5C610	57824166	1
C8		57824166	5BF19BD6	67B5C610	57824166	0
C9		57824166	5BF19BD6	67B5C610	5BF19BD6	0
10		5BF19BD6	5BF19BD6	67B5C610	5BF19BD6	0

DW 70

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
C3		135BDF7D	CCCCCCCC	67B980C1	CCCCCCCC	0
C4		9BAE1BC5	CCCCCCCC	67B980C1	9BAE1BC5	0
C6	CC	135BDF7D	9BAE1BC5	67B980C1	135BDF7D	1
C6	C1	26B7BEFB	375C36CB	67B980C1	BEFE3F3A	0
C6	C2	7DFC7C74	6EB86C16	67B980C1	E5B5FD35	0
C6	C3	CB6BFA6A	DD7CD82C	67B980C1	33257A2B	1
C6	C4	664AF657	BAE1B059	67B980C1	FE917596	0
C6	C5	FD22EB2D	75C360B2	67B980C1	64DC6BEE	1
C6	C6	C9B8D7DC	EB86C165	67B980C1	61FF571B	1
C6	C7	C3FEAE37	D7CD82CB	67B980C1	5C452D76	1
C6	C8	B88A5AED	AE1BC597	67B980C1	5CD0DA2C	1
C6	C9	A1A1B459	5C360B2F	67B980C1	39E83398	1
C6	1C	73D0673C	B86C165F	67B980C1	0C16E66F	1
C6	11	182DCCDF	7CD82CBF	67B980C1	BC744C1E	0
C6	12	6CE8983C	E1BC597E	67B980C1	C8A218FD	0
C6	13	914431FB	C36CB2FC	67B980C1	F8FDB2BC	0
C6	14	F1FB6579	86C165F8	67B980C1	59B4E63A	1
C6	15	B369CC75	CD82CBF1	67B980C1	4BBC4BB4	1
C6	16	97609768	1BC597E3	67B980C1	2FA716A7	1
C6	17	5F4E2D4E	36CB2FC7	67B980C1	F794AC8D	0
C6	18	EF29591A	6C165F8E	67B980C1	56E2D9DB	1
C6	19	ADC5B3B6	D82CBF1D	67B980C1	460C32F5	1
C6	2C	8C1865EB	BC597E3B	67B980C1	245EE52A	1
C6	21	488DCA55	6CB2FC77	67B980C1	E1C44994	0
C6	22	C2C89328	C165F8EE	67B980C1	29C213E9	1
C6	23	538427D3	82CBF1DD	67B980C1	EBCAA712	0
C6	24	D7954E25	C597E3BA	67B980C1	3F4ECEE6	1
C6	25	7E9D9DCC	CB2FC775	67B980C1	16E41DC8	1
C6	26	2DC83A16	165F8EEB	67B980C1	C6CEB955	0
C6	27	8C1D72AA	2CBF1DD6	67B980C1	F3D6F368	0
C6	28	E7ADE6D6	597E3BAC	67B980C1	4F676797	1
C6	29	9ECECF2E	B2FC7759	67B980C1	37154F6D	1
C6	3C	6E2A9CDB	65F8EEB3	67B980C1	C6711C1A	1
C6	31	CCE23834	CBF1DD67	67B980C1	A528B773	0
C6	32	4A516EE7	97E3BACE	67B980C1	B2CAEFA8	0
C7		B2CAEFA8	2FC7759C	67B980C1	19C47069	1
C8		19C47069	2FC7759C	67B980C1	19C47069	0
C9		19C47069	2FC7759C	67B980C1	2FC7759C	0
10		2FC7759C	2FC7759C	67B980C1	2FC7759C	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 071

DW 71	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	03		59D73C28	00000000	26106573	00000000	0
	04		59D73C28	00000000	26106573	59D73C28	0
	C6	CC	59D73C28	59D73C28	26106573	00000000	1
	C6	C1	C0000000	B3AE7851	26106573	D9EF9A8D	0
	C6	C2	B3DF351B	675CF0A2	26106573	D9EF9A8E	0
	C6	C3	B3DF351C	CEB9E144	26106573	D9EF9A8F	0
	C6	C4	B3DF351F	9D73C288	26106573	D9EF9A92	0
	C6	C5	B3DF3525	3AE78510	26106573	D9EF9A98	0
	C6	C6	B3DF3530	75CF0A20	26106573	D9EF9AA3	0
	C6	C7	B3DF3546	EB9E1440	26106573	D9EF9AB9	0
	C6	C8	B3DF3573	D73C2880	26106573	D9EF9AE6	0
	C6	C9	B3DF35CD	AE785100	26106573	D9EF9B40	0
	C6	1C	B3DF3681	5CF0A200	26106573	D9EF9BF4	0
	C6	11	B3DF37E8	B9E14400	26106573	D9EF9D5B	0
	C6	12	B3DF3AB7	73C28800	26106573	D9EFA02A	0
	C6	13	B3DF4054	E7851000	26106573	D9EFA5C7	0
	C6	14	B3DF4B8F	CF0A2000	26106573	D9EFB102	0
	C6	15	B3DF6205	9E144000	26106573	D9EFC778	0
	C6	16	B3DF8EF1	3C288000	26106573	D9EFF464	0
	C6	17	B3DFE8C8	78510000	26106573	D9F04E3B	0
	C6	18	B3E09C76	F0A20000	26106573	D9F101E9	0
	C6	19	B3E203D3	E1440000	26106573	D9F26946	0
	C6	2C	B3E4D28D	C2880000	26106573	D9F53800	0
	C6	21	B3EA7001	85100000	26106573	D9FAD574	0
	C6	22	B3F5AAE9	CA200000	26106573	DA061C5C	0
	C6	23	B40C20B8	14400000	26106573	DA1C862B	0
	C6	24	B4390C56	28800000	26106573	DA4971C9	0
	C6	25	B492E392	51000000	26106573	DAA34905	0
	C6	26	B546920A	A2000000	26106573	DB56F77D	0
	C6	27	B6ADEEFB	44000000	26106573	DCBE546E	0
	C6	28	B97CA8DC	88000000	26106573	DF8D0E4F	0
	C6	29	BF1A1C9F	10000000	26106573	E52A8212	0
	C6	3C	CA550424	20000000	26106573	FC656997	0
	C6	31	ECCAD32E	40000000	26106573	06DB38A1	1
	C6	32	CDB67142	80000001	26106573	E7A60BCF	0
	C9		E7A60BCF	00000002	26106573	00000002	1
	10		00000002	00000002	26106573	00000002	1

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DW 72	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
	03		CD2A3C71	00000000	F1A3C842	00000000	1
	04		CD2A3C71	00000000	F1A3C842	32D5C38F	0
	C6	CC	CD2A3C71	32D5C38F	F1A3C842	00000000	1
	C6	C1	C0000000	65AB871F	F1A3C842	F1A3C842	0
	C6	C2	E3479084	CB57CE3E	F1A3C842	F1A3C842	0
	C6	C3	E3479085	96AE1C7C	F1A3C842	F1A3C843	0
	C6	C4	E3479087	2D5C38F8	F1A3C842	F1A3C845	0
	C6	C5	E347908A	5AB871F0	F1A3C842	F1A3C848	0
	C6	C6	E3479090	B570E3E0	F1A3C842	F1A3C84E	0
	C6	C7	E347909D	6AE1C7C0	F1A3C842	F1A3C85B	0
	C6	C8	E34790B6	D5C38F80	F1A3C842	F1A3C874	0
	C6	C9	E34790E9	AB871F00	F1A3C842	F1A3C8A7	0
	C6	1C	E347914F	570E3E00	F1A3C842	F1A3C90D	0
	C6	11	E347921A	AE1C7C00	F1A3C842	F1A3C9D8	0
	C6	12	E34793B1	5C38F800	F1A3C842	F1A3CB6F	0
	C6	13	E34796DE	B871F000	F1A3C842	F1A3CE9C	0
	C6	14	E3479D39	7CE3E000	F1A3C842	F1A3D4F7	0
	C6	15	E347A9EE	E1C7C000	F1A3C842	F1A3E1AC	0
	C6	16	E347C359	C38F8000	F1A3C842	F1A3F917	0
	C6	17	E347F62F	871F0000	F1A3C842	F1A42DED	0
	C6	18	E3485BDB	0E3E0000	F1A3C842	F1A49399	0
	C6	19	E3492732	1C7C0000	F1A3C842	F1A55EF0	0
	C6	2C	E34ABDE0	38F80000	F1A3C842	F1A6F59E	0
	C6	21	E34DEB3C	71F00000	F1A3C842	F1AA22FA	0
	C6	22	E35445F4	E3E00000	F1A3C842	F1B07DB2	0
	C6	23	E360FB65	C7C00000	F1A3C842	F1BD3323	0
	C6	24	E37A6647	8F800000	F1A3C842	F1D69E05	0
	C6	25	E3AD3C0B	1F000000	F1A3C842	F20973C9	0
	C6	26	E412E792	3E000000	F1A3C842	F26F1F50	0
	C6	27	E4DE3EA0	7C000000	F1A3C842	F33A765E	0
	C6	28	E674ECBC	F8000000	F1A3C842	F4D1247A	0
	C6	29	E9A248F5	F0000000	F1A3C842	F7FE80B3	0
	C6	3C	EFFDC167	E0000000	F1A3C842	FE593925	0
	C6	31	FCB2724B	C0000000	F1A3C842	0BCEAAC9	1
	C6	32	161D5413	80000001	F1A3C842	07C11C55	1
	C9		C7C11C55	00000003	F1A3C842	00000003	0
	10		00000003	00000003	F1A3C842	00000003	0

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DW 73	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		7FFFFFFF	00000000	00000002	00000000	0
	C4		7FFFFFFF	00000000	00000002	7FFFFFFF	0
	C6	CC	7FFFFFFF	7FFFFFFF	00000002	00000000	1
	C6	C1	00000000	FFFFFFFF	00000002	FFFFFFFE	0
	C6	C2	FFFFFFFD	FFFFFFFE	00000002	FFFFFFFF	0
	C6	C3	FFFFFFFF	FFFFFFFC	00000002	00000001	1
	C6	C4	00000003	FFFFFFF9	00000002	00000001	1
	C6	C5	00000003	FFFFFFF3	00000002	00000001	1
	C6	C6	00000003	FFFFFFE7	00000002	00000001	1
	C6	C7	00000003	FFFFFFCF	00000002	00000001	1
	C6	C8	00000003	FFFFFF9F	00000002	00000001	1
	C6	C9	00000003	FFFFFF3F	00000002	00000001	1
	C6	10	00000003	FFFFFE7F	00000002	00000001	1
	C6	11	00000003	FFFFFCFF	00000002	00000001	1
	C6	12	00000003	FFFFF9FF	00000002	00000001	1
	C6	13	00000003	FFFFF3FF	00000002	00000001	1
	C6	14	00000003	FFFFE7FF	00000002	00000001	1
	C6	15	00000003	FFFFCFFF	00000002	00000001	1
	C6	16	00000003	FFFF9FFF	00000002	00000001	1
	C6	17	00000003	FFFF3FFF	00000002	00000001	1
	C6	18	00000003	FFFE7FFF	00000002	00000001	1
	C6	19	00000003	FFFCFFFF	00000002	00000001	1
	C6	20	00000003	FFF9FFFF	00000002	00000001	1
	C6	21	00000003	FFF3FFFF	00000002	00000001	1
	C6	22	00000003	FFE7FFFF	00000002	00000001	1
	C6	23	00000003	FFCFFFFF	00000002	00000001	1
	C6	24	00000003	FF9FFFFF	00000002	00000001	1
	C6	25	00000003	FF3FFFFF	00000002	00000001	1
	C6	26	00000003	FE7FFFFF	00000002	00000001	1
	C6	27	00000003	FCFFFFFF	00000002	00000001	1
	C6	28	00000003	F9FFFFFF	00000002	00000001	1
	C6	29	00000003	F3FFFFFF	00000002	00000001	1
	C6	30	00000003	E7FFFFFF	00000002	00000001	1
	C6	31	00000003	CFFFFFFF	00000002	00000001	1
	C6	32	00000003	9FFFFFFF	00000002	00000001	1
	C9		00000001	3FFFFFFF	00000002	3FFFFFFF	0
	10		3FFFFFFF	3FFFFFFF	00000002	3FFFFFFF	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 074

DW 74	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
	C3		FC7CF1CC	00000000	42486CEA	00000000	0
	C4		FC7CF1CC	00000000	42486CEA	03830E34	0
	C6	CC	FC7CF1CC	0383CE34	42486CEA	00000000	1
	C6	C1	00000000	07061C69	42486CEA	BDB79316	0
	C6	C2	7B6F262C	0E0C38D2	42486CEA	BDB79316	0
	C6	C3	7B6F262C	1C1871A4	42486CEA	BDB79316	0
	C6	C4	7B6F262C	3830E348	42486CEA	BDB79316	0
	C6	C5	7B6F262C	7061C690	42486CEA	BDB79316	0
	C6	C6	7B6F262C	E0C38D20	42486CEA	BDB79316	0
	C6	C7	7B6F262D	C1871A40	42486CEA	BDB79317	0
	C6	C8	7B6F262F	830E3480	42486CEA	BDB79319	0
	C6	C9	7B6F2633	061C6900	42486CEA	BDB7931D	0
	C6	10	7B6F263A	0C38D200	42486CEA	BDB79324	0
	C6	11	7B6F2648	1871A400	42486CEA	BDB79332	0
	C6	12	7B6F2664	30E34800	42486CEA	BDB7934E	0
	C6	13	7B6F265C	61C69000	42486CEA	BDB79386	0
	C6	14	7B6F27C0	C38D2000	42486CEA	BDB793F6	0
	C6	15	7B6F27ED	871A4000	42486CEA	BDB794D7	0
	C6	16	7B6F29AF	0E348000	42486CEA	BDB79699	0
	C6	17	7B6F2D32	1C690000	42486CEA	BDB79A1C	0
	C6	18	7B6F3438	38D20000	42486CEA	BDB7A122	0
	C6	19	7B6F4244	71A40000	42486CEA	BDB7AF2E	0
	C6	20	7B6F5E5C	E3480000	42486CEA	BDB7CB46	0
	C6	21	7B6F968D	C6900000	42486CEA	BDB80377	0
	C6	22	7B7006EF	8D200000	42486CEA	BDB873D9	0
	C6	23	7B7CE7B3	1A400000	42486CEA	BDB9549D	0
	C6	24	7B72A93A	34800000	42486CEA	BDBB1624	0
	C6	25	7B762C48	69000000	42486CEA	BDBE9932	0
	C6	26	7B7D3264	D2000000	42486CEA	BDC59F4E	0
	C6	27	7B8B3E9D	A4000000	42486CEA	BDD3AB87	0
	C6	28	7BA757CF	48000000	42486CEA	BDEFC3F9	0
	C6	29	7BDF87F2	90000000	42486CEA	BE27F4DC	0
	C6	30	7C4FE9B9	20000000	42486CEA	BE9856A3	0
	C6	31	7D30AD46	40000000	42486CEA	BF791A30	0
	C6	32	7EF23460	80000000	42486CEA	C13AA14A	0
	C9		C13AA14A	00000000	42486CEA	00000000	1
	10		00000000	00000000	42486CEA	00000000	1

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DW 75	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	C3		475E3AF9	00000000	2C76B150	00000000	1
	C4		475E3AF9	00000000	2C76B150	475E3AF9	0
	C6	CC	475E3AF9	475E3AF9	2C76B150	00000000	1
	C6	C1	CC000000	8EBC75F3	2C76B150	D3894EB0	0
	C6	C2	A7129D61	1D78EBE6	2C76B150	D3894EB1	0
	C6	C3	A7129D62	3AF1D7CC	2C76B150	D3894EB2	0
	C6	C4	A7129D64	75E3AF98	2C76B150	D3894EB4	0
	C6	C5	A7129D68	EBC75F30	2C76B150	D3894EB8	0
	C6	C6	A7129D71	D78EBE60	2C76B150	D3894EC1	0
	C6	C7	A7129D83	AF1D7CC0	2C76B150	D3894ED3	0
	C6	C8	A7129DA7	5E3AF980	2C76B150	D3894EF7	0
	C6	C9	A7129DEE	BC75F300	2C76B150	D3894F3E	0
	C6	1C	A7129E7D	78EBE600	2C76B150	D3894FCD	0
	C6	11	A7129F9A	F1D7CC00	2C76B150	D38950EA	0
	C6	12	A712A1D5	E3AF9800	2C76B150	D3895325	0
	C6	13	A712A64B	C75F3000	2C76B150	D389579B	0
	C6	14	A712AF37	8EBE6000	2C76B150	D3896087	0
	C6	15	A712C10F	1D7CC000	2C76B150	D389725F	0
	C6	16	A712E4BE	3AF98000	2C76B150	D38996CE	0
	C6	17	A7132C1C	75F30000	2C76B150	D389DD6C	0
	C6	18	A713BAD8	EBE60000	2C76B150	D38A6C28	0
	C6	19	A714D851	D7CC0000	2C76B150	D38B89A1	0
	C6	2C	A7171343	AF980000	2C76B150	D38DC493	0
	C6	21	A71B8927	5F300000	2C76B150	D3923A77	0
	C6	22	A72474EE	BE600000	2C76B150	D39B263E	0
	C6	23	A7364C7D	7CC00000	2C76B150	D3ACFDCD	0
	C6	24	A759FB9A	F9800000	2C76B150	D3D0ACEA	0
	C6	25	A7A159D5	F3000000	2C76B150	D4180B25	0
	C6	26	A830164B	E6000000	2C76B150	D4A6C79B	0
	C6	27	A94D8F37	CC000000	2C76B150	D5C44C87	0
	C6	28	AB88810F	98000000	2C76B150	D7FF325F	0
	C6	29	AFFE64BF	30000000	2C76B150	DC75160F	0
	C6	3C	B8EA2C1E	60000000	2C76B150	E560DD6E	0
	C6	31	CAC1BADC	C0000000	2C76B150	F7386C2C	0
	C6	32	EE70D859	80000000	2C76B150	1AE789A9	1
	C9		1AE789A9	C0000001	2C76B150	00000001	0
	1C		C0000001	C0000001	2C76B150	00000001	0

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DW 76	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	C3		D1F375DB	00000000	00004444	00000000	0
	C4		D1F375DB	00000000	00004444	2E0C8A25	0
	C6	CC	D1F375DB	2E0C8A25	00004444	00000000	1
	C6	C1	CC000000	5C19144B	00004444	FFFFBBBC	0
	C6	C2	FFFF7778	B8322896	00004444	FFFFBBBC	0
	C6	C3	FFFF7779	7C64512C	00004444	FFFFBBBD	0
	C6	C4	FFFF777A	E0C8A258	00004444	FFFFBBBE	0
	C6	C5	FFFF777D	C19144B0	00004444	FFFFBBC1	0
	C6	C6	FFFF7783	83228960	00004444	FFFFBBC7	0
	C6	C7	FFFF778F	064512C0	00004444	FFFFBBD3	0
	C6	C8	FFFF77A6	0C8A2580	00004444	FFFFBBEA	0
	C6	C9	FFFF77D4	19144B00	00004444	FFFFBC18	0
	C6	1C	FFFF7830	322896C0	00004444	FFFFBC74	0
	C6	11	FFFF78E8	64512C00	00004444	FFFFBD2C	0
	C6	12	FFFF7A58	C8A258C0	00004444	FFFFBE9C	0
	C6	13	FFFF7D39	9144B0C0	00004444	FFFFC17D	0
	C6	14	FFFF82FB	22896C00	00004444	FFFFC73F	0
	C6	15	FFFF8E7E	4512C000	00004444	FFFFD2C2	0
	C6	16	FFFFA584	8A258000	00004444	FFFFE9C8	0
	C6	17	FFFFD391	144B0000	00004444	0000170D5	1
	C6	18	CC002FAA	2896C001	00004444	FFFFEB66	0
	C6	19	FFFFD6CC	512C0002	00004444	0000 1B10	1
	C6	2C	CC00362C	A2580005	00004444	FFFFF1DC	0
	C6	21	FFFFE3B9	44B0000A	00004444	0000 27FD	1
	C6	22	CC004FFA	89600015	00004444	00000BB6	1
	C6	23	CC00176D	12C0002B	00004444	FFFFD329	0
	C6	24	FFFFA652	25800056	00004444	FFFFEA96	0
	C6	25	FFFFD52C	4B0000AC	00004444	00001970	1
	C6	26	CC0032E0	96000159	00004444	FFFFEF9C	0
	C6	27	FFFFDD39	2C0002B2	00004444	0000217D	1
	C6	28	CC0042FA	58000565	00004444	FFFFFE86	0
	C6	29	FFFFFD6C	B0000ACA	00004444	00004180	1
	C6	3C	C0008361	60001595	00004444	00003F1D	1
	C6	31	CC007E3A	C0002B2B	00004444	000039F6	1
	C6	32	CC0073ED	80005657	00004444	00002FA9	1
	C9		CC002FA9	0000ACAF	00004444	0000ACAF	0
	1C		CC00ACAF	0000ACAF	00004444	FFFF5351	0

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DW 77	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
	C3		7FFFFFFF	00000000	7FFFFFFF	00000000	0
	C4		7FFFFFFF	00000000	7FFFFFFF	7FFFFFFF	0
	C6	CC	7FFFFFFF	7FFFFFFF	7FFFFFFF	00000000	1
	C6	C1	CCCCCCCC	FFFFFFFF	7FFFFFFF	8CCCCCC1	C
	C6	C2	CCCCCCC3	FFFFFFFE	7FFFFFFF	8CCCCCC2	C
	C6	C3	CCCCCCC5	FFFFFFFC	7FFFFFFF	8CCCCCC4	C
	C6	C4	CCCCCCC9	FFFFFFF8	7FFFFFFF	8CCCCCC8	C
	C6	C5	CCCCCC11	FFFFFFF0	7FFFFFFF	8CCCCC10	C
	C6	C6	CCCCCC21	FFFFFFE0	7FFFFFFF	8CCCCC20	C
	C6	C7	CCCCCC41	FFFFFFC0	7FFFFFFF	8CCCCC40	C
	C6	C8	CCCCCC81	FFFFFF80	7FFFFFFF	8CCCCC80	C
	C6	C9	CCCCC101	FFFFFF00	7FFFFFFF	8CCCC100	C
	C6	1C	CCCCC201	FFFFFE00	7FFFFFFF	8CCCC200	C
	C6	11	CCCCC401	FFFFFC00	7FFFFFFF	8CCCC400	C
	C6	12	CCCC801	FFFFF800	7FFFFFFF	8CCC800	C
	C6	13	CCCC1001	FFFFF000	7FFFFFFF	8CCC1000	C
	C6	14	CCCC2001	FFFFE000	7FFFFFFF	8CC02000	C
	C6	15	CCCC4001	FFFFC000	7FFFFFFF	8CC04000	C
	C6	16	CCCC8001	FFFF8000	7FFFFFFF	8CC08000	C
	C6	17	CCC10001	FFFF0000	7FFFFFFF	8CC10000	C
	C6	18	CCC20001	FFFE0000	7FFFFFFF	8CC20000	C
	C6	19	CCC40001	FFFC0000	7FFFFFFF	8CC40000	C
	C6	2C	CCC80001	FFF80000	7FFFFFFF	8CC80000	C
	C6	21	CC100001	FFF00000	7FFFFFFF	8C100000	C
	C6	22	CC200001	FFE00000	7FFFFFFF	8C200000	C
	C6	23	CC400001	FFC00000	7FFFFFFF	8C400000	C
	C6	24	CC800001	FF800000	7FFFFFFF	8C800000	C
	C6	25	C1000001	FF000000	7FFFFFFF	81000000	C
	C6	26	C2000001	FE000000	7FFFFFFF	82000000	C
	C6	27	C4000001	FC000000	7FFFFFFF	84000000	C
	C6	28	C8000001	F8000000	7FFFFFFF	88000000	C
	C6	29	10000001	F0000000	7FFFFFFF	90000000	C
	C6	3C	20000001	E0000000	7FFFFFFF	A0000000	C
	C6	31	40000001	C0000000	7FFFFFFF	C0000000	C
	C6	32	80000001	80000000	7FFFFFFF	00000000	1
	C9		CCCCCCCC	00000001	7FFFFFFF	00000001	C
	10		CCCCCCC1	00000001	7FFFFFFF	00000001	C

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DW 78	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<CC
	C3		FFFFFFE1	CCCCCCCC	CCCCCCC4	CCCCCCCC	C
	C4		FFFFFFE1	CCCCCCCC	CCCCCCC4	CCCCCC1F	C
	C6	CC	FFFFFFE1	CCCCCC1F	CCCCCCC4	CCCCCCCC	1
	C6	C1	CCCCCCCC	CCCCCC3F	CCCCCCC4	FFFFFFFC	C
	C6	C2	FFFFFFF8	CCCCCC7E	CCCCCCC4	FFFFFFFC	C
	C6	C3	FFFFFFF8	CCCCCCFC	CCCCCCC4	FFFFFFFC	C
	C6	C4	FFFFFFF8	CCCCC1F8	CCCCCCC4	FFFFFFFC	C
	C6	C5	FFFFFFF8	CCCC3FC0	CCCCCCC4	FFFFFFFC	C
	C6	C6	FFFFFFF8	CCCC7EC0	CCCCCCC4	FFFFFFFC	C
	C6	C7	FFFFFFF8	CCCCFFC0	CCCCCCC4	FFFFFFFC	C
	C6	C8	FFFFFFF8	CCC1F80C	CCCCCCC4	FFFFFFFC	C
	C6	C9	FFFFFFF8	CCC3FCCC	CCCCCCC4	FFFFFFFC	C
	C6	1C	FFFFFFF8	CCC7ECCC	CCCCCCC4	FFFFFFFC	C
	C6	11	FFFFFFF8	CCCFFCCC	CCCCCCC4	FFFFFFFC	C
	C6	12	FFFFFFF8	CC1F8CCC	CCCCCCC4	FFFFFFFC	C
	C6	13	FFFFFFF8	CC3FCCCC	CCCCCCC4	FFFFFFFC	C
	C6	14	FFFFFFF8	CC7ECCCC	CCCCCCC4	FFFFFFFC	C
	C6	15	FFFFFFF8	CCFFCCCC	CCCCCCC4	FFFFFFFC	C
	C6	16	FFFFFFF8	C1F8CCCC	CCCCCCC4	FFFFFFFC	C
	C6	17	FFFFFFF8	C3FCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	18	FFFFFFF8	C7ECCCCC	CCCCCCC4	FFFFFFFC	C
	C6	19	FFFFFFF8	CFFCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	2C	FFFFFFF8	1F8CCCCC	CCCCCCC4	FFFFFFFC	C
	C6	21	FFFFFFF8	3FCCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	22	FFFFFFF8	7ECCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	23	FFFFFFF8	FFCCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	24	FFFFFFF8	1F8CCCCC	CCCCCCC4	FFFFFFFC	C
	C6	25	FFFFFFF8	3FCCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	26	FFFFFFF8	7ECCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	27	FFFFFFF8	FCCCCCCC	CCCCCCC4	FFFFFFFC	C
	C6	28	FFFFFFF9	F8CCCCCC	CCCCCCC4	FFFFFFFD	C
	C6	29	FFFFFFFB	FCCCCCCC	CCCCCCC4	FFFFFFFF	C
	C6	3C	FFFFFFFF	ECCCCCCC	CCCCCCC4	CCCCCCC3	1
	C6	31	CCCCCCC7	CCCCCCC1	CCCCCCC4	CCCCCCC3	1
	C6	32	CCCCCCC7	8CCCCCC3	CCCCCCC4	CCCCCCC3	1
	C9		CCCCCCC3	CCCCCCC7	CCCCCCC4	CCCCCCC7	C
	1C		CCCCCCC7	CCCCCCC7	CCCCCCC4	FFFFFFF9	C

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DW 79

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
03		CD0396FC	00000000	55555555	00000000	0
04		CD0396FC	00000000	55555555	0D0396FC	0
06	00	CD0396FC	0D0396FC	55555555	00000000	1
06	01	C0000000	1A072DF9	55555555	AAAAAAAB	0
06	02	55555556	340E5BF2	55555555	AAAAAAAB	0
06	03	55555556	681CB7E4	55555555	AAAAAAAB	0
06	04	55555556	D0396FC8	55555555	AAAAAAAB	0
06	05	55555557	A072DF90	55555555	AAAAAAAC	0
06	06	55555559	40E5BF20	55555555	AAAAAAAE	0
06	07	5555555C	81CB7E40	55555555	AAAAAAB1	0
06	08	55555563	0396FC80	55555555	AAAAAAB8	0
06	09	55555570	072DF900	55555555	AAAAAAC5	0
06	10	5555558A	0E5BF200	55555555	AAAAAADF	0
06	11	555555BE	1CB7E400	55555555	AAAAAB13	0
06	12	55555626	396FC800	55555555	AAAAAB7B	0
06	13	555556F6	72DF9000	55555555	AAAAAC4B	0
06	14	55555896	E5BF2000	55555555	AAAAADEB	0
06	15	55555BD7	CB7E4000	55555555	AAAAB12C	0
06	16	55556259	96FC8000	55555555	AAAAB7AE	0
06	17	55556F5D	2DF90000	55555555	AAAAC4B2	0
06	18	55558964	5BF20000	55555555	AAAADEB9	0
06	19	55558D72	B7E40000	55555555	AAAB12C7	0
06	20	5556258F	6FC80000	55555555	AAAB7AE4	0
06	21	5556F5C8	DF900000	55555555	AAAC4B1D	0
06	22	5558963B	BF200000	55555555	AAADEB90	0
06	23	555BD721	7E400000	55555555	AAB12C76	0
06	24	556258EC	FC800000	55555555	AAB7AE41	0
06	25	556F5C83	F9000000	55555555	AAC4B1D8	0
06	26	558963B1	F2000000	55555555	AADEB906	0
06	27	55BD720D	E4000000	55555555	AB12C762	0
06	28	56258EC5	C8000000	55555555	AB7AE41A	0
06	29	56F5C835	90000000	55555555	AC4B1D8A	0
06	30	58963B15	20000000	55555555	ADEB906A	0
06	31	5BD72CD4	40000000	55555555	B12C7629	0
06	32	6258EC52	80000000	55555555	B7AE41A7	0
09		B7AE41A7	00000000	55555555	00000000	1
10		C0000000	00000000	55555555	00000000	1

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DW 80

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
03		80000001	00000000	FFFFFFFA	00000000	1
04		80000001	00000000	FFFFFFFA	7FFFFFFF	0
06	CC	80000001	7FFFFFFF	FFFFFFFA	00000000	1
06	C1	C0000000	FFFFFFFF	FFFFFFFA	FFFFFFFA	0
06	C2	FFFFFFF5	FFFFFFFE	FFFFFFFA	FFFFFFFB	0
06	C3	FFFFFFF7	FFFFFFFC	FFFFFFFA	FFFFFFFD	0
06	C4	FFFFFFFB	FFFFFFF8	FFFFFFFA	00000001	1
06	C5	CCCCCCC3	FFFFFFF1	FFFFFFFA	FFFFFFFD	0
06	C6	FFFFFFFB	FFFFFFE2	FFFFFFFA	00000001	1
06	C7	CCCCCCC3	FFFFFFC5	FFFFFFFA	FFFFFFFD	0
06	C8	FFFFFFFB	FFFFFF8A	FFFFFFFA	00000001	1
06	C9	CCCCCCC3	FFFFFF15	FFFFFFFA	FFFFFFFD	0
06	1C	FFFFFFFB	FFFFFE2A	FFFFFFFA	00000001	1
06	11	CCCCCCC3	FFFFFC55	FFFFFFFA	FFFFFFFD	0
06	12	FFFFFFFB	FFFFF8AA	FFFFFFFA	00000001	1
06	13	CCCCCCC3	FFFFF155	FFFFFFFA	FFFFFFFD	0
06	14	FFFFFFFB	FFFFE2AA	FFFFFFFA	00000001	1
06	15	CCCCCCC3	FFFFC555	FFFFFFFA	FFFFFFFD	0
06	16	FFFFFFFB	FFFF8AAA	FFFFFFFA	00000001	1
06	17	CCCCCCC3	FFFF1555	FFFFFFFA	FFFFFFFD	0
06	18	FFFFFFFB	FFFE2AAA	FFFFFFFA	00000001	1
06	19	CCCCCCC3	FFFC5555	FFFFFFFA	FFFFFFFD	0
06	20	FFFFFFFB	FFF8AAAA	FFFFFFFA	00000001	1
06	21	CCCCCCC3	FFF15555	FFFFFFFA	FFFFFFFD	0
06	22	FFFFFFFB	FFE2AAAA	FFFFFFFA	00000001	1
06	23	CCCCCCC3	FFC55555	FFFFFFFA	FFFFFFFD	0
06	24	FFFFFFFB	FF8AAAAA	FFFFFFFA	00000001	1
06	25	CCCCCCC3	FF155555	FFFFFFFA	FFFFFFFD	0
06	26	FFFFFFFB	FE2AAAAA	FFFFFFFA	00000001	1
06	27	CCCCCCC3	FC555555	FFFFFFFA	FFFFFFFD	0
06	28	FFFFFFFB	F8AAAAAA	FFFFFFFA	00000001	1
06	29	CCCCCCC3	F1555555	FFFFFFFA	FFFFFFFD	0
06	30	FFFFFFFB	E2AAAAAA	FFFFFFFA	00000001	1
06	31	CCCCCCC3	C5555555	FFFFFFFA	FFFFFFFD	0
06	32	FFFFFFFB	8AAAAAAA	FFFFFFFA	00000001	1
09		CCCCCCC1	15555555	FFFFFFFA	15555555	0
10		15555555	15555555	FFFFFFFA	15555555	0

DW C1

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
PRE4		3FFFFFFF	00000000	00010000	00010000	1
PRE4		3FFFFFFF	00000000	00000100	00000000	1
PRE4		3FFFFFFF	00000000	00001000	00000001	1
C3		3FFFFFFF	00000000	00000001	00000001	1
C4		3FFFFFFF	00000000	00000001	3FFFFFFF	0
C6	CC	3FFFFFFF	3FFFFFFF	00000001	00000000	1
C6	C1	00000000	7FFFFFFF	00000001	FFFFFFFF	0
C6	C2	FFFFFFFE	FFFFFFFE	00000001	FFFFFFFF	0
C6	C3	FFFFFFFF	FFFFFFFC	00000001	00000000	1
C6	C4	00000001	FFFFFFF9	00000001	00000000	1
C6	C5	00000001	FFFFFFF3	00000001	00000000	1
C6	C6	00000001	FFFFFFE7	00000001	00000000	1
C6	C7	00000001	FFFFFFCF	00000001	00000000	1
C6	C8	00000001	FFFFFF9F	00000001	00000000	1
C6	C9	00000001	FFFFFF3F	00000001	00000000	1
C6	1C	00000001	FFFFFE7F	00000001	00000000	1
C6	11	00000001	FFFFFCFF	00000001	00000000	1
C6	12	00000001	FFFFF9FF	00000001	00000000	1
C6	13	00000001	FFFFF3FF	00000001	00000000	1
C6	14	00000001	FFFFE7FF	00000001	00000000	1
C6	15	00000001	FFFFCFFF	00000001	00000000	1
C6	16	00000001	FFFF9FFF	00000001	00000000	1
C6	17	00000001	FFFF3FFF	00000001	00000000	1
C6	18	00000001	FFFE7FFF	00000001	00000000	1
C6	19	00000001	FFFCFFFF	00000001	00000000	1
C6	2C	00000001	FFF9FFFF	00000001	00000000	1
C6	21	00000001	FFF3FFFF	00000001	00000000	1
C6	22	00000001	FFE7FFFF	00000001	00000000	1
C6	23	00000001	FFCFFFFF	00000001	00000000	1
C6	24	00000001	FF9FFFFF	00000001	00000000	1
C6	25	00000001	FF3FFFFF	00000001	00000000	1
C6	26	00000001	FE7FFFFF	00000001	00000000	1
C6	27	00000001	FCFFFFFF	00000001	00000000	1
C6	28	00000001	F9FFFFFF	00000001	00000000	1
C6	29	00000001	F3FFFFFF	00000001	00000000	1
C6	3C	00000001	E7FFFFFF	00000001	00000000	1
C6	31	00000001	CFFFFFFF	00000001	00000000	1
C6	32	00000001	9FFFFFFF	00000001	00000000	1
C9		00000000	3FFFFFFF	00000001	3FFFFFFF	0
1C		3FFFFFFF	3FFFFFFF	00000001	3FFFFFFF	0

DW C2

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	<00
PRE4		00000000	00000000	FFFE0000	FFFE0000	0
PRE4		00000000	00000000	00FFFE00	00000000	0
PRE4		00000000	00000000	00FFFE00	FFFFFFFE	0
C3		00000000	00000000	FFFFFFFE	FFFFFFFE	0
C4		00000000	00000000	FFFFFFFE	40000000	0
C6	CC	00000000	40000000	FFFFFFFE	00000000	1
C6	C1	00000000	80000001	FFFFFFFE	FFFFFFFE	0
C6	C2	FFFFFFFD	00000002	FFFFFFFE	FFFFFFFF	0
C6	C3	FFFFFFFE	00000004	FFFFFFFE	00000000	1
C6	C4	00000000	00000009	FFFFFFFE	FFFFFFFE	0
C6	C5	FFFFFFFC	00000012	FFFFFFFE	FFFFFFFE	0
C6	C6	FFFFFFFC	00000024	FFFFFFFE	FFFFFFFE	0
C6	C7	FFFFFFFC	00000048	FFFFFFFE	FFFFFFFE	0
C6	C8	FFFFFFFC	00000090	FFFFFFFE	FFFFFFFE	0
C6	C9	FFFFFFFC	00000120	FFFFFFFE	FFFFFFFE	0
C6	1C	FFFFFFFC	00000240	FFFFFFFE	FFFFFFFE	0
C6	11	FFFFFFFC	00000480	FFFFFFFE	FFFFFFFE	0
C6	12	FFFFFFFC	00000900	FFFFFFFE	FFFFFFFE	0
C6	13	FFFFFFFC	00001200	FFFFFFFE	FFFFFFFE	0
C6	14	FFFFFFFC	00002400	FFFFFFFE	FFFFFFFE	0
C6	15	FFFFFFFC	00004800	FFFFFFFE	FFFFFFFE	0
C6	16	FFFFFFFC	00009000	FFFFFFFE	FFFFFFFE	0
C6	17	FFFFFFFC	00012000	FFFFFFFE	FFFFFFFE	0
C6	18	FFFFFFFC	00024000	FFFFFFFE	FFFFFFFE	0
C6	19	FFFFFFFC	00048000	FFFFFFFE	FFFFFFFE	0
C6	2C	FFFFFFFC	00090000	FFFFFFFE	FFFFFFFE	0
C6	21	FFFFFFFC	00120000	FFFFFFFE	FFFFFFFE	0
C6	22	FFFFFFFC	00240000	FFFFFFFE	FFFFFFFE	0
C6	23	FFFFFFFC	00480000	FFFFFFFE	FFFFFFFE	0
C6	24	FFFFFFFC	00900000	FFFFFFFE	FFFFFFFE	0
C6	25	FFFFFFFC	01200000	FFFFFFFE	FFFFFFFE	0
C6	26	FFFFFFFC	02400000	FFFFFFFE	FFFFFFFE	0
C6	27	FFFFFFFC	04800000	FFFFFFFE	FFFFFFFE	0
C6	28	FFFFFFFC	09000000	FFFFFFFE	FFFFFFFE	0
C6	29	FFFFFFFC	12000000	FFFFFFFE	FFFFFFFE	0
C6	3C	FFFFFFFC	24000000	FFFFFFFE	FFFFFFFE	0
C6	31	FFFFFFFC	48000000	FFFFFFFE	FFFFFFFE	0
C6	32	FFFFFFFC	90000000	FFFFFFFE	FFFFFFFE	0
C9		FFFFFFFE	20000000	FFFFFFFE	20000000	1
1C		00000000	20000000	FFFFFFFE	20000000	1

DW C3

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
PRE4		AAAAAAAA	00000000	00000001	00000001	1
C3		AAAAAAAA	00000000	00000001	00000001	1
C4		AAAAAAAA	00000000	00000001	55555556	0
C6	C0	AAAAAAAA	55555556	00000001	00000000	1
C6	C1	00000000	AAAAAAAD	00000001	FFFFFFFF	0
C6	C2	FFFFFFFF	5555555A	00000001	00000000	1
C6	C3	00000000	AAAAAAB5	00000001	FFFFFFFF	0
C6	C4	FFFFFFFF	5555556A	00000001	00000000	1
C6	C5	00000000	AAAAAAD5	00000001	FFFFFFFF	0
C6	C6	FFFFFFFF	555555AA	00000001	00000000	1
C6	C7	00000000	AAAAAB55	00000001	FFFFFFFF	0
C6	C8	FFFFFFFF	555556AA	00000001	00000000	1
C6	C9	00000000	AAAAAD55	00000001	FFFFFFFF	0
C6	1C	FFFFFFFF	55555AAA	00000001	00000000	1
C6	11	00000000	AAAAB555	00000001	FFFFFFFF	0
C6	12	FFFFFFFF	55556AAA	00000001	00000000	1
C6	13	00000000	AAAAD555	00000001	FFFFFFFF	0
C6	14	FFFFFFFF	5555AAAA	00000001	00000000	1
C6	15	00000000	AAAB5555	00000001	FFFFFFFF	0
C6	16	FFFFFFFF	5556AAAA	00000001	00000000	1
C6	17	00000000	AAAD5555	00000001	FFFFFFFF	0
C6	18	FFFFFFFF	555AAAAA	00000001	00000000	1
C6	19	00000000	AAB55555	00000001	FFFFFFFF	0
C6	20	FFFFFFFF	556AAAAA	00000001	00000000	1
C6	21	00000000	AAD55555	00000001	FFFFFFFF	0
C6	22	FFFFFFFF	55AAAAAA	00000001	00000000	1
C6	23	00000000	AB555555	00000001	FFFFFFFF	0
C6	24	FFFFFFFF	56AAAAAA	00000001	00000000	1
C6	25	00000000	AD555555	00000001	FFFFFFFF	0
C6	26	FFFFFFFF	5AAAAAAA	00000001	00000000	1
C6	27	00000000	B5555555	00000001	FFFFFFFF	0
C6	28	FFFFFFFF	6AAAAAAA	00000001	00000000	1
C6	29	00000000	D5555555	00000001	FFFFFFFF	0
C6	3C	FFFFFFFF	AAAAAAAA	00000001	00000000	1
C6	31	00000001	55555555	00000001	00000000	1
C6	32	00000000	AAAAAAAB	00000001	FFFFFFFF	0
C9		FFFFFFFF	55555556	00000001	55555556	1
1C		55555556	55555556	00000001	AAAAAAAA	1

DW C4

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	K00
PRE4		25555555	00000000	0000FFFE	FFFFFFFE	1
C3		25555555	00000000	FFFFFFFE	FFFFFFFE	1
C4		25555555	00000000	FFFFFFFE	25555555	0
C6	C0	25555555	25555555	FFFFFFFE	00000000	1
C6	C1	00000000	4AAAAAAB	FFFFFFFE	FFFFFFFE	0
C6	C2	FFFFFFFC	95555556	FFFFFFFE	FFFFFFFE	0
C6	C3	FFFFFFFD	2AAAAAAC	FFFFFFFE	FFFFFFFF	0
C6	C4	FFFFFFFE	55555558	FFFFFFFE	00000000	1
C6	C5	00000000	AAAAAAB1	FFFFFFFE	FFFFFFFE	0
C6	C6	FFFFFFFD	55555562	FFFFFFFE	FFFFFFFF	0
C6	C7	FFFFFFFE	AAAAAAC4	FFFFFFFE	00000000	1
C6	C8	00000001	55555589	FFFFFFFE	FFFFFFFF	0
C6	C9	FFFFFFFE	AAAAAB12	FFFFFFFE	00000000	1
C6	1C	00000001	55555625	FFFFFFFE	FFFFFFFF	0
C6	11	FFFFFFFE	AAAAAC4A	FFFFFFFE	00000000	1
C6	12	00000001	55555895	FFFFFFFE	FFFFFFFF	0
C6	13	FFFFFFFE	AAAAB12A	FFFFFFFE	00000000	1
C6	14	00000001	55556255	FFFFFFFE	FFFFFFFF	0
C6	15	FFFFFFFE	AAAAC4AA	FFFFFFFE	00000000	1
C6	16	00000001	55558955	FFFFFFFE	FFFFFFFF	0
C6	17	FFFFFFFE	AAAB12AA	FFFFFFFE	00000000	1
C6	18	00000001	55562555	FFFFFFFE	FFFFFFFF	0
C6	19	FFFFFFFE	AAAC4AAA	FFFFFFFE	00000000	1
C6	2C	00000001	55589555	FFFFFFFE	FFFFFFFF	0
C6	21	FFFFFFFE	AAB12AAA	FFFFFFFE	00000000	1
C6	22	00000001	55625555	FFFFFFFE	FFFFFFFF	0
C6	23	FFFFFFFE	AAC4AAAA	FFFFFFFE	00000000	1
C6	24	00000001	55895555	FFFFFFFE	FFFFFFFF	0
C6	25	FFFFFFFE	AB12AAAA	FFFFFFFE	00000000	1
C6	26	00000001	56255555	FFFFFFFE	FFFFFFFF	0
C6	27	FFFFFFFE	AC4AAAAA	FFFFFFFE	00000000	1
C6	28	00000001	58955555	FFFFFFFE	FFFFFFFF	0
C6	29	FFFFFFFE	B12AAAAA	FFFFFFFE	00000000	1
C6	3C	00000001	62555555	FFFFFFFE	FFFFFFFF	0
C6	31	FFFFFFFE	C4AAAAAA	FFFFFFFE	00000000	1
C6	32	00000001	89555555	FFFFFFFE	FFFFFFFF	0
C9		FFFFFFFF	12AAAAAA	FFFFFFFE	12AAAAAA	1
1C		12AAAAAA	12AAAAAA	FFFFFFFE	ED555556	1

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 085

DW C5	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	PRE4		3FFFFFFF	00000000	40000000	40000000	1
	PRE4		3FFFFFFF	00000000	00400000	00000000	1
	PRE4		3FFFFFFF	00000000	00400000	00004000	1
	C3		3FFFFFFF	00000000	00004000	00004000	1
	C4		3FFFFFFF	00000000	00004000	3FFFFFFF	0
	C6	CC	3FFFFFFF	3FFFFFFF	00004000	00000000	1
	C6	C1	00000000	7FFFFFFF	00004000	FFFFC000	0
	C6	C2	FFFF8000	FFFFFFFE	00004000	FFFFC000	0
	C6	C3	FFFF8001	FFFFFFFC	00004000	FFFFC001	0
	C6	C4	FFFF8003	FFFFFFF8	00004000	FFFFC003	0
	C6	C5	FFFF8007	FFFFFFF0	00004000	FFFFC007	0
	C6	C6	FFFF800F	FFFFFFE0	00004000	FFFFC00F	0
	C6	C7	FFFF801F	FFFFFFC0	00004000	FFFFC01F	0
	C6	C8	FFFF803F	FFFFFF80	00004000	FFFFC03F	0
	C6	C9	FFFF807F	FFFFFF00	00004000	FFFFC07F	0
	C6	1C	FFFF80FF	FFFFFE00	00004000	FFFFC0FF	0
	C6	11	FFFF81FF	FFFFFC00	00004000	FFFFC1FF	0
	C6	12	FFFF83FF	FFFFF800	00004000	FFFFC3FF	0
	C6	13	FFFF87FF	FFFFF000	00004000	FFFFC7FF	0
	C6	14	FFFF8FFF	FFFFE000	00004000	FFFFCFFF	0
	C6	15	FFFF9FFF	FFFFC000	00004000	FFFFDFFF	0
	C6	16	FFFFBFFF	FFFF8000	00004000	FFFFFFFF	0
	C6	17	FFFFFFFF	FFFF0000	00004000	00003FFF	1
	C6	18	00007FFF	FFFE0001	00004000	00003FFF	1
	C6	19	00007FFF	FFFC0003	00004000	00003FFF	1
	C6	2C	00007FFF	FFF80007	00004000	00003FFF	1
	C6	21	00007FFF	FFF0000F	00004000	00003FFF	1
	C6	22	00007FFF	FFE0001F	00004000	00003FFF	1
	C6	23	00007FFF	FFC0003F	00004000	00003FFF	1
	C6	24	00007FFF	FF80007F	00004000	00003FFF	1
	C6	25	00007FFF	FF0000FF	00004000	00003FFF	1
	C6	26	00007FFF	FE0001FF	00004000	00003FFF	1
	C6	27	00007FFF	FC0003FF	00004000	00003FFF	1
	C6	28	00007FFF	F80007FF	00004000	00003FFF	1
	C6	29	00007FFF	F0000FFF	00004000	00003FFF	1
	C6	3C	00007FFF	E0001FFF	00004000	00003FFF	1
	C6	31	00007FFF	C0003FFF	00004000	00003FFF	1
	C6	32	00007FFF	80007FFF	00004000	00003FFF	1
	C9		00003FFF	0000FFFF	00004000	0000FFFF	0
	1C		0000FFFF	0000FFFF	00004000	0000FFFF	0

SIGMA 5 FIXED POINT DIVIDE SIMULATOR PAGE 086

DW C6	PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
	PRE4		00000000	00000000	B7770000	B7770000	0
	PRE4		00000000	00000000	00B77700	00000000	0
	PRE4		00000000	00000000	00B77700	FFFFB777	0
	C3		00000000	00000000	FFFFB777	FFFFB777	0
	C4		00000000	00000000	FFFFB777	40000000	0
	C6	CC	00000000	40000000	FFFFB777	00000000	1
	C6	C1	00000000	80000001	FFFFB777	FFFFB777	0
	C6	C2	FFFF6EEF	00000002	FFFFB777	FFFFB778	0
	C6	C3	FFFF6EF0	00000004	FFFFB777	FFFFB779	0
	C6	C4	FFFF6EF2	00000008	FFFFB777	FFFFB77A	0
	C6	C5	FFFF6EF6	00000010	FFFFB777	FFFFB77F	0
	C6	C6	FFFF6EFE	00000020	FFFFB777	FFFFB787	0
	C6	C7	FFFF6F0E	00000040	FFFFB777	FFFFB797	0
	C6	C8	FFFF6F2E	00000080	FFFFB777	FFFFB7B7	0
	C6	C9	FFFF6F6E	00000100	FFFFB777	FFFFB7F7	0
	C6	1C	FFFF6FEE	00000200	FFFFB777	FFFFB877	0
	C6	11	FFFF70EE	00000400	FFFFB777	FFFFB977	0
	C6	12	FFFF72EE	00000800	FFFFB777	FFFFBB77	0
	C6	13	FFFF76EE	00001000	FFFFB777	FFFFBF77	0
	C6	14	FFFF7EEE	00002000	FFFFB777	FFFFC777	0
	C6	15	FFFF8EEE	00004000	FFFFB777	FFFFD777	0
	C6	16	FFFFAEEE	00008000	FFFFB777	FFFFF777	0
	C6	17	FFFFEEEE	00010000	FFFFB777	00003777	1
	C6	18	00006EEE	00020001	FFFFB777	00002665	1
	C6	19	00004CCA	00040003	FFFFB777	00001441	1
	C6	2C	00000882	00080007	FFFFB777	FFFFBFF9	0
	C6	21	FFFF7FF2	0010000E	FFFFB777	FFFFC87B	0
	C6	22	FFFF9DF6	0020001C	FFFFB777	FFFFD97F	0
	C6	23	FFFFB2FE	00400038	FFFFB777	FFFFFA87	0
	C6	24	FFFFF7DE	00800070	FFFFB777	00003F97	1
	C6	25	00007F2E	010000E1	FFFFB777	000036A5	1
	C6	26	00006D4A	020001C3	FFFFB777	000024C1	1
	C6	27	00004982	04000387	FFFFB777	00000DF9	1
	C6	28	00001F2	080007CF	FFFFB777	FFFFB969	0
	C6	29	FFFF72D2	10001E1E	FFFFB777	FFFFBA5B	0
	C6	3C	FFFF76B6	2000 1C3C	FFFFB777	FFFFBF3F	0
	C6	31	FFFF7F7E	40003878	FFFFB777	FFFFC7D7	0
	C6	32	FFFF8ECE	8000 7CF0	FFFFB777	FFFFD697	0
	C9		FFFFD697	0000E1E0	FFFFB777	0000E1E0	1
	1C		0000E1E0	0000E1E0	FFFFB777	0000E1E0	1

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DH C7

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
PRE4		AAAAAAAA	00000000	00004000	00004000	1
C3		AAAAAAAA	00000000	00004000	00004000	1
C4		AAAAAAAA	00000000	00004000	55555556	0
C6	CC	AAAAAAAA	55555556	00004000	00000000	1
C6	C1	C0000000	AAAAAAAD	00004000	FFFFC000	0
C6	C2	FFFF8001	5555555A	00004000	FFFFC001	0
C6	C3	FFFF8002	AAAAAAB4	00004000	FFFFC002	0
C6	C4	FFFF8005	55555568	00004000	FFFFC005	0
C6	C5	FFFF800A	AAAAAAD0	00004000	FFFFC00A	0
C6	C6	FFFF8015	555555A0	00004000	FFFFC015	0
C6	C7	FFFF802A	AAAAAB40	00004000	FFFFC02A	0
C6	C8	FFFF8055	55555680	00004000	FFFFC055	0
C6	C9	FFFF80AA	AAAAAD00	00004000	FFFFC0AA	0
C6	1C	FFFF8155	55555A00	00004000	FFFFC155	0
C6	11	FFFF82AA	AAAAB400	00004000	FFFFC2AA	0
C6	12	FFFF8555	55556800	00004000	FFFFC555	0
C6	13	FFFF8AAA	AAAAD000	00004000	FFFFCAAA	0
C6	14	FFFF9555	5555A000	00004000	FFFFD555	0
C6	15	FFFFAAAA	AAAB4000	00004000	FFFFEAAA	0
C6	16	FFFFD555	55568000	00004000	00001555	1
C6	17	C0002AAA	AAADC001	00004000	FFFFEAAA	0
C6	18	FFFFD555	555AC002	00004000	00001555	1
C6	19	C0002AAA	AAB40005	00004000	FFFFEAAA	0
C6	2C	FFFFD555	5568000A	00004000	00001555	1
C6	21	C0002AAA	AADC0015	00004000	FFFFEAAA	0
C6	22	FFFFD555	55AC002A	00004000	00001555	1
C6	23	C0002AAA	AB400055	00004000	FFFFEAAA	0
C6	24	FFFFD555	56800AAA	00004000	00001555	1
C6	25	C0002AAA	AD000155	00004000	FFFFEAAA	0
C6	26	FFFFD555	5A0002AA	00004000	00001555	1
C6	27	C0002AAA	B4000555	00004000	FFFFEAAA	0
C6	28	FFFFD555	68000AAA	00004000	00001555	1
C6	29	C0002AAA	D0001555	00004000	FFFFEAAA	0
C6	3C	FFFFD555	A0002AAA	00004000	00001555	1
C6	31	C0002AAB	40005555	00004000	FFFFEAAB	0
C6	32	FFFFD556	8000AAAA	00004000	00001556	1
C9		C0001556	00015555	00004000	00015555	0
1C		C0015555	00015555	00004000	FFFEAAAB	0

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DH C8

PHASE	CLOCK	A(00-31)	B(00-31)	D(00-31)	S(00-31)	KCC
PRE4		25555555	00000000	0000B777	FFFFB777	0
C3		25555555	00000000	FFFFB777	FFFFB777	0
C4		25555555	00000000	FFFFB777	25555555	0
C6	CC	25555555	25555555	FFFFB777	00000000	1
C6	C1	C0000000	4AAAAAAB	FFFFB777	FFFFB777	0
C6	C2	FFFF6EEE	95555556	FFFFB777	FFFFB777	0
C6	C3	FFFF6EEF	2AAAAAAC	FFFFB777	FFFFB778	0
C6	C4	FFFF6EF0	55555558	FFFFB777	FFFFB779	0
C6	C5	FFFF6EF2	AAAAAABC	FFFFB777	FFFFB77B	0
C6	C6	FFFF6EF7	55555560	FFFFB777	FFFFB780	0
C6	C7	FFFF6F00	AAAAAAC0	FFFFB777	FFFFB789	0
C6	C8	FFFF6F13	55555580	FFFFB777	FFFFB79C	0
C6	C9	FFFF6F38	AAAAAB00	FFFFB777	FFFFB7C1	0
C6	1C	FFFF6F83	55555600	FFFFB777	FFFFB800	0
C6	11	FFFF7018	AAAAAC00	FFFFB777	FFFFB8A1	0
C6	12	FFFF7143	55555800	FFFFB777	FFFFB9CC	0
C6	13	FFFF7398	AAAAB000	FFFFB777	FFFFBC21	0
C6	14	FFFF7843	55556000	FFFFB777	FFFFC0CC	0
C6	15	FFFF8198	AAAAC000	FFFFB777	FFFFCA21	0
C6	16	FFFF9443	55558000	FFFFB777	FFFFD0CC	0
C6	17	FFFFB998	AAAB0000	FFFFB777	00000221	1
C6	18	C000C443	55560001	FFFFB777	FFFFBBBA	0
C6	19	FFFF7774	AAAC0002	FFFFB777	FFFFBFFD	0
C6	2C	FFFF7FFB	55580004	FFFFB777	FFFFC884	0
C6	21	FFFF9108	AAB00008	FFFFB777	FFFFD991	0
C6	22	FFFFB323	55600010	FFFFB777	FFFFFBAC	0
C6	23	FFFFF758	AAC00020	FFFFB777	00003FE1	1
C6	24	CC007FC3	55800041	FFFFB777	0000373A	1
C6	25	C0006E74	AB000083	FFFFB777	000025E8	1
C6	26	C0004BD7	56000107	FFFFB777	0000034E	1
C6	27	C000069C	AC00020F	FFFFB777	FFFFBE13	0
C6	28	FFFF7C27	58000410	FFFFB777	FFFFC4B0	0
C6	29	FFFF896C	B0000830	FFFFB777	FFFFD1E9	0
C6	3C	FFFFA3D3	60001078	FFFFB777	FFFFEC5C	0
C6	31	FFFFD8B8	C00020F0	FFFFB777	00002141	1
C6	32	C0004283	80004161	FFFFB777	FFFFF9FA	0
C9		FFFFF9FA	00083C2	FFFFB777	000083C2	1
1C		C00083C2	00083C2	FFFFB777	FFFF7C3E	1

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