

CHANGE/ERRATA INFORMATION

ISSUE NO: 5 10/91

This change/errata contains information necessary to ensure the accuracy of the following manual. Enter the corrections in the manual if either one of the following conditions exist:

1. The revision letter stamped on the indicated PCB is equal to or higher than that given with each change.
2. No revision letter is indicated at the beginning of the change/errata.

MANUAL

Title: 6060B
Print Date: February 1986
Rev.- Date: ---

C/E PAGE EFFECTIVITY

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41	10/91

ERRATA #1

On page 6-2, add the following NOTE after the introductory paragraph:

NOTE

The switch settings listed below must be followed upon the installation of the appropriate option. The switch (S1) is located on the Controller PCA (A2A7).

OPTION SWITCH SETTINGS (S1)	
SWITCH SECTION IN "ON" POSITION	OPTION INSTALLED
1 PECULIAR TO 6060A	SUBHARMONIC REFERENCE OPTION - 131
2 PECULIAR TO 6060B	MEDIUM STABILITY REFERENCE OPTION - 132
3	LOW RATE FM OPTION - 651
4	REAR OUTPUT OPTION - 830

ALL OTHER SWITCH SECTIONS SHALL BE IN "OFF" POSITION

On page 132-1, Change the NOTE as follows:

REPLACE: (See the specifications for details.)

WITH: A "Freq. Uncal" condition may be observed during this warm-up

ERRATA #2

On page 3-12, replace Figure 3-1 with Figure 1.

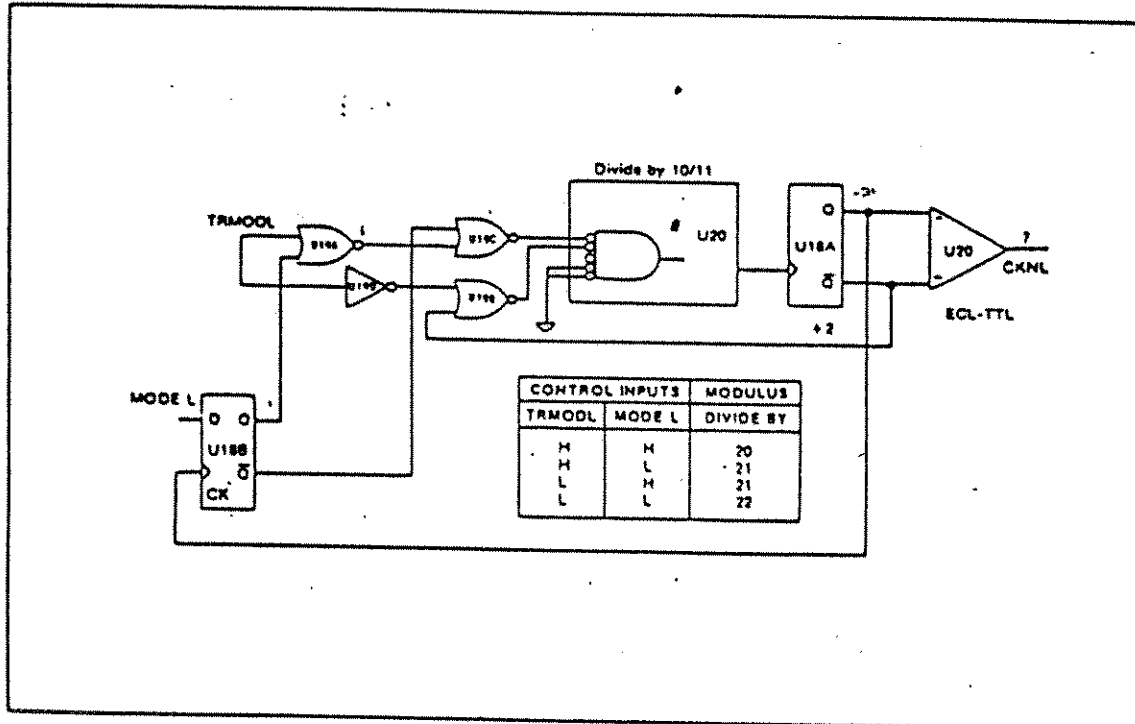


Figure 1.

ERRATA #3

On page 4A-3, change Synthesis Test

FROM: 4A-4. SYNTHESIS TEST
TO: 4A-4A. SYNTHESIS TEST

Add the following text prior to 4A-4A. SYNTHESIS TEST.

4A-4. FREQUENCY ACCURACY TEST

The internal timebase is compared to that of a Frequency Standard.

REQUIREMENTS

The frequency of the UUT timebase is within the specified limits.

TEST EQUIPMENT

Frequency Standard
Frequency Counter

REMARKS

This procedure is for a UUT with a standard timebase. If the UUT has the optional timebases installed (Option -130 or -132), use the procedure in Section 6 to verify that the optional timebase frequency is within the specified limits.

PROCEDURE

- a. Connect the Frequency Standard output to the 10 MHz REF IN connector on the Frequency Counter and switch the Counter to Ext. Ref.
- b. Switch the UUT to internal reference.
- c. Connect the UUT REF OUT connector to the Frequency Counter CHANNEL A input connector.
- d. Verify that the counter display is 10 MHz +/-25 Hz.

ERRATA #4

On pages 4A-3 and 4A-4, replace the SYNTHESIS TEST and the first paragraph of the HIGH-LEVEL ACCURACY TEST with the following:

4A-4A. SYNTHESIS TEST

Using a Frequency Counter operating on a common reference with the Generator, the Generator output frequency is measured at several programmed frequencies.

REQUIREMENT

The Generator's measured and programmed frequencies agree within +/- one count.

TEST EQUIPMENT

Frequency Counter

REMARKS

Failing this test indicates the need to repair and/or recalibrate the Synthesizer PCA (A2A1) and/or the VCO PCA (A2A2).

PROCEDURE

- a. Connect the UUT 10 MHz OUT to the Frequency Counter 10 MHz reference input, and connect the UUT RF OUTPUT to the Counter input.
- b. Set the UUT REF INT/EXT Switch to INT, and the Counter REF INT/EXT Switch to EXT.
- c. Set the counter to read 10 Hz resolution.
- d. Program the UUT to [RCL] [9] [8].
- e. Program the UUT frequency to 111.11111 MHz.
- f. Program the UUT frequency step to 111.11111 MHz.
- g. As the frequency is stepped from 111.11111 MHz, 222.22222 MHz, etc., to 999.99999 MHz, verify that the Counter reading agrees with the UUT frequency +/- one count.

4A-5. HIGH-LEVEL ACCURACY TEST

The output power is measured with a power meter at various frequencies. First, the step attenuator is measured for zero attenuation. Next, each attenuator section is individually measured. Finally, the output level accuracy and attenuator section errors are computed (see Figures 4A-2 and 4A-3). If a Measuring Receiver is to be used for level testing, then proceed directly to the Alternate-Level Accuracy Test (4A-9).

ERRATA #5

On page 4A-7, rename Figure 4A-3,
 FROM: Figure 4A-3. High-Level Accuracy Test Conditions
 TO: Figure 4A-3. Sample of High-Level Accuracy Test Conditions

ERRATA #6

On page 4A-17/4A-18, replace 4A-13. SWR TEST with the following:

4A-13. VSWR TESTS

These tests use a VSWR bridge and a Spectrum Analyzer to verify VSWR of the UUT.

REQUIREMENTS

The output VSWR is less than 1.5:1 for output levels $< +1$ dBm; $< 2:1$ elsewhere.

TEST EQUIPMENT REQUIRED

VSWR bridge
 RF Spectrum Analyzer
 High Frequency Synthesized Signal Generator (HFSSG)

REMARKS

The UUT settings in this procedure are chosen to provide confidence in the VSWR performance of the UUT throughout its range. However, performance also may be checked at other attenuator settings.

PROCEDURE

1. Low frequency Band at Low Level Test
 - a. With the unit turned on, reset the UUT by selecting [RCL] [9] [8].
 - b. Program the UUT to 1 MHz at +0.9 dBm.
 - c. Select special function Fixed Range on the UUT by pressing [SPCL] [9] [1].
 - d. Using the EDIT function on the UUT, edit the amplitude to -30.1 dBm. Verify that the UNCAL annunciator illuminates.

NOTE

This procedure leaves the output attenuators set as they would be for a +0.9 dBm output level, but uses the electronic control to turn down the RF level coming out of the UUT.

- e. Connect the UUT to the Device Under Test port of the VSWR Bridge.
 - f. Connect the Spectrum Analyzer to the RF OUT port of the VSWR Bridge.
 - g. Connect the HFSSG to the RF IN port of the VSWR Bridge.
 - h. Program the HFSSG to 10 MHz at +13 dBm.
 - i. Set the Spectrum Analyzer to display approximately 10 - 250 MHz and set the Reference Level to +10 dBm.
 - j. Step the HFSSG from 10 to 240 MHz in 5 MHz steps. Locate the frequency at which the reflected signal (displayed by the spectrum analyzer) is maximum and record this level. This is the point with worst-case VSWR.
 - k. Disconnect the UUT from the VSWR bridge and record the new level.
 - l. Calculate the Return Loss (difference) between the two recorded levels. The difference must be at least 14 dB (14 dB of Return Loss = 1.5:1 VSWR).
2. Mid and High Frequency Bands at Low Level Test
- a. Program the UUT to 250 MHz at +0.9 dBm
 - b. Using the EDIT function on the UUT, edit the amplitude to -30.1 dBm.
 - c. Connect the UUT to the Device Under Test port of the VSWR Bridge.
 - d. Set the Spectrum Analyzer to display approximately 245 - 1050 MHz.
 - e. Step the HFSSG from 250 to 1050 MHz in 5 MHz steps. Locate the frequency at which the reflected signal is maximum and record this level.
 - f. Disconnect the UUT from the VSWR Bridge and record the new level.
 - g. Calculate the Return Loss between the two recorded levels. The difference must be at least 14 dB.
3. Mid and High Frequency Bands at High Level Test
- a. Program the UUT to +10 dBm
 - b. Using the EDIT function on the UUT, edit the amplitude to -30 dBm.
 - c. Connect the UUT to the Device Under Test port of the VSWR Bridge.

- d. Step the HFSSG from 250 to 1050 MHz in 5 MHz steps. Locate the frequency at which the reflected signal is maximum and record this level.
- e. Disconnect the UUT from the VSWR Bridge and record the new level.
- f. Calculate the Return Loss between the two recorded levels. The difference must be at least 9.5 dB (9.5 dB of Return Loss = 2:1 VSWR).

4. Low Frequency Band at High Level Test

- a. Program the UUT to 1 MHz at +10 dBm.
- b. Using the EDIT function on the UUT, edit the amplitude to -30 dBm.
- c. Connect the UUT to the Device Under Test port of the VSWR Bridge.
- d. Set the Spectrum Analyzer to display approximately 10 - 250 MHz.
- e. Step the HFSSG from 10 240 MHz in 5 MHz steps. Locate the frequency at which the reflected signal is maximum and record this level.
- f. Disconnect the UUT from the VSWR Bridge and record the new level.
- g. Calculate the Return Loss between the two recorded levels. The difference must be at least 9.5 dB.
- h. Reset the UUT by selecting [RCL] [9] [8].

ERRATA #7

On pages 4C-14 and 4C-15, replace step 4 through e with the following:

4. VCO Voltage-Clamp Adjustments, R104 and R125

TEST EQUIPMENT:

Frequency Counter

DMM

REMARKS:

The VCO voltage-clamp is normally required when either the A5 VCO PCA or the A4 Synthesizer PCA has been replaced or when either of these assemblies has been subjected to repair or modifications.

PROCEDURE:

The UUT PLL is disabled to cause the VCO frequency to be at the limits of its range.

1. Remove the instrument and module plate top covers of the UUT.
2. Connect the UUT rear panel 10 MHz OUT to the Frequency Counter 10-MHz reference input, and connect the UUT RF OUTPUT to the Frequency Counter input.
3. Program the UUT to [RCL][9][8], 500 MHz and +13 dBm.
4. Using a clip lead, carefully short TP14 to ground to cause the VCO to go to the upper frequency limit.
5. Adjust R104 for 535 MHz +/- MHz.
6. Remove the shorting clip lead from TP14.
7. Program the UUT for 250 MHz (still at +13 dBm).
8. Using the clip lead, carefully short TP35 to ground to cause the VCO to go to its lower frequency limit. The measured voltage at TP44 should be approximately 1.7V.
9. Adjust R125 for 237 MHz +/-1 MHz.
10. Remove the shorting clip lead from the UUT.

NOTE

On earlier units, adjustment R125 was not present. In these cases the frequency measured in step 9 should be less than 240 MHz.

ERRATA #8

On page 4D-2 replace Table 4D-1, and the paragraph preceding the Table with the following paragraph and table:

To order a replacement module, use the part number shown in Table 4D-1 and specify a Module Exchange part. Table 4D-1 shows a list of replaceable assemblies. Note that two versions of the Synthesizer assembly are available, one with the Low-Rate FM option and one without the option. The following paragraphs describe the available exchange modules and how to adjust the Generator, if necessary, after installation. For removal instructions refer to Access Procedures Section 4B.

Table 4D-1. Module Exchange Assemblies

A1A1 Display PCA.....	(P/N 738609)
A2A1 Synthesizer PCA.....	(P/N 792812)
A2A1 Synthesizer with L.R. (-651).....	(P/N 798215)
A2A2 VCO PCA.....	(P/N 748780)
A2A4 Output PCA.....	(P/N 798157)
A2A5 Attenuator Assembly.....	(P/N 752667)
A2A5A5 Relay Driver/RPP PCA.....	(P/N 752816)
A2A7 Controller PCA.....	(P/N 798082)
A2A8 Non-Volatile Memory PCA.....	(P/N 744094)
A3A1 Power Supply PCA.....	(P/N 744052)
A3A3 IEEE-488 Interface.....	(P/N 774562)

On page 4D-2, delete the second paragraph under 4D-5. Synthesizer PCA A2A1.

On page 4D-3, in the first paragraph following 4D-6 change the second sentence to:

This EPROM replaces the old one installed on the Controller PCA, A2A7, at reference location U23.

On page 4D-3, in the first paragraph following 4D-7 change the second sentence to:

This Eprom replaces the old one installed on the Controller PCA, A2A7, at reference location U24.

Replace 4D-10 and the paragraph that follows, with:

4D-10. Attenuator/RPP Assembly, A2A5

The Attenuator/RPP Assembly comes complete with the housing, Attenuator/RPP PCA, Relay Driver/RPP PCA, and a matching Attenuator Calibration EPROM. The matching EPROM replaces the Attenuator Calibration EPROM on the Controller PCA at reference location U26. After the new Attenuator/RPP assembly is installed, perform the RF Level Adjustment procedure on the A2A4 Output PCA as explained in the Calibration Adjustments section of this manual. If desired, the Relay Driver/RPP PCA can be ordered separately through Module Exchange, and no adjustments would be necessary.

Replace the paragraph following 4D-12, with:

4D-12. Non-Volatile Memory PCA, A2A8

The Non-Volatile Memory PCA requires that you solder in the non-connected terminal of the battery (BT1) to the PCA before installation. The assembly requires no adjustment.

ERRATA #9

On page 4D-6, add the following sentence after the second sentence in the first paragraph:

Multiple error codes in one field are summed together.
EXAMPLE: Code 220 = 200 and 020.

ERRATA #10

On page 8-33, Figure 8-16, in the schematic drawing,

CHANGE: U118291A
TO: U117210

ERRATA #11

On page 8-30, Figure 8-13, replace the schematic with Figure 2.

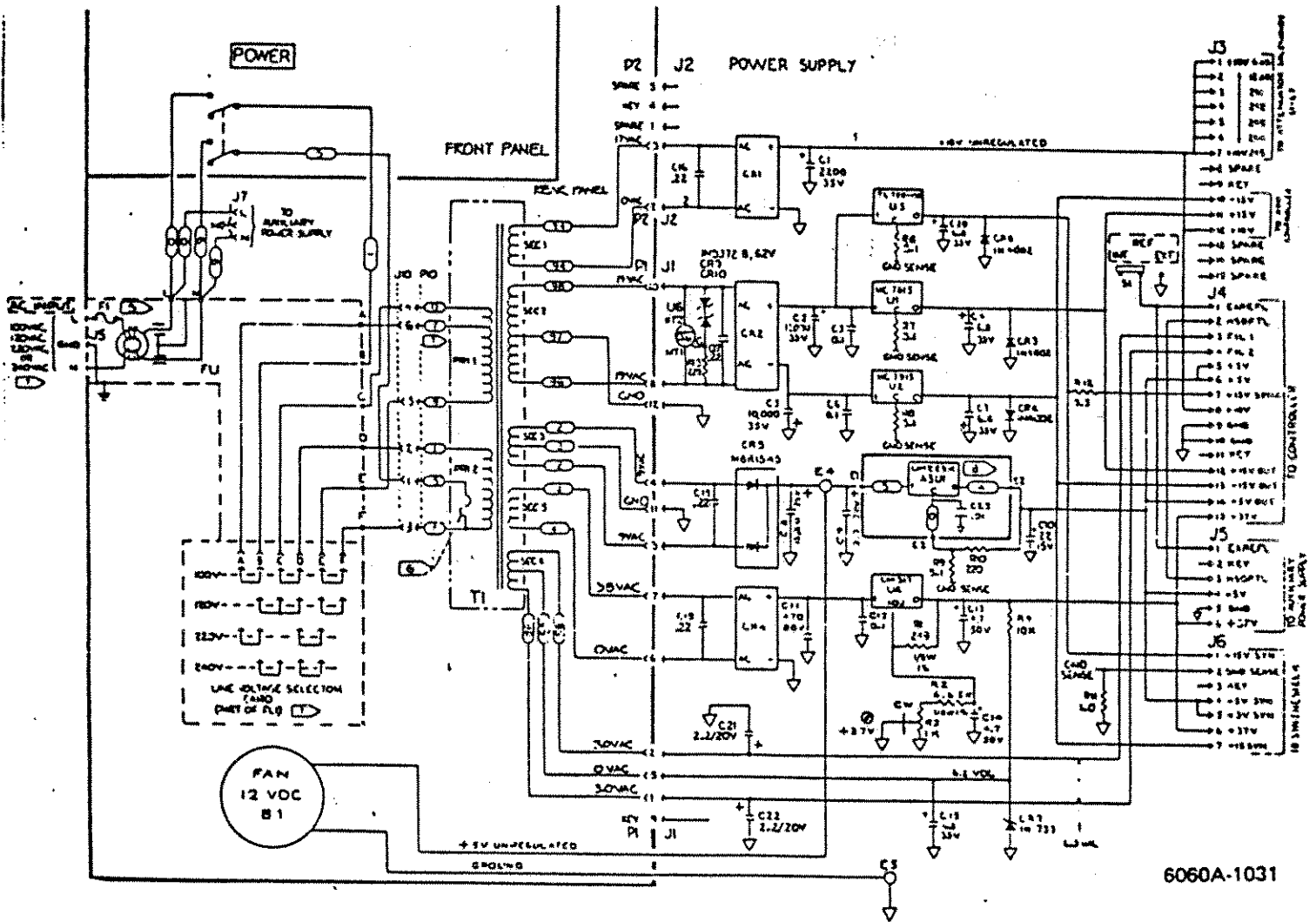


Figure 2.

ERRATA #12

On page 1-4, paragraph 1-14, add the following list of accessories after the sentence that reads:

The following accessories are included with each Generator:

DESCRIPTION	PART NUMBER	QUANTITY
Operator Information Card	812461	1
Getting Started Manual	794834	1
Instruction Manual	792697	1
Line Power Cord	284174	1
BNC Dust Cap	478982	1

On page 2-3, paragraph 2-11, change the second paragraph to read:

If any of the self tests fail, an error code is displayed. If the operator initiates any front panel entry before the power-on sequence is completed, the self test is aborted, and the Generator is set to the state it was in when turned off. Table 2-3 lists the Instrument Preset State. Power-on instrument settings that relate to the optional IEEE-488 Interface are described in the Remote Operation paragraphs in this section. More detail on Power-on Self Tests are explained in Section 4D.

On page 3-5, at the top of the page,

CHANGE: 2. The new Attenuators are programmed in addition to the old Attenuators.

3. After a 5-ms wait to allow the Attenuators to settle, the new Attenuator and LEVEL DAC settings are programmed.

TO: 2. The attenuator sections are reprogrammed for correct attenuation.

3. After a 5-ms wait to allow the Attenuators to settle, the LEVEL DAC setting is programmed.

On page 3-7, replace section 3-26 with the following:

3-26. Special Functions

There are several special function self tests that are used as troubleshooting aids. Refer to Section 4D for detailed information regarding these troubleshooting tests.

On page 3-17, replace the second paragraph with the following:

Range switching is provided by resistors R77, R78, R79, and FETs Q10, Q11, and Q12. Comparator U42 converts TTL levels to 0V (on), and -15V (off) required by the FETs. U41C buffers the range switch, and in conjunction with R82, provides an overall FM adjustment. At this point, the audio signal splits into two paths. The path that connects to the integrator, U41A, is for modulation frequencies inside the loop bandwidth.

On page 3-17, in the third paragraph, change the first sentence to read:

The path that sums with the VCO control voltage at P103 is for frequencies outside the loop bandwidth.

On page 3-17, the third paragraph following 3-47, replace the second sentence with:

The 40-MHz balanced ECL signal from U64 drives the two-phase clock generator.

On pages 3-17 and 3-18, replace sections 3-48 and 3-49 with the following:

3-48. 800-MHz VCO

The 800-MHz VCO is a low noise, limited range, voltage-controlled oscillator for the 800-MHz PLL. The basic oscillator uses two active devices operating as negative resistance elements, coupled symmetrically to resonator made up of two varactors and an adjustable capacitor. Each device is followed by an amplifier and isolation pad. This provides two coherent outputs of +5 dBm to the PLL and 0 dBm to the output A2A4 assembly.

The oscillator transistors Q32 and Q35 are biased at 13 mA by R182 and R191. The voltage at the collectors of Q32 and Q35 is typically +2.5V. The two 6-dB amplifiers Q33 and Q37 are biased so that the voltage at their emitters is about +0.3V, and the voltage at their bases is about +1V with the collectors at +6.5V.

The PLL control voltage from U60 provides the tuning voltage for the dual varactors CR27, and CR26. The adjustable capacitor C206 is set to provide +16V on the varactor to optimize the VCO noise characteristic. The output attenuators consisting of R186, R187, R189, R197, R198, and R200 provide isolation for the outputs. The VCO signal is coupled to the output assembly A2A4 by a through-the-plate coaxial connector P108 at the 0 dBm level. The other VCO signal is connected to the divider U61 to provide the feedback for the PLL.

3-49. SUB-SYNTHESIZER

The sub-synthesizer consists of the clock generator, U34, 35, Q4, Q5, the gate-array, U33, the divide by 500, U15, and the low-pass filter L11 and L17. Internal to the sub-synthesizer gate-array, U33, are a divide-by-two, a 3 1/2 decade-rate multiplier, and associated latches.

The balanced 40-MHz ECL clock signal is converted to TTL in Q4 and Q5, and converted to a two-phase 20-MHz clock in U34, and U35.

The input frequency to the rate-multiplier is 20-MHz. The output frequency can be programmed from zero to 19.995 MHz in 5-kHz steps. This signal is ORed with the other phase of the 20-MHz clock to produce 20 MHz to 39.995 MHz at U33 pin 1. It is also divided by two for the output at U33 pin 23, by ten in U15, and again by 50 in U16 to produce 20 kHz to 39.995kHz in 5-Hz steps. This TTL signal at TP11 is filtered by L11, L17 and C41, C42, C48, C50, and C51. Op-amp, U10 forms an active quadrature generator, and the output pins 14 and 8 are offset by 90 degrees. These two signals are the 20-kHz to 40-kHz inputs for the Main PLL single-sideband mixer.

On page 4-1, paragraph 4-4, delete the second paragraph.

On page 4A-5, Figure 4A-2, make the following changes:

Under the heading OUTPUT POWER,

CHANGE:	PROGRAM	MEASURED
	(dBm)	(dBm)
TO:	PROGRAMMED LEVEL (dBm)	MEASURED POWER (dBm)

Under the ERROR (dB) column, change the fourth through the eighth entries such that the - is now a +.

On page 4C-11, delete the last sentence in the third paragraph after REMARKS.

On page 4C-12, Figure 4C-3, add R125 as shown in Figure 3.

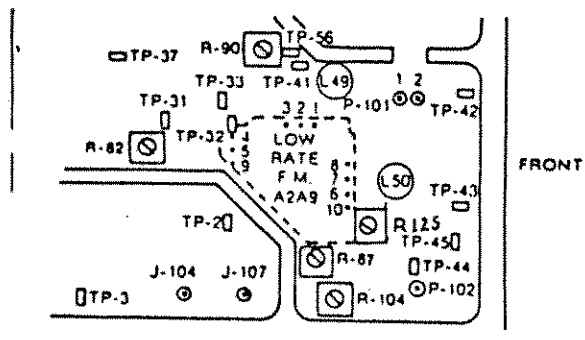


Figure 3.

On page 4D-1, the second paragraph under Introduction should read:

After any module repair or replacement, the information and adjustments in the following paragraphs - particular to the module - should be completed, followed by the appropriate performance tests of the Generator. Signal Generator problems are generally caused by operator error, out-of-spec performance, or by catastrophic failure. The correction strategy is different in each case.

On page 4D-4, make the following changes:

4D-15. Service Special Functions

There are several special function self tests that can be used to assist the technician in troubleshooting the Generator. A few of the special functions used during troubleshooting are described in the following paragraphs. For a complete list of all special functions, see Table 2-4.

o Special Function 03, Display Check

The front panel displays can be checked any time by pressing the [SPCL] [0] [3] keys. When this is done the microprocessor lights all display segments. This test is terminated by pressing any key on the instrument.

o Special Function 04, Key Check

Check the normally open front panel keys by pressing the [SPCL] [0] [4] keys. For each key pressed, the code is displayed in the FREQUENCY display field. Pressing [CLR/LCL] key exits this check. The test will time out after approximately 8 seconds if no keys are pressed.

ERRATA #13

On page 1-5, Table 1-1, under the FREQUENCY section, change the REFERENCE (Internal) specification,

FROM: $\begin{matrix} > \dots <^+ & -0.5 \text{ ppm/month and } <^+ & -5 \text{ ppm for } 25^\circ\text{C}, \\ & & & -25^\circ\text{C}. \end{matrix}$

TO: $\begin{matrix} > \dots <^+ & -0.5 \text{ ppm/month and } <^+ & -10 \text{ ppm for } 25^\circ\text{C}, \\ & & & -25^\circ\text{C}. \end{matrix}$

Replace all the parts list tables in Section 5 with Tables 5-1 through 5-11 on the following pages.

Replace Figures 5-1 through 5-4 with Figure 5-1 as shown in this Change/Errata.

Add Figure 5-6 as shown in this Change/Errata.

Change all the Figure numbers in Section 5 as follows:

FROM:	5-5	TO:	5-2
	5-6		5-3
	5-7		5-4
	5-8		5-5
	5-9		5-7
	5-10		5-8
	5-11		5-9
	5-12		5-10
	5-13		5-11

Table 5-1. 6060B Final Assembly
(See Figure 5-1.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T E			
-A>-NUMERICS-->	NO--	-CODE-	-OR GENERIC TYPE-----		-E-			
	-----DESCRIPTION-----							
A1A1			* DISPLAY PCA	738609	89536	738609	1	
A1A2			* SWITCH PWB	738591	89536	738591	1	
A2A1			SYNTHESIZER PCA	792812	89536	792812	1	
A2A2			* MAIN VCO PCA	748780	89536	748780	1	
A2A4			OUTPUT PCA	798157	89536	798157	1	
A2A5			ATTENUATOR/RFP ASSEMBLY	752667	89536	752667	1	
A2A7			CONTROLLER PCA	798082	89536	798082	1	
A2A8			* NON-VOLATILE MEMORY PCA	744094	89536	744094	1	
A3A1			* POWER SUPPLY PCA	744052	89536	744052	1	
B 1			FAN, 12VDC, 34CFM, 3.15" SQ	706598	82877	FL12A308	1	
C 1			CAP, CER, 1000PF, +-5%, 50V, COG	528539	04222	SR215A102JAT	1	
C 2			CAP, CER, 270PF, +-5%, 100V, COG	614586	04222	SR201A271JAT	1	
C 23			CAP, CER, 0.01UF, 480-20V, 100V, 25V	149153	60705	562C25UCK101AF1038	1	
E 1			TERM, RING, 3/8 & 7/64, SOLDER	441972	79963	761	1	
E 2- 4			TERM, RING #6, 3/32 - 2 PLACES, SOLDER	132399	71002	2104-06-00	3	
F 1			FUSE, .25X1.25, 1.5A, 250V, FAST	109330	71400	AGC1-1/2	1	
FL 3			FILTER, RF, BOLT TYPE, 1000PF	769919	00979	842848-1	1	
FL 4			* ASSEMBLY, MODULE FILTER	731240	89536	731240	1	
H 1, 23, 145-			SCREW, MACH, PHU, P, SS, 6-32, .250	320093	COMMERCIAL		21	
H 163				320093				
H 3, 56- 69,			SCREW, MACH, PH, P, STL, 10-32X.250	218941	COMMERCIAL		17	
H 202, 355				218941				
H 6, 174, 175			WASHER, FLAT, SS, .146, .270, .016	260471	COMMERCIAL		3	
H 7, 354, 358-			SCREW, MACH, PH, P, MAG, SS, 6-32, .281	772236	COMMERCIAL		93	
H 448				772236				
H 8, 199-201,			WASHER, FLAT, STL, .149, .375, .031	110270	COMMERCIAL		5	
H 356				110270				
H 9, 164-166			SCREW, MACH, PH, P, SS, 8-32X.375	559054	COMMERCIAL		4	
H 10, 24, 167-			SCREW, MACH, PH, P, STL, 6-32X0.250	152140	COMMERCIAL		17	
H 173, 196-198,				152140				
H 330-333, 357				152140				
H 11, 203-205			SCREW, MACH, PH, P, SS, 6-32X.312	424713	COMMERCIAL		4	
H 12, 177-195			SCREW, MACH, PH, P, STL, 8-32, .375	114116	COMMERCIAL		20	
H 13, 451-459			SCREW, MACH, PH, P, STL, 4-40X.500	740761	COMMERCIAL		10	
H 14, 206-224			SCREW, MACH, PH, P, STL, 4-40X.187	820779	COMMERCIAL		20	
H 15, 229-231			NUT, HEX, ELASTIC STOP, STL, 8-32, .172	306308	COMMERCIAL		4	
H 16, 226-228,			SCREW, CAP, SCKT, SS, 8-32, .375	295105	COMMERCIAL		8	
H 302-304, 449				295105				
H 17, 305-307			WASHER, SHLDR, NYL, 0.113X0.245X0.070	807560	COMMERCIAL		4	
H 19, 308-310			NUT, LOCK, SS, 4-40	558866	COMMERCIAL		4	
H 20, 317-319			SCREW, MACH, PH, P, MAG, SS, 8-32X2.750	800441	COMMERCIAL		4	
H 21, 320-326			WASHER, FLAT, SS, .174, .375, .032	176743	COMMERCIAL		4	
H 22, 327-329			WASHER, FLAT, FIBER, .196, .500, .031	333989	COMMERCIAL		8	
H 25, 334			WASHER, SPRING, STL, .138, .281, .020	571968	COMMERCIAL		4	
H 26, 335			WASHER, SHLDR, FIBER, #6	110387	COMMERCIAL		2	
H 27, 336-343			NUT, HEX, ELAST STOP, STL, 6-32, .125	110841	COMMERCIAL		9	
H 28, 344, 345			WASHER, LOCK, INTRNL, STEEL, 0.267 ID	110817	COMMERCIAL		3	
H 29, 346-348			WASHER, FLAT, ALUM, 0.125X0.250X0.062	381749	COMMERCIAL		4	
H 30, 31			SCREW, MACH, PH, P, STL, 4-40X.250	740746	COMMERCIAL		2	
H 32- 34			SCREW, MACH, PHU, P, SS, 8-32, .250	320101	COMMERCIAL		3	
H 35- 41, 350-			SCREW, MACH, PH, P, SS, 6-32X.500	320051	COMMERCIAL		11	
H 353				320051				
H 42- 52			SCREW, MACH, PH, P, SS, 6-32X.750	376822	COMMERCIAL		11	
H 53- 55, 70-			SCREW, MACH, PH, P, MAG, SS, 6-32X.375	783225	COMMERCIAL		78	
H 144				783225				
H 311-315, 450			SCREW, MACH, PH, P, SEMS, STL, 6-32, .625	272591	COMMERCIAL		6	
H 349			SPACER, HEX, BR, MALE-FEMALE, 6-32, .600	838292	COMMERCIAL		1	
L 1			CORE, TOROID, FERRITE, 20X14.5X7.5MM	493551	89536	493551	1	
MP 1			TOP COVER	704866	89536	704866	1	
MP 2			BOTTOM COVER	704874	89536	704874	1	
MP 3, 37- 49			FOOT, SINGLE BAIL TYPE (DARK UMBER)	653923	89536	653923	4	
MP 5, 43			DECAL, FRONT CORNER	659227	89536	659227	2	
MP 6, 64			SIDE TRIM 18"	525998	89536	525998	2	
MP 7, 69- 81			AIDE, PCB PULL	541730	89536	541730	14	
MP 8			COVER PLATE BLANK, IEEE	731265	89536	731265	1	
MP 10, 82- 92			GASKET, SHIELDING, MONEL MESH, CIRCULAR	720664	53217	20-11101	12	
MP 11			SHIELD, DISPLAY	731257	89536	731257	1	
MP 12, 65- 68			GASKET, SHIELDING, MONEL MESH	520320	53217	20-90190	5	
MP 13			DECAL, OPERATION	774620	89536	774620	1	

An * in 'S' column indicates a static-sensitive part.

Table S-1. 6060B Final Assembly (cont)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	W O T -E
-A>-NUMERIC-->	DESCRIPTION	--NO--	-CODE- OR GENERIC TYPE		
MP 14	FRONT PANEL SM	657593	89536 657593	1	
MP 15	DECAL, FRONT PANEL	774042	89536 774042	1	
MP 16	CONN ACC, COAX, BNC, CAP	478982	00779 1-330022-2	1	
MP 17, 43	CHASSIS SIDE	657627	89536 657627	2	
MP 18, 34, 44-	CABLE TIE ANCHOR, ADHSV, .160TIE	407908	06383 ABHM-A-C	6	
MP 19	BRACKET, RF OUTPUT, PLATED	407908			
MP 20, 32, 50-	CABLE ACCESS, TIE, 4.00L, .10W, .75 DIA	774471	89536 774471	1	
MP 62, 102		172080	06383 SST-1M	16	
MP 21	BRACKET, POWER SWITCH	172080			
MP 22	PUSHBUTTON, LG RECT. GREEN CL REPL	774489	89536 774489	1	
MP 23, 93, 95,	CORNER BRACKET	420893	89536 420893	1	
MP 114		657601	89536 657601	4	
MP 24, 94, 96,	CORNER HANDLE, FRONT 5.25 INCH	657601			
MP 111		656173	89536 656173	4	
MP 25, 97, 98	SHOCK MOUNT, PS, 7116	656173			
MP 26	PLUG, BUTTON	732941	89536 732941	3	
MP 27	BUSHING COVER RF OUTPUT	760231	89536 760231	1	
MP 28, 99-101	INSUL PART, TRANS, SILICONE, POWER	538256	89536 538256	1	
MP 29	INSUL PART, TRANS, SILICONE, TO-3	534453	55285 7403-09FR-54	4	
MP 31	TRANSFORMER COVER, PAINTED	473165	55285 7403-09FR-05	1	
MP 33, 103	CABLE ACC, CLAMP, .500 ID, SCREW MOUNT	731307	89536 731307	1	
MP 35	FAN SKIRT	100974	06915 N88	2	
MP 36	RETAINER, AUX PWR SUPPLY CONN	792721	89536 792721	1	
MP 37	HEAT DIS, HORIZ, 1.860X1.062X.50, TO-3	748640	89536 748640	1	
MP 38	CABLE TIE, CLAMP, #1, 1.75 DIA, #10SCREW	740738	91502 7-423BA	1	
MP 39	DECAL, DATA DISK	104638	06383 SSC2S-S10	1	
MP 40	COVER, OUTPUT, PLATED	535294	89536 535294	1	
MP 41	COVER, SYNTHESIZER, PLATED	731430	89536 731430	1	
MP 42	COVER, CAL-FROM	792671	89536 792671	1	
MP 105, 106	METAL PART, STAMPED, HOLE PLUG, .500	774570	89536 774570	1	
MP 107, 108	DECAL, REAR CORNER	101774	18310 790-3008	2	
MP 110	LENS DISPLAY	685214	89536 685214	2	
MP 112	DECAL, LENS, 10KHZ	657718	89536 657718	1	
MP 113	BUSHING INSULATION R.F. OUTPUT	774604	89536 774604	1	
MP 115	SHIELD, SWITCH RF	537803	89536 537803	1	
MP 116	ADAPTER, COAX, SMA (M), N (M)	716852	89536 716852	1	
MP 118	LABEL, VINYL, .3, 1.5, BAR CODE	516963	21845 SF1132-6002	1	
MP 119	PANEL, REAR	844712	89536 844712	1	
MP 888	DESICCANT, ACTIVATED, BAGGED, 8 UNITS	774638	89536 774638	1	
S 1	SWITCH, LEFT CONDUCTIVE ELASTOMERIC	309690	6E283 309690	1	
S 2	SWITCH, CENTER CONDUCTIVE ELASTOMERIC	698597	89536 698597	1	
S 3	SWITCH, RIGHT CONDUCTIVE ELASTOMERIC	731349	89536 731349	1	
T 1	TRANSFORMER, POWER	731356	89536 731356	1	
TM 1	6060B INSTRUCTION MANUAL	717959	89536 717959	1	
TM 2	RECORDING DISKETTE, MAGNETIC, 40 TRACKS	792697	89536 792697	1	
TM 3	GETTING STARTED MANUAL	501197	89536 501197	1	
TM 4	PRODUCT REGISTRATION CARD	812503	89536 812503	1	
U 1	IC, VOLT REG, FIXED, +5 VOLTS, 3 AMP, TO-3	880521	89536 880521	1	
W 1	CABLE ASSEMBLY, SEMI-RIGID W 1	453944	34333 8G223K	1	1
W 2	CORD, LINE, 5-15/IEC, 3-18AWG, SVT	731380	98290 731380	1	
W 3	CABLE ASSEMBLY, CONTROLLER-POWER	284174	70903 17239	1	
W 6	CABLE ASSY, MOD INPUT, MODULE	738534	89536 738534	1	
W 7	CABLE ASSY MOD INPUT FRONT	738542	89536 738542	1	
W 10	CABLE ASSEMBLY, SYNTHESIZER-POWER	738500	89536 738500	1	
W 15	CABLE, LINE FILTER	738526	89536 738526	1	
W 24	CABLE ASSEMBLY, ATTENUATOR (RELAY)	774588	89536 774588	1	
W 25	CABLE ASSY, RF, REF IN	752725	89536 752725	1	
W 26	WIRE FOR TEST & BUTTONUP	748699	89536 748699	1	
W 27	CABLE ASSY, RF, REF IN/OUT	847145	89536 847145	1	
X 1, 2	SOCKET, 1 ROW, PWB, 0.100CTR, 7 POS	748681	89536 748681	1	
		520809	30035 5S-109-1-07	2	

An * in 'S' column indicates a static-sensitive part.

NOTE 1 - REFERRED TO THROUGHOUT THIS MANUAL AS AJU1.

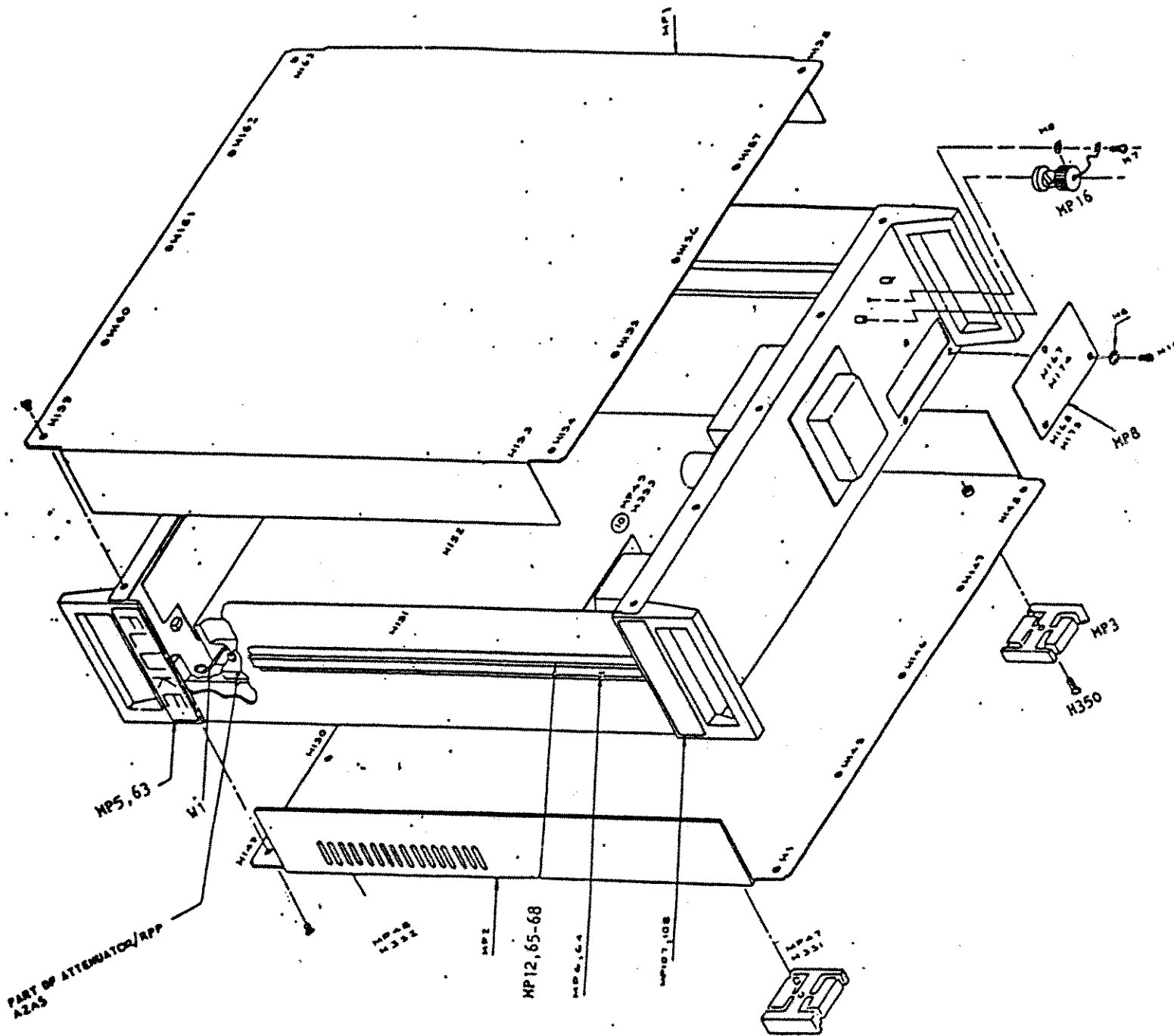


Figure 5-1.

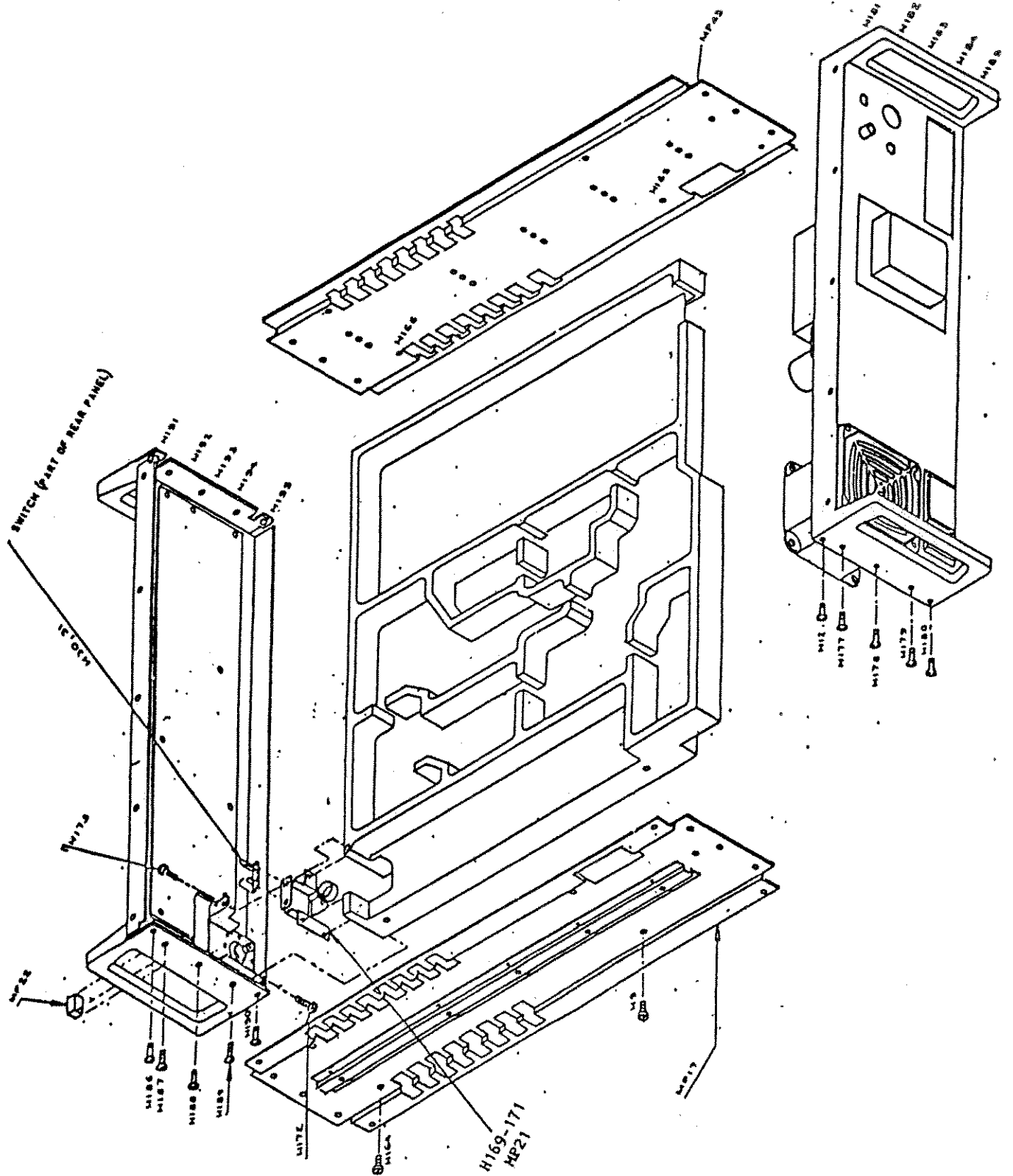


Figure 5-1. (cont)

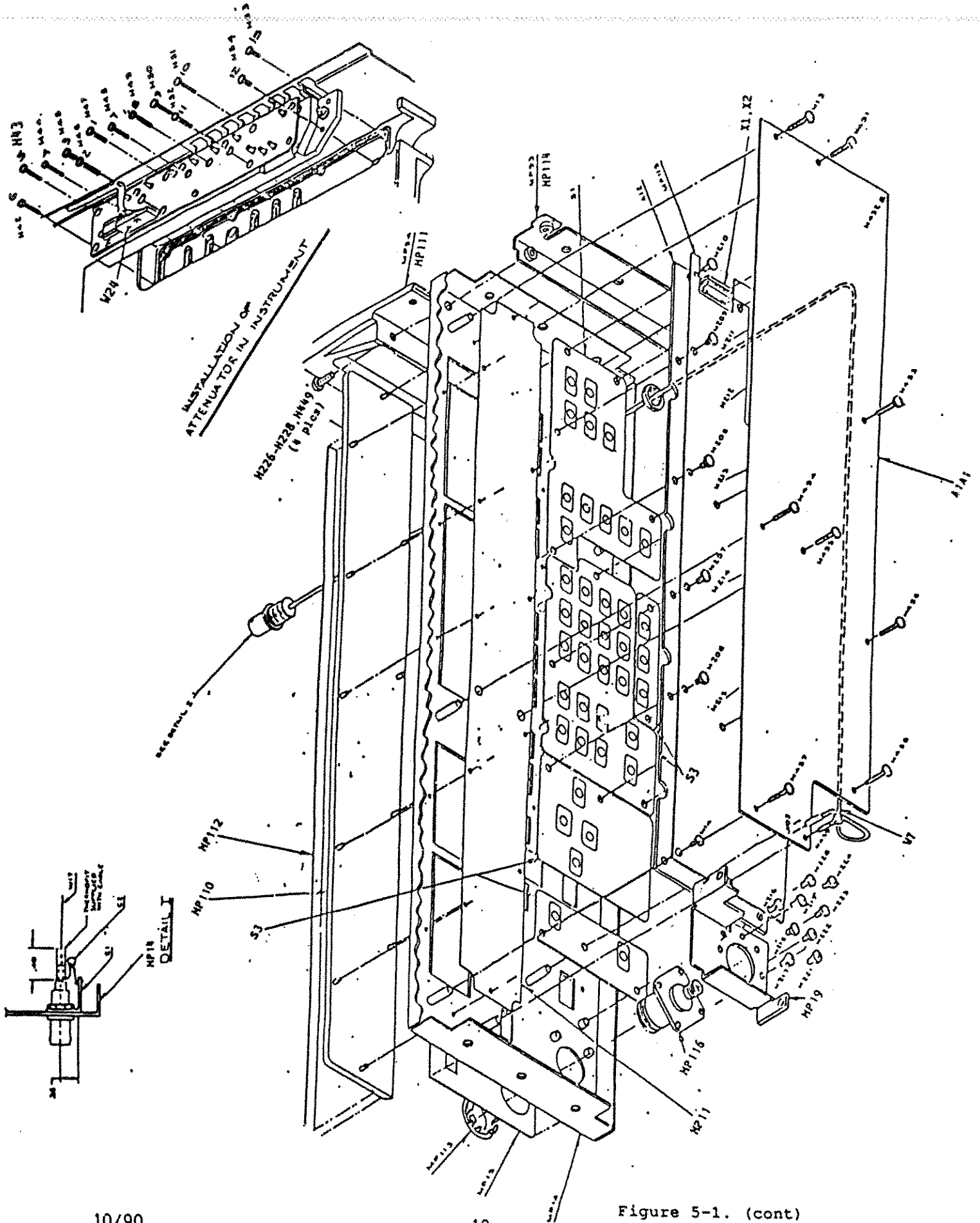


Figure 5-1. (cont)

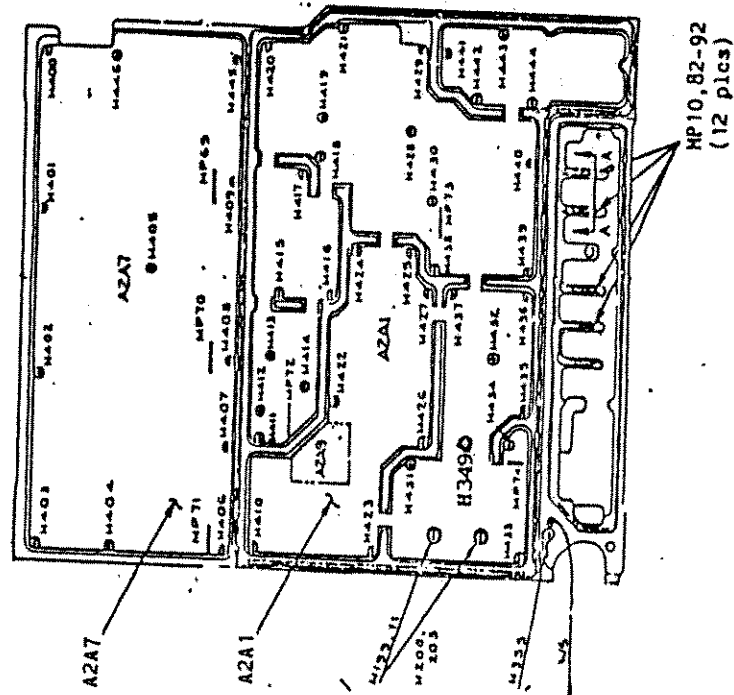
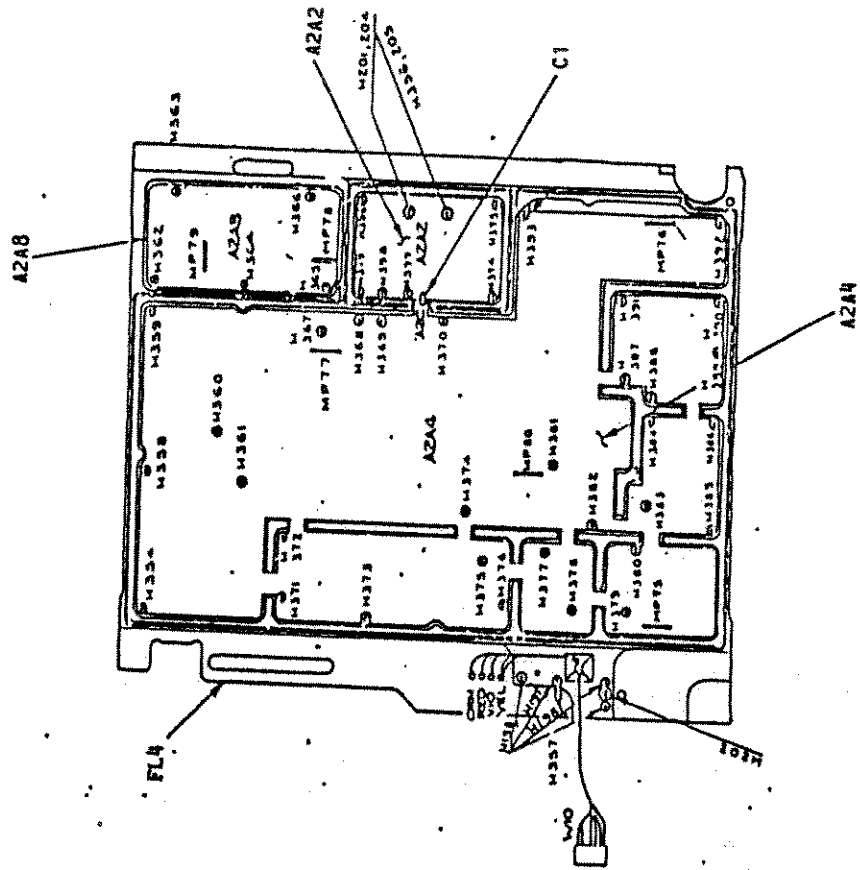


Figure 5-1. (cont)

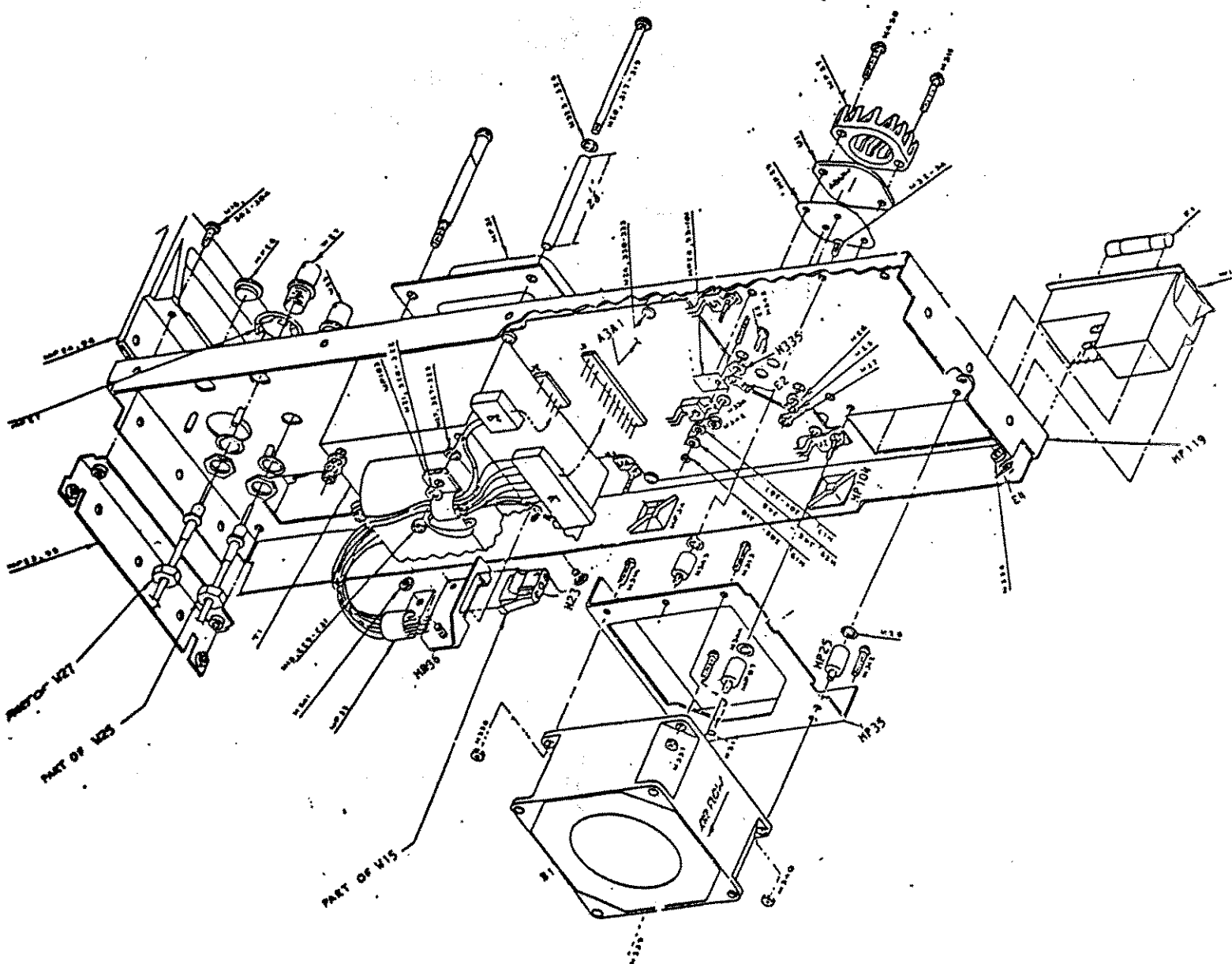


Figure 5-1. (cont)

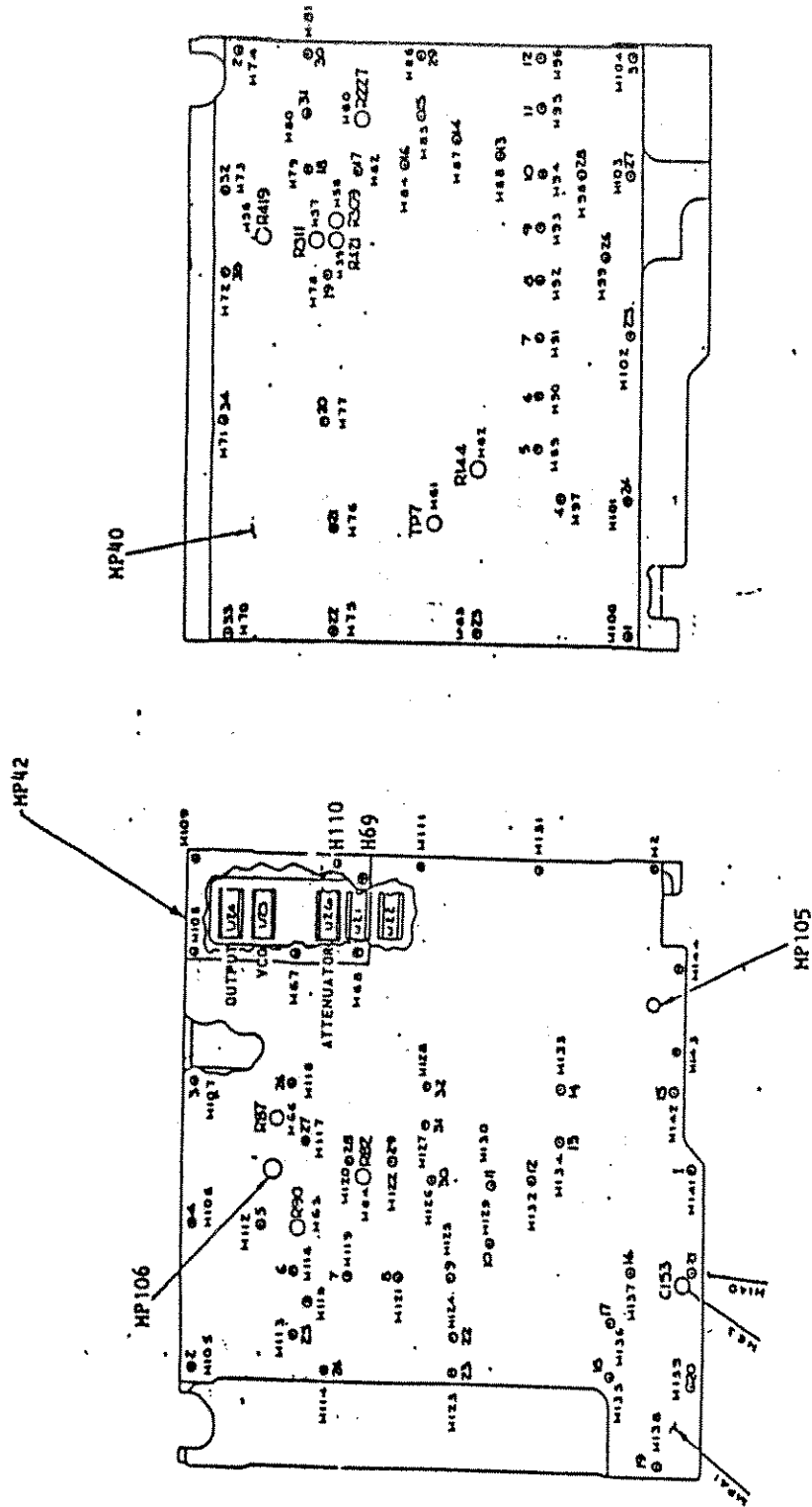


Figure 5-1. (cont)

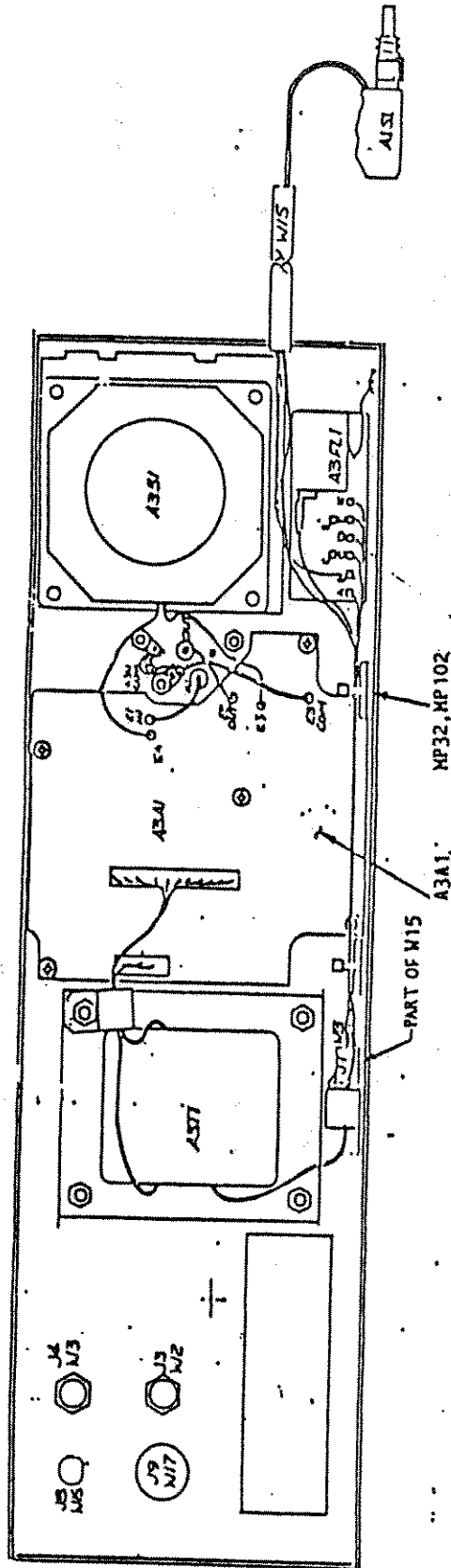


Figure 5-1. (cont)

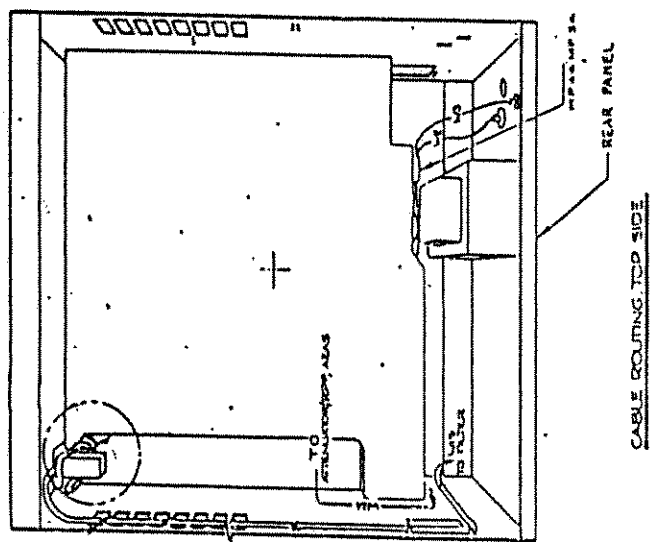
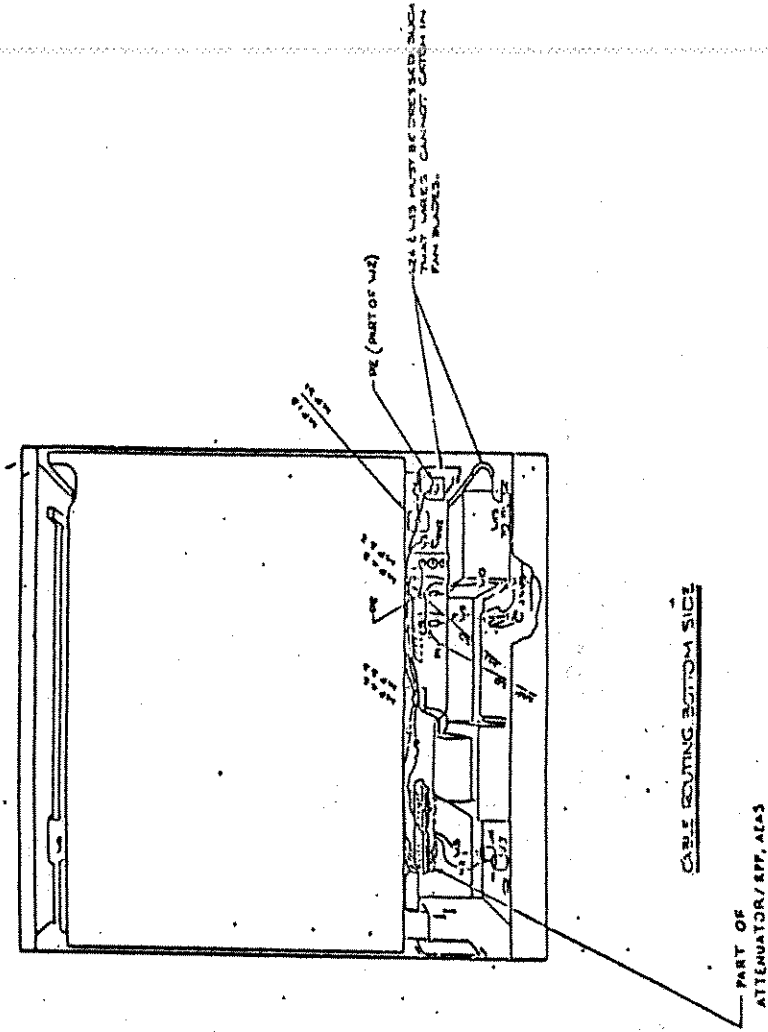


Figure 5-1. (cont)

Table 5-2. AIAI Display PCA
(See Figure 5-2.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER OR GENERIC TYPE	TOT QTY	M O T E			
-A>-NUMERICS->	-NO--	-CODE-						
C 1			CAP, TA, 4.7UF, +-20%, 50V	363721	56289	199D475X0050DA2	1	
C 2, 27, 28,			CAP, TA, 10UF, +-20%, 10V	176214	56289	199D106X0010BA2	4	
C 30				176214				
C 3, 4, 8-			CAP, POLYES, 0.1UF, +-10%, 50V	649913	60935	185-2/0.1K0050RAB	11	
C 14, 16, 17				649913				
C 5- 7, 15,			CAP, POLYES, 0.1UF, +-10%, 50V	696484	96881	IRD607/807	5	
C 18				696484				
C 23, 24			CAP, TA, 10UF, +-20%, 20V	330662	56289	199D106X0020CA2	2	
C 25, 26			CAP, TA, 39UF, +-20%, 6V	163915	56289	199D396X0006DA2	2	
C 29			CAP, CER, 1000PF, +-20%, 100V, X7R	816181	51406	RPE121-911X7R102M100VPT	1	
DS 1			DISPLAY VACUUM FLUORESCENT FREQUENCY	698456	89536	698456	1	
DS 2			DISPLAY VACUUM FLUORESCENT AMPLITUDE	698464	89536	698464	1	
H 1- 8			FOOT, ADHESIVE, RUBBER, BLACK, .50X.12	543488	28213	SJ5008	8	
J 101, 104- 116			PIN, SINGLE, PWB, 0.025 SQ	267500	00779	87623-1	14	
J 102, 103			PIN, SINGLE, PWB, 0.058 DIA	233411	00779	60599-3	2	
R 1, 2			RES, CF, 100K, +-5%, 0.25W	573584	59124	CF1-4104JB	2	
R 3			RES, CF, 620, +-5%, 0.25W	641092	59124	CF1-4621JB	1	
R 4			RES, MF, 9.09K, +-1%, 0.125W, 100PPM	720573	91637	CMF559091F T-1	1	
R 5			RES, MF, 31.6K, +-1%, 0.125W, 100PPM	720060	91637	CMF553162F T-1	1	
R 6			RES, MF, 8.06K, +-1%, 0.125W, 100PPM	294942	91637	HFF1-88061F	1	
R 7			RES, MF, 2K, +-1%, 0.125W, 100PPM	719815	91637	CMF552001F T-1	1	
R 8			RES, MF, 48.7K, +-1%, 0.125W, 100PPM	267385	91637	CMF554872F T-1	1	
R 9, 10			RES, CF, 30K, +-5%, 0.25W	574251	65940	R25J303	2	
R 11- 14			RES, CC, 10K, +-10%, 0.125W	246975	01121	BB1031	4	
R 15			RES, MF, 562, +-1%, 0.25W, 100PPM	799643	91637	CCF-505620F	1	
R 16			RES, VAR, CERM, 5K, +-10%, 0.5W	288282	80294	J386S-1-502	1	
TP 1			TERM, FASTON, TAB, .110, SOLDER	512889	00779	62395-1	1	
U 1- 5			* IC, LSTTL, OCTAL D F/F, +EDG TRG, W/CLEAR	454892	04713	SN74LS273N	5	
U 6- 10			* IC, BIPLR, 8CHNL FLOURESCNT DISPLY DRVR	535799	56289	UDN-6118A	5	
U 11, 17			* IC, LSTTL, RETRG MONOSTAB MULTIVB W/CLR	404186	01295	SN74LS123N	2	
U 12			* IC, LSTTL, DUAL 4 INPUT AND GATE	408708	04713	SN74LS21N	1	
U 13, 15			* IC, TTL, HEX INVERTER W/OPEN COLLECTOR	288605	01295	SN7416N	2	
U 14			* IC, LSTTL, HEX BUFFER W/NOR ENABLE	483800	01295	SN74LS367AM	1	
U 16			* IC, COMPARATOR, DUAL, LO-PWR, 8 PIN DIP	478354	12040	LM393N	1	
U 18			* IC, 1.22V, 35 PPM T.C., BANDGAP REF	634154	12040	LM385BX-1.2	1	
M 8			CABLE ASSEMBLY, CONTROLLER-DISPLAY	738476	89536	738476	1	
Z 1			RES, CERM, SIP, 10 PIN, 9 RES, 100K, +-2%	461038	91637	CSC10A-01-104G	1	
Z 2			RES, CERM, SIP, 10 PIN, 9 RES, 10K, +-2%	414003	91637	CSC10A-01-103G	1	

An * in 'S' column indicates a static-sensitive part.

Table 5-3. A2A1 Synthesizer PCA
(See Figure 5-3.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T E
-A>-NUMERIC->	S-----DESCRIPTION-----	-NO--	-OR GENERIC TYPE-----	-E-	
C 1, 2	CAP, CER, 2.7PF, +-0.5PF, 50V, COG, 0805	519793	04222 08055A2R7DA1.65B	2	
C 3, 4, 62,	CAP, CER, 1000PF, +-20%, 100V, X7R	837542	04222 SR151C102MATR	16	
C 98, 100, 181,		837542			
C 182, 185, 186,		837542			
C 189, 190, 193,		837542			
C 196, 198, 199,		837542			
C 215		837542			
C 5, 7, 10-	CAP, CER, 470PF, +-20%, 100V, X7R	837617	04222 SR151C471MATR2A	17	
C 13, 20, 39,		837617			
C 40, 43, 52,		837617			
C 53, 205, 231-		837617			
C 234		837617			
C 8, 21	CAP, CER, 6.8PF, +-0.25PF, 100V, COM	512327	51406 RPE110COH6RBC1	2	
C 9, 15, 18,	CAP, CER, 100PF, +-2%, 100V, COG	837609	04222 SR201A101GATR	12	
C 24, 26, 28,		837609			
C 64, 89, 137,		837609			
C 139, 146, 252		837609			
C 14, 27, 30,	CAP, POLYES, 0.1UF, +-20%, 50V	837526	60935 MKT183	71	
C 31, 36, 37,		837526			
C 49, 55, 59-		837526			
C 61, 63, 65,		837526			
C 69, 70, 72,		837526			
C 74, 76- 81,		837526			
C 83, 84, 87,		837526			
C 88, 101-106,		837526			
C 108, 110, 112,		837526			
C 120, 122, 132,		837526			
C 133, 135, 138,		837526			
C 140-145, 151,		837526			
C 152, 157, 158,		837526			
C 164, 165, 168,		837526			
C 169, 174, 175,		837526			
C 180, 184, 188,		837526			
C 191, 192, 194,		837526			
C 195, 200, 244-		837526			
C 246, 250, 253		837526			
C 16, 17, 247	CAP, CER, 12PF, +-2%, 100V, COG	376871	59660 8101-100-COG-126G	3	
C 19	CAP, CER, 4.7PF, +-0.25PF, 100V, COM	362772	72982 RPE110COH4R7C1	1	
C 25	CAP, CER, 10PF, +-5%, 50V, COG, 0805	494781	51406 GRH708COG100J200VPT	1	
C 29, 38, 171,	CAP, CER, 47PF, +-2%, 100V, COG	812123	04222 SR291A470GAA	4	
C 202		812123			
C 32	CAP, POLYPR, 470PF, +-1%, 100V	844811	40402 KP18304710111	1	
C 33	CAP, POLYPR, 100PF, +-1%, 100V	844803	40402 KP18301010111	1	
C 34	CAP, POLYPR, 330PF, +-1%, 100V	844808	40402 KP18303310111	1	
C 35	CAP, POLYPR, 1000PF, +-1%, 100V	844816	40402 KP18301020111	1	
C 41, 42	CAP, POLYES, 0.047UF, +-10%, 50V	714709	60935 168-2/.047K50A	2	
C 48	CAP, POLYES, 0.015UF, +-10%, 50V	714691	60935 168-2/.015K50A	1	
C 50, 207	CAP, POLYES, 0.082UF, +-10%, 50V	807859	60935 185-2/.082K0050RCB	2	
C 51	CAP, POLYES, 0.1UF, +-10%, 50V	649913	60935 185-2/0.1K0050RAB	1	
C 54, 71, 91,	CAP, TA, 10UF, +-20%, 10V	176214	56289 199D106X0010BA2	5	
C 127, 166		176214			
C 58, 82, 107,	CAP, TA, 39UF, +-20%, 6V	163915	56289 199D396X0006DA2	4	
C 150		163915			
C 75, 85, 86,	CAP, CER, 22PF, +-2%, 100V, COG	512871	04222 SR151A220GAT	6	
C 95, 242, 243		512871			
C 92, 93, 128	CAP, TA, 10UF, +-20%, 35V	417683	56289 199D106X0035DA2	3	
C 94	CAP, TA, 10UF, +-20%, 50V	800516	56289 199D106X0050FA2	1	
C 99	CAP, POLYST, 0.0075UF, 2%, 100V	484121	84411 1263UW.0075 2%100V	1	
C 109, 111	CAP, TA, 15UF, +-20%, 20V	519686	56289 199D156X0020DA2	2	
C 113, 114	CAP, POLYES, 0.22UF, +-10%, 50V	706028	60935 185-2/0.22K0050RCB	2	
C 115	CAP, POLYPR, 0.0786UF, +-1%, 50V	422998	84411 JF86	1	
C 116, 117	CAP, TA, 3.3UF, +-20%, 20V	436071	56289 199D335X0020BA2	2	
C 118, 183, 187	CAP, POLYES, 0.47UF, +-10%, 50V	697409	60935 185-2/0.47K0050RAB	3	
C 119, 121	CAP, CER, 1000PF, +-5%, 50V, COG	528539	04222 SR215A102JAT	2	
C 123	CAP, POLYST, 0.022UF, +-5%, 100V	484147	84411 1263UW.22 5%100V	1	
C 124	CAP, POLYST, 0.056UF, +-5%, 100V	284877	84411 1263UW.056 5%100V	1	
C 125	CAP, POLYST, 0.027UF, +-5%, 100V	484154	84411 1263UW.027 5%100V	1	
C 126	CAP, POLYST, 0.0015UF, +-2%, 100V	484113	84411 1263UW.0015 2%100V	1	
C 129, 130	CAP, TA, 82UF, +-20%, 20V	357392	56289 199D826X0020FA2	2	

An * in 'S' column indicates a static-sensitive part.

Table 5-3. A2A1 Synthesizer PCA (cont)

REFERENCE DESIGNATOR	FLUXE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS--> S	DESCRIPTION	NO--	CODE- OR GENERIC TYPE	QTY-	-E-
C 131	CAP, POLYCA, 5UF, +-10%, 50V	313254	84411 X463UH5059.50W2	1	
C 134	CAP, TA, 15UF, +-20%, 6V	161935	56289 199D156X00068A2	1	
C 136	CAP, TA, 2.2UF, +-10%, 15V	364216	56289 199D225X9015AA2	1	
C 153, 154, 160, 254	CAP, CER, 4700PF, +-20%, 100V, X7R	362871	04222 SR201C472MAT	4	
C 155, 156, 159, 161, 162, 167, 248	CAP, TA, 10UF, +-20%, 20V	330662	56289 199D106X0020CA2	7	
C 163	CAP, POLYES, 0.022UF, +-10%, 50V	330662			
C 170	CAP, CER, 33PF, +-2%, 100V, COG	715268	60935 185-2.022K0050RCB	1	
C 173, 208, 209	CAP, AL, 220UF, +-50-20%, 16V	513226	04222 SR15A330GAT	1	
C 176	CAP, POLYES, 0.27UF, +-10%, 50V	435990	62643 SH16VB-220	3	
C 177	CAP, POLYES, 0.15UF, +-10%, 50V	807867	60935 185-2.27K0050RCB	1	
C 178	CAP, TA, 6.8UF, +-20%, 35V	714790	60935 185-2.15K0050RCB	1	
C 179	CAP, CER, 2200PF, +-20%, 100V, X7R	363713	56289 199D685X0035DA2	1	
C 197, 219, 227	CAP, CER, 10PF, +-2%, 100V, COG	358291	04222 SR201C222MAT	1	
C 201	CAP, CER, 68PF, +-2%, 100V, COG	512343	51406 RPE110A100G100V	3	
C 204	CAP, CER, 330PF, +-5%, 100V, COG	362756	89536 362756	1	
C 206	CAP, VAR, 0.8-10PF, 250V, AIR	528620	04222 SR701A331JAT	1	
C 210, 211, 214, 216, 218, 224-226, 228, 230	CAP, CER, 180PF, +-5%, 100V, COG	229930	51406 MVH010W-3	1	
C 212, 222		837625	04222 SR151A181JATR2A	10	
C 213, 223	CAP, CER, 1000PF, +-10%, 50V, X7R, 0805	837625			
C 217	CAP, CER, 6.8PF, +-0.5PF, 50V, COG, 0805	484378	04222 08055C102KAT060B	2	
C 220	CAP, CER, 4.3PF, +-0.5PF, 50V, COG, 0805	479198	04222 08055A6R8DAT1.65B	2	
C 221	CAP, CER, 3.9PF, +-0.25PF, 100V, COG	514216	51406 GRH708COG4R3D200VPT	1	
C 240	CAP, AL, 470UF, +-20%, 16V, SOLV PROOF	512947	51406 RPE110C0J3R9C1	1	
C 249	CAP, VAR, 1 TO 10PF, 250V, AIR	772855	62643 KME16VB47M10X12.3LL	1	
CR 5- 8, 17, 18, 20, 21	CAP, TA, 47UF, +-20%, 10V	733212	74974 8052	1	
CR 9, 10, 12-15, 29	DIODE, SI, BV=75V, IO=150MA, 500MH	733246	56289 199D476X0010DG2	1	
CR 22, 24, 26-28	DIODE, SI, SCHOTTKY BARRIER, SMALL SIGNAL	203323	07910 1N4448	8	
E 11, 15, 16, 22, 23, 27, 32, 35, 37, 40, 44, 49, 53, 54, 56	DIODE, SI, VARACTOR, PIV= 30V, HYPER ABRU	313247	28480 5082-6264 T25	7	
J 1, 3, 14, 17, 35, 55, 113-118	TERM, FASTON, TAB, .110, SOLDER	722140	51984 IS2208B	5	
J 2, 112		512889	00779 62395-1	15	
J 101, 119	PIN, SINGLE, PWB, 0.025 SQ	512889			
J 104, 107, 108, 110	CORN, COAX, SMB (M), PWB OR PANEL SOCKET, 1 ROW, PWB, 0.100CTR, 9 POS	267500	00779 87623-1	12	
L 1, 18, 21, 23, 29-32, 34, 65	SOCKET, SINGLE, PWB, FOR 0.034-0.037 PIN	512095	98291 051-051-0429-220	2	
L 2, 3, 71, 72	CHOKER, 6TURN.	436774	30035 SS-109-1-09	2	
L 4, 19, 20, 40-42, 44, 56-58	INDUCTOR, 0.10UH, +-10%, 400MHZ, SHLD	732826	00779 2-332070-7	4	
L 5, 10, 63, 64	INDUCTOR, 0.68UH, +-10%, 221MHZ, SHLD	320911	89536 320911	10	
L 11	CORE, TOROID, FERRITE, .047X.138X.118	320911			
L 17	INDUCTOR, 150UH, +-5%, 10.5MHZ, SHLD	257154	24759 MR-10	4	
L 43	INDUCTOR, 220UH, +-5%, 9.4MHZ, SHLD	257154			
L 49	INDUCTOR, 10UH, +-10%, 53MHZ, SHLD	320937	24759 MR-O.68	10	
L 50	INDUCTOR ADJ 8.4MH	320937			
L 54	INDUCTOR ADJ 11.1MH	320937			
L 59	INDUCTOR, 270UH, +-5%, 8MHZ, SHLD	321182	88978 56-590-65-48	4	
L 62	INDUCTOR, 125UH	321182			
L 66	INDUCTOR, 470UH, +-5%, 6.5MHZ, SHLD	174763	24759 MR-150	1	
L 67, 68	INDUCTOR, 0.82UH, +-10%, 200MHZ, SHLD	147835	24759 MR-220	1	
L 70	CORE, TOROID, FERRITE, .079X.185X.291	249078	24759 MR-10	1	
L 73	INDUCTOR, 0.044UH, +-15%, 500MHZ, SHLD	704999	89536 704999	1	
MP 40	COMPONENT HOLDER	705004	89536 705004	1	
MP 41	BRACKET, SMB	186270	24759 WEE270	1	
P 101, 102, 111,	SOCKET, SINGLE, PWB, FOR .042-.049 PIN	738484	89536 738484	1	
		147827	72259 WEE470	1	
		320945	24759 MRO.82	1	
		219535	25088 862110-A5030-X025-C	2	
		249110	72259 WEE0.044	1	
		147843	24759 MR-22	1	
		422865	98159 2829-75-2	1	
		774455	89536 774455	1	
		544056	00779 50871-1	7	

An 'S' in 'S' column indicates a static-sensitive part.

Table S-3. A2A1 Synthesizer PCA (cont)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	N O T
-A>-NUMERICS->>> S-----DESCRIPTION-----	--NO--	-CODE-	--OR GENERIC TYPE----	TOT QTY--E-
Q 116-119	544056			
Q 1	429910	04713	MC78L05ACP	1
Q 2, 33, 37	535013	04713	BFR91	3
Q 3	723379	H0002	BFR96S	1
Q 4, 5, 41,	369629	04713	2N5771	4
Q 42	369629			
Q 10- 12	604678	17856	J2464	3
Q 13, 14	783308	17856	SD215DE	2
Q 15, 21, 23	218396	04713	2N3904	3
Q 16, 17	248351	04713	MP5918	2
Q 18, 19	225599	07263	2N4250	2
Q 20	381798	04713	MPSA-13	1
Q 22	195974	04713	2N3906	1
Q 26, 27, 38	218081	04713	MPS-6520	3
Q 28	418707	07263	MPS6562	1
Q 32, 35	483156	12895	NEO2135-D	2
Q 39, 40	403634	17856	J2765	2
R 1	108696	01121	EB1215	1
R 2, 159, 201,	381954	59124	CF1-40R51JB	5
R 209, 250	381954			
R 3, 25, 32	799650	91637	CCF-5051R1F	3
R 5	799874	91637	CCF-5024R3F	1
R 6, 56- 58,	799668	91637	CCF-501000F	21
R 66- 69, 124,	799668			
R 127, 133-139,	799668			
R 210, 212, 215,	799668			
R 216	799668			
R 7, 44, 94,	343426	59124	CF1-4102JB	6
R 154, 169, 170	343426			
R 8, 152	343434	59124	CF1-4471J	2
R 9, 39	441451	59124	CF1-4201J	2
R 10	799676	91637	CCF-5033R2F	1
R 11, 74, 100	343418	59124	CF1-4152J	3
R 12, 46, 165,	799684	91637	CCF-505110F	8
R 167, 171, 172,	799684			
R 177, 211	799684			
R 13	186056	01121	EB1515	1
R 14, 15, 198,	799692	91637	CCF-5030R1F	4
R 241	799692			
R 20, 147, 186,	799700	91637	CCF-5047R5F	5
R 218, 219	799700			
R 23, 24, 40,	342618	59124	CF1-4 560JB	4
R 228	342618			
R 29	293639	91637	CMF55 1132F T-1	1
R 41	348789	59124	CF1-4271JB	1
R 45	740050	59124	CF1-8RDS2 510J	1
R 48, 117, 118	342626	59124	CF1-4 221J	3
R 49	799775	91637	CCF-5039R2	1
R 50	799783	91637	CCF-5082R5F	1
R 51	854406	91637	CCF-501300F	1
R 72	376434	59124	CF1-4 513JB	1
R 73	348813	59124	CF1-4 332J	1
R 75, 76	168260	91637	CMF55 1002F T-1	2
R 78	236695	91637	MFF1-49001F	1
R 79	225813	91637	MFF1-41001F	1
R 80, 88, 91	168252	91637	CMF55 4951F T-1	3
R 81, 182, 191	168229	91637	CMF55 1001F T-1	3
R 82	327569	80294	3386R-1-502	1
R 84, 89, 231	235325	91637	MFF1-84021F	3
R 85	312645	91637	CMF55 3011F T-1	1
R 86	441485	59124	CF1-4204J	1
R 87	309666	80294	3386R-1-202	1
R 90	275750	80294	3386R-1-102	1
R 92, 93, 113-	168211	91637	CMF55 4990F T-1	5
R 115	168211			
R 95	441691	59124	CF1-4912J	1
R 99	313098	91637	CMF55 1501F T-1	1
R 102, 119, 129	348839	59124	CF1-4102JB	3
R 103, 120, 163	348821	59124	CF1-4472JB	3
R 104	309674	32997	3386R-1-103	1
R 106	810408	59124	CF1-4VT621JB	1
R 107	260687	91637	MFF1-83481F	1

An " in 'S' column indicates a static-sensitive part.

Table S-3. A2A1 Synthesizer PCA (cont.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS--> S	NO	CODE	-OR GENERIC TYPE----	QTY	-E-
R 108, 116	RES, MF, 1.27K, +-1%, 0.125W, 100PPM	267369	91637 MFF1-81271F	2	
R 109, 111	RES, CC, 510, +-5%, 0.5W	108951	01121 EB5115	2	
R 110, 112	RES, CF, 36, +-5%, 0.25W	442236	59124 CF1-4360J	2	
R 122	RES, CF, 8.2K, +-5%, 0.25W	441675	59124 CF1-4822J	1	
R 123	RES, CF, 33K, +-5%, 0.25W	348888	59124 CF1-4333J	1	
R 125, 230	RES, VAR, CERM, 2K, +-20%, 0.5W	226076	80294 3329H-1-202	2	
R 146	RES, MF, 18.2, +-1%, 0.25W, 100PPM	799817	91637 CCF-5018R2F	1	
R 148, 153, 162, 225, 226	RES, MF, 10K, +-1%, 0.25W, 100PPM	799635	91637 CCF-501002F	5	
R 149, 217, 240	RES, CC, 330, +-5%, 0.125W	643965	01121 BB3315	3	
R 150	RES, CC, 1.2K, +-10%, 0.125W	115329	01121 BB1221	1	
R 151, 222	RES, MF, 1K, +-1%, 0.25W, 100PPM	799791	91637 CCF-501001F	2	
R 164	RES, CF, 300, +-5%, 0.25W	441519	59124 CF1-4301J	1	
R 178, 179	RES, CF, 5.6, +-5%, 0.25W	441618	59124 CF1-45R6J	2	
R 180, 192	RES, MF, 178, +-1%, 0.125W, 100PPM	442996	91637 MFF1-817801	2	
R 181, 193	RES, MF, 1.05K, +-1%, 0.125W, 100PPM	293530	91637 MFF1-810511	2	
R 183, 194	RES, MF, 3.24K, +-1%, 0.125W, 100PPM	223578	91637 MFF1-83241F	2	
R 184, 195, 197, 200	RES, MF, 182, +-1%, 0.25W, 100PPM	799726	91637 CCF-501820F	4	
R 185, 199	RES, MF, 249, +-1%, 0.125W, 100PPM	168203	91637 CMF55 2490F T-1	2	
R 187, 189	RES, MF, 121, +-1%, 0.25W, 100PPM	799734	91637 CCF-501210F	2	
R 188, 196	RES, MF, 12.1, +-1%, 0.25W, 100PPM	799742	91637 CCF-5-12R1F	2	
R 190	RES, CF, 5.1, +-5%, 0.25W	441287	59124 CF1-45R1J	1	
R 213, 214, 242	RES, MF, 200, +-1%, 0.25W, 100PPM	799759	91637 CCF-502000F	3	
R 220	RES, CC, 270, +-5%, 0.125W	512764	01121 BB2715	1	
R 223	RES, MF, 6.04K, +-1%, 0.125W, 100PPM	285189	91637 MFF1-86041F	1	
R 224	RES, MF, 15K, +-1%, 0.125W, 100PPM	285296	91637 CMF55 1502F T-1	1	
R 227	RES, MF, 100K, +-1%, 0.125W, 100PPM	248807	91637 MFF1-81003F	1	
R 229	RES, MF, 9.09K, +-1%, 0.125W, 100PPM	221663	91637 MFF1-89091F	1	
R 232	RES, CF, 1.3K, +-5%, 0.25W	441394	59124 CF1-4132J	1	
R 233	RES, MF, 681, +-1%, 0.25W, 100PPM	782052	91637 CCF-50 6810F	1	
R 234	RES, CC, 15K, +-5%, 0.25W	148114	01121 CB1535	1	
R 235	RES, CF, 1M, +-5%, 0.25W	348987	59124 CF1-4105J	1	
R 236	RES, CC, 560, +-5%, 0.125W	782839	91637 BB5615	1	
R 237	RES, CC, 100, +-10%, 0.125W	261826	01121 BB1011	1	
R 238, 239	RES, CC, 390, +-5%, 0.125W	782821	91637 BB3915	2	
TP 1	HEADER, 1 ROW, 100CTR, 10 PIN	478693	00779 103747-0	1	
U 1	* IC, ECL, 1.3 GHZ DIVIDE BY 2	707943	03797 SP8606B	1	
U 6	* 3DB COUPLER	704965	89536 704965	1	
U 7, 8	MIXER, DOUBLE BALANCED, 1 - 500 MHZ	733105	16469 SBL-1-27	2	
U 9	* IC, 8P1R, MONOLITHIC VHF-UHF AMPLIFIER	723387	51984 UPC1654A	1	
U 10	* IC, OP AMP, QUAD, JFET INPUT, 14 PIN DIP	483438	01295 TL084CN	1	
U 15, 58	* IC, STTL, 100MHZ DIV BY 2, DIV BY 5 CNTR	473835	01295 SN74LS196W	2	
U 16	* IC, LSTTL, DUAL DIV BY 2, DIV BY 5 CNTR	483594	01295 SN74LS390N	1	
U 17	* IC, STTL, 360 CELL GATE ARRAY	723718	61271 MB112T301	1	
U 18, 62, 63	* IC, ECL, DUAL D M/S F/F, +EDG TRG	837252	04713 MC10H131L	3	
U 19	* IC, ECL, QUAD 2 INPUT NOR GATE	851613	04713 MC10H102P	1	
U 20	* IC, ECL, 600MHZ DIV BY 10, DIV BY 11 CNT	504423	07263 11C90DCQR	1	
U 26, 30- 32	* IC, LSTTL, OCTAL D F/F, +EDG TRG, W/CLEAR	454892	04713 SN74LS273N	4	
U 27, 29	* CMOS 7533L TESTED	802280	89536 802280	2	
U 28	* IC, OP AMP, DUAL, JFET INPUT, 8 PIN DIP	495192	12040 LF353N	1	
U 33	* IC, STTL, 360 CELL GATE ARRAY	723700	61271 MB112T302	1	
U 34	* IC, FTTL, QUAD 2 INPUT NAND GATE	654640	04713 MC74F00M	2	
U 35, 66	* IC, FTTL, DUAL D F/F, +EDG TRG, W/CL&SET	659508	04713 MC74F74N	1	
U 37	* IC, LSTTL, 3-8 LINE DCDR W/ENABLE	407585	01295 SN74LS138N	1	
U 38	* IC, LSTTL, OCTL LINE DRVR W/3-STATE OUT	429035	04713 SN74LS244N	1	
U 41	* IC, OP AMP, QUAD JFET INPUT, 14 PIN DIP	659748	01295 TL074CN	1	
U 42	* IC, COMPARATOR, QUAD, 14 PIN DIP	387233	12040 LM339N	1	
U 43, 44, 59, 68	* IC, STTL, DUAL D F/F, +EDG TRG, W/SET&CLR	418269	01295 SN74LS74N	4	
U 45, 54, 65	* IC, STTL, QUAD 2 INPUT NAND GATE	363580	01295 SN74S00N	3	
U 46	* IC, ARRAY, 5 TRANS, 5 ISO: 2-PNP, 3-NPN	418954	34371 CA3096E	1	
U 47, 71	* IC, LSTTL, RETRG MONOSTAB MULTIVB W/CLR	412734	04713 SN74LS122N	2	
U 48, 60, 69	* IC, OP AMP, JFET INPUT, 8 PIN DIP	472779	12040 LF356N	3	
U 49	* IC, OP AMP, SELECTED GBW 600KHZ	418566	04713 MIM358P	1	
U 50	* ISOLATOR, OPTO, LED TO TRANSISTOR, DUAL	454330	50579 ILCT-6-254	1	
U 55	* IC, STTL, HEX INVERTER	418004	18324 N74S04N	1	
U 61	* IC, ECL, DIVIDE BY 4 PRESCALER	722157	34371 CA3199E	1	
U 64	* IC, ECL, TRIPLE 2/3 INPUT OR/NOR GATE	723437	04713 MC10105P1	1	
U 67	* IC, COMPARATOR, HI-SPEED, 14 PIN DIP	386920	18324 NE529A	1	
U 70	* IC, CMOS, SPDT ANALOG SWITCH	723742	17856 DG301ACJ	1	
VR 2	* ZENER, COMP, 6.3V, 3%, 10PPM, 2MA	357848	04713 SZF2018	1	

An * in 'S' column indicates a static-sensitive part.

Table S-3. A2A1 Synthesizer PCA (cont)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N G T
-A>-NUMERICS-->	---	---	---	---	---
DESCRIPTION	NO	CODE	OR GENERIC TYPE		E
VR 11	*				
VR 16	*				
W 1, 2					
XU 17					
XU 33					
XU 48, 50					
XU 67- 82					
Y 1					
Z 1					
Z 5					
Z 6					
Z 9					
Z 10					

An * in 'S' column indicates a static-sensitive part.

Table 5-4. A2A2 Main VCO PCA
(See Figure 5-4.)

REFERENCE DESIGNATOR	FLUXE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS-->	-----DESCRIPTION-----	--NO--	-OR GENERIC TYPE-----	-E-	
C 1, 6, 10, 13, 20, 28, 32, 33, 38	CAP, CER, 1000PF, +-10%, 50V, X7R, 0805	484378	04222 08055C102KAT060B	9	
C 2	CAP, CER, 1800PF, +-5%, 50V, COG	484378			
C 3, 30	CAP, CER, 1.5PF, +-0.5PF, 50V, COG, 0805	528547	04222 SR215A182JAT	1	
C 4, 14,	CAP, CER, 330PF, +-20%, 50V, X7R, 0805	514166	51406 GRH708COG1R5D200VFB	2	
C 5, 15	CAP, CER, 4.3PF, +-0.5PF, 50V, COG, 0805	650093	04222 08055C331MAT060B	2	
C 7, 9, 12,	CAP, CER, 180PF, +-5%, 100V, COG	514216	51406 GRH708COG4R3D200VPT	2	
C 16- 19, 22,		603506	04222 SR151A181JAT	11	
C 23, 26, 27		603506			
C 8	CAP, CER, 10PF, +-2%, 100V, COG	512343	51406 RPE110A100G100V	1	
C 11, 21	CAP, CER, 10PF, +-5%, 50V, COG, 0805	494781	51406 GRH708COG100J200VPT	2	
C 24, 25	CAP, AL, 470UF, +-20%, 16V, SOLV PROOF	772855	62643 KME16VB47M10X12.5LL	2	
C 29, 31	CAP, CER, 3.3PF, +-0.5PF, 50V, COG, 0805	514208	51406 GRH708COG3R3D200VPT	2	
C 34	CAP, CER, 100PF, +-5%, 50V, COG, 0805	514133	51406 GRH708COG101J200VPT	1	
C 35	CAP, CER, 2.7PF, +-0.5PF, 50V, COG, 0805	519793	04222 08055A2R7DA1.65B	1	
C 36	CAP, CER, 22PF, +-2%, 100V, COG	512871	04222 SR151A220GAT	1	
C 39, 40	CAP, TA, 47UF, +-20%, 10V	746990	56289 1950476X0010H2B	2	
C 41	CAP, CER, 1.8PF, +-0.25PF, 100V, COG	512897	51406 RPE110COK1R8C1	1	
CR 1, 2	DIODE, SI, VARACTOR, PIV= 28V	741504	25403 BB405B	2	
CR 3, 4	DIODE, SI, VARACTOR, PIV= 30V, HYPER ABRU	722140	51984 IS2208B	2	
J 201, 202, 205	SOCKET, SINGLE, PWB, FOR .042-.049 PIN	544056	00779 50871-1	3	
J 203	SOCKET, SINGLE, PWB, FOR 0.012-0.022 PIN	376418	22526 75060-012	1	
L 1	CHOKE, 6TURN	320911	89536 320911	1	
MP 204	PIN TEST BASE	698472	89536 698472	1	
MP 205	SPACER, RND, SOLUBLE, .44000, .150THK	334797	32559 TO-35-15-E	1	
Q 1, 3	* TRANSISTOR, SI, NPN, SMALL SIG, MICROWAVE	483164	12895 NES7835-C	2	
Q 2, 4, 5	* TRANSISTOR, SI, NPN, HI-FREQ, SMALL SIGNL	535013	04713 BFR91	3	
R 1, 9, 23	* RES, CERM, 180, +-5%, .125W, 200PPM, 1206	720649	51406 RX3911G181JBA	3	
R 2, 16	RES, MF, 357, +-1%, 0.25W, 100PPM	782045	91637 CCF-503570F	2	
R 3, 17	RES, MF, 681, +-1%, 0.25W, 100PPM	782052	91637 CCF-506810F	2	
R 4, 19	RES, MF, 1.62M, +-1%, 0.25W, 100PPM	782060	19701 5063JD1624F	2	
R 5	RES, CF, 8.2, +-5%, 0.25W	442269	59124 CF1-48R2JB	1	
R 6, 18	RES, CF, 1.5M, +-5%, 0.25W	349001	59124 CF1-4205J	2	
R 7, 21	RES, MF, 3.24K, +-1%, 0.125W, 100PPM	223578	91637 HFF1-83241F	2	
R 8, 22	RES, MF, 1.05K, +-1%, 0.125W, 100PPM	293530	91637 HFF1-810511	2	
R 10, 24	RES, MF, 249, +-1%, 0.125W, 100PPM	168203	91637 CHF552490F T-1	2	
R 11	RES, CF, 15, +-5%, 0.25W	348755	59124 CF1-4150JB	1	
R 12, 26	* RES, CERM, 12, +-5%, .125W, 200PPM, 1206	845458	91637 CRCW1206-12R0JB02	2	
R 13	* RES, CERM, 68, +-5%, .125W, 200PPM, 1206	747675	51406 RX3911G1680JBA	1	
R 14	* RES, CERM, 120, +-5%, .125W, 200PPM, 1206	747683	51406 RX3911G121JBA	1	
R 15	* RES, CERM, 100, +-5%, .125W, 200PPM, 1206	746297	91637 CRCW1206-1000JB02	1	
R 20	RES, CF, 10K, +-5%, 0.25W	348839	59124 CF1-4102JB	1	
R 25, 30	RES, MF, 649, +-1%, 0.125W, 100PPM	309955	91637 HFF1-86490F	2	
R 27, 29	* RES, CERM, 91, +-5%, .125W, 200PPM, 1206	756338	91637 CRCW1206-91R0JB02	2	
R 28	* RES, CERM, 82, +-5%, .125W, 200PPM, 1206	740480	91637 CRCW1206-82R0JB02	1	
R 31	* RES, CERM, 15, +-5%, .125W, 200PPM, 1206	756940	51406 RX3910G150JBA	1	
R 32	RES, MF, 200, +-1%, 0.25W, 100PPM	799759	91637 CCF-502000F	1	
R 33	RES, CC, 390, +-5%, 0.5W	109082	01121 EB3915	1	
W 2	VCO CABLE, SEMI RIGID	762153	89536 762153	1	

An * in 'S' column indicates a static-sensitive part.

THE FOLLOWING COMPONENTS ARE NON-FIELD REPLACEABLE:

C1, 3, 4, 5, 6, 8, 10, 11, 14, 15, 18, 19, 21, 26, 27, 29, 31, 32, 36, 37
 CR1, 2, 3, 4
 Q1, 2, 3, 4
 R1, 2, 3, 4, 16, 17, 18, 19, 25, 30

Table 5-5. A2A4 Output PCA
(See Figure 5-5.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER OR GENERIC TYPE	TOT QTY	N O T E
-A>-NUMERIC--> S-----DESCRIPTION-----	-NO--	-CODE-			-E-
C 101, 104, 106, C 115-117, 137, C 138, 144, 151, C 152, 154, 231, C 238-240, 243, C 246, 247, 250, C 253, 301, 303, C 305, 311-314, C 317-320	CAP, CER, 100PF, +-2%, 100V, COG	837609	04222 SR201A101GATR	32	
C 103, 145, 148, C 201, 207, 210, C 213, 214, 235, C 245, 249, 260, C 265, 266, 272- C 274, 302, 304, C 306, 403, 404, C 406, 412, 421, C 422	CAP, POLYES, 0.1UF, +-20%, 50V	837526	60935 MKT183	26	
C 107, 124, 147, C 157, 215, 242, C 254-256, 259, C 269, 270	CAP, CER, 1000PF, +-20%, 100V, X7R	837542	04222 SR151C102MATR	12	
C 108, 119, 121- C 123	CAP, CER, 5.6PF, +-0.25PF, 100V, COH	512954	51408 RPE110COH5R6C1	5	
C 109, 110, 118 C 111, 236, 237 C 112, 113 C 114, 244, 248, C 263	CAP, CER, 3.9PF, +-0.25PF, 100V, COJ CAP, CER, 3.3PF, +-0.25PF, 100V, COJ CAP, CER, 2.2PF, +-0.25PF, 100V, COJ CAP, CER, 1.8PF, +-0.25PF, 100V, COK	512947 519330 812099 512897	51406 RPE110COJ3R9C1 51406 RPE110COJ3R3C1 72982 RPE121911COJ2R2C100V 51406 RPE110COK1R8C1	3 3 2 4	
C 120, 224, 275 C 125, 127, 129, C 131, 133, 135, C 149 C 126	CAP, CER, 2.7PF, +-0.25PF, 100V, COJ CAP, CER, 0.01UF, +-20%, 50V, X7R	363705 816249 816249	51406 RPE110COJ279C1 72982 RPE121911X7R103M50V	3 7	
C 130, 134 C 139 C 140 C 142 C 146	CAP, AL, 22UF, +-20%, 16V, SOLV PROOF CAP, AL, 15UF, +-20%, 35V CAP, CER, 1200PF, +-20%, 100V, X7R CAP, CER, 1800PF, +-5%, 50V, COG CAP, CER, 4700PF, +-20%, 100V, X7R CAP, CER, 220PF, +-2%, 100V, COG CAP, CER, 100PF, +-2%, 100V, COG	614750 614024 358283 528547 362871 812131 512848	62643 SRAC16VB22RM5X7C3 74840 156RLR035M 04222 SR201C122MAT 04222 SR215A182JAT 04222 SR201C472MAT 72982 RPE121911COG221G100V 04222 SR151A101GAT	1 2 1 1 1 1 8	
C 155, 156, 307- C 310, 321, 416 C 202-204, 206, C 208, 211, 261, C 264, 271, 276 C 205	CAP, AL, 2.2UF, +-20%, 50V	614875 614875 614875	63643 LL50VB2R2M5X11C3	10	
C 209, 212, 230 C 216, 218, 220, C 223 C 217	CAP, CER, 39PF, +-2%, 100V, COG CAP, CER, 27PF, +-2%, 100V, COG CAP, CER, 8.2PF, +-0.25PF, 100V, COH	512962 362749 715359	04222 SR151A390GAT 04222 SR15A270GAT 51406 RPE110COH8R2C1	1 3 4	
C 219, 226-229, C 277 C 221	CAP, CER, 18PF, +-2%, 100V, COG CAP, CER, 4.7PF, +-0.25PF, 100V, COH	512335 362772 362772	51406 RPE110NPO18RG100 72982 RPE110COH4R7C1	1 6	
C 222 C 225, 252 C 251, 405 C 262	CAP, CER, 10PF, +-2%, 100V, COG CAP, CER, 12PF, +-2%, 100V, COG CAP, CER, 6.8PF, +-0.25PF, 100V, COH CAP, CER, 47PF, +-2%, 100V, COG	512343 816124 512327 512368	51406 RPE110A100G100V 72982 RPE121911COG120G100V 51406 RPE110COH6R8C1 04222 SR201A476GATR	1 1 2 2	
C 267, 411 C 322, 409 C 401, 402 C 407, 408 C 410 C 420	CAP, TA, 3.3UF, +-20%, 50V CAP, TA, 2.2UF, +-20%, 35V CAP, TA, 0.47UF, +-20%, 35V CAP, AL, 47UF, +-50-20%, 16V CAP, POLYPR, 0.0786UF, +-1%, 50V CAP, TA, 4.7UF, +-20%, 25V CAP, CER, 1.0PF, +-0.25PF, 100V, COK	772848 485185 161349 436006 422998 161943 512145	56289 195D335X00200E2B 56289 199D225X0035BA2 56289 199D474X0035AA2 62643 SM16VB-47 84411 JF86-7862F50 56289 199D475X0025BA2 51406 RPE110COK105C1	1 2 2 2 2 1 1	
CR 101, 105, 111- CR 116, 118, 120, CR 203, 210 CR 102-104, 106- CR 110, 129, 204- CR 209 CR 117, 119	* DIODE, SI, PIN, SMALL SIGNAL, UHF & VHF * * * DIODE, SI, PIN, RF ATTENUATING * * DIODE, SI, PIN, RF CUR CONT RESIST DIODE	402776 402776 402776 508077 508077 508077 742296	28480 HP3379 61804 MA 4P523 QPND-4348	12 15 2	

An * in 'S' column indicates a static-sensitive part.

Table 5-5. A2A4 Output PCA (cont)

REFERENCE DESIGNATOR	DESCRIPTION	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	NO T
-AS-NUMERICS-->	-----	--NO--	-CODE-	-OR GENERIC TYPE----	QTY-	-E-
CR 123, 124	* DIODE, SI, BV= 50.0V, IO=150MA, SELCTD VF	234468	07263	FDM9274	2	
CR 126	* DIODE, SI, SCHOTTKY, MATCHED SET OF 2	722470	89536	722470	1	
CR 127, 128	* DIODE, SI, SCHOTTKY BARRIER, SMALL SIGNL	535195	28480	5082-2800	2	
CR 130, 201	* DIODE, SI, BV=75V, IO=150MA, 500MW	203323	07910	1N4448	2	
CR 402, 410	* DIODE, SI, SCHOTTKY BARRIER, SMALL SIGNL	313247	28480	5082-6264 T25	2	
E 6, 7, 11	TERM. FASTON, TAB, .110, SOLDER	512889	00779	62395-1	3	
J 104	HEADER, 1 ROW, .100CTR, 4 PIN	417329	00779	103747-4	1	
L 102, 106, 108,	CHOKE, 6TURN	320911	89536	320911	6	
L 110, 115, 230		320911				
L 103-105, 225	INDUCTOR, 0.68UH, +-10%, 221MHZ, SHLD	320937	24759	MR-0.68	4	
L 113, 116, 209,	INDUCTOR, 10 TURNS	463448	89536	463448	12	
L 210, 214-218,		463448				
L 220, 224, 227		463448				
L 117	CORE, TOROID, FERRITE, .047X.138X.118	321182	88978	56-590-45-4B	1	
L 201-203	INDUCTOR, 6800UH, +-10%, 1.5MHZ, SHLD	363184	24759	MR6800	3	
L 205	INDUCTOR, 470UH, +-5%, 6.5MHZ, SHLD	147827	72259	WEE470	1	
L 221	INDUCTOR, 1500UH, +-10%, 2.5MHZ, SHLD	343863	24759	MR1500	1	
L 228	INDUCTOR, 3900UH, +-10%, 1.8MHZ, SHLD	363176	24759	MR-3900	1	
MP 1	SHIELD, NET	774190	89536	774190	1	
MP 102, 107, 108	PIN TEST BASE	698472	89536	698472	3	
MP 228	COMPONENT HOLDER	422857	98159	2829-75-1	1	
MP 229	GROUND STRIP, BECU, SPRING FINGER	756445	34641	97-500-08	1	
P 101, 113-130	SOCKET, SINGLE, PWB, FOR .042-.049 PIN	544056	00779	50871-1	19	
P 104	HEADER, 1 ROW, .100CTR, 10 PIN	478693	00779	103747-0	1	
P 106	SOCKET, SINGLE, PWB, FOR 0.012-0.022 PIN	376418	22526	75060-012	1	
Q 101, 102, 202	* TRANSISTOR, SI, NPN, HI-FREQ, SMALL SIGNL	535013	04713	BFR91	3	
Q 103, 302, 304,	* TRANSISTOR, SI, NPN, SMALL SIGNAL	330803	04713	MPS6560	4	
Q 306		330803				
Q 104, 201, 203,	* TRANSISTOR, SI, PNP, SMALL SIGNAL	195974	04713	2N1906	8	
Q 205, 208, 210,		195974				
Q 212, 214		195974				
Q 105, 106	* TRANSISTOR, SI, NPN, SMALL SIGNAL	218396	04713	2N1904	2	
Q 204, 206, 209,	* TRANSISTOR, SI, NPN, HI-FREQ, SMALL SIGNL	723379	H0002	BFR965	4	
Q 211		723379				
Q 207	* TRANSISTOR, SI, NPN, SMALL SIG, MICROWAVE	483172	12895	NE73435	1	
Q 213, 215	* TRANSISTOR, SI, NPN, HI-FREQ, SMALL SIGNL	722256	04713	HRF581	2	
Q 301, 303, 305,	* TRANSISTOR, SI, PNP, SMALL SIGNAL	418707	07263	MPS6562	4	
Q 307		418707				
Q 401, 403	* TRANSISTOR, SI, N-JFET, TO-92, SWITCH	261578	89536	261578	2	
Q 402	* TRANSISTOR, SI, N-JFET, TO-92	376475	89536	376475	1	
R 101, 102, 104,	RES, CF, 1K, +-5%, 0.25W	343426	59124	CF14102JB	19	
R 114-120, 151,		343426				
R 156, 249-271,		343426				
R 316-318, 320		343426				
R 103, 121, 122	RES, MF, 39.2, +-1%, 0.25W, 100PPM	799775	91637	CCF-5039R2	3	
R 105	RES, MF, 82.5, +-1%, 0.25, 100PPM	799783	91637	CCF-5082R5F	1	
R 106	RES, CF, 470, +-5%, 0.25W	343434	59124	CF14471J	1	
R 107	RES, CF, 200, +-5%, 0.25W	441451	59124	CF14201J	1	
R 108, 124, 125	RES, MF, 2.15K, +-1%, 0.125W, 100PPM	293712	91637	MFF1-82151F	3	
R 109	RES, MF, 511, +-1%, 0.25W, 100PPM	799684	91637	CCF-505110F	1	
R 110	RES, CC, 270, +-5%, 0.5W	159616	01121	EB2715	1	
R 111, 112, 159,	RES, MF, 51.1, +-1%, 0.25W, 100PPM	799650	91637	CCF-5051R1F	6	
R 243-245		799650				
R 113, 210, 211,	RES, CF, 18, +-5%, 0.125W	740035	59124	CF1-8RDS2 180J	5	
R 215, 216		740035				
R 123, 238	RES, MF, 2.67K, +-1%, 0.125W, 100PPM	289587	91637	CMF55 2671F T-1	2	
R 126	RES, MF, 1.65K, +-1%, 0.125W, 100PPM	293662	91637	MFF1-81651F	1	
R 127	RES, MF, 665, +-1%, 0.125W, 100PPM	320028	91637	MFF1-86550F	1	
R 128, 129	RES, MF, 124K, +-1%, 0.125W, 100PPM	288407	91637	MFF1-81243F	2	
R 130	RES, MF, 1.54K, +-1%, 0.125W, 100PPM	289066	91637	MFF1-81541F	1	
R 131	RES, MF, 3.48K, +-1%, 0.125W, 100PPM	260687	91637	MFF1-83481F	1	
R 132	RES, MF, 24.3K, +-1%, 0.125W, 100PPM	236745	91637	MFF1-82432F	1	
R 133	RES, MF, 6.04K, +-1%, 0.125W, 100PPM	285189	91637	MFF1-86041F	1	
R 134	RES, MF, 21.5K, +-1%, 0.125W, 100PPM	168278	91637	CMF55 2152F T-1	1	
R 135, 304, 413,	RES, MF, 10K, +-1%, 0.125W, 100PPM	168260	91637	CMF55 1002F T-1	4	
R 414		168260				
R 136, 266	RES, MF, 2.55K, +-1%, 0.125W, 100PPM	325498	91637	MFF1-82551F	2	
R 137	RES, MF, 499, +-1%, 0.125W, 100PPM	168211	91637	CMF55 4990F T-1	1	
R 138	RES, MF, 16.9K, +-1%, 0.125W, 100PPM	267146	91637	MFF1-81692F	1	
R 139	RES, MF, 34.8K, +-1%, 0.125W, 100PPM	261487	91637	MFF1-83482F	1	
R 140, 148, 149	RES, MF, 1K, +-1%, 0.125W, 100PPM	168229	91637	CMF55 1001F T-1	3	
R 141	RES, MF, 37.4K, +-1%, 0.125W, 100PPM	226241	91637	MFF1-83742F	1	

An * in 'S' column indicates a static-sensitive part.

Table 5-5. A2M Output PCA (cont)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS--> S	DESCRIPTION	-NO--	-OR CODE--	-OR GENERIC TYPE--	-E-
R 142	RES, MF, 100K, +-1%, 0.125W, 100PPM	248807	91637	MFF1-81003F	1
R 143, 147	RES, MF, 20K, +-1%, 0.125W, 100PPM	291872	91637	CMF55 2002F T-1	2
R 144	RES, VAR, CERM, 2K, +-10%, 0.5W	309666	80294	3386R-1-202	1
R 145	RES, MF, 66.5K, +-1%, 0.125W, 100PPM	289082	91637	MFF1-86651F	1
R 146, 422	RES, MF, 49.9K, +-1%, 0.125W, 100PPM	268821	91637	MFF1-84992F	2
R 150, 233, 242	RES, MF, 182, +-1%, 0.25W, 100PPM	799726	91637	CCF-501820F	3
R 152	RES, CF, 270, +-5%, 0.25W	348789	59124	CF1-4271JB	1
R 153, 158, 314	RES, CF, 4.7K, +-5%, 0.25W	348821	59124	CF1-4472JB	4
R 159		348821			
R 154	RES, MF, 22.1, +-1%, 0.25W, 100PPM	799882	91637	CCF-5022R1F	1
R 155	RES, CF, 1, +-5%, 0.25W	357665	59124	CF1-41R0J	1
R 157, 272	RES, MF, 1K, +-1%, 0.25W, 100PPM	799791	91637	CCF-501001F	2
R 201, 207, 213	RES, CF, 2K, +-5%, 0.25W	441469	59124	CF1-4202JB	7
R 232, 240, 248		441469			
R 265		441469			
R 202	RES, CF, 360, +-5%, 0.25W	352286	59124	CF1-4361J	1
R 203, 209, 214	RES, MF, 287, +-1%, 0.125W, 100PPM	443002	91637	MFF1-82870F	3
R 204, 205	RES, CF, 15, +-5%, 0.125W	740027	59124	CF1-8RDS2 150J	2
R 206, 212, 217	RES, CF, 11, +-5%, 0.125W	740019	59124	CF1-8RDS2 110J	3
R 208, 220, 234	RES, CC, 150, +-5%, 0.5W	186056	01121	EB1515	4
R 241		186056			
R 218, 239	RES, MF, 6.65K, +-1%, 0.125W, 100PPM	294918	91637	CMF55 6651F T-1	2
R 219, 301	RES, MF, 8.45K, +-1%, 0.125W, 100PPM	221671	91637	MFF1-88451F	2
R 221	RES, MF, 1.21K, +-1%, 0.125W, 100PPM	229146	91637	MFF1-81211F	1
R 222	RES, MF, 5.36K, +-1%, 0.125W, 100PPM	370981	91637	MFF1-85361F	1
R 223	RES, CC, 300, +-5%, 0.5W	108829	01121	EB3105	1
R 225, 229, 423	RES, CF, 75, +-5%, 0.125W	740068	59124	CF1-8RDS2 750J	4
R 425		740068			
R 227	RES, VAR, CERM, 100, +-10%, 0.5W	275735	80294	3386R-1-101	1
R 228, 424	RES, CF, 110, +-5%, 0.125W	740076	59124	CF1-8RDS2 111J	2
R 230, 231	RES, MF, 100, +-1%, 0.25W, 100PPM	799668	91637	CCF-501000F	2
R 235	RES, MF, 47.5, +-1%, 0.25W, 100PPM	799700	91637	CCF-5047R5F	1
R 236, 237	RES, MF, 30.1, +-1%, 0.25W, 100PPM	799692	91637	CCF-5030R1F	2
R 246	RES, MF, 5.76K, +-1%, 0.125W, 100PPM	260349	91637	MFF1-85761F	1
R 249	RES, MF, 63.4, +-1%, 0.5W, 100PPM	155101	91637	CMF65 63R4F T-1	1
R 250	RES, MF, 162, +-1%, 0.25W, 100PPM	799890	91637	CCF-501620F	1
R 251, 252	RES, MF, 24.3, +-1%, 0.25W, 100PPM	799874	91637	CCF-5024R3F	2
R 253	RES, MF, 110, +-1%, 0.25W, 100PPM	799809	91637	CCF-501100F	1
R 254	RES, MF, 221, +-1%, 0.25W, 100PPM	799908	91637	CCF-502210F	1
R 255	RES, MF, 301, +-1%, 0.25W, 100PPM	799916	91637	CCF-503010F	1
R 256	RES, CF, 120, +-5%, 0.125W	740084	59124	CF1-8RDS2 121J	1
R 257	RES, CC, 15, +-10%, 0.125W	261800	01121	BB1531	1
R 258	RES, CF, 1.2K, +-5%, 0.25W	441378	59124	CF1-4 122J	1
R 259	RES, CC, 390, +-5%, 0.5W	109082	01121	EB3915	1
R 261	RES, CC, 330, +-5%, 0.5W	108936	01121	EB3315	1
R 262	RES, CF, 160, +-5%, 0.125W	740092	59124	CF1-8RDS2 161J	1
R 263, 264	RES, CF, 24, +-5%, 0.125W	740043	59124	CF1-8RDS2 240J	2
R 267	RES, MF, 732, +-1%, 0.125W, 100PPM	294884	91637	MFF1-87320F	1
R 268	RES, MF, 31.6, +-1%, 0.5W, 100PPM	772152	91637	CMF65 31R6F T-1	1
R 302	RES, MF, 3.2K, +-1%, 0.125W, 100PPM	260323	91637	MFF1-83401F	1
R 303	RES, MF, 715, +-1%, 0.125W, 100PPM	313080	91637	MFF1-87150F	1
R 305	RES, MF, 392, +-1%, 0.125W, 100PPM	260299	91637	MFF1-83920F	1
R 306	RES, MF, 39.2K, +-1%, 0.125W, 100PPM	236414	91637	MFF1-83922F	1
R 307	RES, CF, 47, +-5%, 0.25W	441592	59124	CF1-4 470J	1
R 308	RES, CF, 56K, +-5%, 0.25W	441626	59124	CF1-4 563J	1
R 309	RES, VAR, CERM, 10K, +-10%, 0.5W	309674	32997	3386R-1-103	1
R 310	RES, MF, 523, +-1%, 0.125W, 100PPM	294835	91637	MFF1-85230F	1
R 311	RES, VAR, CERM, 200, +-10%, 0.5W	275743	80294	3386R-1-201	1
R 312	RES, MF, 294, +-1%, 0.125W, 100PPM	288472	91637	MFF1-82940F	1
R 313	RES, CF, 33K, +-5%, 0.25W	348888	59124	CF1-4 333J	1
R 315	RES, CF, 620, +-5%, 0.25W	442319	59124	CF1-4 621J	1
R 324	RES, CF, 62K, +-5%, 0.25W	348904	59124	CF1-4 623JB	1
R 401	RES, MF, 681, +-1%, 0.125W, 100PPM	543785	91637	MFF1-82940F	1
R 402	RES, CF, 1M, +-5%, 0.25W	348987	59124	CF1-4 105J	1
R 403, 408	RES, MF, 3.32K, +-1%, 0.125W, 100PPM	312652	91637	MFF1-83321F	2
R 404, 407	RES, MF, 806, +-1%, 0.125W, 100PPM	343897	81349	RN55E34R8F	2
R 405, 409	RES, MF, 4.99K, +-1%, 0.125W, 100PPM	168252	91637	CMF55 4991F T-1	2
R 406, 410	RES, MF, 71.5, +-1%, 0.125W, 100PPM	393603	91637	MFF1-871R5F	2
R 411	RES, MF, 4.02K, +-1%, 0.125W, 100PPM	235325	91637	MFF1-84021F	1
R 412	RES, MF, 1.69K, +-1%, 0.125W, 100PPM	321414	91637	CMF55 1691F T-1	1
R 415	RES, MF, 6.34K, +-1%, 0.125W, 100PPM	267344	91637	MFF1-86341F	1
R 416	RES, MF, 147K, +-1%, 0.125W, 100PPM	291344	91637	MFF1-81473F	1

An * in 'S' column indicates a static-sensitive part.

Table 3-5. A2A4 Output PCA (cont)

REFERENCE DESIGNATOR	DESCRIPTION	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS-->	S-----	-----	-----	-----	-----	-E-
R 417	RES, MF, 23.2K, +-1%, 0.125W, 100PPM	291351	91637	MFF1-82322F	1	
R 418	RES, MF, 301K, +-1%, 0.125W, 100PPM	289488	91637	CMF55 3013F T-1	1	
R 419	RES, VAR, CERM, 100K, +-10%, 0.5W	369520	32997	3386R-1-104	1	
R 420	RES, CF, 4.3K, +-5%, 0.25W	441576	59124	CF1-4VT433JB	1	
R 421	RES, VAR, CERM, 20K, +-10%, 0.5W	335760	80294	3386R-1-203	1	
R 426, 427	RES, CF, 56, +-5%, 0.25W	342618	59124	CF1-4 560JB	2	
RT 301	THERMISTOR, DISC, NEG., 10K, +-10%, 25C	104596	15801	JA41J1	1	
TP 1- 5, 114	PIN, SINGLE, PWB, 0.025 SQ	267500	00779	87623-1	6	
U 101, 402	* IC, OP AMP, DUAL, JFET INPUT, 8 PIN DIP	495192	12040	LF353N	2	
U 201	MIXER, DOUBLE BALANCED, 1 - 1000 MHZ	525493	89536	525493	1	
U 301	* IC, CMOS, DUAL 8 BIT DAC, CURRENT OUTPUT	722272	24355	AD7528JN	1	
U 302, 405	* IC, OP AMP, QUAD JFET INPUT, 14 PIN DIP	659748	01295	TL074CN	2	
U 303	* CMOS 7541AJ TESTED	802298	89536	802298	1	
U 304, 305, 308, 404	* IC, LSTTL, OCTAL D F/F, +EDG TRG, W/CLEAR	454892	04713	SN74LS273M	4	
U 306	* IC, LSTTL, QUAD 2 INPUT NAND GATE	393033	04713	SN74LS00N	1	
U 307	* IC, LSTTL, 3-8 LINE DCDR W/ENABLE	407585	01295	SN74LS138N	1	
U 309, 310	* IC, COMPARATOR, QUAD, 14 PIN DIP	387233	12040	LM339N	2	
U 311	* IC, OP AMP, QUAD, LOW POWER	741397	12040	LF444CN	1	
U 401	* IC, CMOS, QUAD BILATERAL SWITCH	408062	04713	HC14066BCP	1	
U 403	* CMOS 7533L TESTED	802280	89536	802280	1	
VR 121, 301	* ZENER, UNCOMP, 5.1V, 5%, 20.0MA, 0.4W	159798	04713	1N751A	2	
VR 125	* ZENER, UNCOMP, 4.3V, 5%, 20.0MA, 0.4W	180455	04713	1N749A	1	
VR 302	* ZENER, UNCOMP, 15.0V, 5%, 8.5MA, 0.4W	266601	04713	1N965B	1	
VR 403	* ZENER, COMP, 6.3V, 2%, 50 PPM, 7.5MA	172148	04717	C2G20121RL	1	
W 1	CABLE ASSY, RF JUMPER	716993	89536	716993	1	
X 301	RES, CERM, SIP, 8 PIN, 7 RES, 10K, +-2%	412924	91637	C3C08A-01-103G	1	
Z 401	RES, CERM, NET, CUSTOM	501841	01121	3168103F	1	

An * in 'S' column indicates a static-sensitive part.

THE FOLLOWING COMPONENTS ARE NON-FIELD REPLACEABLE:

C202-206, 208, 209, 211, 212, 216-222, 224, 225, 252, 254, 263, 264, 271, 277
 CR126, 202-210
 L217, 220
 Q202, 204, 206, 215
 R203-206, 209-212, 214-217, 224-228, 253-256, 262-264
 U201

Table 5-6. A2A5 Attenuator/RPP Assembly
(See Figure 5-6.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT	N
-A>-NUMERICS->	-NO-	-CODE-	-OR GENERIC TYPE-	QTY-	-E-
A 4	752667	89536	752667	1	0
A 5	752816	89536	752816	1	0
H 35- 41	320051	89536	320051	7	0
MP 109	848080	89536	848080	1	0
U 1	454603	01295	TMS2516JL	1	0

An * in 'S' column indicates a static-sensitive part.

FOR MODULE EXCHANGE, ORDER PART NUMBER 752667 (INCLUDES CLIBRATED EPROM)

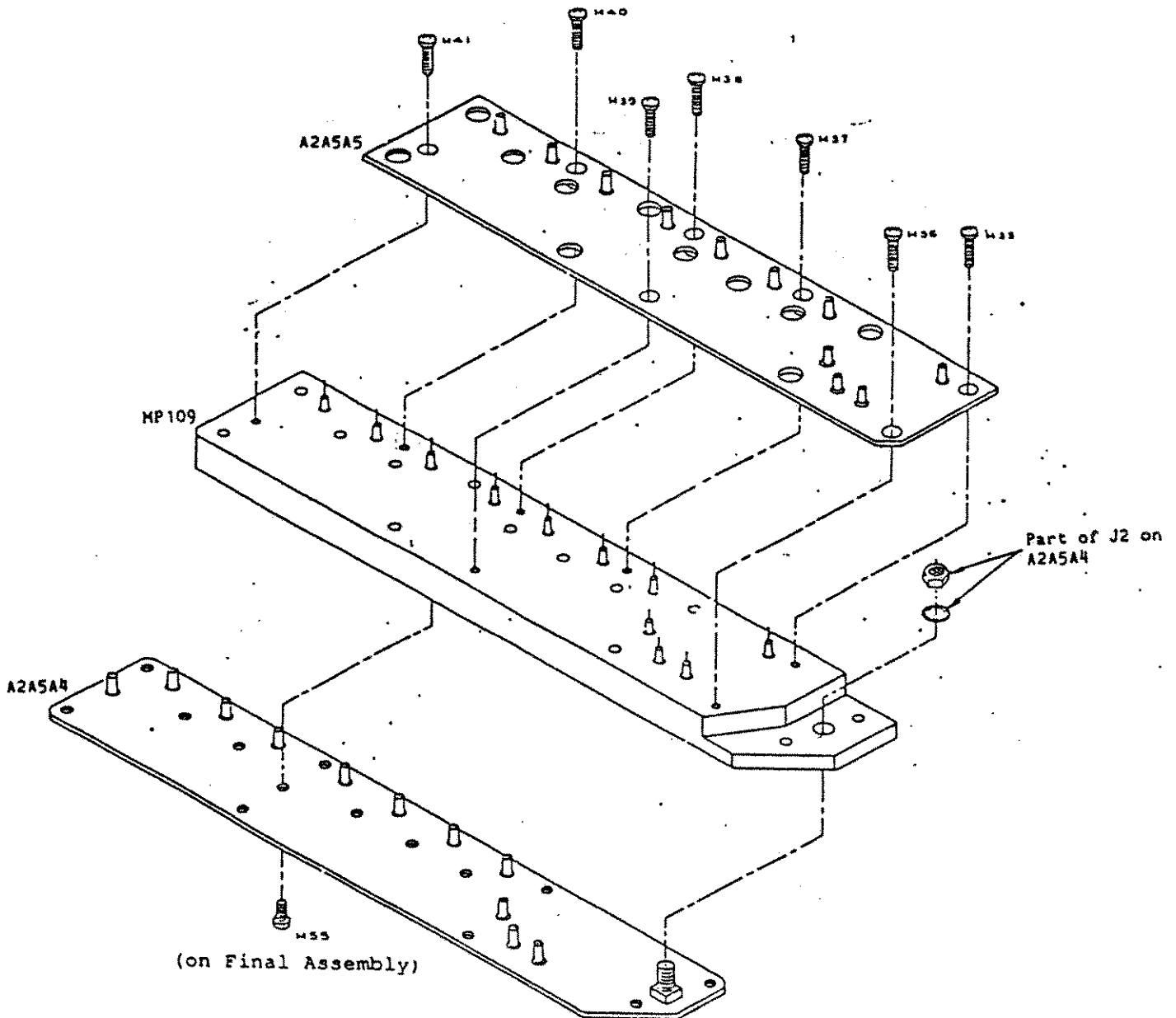


Table S-7. A2A5A4 Attenuator/RFP PCA
(See Figure S-7.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT T	M Q
-A>-NUMERICS--> S	-----DESCRIPTION-----	-NO--	-OR GENERIC TYPE----	QTY-	-E-
C 1, 2, 4	CAP, CER, 1000PF, +-20%, 50V, X7R, 0805	514059	04222 08055C102MAT060R	3	
C 3, 5	CAP, TA, 4.7UF, +-10%, 15V	519363	56289 193D475X9015C2	2	
C 6, 7	CAP, TA, 3.3UF, +-20%, 50V	772848	56289 195D335X00200E2B	2	
CR 1	* DIODE, SI, SCHOTTKY BARRIER, SMALL SIGNAL	535195	28480 5082-2800	1	
CR 2- 9	* DIODE, SI, BV= 70.0V, 500 MW	454181	03508 1N4606	8	
H 1- 8	RELAY WASHER	803247	89536 803247	8	
J 1	SOCKET, SINGLE, PWB, FOR 0.034-0.037 PIN	732826	00779 2-332070-7	1	
J 2	CONN, COAX, SMA (M), PWB OR PANEL	512087	21845 2985-6011	1	
K 1- 8	RELAY, SCREENED, HIGH FREQUENCY	812669	89536 812669	8	
P 1- 11	SOCKET, SINGLE, PWB, FOR .042-.049 PIN	544056	00779 50871-1	11	
R 1, 7, 10,	RES, MF, 402, +-0.5%, 0.125W, 50PPM	461632	03888 PHE60-4020DP-2	5	
R 16, 19		461632			
R 2, 3, 8,	RES, MF, 56.9, +-0.5%, 0.125W, 50PPM	461590	89536 461590	10	
R 9, 11, 12,		461590			
R 17, 18, 20,		461590			
R 21		461590			
R 4	RES, MF, 94.2, +-0.5%, 0.125W, 50PPM	461616	89536 461616	1	
R 5, 6	RES, MF, 83.5, +-0.5%, 0.125W, 50PPM	461608	89536 461608	2	
R 13	RES, MF, 37.4, +-0.5%, 0.125W, 50PPM	461079	03888 PHE60-37R4DP-2	1	
R 14, 15	RES, MF, 150, +-0.5%, 0.125W, 50PPM	461624	03888 PHE60-1500DP-2	2	
R 22	RES, MF, 10K, +-1%, 0.25W, 100PPM	799635	91637 CCF-501002F	1	

An * in 'S' column indicates a static-sensitive part.

ALL COMPONENTS NON-FIELD REPLACEABLE

Table 5-8. A2ASAS Relay Driver/BPB PCA
(See Figure 5-6.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	M O T T
-A>-NUMERICS--> S	-----DESCRIPTION-----	NO--	OR GENERIC TYPE-----	QTY-- E-
C 1- 7, 11	CAP, POLYES, 0.1UF, +-20%, 50V	837526	60935 MKT183	8
C 8, 9, 12,	CAP, CER, 0.01UF, +-20%, 50V, X7R	816249	72982 RPE121-911X7R103H50V	4
C 13		816249		
C 10, 16	CAP, CER, 0.22UF, +-20%, 50V, 25U	831982	04222 SR295E224MAATR(A)	2
C 14	CAP, AL, 22UF, +-20%, 35V, SOLV PROOF	817056	62643 KMA35VB220H6X7PT	1
C 15	CAP, TA, 4.7UF, +-20%, 50V	832675	56289 199D475X0050DG2	1
CR 1- 7, 15	* ZENER, UNCOMP, 30.0V, 10%, 4.2MA, 0.4W	272633	04713 1N972A	8
CR 8 9, 18	* ZENER, UNCOMP, 4.7V, 5%, 20.0MA, 0.4W	524058	04713 1N750A	3
CR 10	* ZENER, COMP, 6.4V, 5%, 1 PPM TC, 2.0MA	381988	04713 SZG20120	1
CR 11- 14, 16,	* DIODE, SI, BV= 75.0V, IO=150MA, 500MW	698720	65940 1N4448	6
CR 17		698720		
J 1	HEADER, 1 ROW, .100CTR, 15 PIN	758011	00779 1-641126-5	1
L 1- 10,	CHOKE, 6TURN	320911	89536 320911	10
L 11	INDUCTOR, 82UH, +-10%, 14MHZ, SHLD	542290	24759 MR-82	1
L 12, 13	INDUCTOR, 47UH, +-5%, 26.5MHZ, SHLD	147850	24759 MR47	2
MP 1- 7	SPACER, SWAGE, .250 RND, BR, .150ID, .250	423855	89536 423855	7
Q 1- 7, 9	* TRANSISTOR, SI, PNP, T092	698290	27014 MFS6562-D242	8
Q 8	* TRANS, SI, NPN, SELECTED IEBO, SMALL SIG	685404	04713 SP58763RLRA	1
R 1, 4, 7,	RES, CF, 510, +-5%, 0.25W	573139	59124 CF1-4511JB	8
R 10, 13, 16,		573139		
R 19, 38		573139		
R 2, 5, 8,	RES, CF, 4.7K, +-5%, 0.25W	573311	59124 CF1-4472JB	9
R 11, 14, 17		573311		
R 20, 39, 41		573311		
R 3, 6, 9,	RES, CF, 1, +-5%, 0.25W	572883	59124 CF1-41R0JB	8
R 12, 15, 18,		572883		
R 21, 40		572883		
R 22, 23, 29	RES, CF, 1K, +-5%, 0.25W	573170	59124 CF1-4102JB	7
R 35, 36, 42		573170		
R 45		573170		
R 24	RES, CF, 30K, +-5%, 0.25W	574251	65940 R25J303	1
R 25, 30, 31,	RES, CF, 10K, +-5%, 0.25W	573394	59124 CF1-4103JB	4
R 37		573394		
R 27	RES, MF, 1.07K, +-1%, 0.125W, 100PPM	344325	91637 MFF1-81071F	1
R 28	RES, MF, 422, +-1%, 0.125W, 100PPM	720235	91637 CMF55 4220F T-1	1
R 32	RES, MF, 1.5K, +-1%, 0.125W, 100PPM	719682	91637 CMF55 1501F T-1	1
R 33	RES, CF, 56, +-5%, 0.25W	641068	59124 CF1-4560JB	1
R 34	RES, CF, 100K, +-5%, 0.25W	573584	59124 CF1-4104JB	1
R 43	RES, CF, 13K, +-5%, 0.25W	573410	65940 R25J133	1
R 44	RES, CF, 2K, +-5%, 0.25W	573238	59124 CF1-4202JB	1
R 46	RES, CF, 470, +-5%, 0.25W	573121	59124 CF1-4471JB	1
R 47	RES, CF, 12K, +-5%, 0.25W	573402	59124 CF1-4123JB	1
R 48	RES, CF, 4.3K, +-5%, 0.25W	641100	65940 R25J432	1
TP 1	HEADER, 1 ROW, .100CTR, 6 PIN	478669	00779 103747-6	1
U 1	* IC, OP AMP, QUAD, JFET INPUT, 14 PIN DIP	483438	01295 TL084CN	1
VR 1- 7, 15	* ZENER, UNCOMP, 30.0V, 10%, 4.2MA, 0.4W	272633	04713 1N972A	8
VR 8 9, 18	* ZENER, UNCOMP, 4.7V, 5%, 20.0MA, 0.4W	524058	04713 1N750A	3
VR 10	* ZENER, COMP, 6.4V, 5%, 1 PPM TC, 2.0MA	381988	04713 SZG20120	1

An * in 'S' column indicates a static-sensitive part.

Table S-9. A2A7 Controller PCA
(See Figure S-9.)

REFERENCE DESIGNATOR	FLUKE STOCK NO	MFRS SPLY CODE	MANUFACTURERS PART NUMBER OR GENERIC TYPE	TOT QTY	N O T
-A>-NUMERICS-->	-----DESCRIPTION-----	-NO--	-COOE-	-OR	-E-
C 1	CAP, AL, 47UF, +50-20%, 16V	436006	62643	SM16VB-47	1
C 2, 6, 7,	CAP, POLYES, 0.22UF, +-10%, 50V	706028	60935	183-20.22K003ORCB	26
C 10- 13, 14,		706028			
C 18, 19, 21,		706028			
C 23- 25, 28-		706028			
C 31, 34, 35,		706028			
C 39- 42, 44,		706028			
C 45		706028			
C 3	CAP, TA, 0.47UF, +-20%, 35V	161349	56289	199D474X0035AA2	1
C 4, 5	CAP, TA, 10UF, +-20%, 20V	330662	56289	199D106X0020CA2	2
C 22, 31, 33-	CAP, CER, 220PF, +-10%, 1000V, 25F	368605	60705	562C0B0CK102EC221K	7
C 57		368605			
C 50, 52, 58,	CAP, CER, 2000PF, +100-0%, 1000V, 25U	105569	60705	562C25UCK102AE202P	4
C 59		105569			
C 60	CAP, CER, 100PF, +-10%, 1000V, 53N	105593	60705	561CR3LCK102EF101K	1
C 61	CAP, CER, 56PF, +-2%, 100V, COG	512970	04222	SR151A560GAT	1
CM 1	DIODE, SI, BV=75V, IO=150MA, 500MH	203323	079101	1N4448	1
J 101	SOCKET, SINGLE, PWB, FOR .042-.049 PIN	544056	00779	50871-1	1
J 102, 103	SOCKET, 1 ROW, PWB, 0.100CTR, 16 POS	447102	30035	55-109-1-16	2
J 104	HEADER, 2 ROW, .100CTR, RT ANG, 26 PIN	512590	00779	1-87230-3	1
L 1, 2	CHOKE, 6TURN	320911	89536	320911	2
L 3	INDUCTOR, 4.7UH, +-10%, 7MHZ, SHLD	174722	24759	WEE4-7	1
R 1, 6- 11	RES, CF, 180, +-5%, 0.25W	573048	59124	CF1-4181JB	7
R 2, 13	RES, CF, 4.7K, +-5%, 0.25W	573311	59124	CF1-4472JB	2
R 3	RES, CF, 20K, +-5%, 0.25W	573444	59124	CF1-4203JB	1
R 4	RES, CF, 390K, +-5%, 0.25W	573667	59124	CF1-4394JB	1
R 5	RES, CF, 100K, +-5%, 0.25W	573584	59124	CF1-4104JB	1
R 12	RES, CF, 100, +-5%, 0.25W	573014	59124	CF1-4101JB	1
R 14, 15	RES, CF, 1.3K, +-5%, 0.25W	573204	59124	CF1-4132JB	2
S 1	SWITCH, MODULE, SPST, DIP, SEALED, 6 POS	831909	00779	5-435166-1	1
U 1	IC, NMOS, 16 BIT MICROCOMPUTER	640417	01295	TMS9995NL-12	1
U 2	IC, LSTTL, HEX BUFFER W/NOR ENABLE	483800	01295	SN74LS367AN	1
U 3, 4, 18	IC, LSTTL, OCTL BUS TRNSCVR W/3-ST OUT	477406	01295	SN74LS245N	3
U 5	IC, LSTTL, HEX INVERTER	393058	04713	SN74LS04N	1
U 7	IC, COMPARATOR, DUAL, LO-PWR, 8 PIN DIP	478354	12040	LM393N	1
U 8	IC, LSTTL, TRIPLE 3 INPUT NAND GATE	393074	04713	SN74LS10N	1
U 9	IC, LSTTL, HEX D F/F, +EDG TRG, W/CLEAR	393207	01295	SN74LS174N	1
U 10	IC, STTL, QUAD 2 INPUT OR GATE	604629	18324	N74532NA	1
U 11, 40	IC, LSTTL, OCTAL D TRANSPARENT LATCHES	504514	01295	SN74LS273N	2
U 14	IC, LSTTL, 2-4 LINE DEMUX	393165	01295	SN74LS139AN	1
U 15, 16, 33,	IC, LSTTL, OCTL LINE DRVR W/3-STATE OUT	429035	04713	SN74LS244N	4
U 34		429035			
U 17, 27	IC, LSTTL, OCTAL D F/F, +EDG TRG, W/CLEAR	454892	04713	SN74LS273N	2
U 20, 35, 36,	IC, LSTTL, 3-8 LINE DCDR W/ENABLE	407585	01295	SN74LS138N	4
U 38		407585			
U 25	IC, 2K X 8 STAT RAM	584144	50088	HK4802J-1	1
U 30, 31	IC, ARRAY, 7 TRANS, NPN, DARLINGTON PAIRS	454114	01295	ULN2003AN	2
U 37	IC, LSTTL, QUAD 2 INPUT OR GATE	393108	04713	SN74LS32N	1
U 41	CRYSTAL, 10MHZ, +-0.01%, HC-18/U	520239	89536	520239	1
U 42	IC, LSTTL, DUAL JK F/F, -EDG TRIG	414029	04713	SN74LS112AN	1
U 44	IC, LSTTL, HEX INVERTER W/SCHMT TRIG	483180	04713	SN74LS14N	1
U 1	PROM, PROGRAMMED 27256	792762	89536	792762	1
U 2	PROM, PROGRAMMED 27128	792754	89536	792754	1
U 3, 4 6	IC, 2K X 8 EPROM	686006	12040	NMC27C16Q-45	3
XU 21, 22	SOCKET, IC, 28 PIN	448217	91506	228-AG39D	2
XU 23, 24, 26	SOCKET, IC, 24 PIN	376236	00779	2-640361-1	3
Z 1	RES, CERM, SIP, 10 PIN, 9 RES, 4.7K, +-2%	484063	91637	CSC10A-01-472G	1
Z 2- 5	RES, CERM, SIP, 10 PIN, 9 RES, 10K, +-2%	414003	91637	CSC10A-01-103G	4

An * in 'S' column indicates a static-sensitive part.

Table 5-10. A2AB Non-Volatile (Store/Recall) Memory PCA
(See Figure 5-10.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS-----> S-----DESCRIPTION-----	--NO--	-CODE-	-OR GENERIC TYPE-----		-E-
B 1	658476	18927	LAA/2-1	1	
C 1	330662	56289	199D106X0020CA2	1	
C 2- 6	706028	60933	185-2/0.22/K/0050/R/C/B	1	3
CR 1, 2	203323	07910	1N4448	2	
CR 3	309799	04713	1N746	1	
H 1	422865	98159	2829-75-2	1	
P 1	267500	00779	87623-1	1	
Q 1	380394	56289	T-6506	1	
Q 2, 3	218396	04713	2N3904	2	
Q 4	477729	18324	SD213EE	1	
R 1	326397	91637	CMF55 4320 F T-1	1	
R 2	296681	91637	MFF183JR2F	1	
R 3	168193	91637	CMF55 1000 F T-1	1	
R 4	340828	91637	CMF55 5620 F T-1	1	
R 5	348920	59124	CF1-4 104J	1	
U 1	647222	61772	IDT611SA150P	1	
U 2	477406	01295	SN74LS245N	1	
U 3	429035	04713	SN74LS244N	1	
U 4	472746	18324	74LS125ANA	1	
U 5	363463	01295	SN7412N	1	
U 6	393058	04713	SN74LS04N	1	
Z 1	300876	91637	CSC06A-01-103G	1	

An * in 'S' column indicates a static-sensitive part.

Table 5-11. A3A1 Power Supply PCA
(See Figure 5-11.)

REFERENCE DESIGNATOR	FLUKE STOCK	MFRS SPLY	MANUFACTURERS PART NUMBER	TOT QTY	N O T
-A>-NUMERICS-----> S-----DESCRIPTION-----	--NO--	-CODE-	-OR GENERIC TYPE-----		-E-
C 1	715334	62643	KME35VN222K23X27LLV	1	
C 2, 5	614990	62643	KME35VN103K31X42LLV	2	
C 3, 6, 12	573808	51406	RPE113X7R104M50V	3	
C 4, 7, 13,	363713	56289	199D685X0035DA2	4	
C 20	363713				
C 8	732958	62643	KME25VN153K31X42LLV	1	
C 9, 21, 22	161927	56289	199D225X0020BA2	3	
C 10,	423012	56289	199D226X0015DA2	1	
C 11,	574160	62643	KME-80VN471K23X27LLV	1	
C 13, 14	363721	56289	199D475X0050DA2	2	
C 16- 19	436113	19701	719A1CB224PK101SA	4	
CR 1, 2, 6	296509	30800	KBP 02M	3	
CR 3, 4, 8	698555	04713	1N4002RL	3	
CR 5	741322	04713	MBR1545CT	1	
CR 7	325811	04713	1N753A	1	
E 1- 5,	512889	00779	62395-1	16	
H 1	740746	89536	740746	1	
H 3	110635	89536	110635	1	
J 1	512160	27264	09-80-1123	1	
J 2	512186	27264	09-80-1053	1	
J 4	758011	00779	1-641126-5	1	
J 5	758003	00779	641126-6	1	
J 6	757997	00779	85-1538-7-7	1	
MP 1	524934	13103	6025B-TT	1	
R 1	168203	91637	CMF552490F T-1	1	
R 2	294918	91637	CMF556651F T-1	1	
R 3	285155	80294	3386S-1-102	1	
R 4	348839	59124	CF1-4102JB	1	
R 6- 9	441287	59124	CF1-45R1J	4	
R 10, 13	342626	59124	CF1-4221J	2	
R 11	357665	59124	CF1-41R0J	1	
R 12	381954	59124	CF1-40R51JB	1	
S 1	452862	79727	GS113-(0018)-G20-32	1	
U 6	413013	02735	T2800B	1	
U 1	413187	04713	MC7815CT	1	
U 2	413179	04713	MC7915CT	1	
U 4	460410	12040	LM317T	1	
U 5	772830	04713	TL780-15CKC	1	
VR 9, 10	559567	04713	1N5372B	2	

An * in 'S' column indicates a static-sensitive part.

ERRATA #15

The IEEE-488 Interface Option is provided with all 6060B instruments as a standard assembly as of November 1991. Disregard reference to this assembly as an option throughout this manual.