TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL RADAR INTERFACE EQUIPMENT MAINTENANCE VIDEO PROCESSOR UNIT 1 AND 2

EXPANDED TROUBLESHOOTING (LOGIC DIAGRAMS)

GUIDED MISSILE
AIR DEFENSE SYSTEM
AN/TSQ-73

Change
No. 1

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, D.C., 28 December 1990

ORGANIZATIONAL MAINTENANCE MANUAL RADAR INTERFACE EQUIPMENT MAINTENANCE VIDEO PROCESSOR UNIT 1 AND 2

EXPANDED TROUBLESHOOTING (LOGIC DIAGRAMS)

GUIDED MISSILE AIR DEFENSE SYSTEM AN/TSQ-73

TM 9-1430-655-20-3-4, 21 January 1985, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed atemal is indicated by the applicable change number, i.e., Change 1, at the bottom of the page adjacent to the page number. Revised text will have a vertical bar in the margin next to the changed area. Revised illustrations will have suffix change letter added to the identification number.

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WARNING

DANGEROUS VOLTAGE is used in the operation of this equipment

DEATH ON CONTACT

may result if personnel fail to observe safety precautions

Never work on electronic equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and who is competent in administering first aid. When the technician is aided by operators, he must warn them about dangerous areas.

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Take particular care to ground every capacitor likely to hold a dangerous potential. When working inside the equipment, after the power has been turned off, always ground every part before touching it.

Be careful not to contact high-voltage connections when installing or operating this equipment.

Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through vital organs of the body.

WARNING

Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death under adverse conditions.

For Artificial Respiration, refer to FM 21-11,

EXTREMETLY DANGEROUS POTENTIALS greater than 500 volts exist in the following units: Display console high voltage power supply Display console CRT

WARNING

For emergencies requiring immediate shutdown of system power, press SYSTEM POWER OFF switch located on power cabinet power transfer unit. Observe that SYSTEM POWER ON indicator light goes off.

LIST OF EFFECTIVE PAGES

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No. 9-1430-655-20-3-4

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, D.C., 21 January 1985

ORGANIZATIONAL MAINTENANCE MANUAL RADAR INTERFACE EQUIPMENT MAINTENANCE VIDEO PROCESSOR UNIT 1 AND 2

EXPANDED TROUBLESHOOTING (LOGIC DIAGRAMS)

GUIDED MISSILE AIR DEFENSE SYSTEM AN/TSQ-73

REPORTING OF ERRORS

You can help improve this publication. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, U.S. Army Missile Command, ATTN: AMSMI-LCME-P, Redstone Arsenal, AL 35898-5238. A reply will be furnished to you.

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Section XIV. VIDEO PROCESSOR UNITS

5-45. General. This manual is Volume 4 of TM 9-1430-655-20-3, Radar Interface Equipment Maintenance for Guided Missile Air Defense System AN/TSQ-73. It contains the logic diagrams covering video processor units (VPU) 1 and 2 for use and guidance of advanced personnel responsible for repair of the RIE. Foldouts 1 through 59 cover VPU 1 and foldouts 60 through 125 cover VPU 2. VPU I and 2 are located in equipment rack 1, 1A1A1, door A, in two card cage bays. Figure 5-2 illustrates bay I and figure 5-3 illustrates bay 2.

5-46. Logic Diagram. The logic diagrams in this manual provide the maintenance technician pin to pin signal flow, traceable by signal mnemonics and 1/0 tables, to help identify faulty cards and to troubleshoot faults in the backplane wiring and other areas that are beyond fault isolation capabilities of the MTS.

5-47. Using Logic Diagrams. Logic diagrams in this manual show signal flow in functional subsystems of VPU I and 2. Signal flow is traceable between circuit card pin numbers and is shown as inputs and outputs of integrated circuit logic devices on the circuit card. A specific signal can be followed between foldouts by using the signal mnemonic and the logic diagram input/output table. The circuit card slot is shown within the integrated circuit card device symbol. Table 5-37 contains the circuit card slot and the part number of the card. Table 5-38 contains, by card part number, the test point for each of the 80 pins of MTS testable cards.

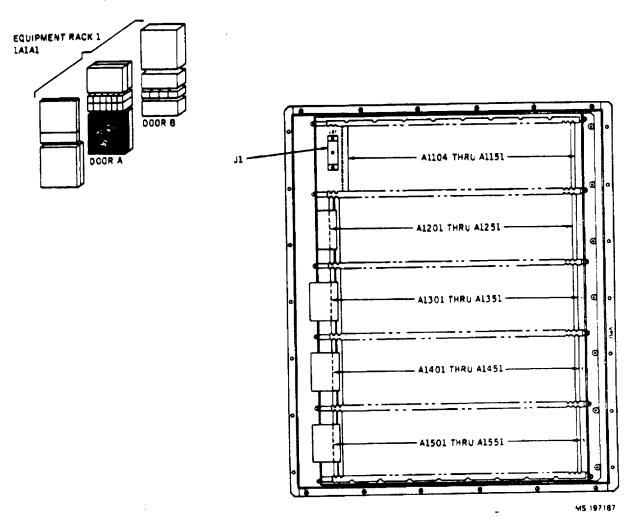
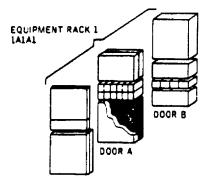


Figure 5-2. Video Processor Unit IAIAIAS Bay 1, Component Location Change 1 5-755



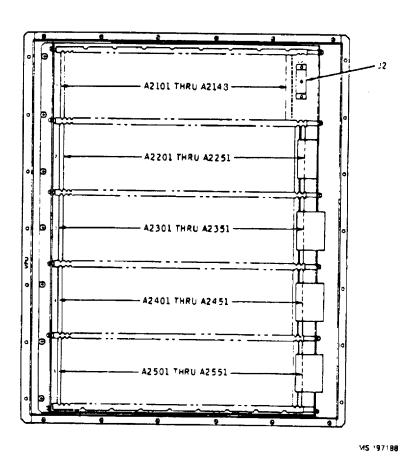


Figure 5-3. Video Processor Unit 1A1A1A5 Bay 2, Component Location

5-756 Change 1

Table 5-37. Video Processor Unit 1A1A1A5, Circuit Card Location

			COLO	R CODE		
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
		DAY OUELE 4				
		BAY-SHELF 1				
A1101	-	-	-	-	-	-
A1102	-	-	-	-	-	-
A1103	-	-	-	-	-	-
A1104	W390	Connector	-	-	-	-
A1105	W391	Connector	-	-	-	-
A1106	W532	Connector	-	-	-	-
A1107	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1108	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1109	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1110	587102-102	Quad 2-input NAND gate	-	-	Red	-
A111	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1112	-	-	-	-	-	-
A1113	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1114	587102-102	Quad 2-input NAND gate	_	-	Red	-
A1115	587104-102	Dual 4-input NAND gate	_	-	Yellow	-
A1116	587117-102	Hex inverter	Brown	_	Violet	_
A1117	587102-102	Quad 2-input NAND gate	-	_	Red	_
A1118	587108-102	Single 8-input NAND gate	_	_	Gray	_
A1119	-	-	_	_	- -	_
A1120	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1121	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1122	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1123	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1123	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
4112 4 41125	10281602	Counter/decoder	Brown	Blue	Black	Red
41125 4l 126		Counter/decoder		Blue	Black	Red
	10281602		Brown			
A1127	10281602	Counter/decoder	Brown	Blue	Black	Red
A1128	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1129	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1130	-	-	-	-	-	-
A1131	-	-	-	-	-	-
A1132	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1133	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1134	587104-102	Dual 4-input NAND gate	-	-	Yellow	-

Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

2455		COLOR CODE				
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
A1135	_	_	_	_	_	_
A1136	-	-	_	_	_	-
A1137	-	-	_	_	-	-
A1138	_	-	_	_	_	_
A1139	-	-	_	_	_	_
A1140	-	-	_	-	-	-
A1141	-	-	_	_	_	_
A1142	-	-	-	-	_	-
A1143	-	-	_	-	-	-
A1144	-	-	-	-	-	-
A1145	-	-	_	-	-	-
A1146	-	-	-	-	-	-
A1147	-	-	-	-	-	-
\1148	-	-	-	-	-	-
A1149	-	-	-	-	-	-
A1150	-	-	-	-	-	-
A1150	-	-	-	-	-	-
		BAY 1-SHELF 2				
\1201	W533	Connector				
\120 2	W411	Connector				
\1203	W412	Connector	-	-	-	-
1204	-					
A1205	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\1206	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1207	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1208	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1209	10281609	Quint 4-bit adder	Brown	Blue	Black	White
1210	587108-102	Single 8-input NAND gate	-	-	Gray	-
1211	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
1212	587117-102	Hex inverter	Brown	-	Violet	-
\1213	587102-102	Quad 2-input NAND gate	-	-	Red	-
412141	0281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1215	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1216	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1217	10281603	4-bit multiplexer	Brown	Blue	Black	Orange

5-758 Change 1

Table 5-37. Video Processor Unit 1A1A1A5, Circuit Card Location -Continued-

CARR			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
A1218	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1219	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1220	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1221	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1222	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1223	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1224	587118-100	IK-ohm resistor	-	-	-	-
A1225	587117-102	Hex inverter	Brown	-	Violet	-
A1226	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1227	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1228	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1229	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1230	587119-100	240-ohm resistor	-	-	-	-
A1231	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1232	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1233	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1234	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1235	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1236	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1237	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1238	-	-	-	-	-	-
A1239	-	-	-	-	-	-
A1240	-	-	-	-	-	-
A1241	-	-	-	-	-	-
A1242	-	-	-	-	-	-
A1243	-	-	-	-	-	-
A1244	-	-	-	-	-	-
A1245	-	-	-	-	-	_
A1246	-	-	-	-	-	-
A1147	-	-	-	-	-	-
A1248	-	-	-	-	_	_
A1249	-	-	_	_	_	_

Table 5-37. Video Processor Unit 1A1A1A5, Circuit Card Location -Continued-

0400			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
	.,	0/11.0	•			<u> </u>
\1250	_	_	_	_	_	_
1251	_	_	_	_	_	_
11201	_	BAY 1-SHELF 3	_		_	_
\ 1301	W422	Connector	-	-	-	_
1302	W417	Connector	_	-	_	-
\1303	W418	Connector	_	_	_	_
1304	W534	Connector	_	-	_	-
1305	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1306	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1307	10281606	Hex 4-bit shift register '	Brown	Blue	Black	Blue
1308	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1309	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1310	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1311	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
\1312	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1313	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1314	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1315	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1316	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
1317	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
1318	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
1319	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
1320	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1321	10281602	Counter/decoder	Brown	Blue	Black	Red
1322	10281602	Counter/decoder	Brown	Blue	Black	Red
1323	587102-102	Quad 2-input NAND gate	-	-	Red	-
1324	587117-102	Hex inverter	Brown	-	Violet	-
1325	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
1326	10281602	Counter/decoder	Brown	Blue	Black	Red
1327	-	-	-	-	-	-
1328-	-	-	-	-	-	-
1329	587102-102	Quad 2-input NAND gate	-	-	Red	-
1330	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1331	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
1332	587104-102	Dual 4-input NAND gate	_	_	Yellow	_

See footnote at end of table.

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Table 5-37. Video Processor Unit 1A1A1A5, Circuit Card Location -Continued-

				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
A1333	587104-102	Dual 4-input NAND gate	_	_	Yellow	_
A1334	587108-102	Single 8-input NAND gate		Gray	-	
A1335	587117-102	Hex inverter	Brown	- -	Violet	_
A1336	587117-102	Hex inverter	Brown	_	Violet	_
A1337	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1338	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1339	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1340	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1341	587102-102	Quad 2-input NAND gate	-	-	Red	
A1342	587102-102	Quad 2-input NAND gate	_	-	Red	
A1343	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1344	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1345	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1346	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1347	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1348'	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1349'	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1350'	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1351	10281606	Hex 4-bit shift register BAY 1-SHELF 4	Brown	Blue	Black	Blue
A1401	W450	Connector	_	-	-	-
A1402	W436	Connector	_	-	-	-
A1403	W443	Connector	_	-	-	_
A1404	-	-	_	-	-	-
A1405-	-	-	-	-	-	-
A1406-	-	-	-	-	-	-
A1407	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1408	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1409	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1410	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1411	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1412	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1413	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1414	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1415	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue

See footnote at end of table.

Table 5-37. Video Processor Unit 1A1A1A5, Circuit Card Location -Continued-

0.455				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
A 4 4 4 C	507400 400	Circle Circust NAND and			0	
A1416	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1417	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1418	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1419	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1420	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1421	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1422	587117-102	Hex inverter	Brown	-	Violet	-
A1423	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1424	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1425	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1426	587104-102	Dual 4-input NAND gate		-	Yellow	
A1427	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1428	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1429	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1430	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1431	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1432	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1433	587117-102	Hex inverter	Brown	-	Violet	-
A1434	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1435	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1436	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1437	-	-	-	-	-	-
A1438	587119-100	240-ohm resistor				
A1439	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1440	10281780	Quad exclusive OR gate	Brown	Violet	Gray	Black
A1441	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1442	.587108-102	Single 8-input NAND gate	-	-	Gray	-
A1443	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1444	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1445	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1446	587117-102	Hex inverter	Brown	-	Violet	-
A1447	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1448	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A1449	-	- ' '	-	-	-	-
A1450	-	-	-	_	_	_

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Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

CARD SLOT	PART NUMBER	CARD TYPE	1			
		CARD TYPE	ı	2	3	4
.1451-						
1431-	-	BAY 1-SHELF 5	-	-	-	-
1501	W451	Connector	_	_	_	_
1502	W437	Connector	_	_	_	_
1503	W449	Connector	_	_	_	_
1504	-	-	_	_	_	_
1505	_	_	_	_	_	_
1506	_	_	_	_	_	_
1507	587108-102	Single 8-input NAND gate	_	_	Gray	_
1508	587108-102	Single 8-input NAND gate	_	_	Gray	_
1509	587102-102	Quad 2-input NAND gate	_	_	Red	_
1510	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1511	587102-102	Quad 2-input NAND gate	_	_	Red	_
1512	587102-102	Quad 2-input NAND gate	_	_	Red	_
1513	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1514	587104-102	Dual 4-input NAND gate	_	_	Yellow	_
1515	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
1516	587117-102	Hex inverter	Brown	-	Violet	-
1517	587102-102	Quad 2-input NAND gate	DIOWII	-	Red	_
1517	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1519	10281609	Quint 4-bit adder	- Brown	- Blue	Black	White
1519	10281609	Quint 4-bit adder Quint 4-bit adder	Brown	Blue	Black	White
1520	10281609	Quint 4-bit adder Quint 4-bit adder	Brown	Blue	Black	White
1522	10281609	Quint 4-bit adder Quint 4-bit adder	Brown	Blue	Black	White
1523	10281609	Quint 4-bit adder Quint 4-bit adder	Brown	Blue	Black	White
1524	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1525	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1526	587102-102	Quad 2-input NAND gate	DIOWII	- Diue	Red	- Diue
1527	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	-	-	Red	-
1528	587102-102		-		Red	
1528	587102-102 587117-102	Quad 2-input NAND gate Hex inverter	- Brown	-	Violet	-
1530	10281606		Brown	- Blue	Black	- Blue
		Hex 4-bit shift register				
1531	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1532	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
1533	587108-102	Single 8-input NAND gate	-	-	Gray	-

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Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
020.	. /	0,11,2 2	•			
1534	587104-102	Dual 4-input NAND gate	-	-	Yellow	
1535'	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
1536	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
1537	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
1538	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
1539	587102-102	Quad 2-input NAND gate	Diowii	-	Red	- Diack
1540	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1541	-	Quad 2-input NAND gate	_	_	-	_
1542	_	_	_	_	- -	_
1543	587102-102	Quad 2-input NAND gate	_	_	Red	_
1544	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1545	587104-102	Dual 4-input NAND gate	_	_	Yellow	_
1546	587104-102	Dual 4-input NAND gate Dual 4-input NAND gate	_	_	Yellow	
1547	587117-102	Hex inverter	Brown	_	Violet	_
1548	587102-102	Quad 2-input NAND gate	DIOWII	_	Red	_
1549	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
1550	387 102-102	Quad 2-Input NAND gate	-	-	Neu	-
1550	-	-	-	-	-	-
11331	-	BAY 2-SHELF 2	-	-	-	-
2101	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
2102	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
2103	587102-102	Quad 2-input NAND gate	-	-	Red	-
2104	587102-102	Quad 2-input NAND gate	-	-	Red	-
2105	-	-		-	-	-
2106	-	-	-	-	-	-
2107	-	-	-	-	-	-
2108	-	-	-	-	-	-
2109	-	-	-	-	-	-
2110	-	-	_	-	-	-
2111	-	-	_	-	-	-
2112	-	-	-	-	-	-
2113	-	-	-	-	-	-
2114	-	-	-	-	-	-
2115	-	-	-	-	-	-
2116-	Test connector	_	_	_	-	_

See footnote at end of table.

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Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
<u> </u>	TAKT NOMBER	OARD III L	•		<u> </u>	
A2117	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2118	587102-102	Quad 2-input NAND gate	-	-	Red	-
\2119	587102-102	Quad 2-input NAND gate	-	-	Red	-
2120	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
\2121	10281609	Quint 4-bit adder	Brown	Blue	Black	White
2122	587102-102	Quad 2-input NAND gate	-	-	Red	-
2123	-	-	-	-	-	-
A2124	587102-102	Quad 2-input NAND gate	-	-	Red	-
\2125	587102-102	Quad 2-input NAND gate	-	-	Red	-
2126	587102-102	Quad 2-input NAND gate	-	-	Red	-
\2127-						
\2128	_ 10281609	Quint 4-bit adder	Brown	Blue	Black	White
2129	587108-102	Single 8-input NAND gate	-	-	Gray	-
2130	587119-100	240-ohm resistor				
A2131	587104-102	Dual 4-input NAND gate	-	_	Yellow	_
2132	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2133	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2134	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2135-	Test connector	The Art State of the Tog. State.	2.0	2.00		
12136	587104-102	Dual 4-input NAND gate	_	_	Yellow	_
2137	10-281652	3-input J-K flip-flop	Brown	Blue	Green	Red
2138	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
2139	587102-102	Quad 2-input NAND gate	- -	-	Red	-
2140	587102-102	Quad 2-input NAND gate	_	_	Red	_
2141	587102-102	Quad 2-input NAND gate	_	_	Red	_
(2142	587102-102	Quad 2-input NAND gate	_	_	Red	_
12142	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
\2143 \2144	587102-102	Quad 2-input NAND gate Quad 2-input NAND gate	_	_	Red	_
.214 4 .2145-	-	-	-	-	reu -	_
12145- 12146	- W441	Connector	_	-	-	-
12140 12147	W388	Connector	-	-	-	-
12147 12148	W389		-	-	-	-
\∠ 140	vv 309	Connector	-		-	-
2204	E07400 400	BAY 2-SHELF 2			Dod	
2201	587102-102	Quad 2-input NAND gate	-	-	Red	-

Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
		0.0.0	<u> </u>			
A2202	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2203	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2204	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2205	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2206	587117-102	Hex inverter	Brown	-	Violet	-
A2207	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2208	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2209	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2210	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2211	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2212	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2213	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2214	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2215	10281606	Hex 4-bit comparator	Brown	Blue	Black	Blue
A2216	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2217	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2218	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2219	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2220	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2221	587104-102	Dual 4-input NAND gate	-	-	Yellow	-:
A2222	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2223	587117-102	Hex inverter	Brown	-	Violet	-
A2224	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2225	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2226	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2227	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2228	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2229	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2230	587118-100	1K-ohm resistor	-	-		
A2231	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2232	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2233	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2234	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2235	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2236	587117-102	Hex inverter	Brown	-	Violet	-

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Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
\2237	587102-102	Quad 2-input NAND gate	<u>-</u>	_	Red	_
A2238	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2239	587104-102	Dual 4-input NAND gate	_	_	Yellow	_
12240	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
\2241	587102-102	Quad 2-input NAND gate	-	-	Red	-
\2242	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2243	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2244	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2245	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2246	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2247	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2248	W442	Connector	-	-	-	-
2249	W409	Connector	-			
2250	W410	Connector	-			
2251	W535	Connector	-	-	-	-
		BAY 2-SHELF 3				
\2301	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2302	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2303	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2304	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
2305	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2306	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2307	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
2308	587117-102	Hex inverter	Brown	-	Violet	-
2309	587102-102	Quad 2-input NAND gate	-	-	Red	-
2310	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2311	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
\2312	587102-102	Quad 2-input NAND gate	-	-	Red	-
2313	587102-102	Quad 2-input NAND gate	-	-	Red	-
2314	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
2315	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
2316	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
2317	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
\2318	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
\2319	10281603	4-bit multiplexer	Brown	Blue	Black	Orange

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Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
OLO I	TART HOMBER	OARD THE	•			
A2320	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2321	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2322	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2323	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2324	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2325	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2326	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2327	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
\2328	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2329	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2330	587119-100	240-ohm resistor				
A2331	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2332	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2333	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2334	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2335	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2336	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2337	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2338	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2339	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
\ 2340	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2341	587104-102	Dual 4-input NAND gate	-	-	Yellow	
\2342	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2343	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2344	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2345	-	Test connector	-	-	-	-
A2346	-	Test connector				
A2347	-	Test connector				
\2348	W408	Connector				
\2349	W415	Connector	-	-	-	-
A2350	W416	Connector				
A2351	W422	Connector				
		BAY 2-SHELF 4				
A2401	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2402	587102-102	Quad 2-input NAND gate	-	-	Red	-

Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
<u> </u>	TART NOMBER	CARDITIE	•			-
A2403	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2404	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2405	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2406	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2407	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2408	587102-102	Quad 2-input NAND gate	-	Red		
A2409	587102-102	Quad 2-input NAND gate	-	-	Red	
A2410	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2411	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2412	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2413	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2414	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2415	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2416	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2417	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2418	587117-102	Hex inverter	Brown	-	Violet	-
A2419	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2420	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2421	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2422	587104-102	Dual 4-input NAND gate	_	-	Yellow	-
A1423	10281652	3-input J-K flip-flop	Brown	Blue	Green	Red
A2424	587102-102	Quad 2-input NAND gate	-	-	Red	
A2425	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2426	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2427	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2428	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2429	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2430	587119-100	240-ohm resistor	-	-	-	-
A2431	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2432	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2433	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2434	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2435	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2436	-	-	-	-	-	-
A2437	587102-102	Quad 2-input NAND gate	_	_	Red	-
112701	307 TOZ-TOZ	Quad 2-Input NAMD gate	=	_	Neu	_

Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

				COLO	R CODE	
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
0201	17KT NOMBER	O/III E	<u>'</u>			
A2438	587102-102	Quad 2-input NAND gate	-	-	Red	_
A2439	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2440	587102-102	Quad 2-input NAND gate	-	-	Red	_
A2441	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2442	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2443	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2444	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2445	587117-102	Hex inverter	Brown	-	Violet	-
A2446	587117-102	Hex inverter	Brown	-	Violet	-
A2447	W526	Connector	-	-	-	-
A2448	W440	Connector	-	-	-	-
A2450	W436	Connector	-	-	-	-
A2451	W450	Connector	-	-	-	-
		BAY 2-SHELF 5				
A2501	-	-	-	-	-	-
A2502	10281780	Quad exclusive OR gate	Brown	Violet	Gray	Black
A2503	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2504	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2505	10281780	Quad exclusive OR gate	Brown	Violet	Gray	Black
A2506	10281780	Quad exclusive OR gate	Brown	Violet	Gray	Black
A2507	587117-102	Hex inverter	Brown	-	Violet	
A2508	587117-102	Hex inverter	Brown	-	Violet	
A2509	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A2510	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2511	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2512	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2513	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2514	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2515	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2516	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2517	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2518	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2519	587117-102	Hex inverter	Brown	-	Violet	-
A2520	587102-102	Quad 2-input NAND gate	-	_	Red	_

Table 5-37. Video Processor Unit1A1A1A5, Circuit Card Location -Continued-

			COLOR CODE			
CARD SLOT	PART NUMBER	CARD TYPE	1	2	3	4
A2521-	-					
A2522	587102-102	Quad 2-input NAND gate	_	-	Red	_
A2523	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A2524	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2525	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2526	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2527	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2528	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A2529	-	-	-	-	-	-
A2530	587119-100	240-ohm resistor	-	-	-	-
A2531	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A2532	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2533	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2534	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2535	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2536	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2537	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2538	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2539	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2540	587102-102	Quad 2-input NAND gate	-	-	Red	-
A2541	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2542	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2543	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2544	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A2545	587117-102	Hex inverter	Brown	-	Violet	-
A2546	587117-102	Hex inverter	Brown	-	Violet	-
A2547	W447	Connector	-	-	-	-
A2548	W448	Connector	-	-	-	-
A2549	W446	Connector	-	-	-	-
A2550	W437	Connector	-	-	-	-
A2551	W451	Connector	-	-	-	-

¹Card retainers are marked white indicating that the card must be removed from the cabinet and installed in the MTS for A testing.

Table 5-38. Card Pin to Test Point Correlation

	Card Type 587xxx1					Card Type 10281xxx						
	101						606 602	610				
	to						603	610 652				
Pin	110	107	117	124		643 ²	780	601	609	629	645 ²	
1	2B	2A	2B	5A		2B				3B	2B	
2	GND	GND	GND	GND		GND	GND	GND	GND	GND	GND	
3	2A	3A	3A	6A		2B	3B	2B	2B	3A		
4	4A		2A			2A	2A	2A	2A	2B	4A	
5	3B	4B	3B			3B	4B	3B	3B	4A	3B	
6	5A		5A	14A		3A	3A	3A	3A	4B	5A	
7	3A	5B	4B			4B	5B	4B	4B	6B	3A	
3	6A	8B	4A	12A		4A	4A	4A	4A	6A	6A	
9	4B	10B	5B	7A		5B	6B	5B	5B	2A	4B1	
10	7A	9B	6B	13A		5A	5A	5A	5A	7A	7A	
11	5B	11B	7A			6B	7B	6B	6B	5A	5B	
12	+5V	+5V	+5V	+5V		+5V	+5V	+5V	+5V	+5V	+5V	
13	6B		6A			7A	7A		7A	7A	6B	
14	9A	8B	6A	6A		6A	6A	9A	6A		9A	
15	7B		7B			7B	8B	7B	7B	5B		
16	GND	GND	GND	GND		GND	GND	GND	GND	GND	GND	
17	8B		9B	25A		8B	9B	9B	8B	17A		
18	10A	9A	18A	9A		9A	9A	9A	8B	10A		
19	9B		10B	24A		9B	10B	9B	9B	15B	9B	
20	11A		10A	19A		10A	10A	10A	10A	15A	1A	
21	10B		11B	26A		10B	11B	10B	10B		10B	
22	12A		14A	2B		11A	11A	11A	11A	12B	12A	
23	11B		12A			11B	12B	11B	11B		11B	
24	13A		13A			12A	12A	12A	12A		13A	
25	12B		11A			12B	14A	12B	12B		12B	
26	14A		12B	3B		13A	13A	13A	13A	16A	14A	
27	13B		13B			14A	13B	14A	14A			
28	+5V	+5V	+5V	+5V		+5V	+5V	+5V	+5V	+5V	+5V	
29	14B		15B	10A		13B	14B	13B	13B			
30	15A		14B			15A	15A	15A	16A	13A	15A	
31	15B		16B			14B	15B	14B	15A		15B	
32	GND	GND	GND	GND		GND	GND	GND	GND	GND	GND	
33	16B		17B	9A		16A	16B	16A	14B	18B	16B	
34	16A	12B	15A	15A		15B	16A	15B	15B	14B	16A	
35	17B		13A			16B	17B	16B	16B	19B	17B	
36	17A	13B	16A	16A		17A	17A	17A	17A	19A	17A	
37	18B		17A	22A		17B	18B	17B	17B	22B	18B	
38	18A	6B	20A			18A	18A	18A	18A	20A	18A	
39	19B		19B	21A		15B	19B	18B	18B	24B		
40	19A	7B	19A			19A	19A	19A	19A	31A	19A	
41	22B		23B			19B	22B		19B	19B	26B	
42	20A		23B			20A	20A	20A	20A	23B	20A	
43	23B		24B			22B	23B	22B	22B	23B	23B	
44	GND	GND	GND	GND		GND	GND	GND	GND	GND	GND	

See footnote at end of table.

Table 5-38. Card Pin to Test Point Correlation -Continued-

	Card Type 587xxx1						Card Type 10281xxx					
							606					
	101						602	610				
	to						603	652			_	
Pin	110	107	117	124		643 ²	780	601	609	629	645 ²	
45	24B		25B			23B	24B	23B	23B		24B	
46	21A		23B			21A	21A	21A	21A	25B	21A	
47	25B		24A			23A	25B	23A	23A		25B	
48	22A		21A			22A	22A	22A	22A	31B	22A	
49	26B		23A			24B	26B	24A	24B		26B	
50	23A		22A			24A	23A		24A	28A	23A	
51	27B		27B			25B	27B	25B	25A			
52	24A		26A		20A	25A	24A	26B	25B	29B	24A	
53	28B		26B			26B	28B	26A	26A			
54	25A		25A			26A	25A	27B	26B		26A	
55	29B		29B			27B	29B	28B	28B		29B	
56	26A		28B			28B	26A	28A	27B		26A	
57	30B		30B			29B	28A	29B	29B		30B	
58	GND	GND	GND		GND	GND	GND	GND	GND	GND	GND	
59	31B		31B			30B	30B	30B	30B		31B	
60	28A		28A			28A	29A	29A	28A		28A	
61	32B		31A			31B	31B	31B	31B		32B	
62	29A		29A			29A	30A	30A	29A	32A	29A	
63	33B		30A			31A	32B	007.	31A	0 _, .	_0, .	
64	30A		33A			30A	31A	31A	30A		30A	
65	34B		33B			00,1	33B	0171	33B		00/1	
66	31A		32A			32B	32A	33A	32B		31A	
67	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	
68	32A	CIAD	CITE	32B	CIVE	33A	33A	34A	32A	OND	32A	
69	35A			35B		32A	34B	33B	33B	32B	35A	
70	33A			34B		34A	34A	35A	33A	34B	33A	
70 71	36A			36B		33B	35B	34B	34B	36B	36A	
71 72	34A			34A		35A	35A	36A	34A	35B	34A	
73	36B			37B		34B	36B	35B	35B	38B	36B	
73 74	35B			35A		36A	36A	26A	25A	33A	35B	
74 75	36B			39A		35B	36B	36B	36B	38A	37B	
75 76	30B 37A			39A 37A		37A	30B 37A		36A	36A 37B	37A	
								36A		3/0		
77 70	35B			38A		36B	38B	37B	37B	244	38B	
78 70	33A			36A		39A	38A	200	37A	34A	38A	
79	39B			39B		37B	39B	38B	38B	39B	39B	
80	39A			38B		38B	39A		38A			

¹110283XXX card types have identical 1C/test point/card pin correlation as 587XXX card types as follows:

¹⁰²⁸³⁶²⁶ is same as 587102

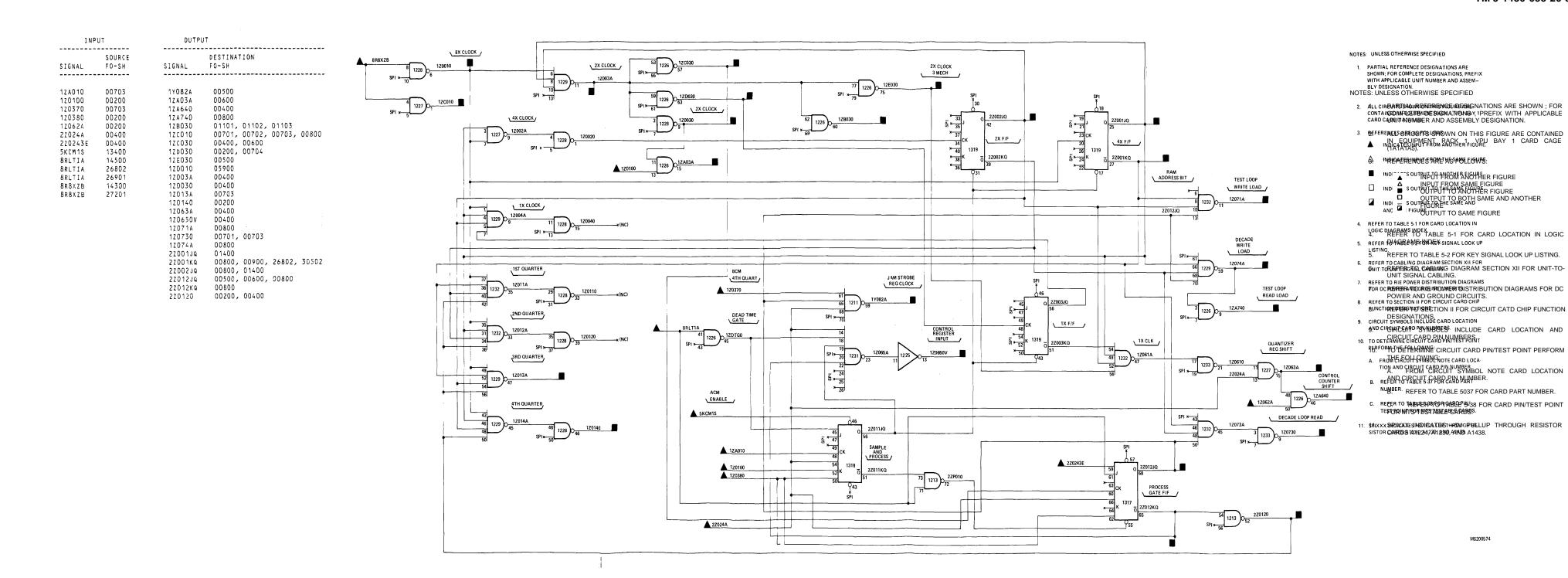
¹⁰²⁸³⁶²⁷ is same as 587108

¹⁰²⁸³⁶²⁸ is same as 587103

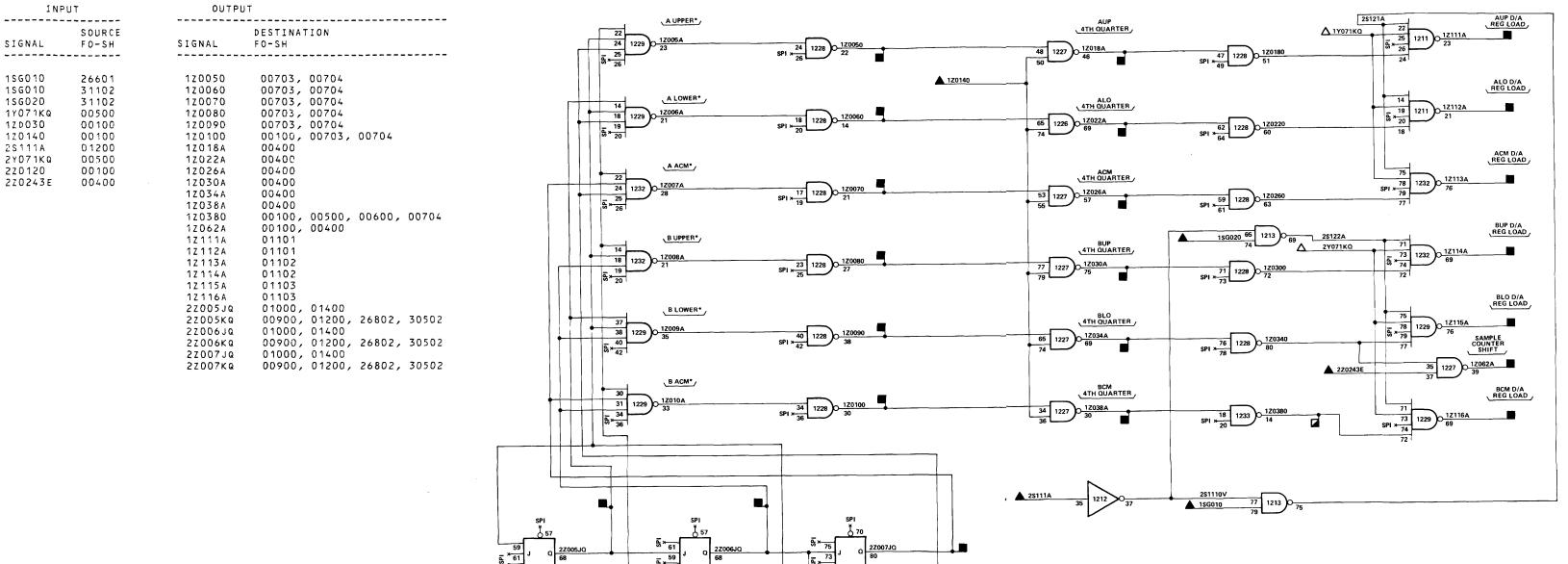
¹⁰²⁸³⁶²⁹ is same as 587106

¹⁰²⁸³⁶³⁰ is same as 587107

²10283XXX



FO-1. CFAR Modulo-Eight Counter Logic Diagram



BIT 2

BIT 1

FO-2. CFAR Modulo-Six Counter Logic Diagram

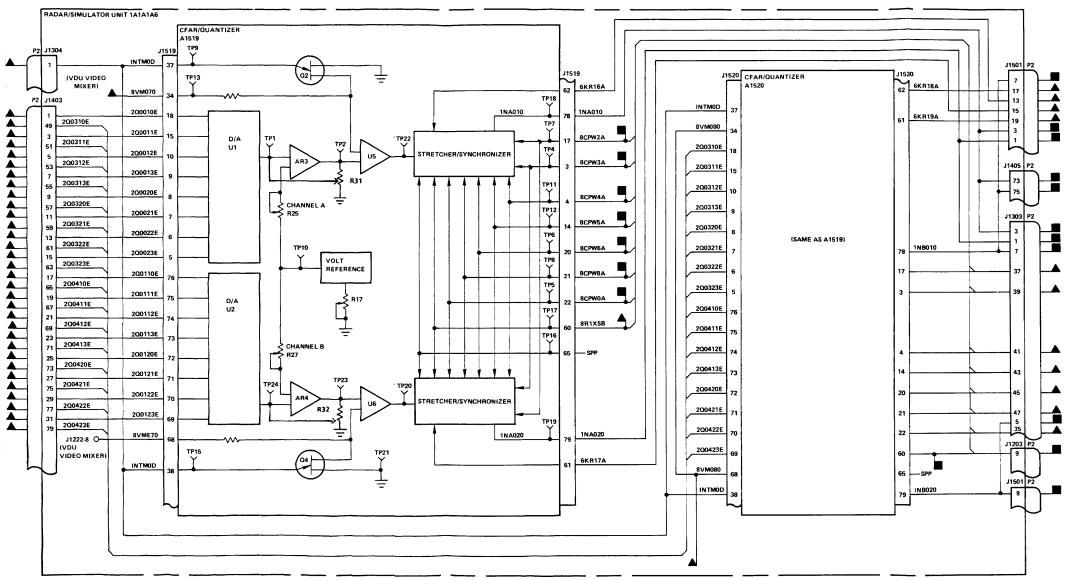
RAM ADDRESS BITS

2Z007KQ

NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
 - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
 OUTPUT TO ANOTHER FIGURE

 - OUTPUT TO BOTH SAME AND ANOTHER
 - FIGURE
 OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



Change 1 FO-3. CFAR Quantizers Logic Diagram

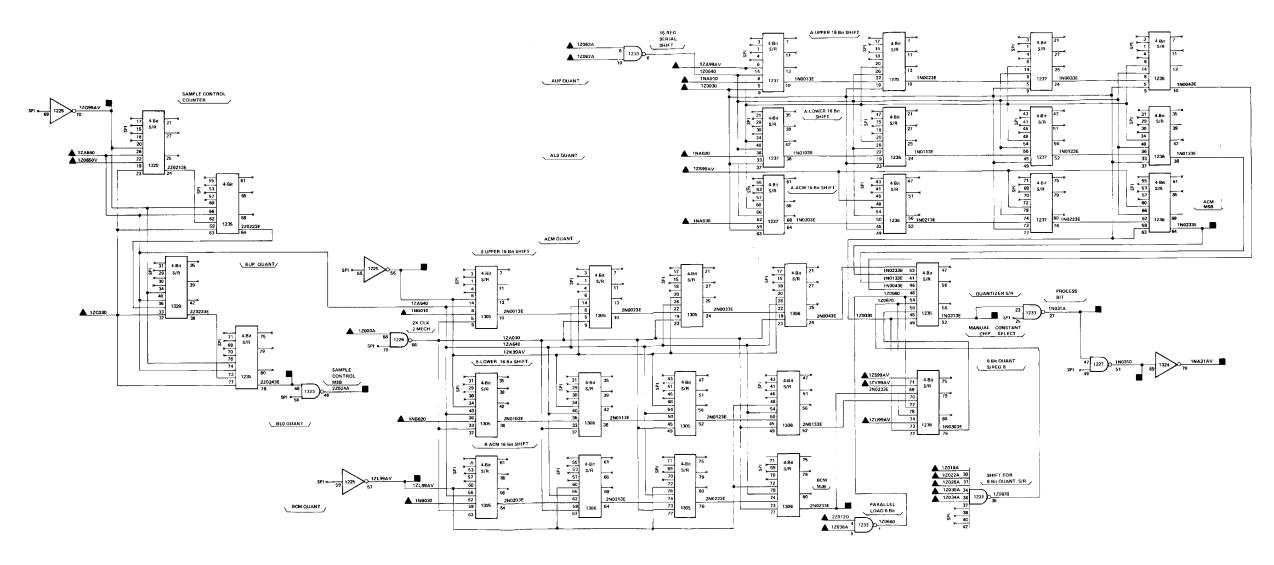
TM 9-1430-655-20-3-4

NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
 FOR COMPLETE DESIGNATIONS, PREFIX WITH
 APPLICABLE UNIT NUMBER AND ASSEMBLY
 DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, RSU (1A1A1A6).
- REFERENCES ARE AS FOLLOWS:
 - INPUT FROM ANOTHER FIGURE

 - INPUT FROM ANOTHER FIGURE
 INPUT FROM SAME FIGURE
 OUTPUT TO ANOTHER FIGURE
 OUTPUT TO BOTH SAME AND ANOTHER
 - FIGURE
 - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3 FAR CARD PART NUMBER.

INP	UT	ОИТРИТ				
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINA FO~SH	TION		
1NA010	00300	1NA31AV	00800			
1NAO10	26802	1NO233E	00500			
1NA010	27001	1 N O 3 1 A	00800,	01200,	01300,	26802,
1NA020	00300		30602			
1NA020	26802	1N0310	00701,			
1NA020	27001	1 N O 3 1 3 E		01300,	01400,	26802,
1NA030	03800		30601			
1NA030	30601	12K99AV	00702,	00703,		
1NB010	00300	1ZL99AV	01101,	01102,	01103	
1NB010	26802	12Q99AV	00500,	01101		
1NB010	27001	2NO233E	00500			
1NB020	00300	22024A	00100,			
1NB020	26802	2Z0243E	00100,	00200		
1NB020	27001					
1NB030	03800					
1NB030	30601					
12A640 12A99AV	00100 00500					
1ZB99AV	00500					
120030	00100					
12599AV	00600					
12599AV	30502					
12U99AV	00600					
1ZV99AV						
12003A	00100					
120030	00100					
1Z018A	00200					
12022A	00200					
1Z026A	00200					
12030A	00200					
12034A	00200					
12038A	00200					
1Z062A	00200					
12063A	00100					
1Z0650V	00100					
220120	00100					



FO-4. CFAR Quantizer Input Register, Logic Diagram

TM 9-1430-655-20-3-4

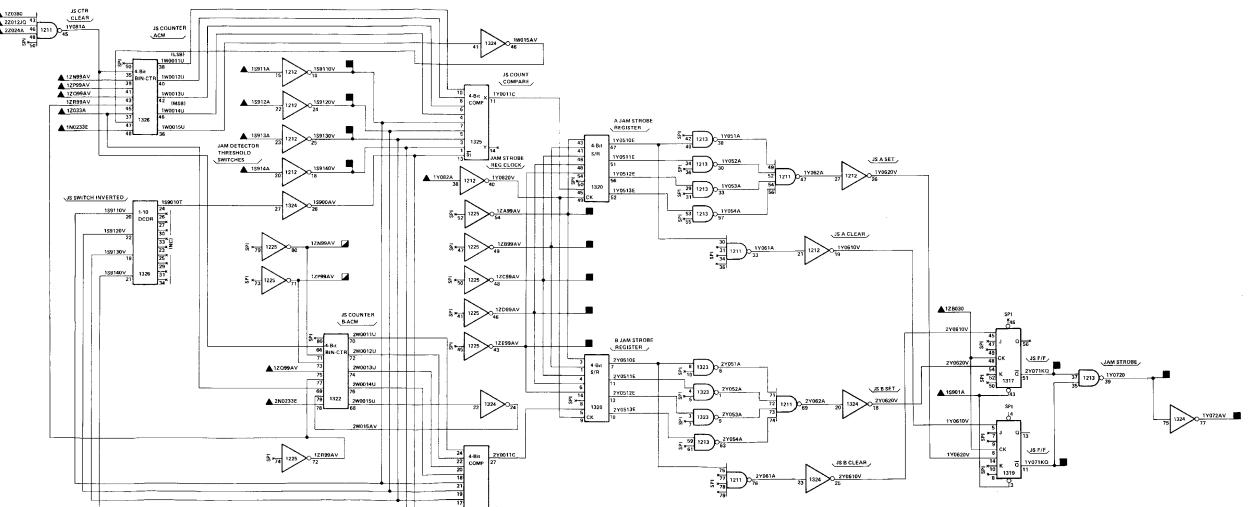
NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
 - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

 - OUTPUT TO BOTH SAME AND ANOTHER
 - **FIGURE**
 - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
 - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
 - B. REFER TO TABLE 5037 FOR CARD PART
 - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

MS200577

INF	TUT	0UTPL				
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINAT FO-SH	TION		
1N0233E	00400	1S9110V	01400			
		159120V				
15911A		1891 30 V				
18911A	31901	1\$9140V	01400			
18912A	26802	1 Y O 7 1 K Q	00200			
1S912A	31901	1 Y O 7 2 A V	03900			
1S913A	26802	1Y0720	01400,	26802		
15913A	31901	1 Z A 9 9 A V	00400,	00800		
1S914A	26802	1ZB99AV		00701,	00702,	00703,
1S914A	31901		00800			
1Y082A	00100	12099AV	00701,	00702,	00703,	00800
1ZE030	00100	1ZD99AV	00800	·	•	
12Q99AV	00400	1 Z E 9 9 A V	00703.	00800		
1Z033A	00703	1 Z N 9 9 A V			01103.	01200
120380	00200	17 P 9 9 A V				
		2				
12E030 12Q99AV	00100 00400 00703 00200 00400	1 Z D 9 9 A V 1 Z E 9 9 A V	00800 00703, 01101, 01101,	,	01103,	



NOTES: UNLESS OTHERWISE SPECIFIED

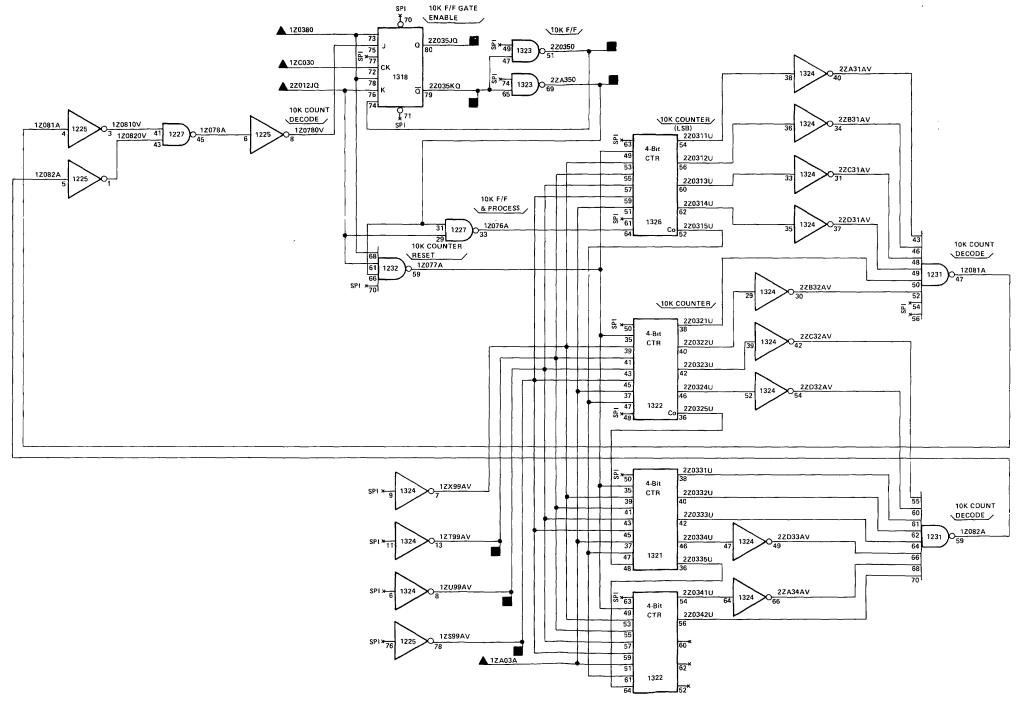
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
 FOR COMPLETE DESIGNATIONS, PREFIX WITH
 APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- 3. REFERENCES ARE AS FOLLOWS:

 - INPUT FROM ANOTHER FIGURE
 INPUT FROM SAME FIGURE
 OUTPUT TO ANOTHER FIGURE
 OUTPUT TO BOTH SAME AND ANOTHER
 - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
 - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

MS200578

FO-5. CFAR Jam Strobe Detector Logic Diagram

INF	דטי	ОИТРИТ					
SOURCE SIGNAL FO-SH		DESTINATION SIGNAL FO-SH					
1 Z A O 3 A 1 Z C O 3 O	00100 00100	72899AV	00400, 30502	00800,	00900,	26802,	
120380	00200	1 Z T 9 9 A V	00800,	01101			
2Z012JQ	00100	1 Z U 9 9 A V 2 Z A 3 5 O	00400,	00800,	01101		
		2 Z O 3 5 J Q 2 Z O 3 5 K Q 2 Z O 3 5 O	00701, 00701, 00703,	00704	00703,	00704	



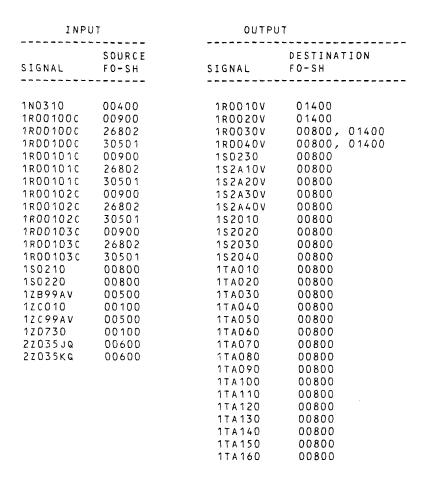
FO-6. CFAR 10K Counter Logic Diagram

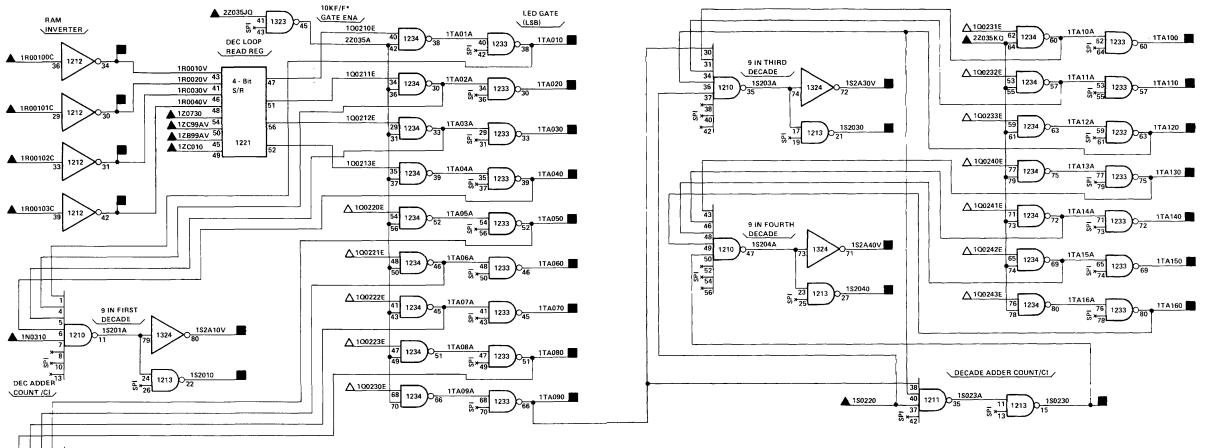
TM 9-1430-655-20-3-4

NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
 - INPUT FROM ANOTHER FIGURE

 - INPUT FROM ANOTHER FIGURE
 INPUT FROM SAME FIGURE
 OUTPUT TO ANOTHER FIGURE
 OUTPUT TO BOTH SAME AND ANOTHER
 - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
 - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
 - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:

TO-UNIT SIGNAL CABLING.

FUNCTION DESIGNATIONS

- ▲ INPUT FROM ANOTHER FIGURE
 △ INPUT FROM SAME FIGURE
- OUTPUT TO ANOTHER FIGURE
- OUTPUT TO BOTH SAME AND ANOTHER
 FIGURE
- OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS
- FOR DC POWER AND GROUND CIRCUITS.

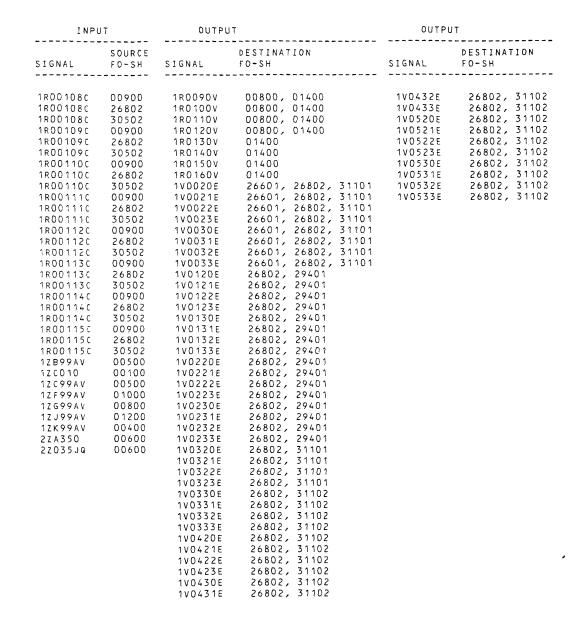
 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

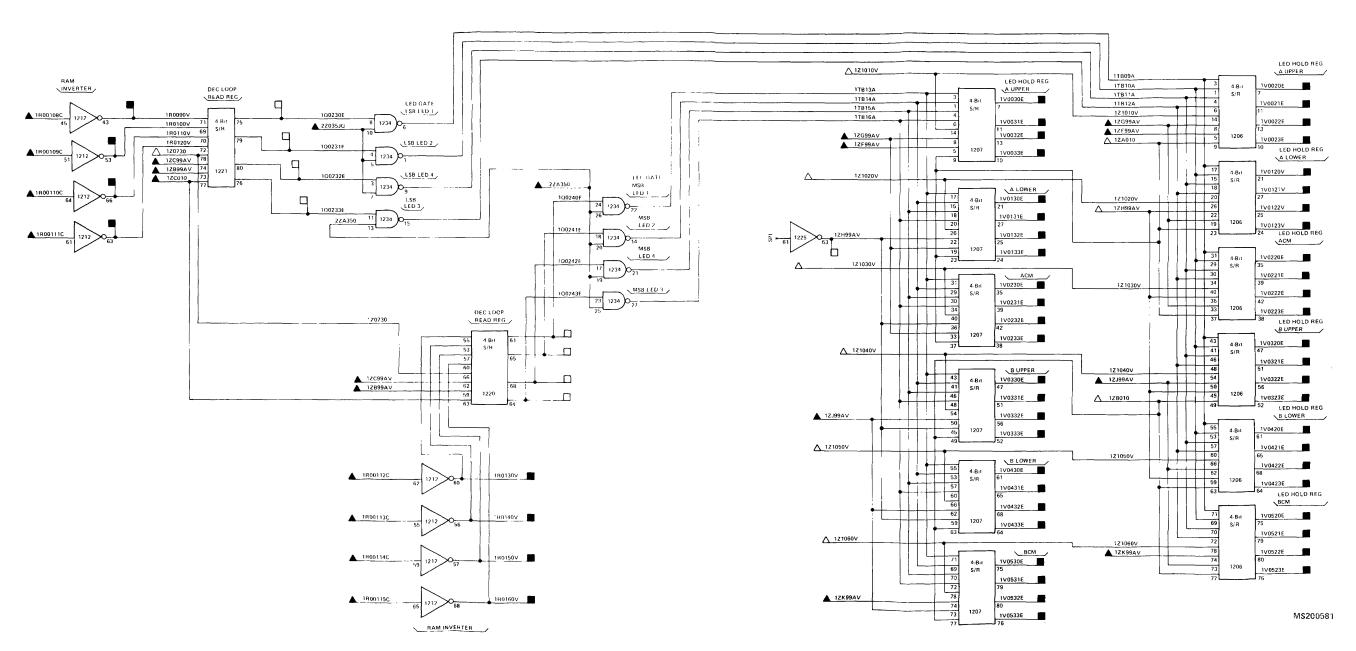


FO-7. CFAR Decode Loop Read Register/LED Holding Register Logic Diagram (Sheet 1of 4)

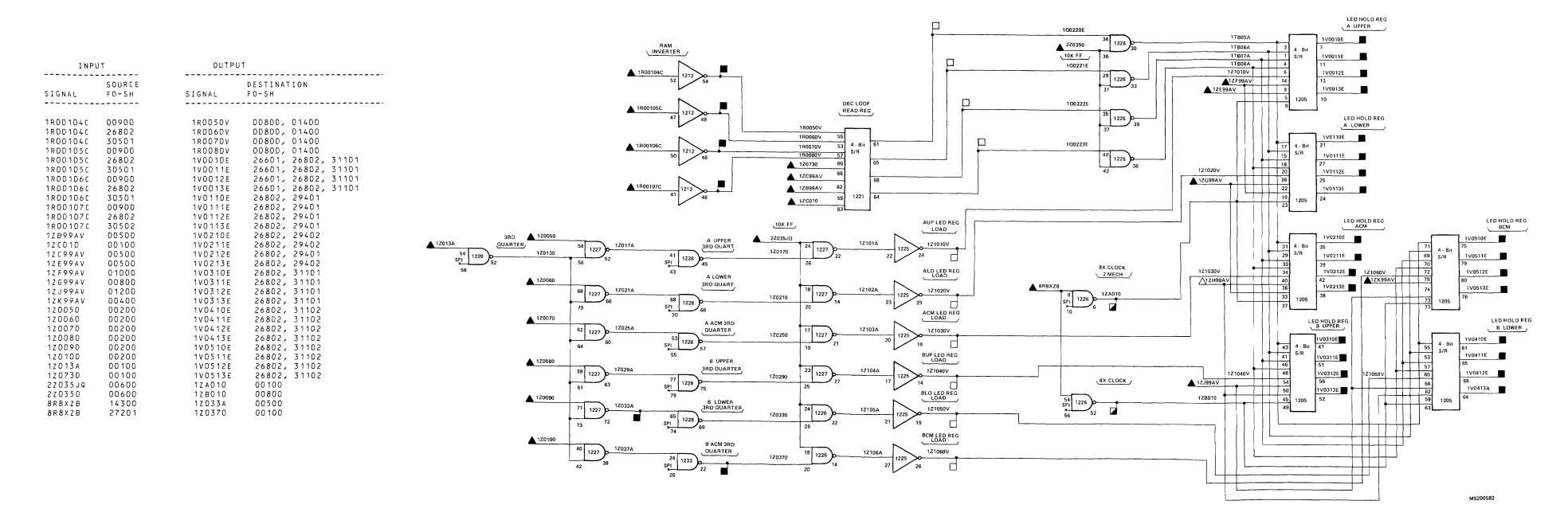
9 IN SECOND

DECADE

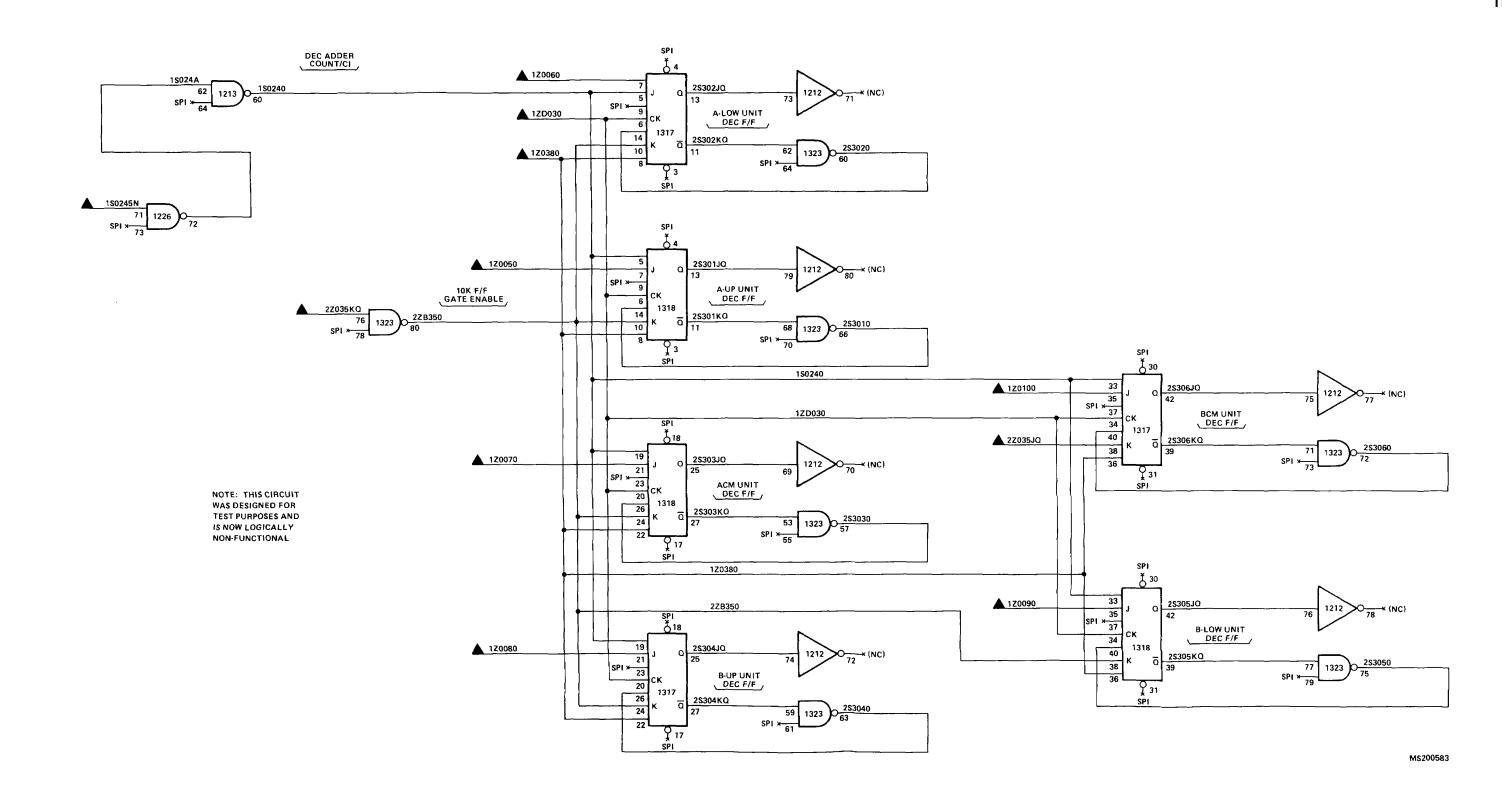




FO-7. CFAR Decode Loop Read Register/LED Holding Register Logic Diagram (Sheet 2 of 4)



FO-7. CFAR Decode Loop Read Register/LED Holding Register Logic Diagram (Sheet 3 of 4)



FO-7. CFAR Decode Loop Read Register/LED Holding Register Logic Diagram (Sheet 4 of 4)

INPUT

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SIGNAL

1S0245N

1ZD030 1Z0050

120060

120070

120080

120090 120100 120380

22035JQ

2Z035KQ

SOURCE

FO-SH

00800

00100 00200

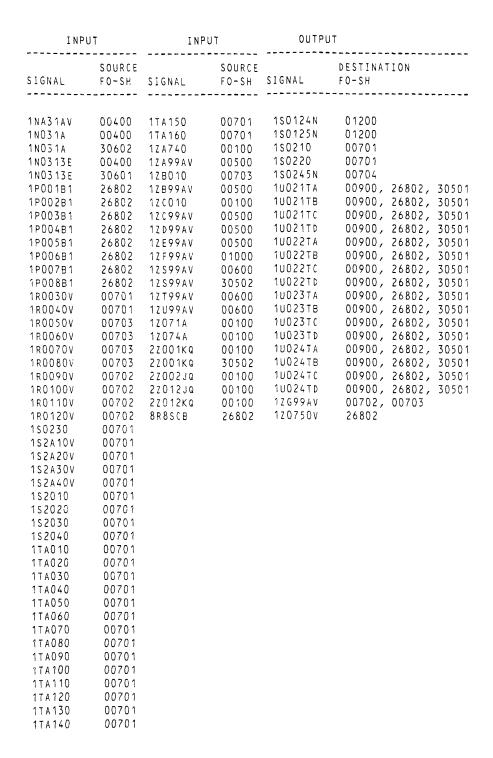
00200

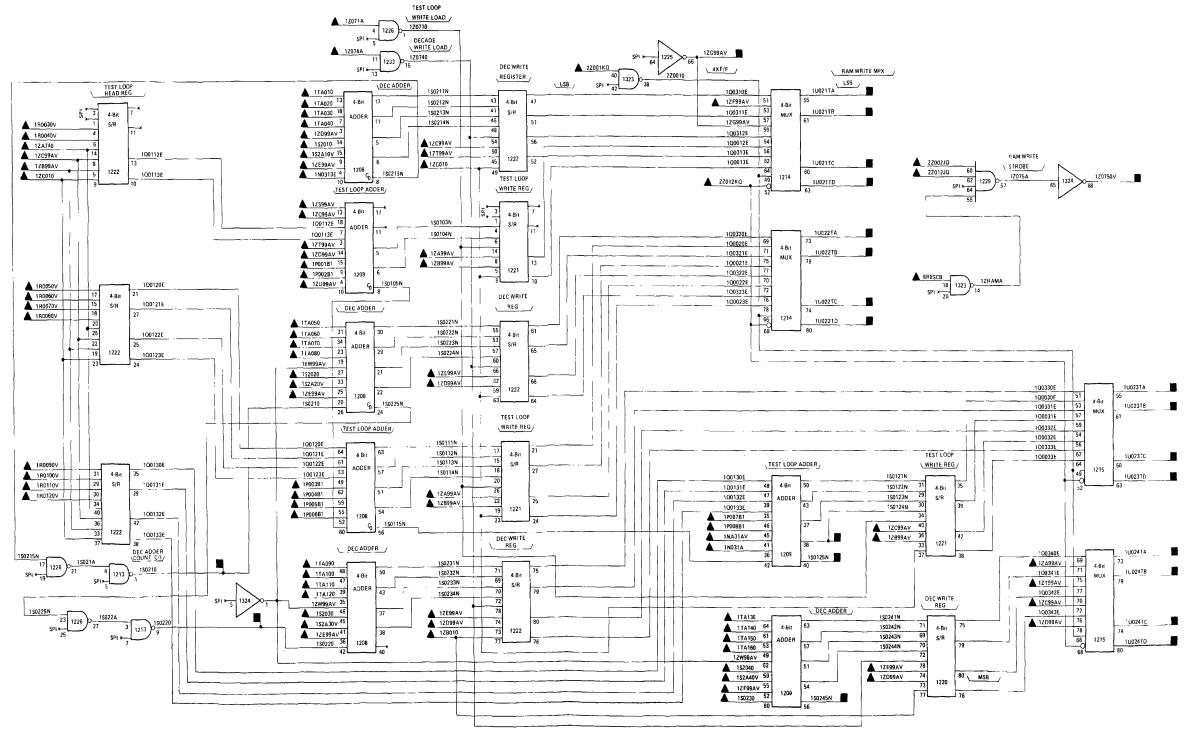
00200 00200 00200

00200

00600

00600





FO-8. CFAR RAM Write Register/Multiplexer Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
    Δ INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
   REFER TO SECTION II FOR CIRCUIT CATD CHIP
- FUNCTION DESIGNATIONS.

  9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- CIRCUIT CARD PIN NUMBERS.

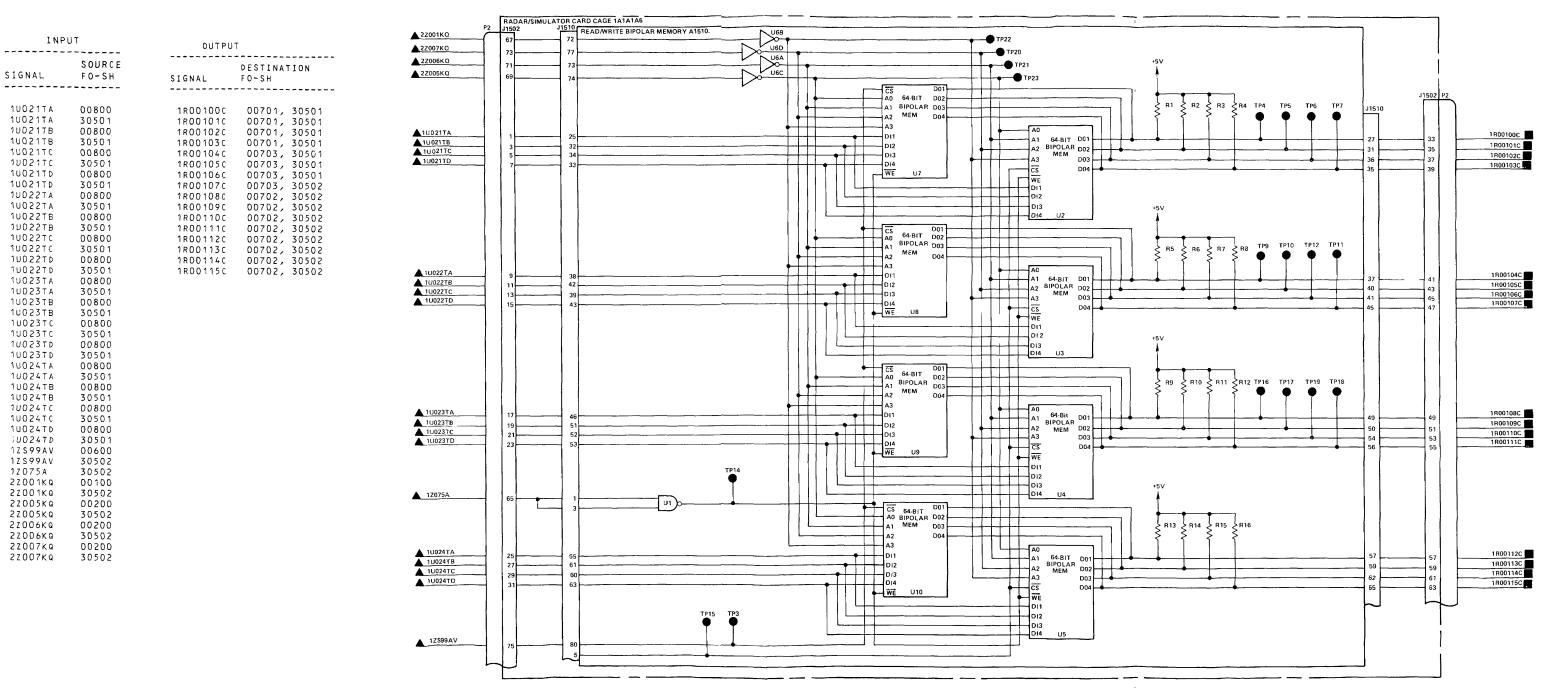
  10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT

PERFORM THE FOLLOWING:

- A. FROM CIRCUIT SYMBOL NOTE CARD
- LOCATION AND CIRCUIT CARD PIN NUMBER.

  B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

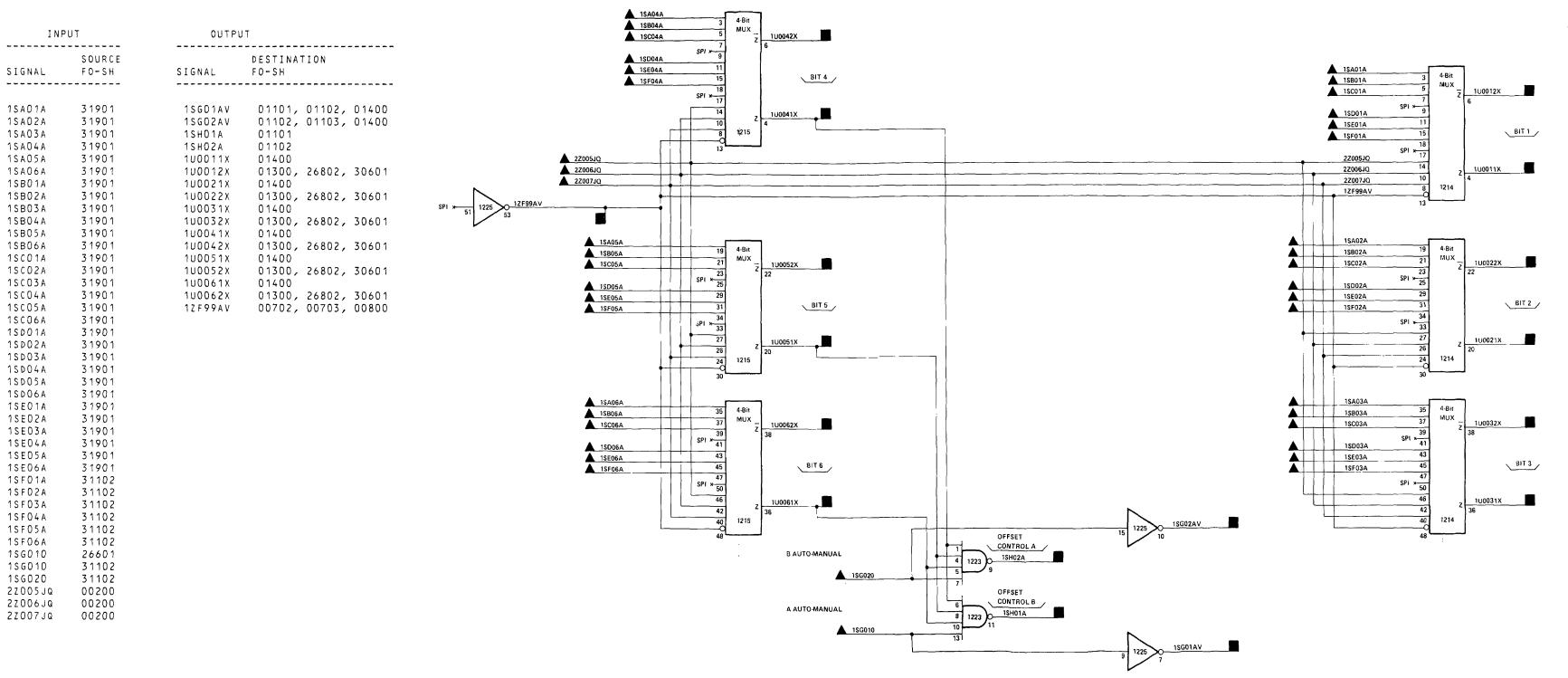
MS200584



FO-9. CFAR RAM Logic Diagram

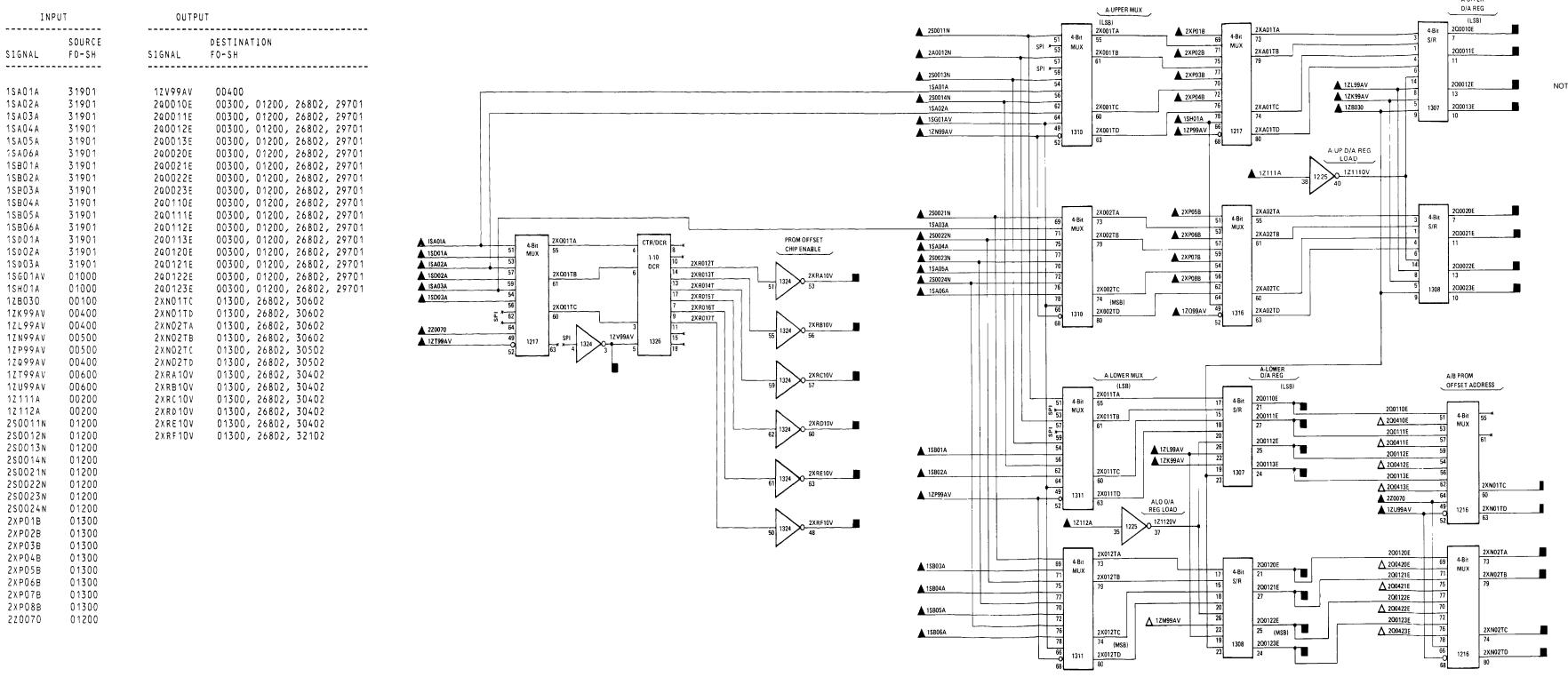
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, RSU (1A1A1A6).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE OUTPUT TO SAME FIGURE
  - REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER
- 8. REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3 FAR CARD



FO-10. CFAR PROM Address Switch Multiplexer Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- . REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

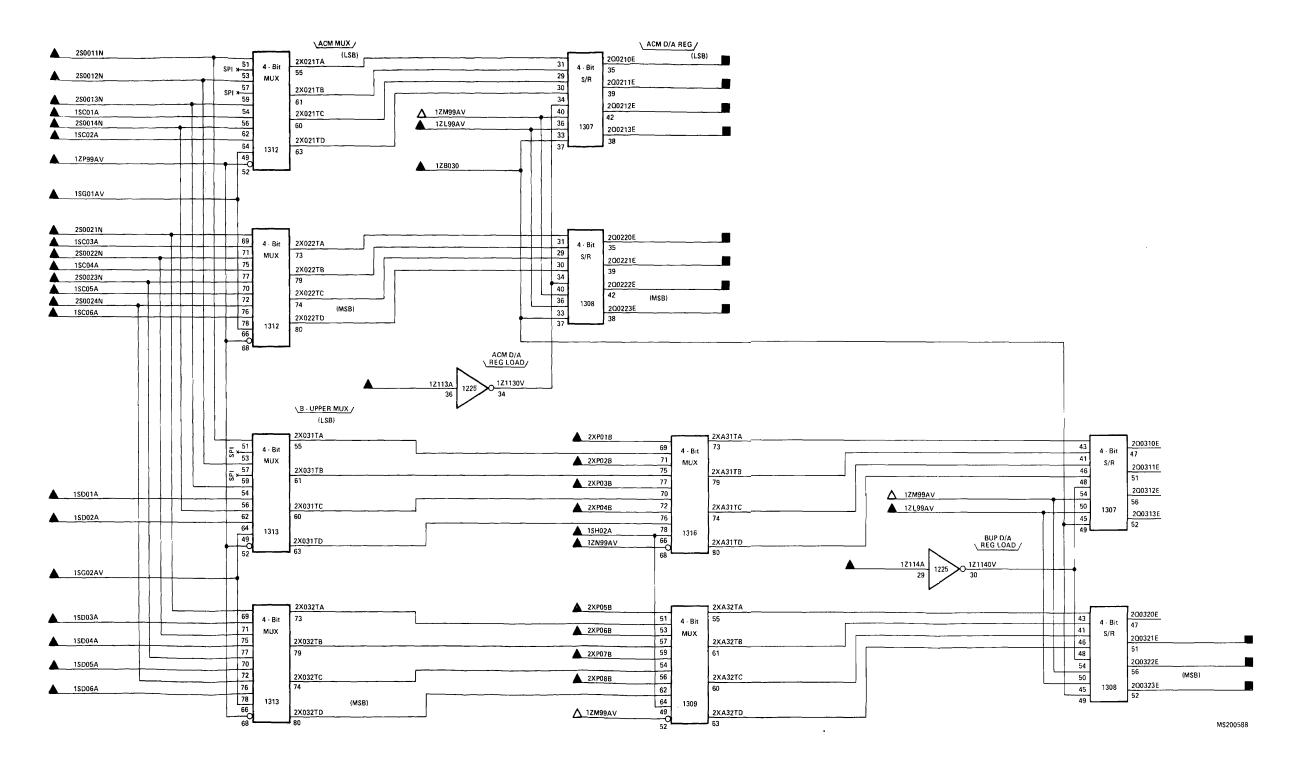


FO-11 CFAR Quantizer D/A Registers Logic Diagram (Sheet 1 of 3)

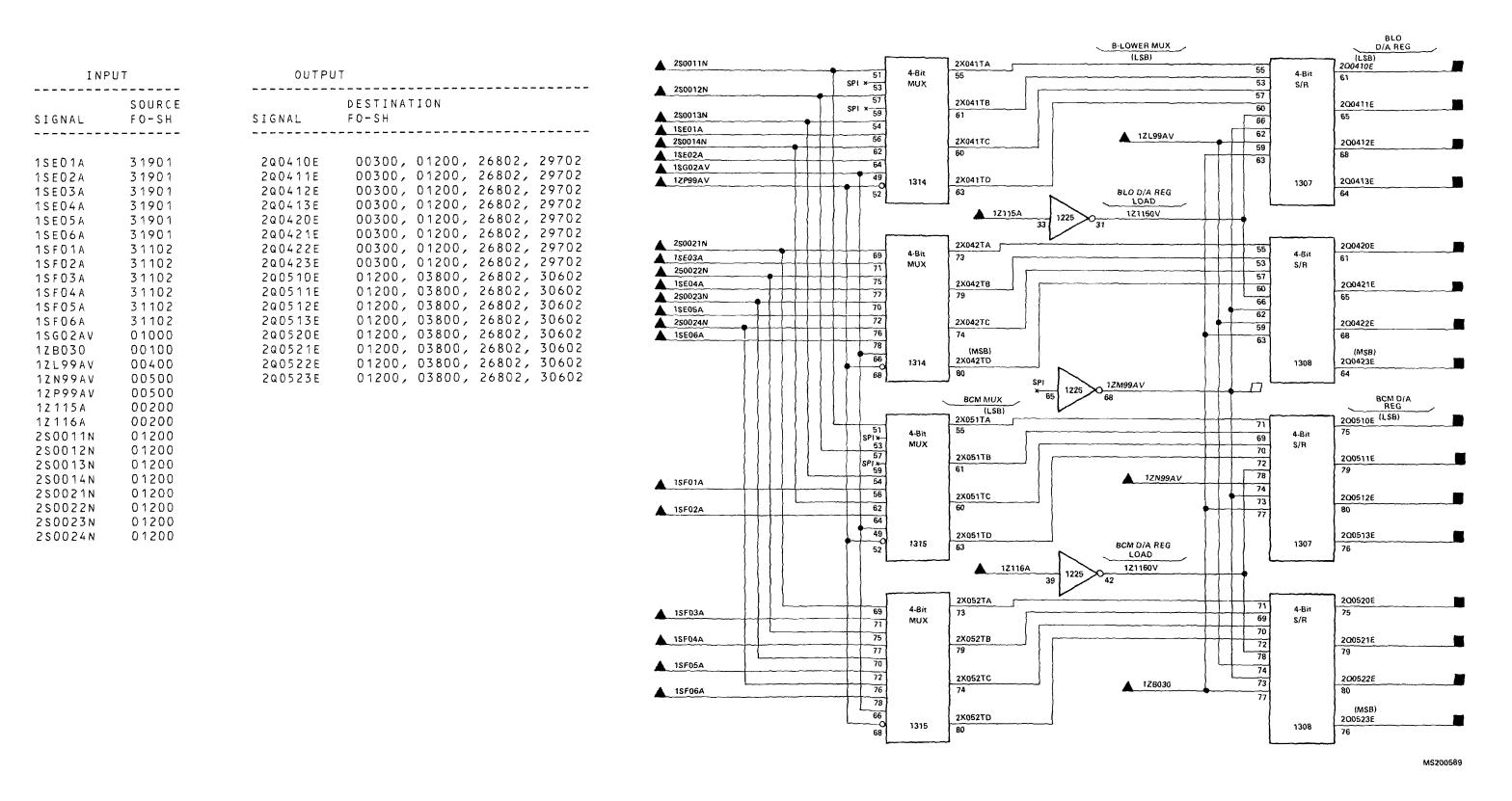
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
     INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
     OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
    OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NI IMPER
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

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| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UΤ                                                                                                                                                                                                                                                                                                                                                                            | OUTPL                                                                                                                                       | IT                                                                                                         |                                                                                                                      |                                                                                        |                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                               | SIGNAL                                                                                                                                      | DESTINAT                                                                                                   | TION                                                                                                                 |                                                                                        |                                                                                                                            |
| 1 S C O 1 A<br>1 S C O 2 A<br>1 S C O 0 4 A<br>1 S C O 0 6 A<br>1 S C O 0 6 A<br>1 S D O 0 1 A<br>1 S D O 0 2 A<br>1 S D O 0 6 A<br>1 S D O 0 7 A<br>1 S D O 0 8 A<br>1 S D O 0 1 A<br>2 S D O 0 1 A<br>2 S D O 0 2 B<br>2 S D O 6 B<br>2 S D O 7 B<br>2 S D O 8 B<br>2 S D O 8 B | 31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>31901<br>01000<br>01000<br>01000<br>01000<br>00100<br>00500<br>00500<br>00500<br>00500<br>00200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01200<br>01300<br>01300<br>01300<br>01300<br>01300<br>01300<br>01300<br>01300 | 2Q0210E<br>2Q0211E<br>2Q0213E<br>2Q0220E<br>2Q0221E<br>2Q0222E<br>2Q0223E<br>2Q0310E<br>2Q0311E<br>2Q0312E<br>2Q0312E<br>2Q0322E<br>2Q0323E | 01200,<br>01200,<br>01200,<br>01200,<br>01200,<br>01200,<br>00300,<br>00300,<br>00300,<br>00300,<br>00300, | 03800,<br>03800,<br>03800,<br>03800,<br>03800,<br>03800,<br>01200,<br>01200,<br>01200,<br>01200,<br>01200,<br>01200, | 26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802, | 29701<br>29701<br>29701<br>29701<br>29701<br>29701<br>29702<br>29702<br>29702<br>29702<br>29702<br>29702<br>29702<br>29702 |



FO-11. CFAR Quantizer D/A Registers Logic Diagram (Sheet 2 of 3)



FO-11. CFAR Quantizer D/A Registers Logic Diagram (Sheet 3 of 3)

PARTIAL REFERENCE DESIGNATIONS ARE

PREFIX WITH APPLICABLE UNIT NUMBER AND

SHOWN: FOR COMPLETE DESIGNATIONS

ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1

INPUT FROM ANOTHER FIGURE

INPUT FROM SAME FIGURE

OUTPUT TO SAME FIGURE

REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP

REFER TO CABLING DIAGRAM SECTION XII FOR

REFER TO RIE POWER DISTRIBUTION

REFER TO SECTION II FOR CIRCUITCATD CHIP

CIRCUIT SYMBOLS INCLUDE CARD LOCATION

A. FROM CIRCUIT SYMBOL NOTE CARD

B. REFER TO TABLE 5037 FOR CARD PART

REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.

LOCATION AND CIRCUIT CARD PIN NUMBER.

RESISTOR CARDS A1224, A1230, AND A1438.

DIAGRAMS FOR DC POWER AND GROUND

**OUTPUT TO ANOTHER FIGURE** 

OUTPUT TO BOTH SAME AND ANOTHER

ASSEMBLY DESIGNATION.

FIGURE

LOGIC DIAGRAMS INDEX.

CIRCUITS

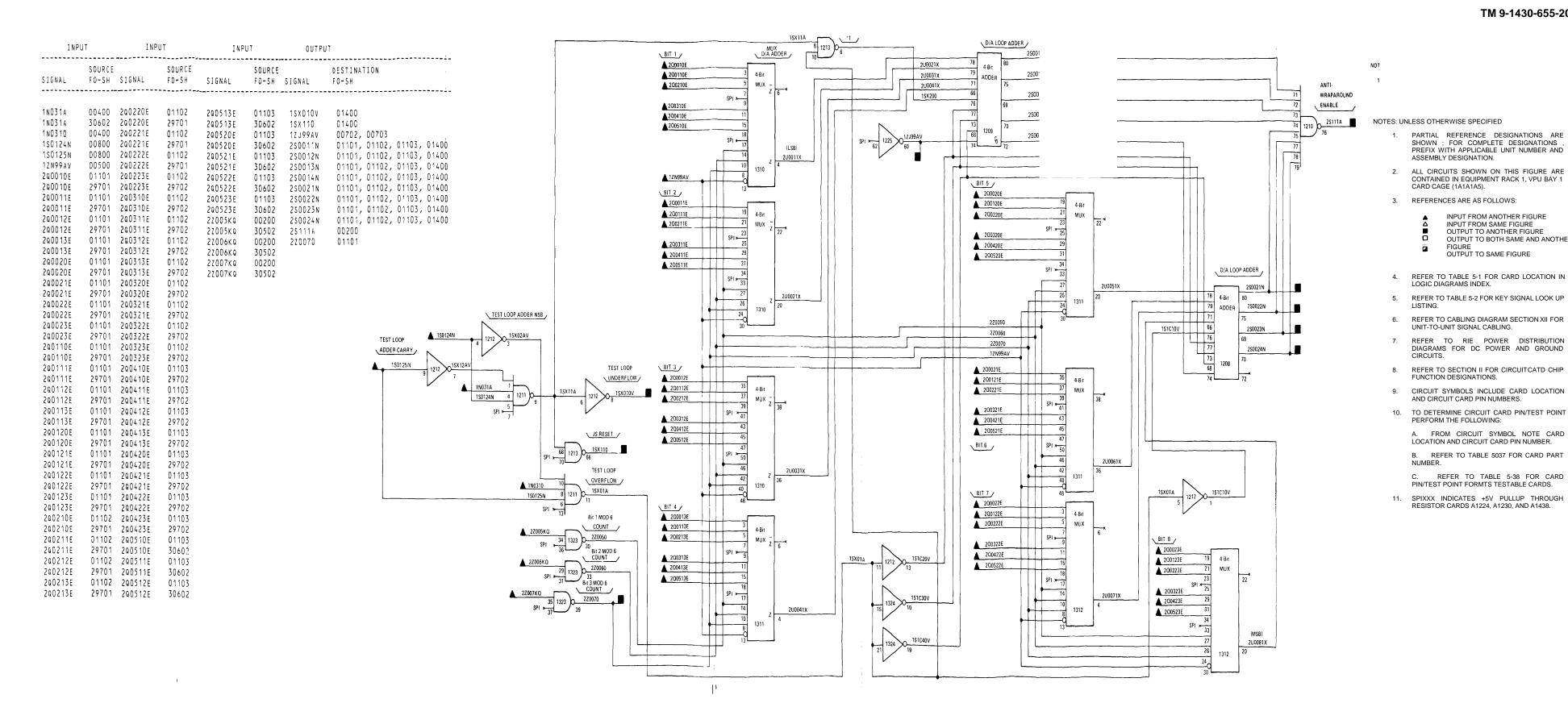
NUMBER

UNIT-TO-UNIT SIGNAL CABLING.

FUNCTION DESIGNATIONS.

PERFORM THE FOLLOWING:

AND CIRCUIT CARD PIN NUMBERS.



FO-12. CFAR D/A Loop Adder Logic Diagram

| TM | 9-1 | 430 | -655 | 5-20 | -3-4 |
|----|-----|-----|------|------|------|
|----|-----|-----|------|------|------|

PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS,

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1,

VPU BAY 1 CARD CAGE (1A1A1A5).

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

REFER TO TABLE 5-2 FOR KEY SIGNAL

REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

REFER TO RIE POWER DISTRIBUTION

DIAGRAMS FOR DC POWER AND GROUND

CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN

B. REFER TO TABLE 5037 FOR CARD

C. REFER TO TABLE 5-38 FOR CARD

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND

PIN/TEST POINT FOR MTS TESTABLE

8. REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION DESIGNATIONS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST

POINT PERFORM THE FOLLOWING:

AND ASSEMBLY DESIGNATION.

3. REFERENCES ARE AS FOLLOWS:

LOOK UP LISTING.

CIRCUITS.

NUMBERS.

PART NUMBER.

7. REFERT

8. REFER TI 20-3 FOR PREFIX WITH APPLICABLE UNIT NUMBER

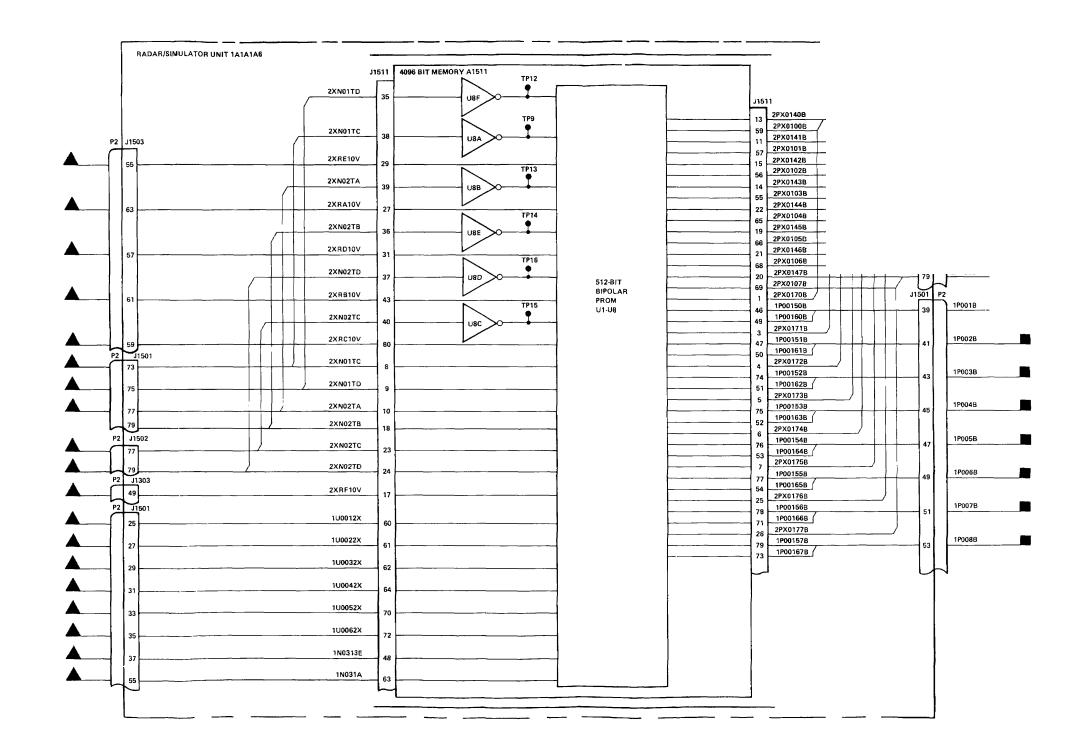
INPUT FROM ANOTHER FIGURE

OUTPUT TO ANOTHER FIGURE
OUTPUT TO BOTH SAME AND ANOTHER

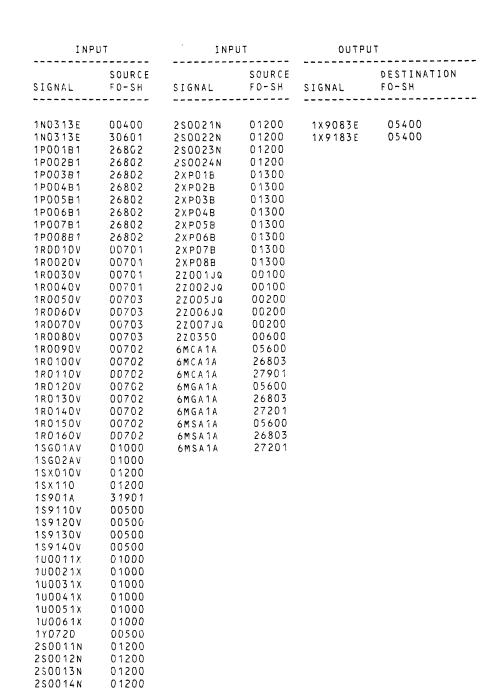
INPUT FROM SAME FIGURE

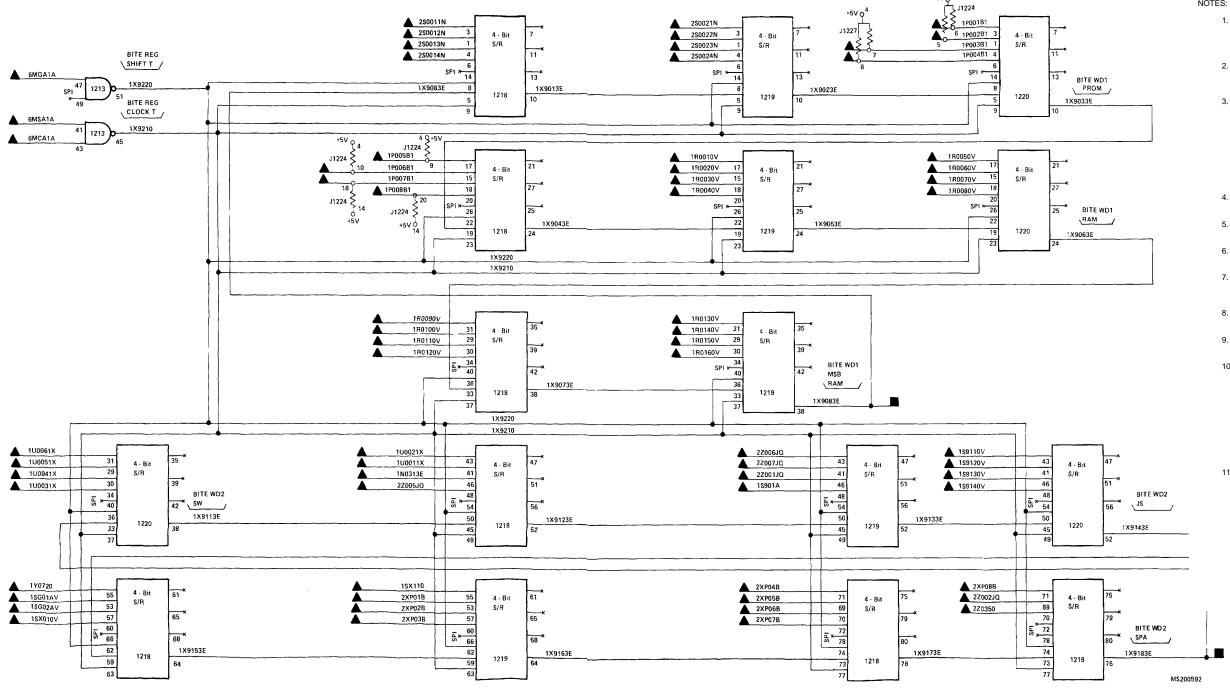
OUTPUT TO SAME FIGURE

| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TUT                                                                                                                                                                                                                                             | OUTP                                                                         | UT                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | S O U R C E<br>F O - S H                                                                                                                                                                                                                        | SIGNAL                                                                       | DESTINATION<br>FO-SH                                                                                                                                                                                                                         |
| 1N031A<br>1N031A<br>1N0313E<br>1N0313E<br>1N0313E<br>1N0012X<br>1U00022X<br>1U000322X<br>1U000322X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U00052X<br>1U | 00400 30602 00400 30601 01000 30601 01000 30601 01000 30601 01000 30601 01000 30601 01101 30602 01101 30602 01101 30502 01101 30502 01101 30402 01101 30402 01101 30402 01101 30402 01101 30402 01101 30402 01101 30402 01101 30402 01101 30402 | 2XP01B<br>2XP02B<br>2XP03B<br>2XP04B<br>2XP05B<br>2XP06B<br>2XP07B<br>2XP08B | 01101, 01102, 01400, 26802<br>01101, 01102, 01400, 26802 |



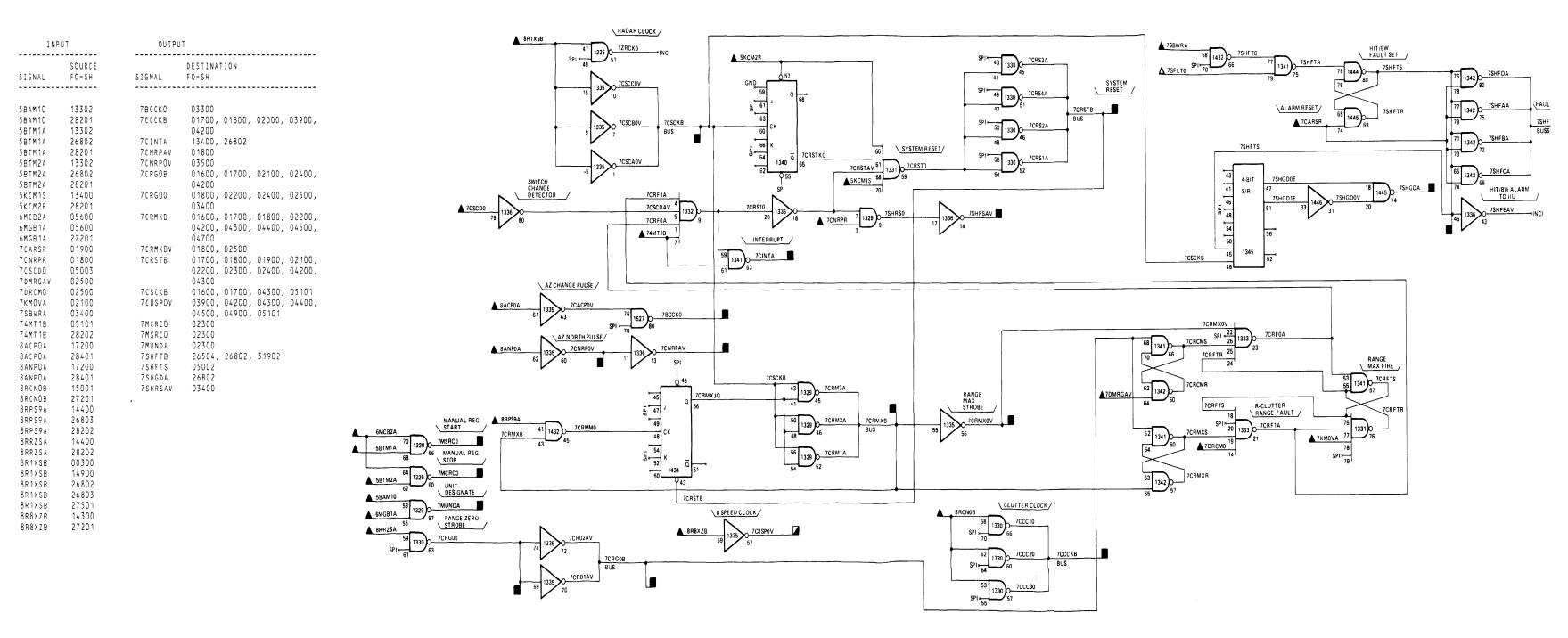
FO-13. CFAR PROM Logic Diagram





FO-14. CFAR BITE Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
     △ INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO THE SAME FIGURE
  - OUTPUT TO THE SAME AND ANOTHER FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION
   AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

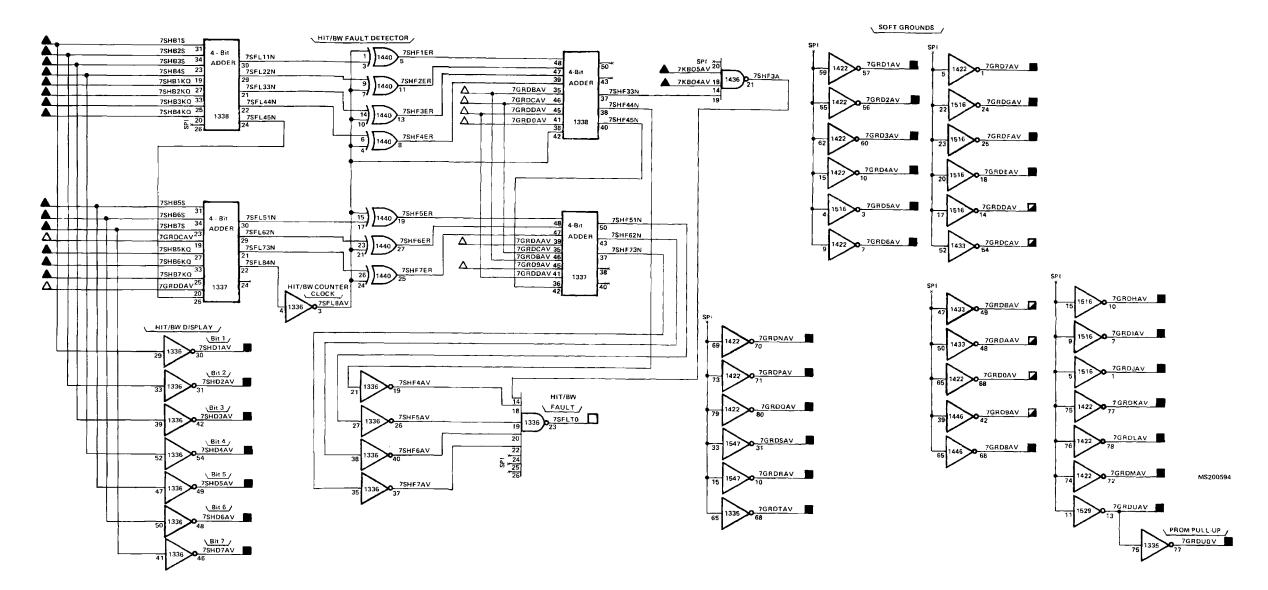


FO-15. ACM Interface BUFFERS Logic Diagram (Sheet 1 of 2)

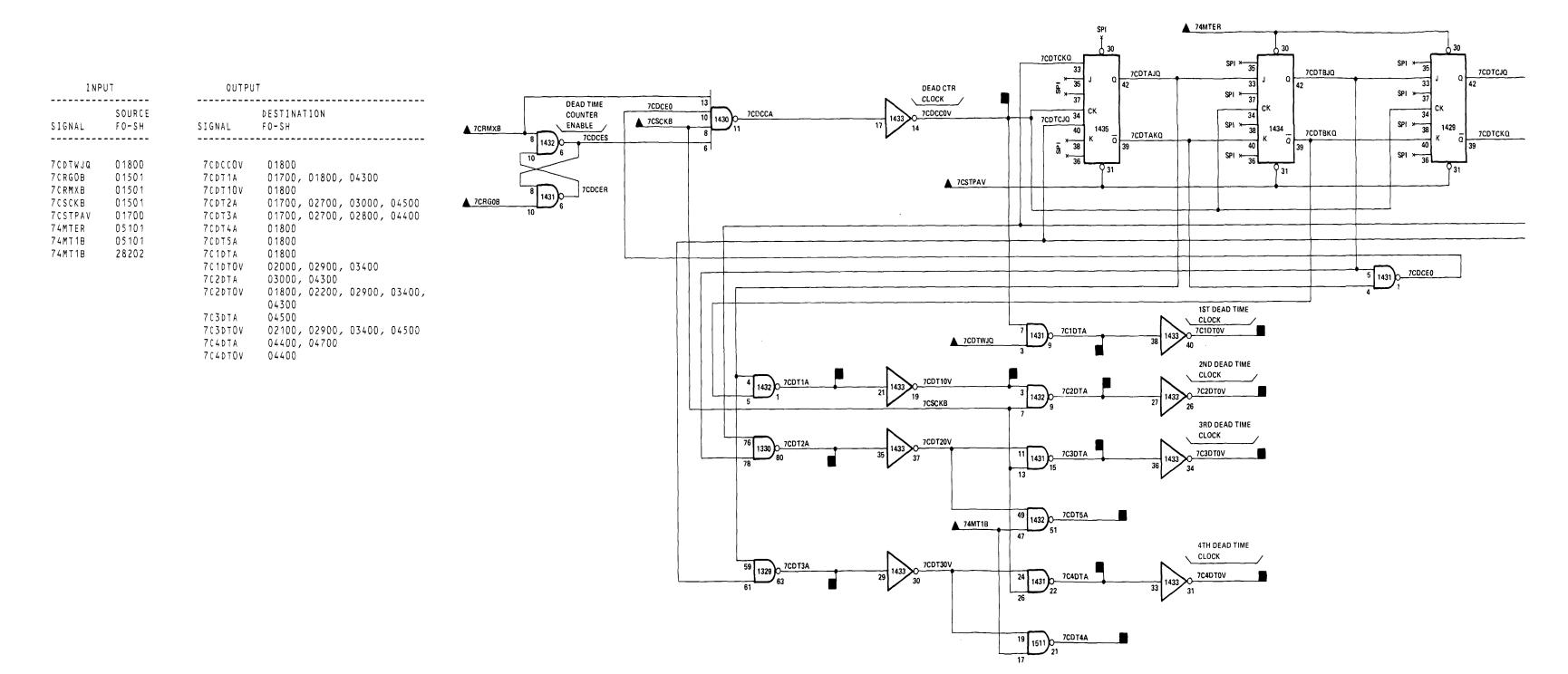
- PARTIAL REFERENCE DESIGNATIONS
   ARE SHOWN; FOR COMPLETE
   DESIGNATIONS, PREFIX WITH
   APPLICABLE UNIT NUMBER AND
   ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
     △ INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO THE SAME FIGURE
  - OUTPUT TO THE SAME AND ANOTHER
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD
  CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

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| INP                          | UT              | OUTPL                                           | JΤ               |        |        |           |
|------------------------------|-----------------|-------------------------------------------------|------------------|--------|--------|-----------|
| SIGNAL                       | SOURCE<br>FO-SH | SIGNAL                                          | DESTINA<br>FO-SH |        |        |           |
|                              |                 |                                                 |                  |        |        |           |
| 7KB04AV<br>7KB05AV           | 02000           | 7 G R D A A V<br>7 G R D B A V                  | 03400,           | 03900  |        |           |
| 7KB05AV                      | 02000           | 7 G R D B A V                                   | 01800,           | 03900  |        |           |
| 7 S H B 1 K Q                | 03400           | 7 G R D C A V                                   | 03900,           | 04200  |        |           |
| 7 S H B 1 S<br>7 S H B 2 K Q | 03400           | 7 G R D D A V<br>7 G R D E A V                  | 02600,           | 03000  |        |           |
|                              |                 |                                                 |                  |        |        |           |
| 7 S H B 2 S                  | 03400           | 7 G R D F A V                                   | 02600            |        |        |           |
| 7 S H B 3 K Q                | 03400           | 7 G R D G A V<br>7 G R D H A V                  | 02600            |        |        |           |
| 7 S H B 3 S                  | 03400           |                                                 |                  |        |        |           |
| 7 S H B 4 K Q                | 03400           | 7 G R D I A V                                   | 02700            |        |        |           |
| 7 S H B 4 S                  | 03400           | 7 G R D J A V                                   | 02700            |        |        |           |
| 7 S H B 5 K Q                | 03400           | 7 GRDKAV                                        | 03000            | 07000  |        |           |
| 7 S H B 5 S                  | 03400           | 7 GRDLAV                                        | 02000,           | 03000  |        |           |
| 7 S H B 6 K Q                | 03400           | 7 G R D M A V                                   |                  |        |        |           |
| 7 S H B 6 S                  | 03400           | 7 G R D N A V                                   | 03000            |        |        |           |
| 7 S H B 7 K Q                |                 | 7 G R D P A V<br>7 G R D Q A V                  | 03000            | 07000  |        |           |
| 7 S H B 7 S                  | 03400           | 7 G R D Q A V<br>7 G R D R A V                  |                  | 03000  |        |           |
|                              |                 | 7 G R D S A V                                   |                  |        |        |           |
|                              |                 | 7 G R D T A V                                   |                  | 02000  |        |           |
|                              |                 | 7 GRD TAV                                       |                  | 26802, | 30701  |           |
|                              |                 | 7.0001101                                       | 0.7 4 0.0        | 26802, |        |           |
|                              |                 | 76000411                                        | 07/00            | 03900  | 30401  |           |
|                              |                 | 7 G R D U A V<br>7 G R D 1 A V<br>7 G R D 2 A V | 02000.           | 02400, | 03400. | 03500     |
|                              |                 | 7 G R D 2 A V                                   | 02000,           | 02200, |        |           |
|                              |                 | 7 G R D 3 A V                                   | 02000.           | 03300  | ,      | • • • • • |
|                              |                 | 7GRD4AV                                         | 03300.           | 04100, | 04900  |           |
|                              |                 | 7GRD5AV                                         | 02100,           | 02200, |        | 03900,    |
|                              |                 |                                                 | 05102            | -      | -      |           |
|                              |                 | 7GRD6AV                                         | 02000,           | 02200, | 03300  |           |
|                              |                 | 7 G R D 7 A V                                   | 02000,           | 02200, | 05101  |           |
|                              |                 | 7GRD8AV                                         | 02100,           | 02200, | 03400  |           |
|                              |                 | 7GRD9AV                                         | 02500,           | 03400  |        |           |
|                              |                 | 7 S H D 1 A V                                   | 05002,           | 26802  |        |           |
|                              |                 | 7 S H D 2 A V                                   | 05002,           | 26802  |        |           |
|                              |                 | 7 S H D 3 A V                                   |                  |        |        |           |
|                              |                 | 7 S H D 4 A V                                   |                  |        |        |           |
|                              |                 | 7 S H D 5 A V                                   | 05002,           |        |        |           |
|                              |                 | 7 S H D 6 A V                                   | 05002,           |        |        |           |
|                              |                 | 7 S H D 7 A V                                   | 05002,           | 26802  |        |           |



FO-15. ACM Interface BUFFERS Logic Diagram (Sheet 2 of 2)



FO-16. ACM Dead Time Counter Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE OUTPUT TO THE SAME FIGURE

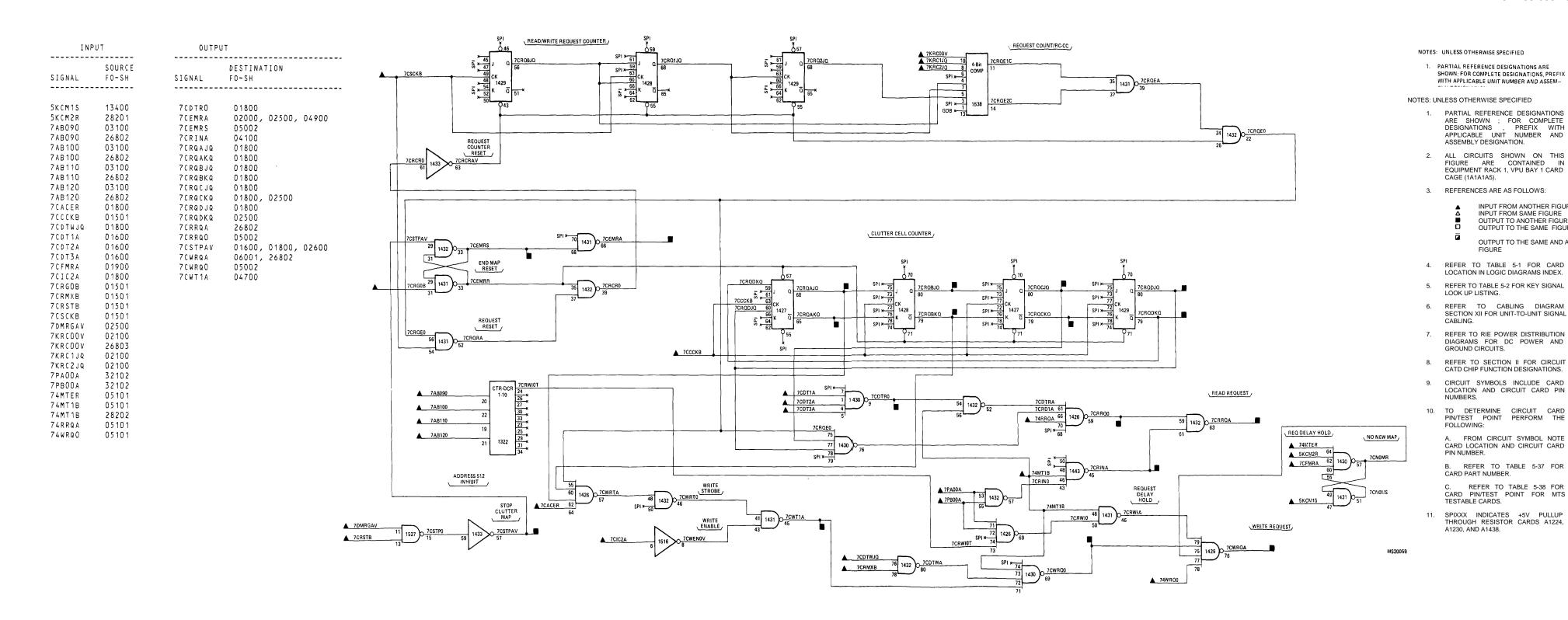
  - OUTPUT TO THE SAMEAND ANOTHER
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

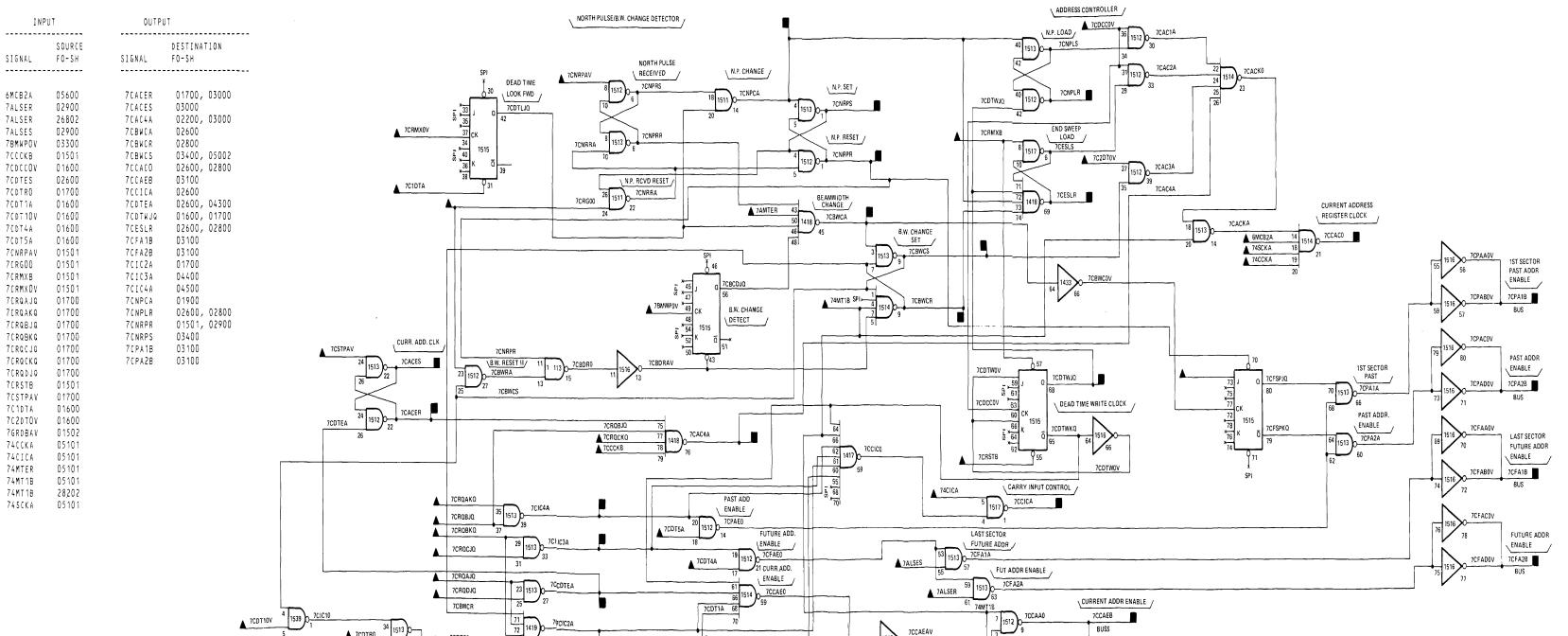
OUTPUT TO ANOTHER FIGURE

OUTPUT TO THE SAME FIGURE

OUTPUT TO THE SAME AND ANOTHER



FO-17. ACM Read/Write Request and Clutter Cell Counter Logic Diagram



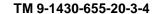
FO-18. ACM Address Controller Logic Diagram

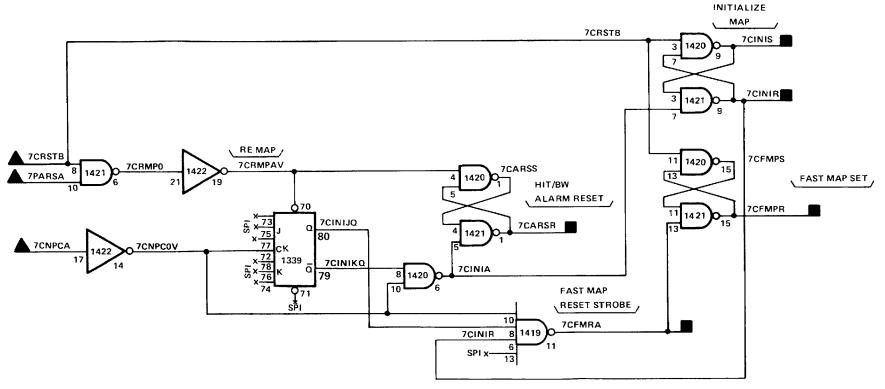
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM THE SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO THE SAME FIGURE
  - OUTPUT TO THE SAME AND ANOTHER FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- LOCATION AND CIRCUIT CARD PIN NUMBERS.

CIRCUIT SYMBOLS INCLUDE CARD

- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INF         | PUT             | OUTP        | UT                         |
|-------------|-----------------|-------------|----------------------------|
| SIGNAL      | SOURCE<br>FO-SH | SIGNAL      | DESTINATION<br>FO-SH       |
|             |                 |             |                            |
| 7 C N P C A | 01800           | 7 C A R S R | 01501                      |
| 7 C R S T B | 01501           | 7 C F M P R | 03500, 03900, 06500, 26802 |
| 7 P A R S A | 26802           | 7 C F M R A | 01700                      |
| 7 P A R S A | 30001           | 7 CINIR     | 04000, 04100               |
| 7 PARSA     | 32101           | 7 CINIS     | 03400                      |





- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

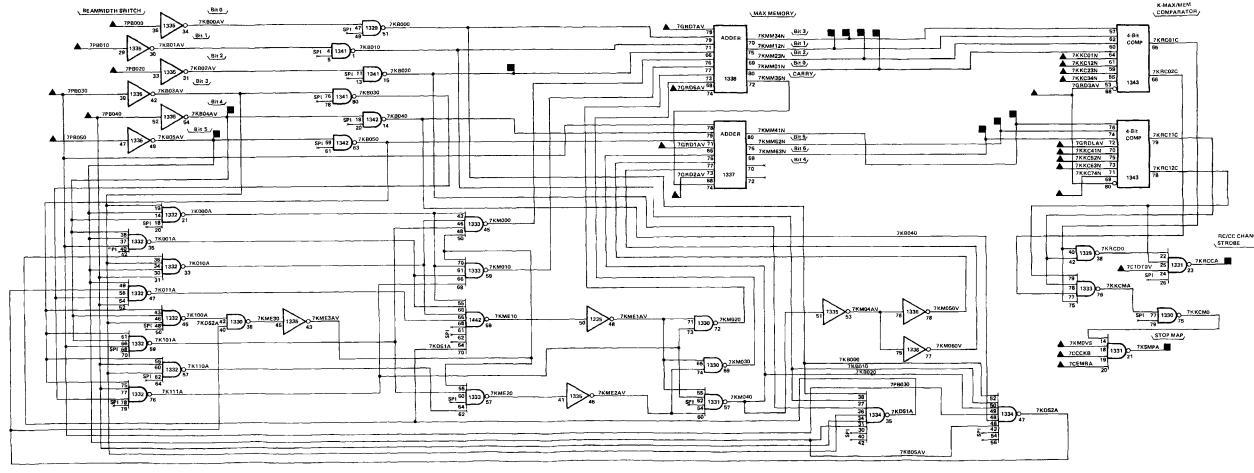
B. REFER TO TABLE 5037 FOR CARD PART

C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-19. Acm Initialize Map Logic Diagram

| INPUT                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | OUTPL                                                                                                            | )T                                                                            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--|
| SIGNAL                                                                                                                                                                                                                      | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SIGNAL                                                                                                           | DESTINATION<br>FO-SH                                                          |  |
| 7CCCKB 7CEMRA 7C10TOV 7GRDLAV 7GRD1AV 7GRD3AV 7GRD3AV 7GRD6AV 7GRD7AV 7KKC01N 7KKC23N 7KKC23N 7KKC41N 7KKC41N 7KKC52N 7KKC63N 7KKC74N 7KKC74N 7KMC74N 7FB000 7FB010 7FB020 7FB030 7FB040 7FB040 7FB040 7FB040 7FB040 7FB050 | 01501<br>01701<br>01700<br>01600<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>02200<br>02200<br>02200<br>02200<br>02200<br>02200<br>02200<br>02100<br>02100<br>02101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101 | 7KB020<br>7KB04AV<br>7KB05AV<br>7KMM01N<br>7KMM12N<br>7KMM23N<br>7KMM41N<br>7KMM63N<br>7KM63N<br>7KM63A<br>7KSCA | 01502<br>01502<br>02700<br>02700<br>02700<br>02700<br>02700<br>02700<br>02700 |  |



FO-20. ACM Maximum K Calculator Logic Diagram

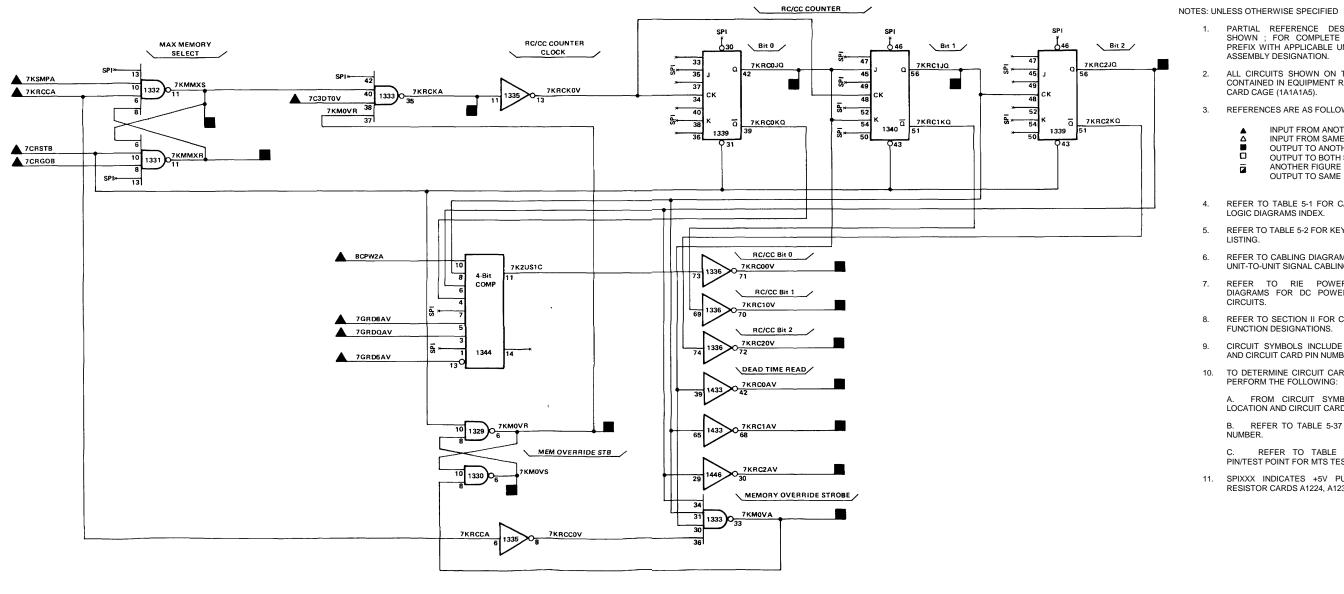
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

TM 9-1430-655-20-3-4

- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO SAME FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP                | UΤ                                                                                              | OUTPL                                                                                                             | IT                                                                                                              |                                                       |       |  |
|--------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------|--|
| SIGNAL             | S O U R C E<br>F O - S H                                                                        | SIGNAL                                                                                                            | DESTINA<br>FO-SH                                                                                                | TION                                                  |       |  |
| 7GRDQAV<br>7GRD5AV | 01501<br>01600<br>01502<br>01502<br>01502<br>02000<br>02000<br>26802<br>26803<br>27101<br>28901 | 7KMMXR 7KMMXS 7KMOVA 7KMOVR 7KMOVS 7KRCKA 7KRCOAV 7KRCOJQ 7KRCOOV 7KRC1AV 7KRC1JQ 7KRC1OV 7KRC2AV 7KRC2AV 7KRC2AV | 02200<br>01501<br>02200<br>02200,<br>02200<br>03600,<br>05002<br>01700,<br>03600,<br>01700,<br>26802,<br>01700, | 26802,<br>15001,<br>26802,<br>05002<br>30401<br>05002 | 26802 |  |

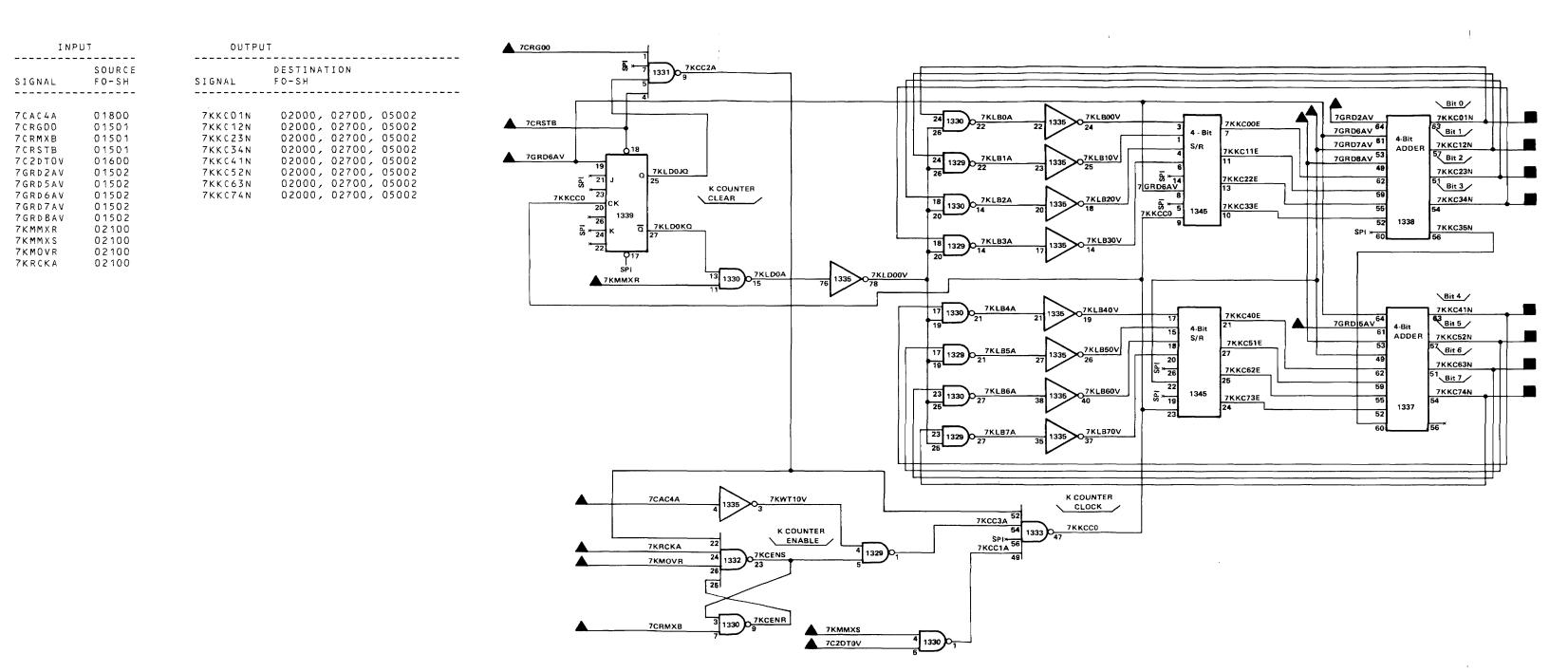


FO-21. ACM RC/CC Counter Logic Diagram

 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

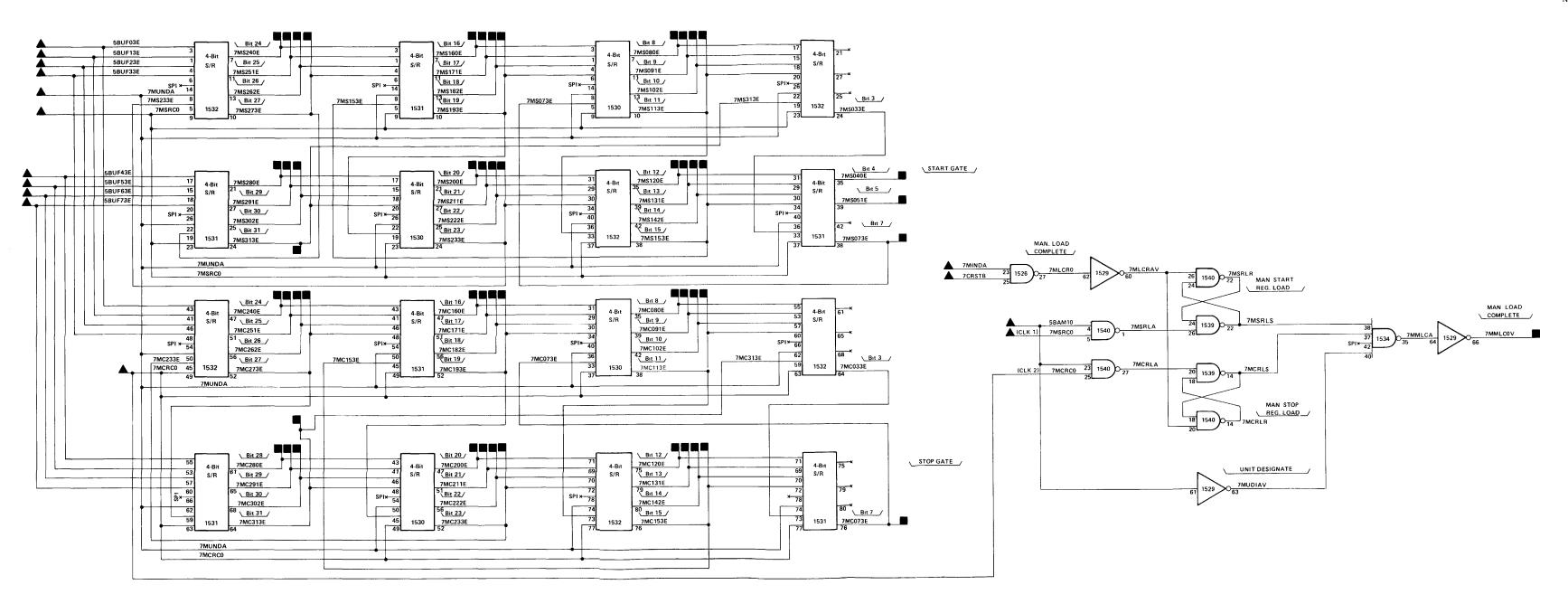
TM 9-1430-655-20-3-4

- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER. C. REFER TO TABLE 5-38 FOR CARD
- PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-22. ACM K-Counter Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
    Δ INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIPCUITS
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



NOTES: UNLESS OTHERWISE SPECIFIED

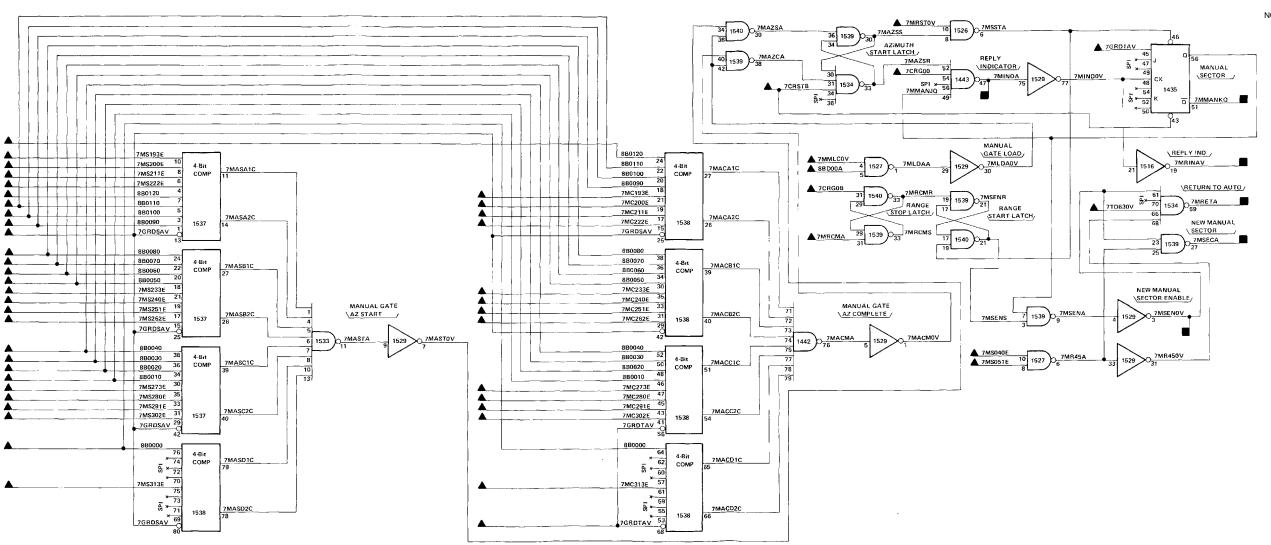
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGUREINPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND
  - ANOTHER FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

   B. REFER TO TABLE 5-37 FOR CARD PART

C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

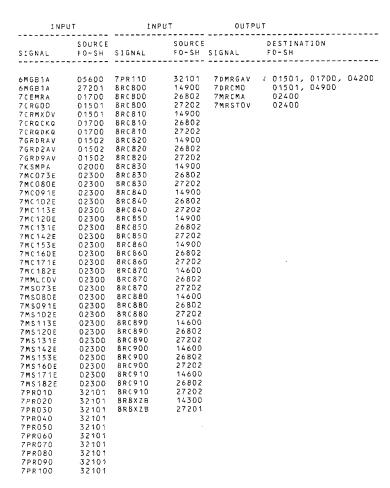
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

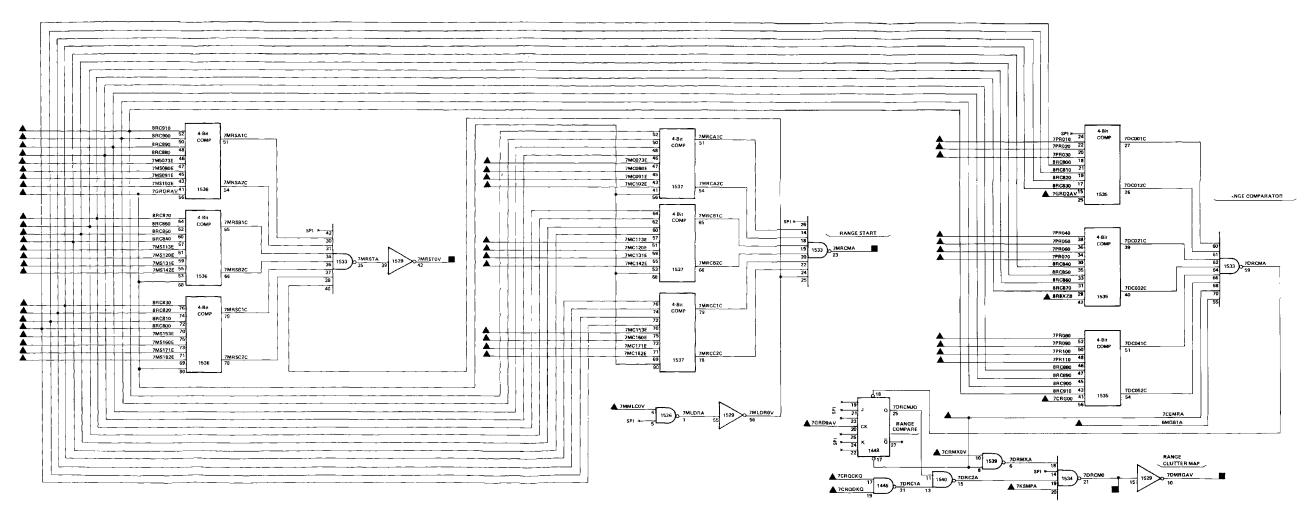
| INPUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | INPU                                                                                                                                                                                       | Т                                                                                                                                                                                                  | ОИТРИ                                  | т                    |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------|---|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SOURCE<br>FO-SH         | SIGNAL                                                                                                                                                                                     | SOURCE<br>FO-SH                                                                                                                                                                                    | SIGNAL                                 | DESTINATION<br>FO-SH |   |
| 7 CR GOB<br>7 CR GOD<br>7 CR STB<br>7 GR D SA V<br>7 GR C 20 E<br>7 MC 24 OE<br>7 MC 24 OE<br>7 MC 25 SE<br>7 MC 28 OE<br>7 MC 29 SE<br>7 MC 20 SE<br>7 | 01501<br>01501<br>01501 | 880020<br>880030<br>880030<br>880040<br>880040<br>880050<br>880050<br>880060<br>880060<br>880070<br>880070<br>880080<br>880090<br>880090<br>880100<br>880100<br>880110<br>880110<br>880110 | 17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402<br>17102<br>28402 | 7MINDA<br>7MMANKQ<br>7MRETA<br>7MRINAV |                      | 1 |



FO-24. ACM Azimuth Manual Gate Comparator Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
- INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER FIGURE
- OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART REFER TO TABLE 5-38 FOR CARD
- PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





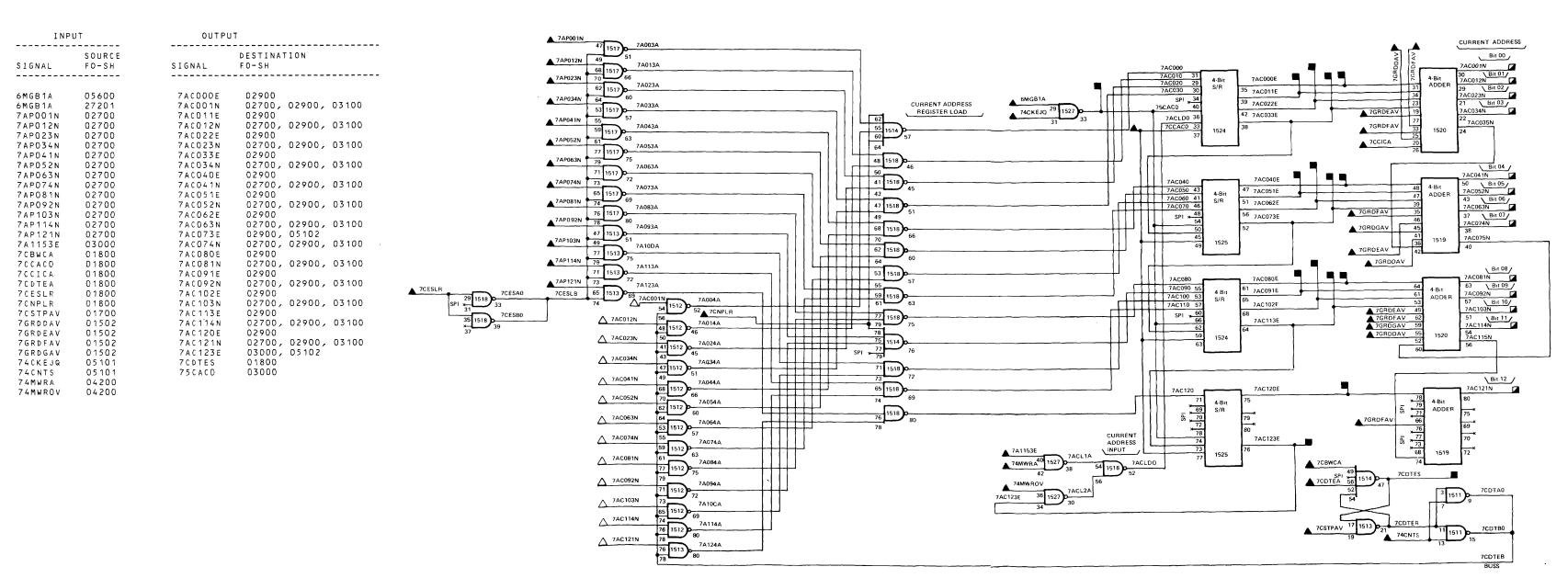
FO-25. ACM Range Manual Gate Comparator Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  APPLICABLE OF THE PROPERTY OF THE PR DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND

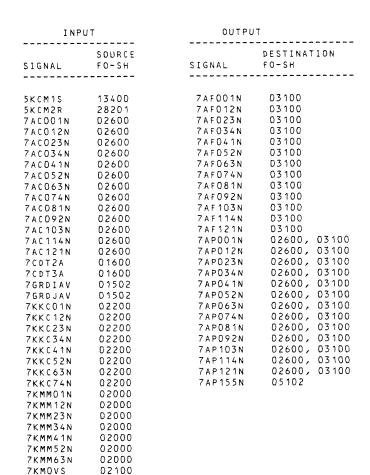
CIRCUIT CARD PIN NUMBERS.

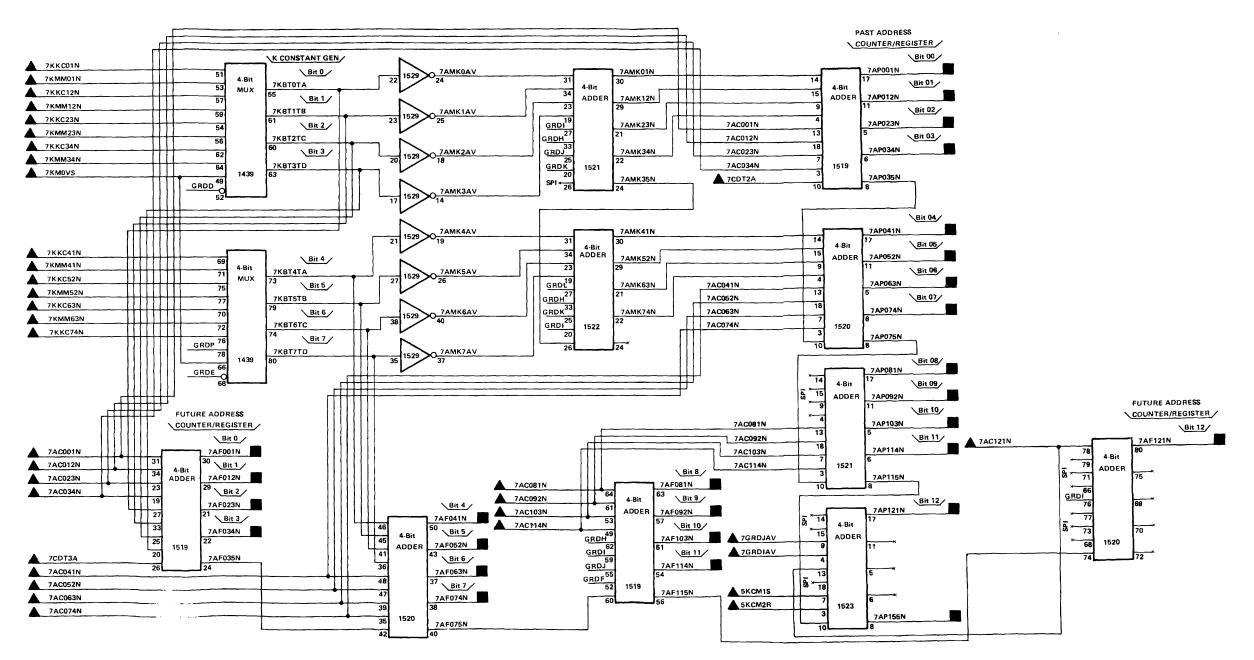
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-26. ACM Current Address Counter Logic Diagram

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





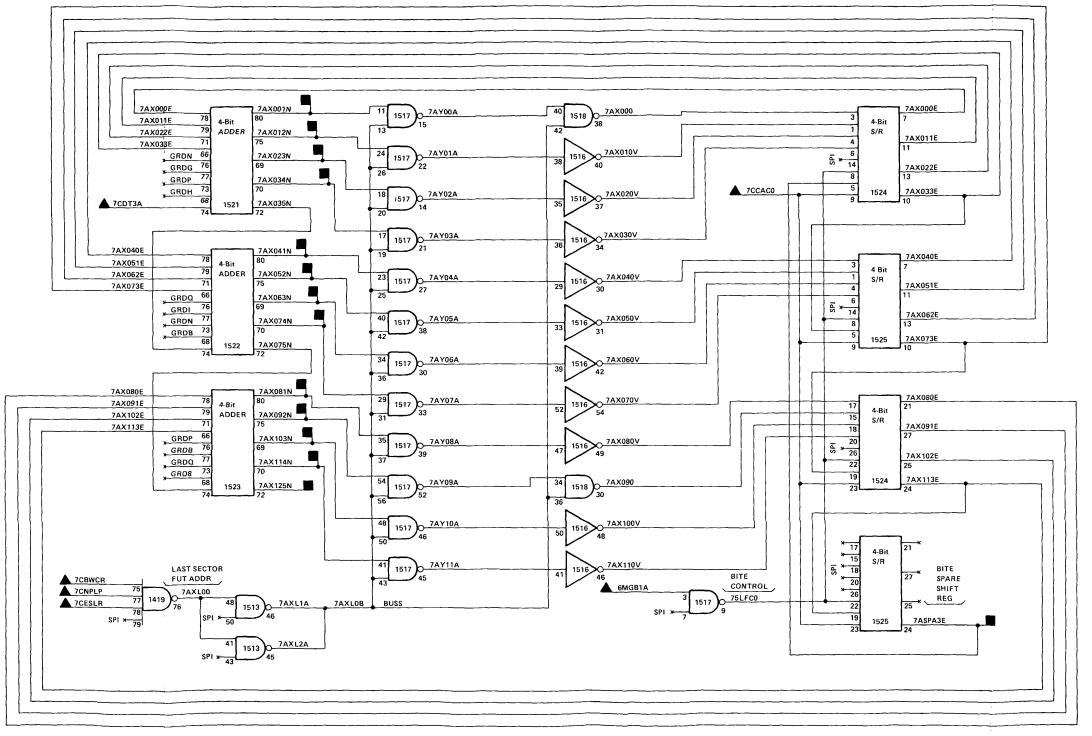
NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A14145).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
  - △ INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

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FO-27. ACM Past and Future Address Generation Logic Diagram

| INPUT                                                              |                                                             | OUTP                                                                                                                                                                                                                        | TU                                                                                                       |
|--------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| SIGNAL                                                             | SOURCE<br>FO-SH                                             | SIGNAL                                                                                                                                                                                                                      | DESTINATION<br>FO-SH                                                                                     |
| 6MGB1A<br>6MGB1A<br>7CBWCR<br>7CCACO<br>7CDT3A<br>7CESLR<br>7CNPLR | 05600<br>27201<br>01800<br>01800<br>01600<br>01800<br>01800 | 7 A S P A 3 E<br>7 A X O O 1 N<br>7 A X O 0 1 2 N<br>7 A X O 2 3 N<br>7 A X O 3 4 N<br>7 A X O 5 2 N<br>7 A X O 6 3 N<br>7 A X O 7 4 N<br>7 A X O 8 1 N<br>7 A X O 9 2 N<br>7 A X 1 0 3 N<br>7 A X 1 1 4 N<br>7 A X 1 2 5 N | 05003<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100 |



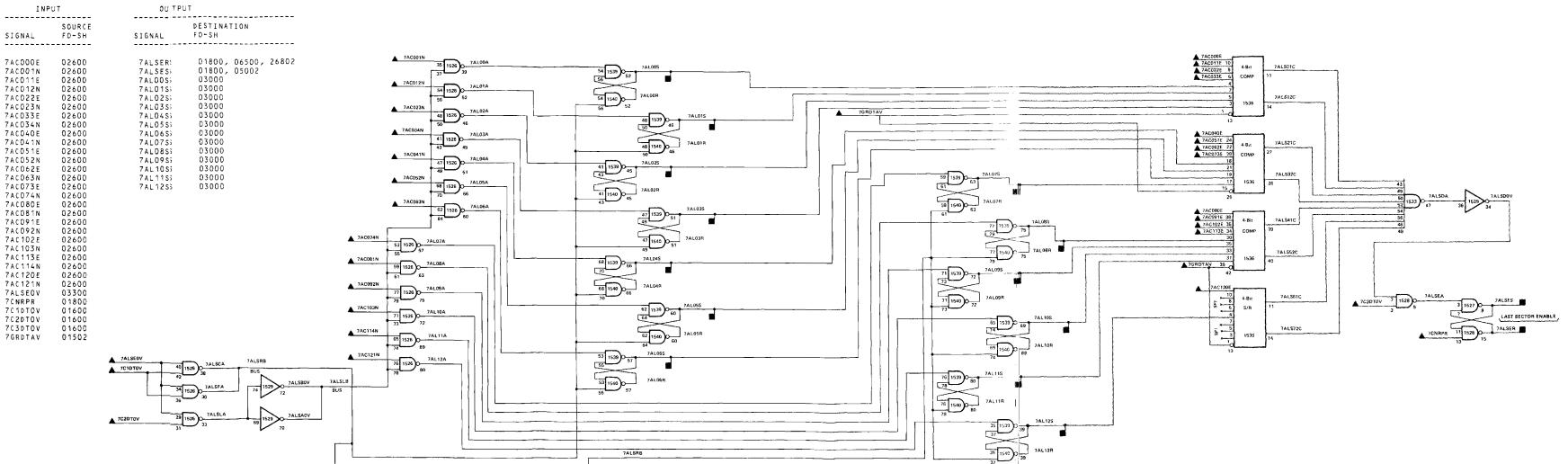
FO-28. ACM Last Sector-Future Address Counter Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:

TO-UNIT SIGNAL CABLING.

- ▲ INPUT FROM ANOTHER FIGURE
- △ INPUT FROM SAME FIGURE

  A Property Service Serv
- OUTPUT TO ANOTHER FIGURE
  OUTPUT TO BOTH SAME AND ANOTHER
- FIGURE
  OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- . REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- E. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-29. ACM Last Sector Storage Logic Diagram

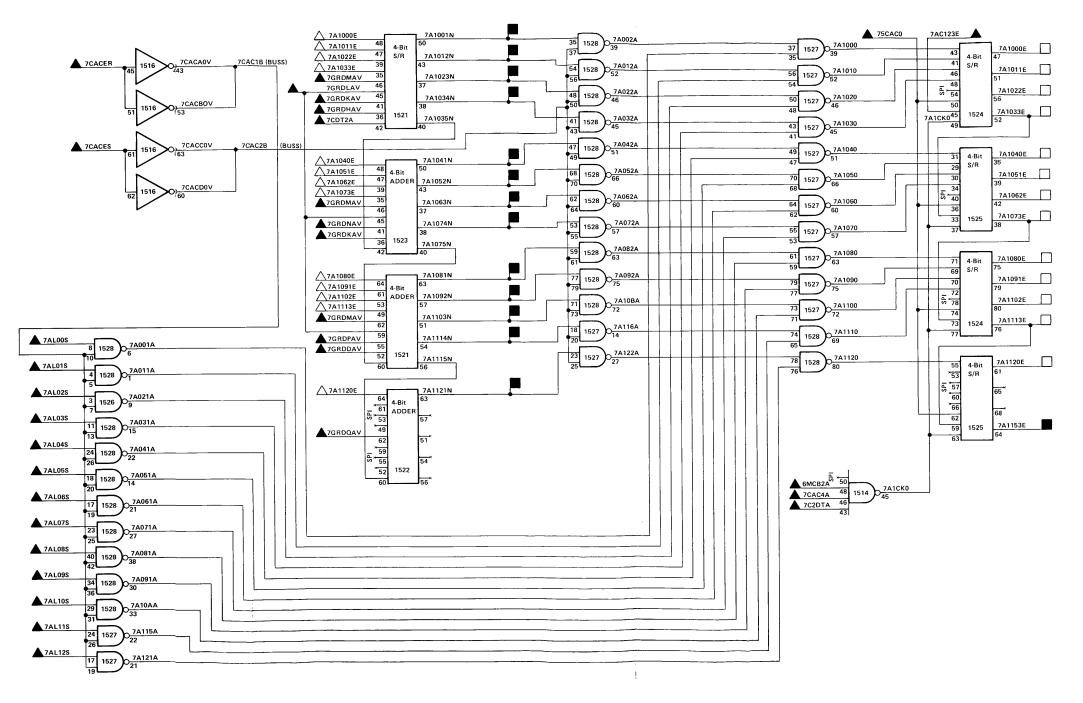
NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN ; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
     △ INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND
  - ANOTHER FIGURE
    OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR

UNIT-TO-UNIT SIGNAL CABLING.

- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

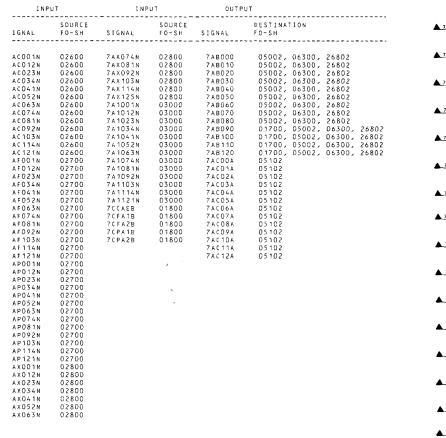
| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UT                                                                                                                                                                                                                            | OUTPL                                                                                                    | JT                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SOURCE<br>FO-SH                                                                                                                                                                                                               | SIGNAL                                                                                                   | DESTINATION<br>FO-SH                                                                   |
| 6MCB2A 7AC123E 7AL00S 7AL01S 7AL02S 7AL03S 7AL04S 7AL05S 7AL06S 7AL06S 7AL07S 7AL08S 7AL08S 7AL11S 7AL12S 7CACER 7CACES 7 | 05600<br>02600<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>02900<br>01800<br>01800<br>01800<br>01600<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502 | 7A1001N 7A1012N 7A1023N 7A1034N 7A1041N 7A1063N 7A1063N 7A1074N 7A1081N 7A1092N 7A1103N 7A11121N 7A1153E | 03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100 |

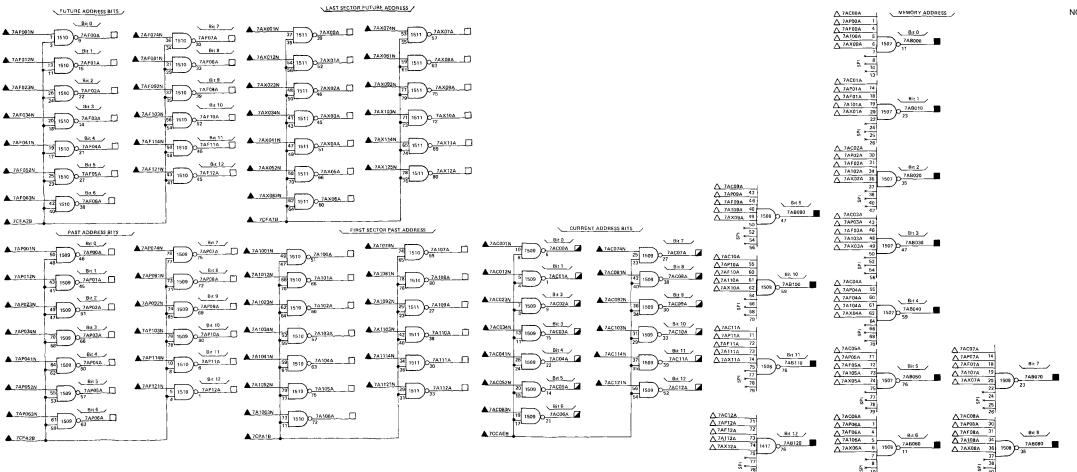


- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

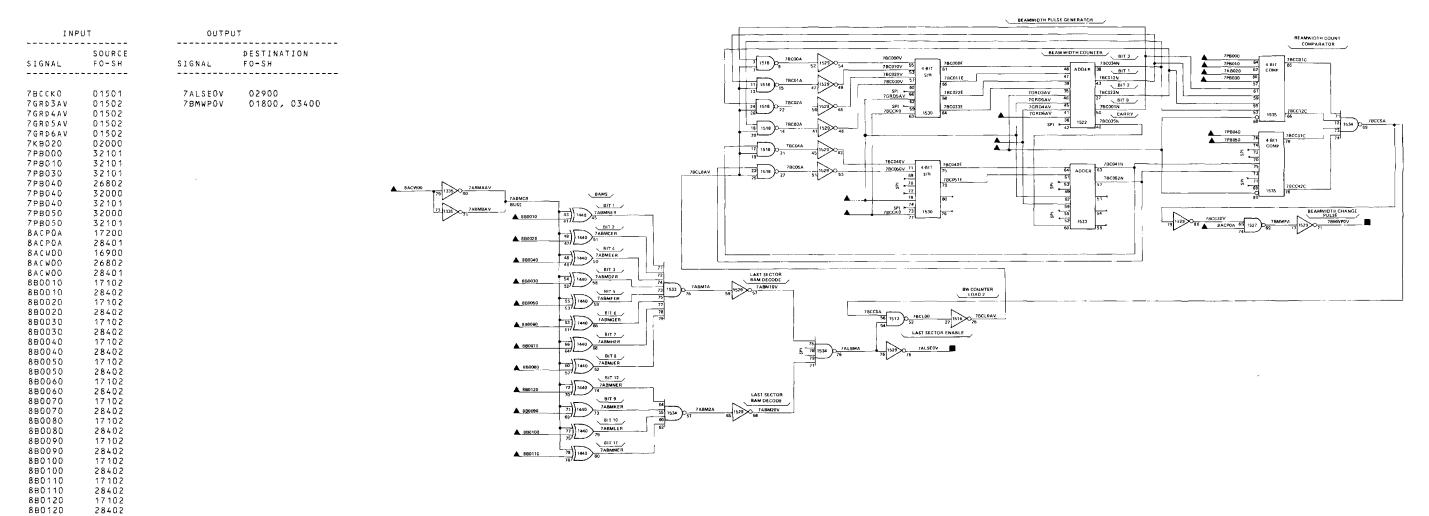
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-30. ACM First Sector-Past Address Counter/Register Logic Diagram





- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



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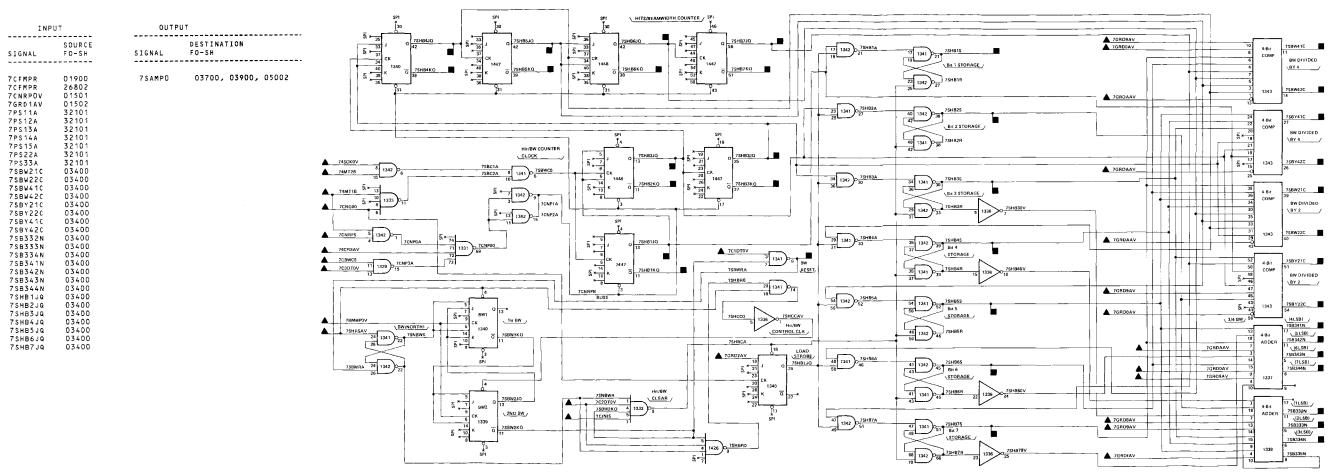
FO-33. ACM Beam width Pulse Generator Logic Diagram

# NOTES: UNLESS OTHERWISE SPECIFIED

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
  - CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
  - 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
  - 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

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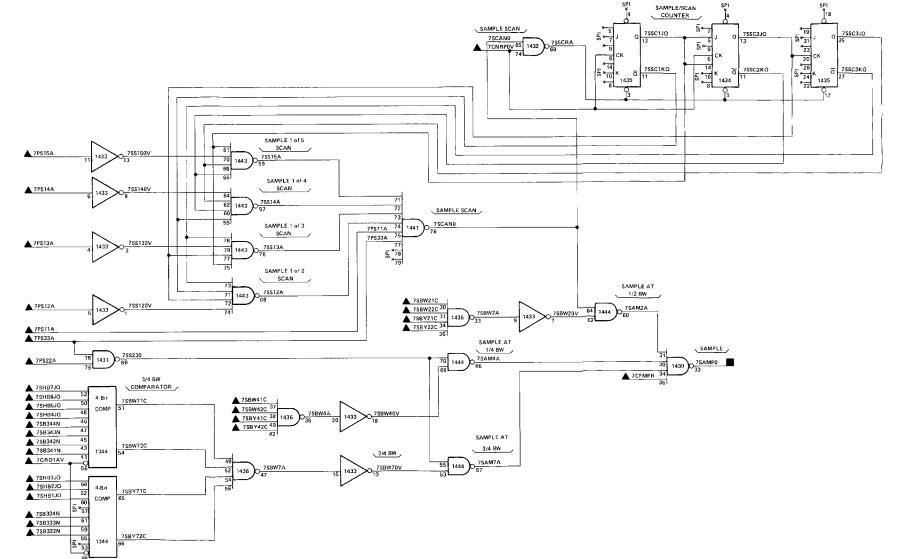


FO-34. ACM Hits/Beamwidth Calculator Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE
- REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XI FOR UNIT-TO-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP                                                                                                                                               | דעי                                                                                                                                                            | ОПТР                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ουτρυτ                                                                                                                                                                                                                                                                                                                         |                                                         |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------|
| SIGNAL                                                                                                                                            | SOURCE<br>FO-SH                                                                                                                                                | SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DESTINAT                                                                                                                                                                                                                                                                                                                       | ION                                                     |       |
| 7BMWPOV<br>7CBWCS<br>7CINIS<br>7CINIS<br>7CRRPS<br>7CRBOO<br>7C1DTOV<br>7C2DTOV<br>7G2DTOV<br>7GRDAAV<br>7GRDAAV<br>7GRDAAV<br>7GRDAAV<br>7GRDAAV | FO-SH<br>03300<br>01800<br>01900<br>01800<br>01501<br>01600<br>01600<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502<br>01502 | 7 S B W R A<br>7 S B W 2 1 C<br>7 S B W 2 2 C<br>7 S B W 4 1 C<br>7 S B W 4 2 C<br>7 S B Y 2 2 C<br>7 S B Y 2 2 C<br>7 S B Y 4 2 C<br>7 S B 3 3 2 N<br>7 S B 3 3 2 N<br>7 S B 3 3 4 N<br>7 S B 3 4 1 N<br>7 S B 3 4 4 N<br>7 S B 3 4 4 N<br>7 S B 8 1 S<br>7 S H B 1 J Q<br>7 S H B 1 S<br>7 S H B 2 S<br>7 S H B 2 S<br>7 S H B 3 J Q<br>7 S H B 4 J Q<br>7 S H B 4 J Q<br>7 S H B 4 J Q | F0-SH  01501 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 03500 | 05101<br>05101,<br>05101,<br>05101,<br>05101,<br>05101, | 05102 |
|                                                                                                                                                   |                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 03500,<br>01502<br>01502<br>03500<br>01502                                                                                                                                                                                                                                                                                     | 05101                                                   |       |



NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

- OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTON DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5037 FOR CARD PART NUMBER.

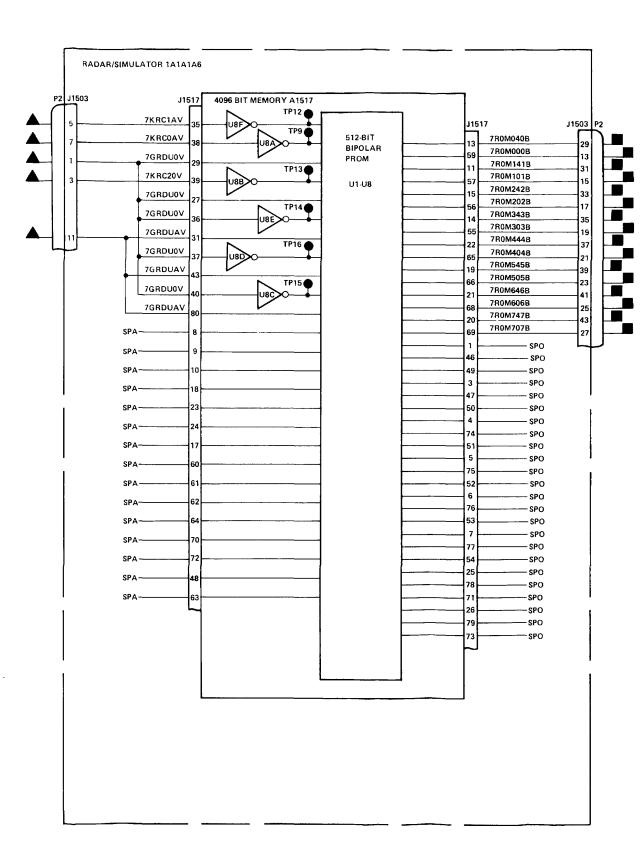
C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

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FO-35. ACM Sample/Scan Control Logic Diagram

| INPUT                                                                                           |                                                                               | ОИТРИТ                                                                                                                                                                                       |                                                                                                                                                                                                                                              |  |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SIGNAL                                                                                          | SOURCE<br>FO-SH                                                               | SIGNAL                                                                                                                                                                                       | DESTINATION<br>FO-SH                                                                                                                                                                                                                         |  |
| 7GRDUAV<br>7GRDUOV<br>7GRDUOV<br>7GRDUOV<br>7KRCOAV<br>7KRCOAV<br>7KRC1AV<br>7KRC1AV<br>7KRC2OV | 01502<br>30401<br>01502<br>30401<br>02100<br>27202<br>02100<br>30401<br>02100 | 7ROMOOOB<br>7ROMO4OB<br>7ROM101B<br>7ROM141B<br>7ROM202B<br>7ROM202B<br>7ROM303B<br>7ROM343B<br>7ROM404B<br>7ROM444B<br>7ROM505B<br>7ROM505B<br>7ROM606B<br>7ROM646B<br>7ROM646B<br>7ROM747B | 03700, 30401<br>03700, 30401<br>26802, 30401<br>26802, 30401<br>26802, 30401 |  |



FO-36. ACM PROM Logic Diagram

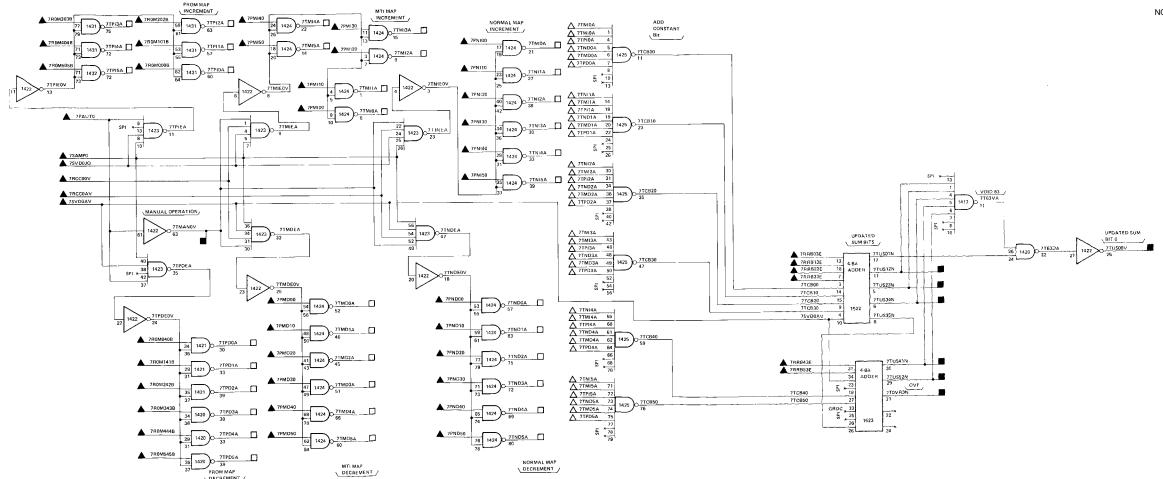
# NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, RSU (1A1A1A6).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM ANOTHER FIGURE
     □ INPUT FROM SAME FIGURE
     □ OUTPUT TO ANOTHER FIGURE
     □ OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO APPROPRIATE TABLE IN TM 91430-655-20-3
  FAR CARD PART NUMBER.

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| INPUT                                                                                                          |                                                                                                                                     | INPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | INPUT                                                                                                                                                                                                                                                    |                                                                           | JT<br>                                                                                    |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                         | SOURCE<br>FO-SH                                                                                                                     | SICNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SOURCE<br>FO-SH                                                                                                                                                                                                                                          | SIGNAL                                                                    | DESTINATION<br>FO-SH                                                                      |
| 7RRB13E<br>7RRB23E<br>7RRB33E<br>7RRB33E<br>7RRB43E<br>7RRB53E<br>7ROM000B<br>7ROM000B<br>7ROM000B<br>7ROM040B | 04600<br>04600<br>04600<br>04600<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802 | 7 R OM 2 0 2 B<br>7 R OM 2 0 2 B<br>7 R OM 2 0 2 B<br>7 R OM 2 4 2 B<br>7 R OM 2 4 2 B<br>7 R OM 2 4 2 B<br>7 R OM 3 0 3 B<br>7 R OM 3 6 3 B<br>7 R OM 3 6 3 B<br>7 R OM 3 6 B<br>7 R OM 4 6 B<br>7 R OM 5 8 B<br>7 R OM 5 6 B | 03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26802<br>30401<br>03600<br>26902<br>30401<br>03600 | 7TMANOV<br>7TUS12N<br>7TUS2SN<br>7TUS34N<br>7TUS34N<br>7TUS52N<br>7TUS52N | 04100<br>04100, 050<br>04100, 050<br>04100, 050<br>04100, 050<br>04100, 050<br>04100, 050 |



FO-37. ACM Map Increment/Decrement Logic Diagram

# NOTES: UNLESS OTHERWISE SPECIFIED

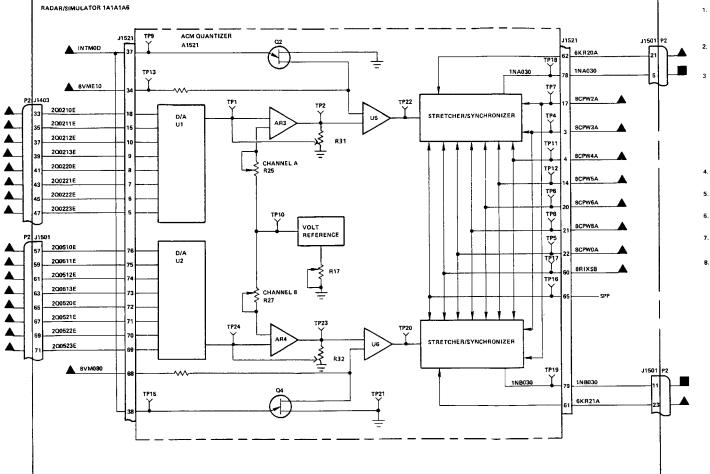
- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS ARE SHOWN, FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS
- FOR DC POWER AND GROUND CIRCUITS. 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

FUNCTION DESIGNATIONS.

- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH

| INPUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 | INPUT  |                 | OUTPUT           |           |        |        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------|-----------------|------------------|-----------|--------|--------|--|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SOURCE<br>FO-SH | SIGNAL | SOURCE<br>FO-SH | SIGNAL           | DESTINA'  | LION   |        |  |
| SIGNAL  INTMOD INTMOD INTMOD 2Q0210E 2Q0211E 2Q0211E 2Q0212E 2Q0213E 2Q02212E 2Q02212E 2Q0221E |                 | SIGNAL |                 | 1NAO30<br>1NBO30 | FO-SH<br> | 03900, | 26802, |  |



NOTES: UNLESS OTHERWISE SPECIFIED

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  NOTES. UNLESS FERENCE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY

  1. PARTIAL REFERENCE TESTIC NATIONS ARE
  SHOWN: FOR COMPLETE DESIGNATIONS, PREFIX, WITH A PPLICABLE UNIT NUMBER, PREFIX, WITH A PPLICABLE UNIT NUMBER, WITH NUMBER ASSEMBLY DESIGNATIONS SPECIAL OF THE SECOND ON THIS FIGURE ARE
  CONTAINED IN EQUIPMENT RACK 1, RSU (1A1A1A6).

- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED REPRESENTED FOR ARE WISHSOLLOWS: (1A1A1A6).
- REFERENCE A : AS FINITUTE FROM ANOTHER FIGURE
- A INDICA NPUT INPUT FROM SAME FIGURE
- DUTPOTTO ANOTHER FIGURE

  INDICA

  INDI
- ☐ INDICATES OUTPUT TO THE SAME FIGURE
- 24. INDIREFER UTPUTABLE ESTATEORICARD LOCATION IN LOGIC ANOTHER ROWELINDEX.

- 4. REFER TO TABLE 5-1 FOR CAPOLOGATION KEY SIGNAL LOOK UP IN TOGIC DIAGRAMS INDEASES.

  5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

  6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- 6. REFER TOTOGUNG SIGNAL SEBLINGXII
- REFER TO LIBERT SIGNAL CABLING.
   REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR
   REFER TO THE POWER DISTRIBUTION DIAGRAMS FOR
   REFER TO DISTRIBUTION DIACROUITS.
   GRAMS FOR DE POWER AND GROUND CIRCUITS.
- 8. REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3

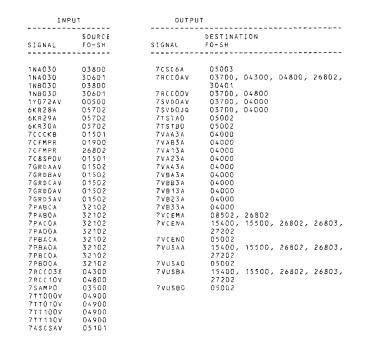
  8. REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3

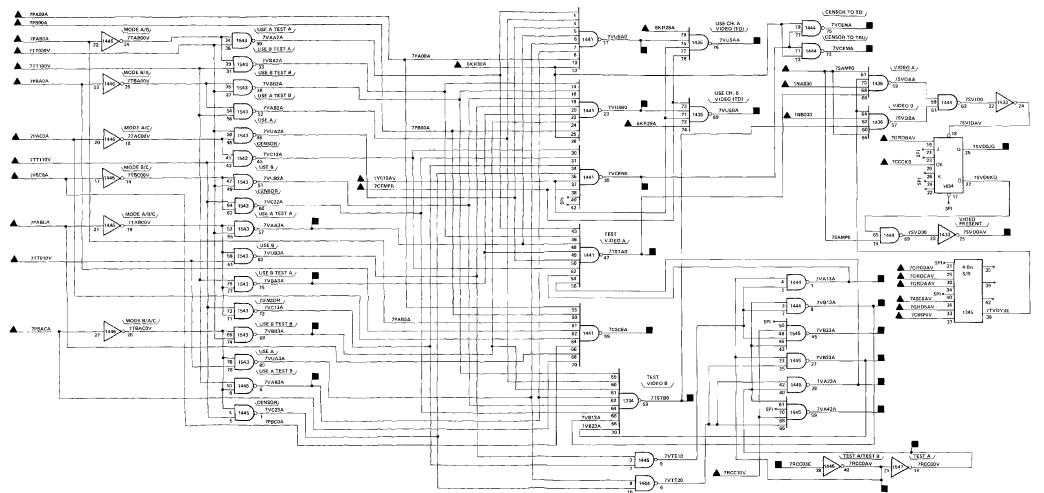
  8. REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3

  8. REFER TO APPROPRIATE TABLE IN TM 9-1430-655-20-3

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Change 1 FO-38. ACM Quantizers Logic Diagram

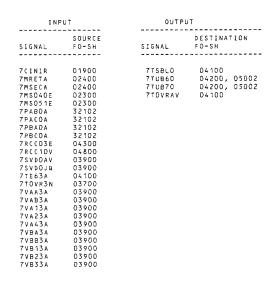


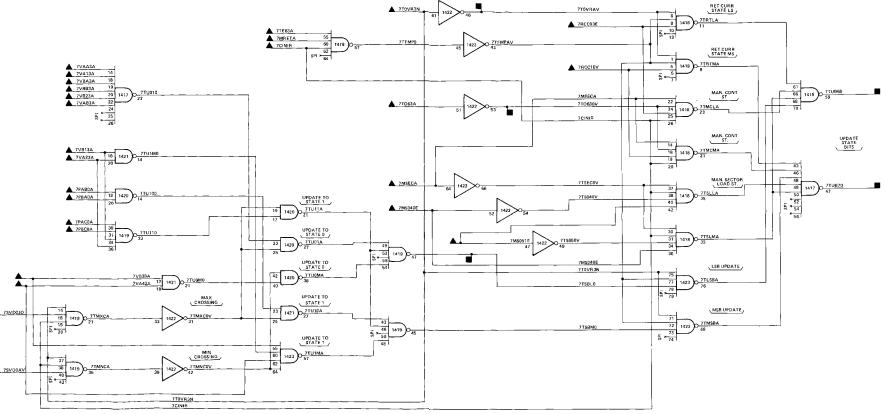


FO-39. ACM Video Gating Logic Diagram

NOTES LNOTES: UNLESS OTHERWISE SPECIFIED

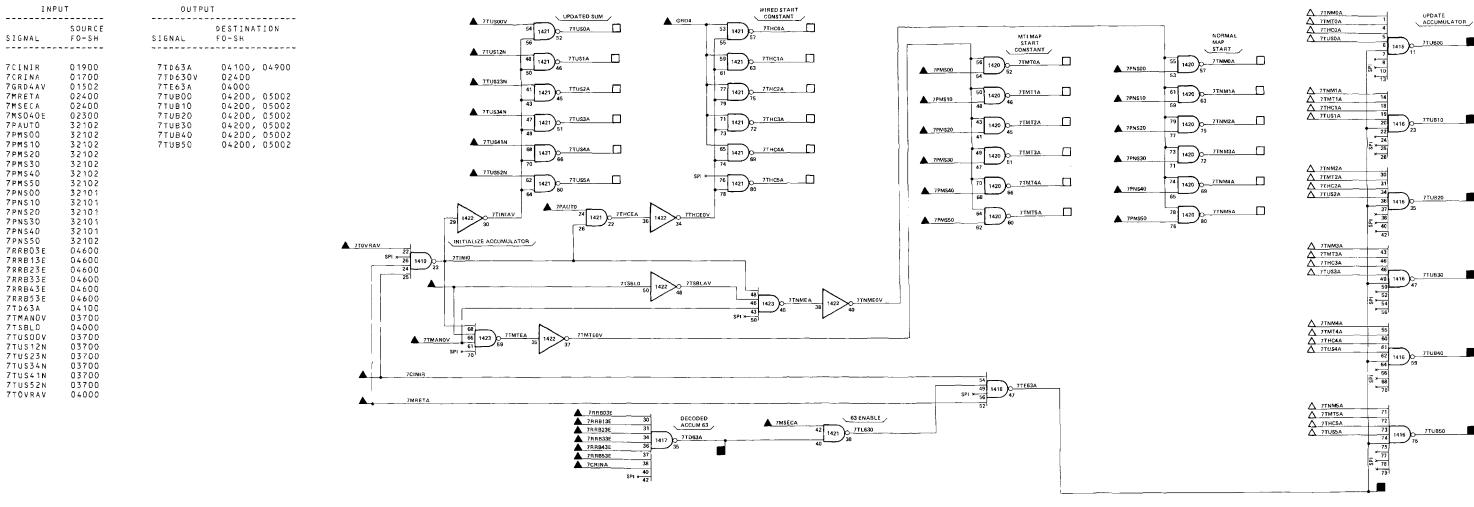
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - REFER TO TABLE 5-38 FOR CARD PIN/TEST
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



- , NOTES: UNLESS OTHERWISE SPECIFIED
  - PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
  - ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
    - REFERENCES ARE AS FOLLOWS:
      - INPUT FROM ANOTHER FIGURE
      - INPUT FROM SAME FIGURE
        OUTPUT TO ANOTHER FIGURE
      - OUTPUT TO BOTH SAME AND ANOTHER
      - FIGURE
        OUTPUT TO SAME FIGURE
    - REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
    - REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
    - REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
    - REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

    - REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
    - CIRCUIT CARD PIN NUMBERS.
    - 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

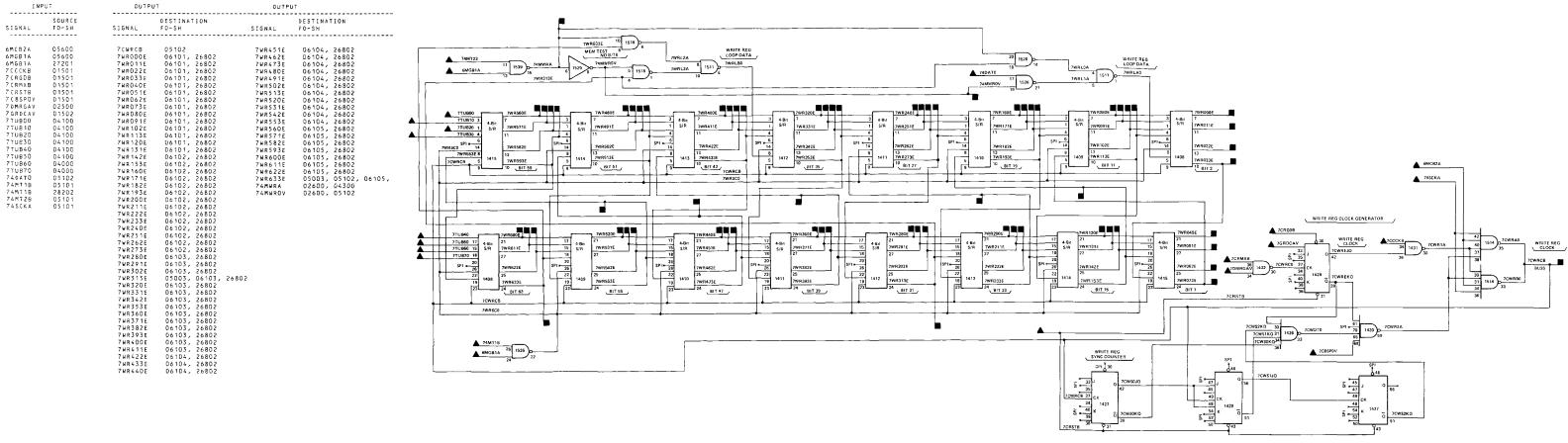
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5037 FOR CARD PART NUMBER.

REFER TO TABLE 5-38 FOR CARD PIN/TEST

SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-41. ACM Clutter Cell Update Logic Diagram

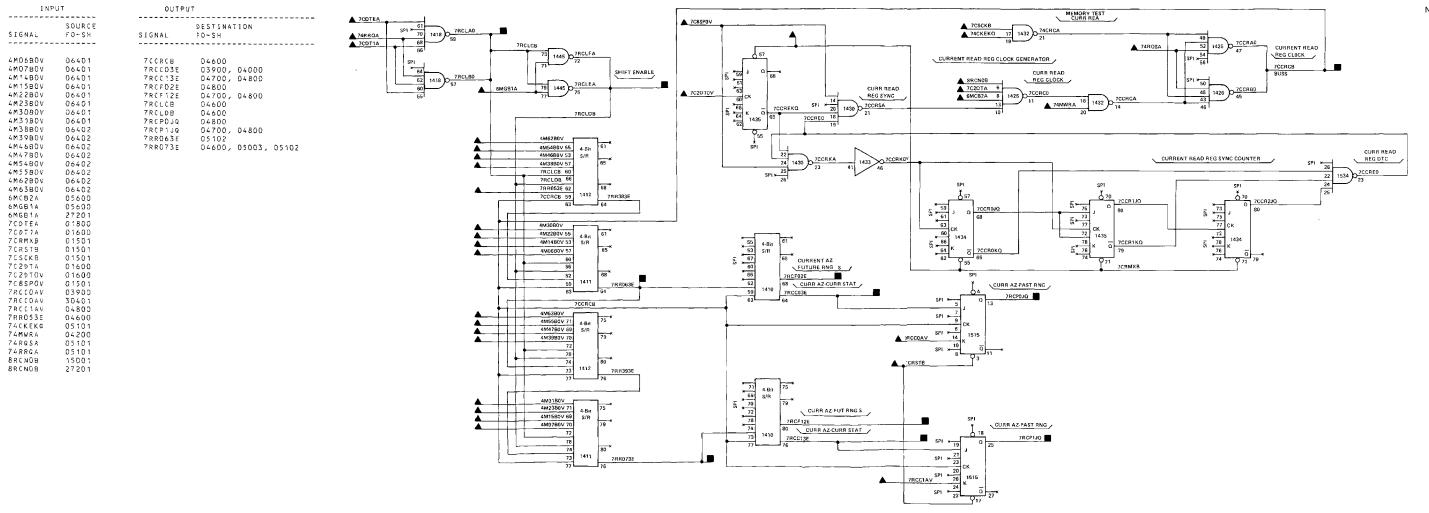


FO-42. ACM Memory Write Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE

  - REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5037 FOR CARD PART
- REFER TO TABLE 5-38 FOR CARD PIN/TEST
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438,



FO-43. ACM Current State Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

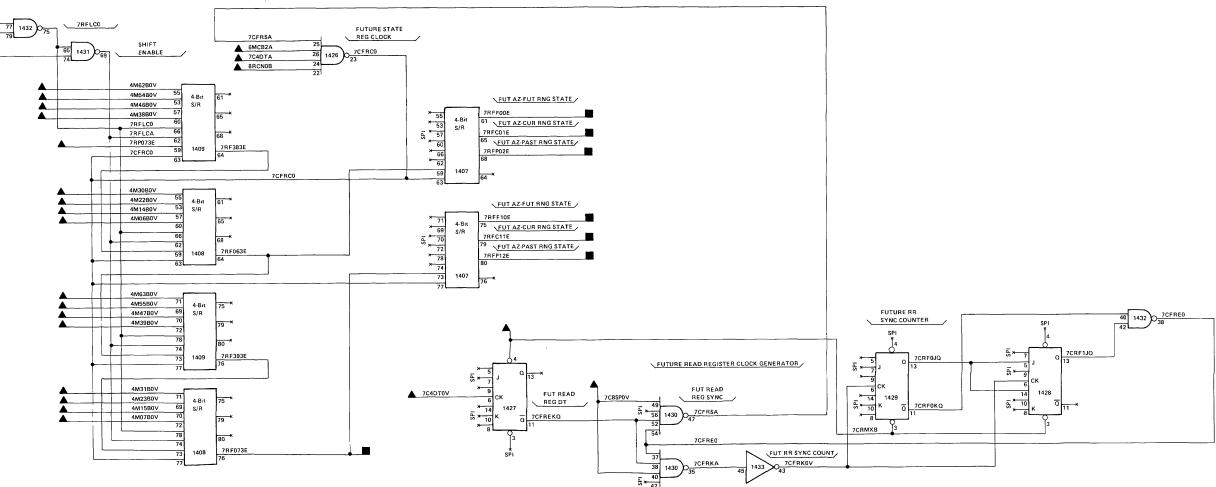
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5037 FOR CARD PART NUMBER.

REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP           | UΤ              | OUTP          | דטי                  |
|---------------|-----------------|---------------|----------------------|
| SIGNAL        | SOURCE<br>FO-SH | SIGNAL        | DESTINATION<br>FC-SH |
|               |                 |               |                      |
| 4M06B0V       | 06401           | 7 R F C O 1 E | 04800                |
| 4M07B0V       | 06401           | 7RFC11E       | 04700, 04800         |
| 4M14B0V       | 06401           | 7R F F O O E  | 04800                |
| 4M15B0V       | 06401           | 7RFF10E       | 04700, 04800         |
| 4M22B0V       | 06401           | 7RFP02E       | 04800                |
| 4M23B0V       | 06401           | 7 R F P 1 2 E | 04700, 04800         |
| 4M30B0V       | 06401           | 7 R F O 7 3 E | 04500, 05003         |
| 4M31B0V       | 06401           |               |                      |
| 4M38B0V       | 06402           |               |                      |
| 4M39BOV       | 06402           |               |                      |
| 4M46B0V       | 06402           |               |                      |
| 4M47B0V       | 06402           |               |                      |
| 4M54B0V       | 06402           |               |                      |
| 4M55B0V       | 06402           |               |                      |
| 4M62B0V       | 06402           |               |                      |
| 4M63B0V       | 06402           |               |                      |
| 6MCB2A        | 05600           |               |                      |
| 6MGB1A        | 05600           |               |                      |
| 6MGB1A        | 27201           |               |                      |
| 7CDT3A        | 01600           |               |                      |
| 7 C I C 3 A   | 01800           |               |                      |
| 7 C R M X B   | 01501           |               |                      |
| 7 C 4 D T A   | 01600           |               |                      |
| 7 C 4 D T O V | 01600           |               |                      |
| 7 C 8 S P O V | 01501           |               |                      |
|               | 04500           |               |                      |
| • •           | 15001           |               |                      |
| 8 R C N O B   | 27201           |               |                      |

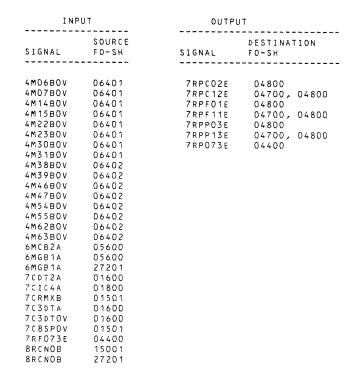


NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
    OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- DIAGRAMS INDEX. 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- TO-UNIT SIGNAL CABLING. 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR
- DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR

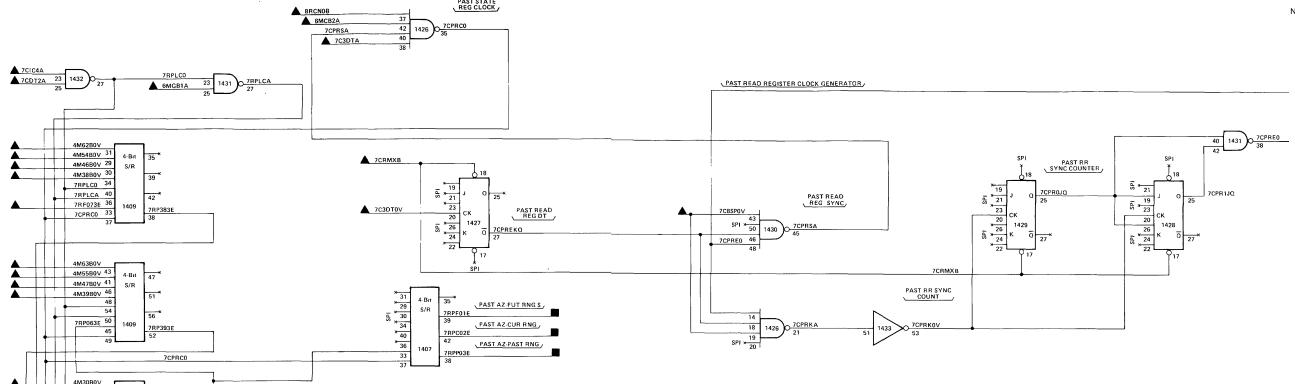
FO-44. ACM Future State Register Logic Diagram



4M22B0V 31 4M14B0V 29

4M31B0V 4M23B0V 43 4M15B0V 41 4M07B0V 46 48

4-Bit 35



NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.

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- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

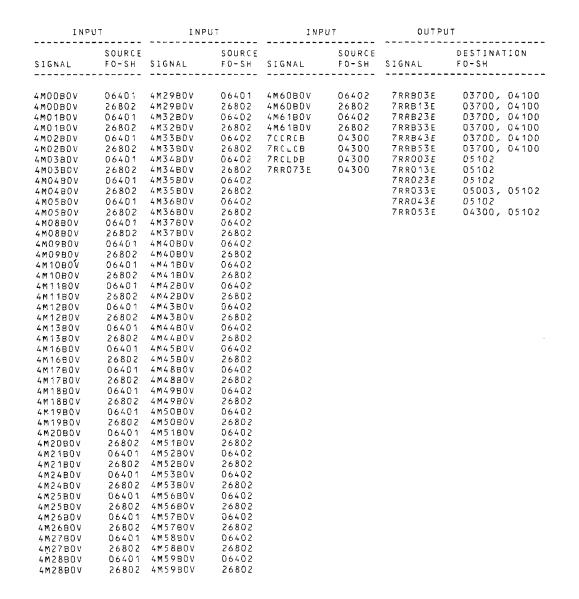
FO-45. ACM Past State Register Logic Diagram

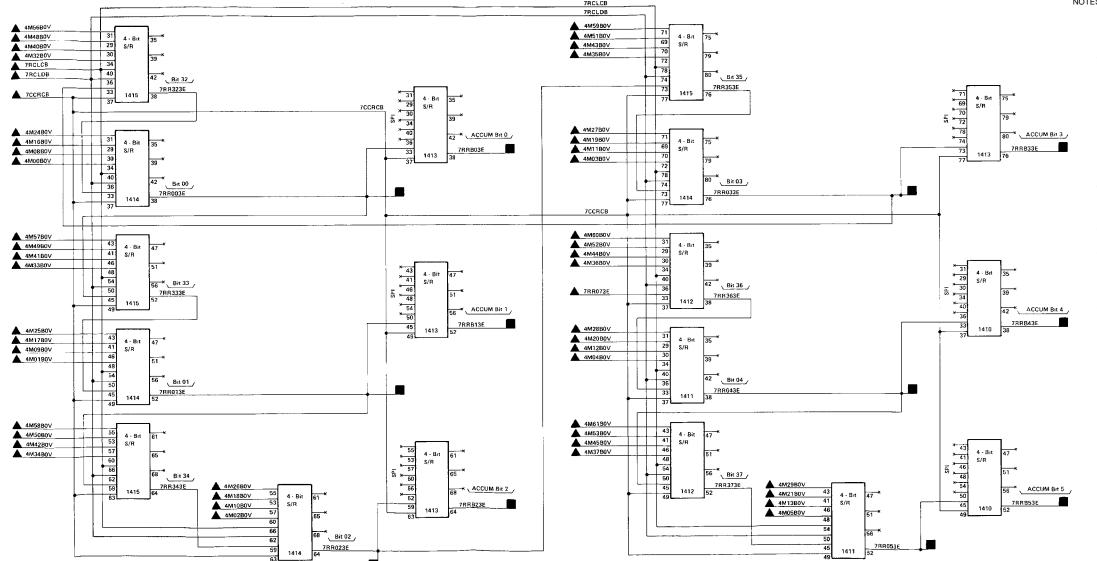
PAST AZ-FUT RNG S

PAST AZ-CUR RNG

PAST AZ-PAST RNG

7RPC12E

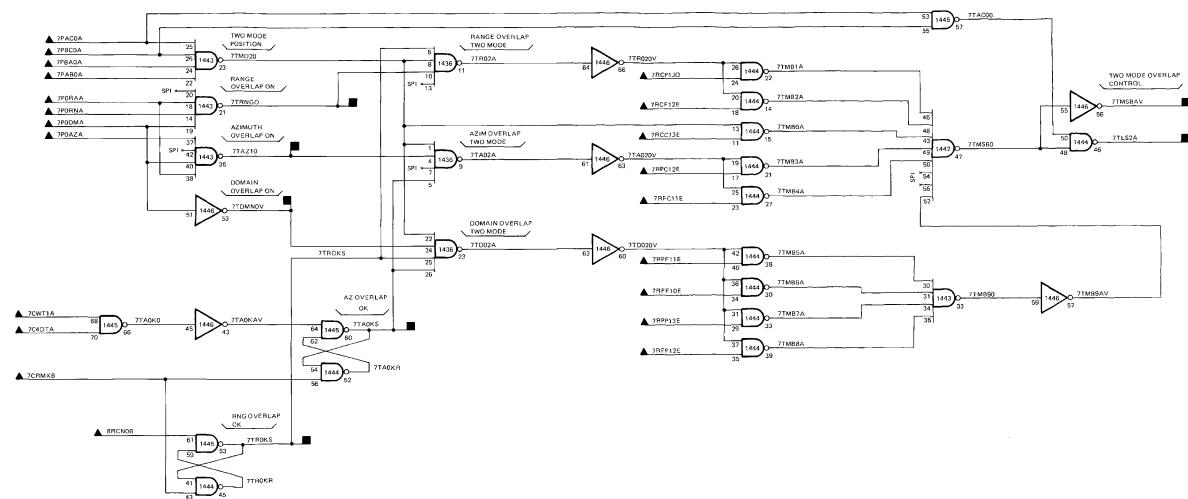




- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS . PREFIX WITH APPLICABLE
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM
- THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR

FO-46. ACM Read Register Logic Diagram

| INF                                                                                                                                             | rur                                                                                                               | OUTP   | Ŧ                                                   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------|--|
| SIGNAL                                                                                                                                          | SOURCE<br>FO-SH                                                                                                   | SIGNAL | NOITANITED<br>FO-SH                                 |  |
| 7 CWT 1A<br>7 C 4 D T A<br>7 P A B O A<br>7 P A C O A<br>7 P B A O A<br>7 P B C O A<br>7 P O A Z A<br>7 P O D M A<br>7 P O R A A<br>7 P O R N A | 01501<br>01700<br>01600<br>32102<br>32102<br>32102<br>32102<br>26802<br>26802<br>26802<br>26802<br>26802<br>04300 |        | 04800<br>04800<br>04900, 050<br>04900, 050<br>04800 |  |
| 7RCF12E<br>7RCP1JQ<br>7RFC11E<br>7RFF10E<br>7RFF12E<br>7RPC12E<br>7RPF11E                                                                       | 04300<br>04300<br>04400<br>04400<br>04400<br>04500<br>04500                                                       |        |                                                     |  |

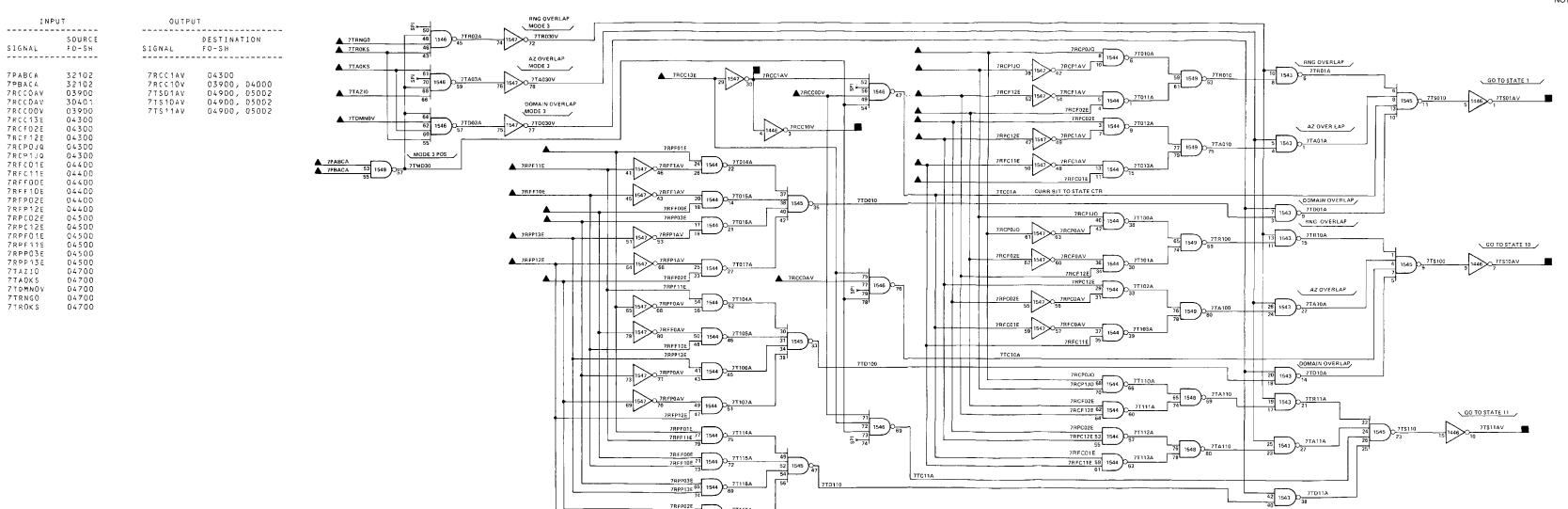


FO-47. ACM Two-Mode Overlap Controller Logic Diagram.

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-48. ACM Three-Mode Overlap Controller Logic Diagram

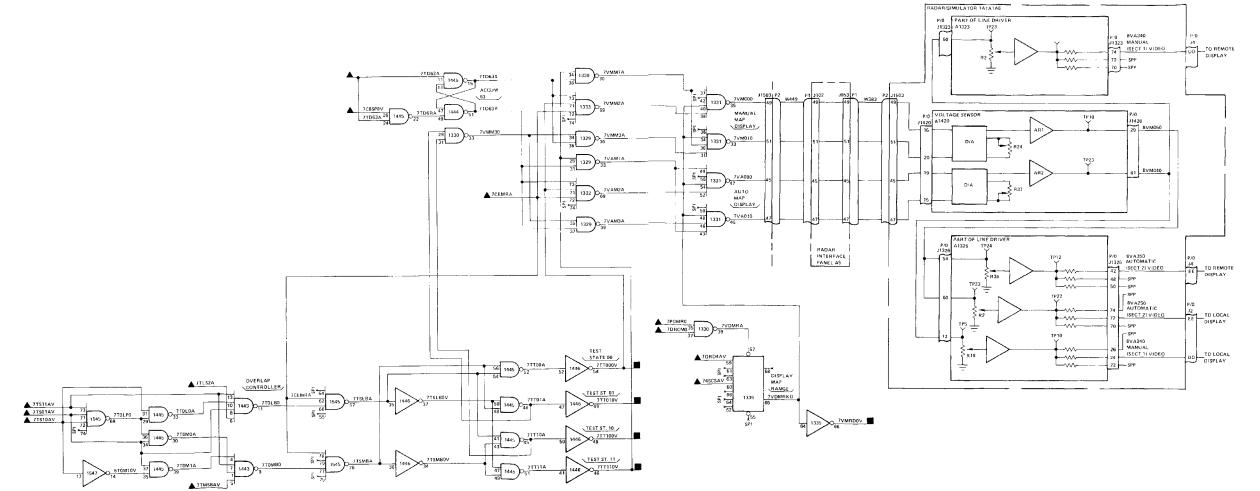
## NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1414145)
- REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
    Δ INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP

FUNCTION DESIGNATIONS.

- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP                                                                                | INPUT                                                                                                    |                                                    | OUTPUT                                     |        |       |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------|--------|-------|
| SIGNAL                                                                             | SOURCE<br>FO-SH                                                                                          | SIGNAL                                             | DESTINA<br>FO-SH                           | TION   |       |
| 7CEMRA 7CBSPOV 7DRCMO 7GRD4AV 7PDMRO 7TD63A 7TLS2A 7TMSBAV 7TS10AV 7TS11AV 74SCSAV | 01700<br>01501<br>02500<br>01502<br>32101<br>04100<br>04700<br>04700<br>04800<br>04800<br>04800<br>05101 | 711000V<br>711110V<br>71110V<br>711110V<br>711110V | 03900<br>03900<br>03900<br>03900<br>14202, | 26802, | 30402 |



#### NOTES: UNLESS OTHERWISE SPECIFIED

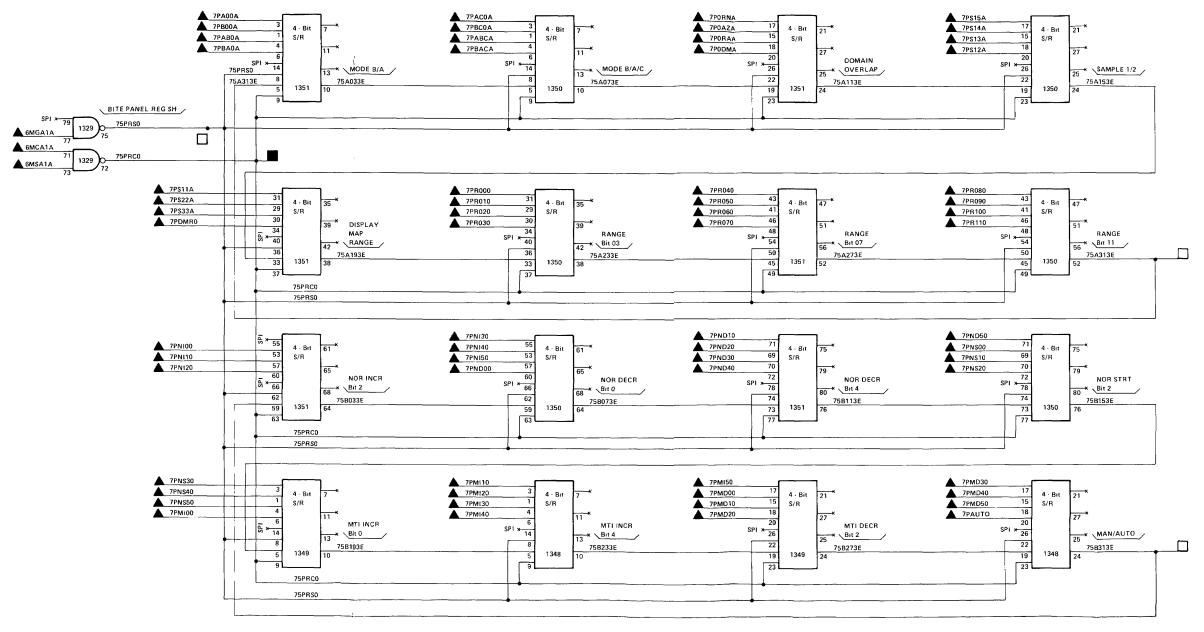
- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION

AND CIRCUIT CARD PIN NUMBER.

- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-49. ACM Overlap Controller Logic Diagram



INPUT

------

SIGNAL

6MCA1A

6MCA1A

6MCA1A

6MGA1A

6MGA1A

6MGA1A

6MSA1A

6MSA1A

6MSA1A

7PABCA

7PABOA

7PACOA

7PAUTO

7PA00A

7PBACA

7PBAOA

7PBCOA

7PB00A

7PDMR0

7 PM 0 0 0

7PMD10

7PMD20

7PM030

7PMD40

7 PM D 5 D

7PMI00

7PMI10

7PMI20

7PMI30

7PMI40

7PMI50

7PND00

7PND10

7PND20

7PND30

7PND40

7PND50

7PNI00

7PNI10

7PNI20

7PNI30

7PNI40 7PNI50

7PNS00

7PNS10 7PNS20

SIGNAL

7PNS30

7PNS40

7PNS50

7PR000

7PR010

7PR020

7PR030

7PR040

7PR050

7PR060

7PR070

7PR080

7PR090

7PR100

7PR110

7PS11A

7PS12A

7PS13A

7PS14A

7PS15A

7PS22A

7PS33A

7 P O A Z A

7PODMA

7PORAA

7PORNA

SOURCE

FO-SH

32101

32101

32102

32101

32101

32101

32101

32101

32101

32101

32101

32101

32101

32101

32101

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SOURCE

FO-SH

26803

27901

05600

26803

27201

05600

26803

27201

32102

32102

32102

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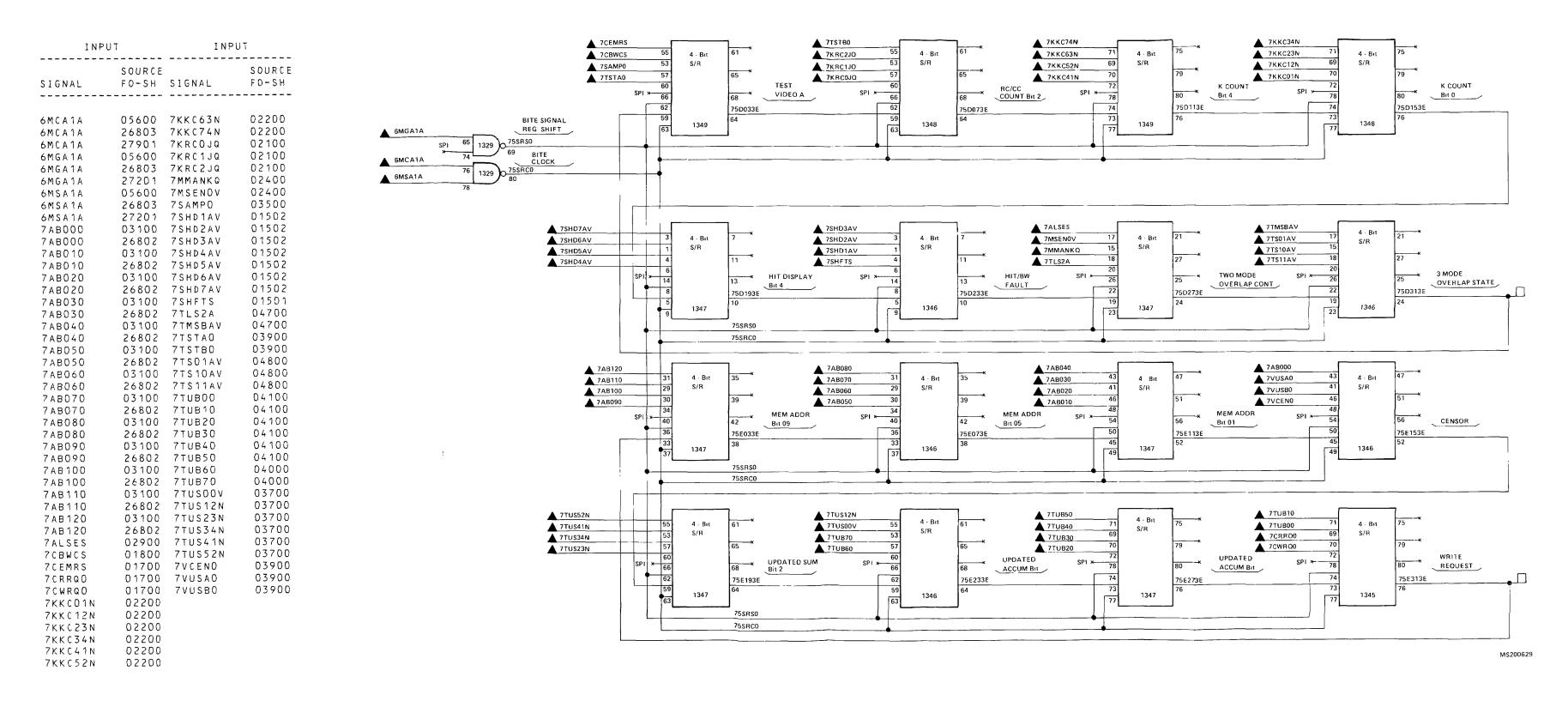
FO-50. ACM Signal and Panel BITE Registers Logic Diagram (Sheet 1 of 3)

#### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN: FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

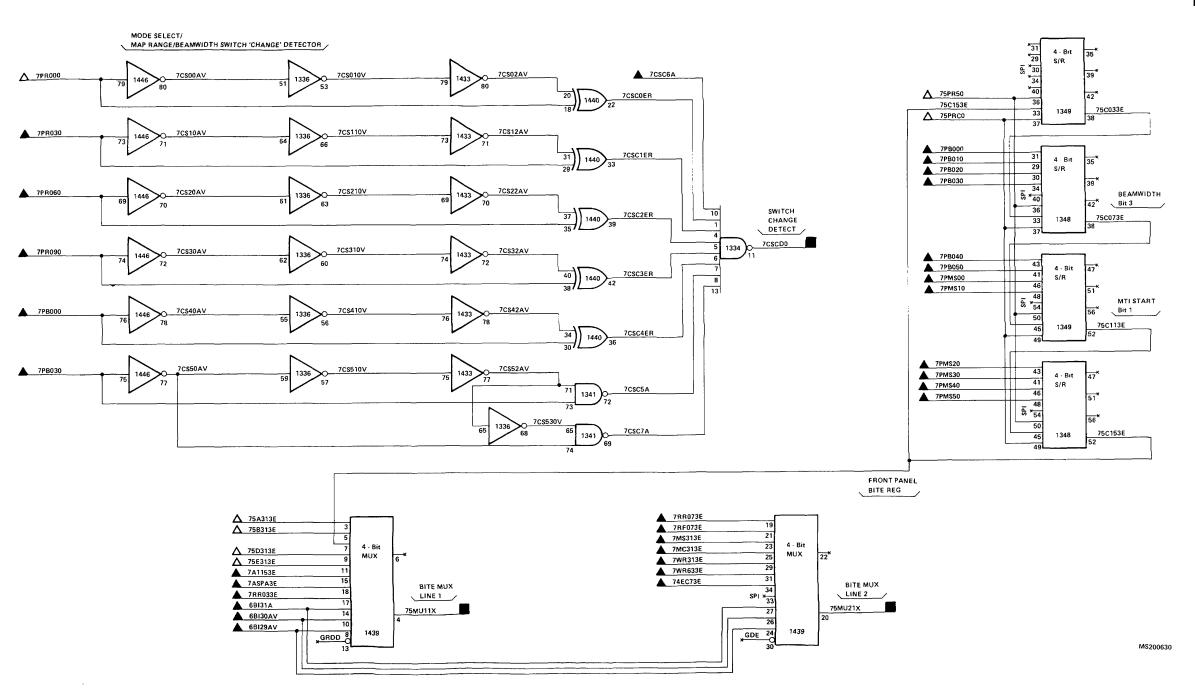
  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM
  - FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
  - REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



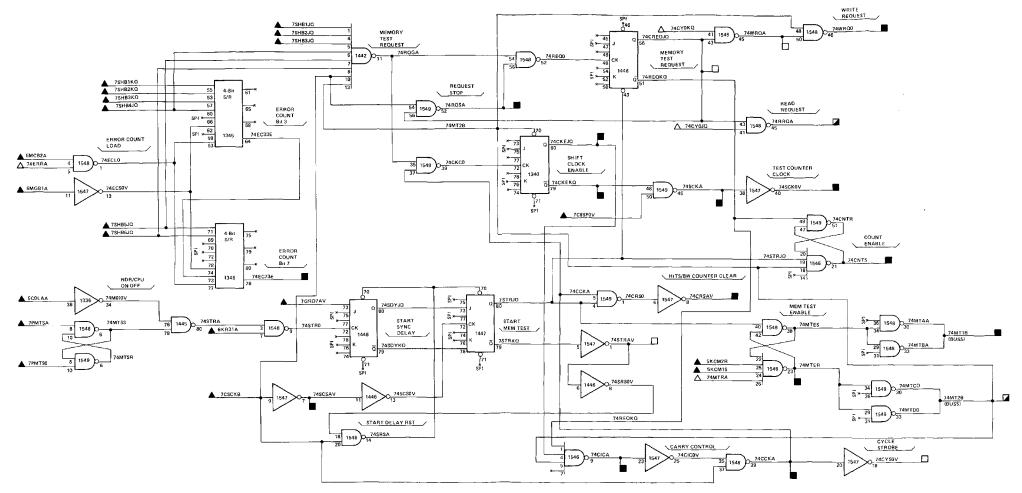
FO-50. ACM Signal and Panel BITE Registers Logic Diagram (Sheet 2 of 3)

| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UТ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | OUTP                                          | Τ                    |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------|--|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | S O U R C E<br>F O - S H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SIGNAL                                        | DESTINATION<br>FO-SH |  |
| 6BI29AV<br>6BI29AV<br>6BI29AV<br>6BI30AV<br>6BI30AV<br>6BI31A<br>6BI31A<br>6BI31A<br>7ASC313E<br>7CSC313E<br>7MS3000<br>7PB020<br>7PB020<br>7PB040<br>7PB040<br>7PB040<br>7PB040<br>7PB050<br>7PB050<br>7PMS20<br>7PMS30<br>7PMS30<br>7PMS40<br>7PMS20<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS30<br>7PMS313<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR6333<br>7WR633<br>7WR633<br>7WR633<br>7WR633<br>7WR633<br>7WR633<br>7WR633<br>7WR633<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR63<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64<br>7WR64 | 05300<br>26803<br>27201<br>05300<br>26803<br>27201<br>05300<br>26803<br>27901<br>02800<br>03900<br>02300<br>02300<br>02300<br>02300<br>023101<br>32101<br>32101<br>32101<br>32102<br>32102<br>32102<br>32102<br>32102<br>32102<br>32102<br>32102<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32102<br>32102<br>32102<br>32102<br>32102<br>32102<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101<br>32101 | 7 C S C D O<br>7 5 M U 1 1 X<br>7 5 M U 2 1 X | 01501 05400 05400    |  |



FO-50. ACM Signal and Panel BITE Registers Logic Diagram (Sheet 3 of 3)

| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UТ                                                                                                                                                                               | DUTPL                                                                                                                                                              | т                                                                                                                        |                                                       |                  |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------|------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SOURCE<br>FO-SH                                                                                                                                                                  | SIGNAL                                                                                                                                                             | DESTINAT<br>FD-SH                                                                                                        | ION                                                   |                  | _                |
| 5 C O L A A<br>5 C O L A A<br>5 C O L A A<br>5 K C M 2 R<br>5 K C M 2 R<br>6 M C B 2 A<br>6 M C B 2 A<br>6 M G B 1 A<br>7 C 8 C K B<br>7 C 8 C F N<br>7 P M T S A<br>7 P M T S A<br>7 P M T S A<br>7 P M T S O<br>7 S H B 1 L Q<br>7 S H B 2 L Q<br>7 S H B 2 L Q<br>7 S H B 3 L Q<br>7 S H B 3 L Q<br>7 S H B 3 L Q<br>7 S H B 4 L Q<br>7 S H B 5 L Q<br>7 S H B 6 L Q<br>7 S H B 6 L Q | 26802<br>27001<br>13400<br>28201<br>05702<br>05600<br>05600<br>27201<br>01501<br>01501<br>01502<br>26802<br>31901<br>26802<br>31901<br>03400<br>03400<br>03400<br>03400<br>03400 | 74CCKA<br>74CKEKQ<br>74CKEKQ<br>74CNTS<br>74CRSAV<br>74EC73E<br>74MTER<br>74MT1B<br>74MT2B<br>74RQSA<br>74RQSA<br>74SCKA<br>74SCKA<br>74SCKOV<br>74SCSAV<br>74WRQO | 01800<br>02600<br>024300<br>02600<br>03400<br>05003<br>01600,<br>01501,<br>03400,<br>04700,<br>01700,<br>01800,<br>03400 | 01600,<br>04200,<br>26803,<br>04200<br>04300<br>04200 | 01700,<br>13400, | 01800,<br>14400, |



FO-51. ACM Memory Test Controller Logic Diagram (Sheet 1 of 2)

### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

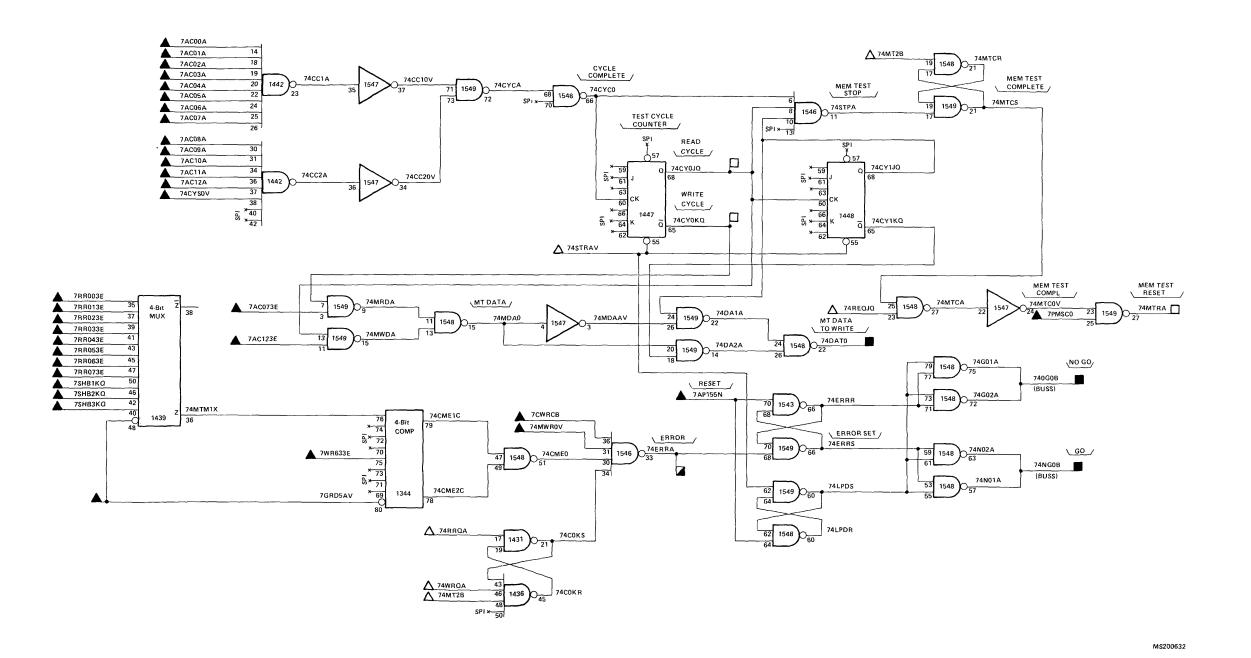
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

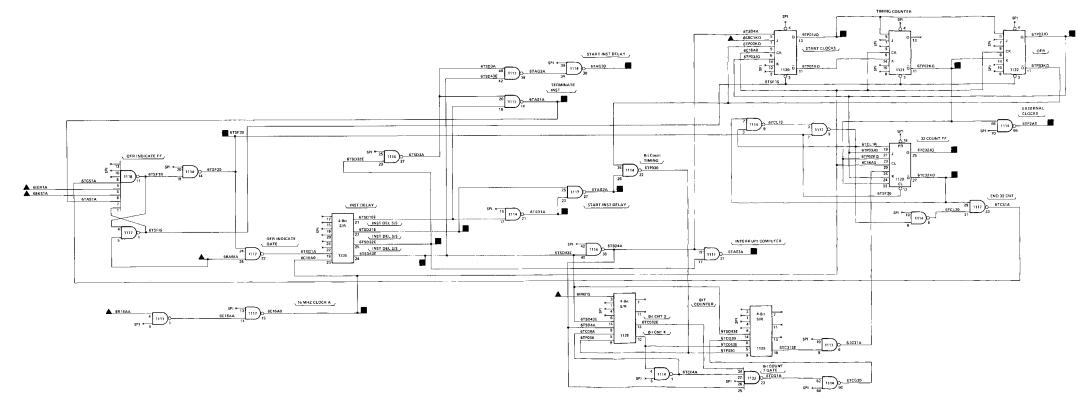
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

| INPU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | т                                                                                                                                                                                | OUTPI                                           | Τ                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SOURCE<br>FO-SH                                                                                                                                                                  | SIGNAL                                          | DESTINATION<br>FO-SH                           |
| 7 A C O O A 7 A C O O A 7 A C O O 1 A 7 A C O 0 2 A 7 A C O 0 2 A 7 A C O 0 5 A 7 A C O 0 5 A 7 A C O 0 7 A 7 A C O 0 7 A 7 A C O 0 7 A 7 A C O 1 1 A 7 A C 1 1 1 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 2 A 7 A C 1 1 3 E 7 A P 1 5 5 N 7 C W R C B 7 G R D 5 A V 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O 7 P M S C O | 03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100<br>03100 | 7 4 D A T O 7 4 E R R A 7 4 N G O B 7 4 O G O B | 04200<br>05900<br>26802, 29201<br>26802, 29201 |



FO-51. ACM Memory Test Controller Logic Diagram (Sheet 2 of 2)

| IN      | PUT       | 00171       | דע                  |
|---------|-----------|-------------|---------------------|
|         | SOURCE    | 222222000   | DESTINATION         |
| SIGNAL  | F D - S H | SIGNAL      | F 0 - S H           |
|         |           |             |                     |
| SBABIA  | 13302     | 6 C 1 6 A O | 05900               |
| 6IER1A  | 05500     | 6TAG2A      | 05500               |
| 61ER1A  | 26803     | 6 T A G 3 D | 05500               |
| 6IER1A  | 28201     | 6TAS1A      | 05500               |
| 61M01S  | 05500     | 6TAS3A      | 13101, 26802, 28202 |
| 6SBC1KQ | 05900     | 6TC32JQ     | 05400, 05600        |
| 65KS1A  | 05900     | 6TC32KQ     | 05600               |
| 8R16AA  | 14300     | 6TP01JQ     | 05400, 05900        |
| 8R16AA  | 26802     | 6TP02KQ     | 05500               |
| BR16AA  | 27201     | 6TP03JQ     | 05300               |
|         |           | 6TP2A0      | 05600               |
|         |           | 6TSD1A      | 05500               |
|         |           | 6TSD21E     | 05500               |
|         |           | 6TS032E     | 05800               |
|         |           | 6TSD43E     | 05800               |
|         |           | 6TSF20      | 05900               |

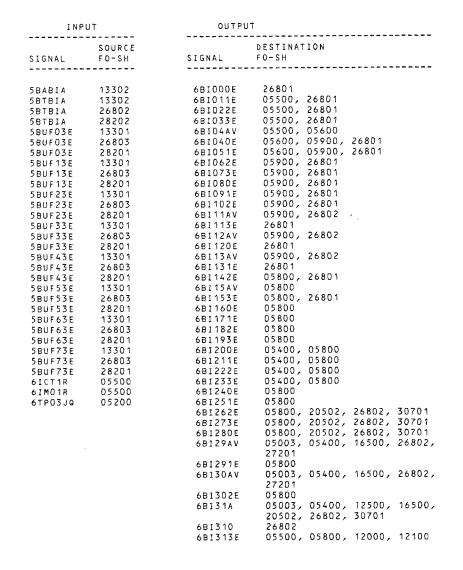


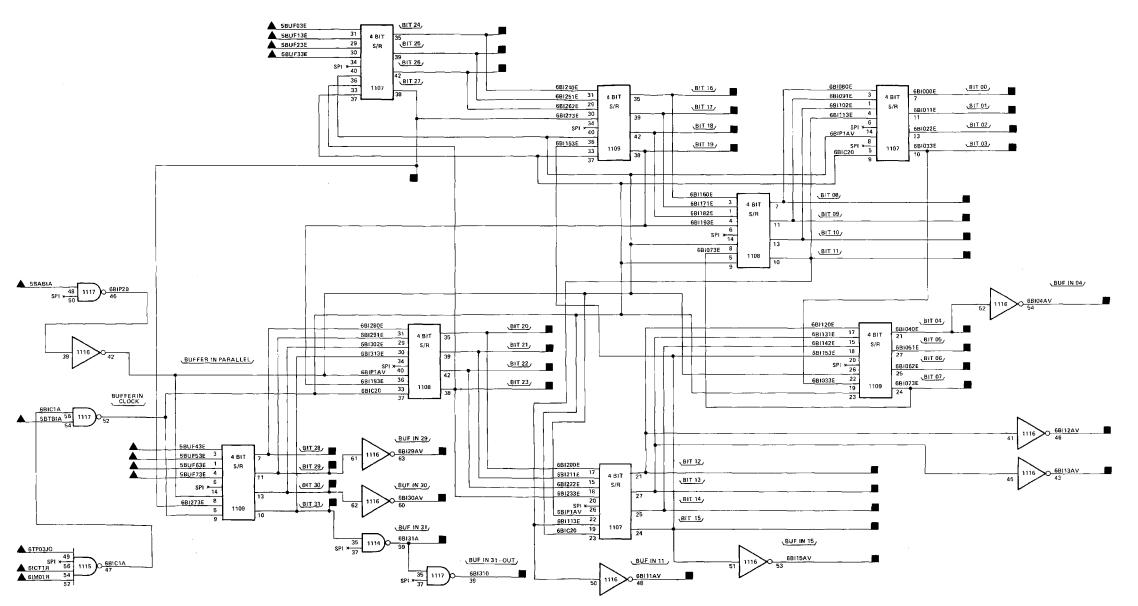
FO-52. BITE Start/Stop Control Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



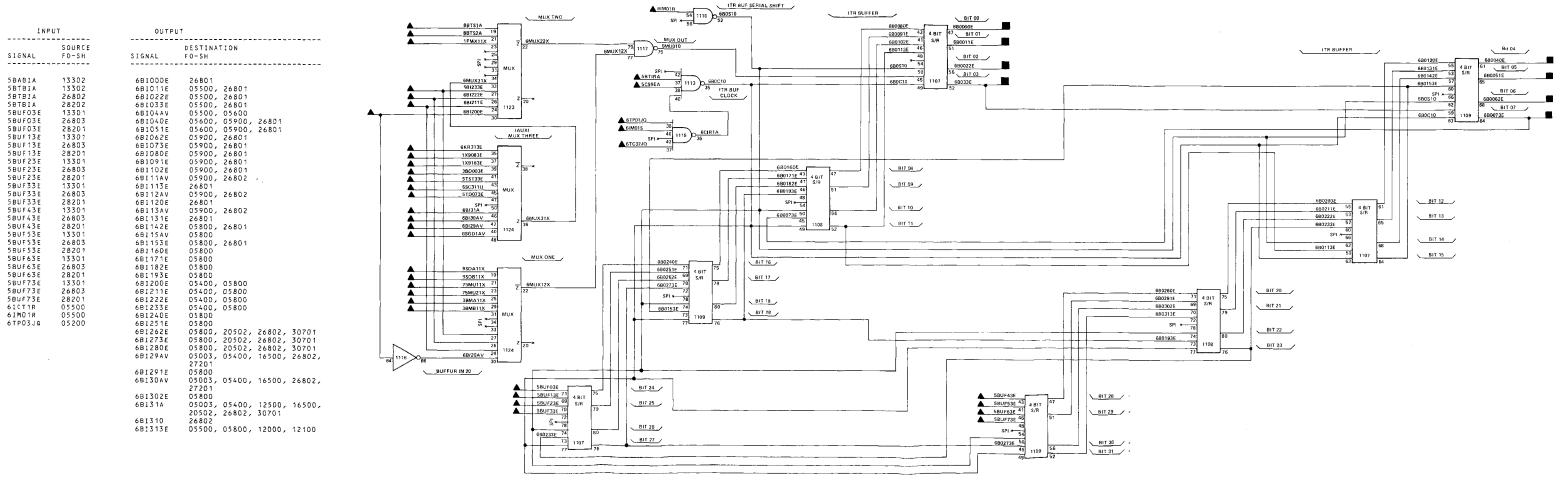


FO-53. BITE Input Buffer Logic Diagram

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

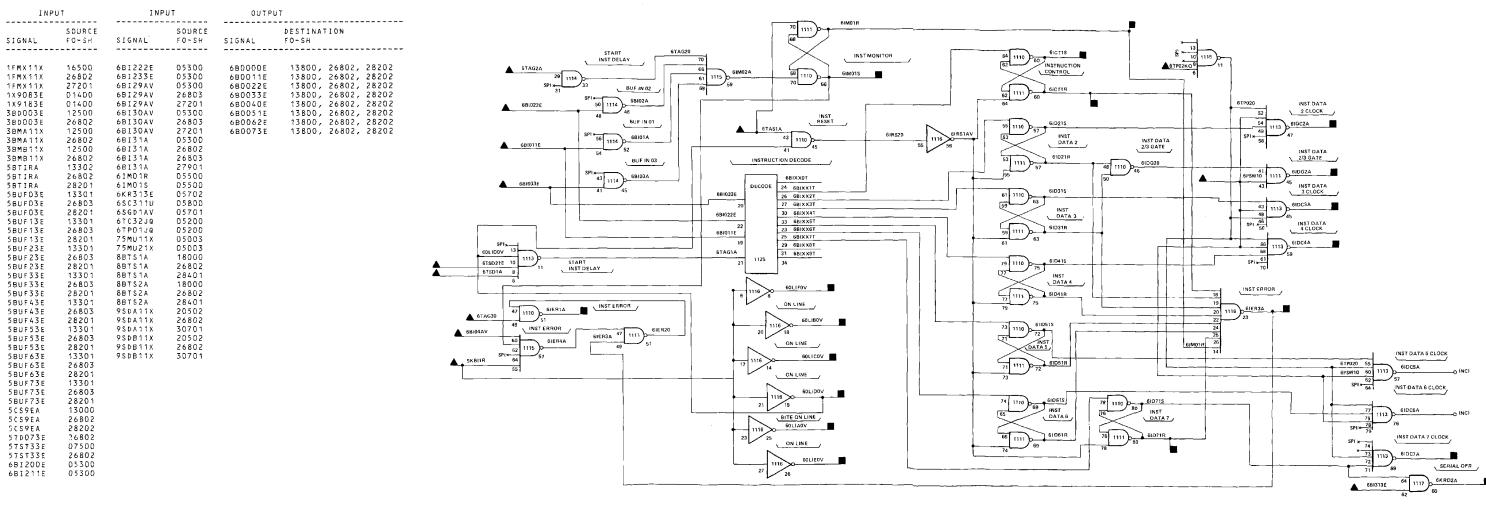
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-54. BITE ITR Buffer Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
  - ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - 2
  - FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
  - REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



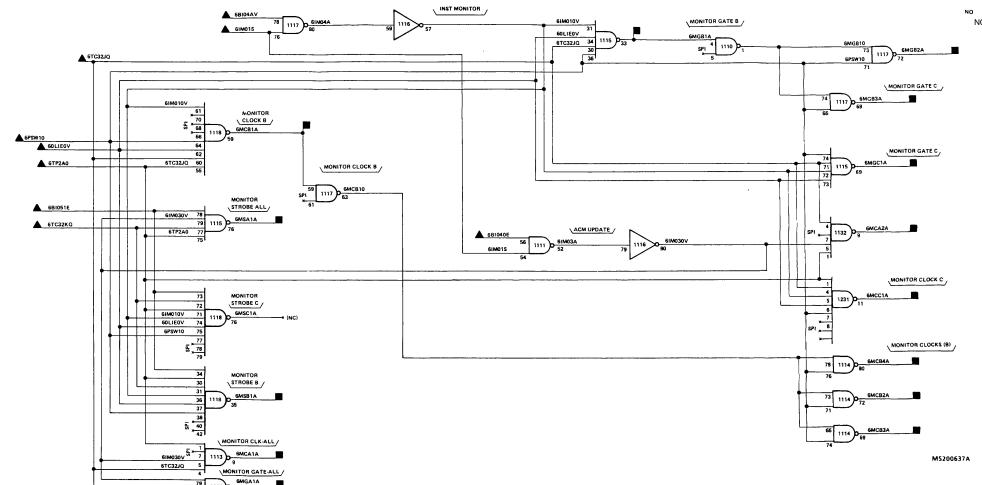
FO-55. BITE Instruction Decode Logic Diagram

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

TO-UNIT SIGNAL CABLING.

- REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438,

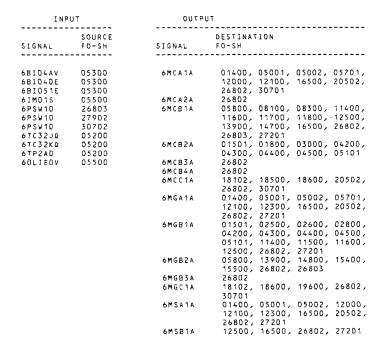
| INP     | UТ     | OUTPL       | ΙT               |        |        |       |
|---------|--------|-------------|------------------|--------|--------|-------|
|         | SOURCE | SIGNAL      | DESTINA<br>FO-SH | TION   |        |       |
|         |        |             |                  |        |        |       |
| 5KBI1R  | 26802  | 6ICT1R      | 05300,           | 05900  |        |       |
| 5KBI1R  | 26803  | 6ICT1S      | 05800,           | 05900, | 26801  |       |
| 5KBI1R  | 28201  | 6IDC2A      | 12000,           | 12300, | 26802  |       |
| 6BI011E | 05300  | 6 I D C 3 A | 12000,           | 12100, | 12300, | 26802 |
|         |        | 6 I D C 4 A |                  |        |        |       |
| 6BI033E | 05300  | 6IDC7A      | 05701            |        |        |       |
| 6B104AV | 05300  | 6IDG2A      | 07701,           | 12100, | 26802  |       |
| 6BI313E | 05300  | 61D71R      | 05701            |        |        |       |
| 6BI313E | 26802  | 6IER1A      | 05200,           | 13500, | 26802, | 28201 |
| 6PSW10  | 26803  | 6IER3A      | 26801            |        |        |       |
| 6PSW10  | 27902  | 6 I M O 1 R | 05300,           | 05400  |        |       |
| 6PSW10  | 30702  | 61M01S      | 05200,           | 05400, | 05600, | 26801 |
| 6TAG2A  | 05200  | 6KRD2A      | 05701            |        |        |       |
| 6TAG30  | 05200  | 60LIAOV     | 05701            |        |        |       |
| 6TAS1A  | 05200  | 60LIBOV     | 05701,           | 05702  |        |       |
| 6TP02KQ | 05200  | 60L1C0V     | 05702            |        |        |       |
| 6TSD1A  | 05200  | 60LIDOV     | 05702,           | 05900  |        |       |
| 6TSD21E | 05200  | 60LIEOV     | 05600,           | 05900  |        |       |
|         |        | 60LIFOV     | 05900,           | 20501, | 26802  |       |

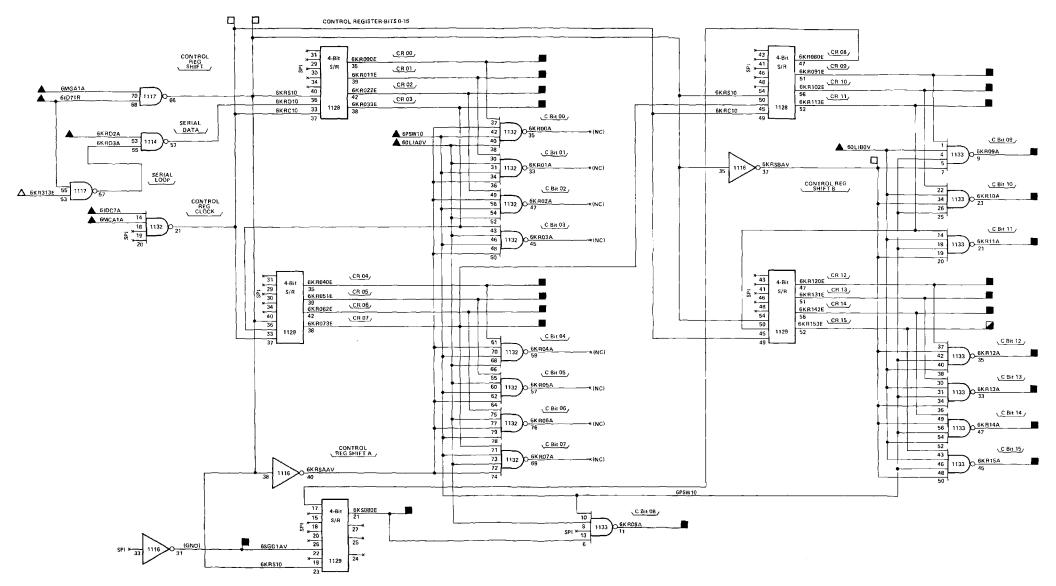


Change 1 FO-56. BITE Monitor Timing Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

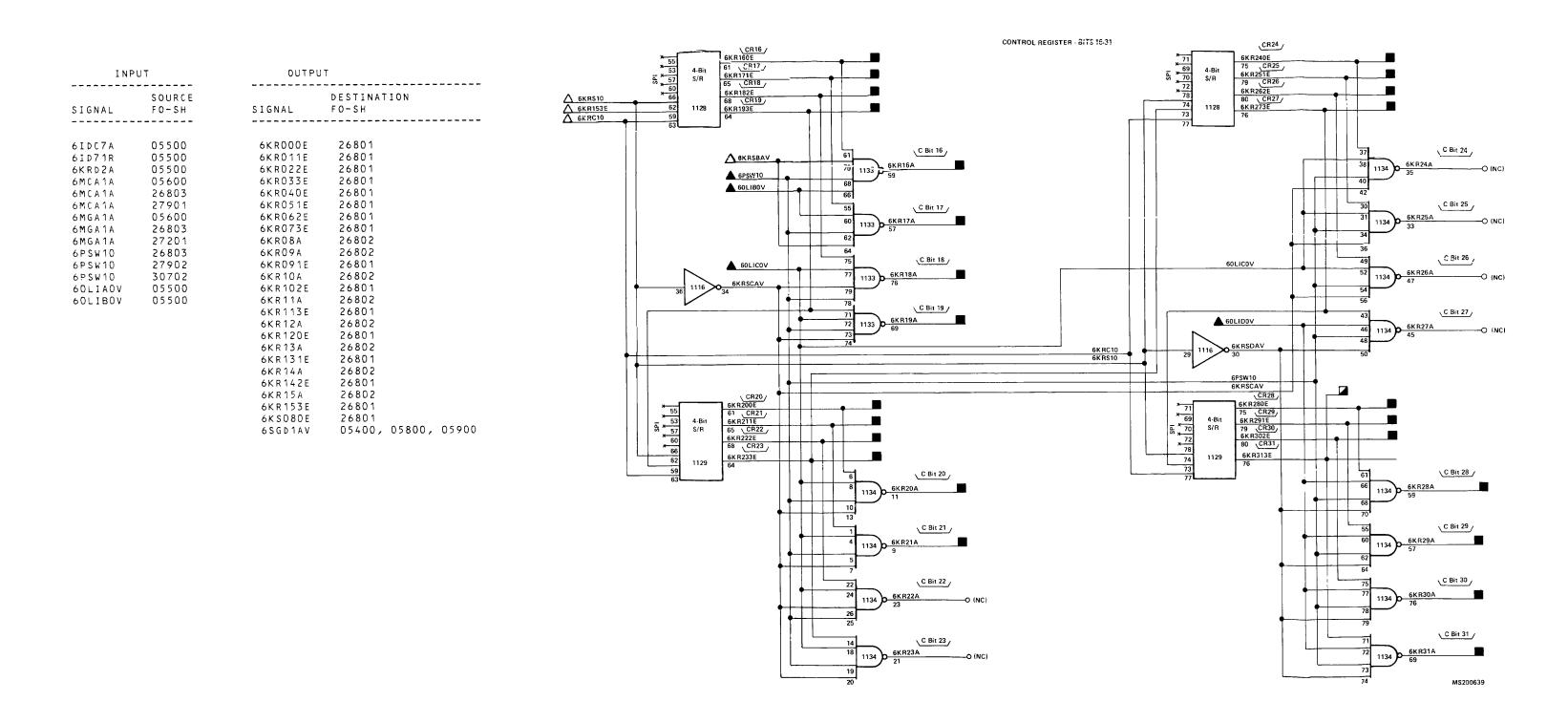




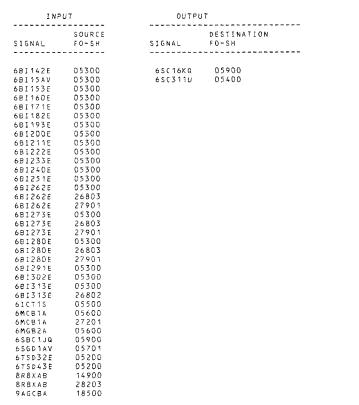
FO-57. BITE Control Register-Logic Diagram (Sheet 1 of 2)

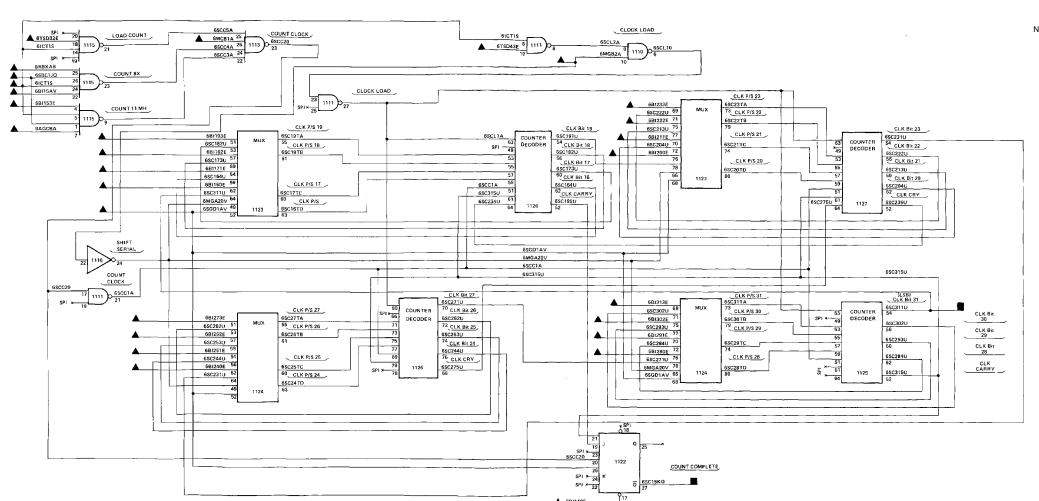
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR
- DC POWER AND GROUND CIRCUITS. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- FUNCTION DESIGNATIONS. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- CIRCUIT CARD PIN NUMBERS. 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



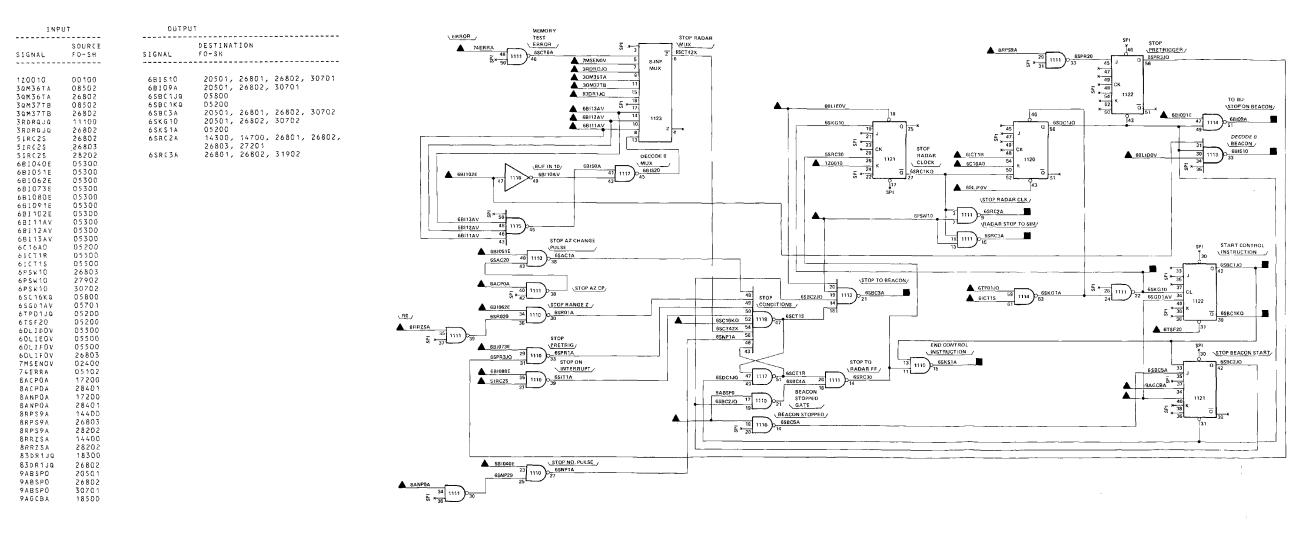
FO-57. BITE Control Register-Logic Diagram (Sheet 2 of 2)





FO-58. BITE Program Clock Counter Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - △ INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- . REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- i. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- D. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

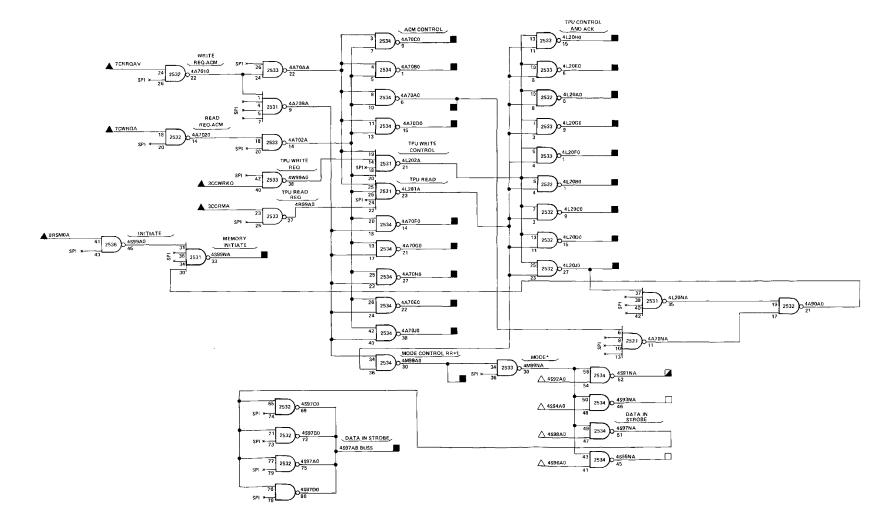


FO-59. BITE Stop Conditions Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH
- RESISTOR CARDS A1224, A1230, AND A1438.

| INF           | דטי             | 0UTP        | υT                |           |           |       |
|---------------|-----------------|-------------|-------------------|-----------|-----------|-------|
| SIGNAL        | SOURCE<br>FO-SH |             | DESTINAT<br>FO~SH | ION       |           |       |
|               | 09500           | 4A70A0      | 06101,            |           |           |       |
|               |                 | 4A70B0      |                   |           |           |       |
| 7 C R R Q A V | 26802           | 4A70C0      | 06101             |           |           |       |
| 7 C W R Q A   | 01700           | 447000      | 06101,            | 06102     |           |       |
|               |                 | 4 A 7 O E O |                   |           |           |       |
|               |                 | 4 A 7 O F O |                   |           |           |       |
| 8RSMOA        | 26802           | 4 A 7 O G O |                   |           |           |       |
|               |                 |             | 06104,            |           |           |       |
|               |                 |             | 06105             |           |           |       |
|               |                 |             | 09500,            |           | 11309,    | 11900 |
|               |                 |             | 06101,            |           |           |       |
|               |                 |             | 06101,            | 06102     |           |       |
|               |                 |             | 06102             |           |           |       |
|               |                 |             | 06103             |           |           |       |
|               |                 |             | 06103,            | 06104     |           |       |
|               |                 |             | 06104             |           |           |       |
|               |                 | 4L20H0      | 06105             | 0 / 4 0 7 | 0 / 7 0 0 |       |
|               |                 |             | 06101,            |           |           |       |
|               |                 |             | 06500,            | 26802,    | 32300     |       |
|               |                 |             | 26802             | 70700     |           |       |
|               |                 | 4 S 9 9 N A | 26802,            | 32300     |           |       |
|               |                 |             | 26802,            | 32300     |           |       |



FO-60. BITE Memory Multiplexer Control Unit Logic Diagram (Sheet 1 of 2)

### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE
- 3. REFERENCES ARE AS FOLLOWS:

INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

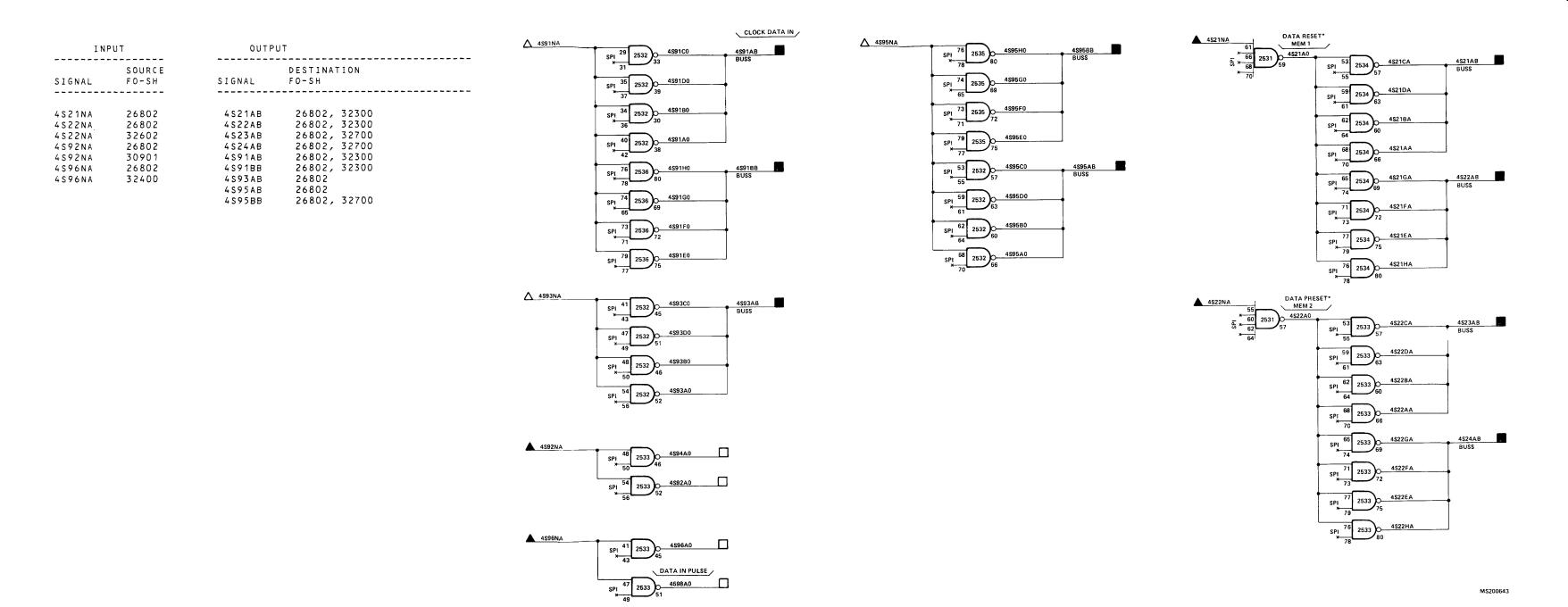
OUTPUT TO BOTH SAME AND ANOTHER

FIGURE OUTPUT TO SAME FIGURE

- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

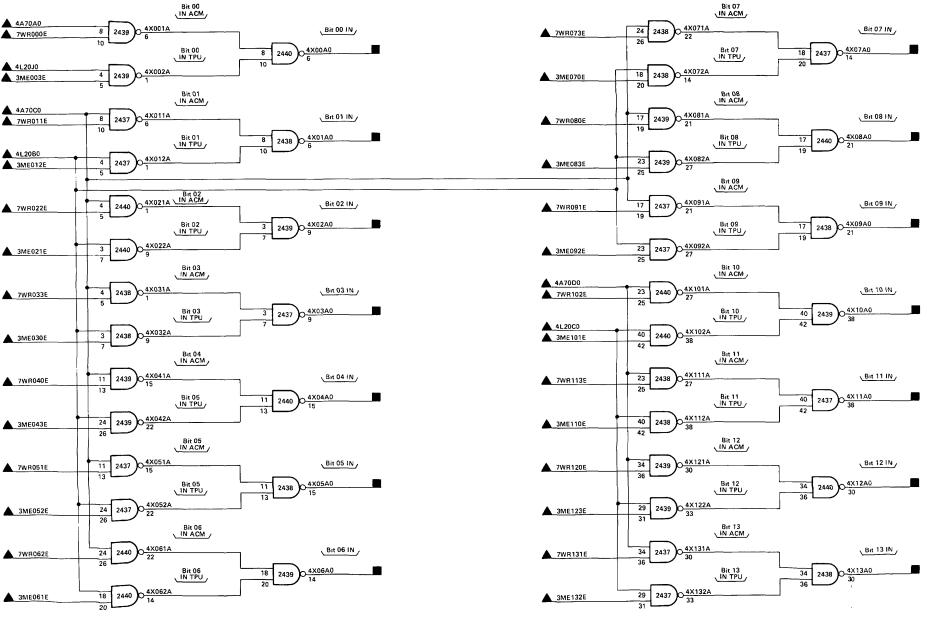
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-60. Memory Multiplexer Control Unit Logic Diagram (Sheet 2 of 2)

| INPU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Т                                                           | INP                                                                                 | ru T                                                                 | 0 U T P                                                                                                                                                                      | UT                                                                                               |                                                                                                  |                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SOURCE<br>FO-SH                                             | SIGNAL                                                                              | SOURCE<br>FO-SH                                                      | SIGNAL                                                                                                                                                                       | DESTINA<br>FO-SH                                                                                 | TION                                                                                             |                                                                                                                       |
| 3 ME 0 0 3 E<br>3 ME 0 0 2 1E<br>3 ME 0 2 1E<br>3 ME 0 2 2 E<br>3 ME 0 5 2 E<br>3 ME 0 6 1 E<br>3 ME 0 7 0 E<br>3 ME 0 7 0 E<br>3 ME 10 10 E<br>3 ME 11 23 E<br>3 ME 11 23 E<br>3 ME 11 23 E<br>3 ME 12 3 E<br>4 A 7 0 C 0<br>4 A 7 0 C 0<br>4 A 7 0 C 0<br>4 A 2 0 C 0<br>5 WR 0 0 0 0 E<br>7 WR 0 0 1 1 E<br>7 WR 0 0 2 2 E<br>7 WR 0 2 2 E<br>7 WR 0 2 2 E<br>7 WR 0 3 3 E<br>7 WR 0 2 2 E<br>7 WR 0 5 1 E<br>7 WR 0 6 2 E<br>7 WR 0 7 3 E | 11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400 | 7 WRO 9 1E<br>7 WR 10 2E<br>7 WR 10 2E<br>7 WR 11 3 E<br>7 WR 11 3 E<br>7 WR 12 0 E | 04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802 | 4 X 0 0 A 0<br>4 X 0 1 A 0<br>4 X 0 2 A 0<br>4 X 0 3 A 0<br>4 X 0 5 A 0<br>4 X 0 5 A 0<br>4 X 0 7 A 0<br>4 X 0 8 A 0<br>4 X 10 A 0<br>4 X 11 A 0<br>4 X 12 A 0<br>4 X 13 A 0 | 06200,<br>06200,<br>06200,<br>06200,<br>06200,<br>06200,<br>06200,<br>06200,<br>06200,<br>06200, | 26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802, | 3 100 1<br>3 100 1 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                             |                                                                                     |                                                                      |                                                                                                                                                                              |                                                                                                  |                                                                                                  |                                                                                                                       |



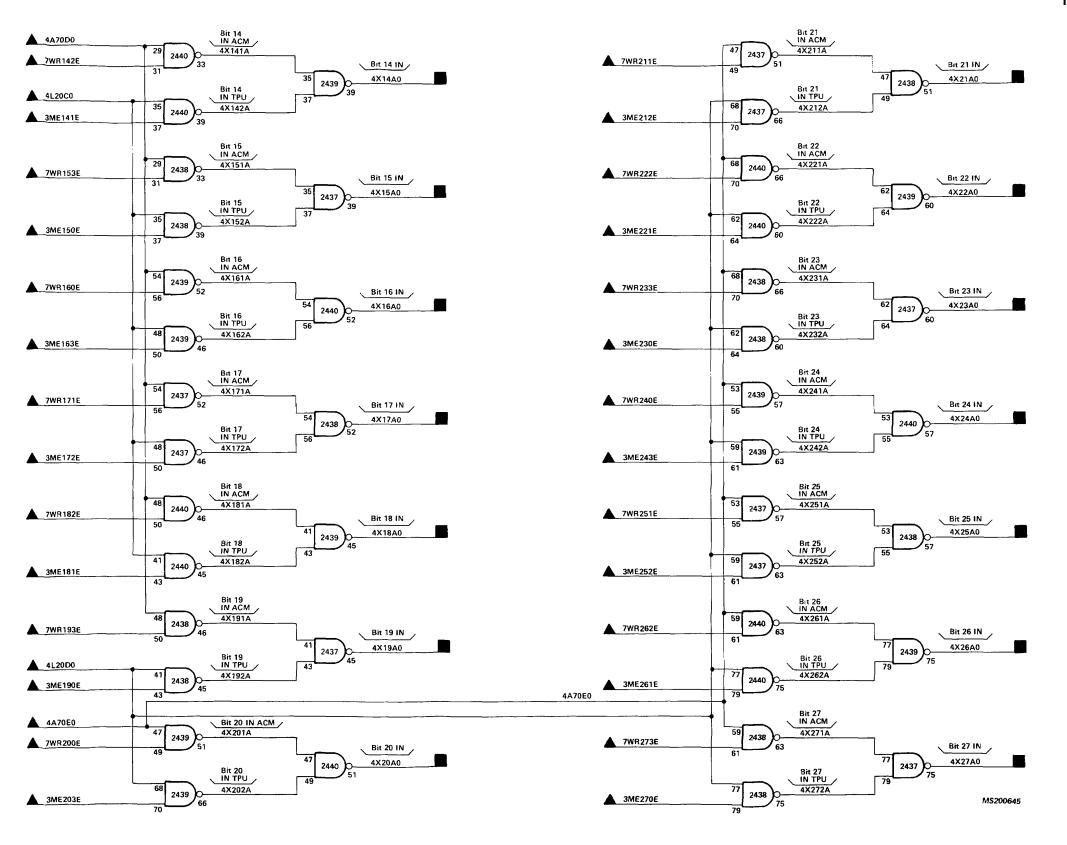
### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

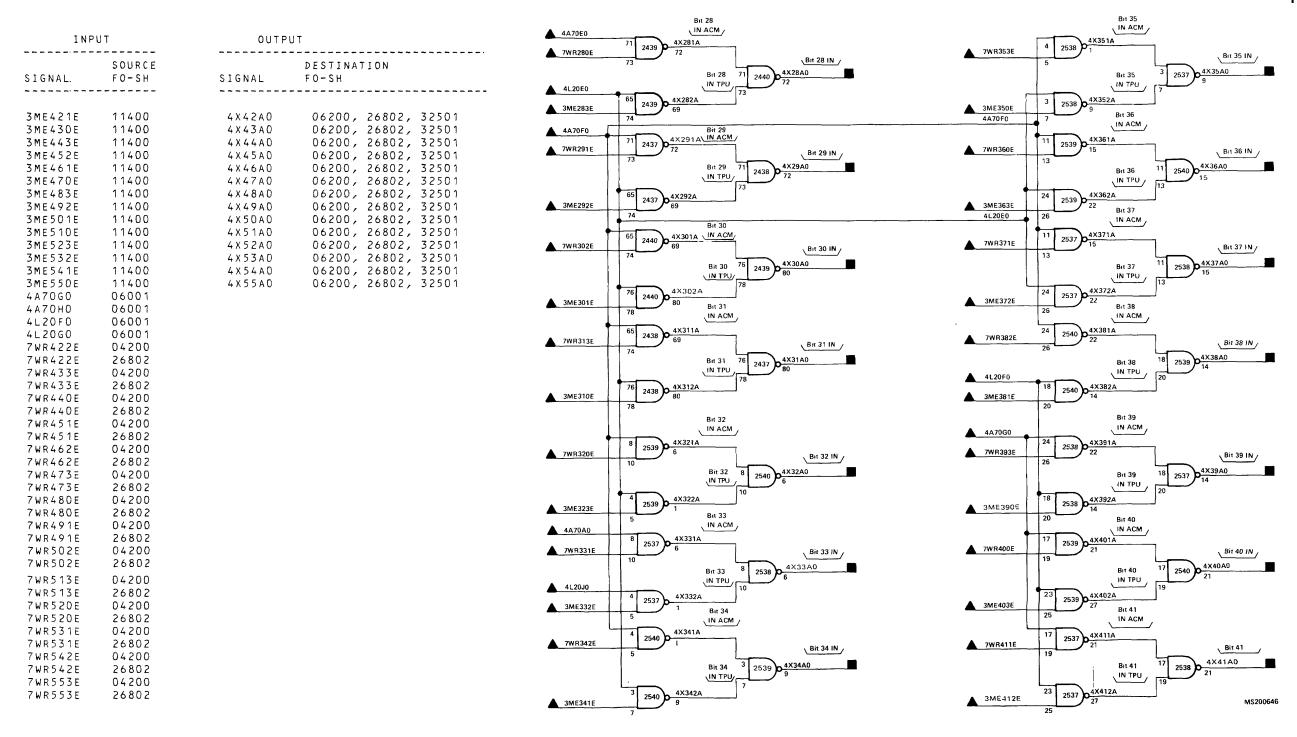
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-61. Memory Multiplexer Data in Buffer Logic Diagram (Sheet 1 of 5)

| INP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | INP                           | דטי             | OUTP                                                                                                                                               | UΤ                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SIGNAL                        | SOURCE<br>FO-SH |                                                                                                                                                    | DESTINATION<br>FO-SH                                                                                                                                                                                                                                                                                    |
| 3 ME 14 1E<br>3 ME 150E<br>3 ME 150E<br>3 ME 150E<br>3 ME 190E<br>3 ME 203E<br>3 ME 203E<br>3 ME 22 21E<br>3 ME 22 32E<br>3 ME 22 32E<br>3 ME 22 32E<br>3 ME 22 60E<br>4 A 7 0 D 0<br>4 L 2 0 D 0<br>4 L 2 0 D 0<br>7 WR 14 2 E<br>7 WR 153E<br>7 WR 160E<br>7 WR 17 1E<br>7 WR 18 2 E<br>7 WR 193E<br>7 WR 200E<br>7 WR 200E | 11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200<br>04200 | 7WR251E<br>7WR251E<br>7WR262E | 26802           | 4 X 1 4 A O<br>4 X 1 5 A O<br>4 X 1 6 A O<br>4 X 1 7 A O<br>4 X 1 9 A O<br>4 X 2 0 A O<br>4 X 2 2 A O<br>4 X 2 2 A O<br>4 X 2 5 A O<br>4 X 2 7 A O | 06200, 26802, 31001<br>06200, 26802, 31002<br>06200, 26802, 31002<br>06200, 26802, 31002<br>06200, 26802, 31002 |



FO-61. Memory Multiplexer Data in Buffer Logic Diagram (sheet 2 of 5)



FO-61. Memory Multiplexer Data in Buffer Logic Diagram (Sheet 3 of 5)

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7WR393E

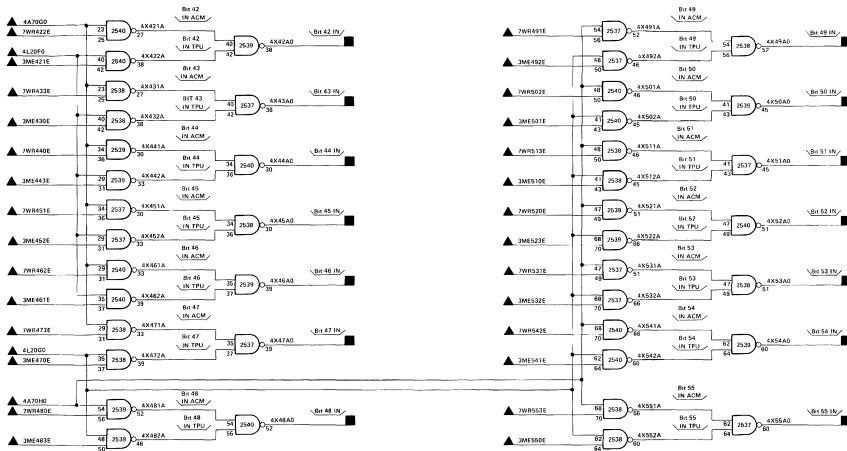
7WR393E

7WR400E

04200

26802

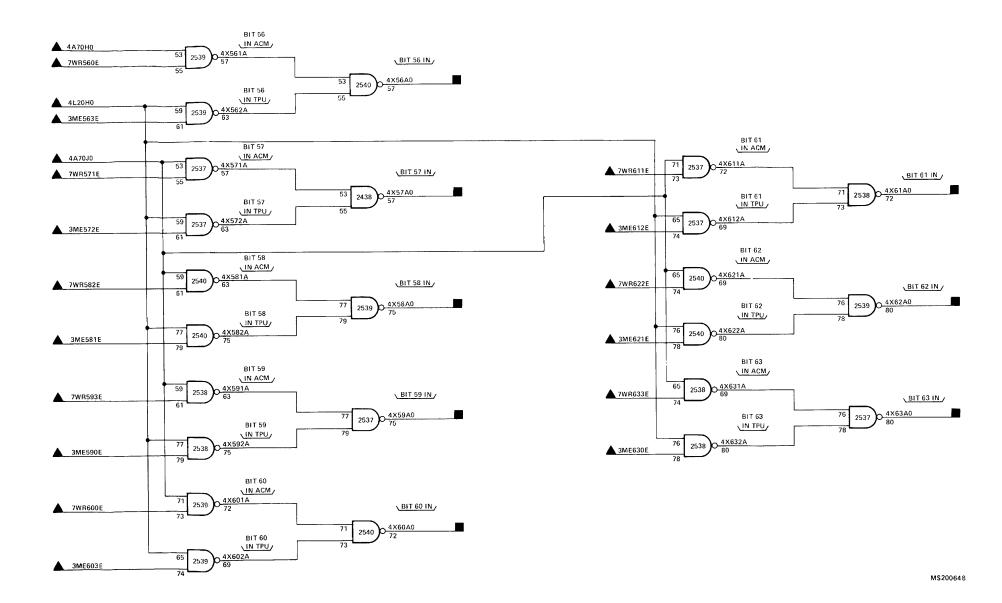
04200



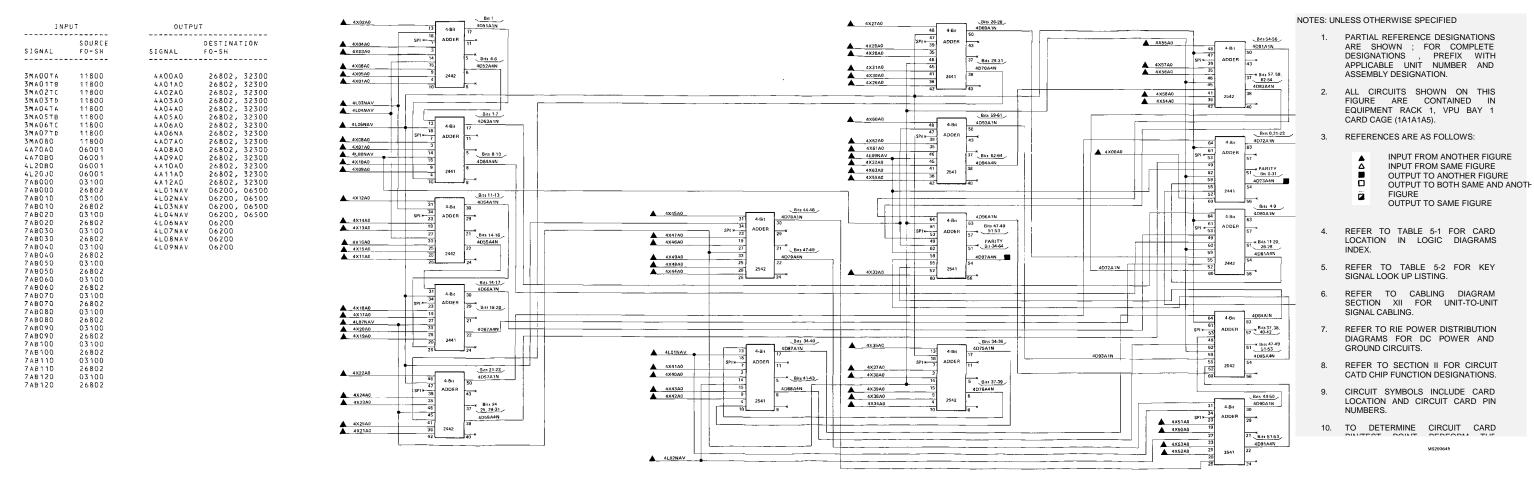
MS200647

FO-61. Memory Multiplexer Data in Buffer Logic Diagram (Sheet 4 of 5)

| INPU                                                | Т                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ОИТРИТ                                                                                                |                                      |                                                          |                                                    |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------|----------------------------------------------------|
| SIGNAL                                              | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SIGNAL                                                                                                | DESTINA<br>FO-SH                     | TION                                                     |                                                    |
| 7WR593E<br>7WR600E<br>7WR600E<br>7WR611E<br>7WR611E | 11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>11400<br>106001<br>06001<br>06001<br>06001<br>06200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802<br>04200<br>26802 | 4 X 5 6 A D<br>4 X 5 7 A D<br>4 X 5 8 A D<br>4 X 5 9 A D<br>4 X 6 1 A D<br>4 X 6 2 A D<br>4 X 6 3 A D | 06200,<br>06200,<br>06200,<br>06200, | 26802,<br>26802,<br>26802,<br>26802,<br>26802,<br>26802, | 32502<br>32502<br>32502<br>32502<br>32502<br>32502 |

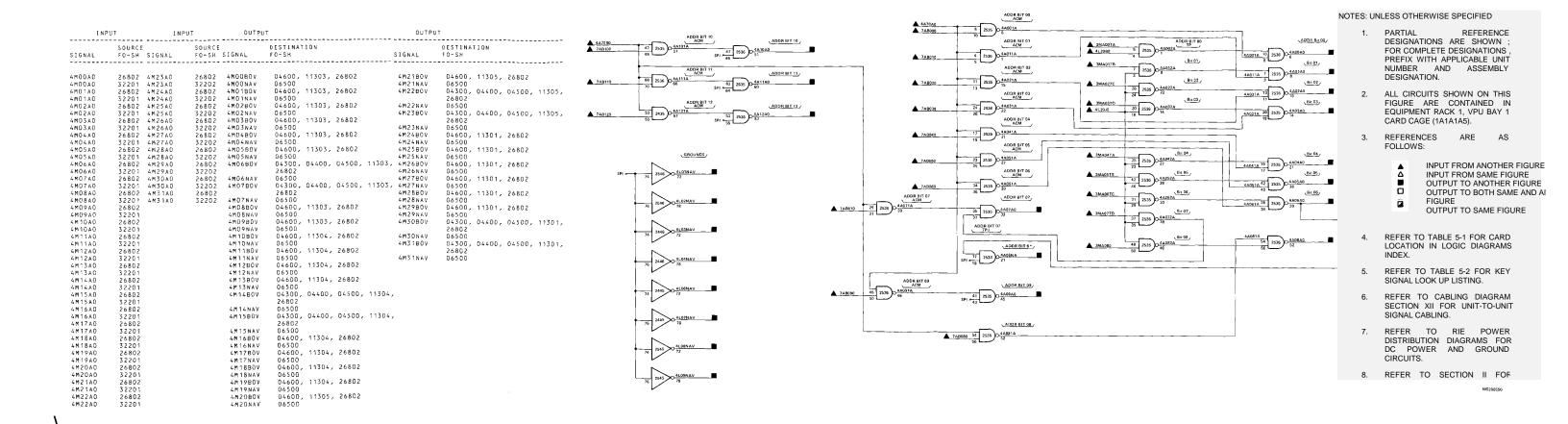


FO-61. Memory Multiplexer Data in Buffer Logic Diagram (Sheet 5 of 5)



FO-62. Memory Multiplexer Parity Generator Logic Diagram

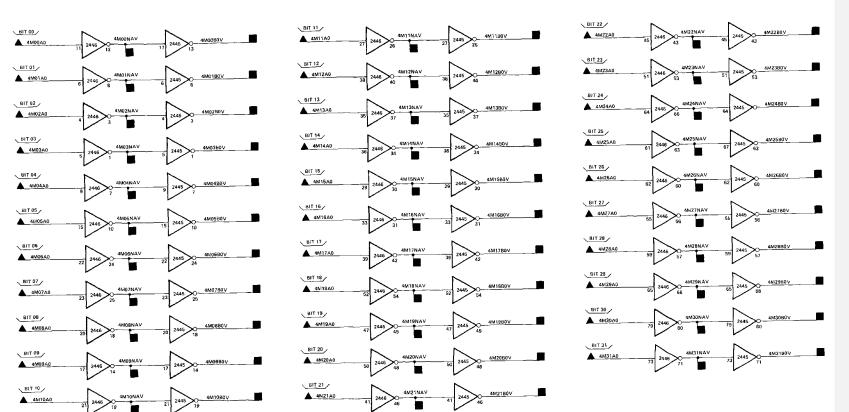
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FO-63. Memory Multiplexer Address Multiplexer Logic Diagram

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| INPUT                      |                 | INPUT                      |                 | INPUT                      |                 | OUTPUT        |                      |
|----------------------------|-----------------|----------------------------|-----------------|----------------------------|-----------------|---------------|----------------------|
| SIGNAL                     | SOURCE<br>FO-SH |                            | SOURCE<br>FO-SH | SIGNAL                     | SOURCE<br>FO-SH | SIGNAL        | DESTINATION<br>FO-SH |
| 4L01NAV                    | 06300           | 4×19A0                     | 06102           | 4 X 4 2 A O                | 06104           | 4 D 7 3 A 4 N | 26802, 31002         |
| 4 L O 2 N A V              | 06300           | 4 X 1 9 A O                | 31001           | 4 X 4 2 A O                | 32501           | 4097A4N       | 26802, 32502         |
| 4L03NAV                    | 06300           | 4 X 2 O A O                | 06102           | 4 X 4 3 A O                | 06104           |               |                      |
| 4L04NAV                    | 06300           | 4 X 2 O A O                | 3 1 0 0 1       | 4 X 4 3 A O                | 32501           |               |                      |
| 4LO6NAV                    | 06300           | 4 X 2 1 A O                | 06102           | 4 X 4 4 A O                | 06104           |               |                      |
| 4L07NAV                    | 06300           | 4 X 2 1 A O                | 31001           | 4 X 4 4 A O                | 32501           |               |                      |
| 4LO8NAV                    | 06300           | 4 X 2 2 A O                | 06102           | 4 X 4 5 A 0                | 06104           |               |                      |
| 4L09NAV                    | 06300           | 4 X 2 2 A O                | 31001           | 4 X 4 5 A O                | 32501           |               |                      |
| 4 X O O A O                | 06101           | 4 X 2 3 A D                | 06102           | 4 X 4 6 A 0                | 06104           |               |                      |
| 4 X O O A O                | 31001           | 4 X 2 3 A D                | 31001           | 4 X 4 6 A D                | 32501           |               |                      |
| 4 X O 1 A O                | 06101           | 4 X 2 4 A O                | 06102           | 4 X 4 7 A D                | 06104           |               |                      |
| 4 X O 1 A O                | 31001           | 4 X 2 4 A O                | 31002           | 4 X 4 7 A D                | 32501           |               |                      |
| 4 X O 2 A O                | 06101           | 4 X 2 5 A O                | 06102           | 4 X 4 8 A O                | 06104           |               |                      |
| 4 x 0 2 a 0                | 31001           | 4 X 2 5 A O                | 31002           | 4 X 4 8 A O                | 32501           |               |                      |
| 4 X O 3 A O                | 06101           | 4 X 2 6 A D                | 06102           | 4 X 4 9 A O                | 06104           |               |                      |
| 4 X O 3 A O                | 31001           | 4 X 2 6 A 0                | 31002           | 4 X 4 9 A O                | 32501           |               |                      |
| 4×04A0                     | 06101           | 4X27A0                     | 06102           | 4 X 5 D A O                | 06104           |               |                      |
| 4 X O 4 A O                | 31001           | 4 X 2 7 A O                | 31002           | 4 X 5 O A O                | 32501           |               |                      |
| 4 X O 5 A O                | 06101           | 4 X 2 8 A O                | 06103           | 4 X 5 1 A O                | 06104           |               |                      |
| 4 X O 5 A O                | 31001           | 4 X 2 8 A O                | 31002           | 4 X 5 1 A O                | 32501           |               |                      |
| 4 X O 6 A O                | 06101           | 4 X 2 9 A O                | 06103           | 4 X 5 2 A 0                | 06104           |               |                      |
| 4 X O 6 A O                | 31001           | 4 X 2 9 A O                | 31002           | 4 X 5 2 A 0                | 32501           |               |                      |
| 4 X O 7 A O                | 06101           | 4 X 3 O A O                | 06103           | 4 x 5 3 A O                | 06104           |               |                      |
|                            | 31001           | 4 X 3 O A O                | 31002           | 4 X 5 3 A D                | 32501           |               |                      |
| 4 X Q 8 A Q                | 06101           | 4 X 3 1 A O                | 06103           | 4 X 5 4 A O                | 06104           |               |                      |
| 4 X O 8 A O                | 3 100 1         | 4 X 3 1 A O                | 31002           | 4 X 5 4 A O                | 32501           |               |                      |
| 4 X O 9 A O                | 06101           | 4 X 3 2 A O                | 06103           | 4 X 5 5 A O                | 06104           |               |                      |
| 4 X O 9 A O                | 31001           | 4 X 3 2 A O                | 32502           | 4 X 5 5 A O                | 32501           |               |                      |
| 4 X 10 A 0                 | 06101           | 4 X 3 3 A O                | 06103           | 4 X 5 6 A O                | 06105           |               |                      |
| 4 X 10 A 0                 | 31001           | 4 x 3 3 A 0                | 32501           | 4X56A0                     | 32502           |               |                      |
| 4 X 1 1 A D                | 06101           | 4 X 3 4 A O                | 06103           | 4X57A0                     | 06105           |               |                      |
| 4 X 1 1 A 0                | 3 100 1         | 4 X 3 4 A O                | 32501           | 4X57A0                     | 32502           |               |                      |
| 4 X 12 A O                 | 06101           | 4 X 3 5 A 0                | 06103           | 4X58A0                     | 06105           |               |                      |
| 4X12A0                     | 31001           | 4 X 3 5 A 0                | 32501           | 4X58AD                     | 32502<br>06105  |               |                      |
| 4 X 13 A 0                 | 06101           | 4 X 3 6 A D                | 06103           | 4 X 5 9 A O<br>4 X 5 9 A O | 32502           |               |                      |
| 4 X 13 A O                 | 31001           | 4X36A0                     | 32501           | 4X60A0                     | 06105           |               |                      |
| 4 X 1 4 A D                | 06102<br>31001  | 4 X 3 7 A 0<br>4 X 3 7 A 0 | 06103<br>32501  | 4X60A0                     | 32502           |               |                      |
| 4 X 1 4 A O<br>4 X 1 5 A O | 06102           |                            |                 | 4X61A0                     | 06105           |               |                      |
| 4x15A0                     | 31001           | 4×38×0<br>4×38×0           | 06103<br>32501  | 4X61A0                     | 32502           |               |                      |
| 4X16A0                     | 06102           | 4 X 3 9 A O                | 06103           | 4X62A0                     | 06105           |               |                      |
| 4 X 16 A D                 | 31001           | 4 X 3 9 A O                | 32501           | 4X62A0                     | 32502           |               |                      |
| 4 X 17 A D                 | 06102           | 4X40A0                     | 06103           | 4X63A0                     | 06105           |               |                      |
| 4X 17 A D                  | 31001           | 4X40A0<br>4X40A0           | 32501           | 4X63A0                     | 32502           |               |                      |
| 4X18A0                     | 06102           | 4 X 4 1 A D                | 06103           | 400000                     | 22202           |               |                      |
| 4X18A0                     | 31001           | 4 X 4 1 A O                | 32501           |                            |                 |               |                      |
| - A 10 A 0                 | 21001           | 4 / 4 / 1 / 0              | 36301           |                            |                 |               |                      |

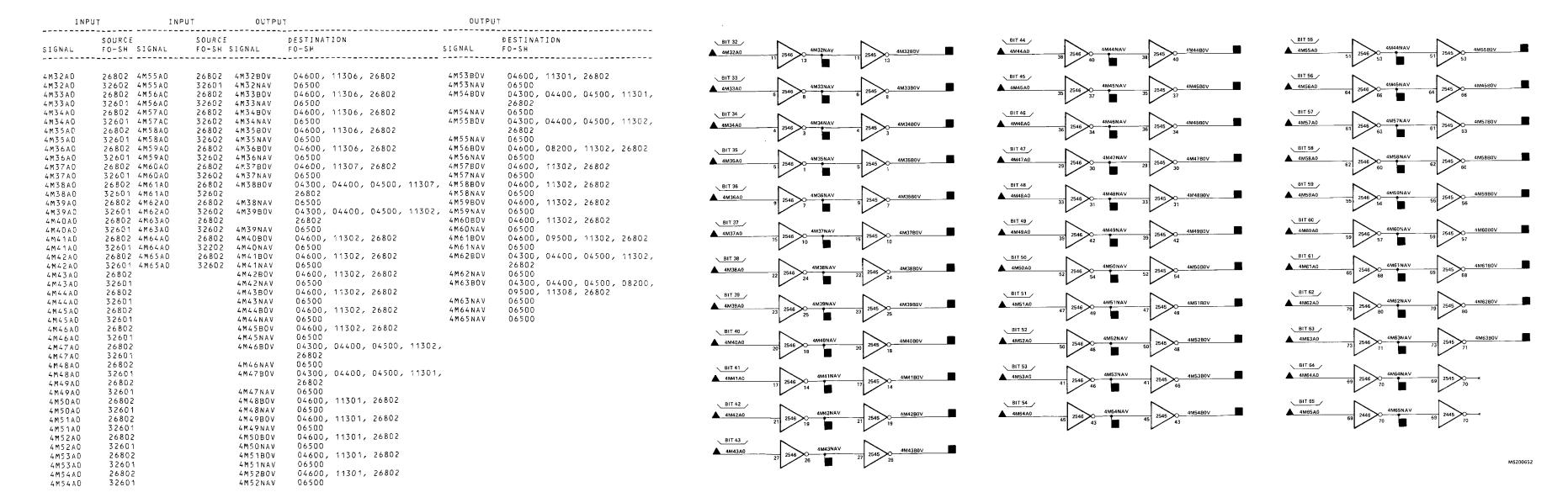


FO-64. Memory Multiplexer Data Buffer Logic Diagram (Sheet 1 of 2)

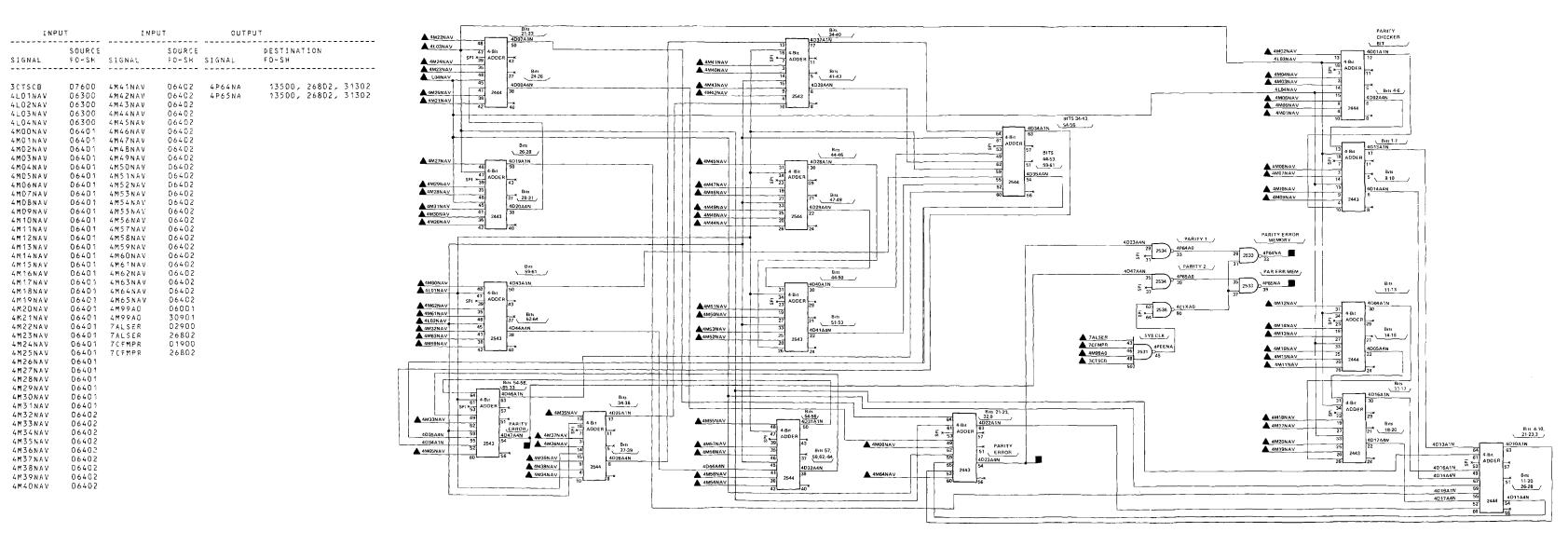
### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE
   DESIGNATIONS ARE SHOWN; FOR
   COMPLETE DESIGNATIONS,
   PREFIX WITH APPLICABLE UNIT
   NUMBER AND ASSEMBLY
   DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
     INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
     OUTPUT TO BOTH SAME AND ANO
     FIGURE
     OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT
   CATD CHIP FUNCTION
   DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND



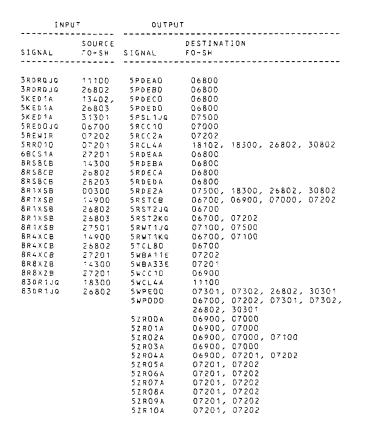
FO-64. Memory Multiplexer Data Buffer Logic Diagram (Sheet 2 of 2)

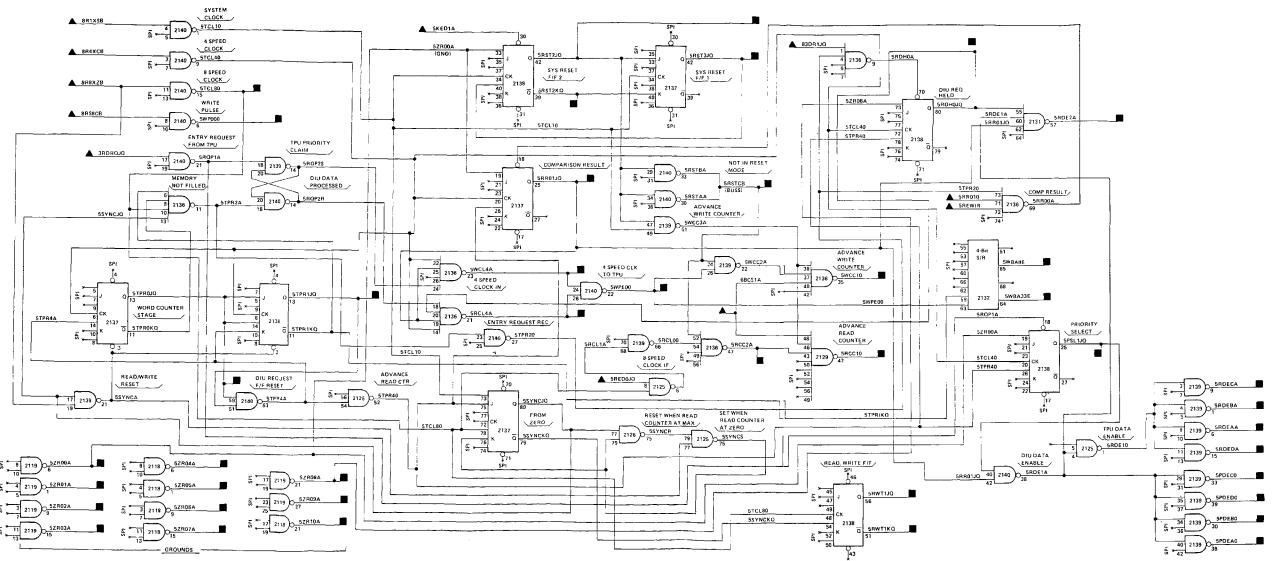


FO-65. Memory Multiplexer Parity Checker Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN: FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEM-BLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE (1A1A1A5)
- 3. REFERENCES ARE AS FOLLOWS
- ▲ INDICATES INPUT FROM ANOTHER FIGURE
- △ INDICATES INPUT FROM THE SAME FIGURE
- INDICATES OUTPUT TO ANOTHER FIGURE

- INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5:38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS.
- 11 SPIXXX INDICATES +5V PULLUP THROUGH RE-SISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

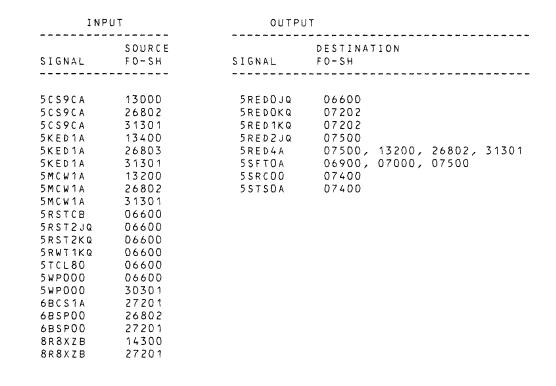


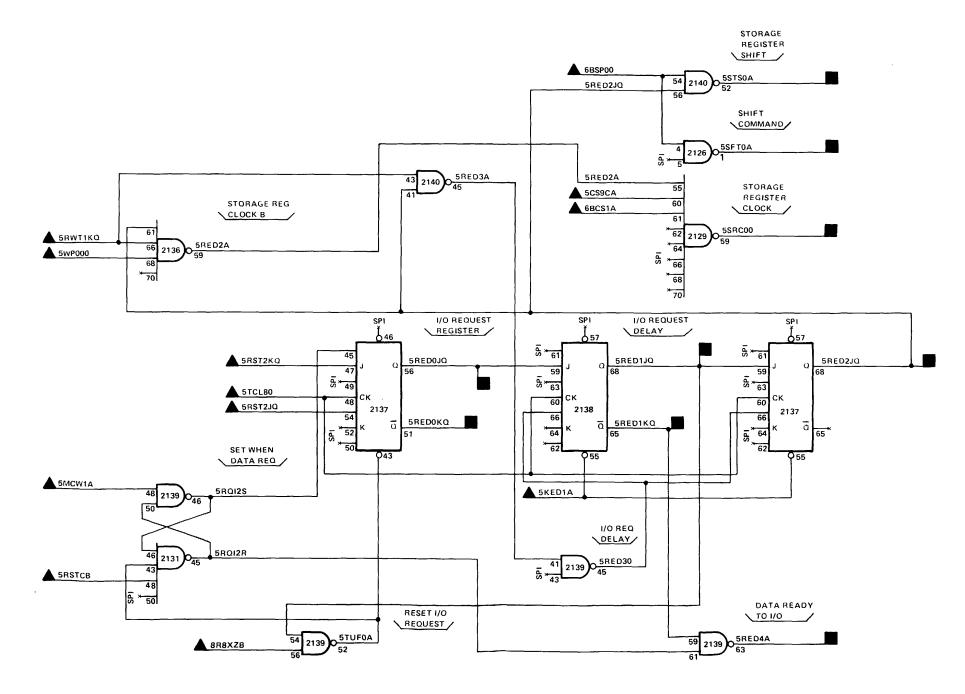


Change 1 FO-66. Report Buffer Input Control Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN, FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE (1A1A1A5).
- 3 REFERENCES ARE AS FOLLOWS
- ▲ INDICATES INPUT FROM ANOTHER FIGURE
- ↑ INDICATES INPUT FROM THE SAME FIGURE
- ☐ INDICATES OUTPUT TO THE SAME FIGURE
- ☑ INDICATES OUTPUT TO THE SAME AND
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS

- A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER
- B. REFER TO TABLE 5:37 FOR CARD PART
- C. REFER TO TABLE 5:38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS
- SPIXXX INDICATES +5V PULLUP THROUGH RE SISTOR CARDS A2130, A2230, A2330, A2430, AND A2530





FO-67. Report Buffer Output Control Logic Diagram

#### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE

    Δ INPUT FROM SAME FIGURE

    OUTPUT TO ANOTHER FIGURE

    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XI FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

   B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- C. REFER TO TABLE 5-38 FOR CARD PIN/TES POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2

▲ INDICATES INPUT FROM ANOTHER FIGURE.

 $\Delta$  indicates input from the same figure

INDICATES OUTPUT TO ANOTHER FIGURE.

☐ INDICATES OUTPUT TO THE SAME FIGURE

☑ INDICATES OUTPUT TO THE SAME AND

REFER TO TABLE 5-1 FOR CARD LOCATION IN

REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-

TION AND CIRCUIT CARD PIN NUMBER

REFER TO TABLE 5-38 FOR CARD PIN/

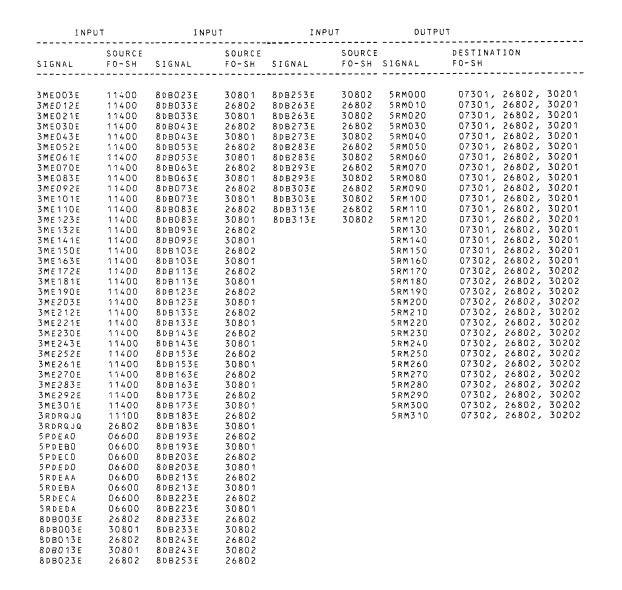
TEST POINT FOR MTS TESTABLE CARDS

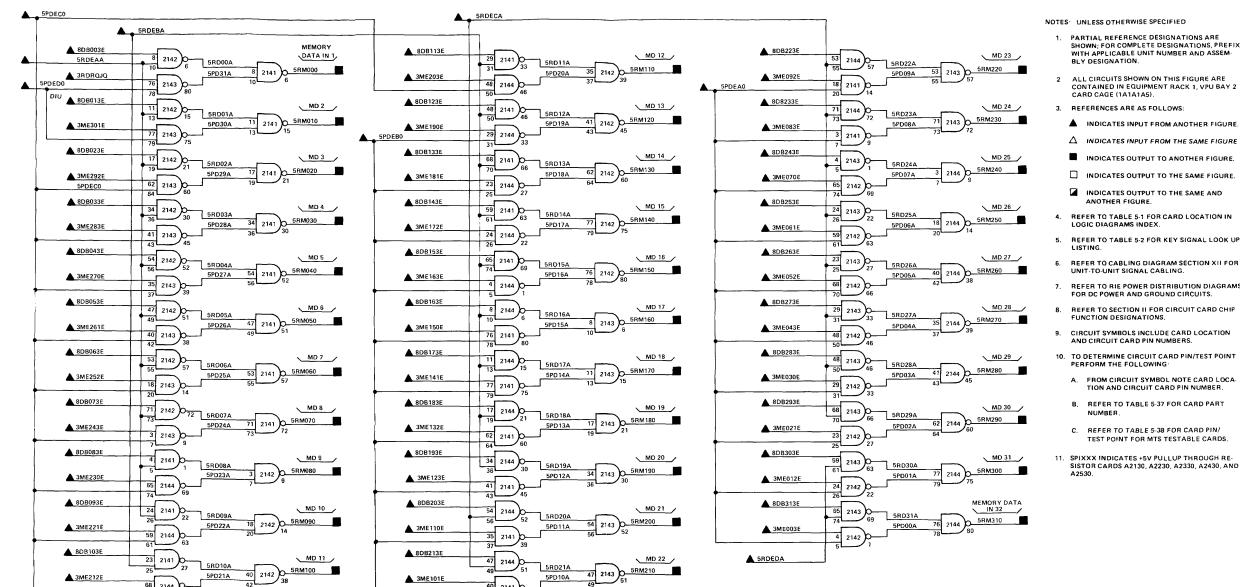
B. REFER TO TABLE 5-37 FOR CARD PART

UNIT-TO-UNIT SIGNAL CABLING.

AND CIRCUIT CARD PIN NUMBERS.

CARD CAGE (1A1A1A5).





FO-68. Report Buffer Data Multiplexer Logic Diagram

DESIGNATION.

INPUT FROM ANOTHER FIGURE

REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION B. REFER TO TABLE 5037 FOR CARD PART

C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

OUTPUT TO SAME FIGURE

TO-UNIT SIGNAL CABLING.

FUNCTION DESIGNATIONS.

CIRCUIT CARD PIN NUMBERS.

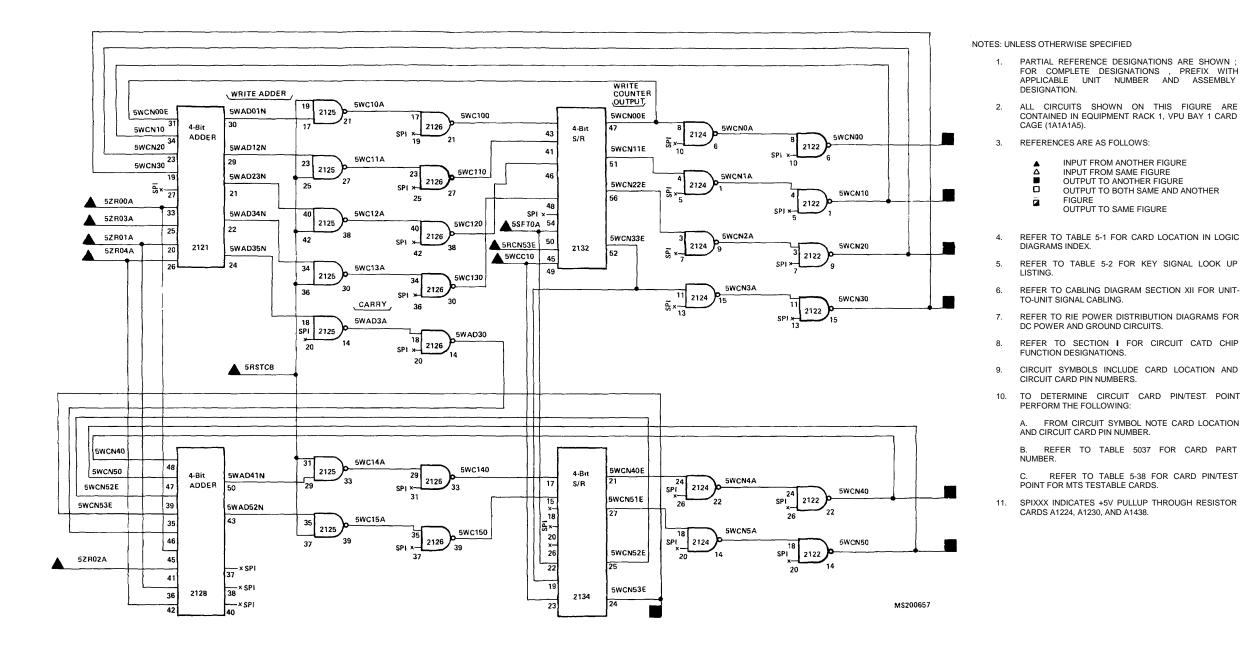
PERFORM THE FOLLOWING:

CARDS A1224, A1230, AND A1438.

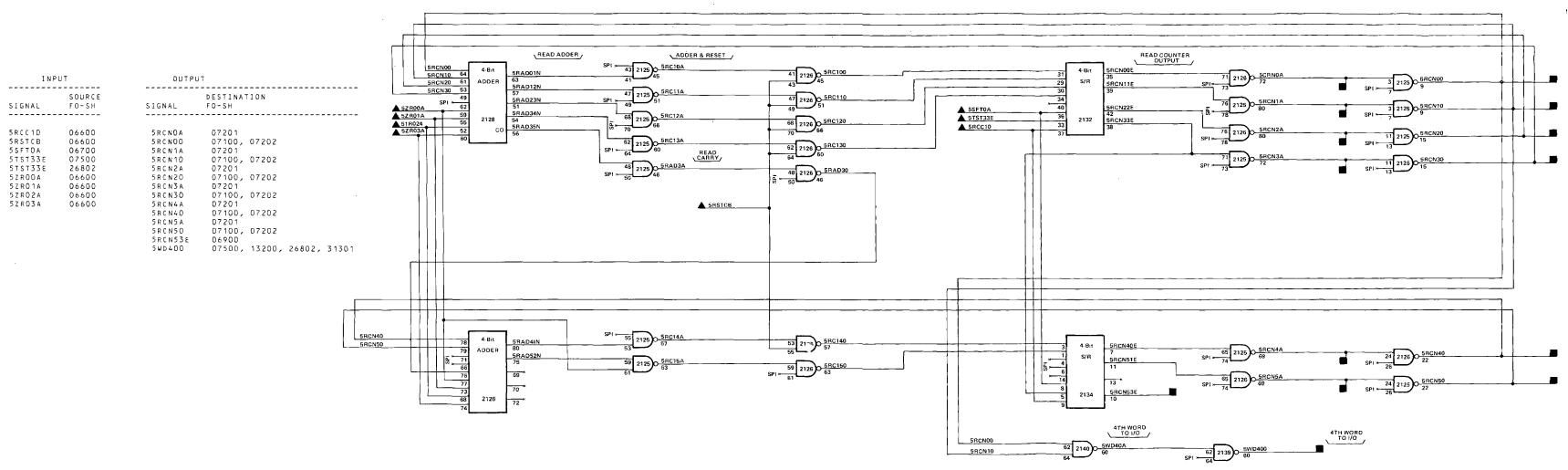
DC POWER AND GROUND CIRCUITS.

INPUT FROM SAME FIGURE
INPUT FROM SAME FIGURE
OUTPUT TO ANOTHER FIGURE
OUTPUT TO BOTH SAME AND ANOTHER

| INPUT                                                                                                                                 |                                                                      | OUTP                                                                                     | TU                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                | SOURCE<br>FO-SH                                                      | SIGNAL                                                                                   | DESTINATION<br>FO-SH                                                                                                            |
| 5 R C N 5 3 E<br>5 R S T C B<br>5 S F T O A<br>5 W C C 1 O<br>5 Z R O O A<br>5 Z R O 1 A<br>5 Z R O 2 A<br>5 Z R O 3 A<br>5 Z R O 4 A | 07000<br>06600<br>06700<br>06600<br>06600<br>06600<br>06600<br>06600 | 5 W C N O O<br>5 W C N 1 O<br>5 W C N 2 O<br>5 W C N 3 O<br>5 W C N 5 O<br>5 W C N 5 3 E | 07100, 07201, 07202<br>07100, 07201, 07202<br>07100, 07201, 07202<br>07100, 07201, 07202<br>07100, 07201, 07202<br>07100, 07201 |



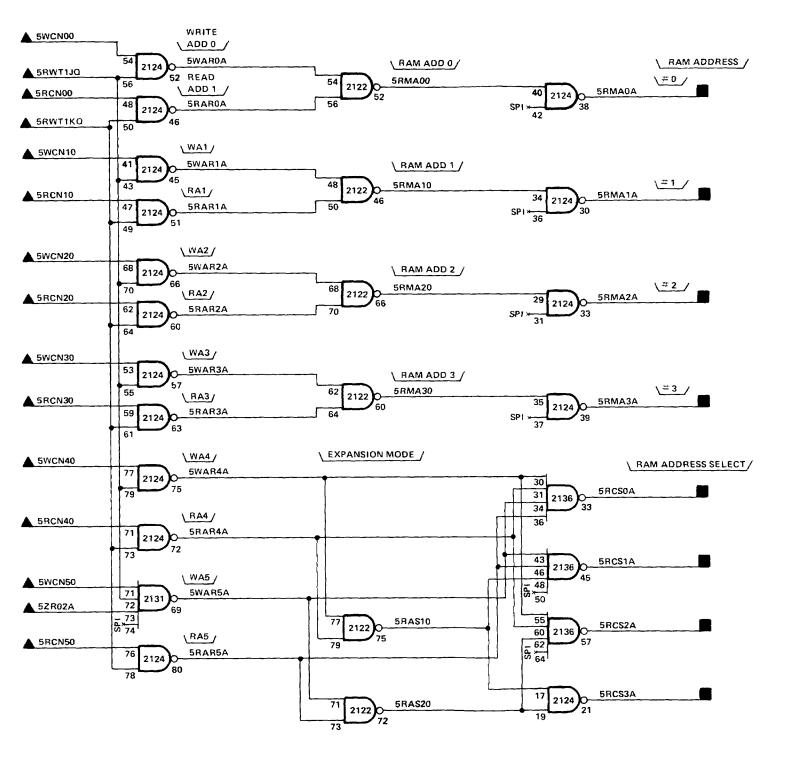
FO-69. Report Buffer Write counter Logic Diagram



FO-70. Report Buffer Read Counter Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
  - ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
  - REFERENCES ARE AS FOLLOWS:
    - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND
    - ANOTHER FIGURE
      OUTPUT TO SAME FIGURE
  - REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
  - 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
  - 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
  - REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
  - REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
  - CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
  - 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5-37 FOR CARD PART
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

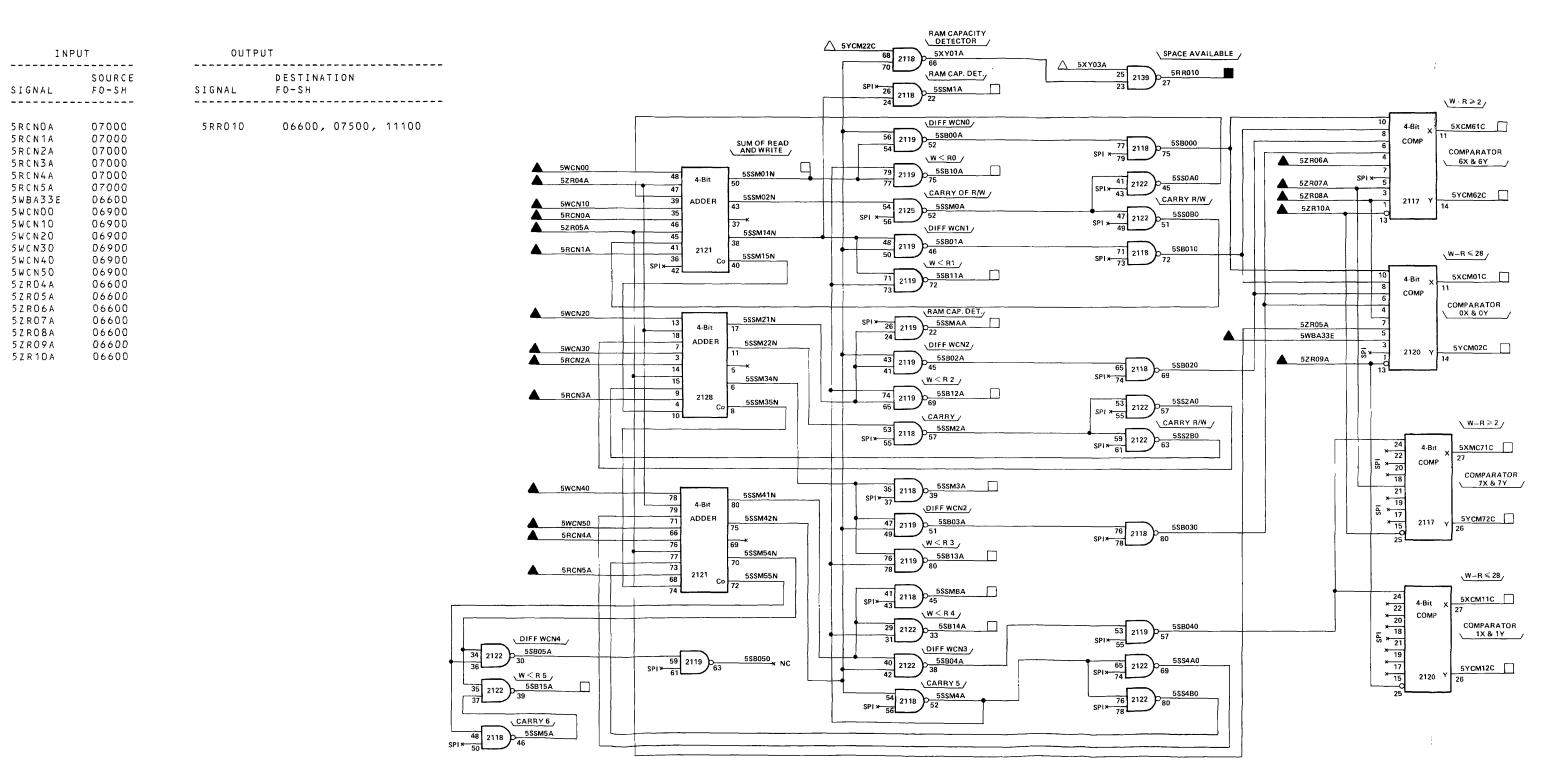
| INF                                                                     | דטי                                       | ОИТР                                                     | דט                                   |
|-------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------|--------------------------------------|
| SIGNAL                                                                  | SOURCE<br>FO-SH                           | SIGNAL                                                   | DESTINATION<br>FO~SH                 |
| 5 R C N O O<br>5 R C N 1 O<br>5 R C N 2 O<br>5 R C N 3 O<br>5 R C N 4 O | 07000<br>07000<br>07000<br>07000<br>07000 | 5 R C S O A<br>5 R C S 1 A<br>5 R C S 2 A<br>5 R C S 3 A | 07301, 07302, 07500, 26802,<br>30201 |
| 5RCN5D                                                                  | I : I I I                                 | 5 RMADA                                                  | 07301, 07302, 07500, 26802, 30201    |
| 5RWT1KQ<br>5WCNDO                                                       | 06600<br>06900                            | 5 R M A 1 A                                              | 07301, 07302, 07500, 26802, 30201    |
| 5 W C N 1 O<br>5 W C N 2 O                                              | 06900<br>06900                            | 5RMA2A                                                   | 07301, 07302, 07500, 26802,<br>30201 |
| 5 W C N 3 O<br>5 W C N 4 O<br>5 W C N 5 O<br>5 Z R O 2 A                | 06900<br>06900<br>06900<br>06600          | 5 R M A 3 A                                              | 07301, 07302, 07500, 26802,<br>30201 |



# FO-71. Report Buffer Address Multiplexer Logic Diagram

# TM 9-1430-655-20-3-4

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



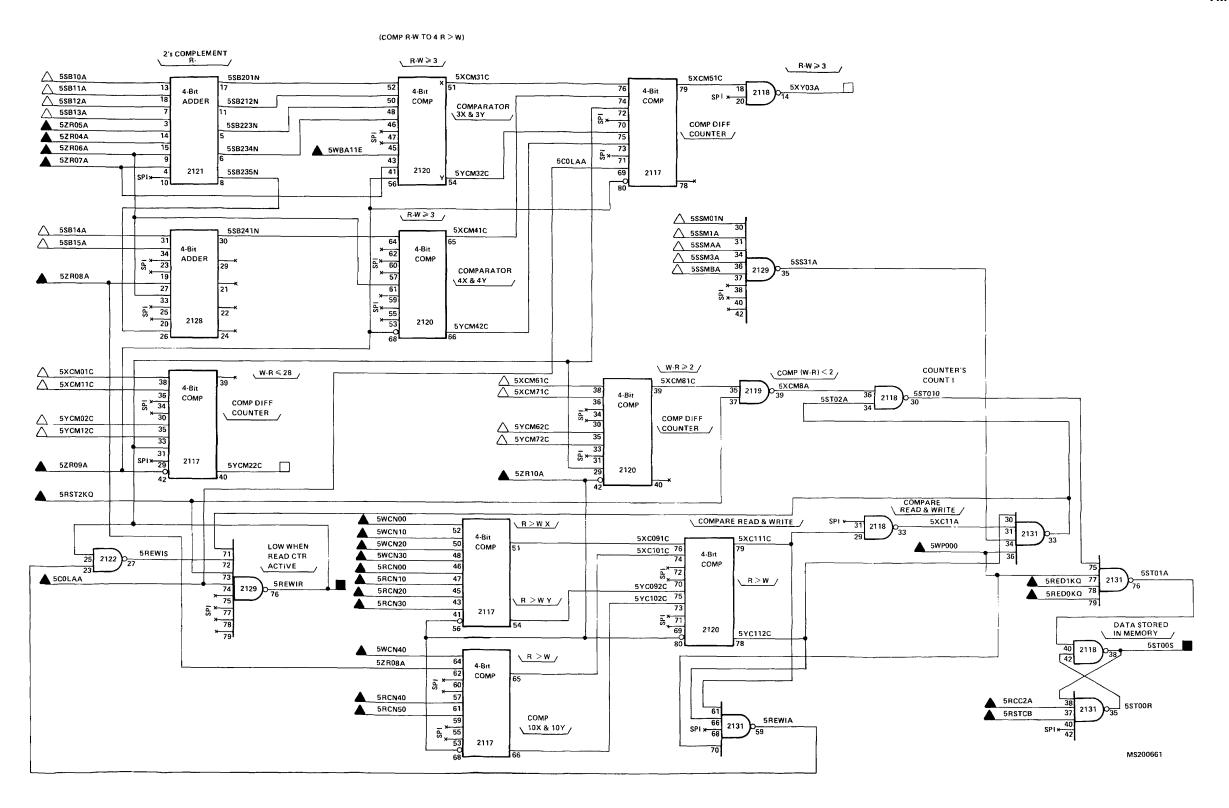
FO-72. Report Buffer Memory Evaluation Logic Diagram (Sheet 1 of 2)

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER

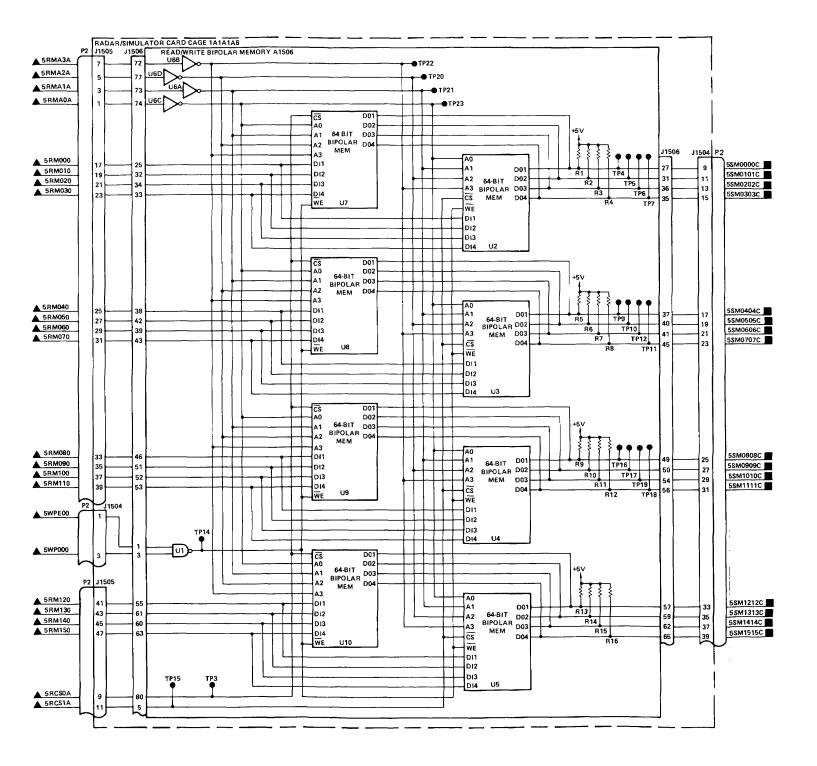
  - OUTPUT TO SAME FIGURE
  - REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR

| INPUT                                                                                                                                                                                             |                                                                                                                                                                                                                                        | ОИТРИ            | Т                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------|
| SIGNAL                                                                                                                                                                                            | SOURCE<br>FO-SH                                                                                                                                                                                                                        | SIGNAL           | DESTINATION<br>FO-SH                |
| 5 C O L A A A 5 C O L A A A 5 C O L A A A 5 C C O L A A A 5 C C C O L A A A 5 C C C O L A A A 5 C C C O L A A A 5 C C C O L A A 5 C C C O L A A A 5 C C C O L A A A A A A A A A A A A A A A A A A | 13400<br>26802<br>27001<br>06600<br>07000<br>07000<br>07000<br>07000<br>07000<br>07000<br>06700<br>06700<br>06600<br>06600<br>06900<br>06900<br>06900<br>06900<br>06900<br>06900<br>06900<br>06600<br>06600<br>06600<br>06600<br>06600 | 5REWIR<br>5STOOS | 06600<br>07500, 13200, 26802, 3130° |



FO-72. Report Buffer Memory Evaluation Logic Diagram (Sheet 2 of 2)

| INPUT       |                 | IN        | PUT             | ОИТРИТ          |                      |  |
|-------------|-----------------|-----------|-----------------|-----------------|----------------------|--|
| SIGNAL      | SOURCE<br>FO-SH | SIGNAL    | SOURCE<br>FO-SH | SIGNAL          | DESTINATION<br>FO-SH |  |
|             |                 |           |                 |                 |                      |  |
| 5 R C S O A | 07100           | 5RM120    | 06800           | 5 S M O O O O C |                      |  |
| 5 R C S O A | 30201           | 5RM120    | 30201           | 5 S M O 1 O 1 C | 07400, 30301         |  |
| 5RCS1A      | 07100           | 5RM130    | 06800           | 5 S M O 2 O 2 C | 07400, 30301         |  |
| 5RCS1A      | 30201           | 5 R M 130 | 30201           | 5 S M O 3 O 3 C | 07400, 30301         |  |
| 5 RMADA     | 07100           | 5RM140    | 06800           | 5 S M O 4 O 4 C | 07400, 30301         |  |
| 5 RMAOA     | 30201           | 5RM140    | 30201           | 5SM0505C        | 07400, 30301         |  |
| 5 RMA 1 A   | 07100           | 5RM150    | 06800           | 5SM0606C        | 07400, 30301         |  |
| 5 RMA 1 A   | 30201           | 5RM150    | 30201           | 5 S M O 7 O 7 C | 07400, 30301         |  |
| 5RMA2A      | 07100           | 5WPE00    | 06600           | 5SM0808C        | 07400, 30301         |  |
| 5 RMAZA     | 30201           | 5WPE00    | 30301           | 5 S M O 9 O 9 C | 07400, 30301         |  |
| 5RMA3A      | 07100           | 5WP000    | 06600           | 5 S M 1 O 1 O C | 07400, 30301         |  |
| 5 RMA3A     | 30201           | 5WP000    | 30301           | 5 S M 1 1 1 1 C | 07400, 30301         |  |
| 5 R M O O O | 06800           |           |                 | 5 S M 1 2 1 2 C | 07400, 30301         |  |
| 5 R M O O O | 30201           |           |                 | 5 S M 1 3 1 3 C | 07400, 30301         |  |
| 5 RMO 10    | 06800           |           |                 | 5 S M 1 4 1 4 C | 07400, 30301         |  |
| 5 R M O 1 O | 30201           |           |                 | 5SM1515C        | 07400, 30301         |  |
| 5 R M O 2 O | 06800           |           |                 |                 |                      |  |
| 5 R M O 2 O | 30201           |           |                 |                 |                      |  |
| 5 R M O 3 O | 06800           |           |                 |                 |                      |  |
| 5 R M O 3 O | 30201           |           |                 |                 |                      |  |
| 5 R M O 4 O | 06800           |           |                 |                 |                      |  |
| 5 R M O 4 O | 30201           |           |                 |                 |                      |  |
| 5 R M Ø 5 0 | 06800           |           |                 |                 |                      |  |
| 5 RM 0 5 0  | 30201           |           |                 |                 |                      |  |
| 5RM060      | 06800           |           |                 |                 |                      |  |
| 5RM060      | 30201           |           |                 |                 |                      |  |
| 5RM070      | 06800           |           |                 |                 |                      |  |
| 5 RM070     | 30201           |           |                 |                 |                      |  |
| 5 R M O 8 O | 06800           |           |                 |                 |                      |  |
| 5 RMO 80    | 30201           |           |                 |                 |                      |  |
| 5 R M O 9 O | 06800           |           |                 |                 |                      |  |
| 5RM090      | 30201           |           |                 |                 |                      |  |
| 5 RM 100    | 06800           |           |                 |                 |                      |  |
| 5 RM 100    | 30201           |           |                 |                 |                      |  |
| 5RM110      | 06800           |           |                 |                 |                      |  |
| 5RM110      | 30201           |           |                 |                 |                      |  |

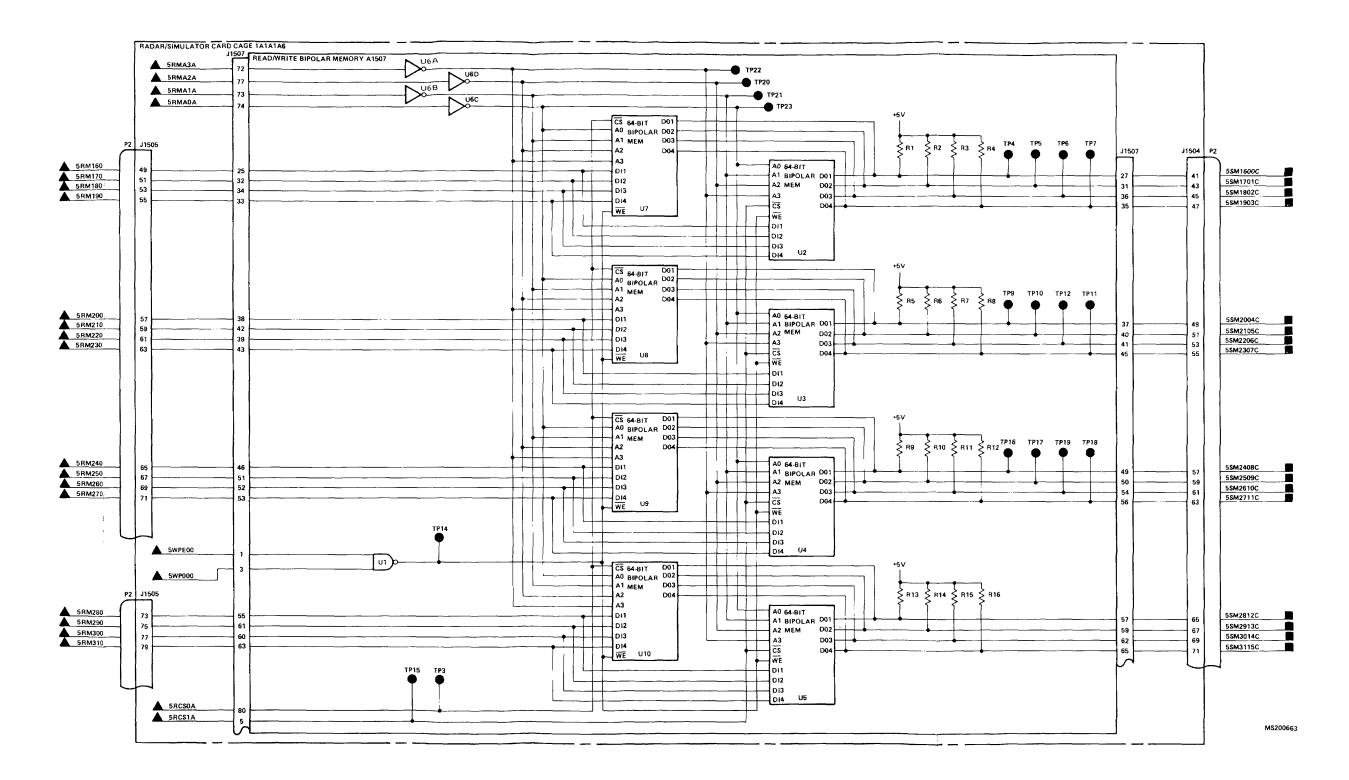


#### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
- INPUT FROM ANOTHER FIGURE
   INPUT FROM SAME FIGURE
   OUTPUT TO ANOTHER FIGURE
   OUTPUT TO BOTH SAME AND ANOTHER
   FIGURE
   OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

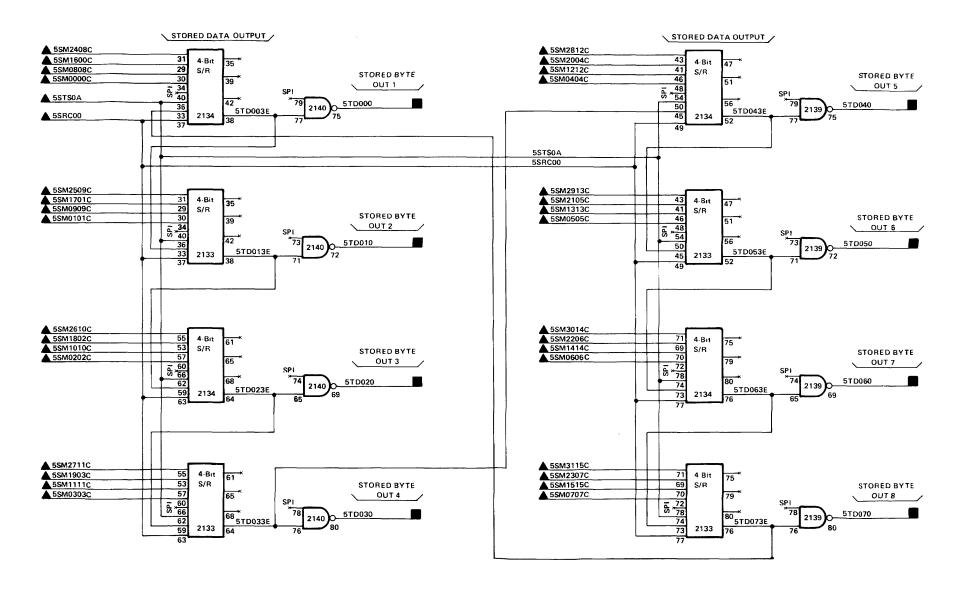
FO-73. Report Buffer Target Report RAM Logic Diagram (Sheet 1 of 2)

| INPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | JT                                                                                                                                                                                                                                                                                                                                        | IN                                                                                               | PUT                                                                           | OUTPU                                                                                                                                                                                                                                                    | Т                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                           | SIGNAL                                                                                           | SOURCE<br>FO-SH                                                               | SIGNAL                                                                                                                                                                                                                                                   | DESTINATION<br>FO-SH                                                                                                                                                                                            |
| 5 G N S 1 A<br>5 R C S 1 A<br>5 R M A O A<br>5 R M A O A<br>5 R M A O A<br>5 R M A A 2 A<br>5 R M A A 2 A<br>5 R M A A 3 A<br>5 R M A 160<br>5 R M A 1770<br>5 R M A 1770<br>5 R M A 1770<br>5 R M A 1900<br>5 R M A 2 A<br>5 R M A 160<br>5 R M 170<br>5 R M 190<br>5 R M 2 2 0 0<br>5 R M 2 2 3 0<br>5 R M 2 2 5 0<br>5 R M 2 2 5 0<br>5 R M 2 2 6 0<br>5 R M 2 7 0<br>5 R M 2 0<br>5 R | 26803<br>07100<br>30201<br>07100<br>30201<br>07100<br>30201<br>07100<br>30201<br>07100<br>30201<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202 | 5RM280<br>5RM290<br>5RM300<br>5RM300<br>5RM310<br>5RM310<br>5WPE00<br>5WPE00<br>5WP000<br>5WP000 | 30202<br>06800<br>30202<br>06800<br>30202<br>06800<br>30202<br>06600<br>30301 | 5 S M 16 O O C<br>5 S M 17 O 1 C<br>5 S M 18 O 2 C<br>5 S M 19 O 3 C<br>5 S M 20 O 4 C<br>5 S M 22 O 6 C<br>5 S M 23 O 7 C<br>5 S M 24 O 8 C<br>5 S M 25 O 9 C<br>5 S M 26 1 O C<br>5 S M 27 1 1 C<br>5 S M 29 1 3 C<br>5 S M 30 1 4 C<br>5 S M 31 1 5 C | 07400, 30301 07400, 30301 07400, 30301 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 07400, 30302 |



FO-73. Report Buffer Target Report RAM Logic Diagram (Sheet 2 of 2)

| INF                                       | דטי             | OUTP    | τυ                   |
|-------------------------------------------|-----------------|---------|----------------------|
| SIGNAL                                    | SOURCE<br>FO-SH | SIGNAL  | DESTINATION<br>FO-SH |
|                                           |                 |         |                      |
| SPSLIJQ                                   | 06600           | 5TST33E | 05400, 07000, 26802  |
| 5RCSOA                                    | 70700           |         |                      |
| 5RCS1A                                    |                 |         |                      |
|                                           |                 |         |                      |
| 5 R C S 1 A                               | 7020 i          |         |                      |
| 5RCS2A<br>5RCS3A                          | 07100           |         |                      |
| 5RDE2A                                    | 07.700          |         |                      |
| 5RDE2A                                    |                 |         |                      |
|                                           | 28602           |         |                      |
| 5RF02.10                                  | 06700           |         |                      |
| 5RED2JQ<br>5RED4A                         | 06700           |         |                      |
| 5RED4A                                    | 26803           |         |                      |
| 5RED4A                                    |                 |         |                      |
| 5 RMAOA                                   |                 |         |                      |
| 5 RMADA                                   | 30201           |         |                      |
| 5RMAOA<br>5RMA1A                          | 07100           |         |                      |
| 5RMA1A                                    | 30201           |         |                      |
| 5RMA2A                                    |                 |         |                      |
| 5RMA2A                                    | 30201           |         |                      |
| 5RMA3A<br>5RMA3A                          | 07100           |         |                      |
| 5RMA3A                                    | 30201           |         |                      |
| 5 R R O 1 O                               | 07201           |         |                      |
| 5RWT1JQ                                   | 06600           |         |                      |
| 5 S F T O A                               | 06700           |         |                      |
| 5 S F T O A<br>5 S T O O S<br>5 S T O O S | 07202           |         |                      |
| 5 S T O O S                               | 26803           |         |                      |
|                                           | 28101           |         |                      |
| 5WCN53E                                   |                 |         |                      |
| 5 W D 4 O O                               | 07000<br>26803  |         |                      |
| 5 W D 4 O O                               | 26803<br>28101  |         |                      |
|                                           |                 |         |                      |
| 6BCP1A                                    | 26802           |         |                      |
| 6BCP1A                                    | 27201           |         |                      |
| 6BCS1A                                    | 27201           |         |                      |



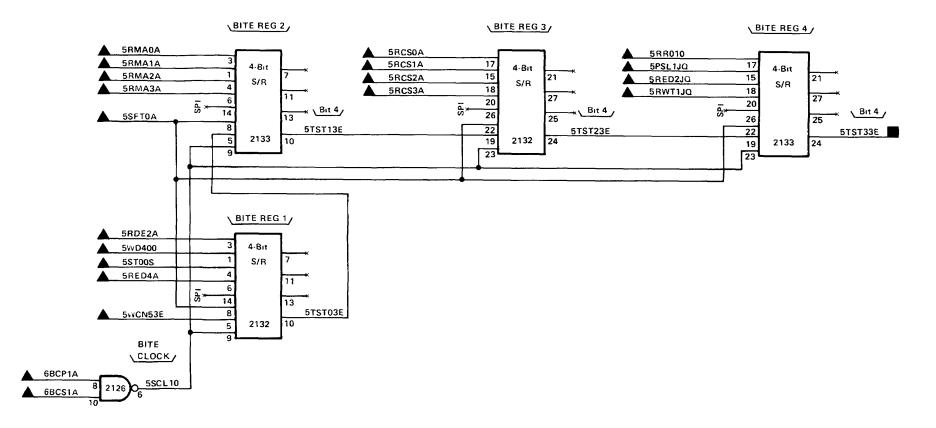
FO-74. Report Buffer Stored Data Output Register Logic diagram

#### NOTES: UNLESS OTHERWISE SPECIFIED

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS ARE SHOWN, FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP                          | UT              | OUTPL                      | ΤL               |         |           |           |
|------------------------------|-----------------|----------------------------|------------------|---------|-----------|-----------|
| SIGNAL                       | SOURCE<br>FO-SH | SIGNAL                     | DESTINAT         | rion    |           |           |
| 3M1380V                      |                 | 3 A X C 1 J Q              |                  |         |           |           |
| 3MI381E                      | 11600           | 3 A X C 1 K Q              | 07900,           | 08100   |           |           |
| 3QB06AV<br>3TA092E<br>3TC170 | 07701           |                            | 07900            |         |           |           |
| 3TA092E                      | 12000           | 3 A X C 3 O                | 12200,           | 12300   |           |           |
|                              |                 | 3 C T C T J Q              | 07800            |         |           |           |
| 3TFASA                       |                 | 3 C T C 3 B                | 07800,           |         |           | 10700,    |
| 3TFASQV                      | 07900           | 700040                     |                  | 11100,  | 11700     |           |
| ADADA                        | 17200<br>26802  | 3 C T P 1 O                | 12500            |         |           |           |
| ADADA<br>ADADA               | 28500           | 3 C T P 3 O<br>3 C T P 4 O | 12500            | 44500   |           |           |
|                              |                 | 3CTP50                     |                  |         |           |           |
| 8RC120                       | 14600<br>26803  | 3 C T S C B                |                  | 07701,  | ስንዩስስ     | 0.8.200   |
| 8RC120                       | 26803<br>27501  | 261260                     |                  | 08400   |           |           |
| 8RRZSB                       | 14600           |                            |                  | 09500,  | -         | •         |
|                              | 26803           |                            | •                | 11200,  |           |           |
| 8RRZSB                       | 27502           |                            | 12200            | , , , , | , ,,,,,,, | 1,,,,,,,, |
| 8R1XSB                       | 00300           | 3CTT10                     | 10500            |         |           |           |
| 8R1XSB                       | 14900           | 3CTT2A                     | 08400,           | 11800   |           |           |
| 8R1XSB                       | 26802           | 3CTT20E                    |                  |         |           |           |
| 8R1XSB                       | 26803           | 3CTT3A                     |                  |         |           |           |
| 8R1XSB<br>8R8XZB             | 27501           | 3CTT31E                    | 09600,           | 11000   |           |           |
| 8R8XZB                       | 14300           | 3 C T T 4 A                | 09600,<br>11700, | 11800   |           |           |
| 8R8XZB                       | 27201           | 3CTT42E                    |                  | 10500,  | 10700,    | 11900     |
|                              |                 | 3CTT53E                    | 08900            |         |           |           |
|                              |                 | 3CTT6A                     | 11000            |         |           |           |
|                              |                 | 307760E                    | 10500,           | 11000,  |           |           |
|                              |                 | 3011716                    | 00900,           | 11100,  |           |           |
|                              |                 | 3CTT82E                    | 11700            | 08000,  | 08100,    | 10700,    |
|                              |                 | 3 F A E O O V              | 09200,           | 26802   |           |           |
|                              |                 | 3 F A E 10 V               | 09200,           |         |           |           |
|                              |                 | 3 F A E 2 O V              | 09200,           |         |           |           |
|                              |                 | 3 F A E 3 O V              | 09200,           |         |           |           |
|                              |                 | 3 F A E 4 O V              | 09200,           |         |           |           |
|                              |                 | 3 F A E 5 O V              | 09200,           | 26802   |           |           |

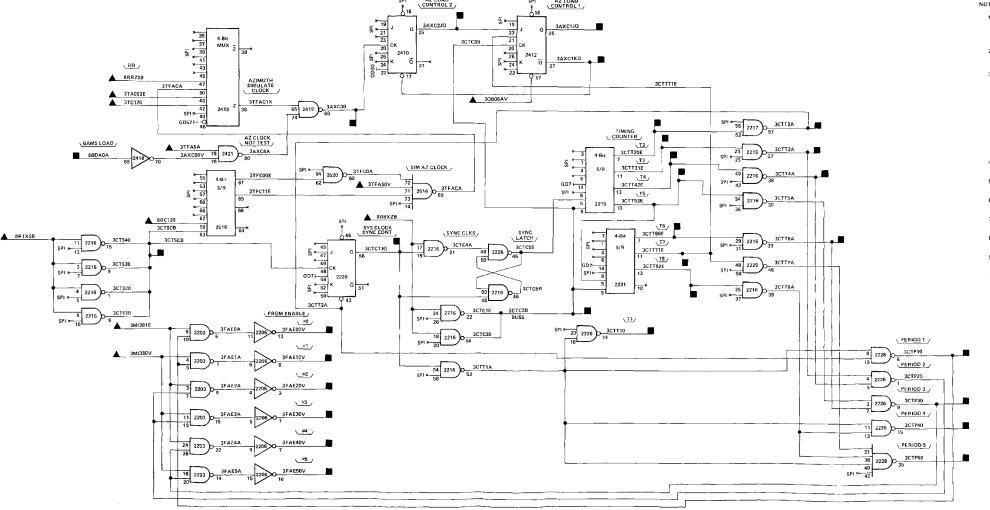


FO-75. Report Buffer BITE Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INPUT            |                 | OUTPL                          | OUTPUT                    |        |        |        |
|------------------|-----------------|--------------------------------|---------------------------|--------|--------|--------|
| SIGNAL           | SOURCE<br>FO-SH | SIGNAL                         | DESTINA<br>FO-SH          |        |        |        |
|                  |                 |                                |                           |        |        |        |
|                  |                 | 3 C C R R O V<br>3 Q B O O J Q |                           |        | 09700, | 11700  |
|                  |                 | 3 Q B O O K Q<br>3 Q B O 1 J Q |                           |        |        |        |
| 3MAOVA           | 11900           | 3@801K@                        | 08400                     |        |        |        |
|                  |                 | 3QB04AV<br>3QB04R              |                           |        |        |        |
| 3MZ622X          | 11308           | 3QB04S                         | 07800,                    | 08200, | 10700  |        |
| 3QE02A           | 08400           | 3QB06AV<br>3QB07AV             | 08400,                    | 09500  |        |        |
|                  |                 | 3QB08AV<br>3QB09AV             |                           |        |        |        |
| 5KED1A           | 26803           | 3QB10AV                        | 09500,                    | 11100, | 11900  | 44000  |
| 610G2A<br>610G2A | 05500           | 3QB11AV<br>3QB12AV             | 08500,<br>08502,<br>11700 | 08900, | 09000, | 09700, |
| 8RRZSB           | 14600           | 3QB13A<br>3QB14AV              | 08100,                    | 09400, |        | 11700  |
| 8RRZSB           | 27502           | 3 Q E O O A                    | 13101,                    | 26802, | 31301  |        |



FO-76. TPU Azimuth Load Control Timing Counter Logic diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
  - 3. REFERENCES ARE AS FOLLOWS:
    - INPUT FROM ANOTHER FIGURE

    - INPUT FROM SAME FIGURE
      OUTPUT TO ANOTHER FIGURE
      OUTPUT TO BOTH SAME AND ANOTHER
    - FIGURE
      OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INPUT                                                                                                                                                              | OUTPUT                                                                                                            | SPI 771 771 771 771 771 771 771 771 771 77                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| SOURCE<br>SIGNAL FO-SH                                                                                                                                             | DESTINATION<br>SIGNAL FO-SH                                                                                       | ▲ 3MZ672X 72 2240 0 3CCRFA 68 74                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |
| 3AMD4A 08100<br>3AMD40V 08100<br>3CMD1JQ 08200<br>3CTCTJQ 07600<br>3CTC3B 07600<br>3CTSCB 07600<br>3CTT82E 07600<br>3CTT82E 07600<br>3QB04S 07701<br>3QB14AV 07701 | 3APCKO 08000<br>3ARB20 08700, 09800<br>3ARC30 08100<br>3ARC40 09900, 10100<br>3ARC7S 09700, 09800<br>3ARC9A 08200 | 3MZ631X  47 2222) 51  3CCRE0  77 2227) 3CCRAA 75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 、MASTER CLEAR FANOUT ,                      |
| 3ac075 08400<br>3ac2534 08502<br>3ac2530 08200<br>3ac2412E 08502<br>3TZM1TB 08500<br>8PRZSB 14600<br>8RRZSB 26803<br>8RRZSB 27502                                  |                                                                                                                   | 41 2236 46 79  TARGET LOSS TO 1/O  VIO REQUEST  A 30E02A  A 30E02A  A 30E02A  A 4 8 11  A 30E02A  A 30E02A  A 30E00A  A 50E00A  SPI 41 2237  A 30E00A  SPI 42 2237  A 30E00A  SPI 43 2237  A 30E00A  SPI 43 2237  A 30E00A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 23 2236 25 30806AV 25 18                    |
|                                                                                                                                                                    |                                                                                                                   | 43 Sold (6) (6) (5) (5) (5) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 17 2236 3QB09AV 2236 3QB09AV                |
|                                                                                                                                                                    |                                                                                                                   | \$\int \text{SIDG2A}\$ \$\int \text{SKED1A}\$ \$\int \text{SKED1A}\$ \$\int \text{SYNC CONTROL}\$ \$\int \text{SYNC CONTROL}\$ \$\int \text{30} \text{30800KO} \\ \$\int \text{30} \\ \$\int 30                                                                                 | 21 19 68 2237) 30813A 66 27 2236 30810AV 26 |
|                                                                                                                                                                    |                                                                                                                   | \$\int \text{6IOG2A1}\$ \$\int \text{8IRIZ5B}\$ \$\int \text{8RRIZ5B}\$ | 38 2236 40 30B11AV                          |
|                                                                                                                                                                    |                                                                                                                   | 3080140 37 233) 380 180 47 49 49 49 49 49 49 49 49 49 49 49 49 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 39 2236 30B12AV<br>42 2236 78               |

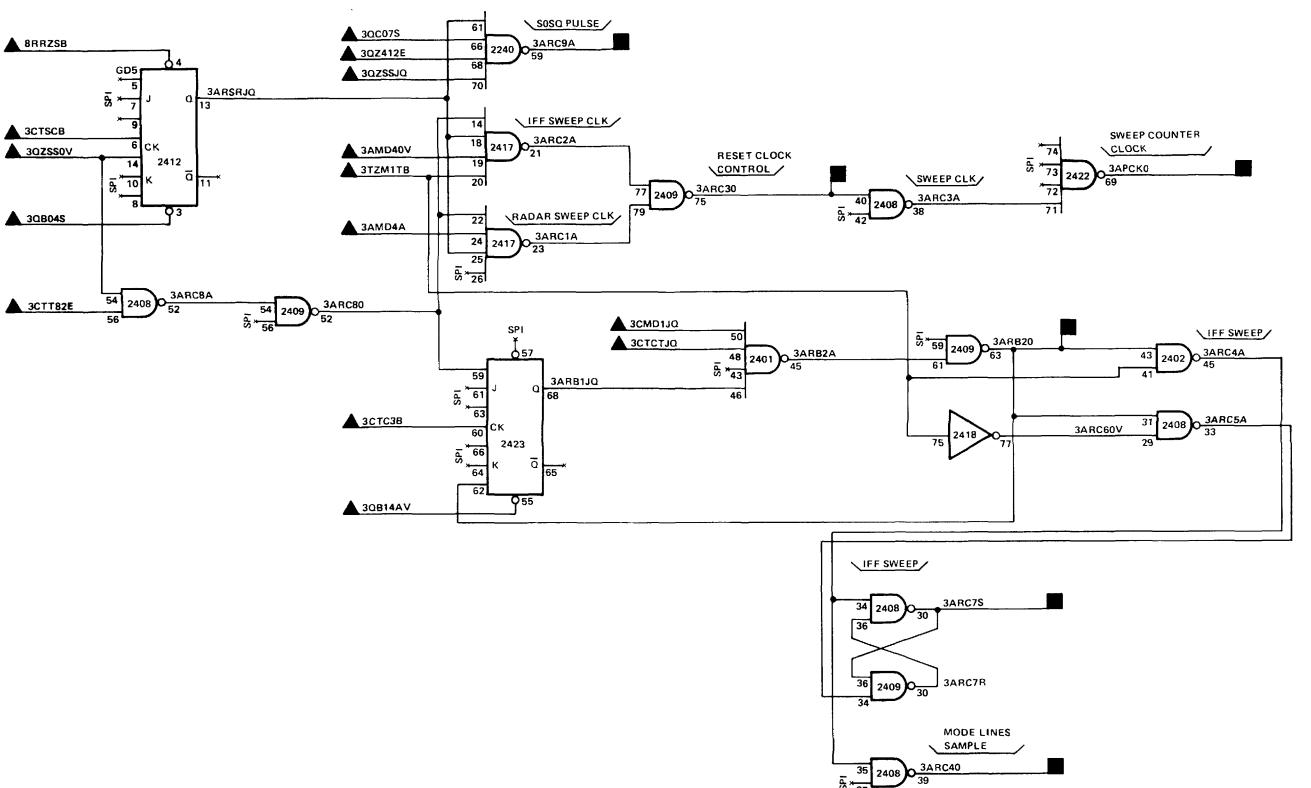
FO-77. TPU Master Clear Ground sources and Target Loss Logic Diagram (Sheet 1 of 2)

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE
     INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
     OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INPUT                                                                    |                                           | INP                                                                                         |                                           | 0UTP                                 | UT                                                                                       | SPI 2508 3GD00AV | SP1 2508 0 3GD 10AV | SPJ 2508 3GD20AV  | SPI 2508 3GD30AV        | SPI 2507 3GD40AV      | SPI 2507 3GD51AV   |
|--------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------|------------------|---------------------|-------------------|-------------------------|-----------------------|--------------------|
|                                                                          | SOURCE<br>FC-SH                           | SIGNAL                                                                                      | SOURCE<br>FO-SH                           | SIGNAL                               | DESTINATION<br>FO-SH                                                                     |                  | 19                  | 30/ 48            | 80                      | 14                    | 48                 |
| 5 S M O O O O C<br>5 S M O O O O C                                       | 07301<br>26802                            | 5 S M 1 5 1 5 C<br>5 S M 1 5 1 5 C                                                          | 26802<br>30301                            | 5TD000<br>5TD010                     | 13700, 26802, 31301<br>13800, 26802, 31301                                               | 6 2508 8 3GD01AV | 2508 3GD11AV<br>26  | 2508 3GD21AV      | 2507 3GD31AV            | 2507 3GD41AV          | 2507 3G D52AV      |
| 5 S M O 1 O 1 C<br>5 S M O 1 O 1 C                                       | 30301<br>07301<br>26802<br>30301          | 5SM1600C<br>5SM1600C<br>5SM1600C<br>5SM1701C                                                | 07302<br>26802<br>30301<br>07302          | 5TD020<br>5TD030<br>5TD040<br>5TD050 | 13700, 26802, 31301<br>13700, 26802, 31301<br>13700, 26802, 31301<br>13700, 26802, 31301 | 4 2508 3 3GD02AV | 38 2508 40 3GD12AV  | 45 2508 0 3GD22AV | 6 2507 8 3GD32AV        | 2507 3GD42AV<br>26    | 2507 3GD53AV       |
| 5 SM0 20 2 C<br>5 SM0 20 2 C<br>5 SM0 20 2 C<br>5 SM0 30 3 C             | 07301<br>26802<br>30301<br>07301          | 5 S M 1 7 0 1 C<br>5 S M 1 7 0 1 C<br>5 S M 1 8 0 2 C<br>5 S M 1 8 0 2 C                    | 26802<br>30301<br>07302<br>26802          | 5 T D O 6 O<br>5 T D O 7 O           | 13700, 26802, 31301<br>13700, 26802, 31301                                               | 5 2508 3GD03AV   | 2508 3GD13AV<br>37  | 51 2508 3GD23AV   | 2507 3 3GD33AV          | 38 2507 3GD43AV       | 2507 3GD54AV<br>51 |
| 5 S M O 3 O 3 C<br>5 S M O 4 O 4 C<br>5 S M O 4 O 4 C                    | 26802<br>30301<br>07301<br>26802<br>30301 | 5 S M 1 8 0 2 C<br>5 S M 1 9 0 3 C<br>5 S M 1 9 0 3 C<br>5 S M 1 9 0 3 C<br>5 S M 2 0 0 4 C | 30301<br>07302<br>26802<br>30301<br>07302 |                                      |                                                                                          | 9 2508 7 3GD04AV | 36 2508 3GD14AV     | 2508 3GD24AV      | 5 2507 3GD34AV          | 2507 3GD44AV          | 2507 3GD55AV       |
| 5 S M O 5 O 5 C<br>5 S M O 5 O 5 C<br>5 S M O 5 O 5 C<br>5 S M O 6 O 6 C | 07301<br>26802<br>30301<br>07301          | 5 \$ M 2 O O 4 C<br>5 \$ M 2 O O 4 C<br>5 \$ M 2 O O 5 C<br>5 \$ M 2 O 5 C                  | 26802<br>30302<br>07302<br>26802          |                                      |                                                                                          | 15 2508 3GD05AV  | 2508 3GD15AV        | 61 2508 3GD25AV   | 9 2507 3GD35AV          | 36 2507 3GD45AV       | 61 63 3GD56AV      |
| 5 S M O 6 O 6 C<br>5 S M O 7 O 7 C<br>5 S M O 7 O 7 C                    | 26802<br>30301<br>07301<br>26802<br>30301 | 5 SM 2 1 0 5 C<br>5 SM 2 2 0 6 C<br>5 SM 2 2 0 6 C<br>5 SM 2 2 0 6 C<br>5 SM 2 3 0 7 C      | 30302<br>07302<br>26802<br>30302<br>07302 |                                      |                                                                                          | 2508 3GD06AV     | 33 2508 3GD16AV     | 2508 3GD26AV      | 15 2507 3GD36AV         | 29 2507 3GD46AV       | 73 2508 3GD57AV    |
| 5 S M O 8 O 8 C<br>5 S M O 8 O 8 C<br>5 S M O 9 O 9 C                    | 07301<br>26802<br>30301<br>07301<br>26802 | 5 S M 2 3 0 7 C<br>5 S M 2 3 0 7 C<br>5 S M 2 4 0 8 C<br>5 S M 2 4 0 8 C<br>5 S M 2 4 0 8 C | 26802<br>30302<br>07302<br>26802<br>30302 |                                      |                                                                                          | 2508 25 3GD07AV  | 39 2508 3GD17AV     | 2508 3GD27AV      | 22 2507 3GD37AV         | 33 35D47AV            | 2507 3GD58AV<br>57 |
| 5 S M 1 O 1 O C<br>5 S M 1 O 1 O C<br>5 S M 1 O 1 O C                    | 30301<br>07301<br>26802<br>30301<br>07301 | 5 S M 2 5 0 9 C<br>5 S M 2 5 0 9 C<br>5 S M 2 5 0 9 C<br>5 S M 2 6 1 0 C<br>5 S M 2 6 1 0 C | 07302<br>26802<br>30302<br>07302<br>26802 |                                      |                                                                                          | 2508 3GD08AV     | 2508 3GD18AV<br>54  | 2508 3GD28AV      | 23 2507 <b>3</b> GD38AV | 39 2507 3GD48AV       | 2507 3GD59AV<br>68 |
| 5 S M 1 1 1 1 C<br>5 S M 1 1 1 1 C<br>5 S M 1 2 1 2 C<br>5 S M 1 2 1 2 C | 26802<br>30301<br>07301<br>26802          | 5 S M 2 6 1 0 C<br>5 S M 2 7 1 1 C<br>5 S M 2 7 1 1 C<br>5 S M 2 7 1 1 C                    | 30302<br>07302<br>26802<br>30302          |                                      |                                                                                          | 2508 3GD09AV     | 47 2508 3GD19AV     | 65 2508 3GD29AV   | 2507 3GD39AV            | 2507 3GD49AV          | 79 2507 3GD60AV    |
| 5 S M 1 3 1 3 C<br>5 S M 1 3 1 3 C<br>5 S M 1 3 1 3 C                    | 30301<br>07301<br>26802<br>30301<br>07301 | 5 S M 2 8 1 2 C<br>5 S M 2 8 1 2 C<br>5 S M 2 8 1 2 C<br>5 S M 2 9 1 3 C<br>5 S M 2 9 1 3 C | 07302<br>26802<br>30302<br>07302<br>26802 |                                      |                                                                                          |                  | ·                   |                   |                         | 2507<br>49<br>3GD50AV | 76 2507 3GD61AV    |
| 5 S M 1 4 1 4 C<br>5 S M 1 4 1 4 C<br>5 S M 1 5 1 5 C                    | 26802<br>30301                            | 5 SM29 13 C<br>5 SM30 14 C<br>5 SM30 14 C<br>5 SM30 14 C                                    | 30302<br>07302<br>26802<br>30302          |                                      |                                                                                          |                  |                     |                   |                         |                       | 75 3GD62AV         |
|                                                                          |                                           | 5 S M 3 1 1 5 C<br>5 S M 3 1 1 5 C<br>5 S M 3 1 1 5 C<br>5 S R C O O<br>5 S T S O A         | 07302<br>26802                            |                                      |                                                                                          |                  |                     |                   |                         |                       | // MS200668        |

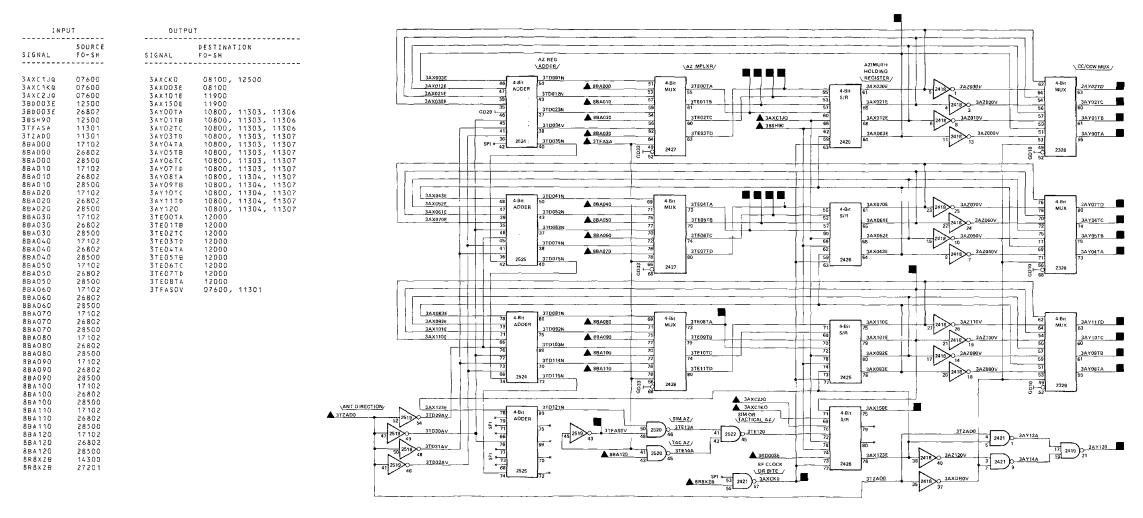
FO-77. TPU Master Clear Ground Sources and Target Loss Logic Diagram (Sheet 2 of 2)



FO-78. TPU Sweep/Sample Clocks Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-79. TPU Azimuth Holding Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY
  DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
  - △ INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
   REFER TO SECTION II FOR CIRCUIT CATD CHIP
- FUNCTION DESIGNATIONS.

  9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- CIRCUIT CARD PIN NUMBERS.

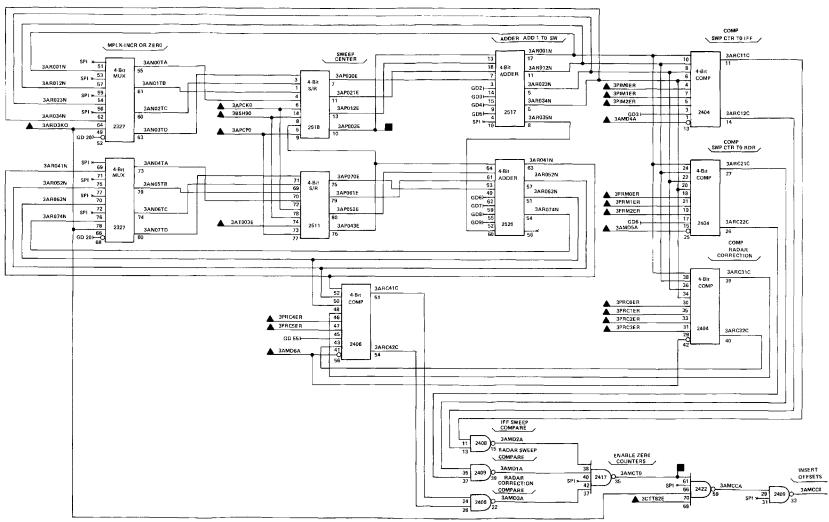
  10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING:

  A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- AND CIRCUIT CARD PIN NUMBER.

  B. REFER TO TABLE 5037 FOR CARD PART
- NUMBER.

  C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

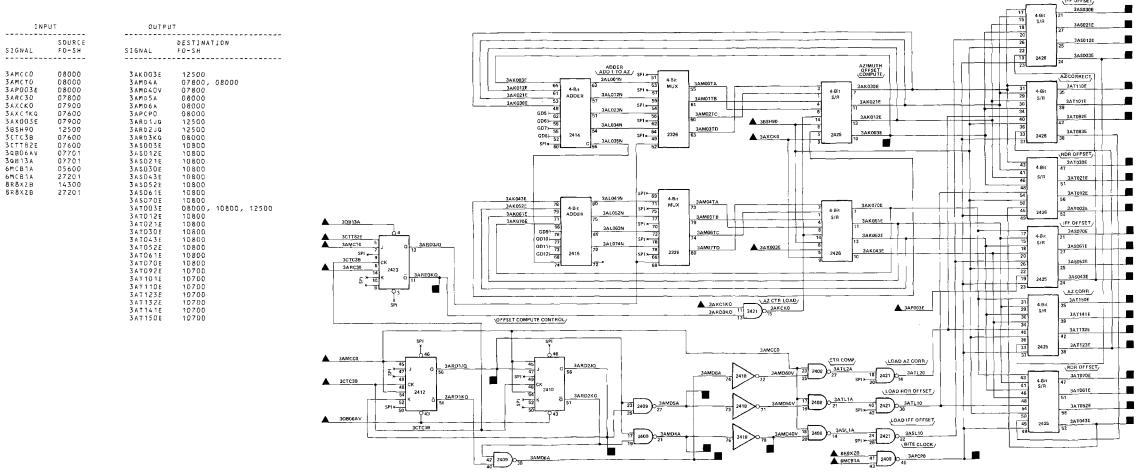
| INP         | UT              | OUTP        | JŤ.                 |
|-------------|-----------------|-------------|---------------------|
| SIGNAL      | SOURCE<br>FO-SH | SIGNAL      | DESTINATIO<br>FO-SH |
|             |                 |             |                     |
| 3 A M D 4 A | 08100           | 3 AMC C O   | 08100               |
| 3AMD5A      | 08100           | 3 A M C T O | 08100               |
| 3AMD6A      | 08100           | 3AP003E     | 08100               |
| 3 A P C K D | 07800           |             |                     |
| 3APCP0      | 08100           |             |                     |
| 3ARD3KQ     | 08100           |             |                     |
| 3AT003E     | 08100           |             |                     |
| 3BSH90      | 12500           |             |                     |
| 3CTT82E     | 07600           |             |                     |
| 3PIMOER     | 12000           |             |                     |
| 3PIM1ER     | 12000           |             |                     |
| 3PIM2ER     | 12000           |             |                     |
| 3PRCOER     | 12100           |             |                     |
| 3PRC1ER     | 12100           |             |                     |
| 3PRC2ER     | 12100           |             |                     |
| 3PRC3ER     | 12100           |             |                     |
| 3PRC4ER     |                 |             |                     |
| 3PRC5ER     | 12100           |             |                     |
| 3PRMOER     |                 |             |                     |
| 3PRM1ER     |                 |             |                     |
| 3PRM2ER     | 12000           |             |                     |



FO-80. TPU IFF/Radar Sweep Compare and Correction Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



3AMCCO 3AMCTO 3APOO3E 3ARC3O 3AXCKO 3AXC1KQ 3AXOO3E

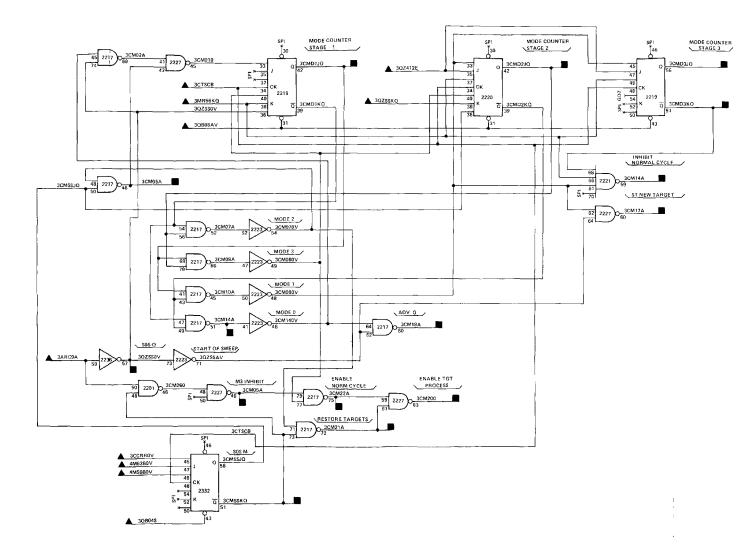
38SH90 3CTC3B 3CTC3B 3CTC3B 3CTC3B 3CTC82 3QB06AV 3QB13A 6MCB1A 6MCB1A 8R8XZB 8R8XZB

FO-81. TPU IFF/Radar Offset and Correction Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
    - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- CIRCUIT CARD PIN NUMBERS. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING: FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- AND CIRCUIT CARD PIN NUMBER. B. REFER TO TABLE 5037 FOR CARD PART
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

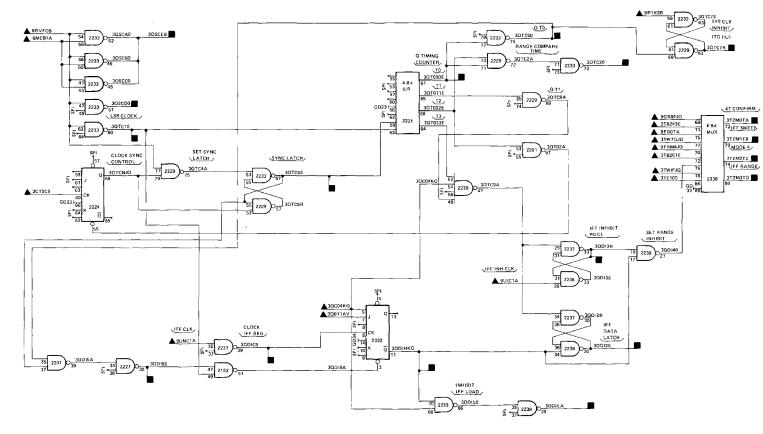
| INPUT         |                        | OUTPO         | оитрит               |        |        |         |
|---------------|------------------------|---------------|----------------------|--------|--------|---------|
|               | SOURCE<br>FO-SH SIGNAL |               | DESTINATION<br>FO-SH |        |        |         |
| _             |                        |               |                      |        |        |         |
|               |                        | 3 C M D 1 J Q |                      |        |        |         |
|               | 07701                  | 3 C M D 2 J Q |                      | 11700, | 12500  |         |
| 3CTSCB        | 07600                  | 3 C M D 3 J Q | 08502,               | 11700, | 11900, | 12500   |
| 3MR56KQ       | 11700                  | 3 C M D 3 K Q | 11700                |        |        |         |
| 308048        | 07701                  | 3 CM S S K Q  | 11900                |        |        |         |
| 3QBO8AV       | 07701                  | 3 C M O 5 A   | 09600                |        |        |         |
| 3 Q Z S S K Q | 08502                  | 3 C M D 6 A   | 09600                |        |        |         |
| 3 Q Z 4 1 2 E | 08502                  | 3 C M 1 4 A   | 09600                |        |        |         |
| 4M56BOV       | 06402                  | 3 C M 1 7 A   | 09000                |        |        |         |
| 4M56B0V       | 26802                  | 3 C M 1 8 A   |                      |        |        |         |
| 4M63B0V       |                        | 3 C M 1 9 A   |                      | 09600  |        |         |
|               |                        |               | 09600,               |        | 10600  | 11100   |
|               |                        |               | 12500                | 2.5007 | ,      | , , 100 |
|               |                        | 3 C M 2 1 A   |                      |        |        |         |
|               |                        | 3 C M 2 2 A   |                      |        |        |         |
|               |                        | 30255DV       |                      |        |        |         |



FO-82. TPU Mode Counter and Control Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

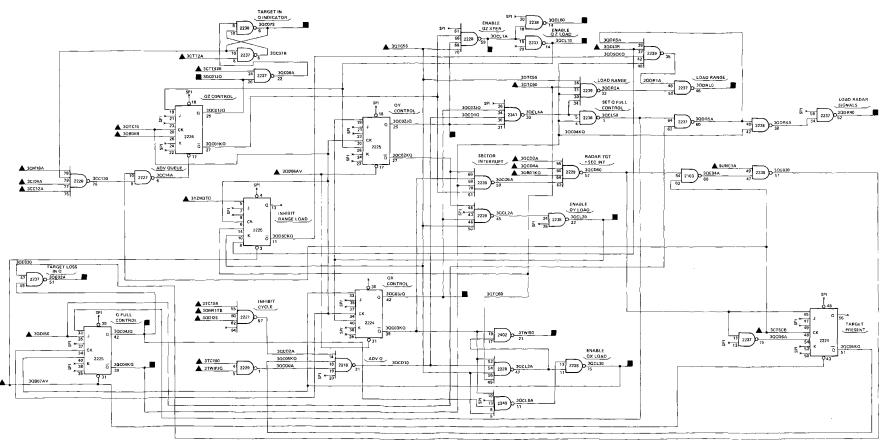
| INI                           | PUT                     | OUTP             | 7 נ        |       |        |           |
|-------------------------------|-------------------------|------------------|------------|-------|--------|-----------|
|                               | SOURCE                  |                  | DESTINATIO | N .   |        |           |
| SIGNAL                        | FO-SH                   | SIGNAL           | FO-SH      |       |        | - <b></b> |
| _                             |                         |                  |            |       |        |           |
| 3 C T S C B                   | 07600                   | 300100           |            |       |        |           |
| 3QB11AV                       | 07701                   | 3 Q D I H K Q    |            |       |        |           |
| 3QB11AV<br>3QCD4KQ<br>3TB243E | 08400                   | 3QDILA           |            |       |        |           |
| 31B243E                       | 12100                   | 3QD12S           | 08400, 08  | 3503  |        |           |
| 31B261E                       | 12100                   | 3QD13R           | 08400      |       |        |           |
| 3 T C 100                     | 12300                   | 3QDI50           | 08400      |       |        |           |
| 3TWIPJQ                       | 12200                   | 3QDI50<br>3QSCD0 | 08502, 12  | 2200  |        |           |
| 3TWTGJQ                       |                         | 3QSCEB           | 08501, 08  | 3502, | 08503, | 12500     |
| 6MCB1A                        |                         | 3 Q T C 10       | 08400, 09  | 000   |        |           |
| 6MCB1A                        |                         | 3QTC20           |            |       |        |           |
| 8RVFCB                        |                         | 3 Q T C 5 S      | 08400, 08  | 3502  |        |           |
| 8RVFCB                        |                         | 3aTC60           |            |       |        |           |
| 8RVFCB                        | 27502                   | 30 T C 7 R       | 19600, 20  | 1400, | 26802, | 27302     |
| 8 R 1 X S B                   | 00300                   | 3QT000E          | 08700      |       |        |           |
| 8R1XSB                        | 14900<br>26802<br>26803 | 3 T Z M O T A    | 10100      |       |        |           |
| 8R1XSB                        | 26802                   | 3TZM1TB          | 07800      |       |        |           |
| 8R1XSB                        | 26803                   | 3TZM2TC          | 10100      |       |        |           |
| 8R1XSB                        | 27501                   | 3TZM3TD          | 08400      |       |        |           |
| 9FRM4JQ                       |                         |                  |            |       |        |           |
| 9FRM4JQ                       |                         |                  |            |       |        |           |
| 9FRM4JQ                       |                         |                  |            |       |        |           |
| 9 F R O T A                   |                         |                  |            |       |        |           |
| 9 FROTA                       |                         |                  |            |       |        |           |
| 9 F R O T A                   |                         |                  |            |       |        |           |
| 9GR8PJQ                       | 19200                   |                  |            |       |        |           |
| 9GR8PJQ                       | 26802                   |                  |            |       |        |           |
| 9GR8PJQ                       | 27302                   |                  |            |       |        |           |
| 9GR8PJQ<br>9UIC1A<br>9UIC1A   | 20400                   |                  |            |       |        |           |
| 9UIC1A                        | 26802                   |                  |            |       |        |           |
| 9 U I C 1 A                   | 27301                   |                  |            |       |        |           |
| 9UNC 1A                       |                         |                  |            |       |        |           |
| 9 U N C 1 A                   | 27301                   |                  |            |       |        |           |



FO-83. TPU Queue Timing and IFF Data Synchronizer Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
  - AND CIRCUIT CARD PIN NUMBER. B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST
- POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

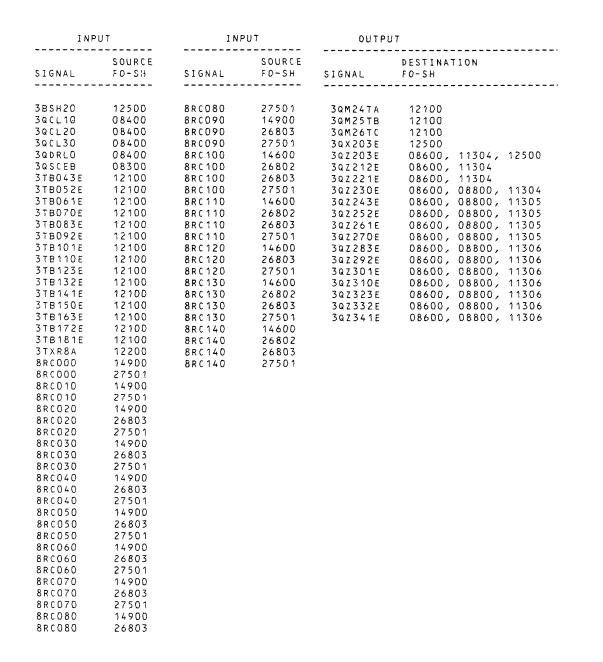
|        |        | 1 ₹               | OUTPI                          | UT                      | INP                          |
|--------|--------|-------------------|--------------------------------|-------------------------|------------------------------|
|        |        | DESTINAT<br>FO-SH | SIGNAL                         | SOURCE<br>FO-SH         | SIGNAL                       |
|        |        | 09000             | 30CL1A                         | 09500                   | 3 C C 1 2 A                  |
| 0850   | 08502, | 08501,            | 30CL10                         |                         | 30104A                       |
| , 0850 | 08502, | 08501,            | 30 CL 20                       |                         | 3 C M 1 8 A                  |
| , 0850 | 08502, | 08501,            | 30 CL 60                       | 07600                   | 3CTSCB<br>3CTT2A             |
|        |        | 12500             | 3000110                        | 07600                   | 30112H                       |
|        |        | 12500             | 3 Q C O 1 J Q<br>3 Q C O 2 J Q | 07000                   | 30R01K0                      |
|        |        | 12500             | 3000330                        | 07701                   | 3CTT42E<br>3QB01KQ<br>3QB04R |
|        |        |                   | 3QC04JQ                        | 07701                   | 3QB06AV                      |
|        |        |                   | 3QC04KQ                        | 07701                   | 39807AV                      |
| 0960   | 09100. |                   | 300075                         |                         | 3 Q C D 3 A                  |
|        |        |                   | 3QDRLO                         |                         | 30CD4A                       |
|        |        |                   | 3 Q D R 4 D                    |                         | 300128                       |
|        |        |                   | 30 E O 2 A                     |                         | 30013R                       |
|        |        | 12200             | 3 T W I 5 O                    |                         | 300150                       |
|        |        |                   |                                |                         | 3QM41TB                      |
|        |        |                   |                                | 08300<br>08300          | 307010                       |
|        |        |                   |                                | 08300                   | 3 Q T C 5 S<br>3 Q T C 6 O   |
|        |        |                   |                                | 12200                   | 3T € 10 A                    |
|        |        |                   |                                | 08300<br>12300<br>12300 | 3 T C 100                    |
|        |        |                   |                                | 12200                   | 3TWIPJQ                      |
|        |        |                   |                                | 0.8300                  | 3 T Z M 3 T D                |
|        |        |                   |                                |                         | 9UNC 1A                      |
|        |        |                   |                                |                         | 9UNC 1A                      |

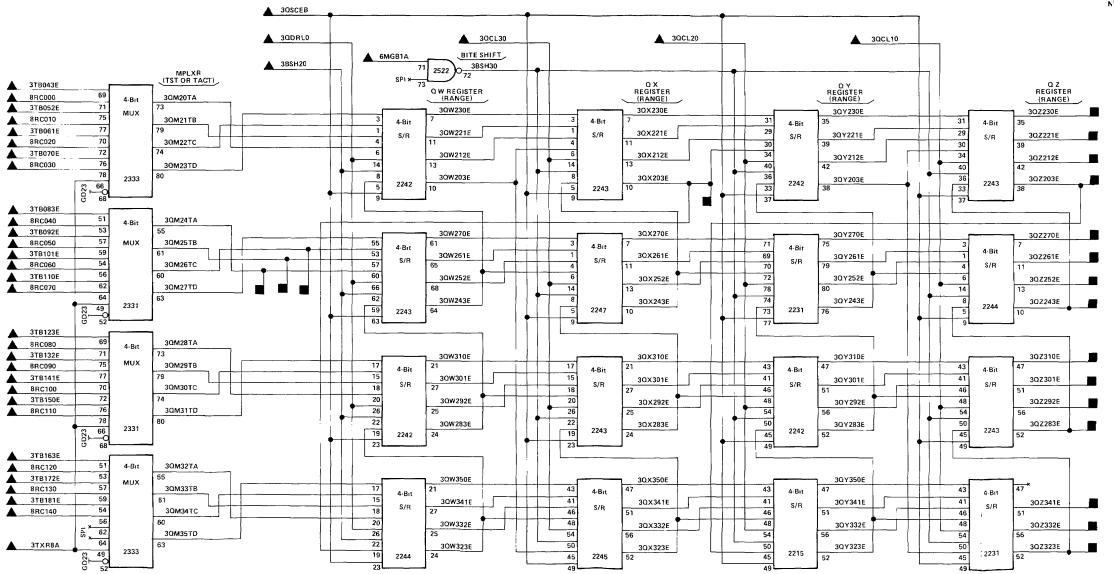


FO-84. TPU Queue Register Transfer Control Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
    - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





NOTES: UNLESS OTHERWISE SPECIFIED

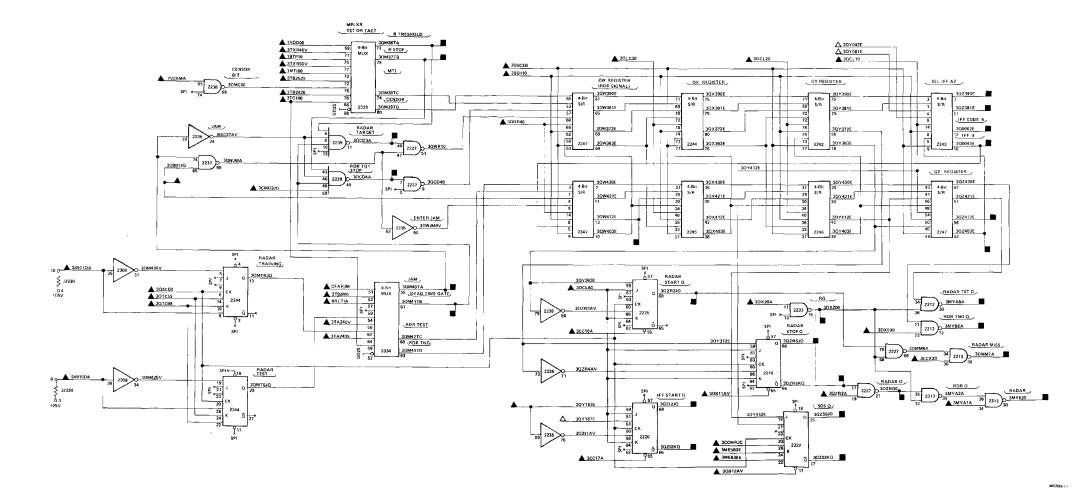
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
     INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

REFER TO RIE POWER DISTRIBUTION

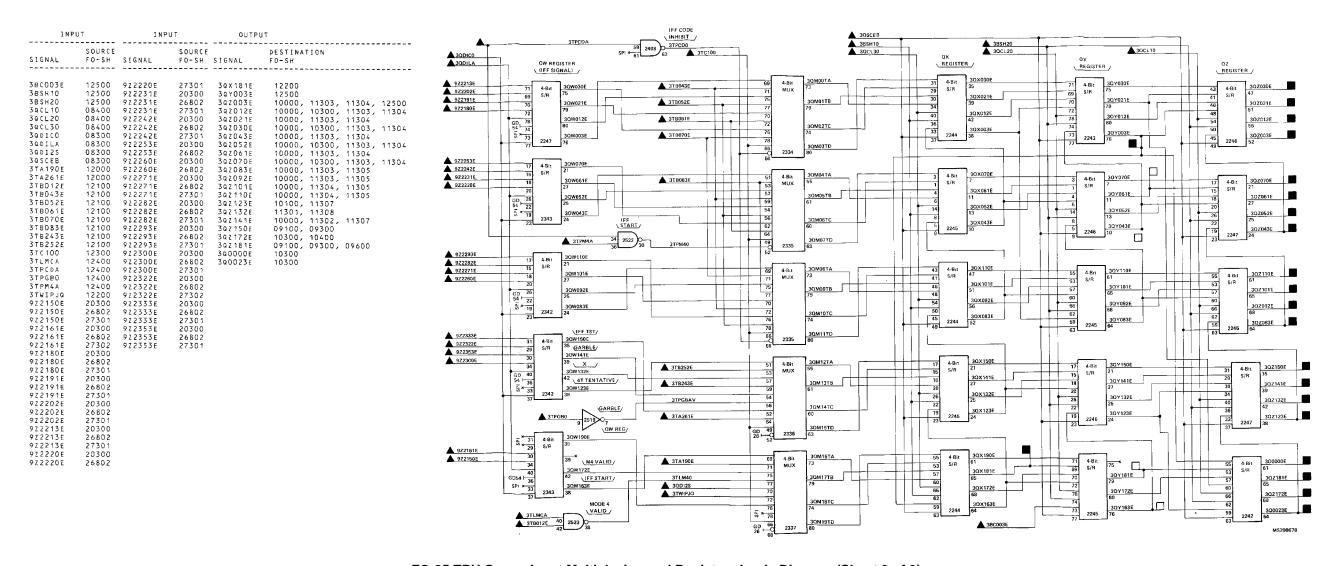
- DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
   A. FROM CIRCUIT SYMBOL NOTE CARD
  - B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-85.TPU Quene Input Multiplexing and Registers Logic Diagram (Sheet 1 of 3)

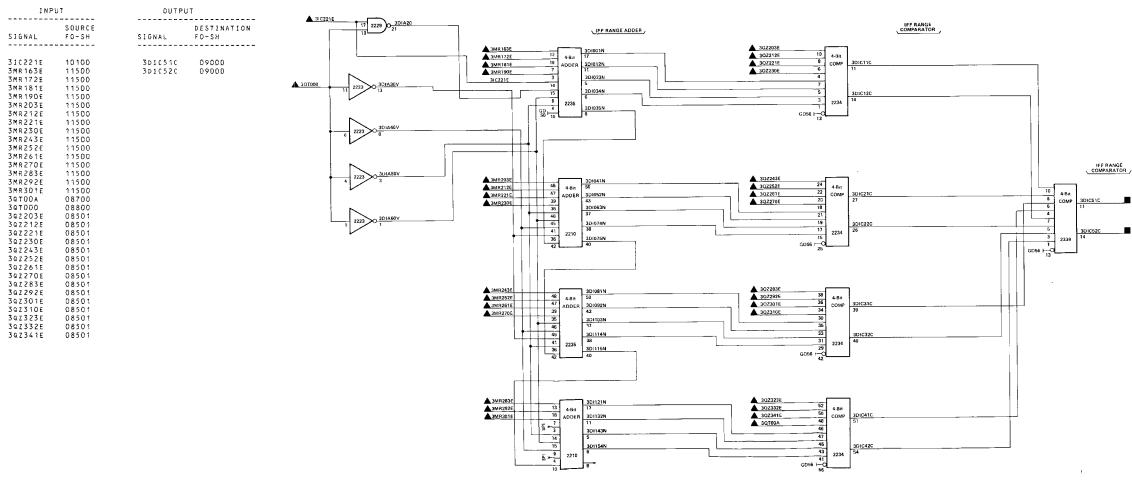
| INF                | 1 U T  | 1 NE          | דטי    | DUTP                                                | JT       |        |       |
|--------------------|--------|---------------|--------|-----------------------------------------------------|----------|--------|-------|
|                    | SOURCE |               | SOURCE | SIGNAL                                              | DESTINAT | TON    |       |
| SICNAL             | FQ-5H  | SIGNAL        | EO-SH  | SIGNAL                                              | FO-SH    |        |       |
|                    |        |               |        |                                                     |          |        |       |
| CFARJM             | 26802  | 374243E       | 12000  | 30MM7A<br>30×200                                    | 09700    |        |       |
| 5491004            | 26802  | 318JM0        | 12200  | 3 b x 200                                           | 09300    |        |       |
| \$491004           | 31302  | 3TB243E       | 12100  | 3MYA6A<br>3MYB6A<br>3MY620                          | 09300    |        |       |
| \$491104           | 26802  | 37B252E       | 12100  | 3MY86A                                              | 09300    |        |       |
| 5491104            | 31302  | 376:00        | 12300  | 3MY 620                                             | 11308    |        |       |
| 140000             | 16300  | 3TX840V       | 12200  | 30 C 0 3 A                                          | 08400    |        |       |
| 1BTP10             | 16300  | 3 T x R 5 G v | 12200  | 300064                                              | 08400    |        |       |
| 18TP10             | 27502  | ZVCZMA        | 03900  | 30 C D 3 A<br>30 C D 4 A<br>30 M 36 T A             | 05900.   | 26802  |       |
| 161100             | 15300  | ZVCEMA        | 26802  | 30M37TR                                             | 05900.   | 26802  |       |
| 1MT100             | 26802  | BRITIA        | 14500  | 30M40TA                                             | 09800    |        |       |
| 3B5H10             | 12500  | SRLT1A        | 26802  | 30M37TB<br>30M40TA<br>30M41TE                       | 08400    |        |       |
| 3 C C W R J G      | 09500  | 8RL 7 1 A     | 26901  | 39W412E                                             | 07701    |        |       |
| 300X20<br>30016A   | 09500  |               |        | 3071230                                             | 09100    |        |       |
| 50016A             | 09400  |               |        | 3071230<br>30212KG                                  | 09600    |        |       |
| 3 ( ( 17 A         | 09400  |               |        | 302800                                              | 09600    |        |       |
| SCMD3JQ<br>SDXD39  | 08200  |               |        | 3 Q Z R S J Q                                       | 09400    |        |       |
| 30 x 03 s          | 09200  |               |        | 3QZRSJQ<br>3QZRSKC                                  | 09100    |        |       |
| 30×038             | 29601  |               |        | 3028240                                             | 09100.   | 09400  |       |
| SDX2DA<br>SME563E  | 09300  |               |        | 3025570<br>30255K0<br>3023816                       | 07800.   | 11700  |       |
| ME563E             | 11400  |               |        | 30255KQ                                             | 08200.   | 09600  |       |
| SME63DE            | 11400  |               |        | 3923816                                             | 09300.   | 09700  |       |
| SMYA1A<br>SDB01JQ  | 09300  |               |        | 3G2390E                                             | 09300    |        |       |
| 50801JQ            | 07701  |               |        | 302403E                                             | 09100,   | 09300, | 09600 |
| 50811AV            | 07701  |               |        | 3024126                                             | 07800,   | 08200  |       |
| 50812AV<br>5061.10 | 07701  |               |        | 302300E<br>302403E<br>302412E<br>300043E<br>300062E | 10300,   | 12500  |       |
| 50 E L 10          | 08400  |               |        | 3000626                                             | 10300    |        |       |
| 80 CL 20           | 08400  |               |        |                                                     |          |        |       |
| 00CL30             | 08400  |               |        |                                                     |          |        |       |
| 00L60              | 08400  |               |        |                                                     |          |        |       |
| 90840              | 08400  |               |        |                                                     |          |        |       |
| SQSCDG<br>SOSCEB   | 08300  |               |        |                                                     |          |        |       |
| OSCEB              | 08300  |               |        |                                                     |          |        |       |
| QTC5S              | 08300  |               |        |                                                     |          |        |       |
| 01040<br>9282A     | 08300  |               |        |                                                     |          |        |       |
| QZR2A              | 09400  |               |        |                                                     |          |        |       |
| TAZ40V             | 12000  |               |        |                                                     |          |        |       |



FO-85.TPU Quene Input Multiplexing and Registers Logic Diagram (Sheet 2 of 3)



FO-85.TPU Quene Input Multiplexing and Registers Logic Diagram (Sheet 3 of 3)

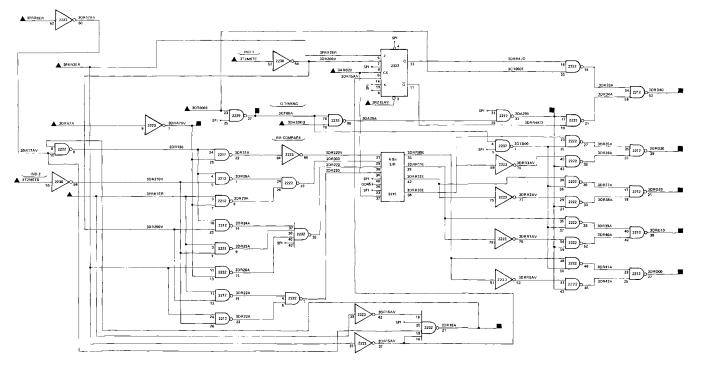


FO-86. TPU IFF RANGE COMPARE LOGIC DIAGRAM

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND
- 8. REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

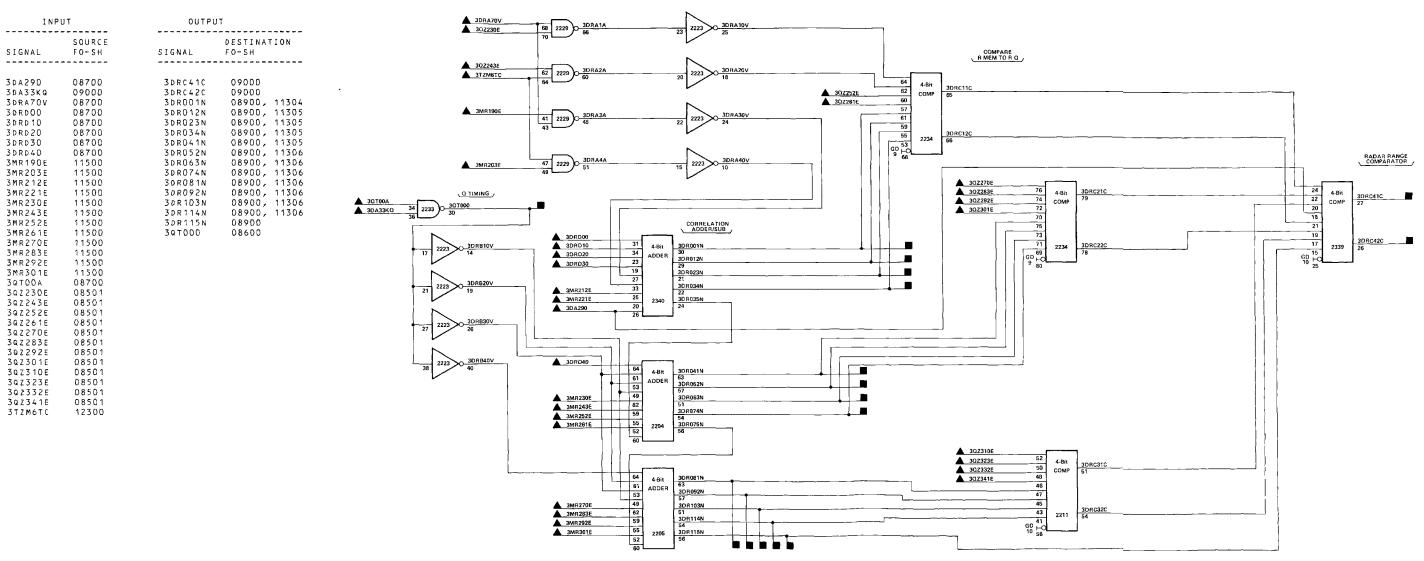
| INPUT  |        | OUTPL       | JT      |        |       |  |
|--------|--------|-------------|---------|--------|-------|--|
|        | SOURCE |             | DESTINA | TION   |       |  |
| IGNAL  | FO-SH  | SIGNAL      | FO-SH   |        |       |  |
|        |        |             |         |        |       |  |
| ARB20  | 07800  | 30A290      | 08800   |        |       |  |
| DA33KQ | 09000  | 30RA70V     | 08800,  | 08900  |       |  |
| DRA7A  | 11100  | 308000      | 08800   |        |       |  |
| PRROER | 12100  | 3 D R D 1 D | 00880   |        |       |  |
| PRR1ER | 12100  | 30R020      | 08800   |        |       |  |
| PRR2ER | 12100  | 3 D R D 3 O | 08800   |        |       |  |
| 300010 | 08300  | 3 D R D 4 D | 08800   |        |       |  |
| RZISAV | 11100  | 3DR18A      | 08900,  | 09000, | 09400 |  |
| TZMSTB | 12300  | 3QT00A      | 08600,  | 08800, | 08900 |  |
| TZM6TC | 12300  |             |         |        |       |  |
|        |        |             |         |        |       |  |



FO-87. TPU+ Delta Generator Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

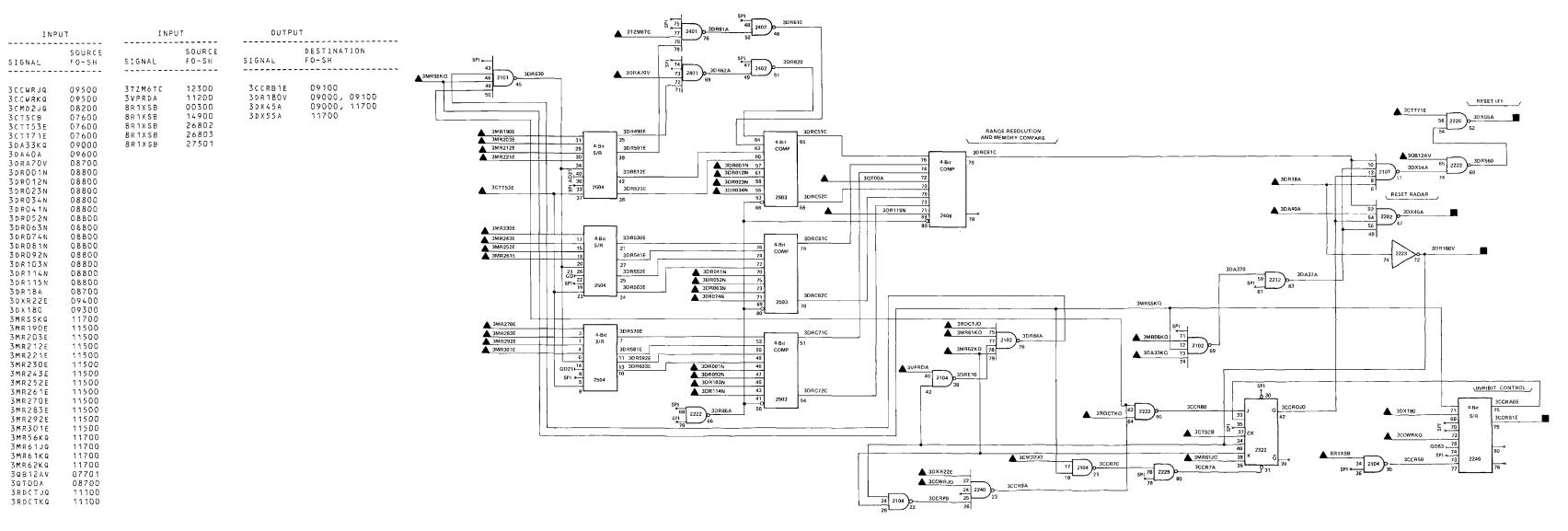
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-88. TPU Radar Range Compare Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

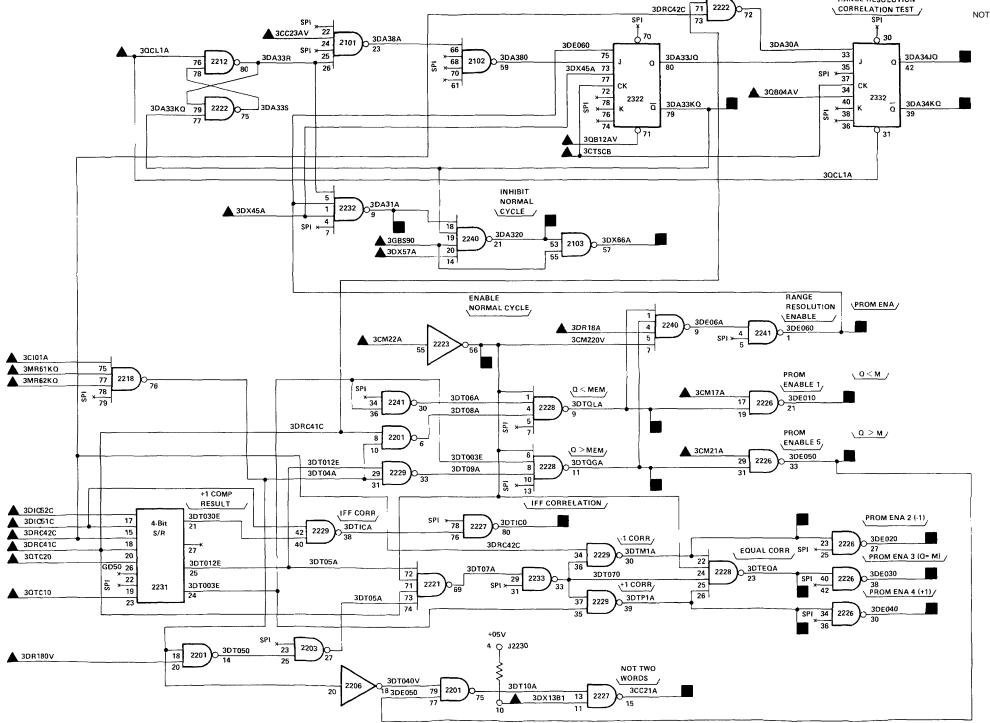
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE [1A1A1A5]
- 3. REFERENCES ARE AS FOLLOWS:
- ▲ INDICATES INPUT FROM ANOTHER FIGURE
- $\Delta$  -indicates input from the same figure
- INDICATES OUTPUT TO ANOTHER FIGURE
- ☐ INDICATES OUTPUT TO THE SAME FIGURE.
- INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE.
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
- 9 CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER
- 8. REFER TO TABLE 5-37 FOR CARD PART
- C. REFER TO TABLE 5:38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RE-SISTOR CAROS A2130, A2230, A2330, A2430, ANO A2530.

FO-89. TPU Range Resolution and Memory Compare Logic Diagram

|                 | ОИТРИТ                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OURCE<br>O-SH S | IGNAL                                                                                                                                                                                                    | DESTINAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 0000            | 7.00244                                                                                                                                                                                                  | 00500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                 |                                                                                                                                                                                                          | 29602                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ,      | , _ , _ ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11700           | 3 D T E Q A                                                                                                                                                                                              | 09400,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12500  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                 | 3DTM1A                                                                                                                                                                                                   | 09100,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 09400, | 12500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11700           | 3DTP1A                                                                                                                                                                                                   | 09400,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12500  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7701            | 3 D T Q G A                                                                                                                                                                                              | 09600,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12500  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7701            | 3 D T Q L A                                                                                                                                                                                              | 12500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8400            | 3DX66A                                                                                                                                                                                                   | 09700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 08300           |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 08300           |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                 | 0URCE<br>0~SH S<br>9500<br>9600<br>8200<br>8200<br>8200<br>8600<br>8800<br>8800<br>8800<br>8800<br>8800<br>8800<br>8800<br>8800<br>88700<br>88900<br>1700<br>17700<br>17700<br>17701<br>108400<br>108400 | OURCE O-SH SIGNAL  9500 3CC21A  9600 3CM220V  8200 3DA31A  8200 3DA320  8200 3DA34VQ  8600 3DE010  88600 3DE010  88800 3DE020  88800 3DE020  88800 3DE020  88900 3DE050  89700 3DE060  99200 3DTP1A  9 | OURCE  | OURCE O-SH SIGNAL FO-SH  9500 3CC21A 09500 9600 3CM220V 12500 8200 3DA31A 10600 8200 3DA320 09600 8200 3DA33KQ 08700, 08800, 8200 3DA34KQ 09100, 09400 8200 3DA34KQ 09100, 09400 8200 3DE010 09100, 09200, 8220 3DE020 09200, 09400, 8220 3DE030 09200, 26802, 8220 3DE050 09200, 2680 | OURCE O-SH SIGNAL FO-SH  9500 3CC21A 09500 8200 3DA31A 10600 8200 3DA320 09600 8200 3DA33KQ D8700, 08800, 08900, 08600 3DA34JQ 09400 3DA34KQ 09100, 09400 3DE010 09100, 09200, 26802, 29601 3DE020 09200, 09400, 26802, 29601 8800 3DE030 09200, 26802, 29601 8900 3DE040 09200, 26802, 29601 8900 3DE050 09200, 26802, 29601 8900 3DE060 09200, 09400, 12500, 29602 81700 3DTEQA 09400, 12500 81700 3DTEQA 09400, 12500 81700 3DTP1A 09400, 12500 81700 3DTP1A 09400, 12500 81700 3DTP1A 09400, 12500 817701 3DTQA 12500 81701 3DTQA 12500 81800 3DX66A 09700 |



# FO-90. TPU Range Resolution Correlation Test and Compare Results Logic Diagram

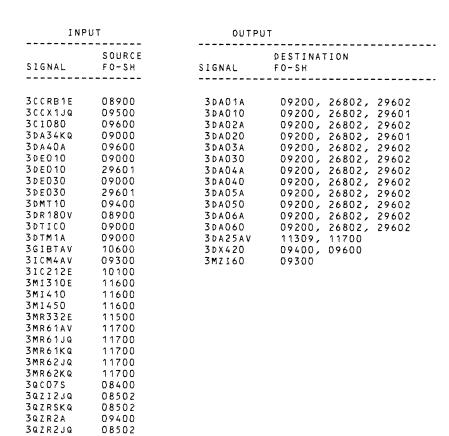
#### NOTES: UNLESS OTHERWISE SPECIFIED

RANGE RESOLUTION

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR



08503

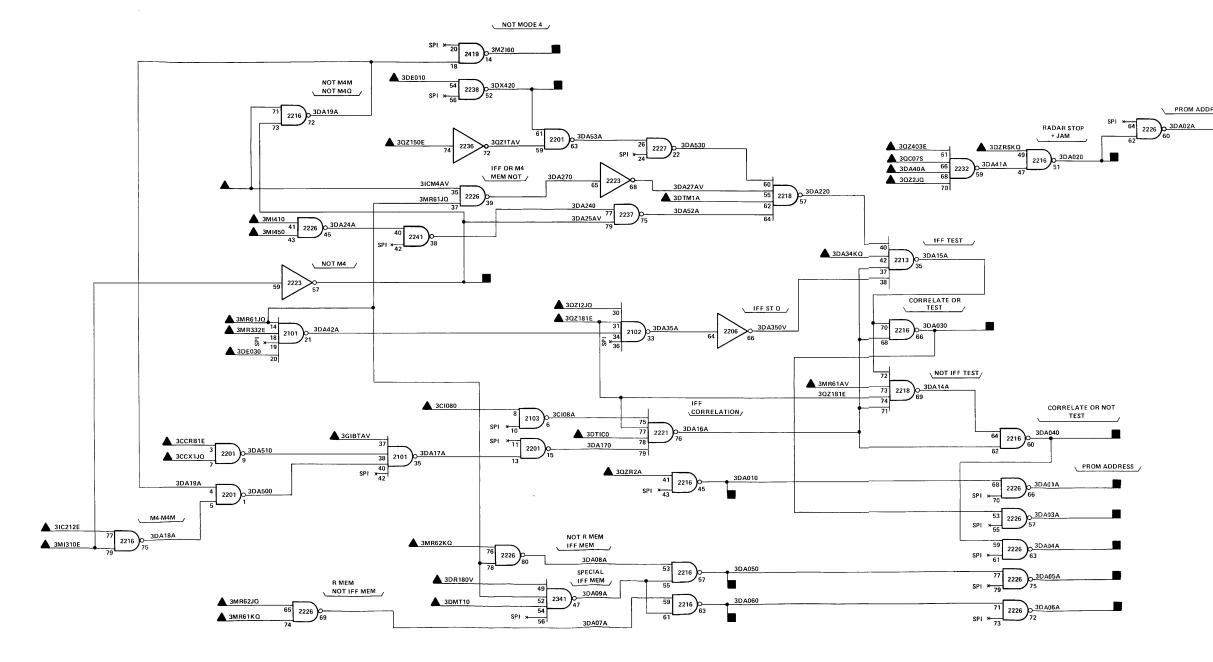
08503

08502

3QZ150E

3QZ181E

3QZ403E



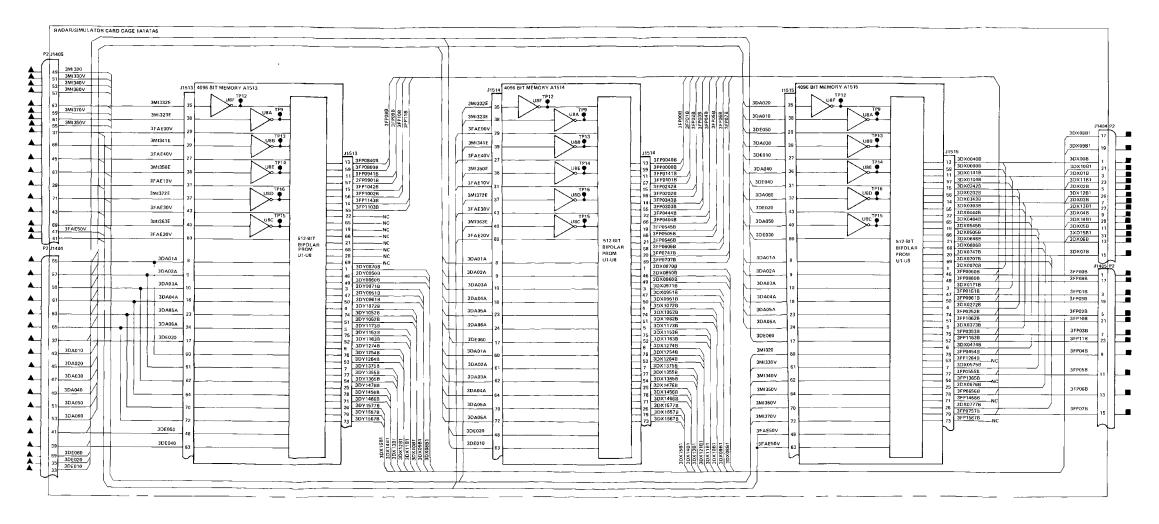
#### NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE
  SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX
  WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION
  BLY DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
- ▲ INDICATES INPUT FROM ANOTHER FIGURE.
- $\Delta$  -indicates input from the same figure.
- INDICATES OUTPUT TO ANOTHER FIGURE.
- ☐ INDICATES OUTPUT TO THE SAME FIGURE.
- INDICATES OUTPUT TO THE SAME AND
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8 REFER TO SECTION II FOR CIRCUIT CARD CHIP
- FUNCTION DESIGNATIONS

  9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- PERFORM THE FOLLOWING
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
   B. REFER TO TABLE 5-37 FOR CARD PART
- NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RE-SISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

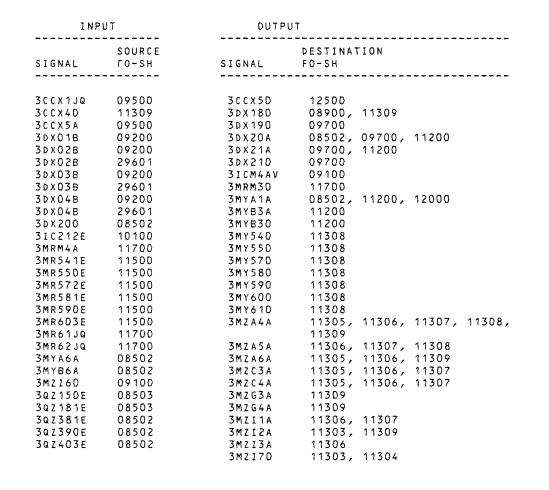
FO-91. TPU PROM Address-Encode Logic Diagram

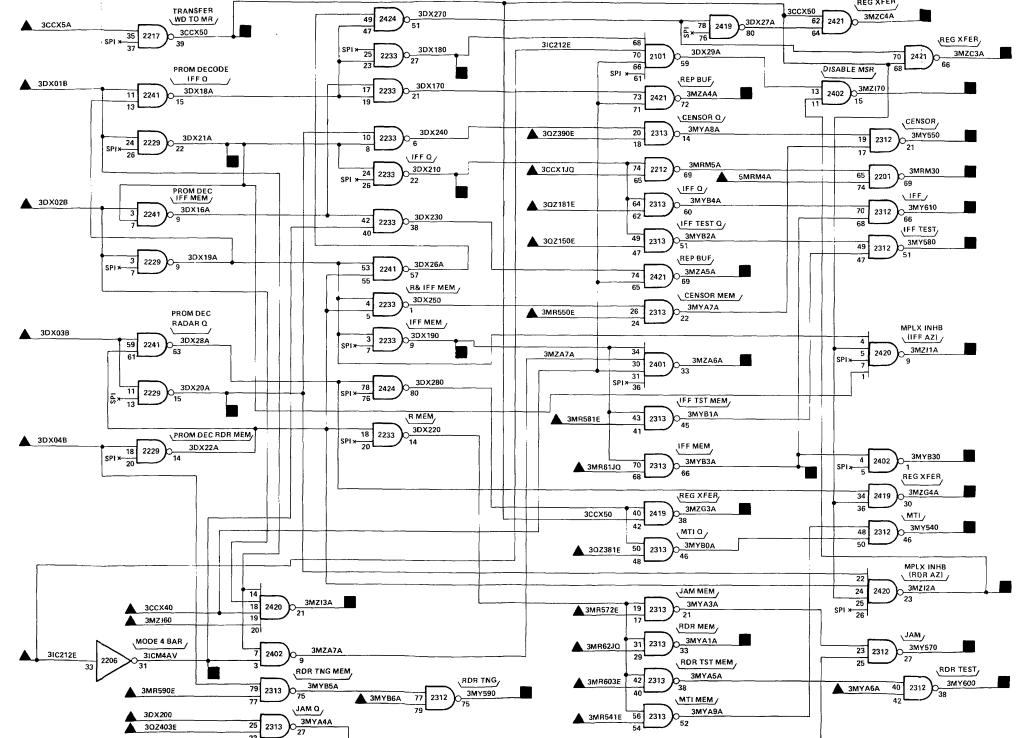
| INP              | UΤ              | INP                | UΤ              | 0UTP1                      | T                 |        | . <b>-</b> - <b>-</b> |        |
|------------------|-----------------|--------------------|-----------------|----------------------------|-------------------|--------|-----------------------|--------|
| SIGNAL           | SOURCE<br>FO-SH | SIGNAL             | SOURCE<br>FO-SH |                            | DESTINAT<br>FO-SH |        |                       |        |
|                  |                 |                    |                 |                            |                   |        |                       |        |
| 30A01A           | 09100           | 3FAE30V            | 29501           | 30X00B                     |                   |        | 26802,                | 29601  |
| 3 D A O 1 A      | 29602           | 3 F A E 3 O V      | 31401           | 3 D X O 1 B                | 09300,            |        |                       |        |
| 30A010           | 09100           | 3 F A E 4 O V      | 07600           | 3 D X O 2 B                |                   |        | 26802,                |        |
| 3 D A O 1 O      | 29601           | 3 F A E 4 O V      | 29501           | 30X03B                     |                   | 09300, | 12500,                | 26802, |
| 3 D A O 2 A      | 09100           | 3 F A E 4 O V      | 31401           |                            | 29601             |        |                       |        |
| 3 D A O 2 A      | 29602           | 3 F A E 5 O V      | 07600           | 30x04B                     |                   |        | 26802,                |        |
| 3 D A O 2 O      | 09100           | 3 F A E 5 O V      | 29501           | 3 D X O 5 B                |                   | 09500, | 12500,                | 26802, |
| 3 D A O 2 O      | 29601           | 3 F A E 5 O V      | 31401           |                            | 29601             |        |                       |        |
| 3 D A D 3 A      | 09100           | 3MI320             | 11600           | 3 D X O 6 B                |                   |        | 26802,                |        |
| 3 D A O 3 A      | 29602           | 3M1320             | 29501           | 3 D X O 7 B                |                   |        | 26802,                |        |
| 3 D A O 3 O      | 09100           | 3M1320             | 31401           | 3 D X O 8 B 1              | 09400,            | 12500, | 56805,                | 29601  |
| 3 D A O 3 O      | 29602           | 3MI323E            | 11600           | 30x09B1                    |                   |        | 26802,                |        |
| 3 D A O 4 A      | 09100           |                    | 29502           | 3 D X 1 O B 1              |                   |        | 26802,                |        |
| 3 D A O 4 A      | 29602           | 3MI330V            | 11600           | 30X11B1                    |                   |        | 10600,                | 12500, |
| 3DAD40           | 09100           | 3MI330V            | 29501           | 2                          | 26802,            |        | 2/202                 | 20101  |
| 3 D A O 4 O      | 29602           |                    | 31401           | 30 X 12B 1                 | 09500,            | 12500, | 26802,                | 29601  |
| 3 D A O 5 A      | 09100           | 3M1332E            | 11600           | 3 D X 1 3 B 1              |                   |        | 26802,                |        |
| 3DA05A           | 29602           | 3MI332E            | 29502<br>11600  | 30X1481                    |                   |        | 26802,                |        |
| 3 D A O 5 O      | 09100           | 3MI340V            |                 | 3 D X 1 5 E 1              | 29601             | 09800, | 12500,                | 20002, |
| 3DA050           | 29602           | 3M1340V            | 29502           | 3 5 0 0 0 0                |                   | 29501, | 31601                 |        |
| 3DA06A           | 09100<br>29602  | 3MI340V<br>3MI341E | 31401<br>11600  | 3 F P O O B<br>3 F P O 1 B |                   | 29501, |                       |        |
| 3DAO6A<br>3DAO60 | 09100           | 3M1341E            | 29502           | 3FP02B                     | 10500,            | 29501, | 31401                 |        |
| 3DA060           | 29602           | 3M1350E            | 11600           | 3FP03B                     |                   | 29501, |                       |        |
| 3 D E O 1 O      | 09000           | 3MI350E            | 29502           | 3 F P O 4 B                |                   | 29501, |                       |        |
| 30E010           | 29601           | 3M1350V            | 11600           | 3FP05B                     |                   | 29501. |                       |        |
| 305020           | 09000           | 3M1350V            | 29502           | 3FP06B                     |                   | 29501, |                       |        |
| 3 D E O 2 O      | 29601           | 3MI350V            | 31401           | 3FP07B                     |                   | 29501, |                       |        |
| 3 D E O 3 O      | 09000           | 3MI360V            | 11600           | 3FP08B                     |                   | 29501, |                       |        |
| 3 D E O 3 O      | 29601           | 3MI360V            | 29502           | 3FP09B                     |                   | 29501, |                       |        |
| 3DE040           | 09000           | 3MI360V            | 31401           | 3 F P 1 O B                | 10500             |        |                       |        |
| 3DE040           | 29601           | 3MI363E            | 11600           | 3FP11B                     | 10500             |        |                       |        |
| 3 D E O 5 O      | 09000           | 3MI363E            | 29502           |                            |                   |        |                       |        |
| 3 D E O 5 O      | 29601           | 3MI370V            | 11600           |                            |                   |        |                       |        |
| 3 D E O 6 O      | 09000           | 3MI370V            | 29502           |                            |                   |        |                       |        |
| 3DE060           | 29602           | 3M1370V            | 31401           |                            |                   |        |                       |        |
| 3 F A E D O V    | 07600           | 3M1372E            | 11600           |                            |                   |        |                       |        |
| 3 F A E Q O V    | 29501           | 3MI372E            | 29502           |                            |                   |        |                       |        |
| 3 FAEOOV         | 31401           |                    |                 |                            |                   |        |                       |        |
| 3FAE10V          | 07600           |                    |                 |                            |                   |        |                       |        |
| 3 F A E 10 V     | 29501           |                    |                 |                            |                   |        |                       |        |
| 3 F A E 1 O V    | 31401           |                    |                 |                            |                   |        |                       |        |
| 3 F A E 2 O V    | 07600           |                    |                 |                            |                   |        |                       |        |
| 3 F A E 2 O V    | 29501           |                    |                 |                            |                   |        |                       |        |
| 3 F A E 2 O V    | 31401           |                    |                 |                            |                   |        |                       |        |
| 3FAE30V          | 07600           |                    |                 |                            |                   |        |                       |        |



FO-92. TPU PROM Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2 ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, RSU (1414146)
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 4. REFER TO CABLING DIAGRAM SECTION
- 5. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS

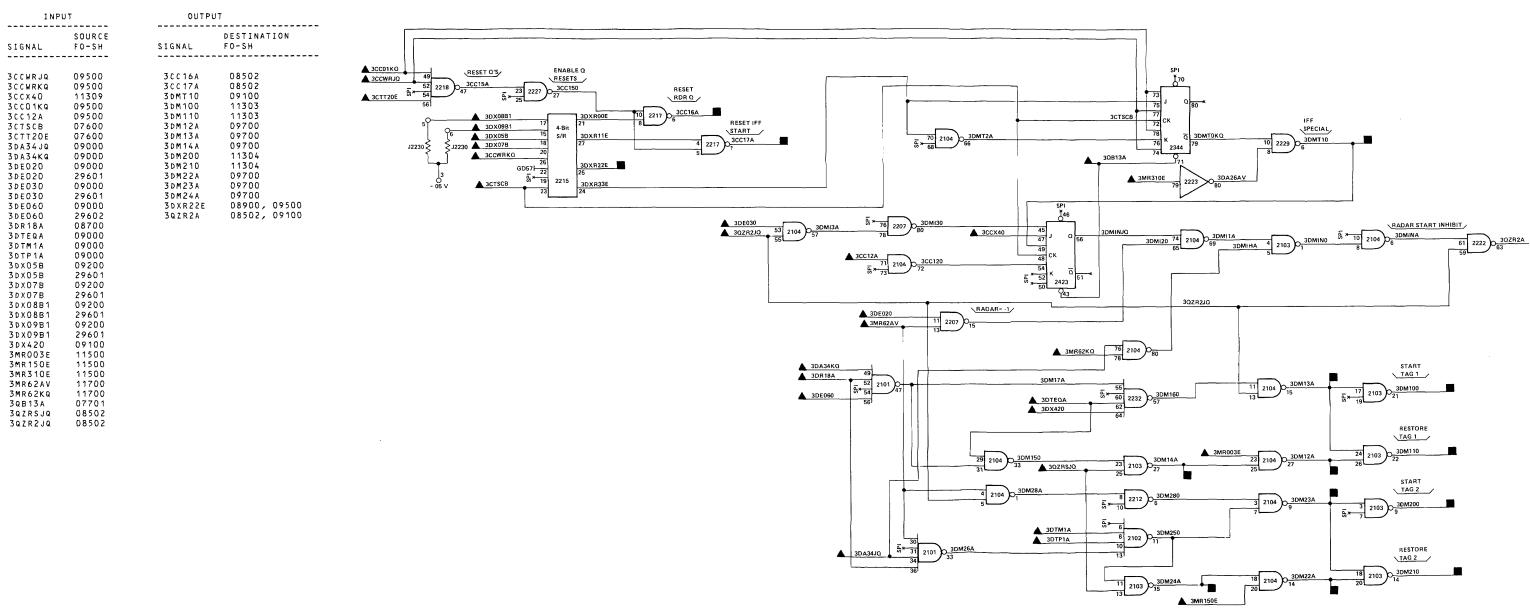




- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
  - △ INPUT FROM SAME FIGURE

    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
    OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-93. TPU PROM Decoding Logic Diagram

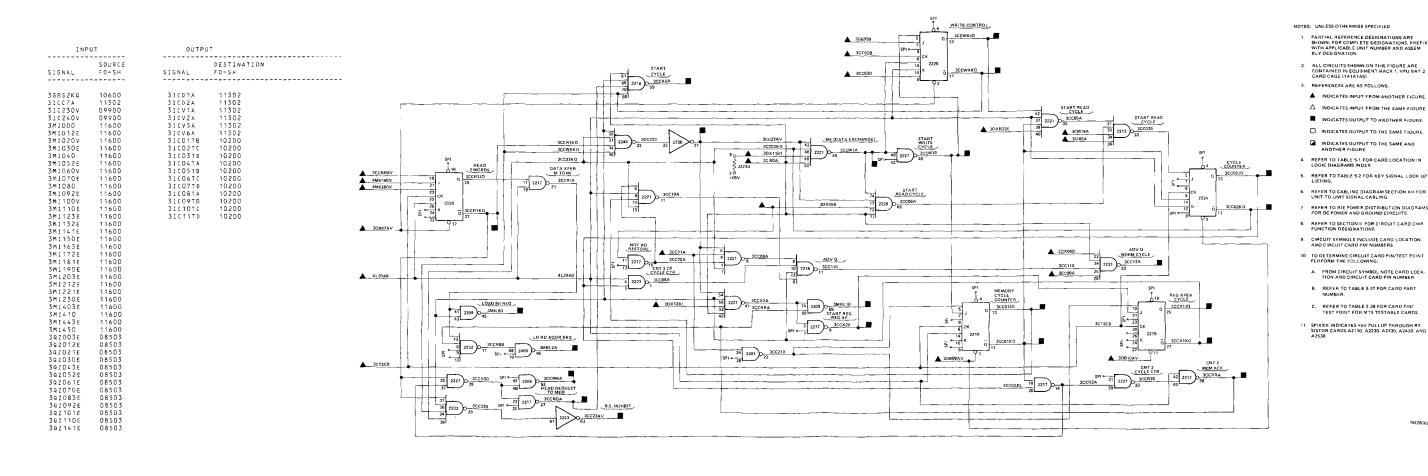


NOTES: UNLESS OTHERWISE SPECIFIED

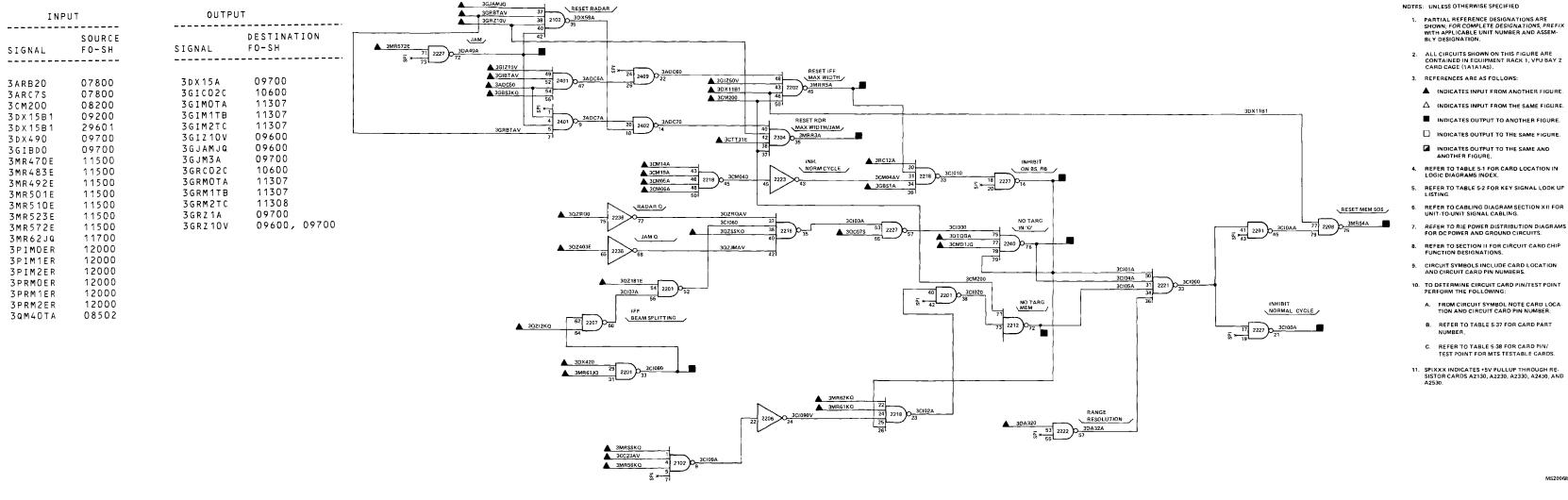
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

  - FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-95. TPU Read/Write Memory Cycle Control Logic Diagram



▲ INDICATES INPUT FROM ANOTHER FIGURE.

 $\Delta$  -INDICATES INPUT FROM THE SAME FIGURE

INDICATES OUTPUT TO ANOTHER FIGURE.

☐ INDICATES OUTPUT TO THE SAME FIGURE.

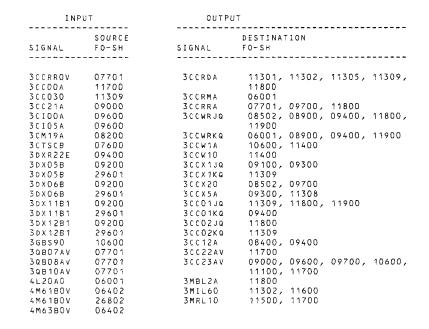
INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE.

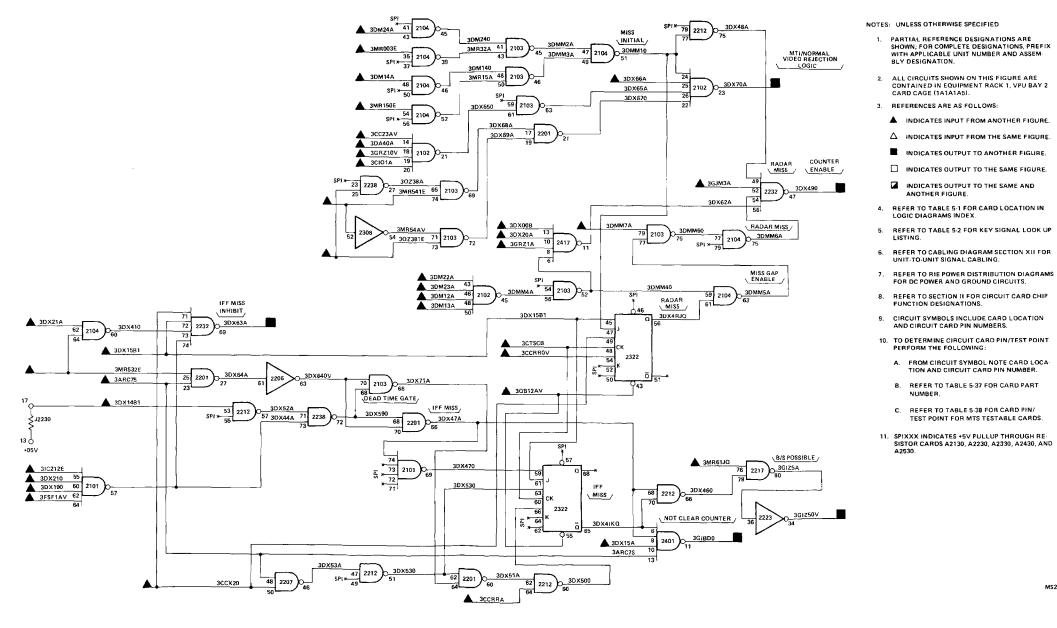
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER.

REFER TO TABLE 5-37 FOR CARD PART NUMBER.

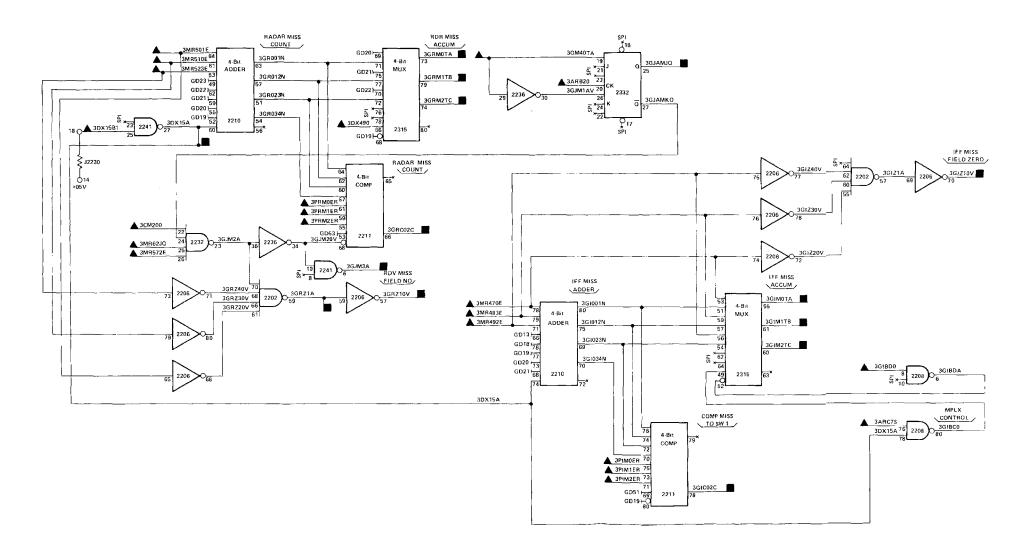
C. REFER TO TABLE 5-38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS.





FO-97. TPU Radar/IFF Miss Logic Diagram Logic Diagram

| INP                            | UT              | OUTP        | UT               |        |        |        |
|--------------------------------|-----------------|-------------|------------------|--------|--------|--------|
| SIGNAL                         | SOURCE<br>FO-SH | SIGNAL      | DESTINA<br>FO-SH | TION   |        |        |
|                                |                 |             |                  |        |        |        |
| 3 A D C 5 O                    | 10900           | 3 C I O O A | 09500,           | 12500  |        |        |
|                                |                 | 3 C I O 1 A | 09000,           |        |        |        |
| 3 C C 2 3 A V<br>3 C M D 1 J Q | 08200           | 3 C I O 4 A | 08400            |        |        |        |
| 3 C M O 5 A                    | 08200           | 3 C I O 5 A | 09500            |        |        |        |
| 3 C M O 6 A                    | 08200           | 301080      | 09100            |        |        |        |
| 3 C M 1 4 A                    | 08200           | 3 D A 4 D A | 08900,           | 09100, | 09700, | 11100, |
| 3 C M 1 9 A                    | 08200           |             | 11700            | •      |        |        |
| 3 C M 2 O O                    | 08200           | 3MRR3A      | 11700            |        |        |        |
| 3 C T T 3 1 E                  | 07600           | 3MRR5A      | 11700            |        |        |        |
| 3 D A 3 2 O                    | 09000           | 3 M R S 4 A | 11700            |        |        |        |
| 3 D T Q G A                    |                 |             |                  |        |        |        |
| 3 D X 1 1 B 1                  | 09200           |             |                  |        |        |        |
| 30X11B1                        | 29601           |             |                  |        |        |        |
| 3 D X 4 2 O                    | 09100           |             |                  |        |        |        |
| 3GBS1A                         | 10600           |             |                  |        |        |        |
| 3GBS3KQ                        | 10600           |             |                  |        |        |        |
| 3GIBTAV                        | 10600           |             |                  |        |        |        |
| 3GIZ10V                        | 10600<br>09800  |             |                  |        |        |        |
| 3G1Z50V                        | 09700           |             |                  |        |        |        |
| 3 G J A M J Q                  | 09800           |             |                  |        |        |        |
| 3GRBTAV                        | 10600           |             |                  |        |        |        |
| 3 G R Z 1 O V                  | 09800           |             |                  |        |        |        |
| 3MRSSKQ                        | 11700           |             |                  |        |        |        |
| 3MR56KQ                        | 11700           |             |                  |        |        |        |
| 3MR572E                        | 11500           |             |                  |        |        |        |
| 3MR61JQ                        | 11700           |             |                  |        |        |        |
| 3MR61KQ                        | 11700           |             |                  |        |        |        |
| 3MR62KQ                        | 11700           |             |                  |        |        |        |
| 3 Q C O 7 S                    | 08400           |             |                  |        |        |        |
| 3 Q Z I 2 K Q                  | 08502           |             |                  |        |        |        |
|                                | 08502           |             |                  |        |        |        |
| 3 Q Z S S K Q                  | 08502           |             |                  |        |        |        |
| 3 G Z 1 B 1 E                  | 08503           |             |                  |        |        |        |
| 3QZ4D3E                        | 08502           |             |                  |        |        |        |
| 3 R C 1 2 A                    | 11100           |             |                  |        |        |        |
| 4L2DA0                         | 06001           |             |                  |        |        |        |

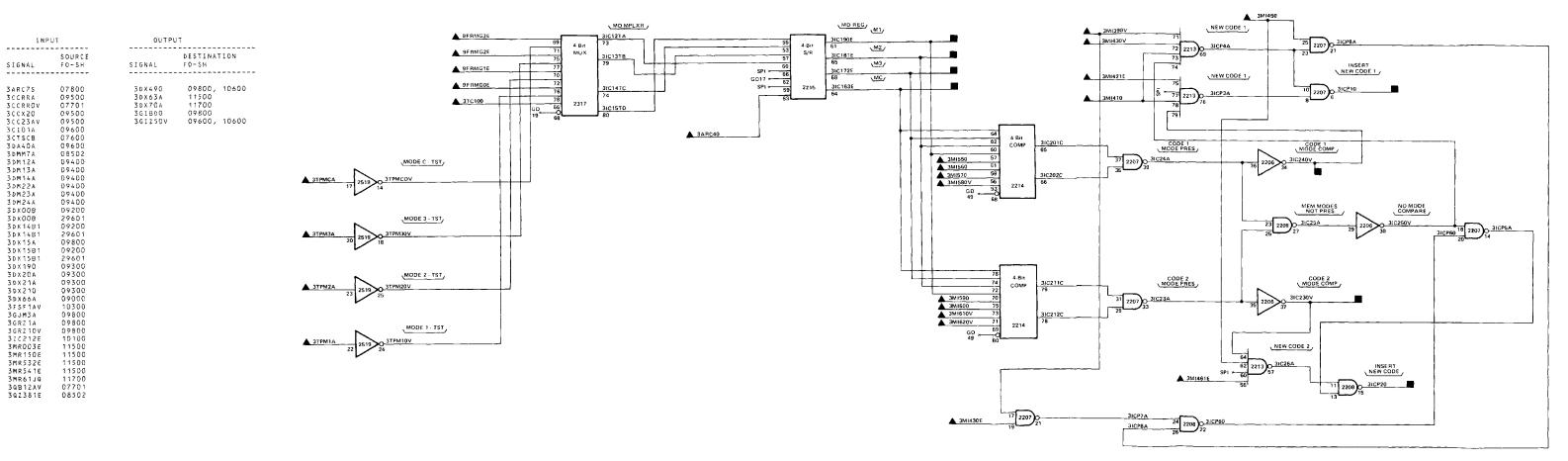


NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN: FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEM-BLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
- ▲ INDICATES INPUT FROM ANOTHER FIGURE.
- $\Delta$  -INDICATES INPUT FROM THE SAME FIGURE.
- INDICATES OUTPUT TO ANOTHER FIGURE.
- ☐ INDICATES OUTPUT TO THE SAME FIGURE.
- INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE.
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS,
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RE-SISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

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FO-98. TPU Radar/IFF Miss Fields Logic Diagram



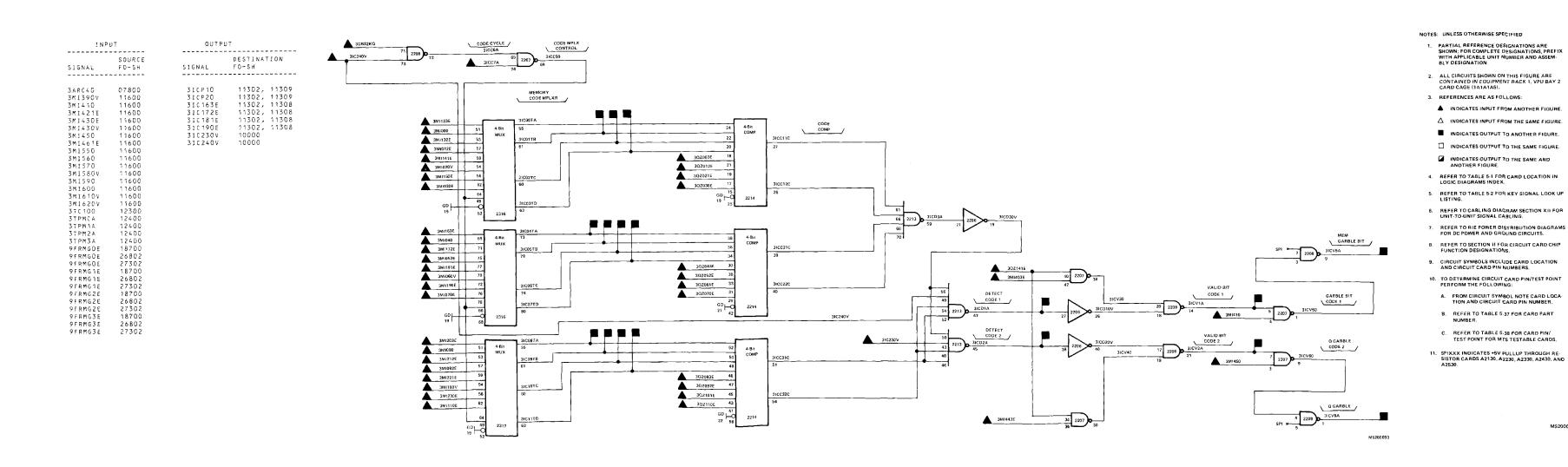
NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEM-BLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 2 CARD CAGE [1A1A1A5].
- 3. REFERENCES ARE AS FOLLOWS:
- ▲ INDICATES INPUT FROM ANOTHER FIGURE.
- $\Delta$  -INDICATES INPUT FROM THE SAME FIGURE.
- INDICATES OUTPUT TO ANOTHER FIGURE.
- ☐ INDICATES OUTPUT TO THE SAME FIGURE.
- INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE.
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO YABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

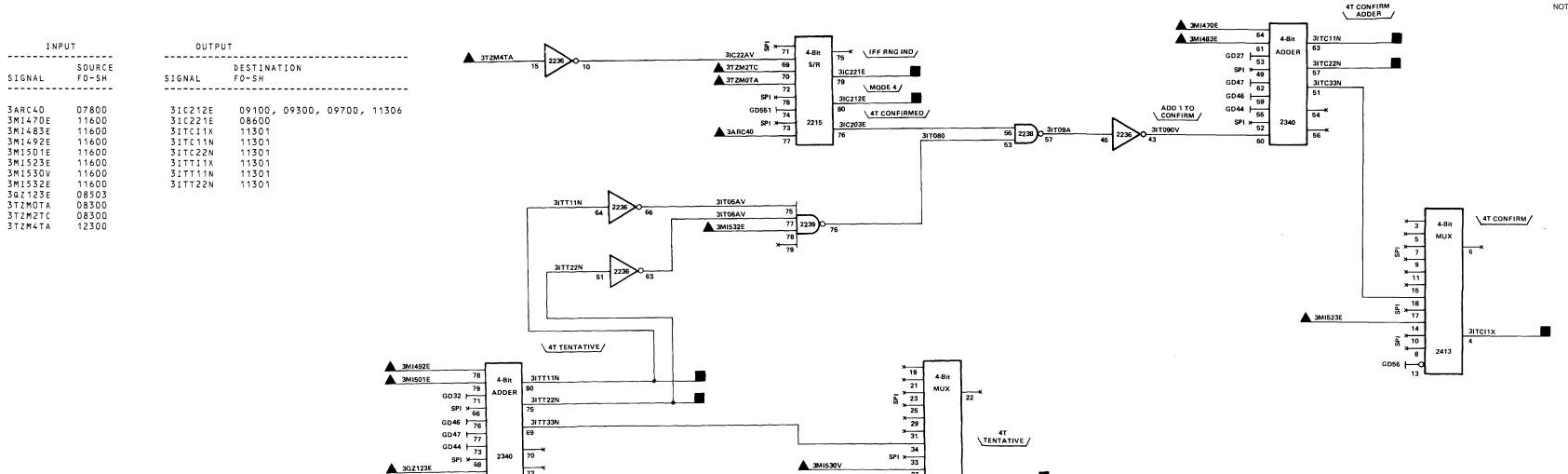
- 8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

- A. FROM CIRCUIT SYMBOL NOTE CARD LOCA-TION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/ TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RE-SISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

FO-99. TPU New Code Generation Logic Diagram



FO-100. TPU IFF/SIF Code Validation Logic Diagram

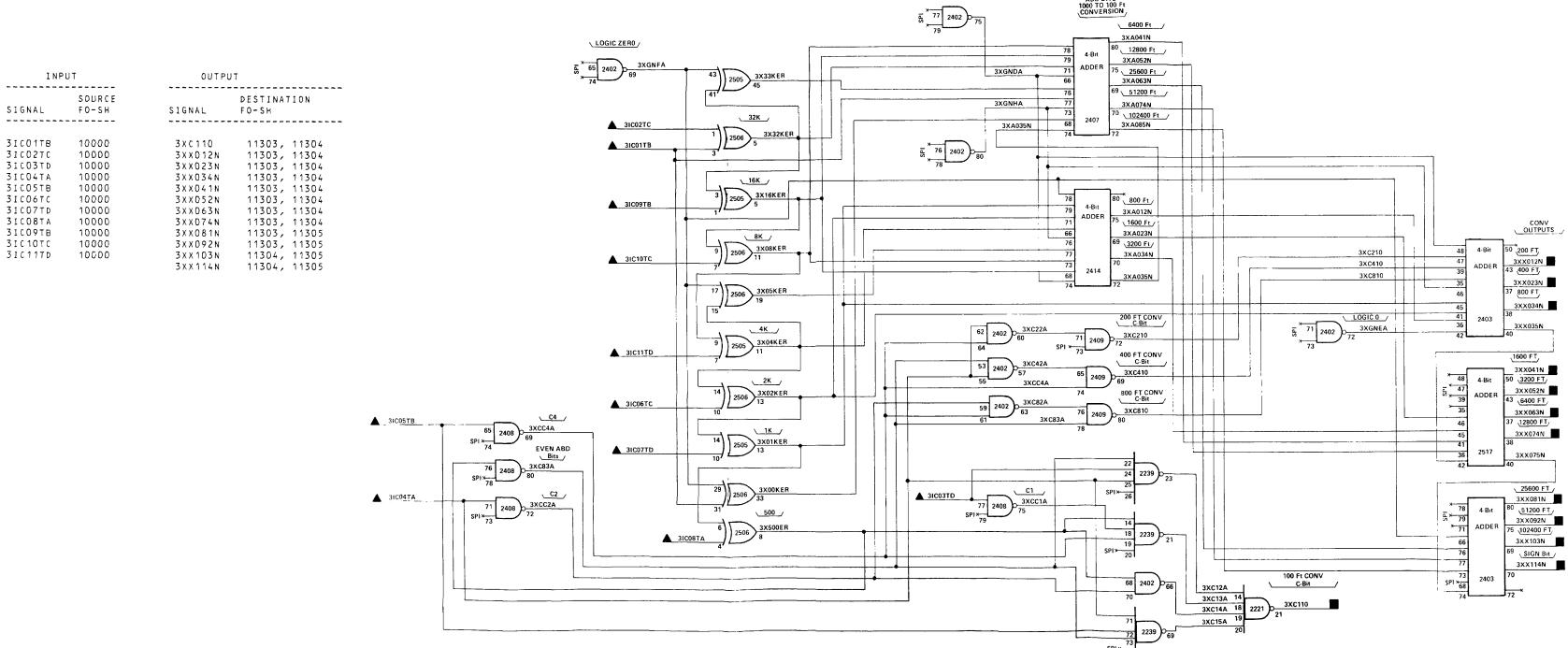


NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - Δ INPUT FROM ANOTHER FIGURE
    Δ INPUT FROM SAME FIGURE
    Ο LITELIT TO ANOTHER FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- O. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

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FO-102. TPU C-BIT Conversion Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

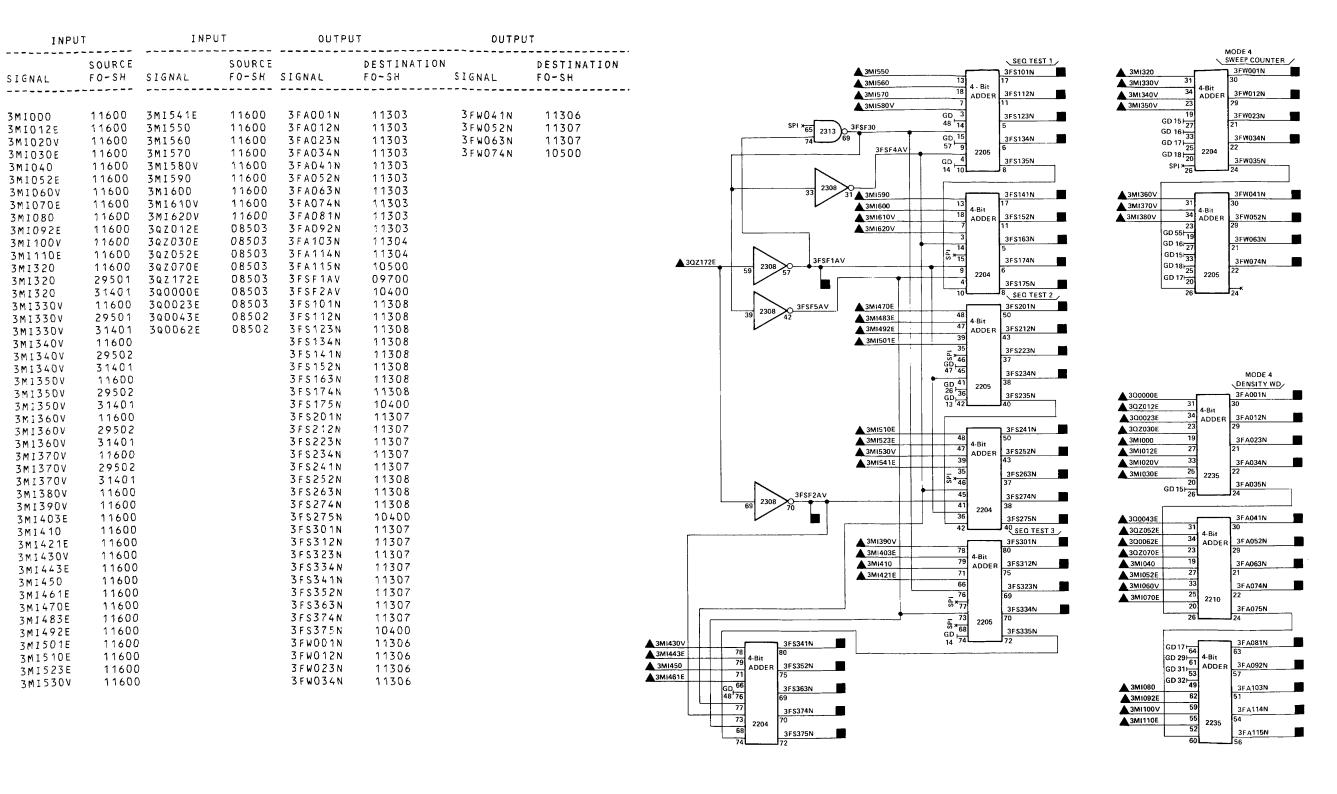
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND

CIRCUIT CARD PIN NUMBERS

- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING: A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

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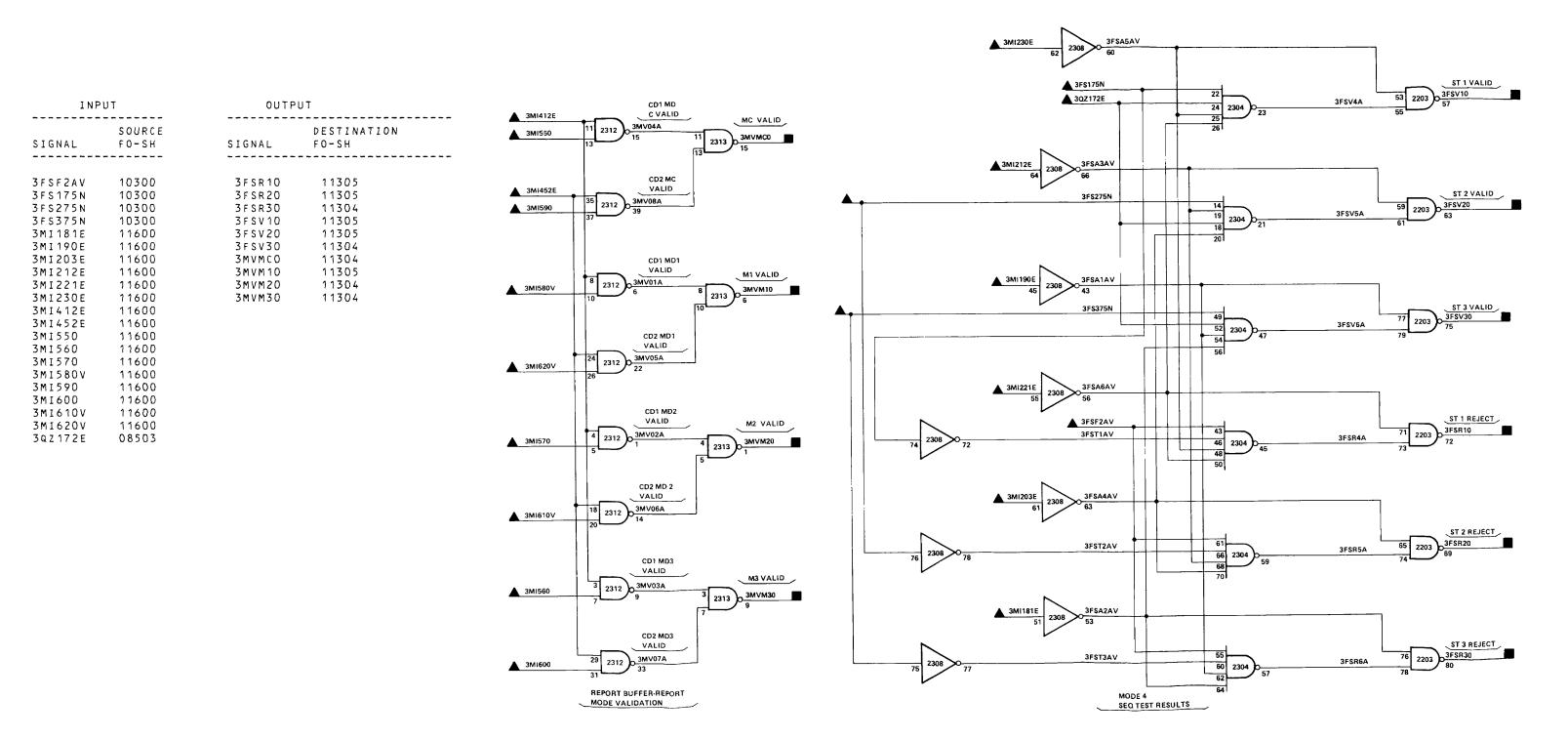


NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- REFERENCES ARE AS FOLLOWS:
  - INPLIT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER

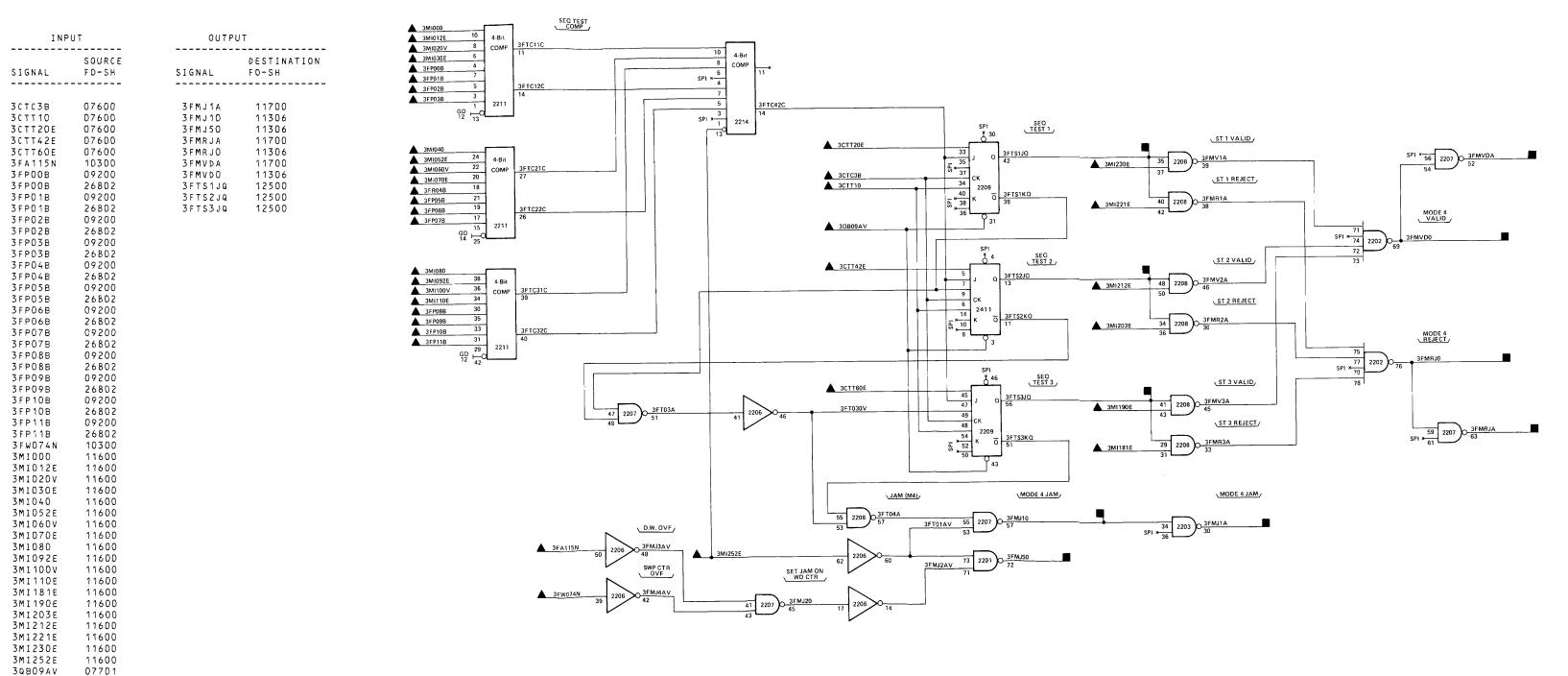
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

FO-103. TPU Sequential Test Adders and Mode 4 Processing Logic Diagram Logic Diagram



FO-104. TPU Report Buffer Mode Validation and Mode 4 Test Results Logic Diagram

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.



FO-105. TPU Mode 4 Valid, Reject and Jam Detect Logic Diagram

#### MOTES: LINE ESS OTHERWISE SPECIFIED

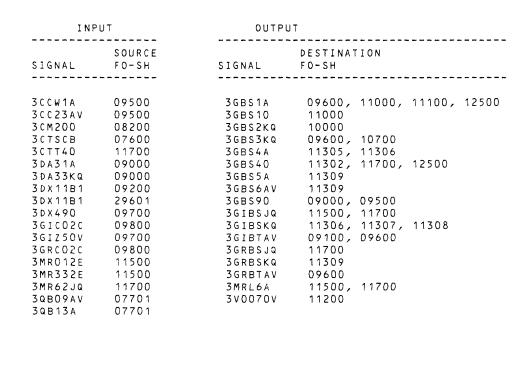
# NOTES: UNLESS OTHERWISE SPECIFIED

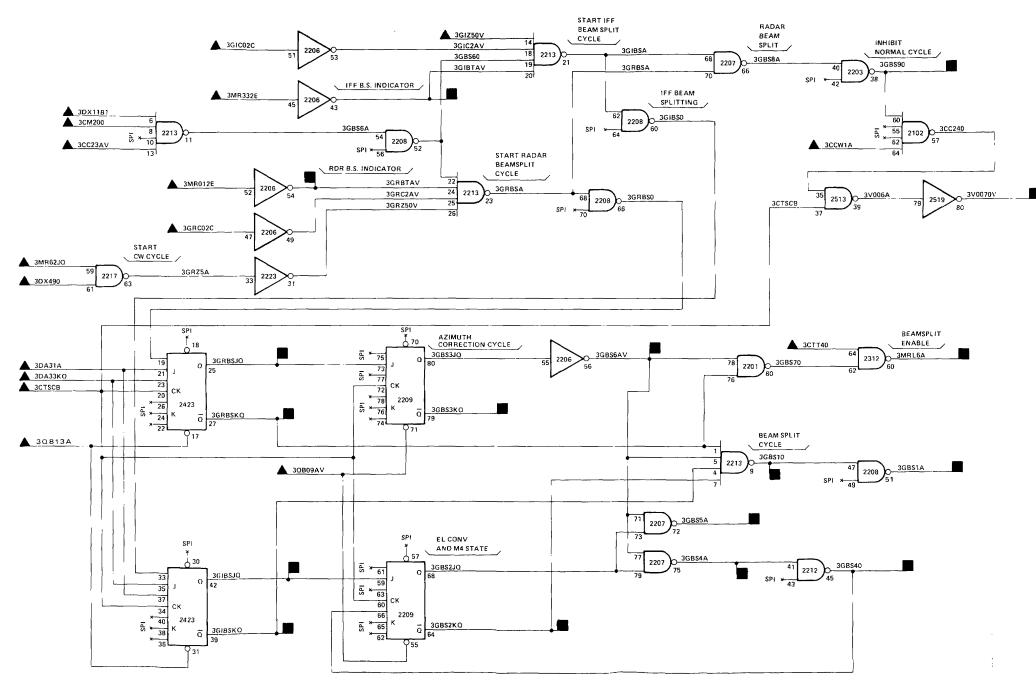
- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPLIT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

AND CIRCUIT CARD PIN NUMBER.

- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530,





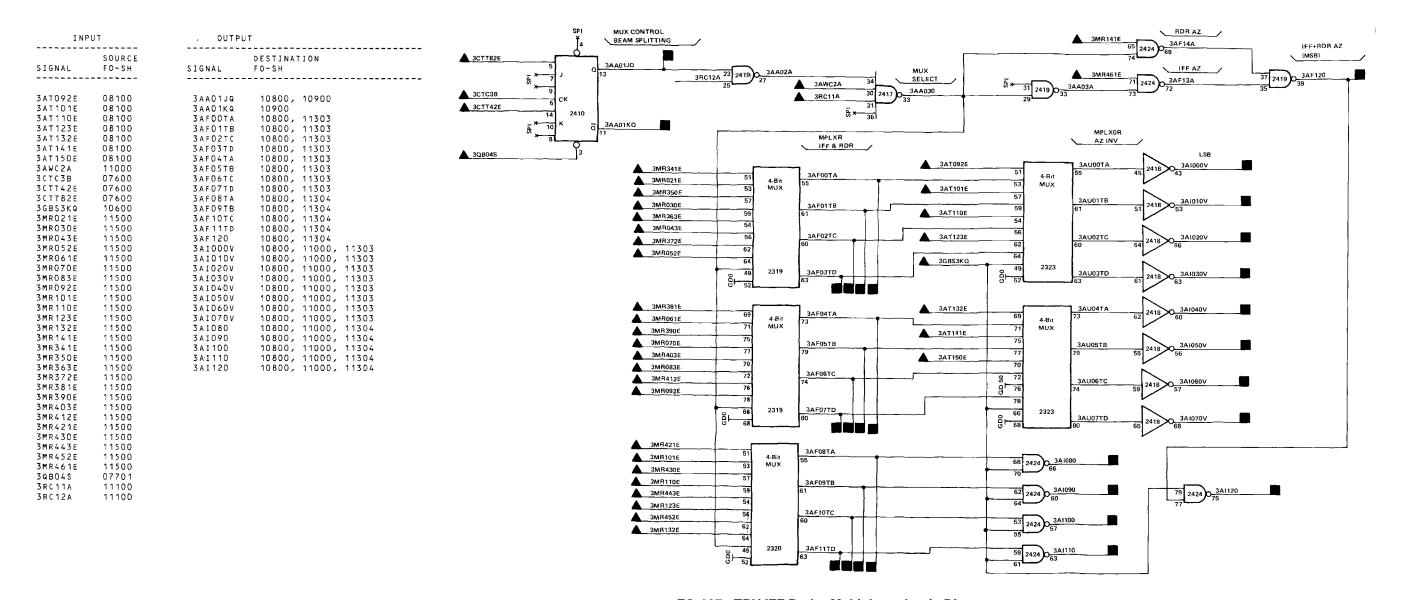
FO-106. Radar And IFF Beamsplit Cycle Logic Diagram

- 1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

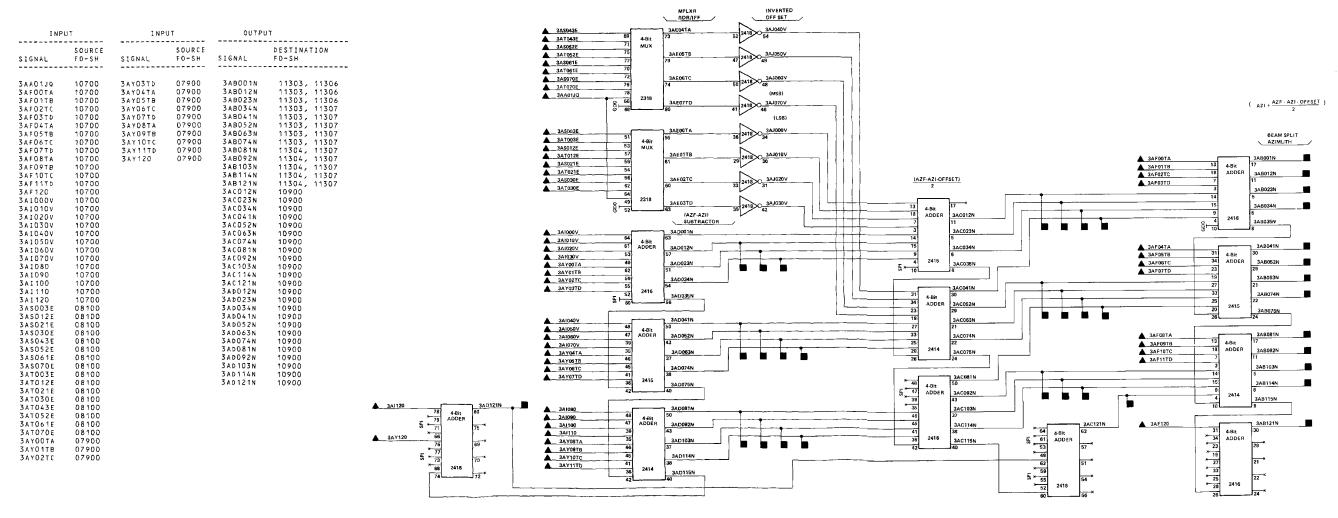


FO-107. TPU IFF Radar Multiplexer Logic Diagram

## NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
  FOR COMPLETE DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

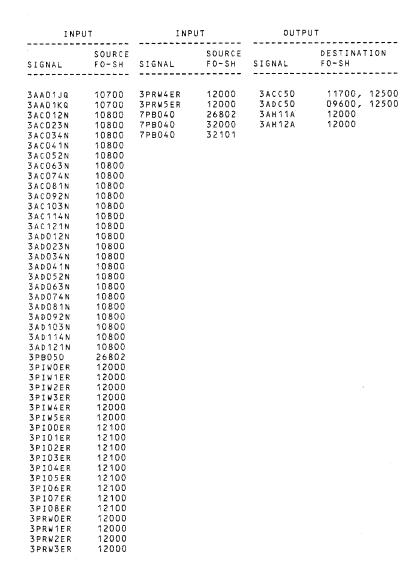
  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST
- POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR

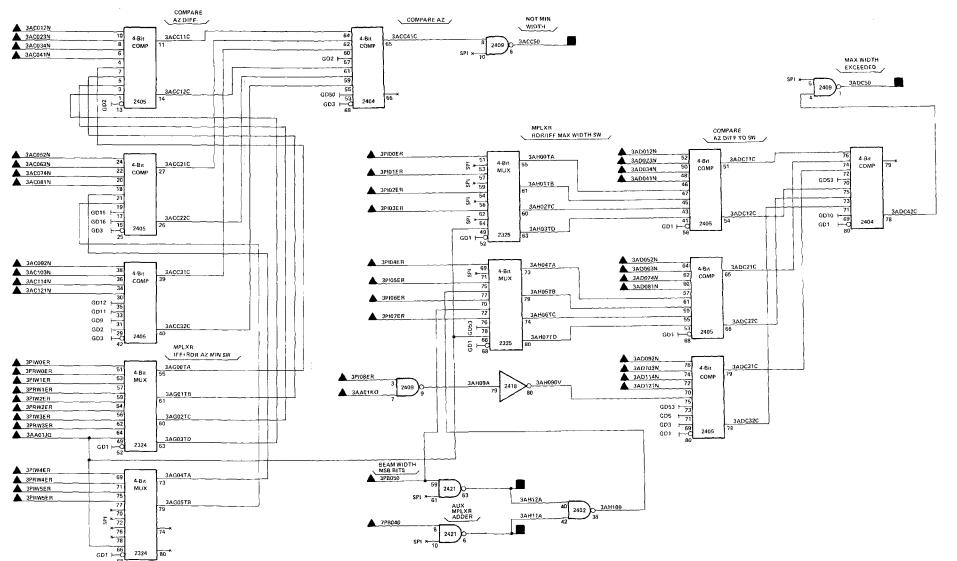


FO-108. TPU Beamsplit Azimuth Multiplexer Subtractor Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGURE
  - △ INPUT FROM SAME FIGURE

    OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530...





FO-109. TPU Azimuth Min/Max Width Comparator Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

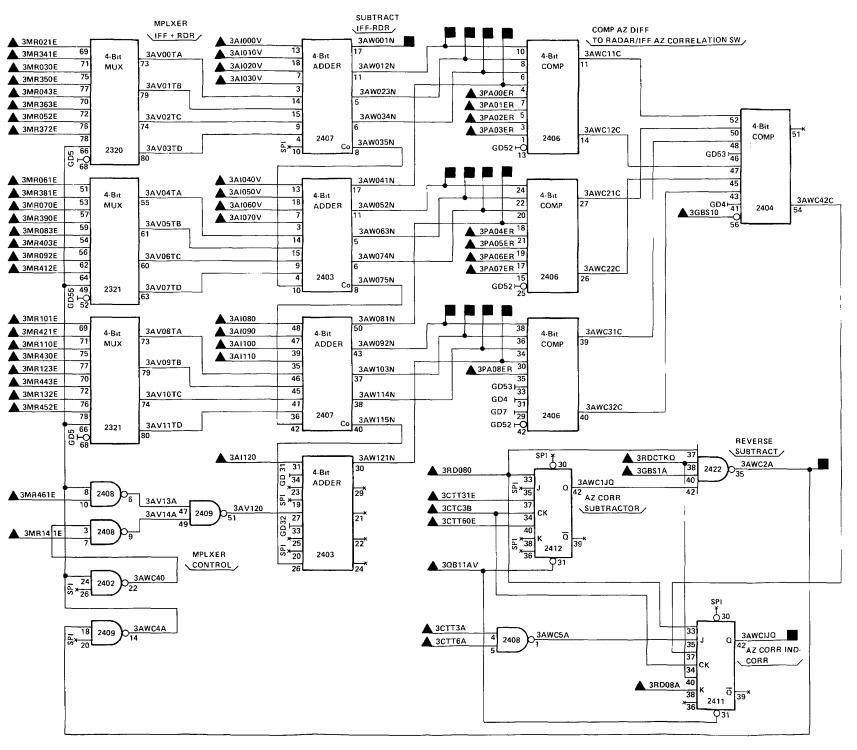
  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS
- REFER TO SECTION II FOR CIRCUIT CATD CHIP
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND

FUNCTION DESIGNATIONS.

- TO DETERMINE CIRCUIT CARD PIN/TEST POINT
- PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2330, A2430, AND A2530.

| INP                                    | JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | INP                                                                            | UΤ                                                                            | OUTPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | JT                   |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| SIGNAL                                 | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SIGNAL                                                                         | SOURCE<br>FO-SH                                                               | SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DESTINATION<br>FO-SH |
| VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV | 10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>07600<br>07600<br>07600<br>07600<br>07600<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500<br>11500 | 3PAO1ER 3PAO2ER 3PAO3ER 3PAO4ER 3PAO5ER 3PAO6ER 3PAO7ER 3PAO8ER 3QB11AV 3RD08A | 12100<br>12100<br>12100<br>12100<br>12100<br>12100<br>07701<br>11100<br>11100 | 3 A W C I J Q 3 A W C 2 A 3 A W O O 1 N 3 A W O O 2 3 N 3 A W O O O O O O O 3 A W O O O O O 3 A W O O O O O 3 A W O O O O 3 A W O O O O 3 A W O O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O O 3 A W O O 3 A W O O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W O O 3 A W |                      |



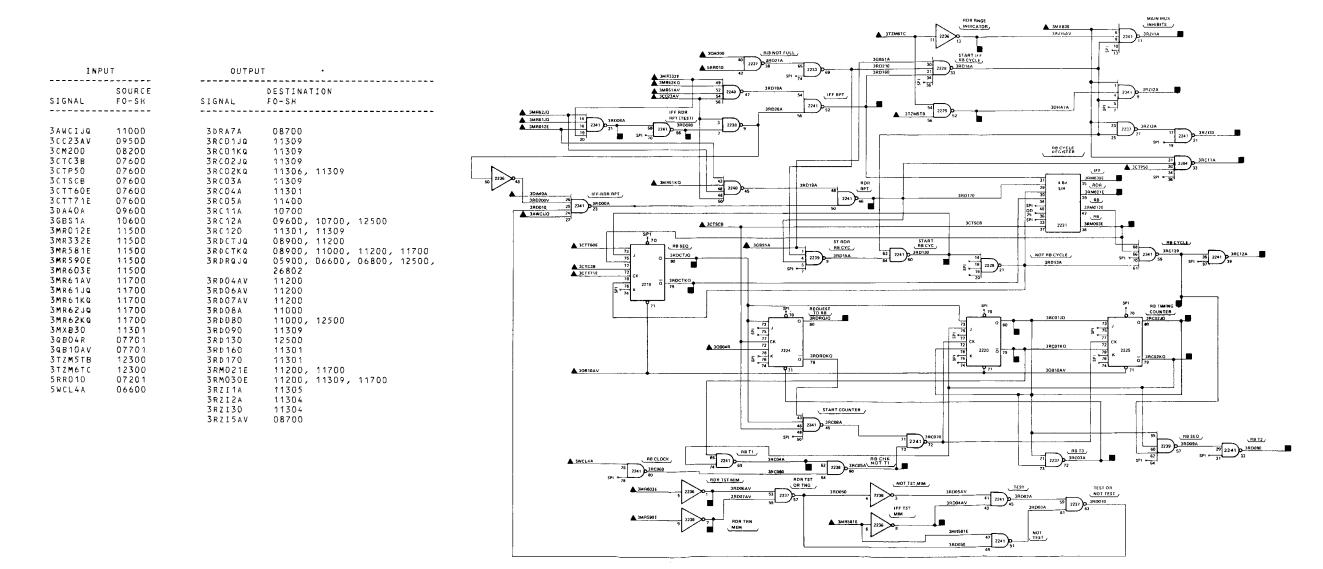
# FO-110. TPU Radar/IFF Azimuth Correlation Logic Diagram

# TM 9-1430-655-20-3-4

# NOTES: UNLESS OTHERWISE SPECIFIED

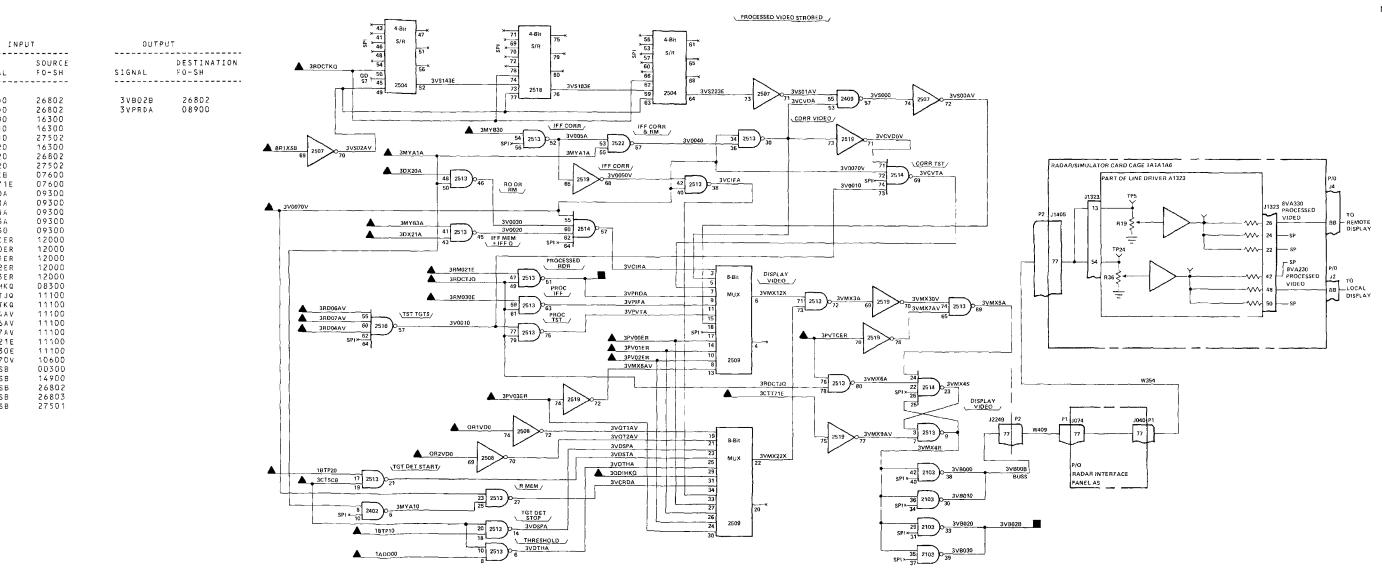
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE

  - OUTPUT TO ANOTHER FIGURE OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2330, A2430, AND A2530.



FO-111. TPU Report Buffer Interface Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER
    FIGURE
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2430, AND A2530.



SIGNAL

Q R 1 V D O Q R 2 V D O

1ADD00 1BTP10 1BTP10 1BTP20 1BTP20 1BTP20 3CTSCB 3CTT71E

30X20A 30X21A 3MYA1A

3MYB3A 3MYB3O 3PVTCER 3PVOOER 3PVO1ER

3PVOZER 3PVOZER 3QDIHKQ

3RDCTJQ 3RDCTKQ

3RDO4AV

3RD06AV 3RD07AV

3RM021E

3RM030E 3V0070V

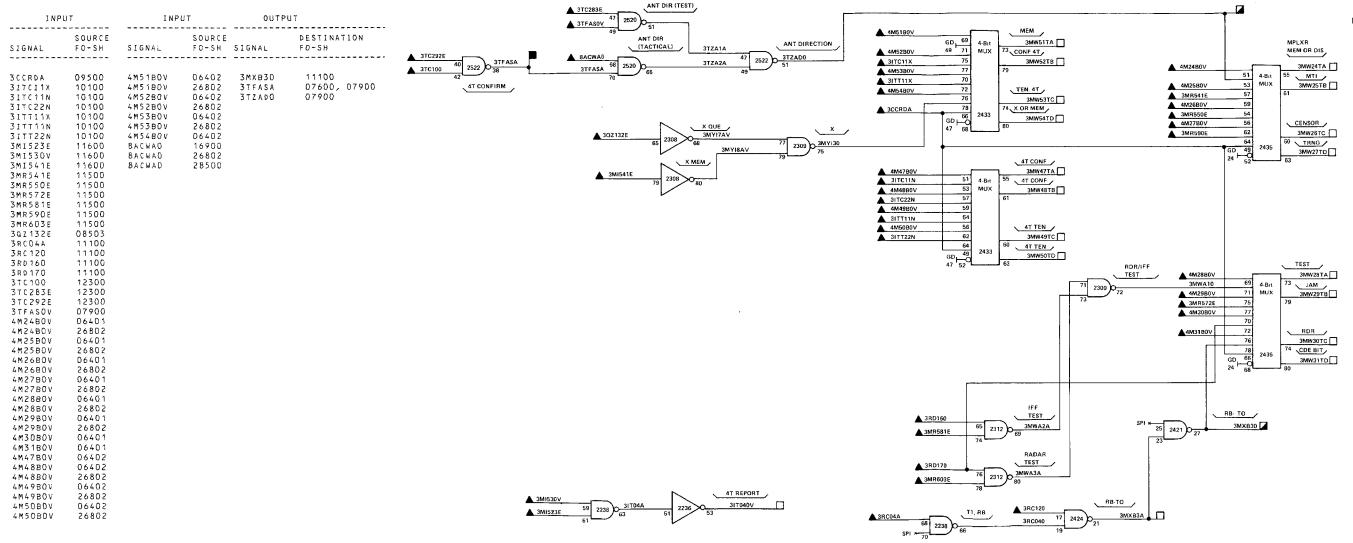
8 R 1 X S B 8 R 1 X S B

8R1XSB 8R1XSB 8R1XSB

FO-112. TPU Processed/Display Video Logic Diagram

## NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- B. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
  - OUTPUT TO BOTH SAME AND ANOTHER FIGURE
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2430, AND A2530.

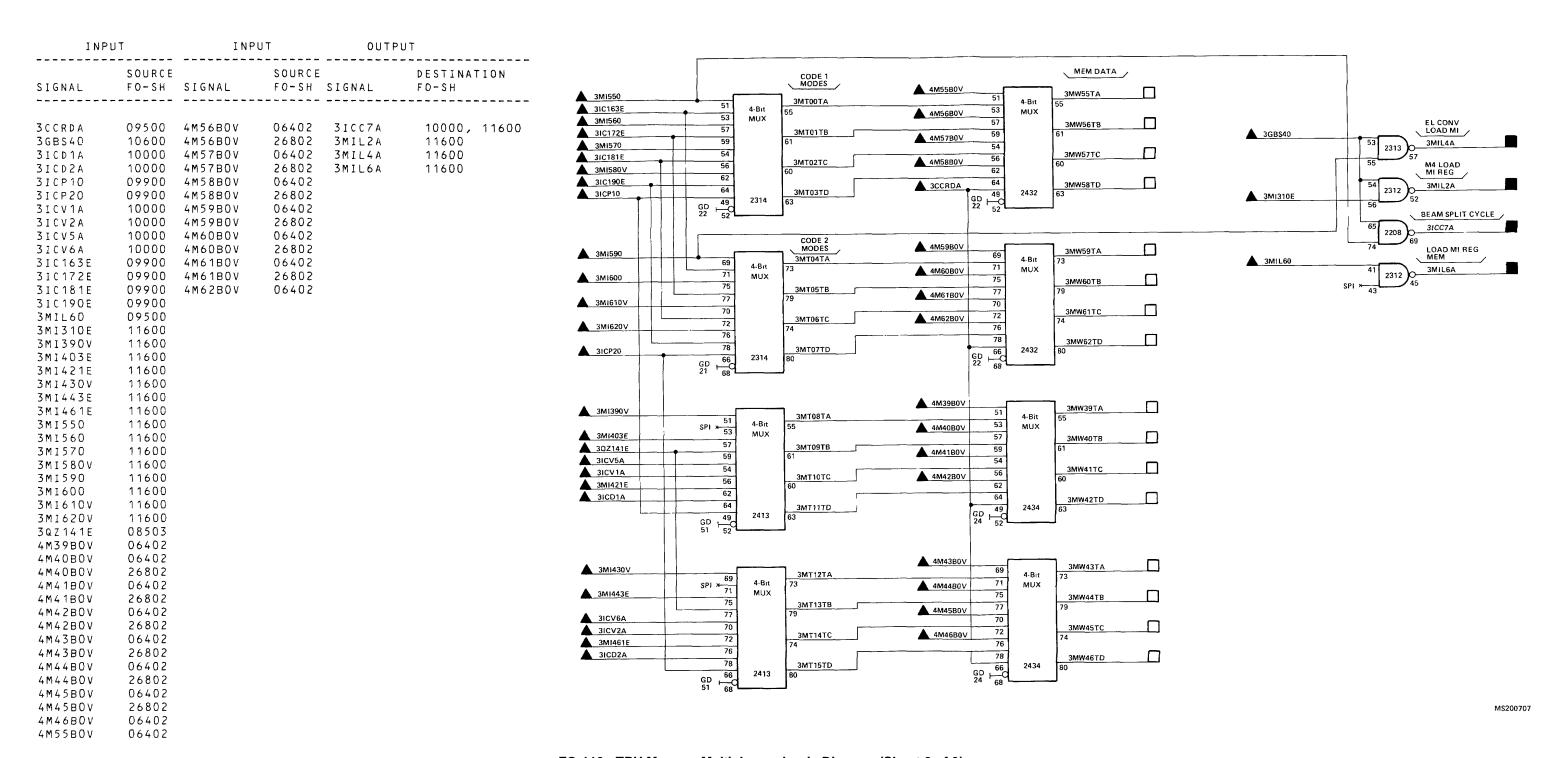


NOTES: UNLESS OTHERWISE SPECIFIED

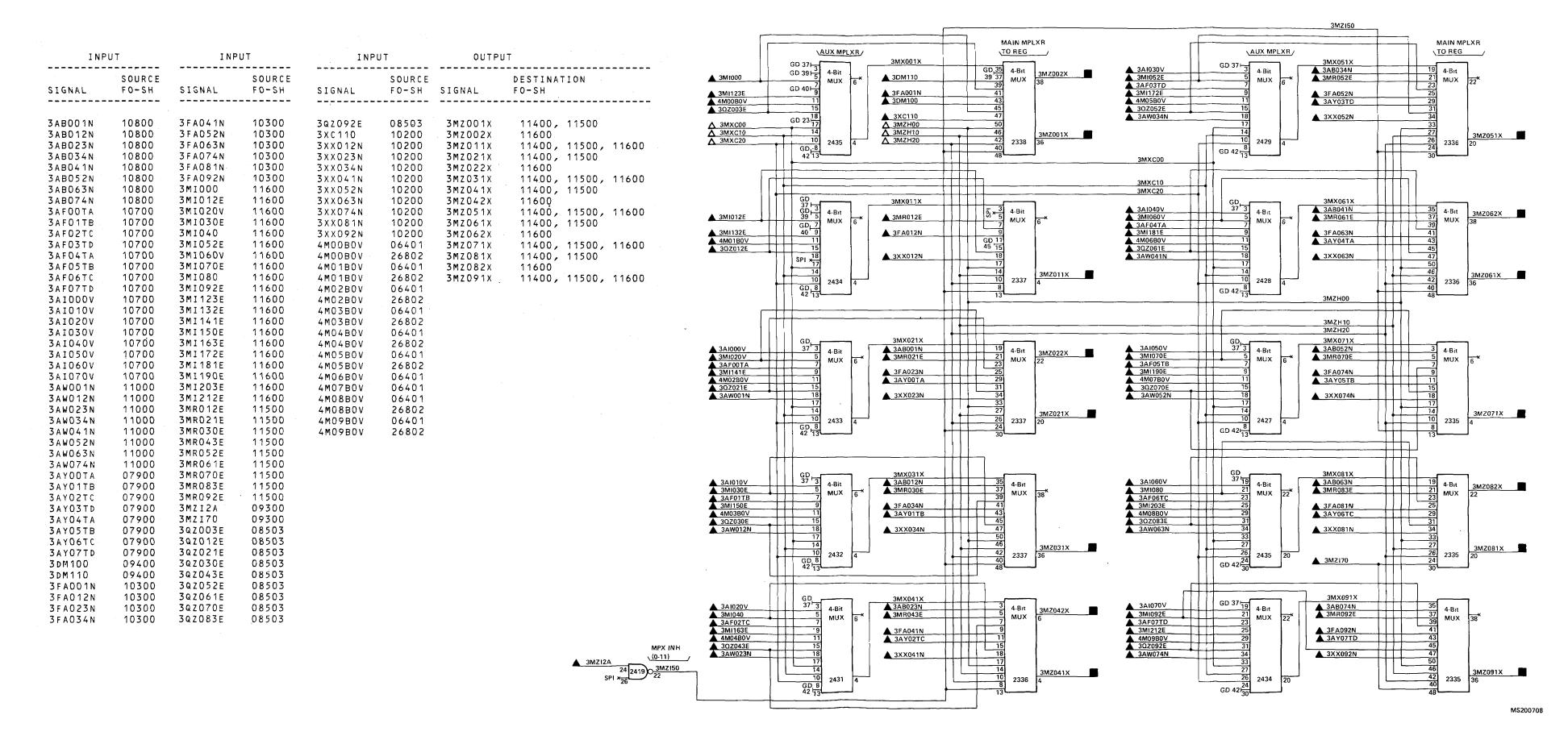
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:

  - INPUT FROM ANOTHER FIGURE
    INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
    FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5037 FOR CARD PART
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 1 of 9)

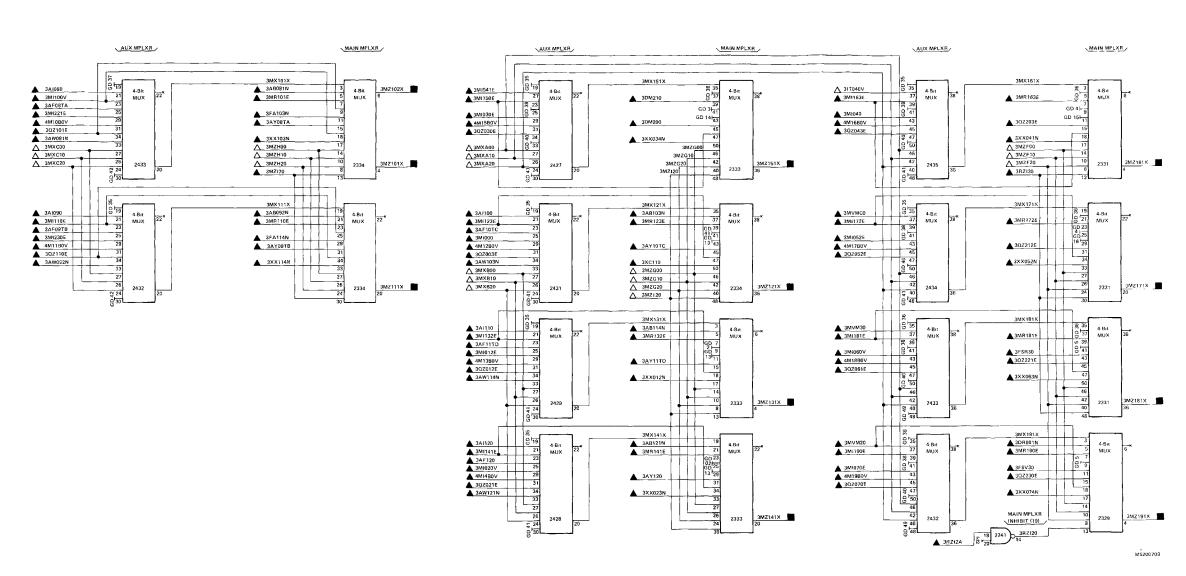


FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 2 of 9)



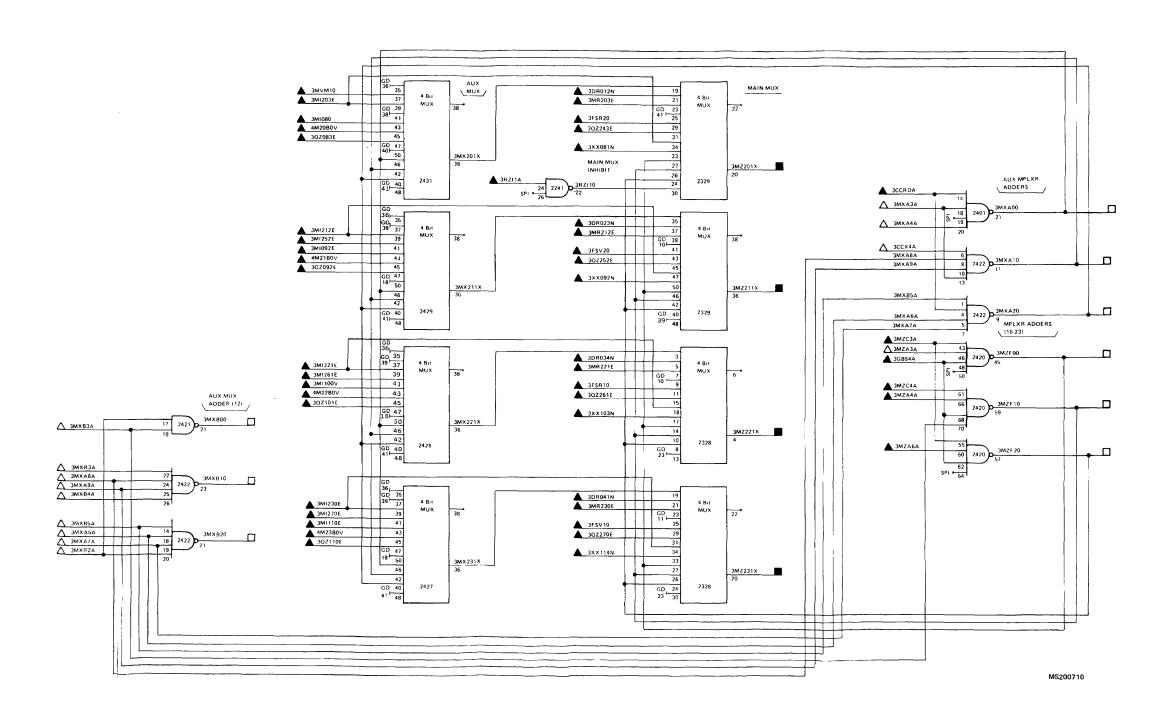
FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 3 of 9)

| INPL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                                                                                                                                                | UT                                                                                                                | OUTPL  | JT.                 |                                                                    |
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| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SOURCE<br>FO-SH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SOURCE<br>FO-SH                                                                                                   | SIGNAL | DESTINATIO<br>FO-SH | N                                                                  |
| SIGNAL  3 ABO 8 1 N  3 ABO 9 2 N  3 AB 10 3 N  3 AB 10 2 N  3 AB 11 14 N  3 AB 10 8 T A  3 AB 10 8 T A  3 AF 10 T C  3 AF 11 T D  3 AF 10 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  4 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 T C  5 | SOURCE<br>FOOSH<br>10800<br>10800<br>10800<br>10800<br>10800<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>10700<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>11000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>10 | SIGNAL  3MR 123E 3MR 132E 3MR 132E 3MR 141E 3MR 163E 3MR 163E 3MR 172E 3MR 181E 3MR 190E 3MV MCO 3MV M | SOURCE FO-SH                                                                                                      |        | DESTINATION FO-SH   | 500, 11600<br>500, 11600<br>500, 11600<br>500, 11600<br>500, 11600 |
| 3MI012E<br>3MI020V<br>3MI030E<br>3MI040<br>3MI052E<br>3MI060V<br>3MI070E<br>3MI100V<br>3MI110E<br>3MI123E<br>3MI132E<br>3MI132E<br>3MI150E<br>3MI163E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600<br>11600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3XX063N<br>3XX103N<br>3XX114N<br>4M10B0V<br>4M10B0V<br>4M11B0V<br>4M12B0V<br>4M12B0V<br>4M12B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M13B0V<br>4M16B0V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10200<br>10200<br>10200<br>10200<br>06401<br>26802<br>06401<br>26802<br>06401<br>26802<br>06401<br>06401<br>06401 |        |                     |                                                                    |



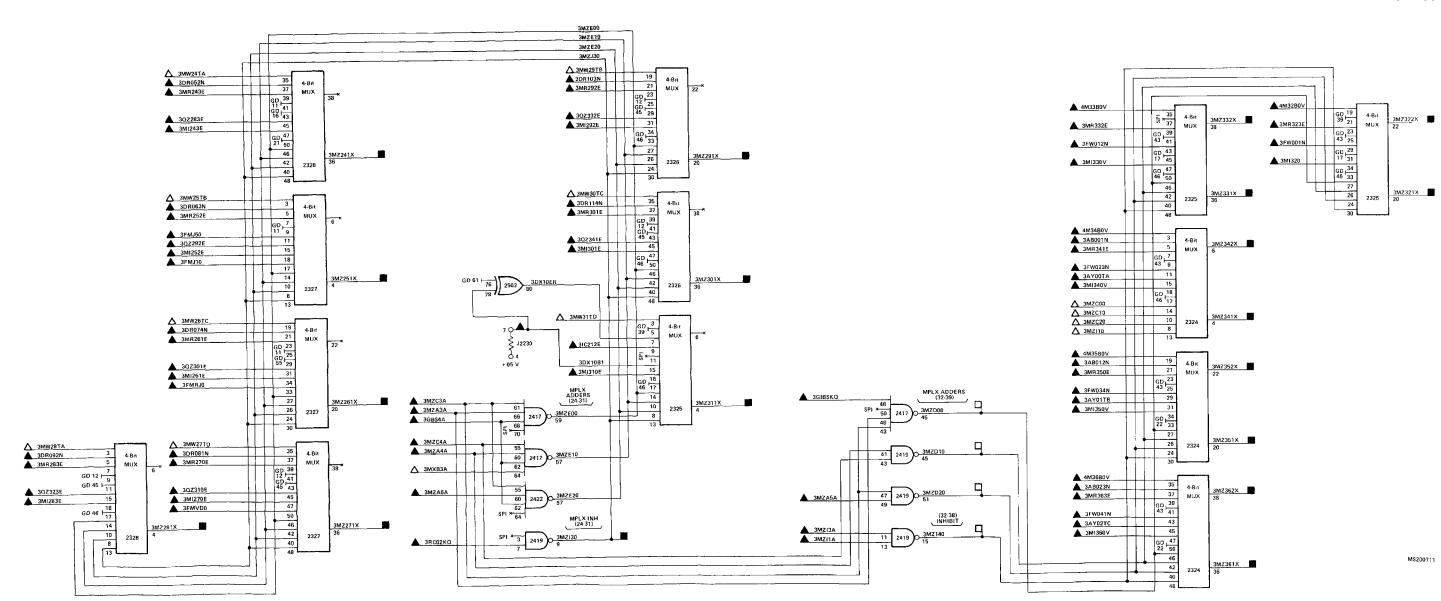
FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 4 of 9)

| INPUT         | r                    | 0UTPUT                                           |                               |                  |                |
|---------------|----------------------|--------------------------------------------------|-------------------------------|------------------|----------------|
| SIGNAL        | SOURCE<br>FO-SH SIG  | NAL                                              | DESTINATI<br>FO-SH            |                  |                |
| 3 D R O 2 3 N | 08800 3M<br>08800 3M | Z 2 0 1 X<br>Z 2 1 1 X<br>Z 2 2 1 X<br>Z 2 3 1 X | 11400, 11400, 11400, 11400, 1 | 11500,<br>11500, | 11600<br>11600 |

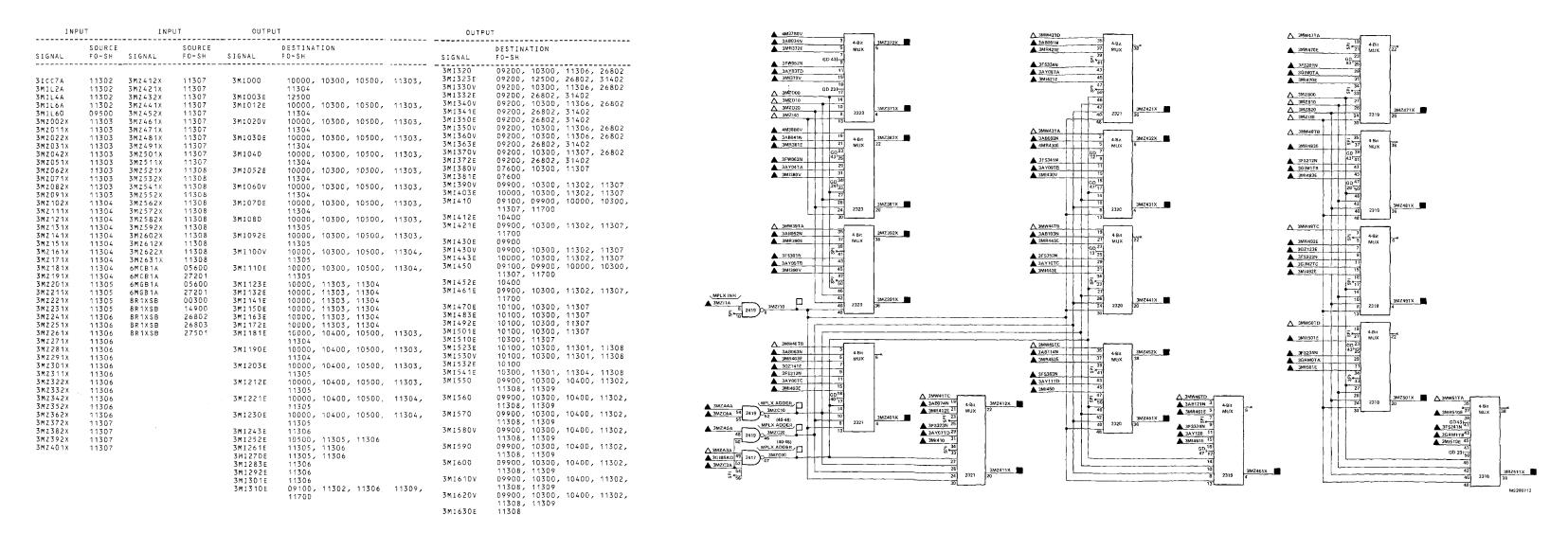


FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 5 of 9)

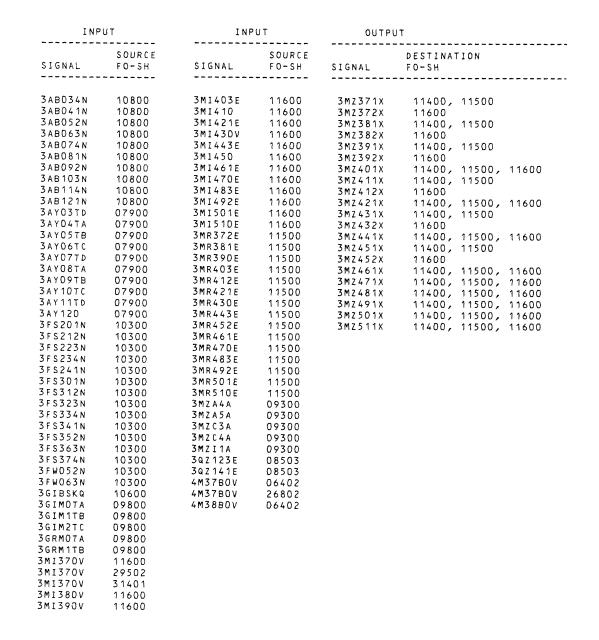
| INPL                                                                                                                                                                                                                                      | JT              | IN                            | PUT             | OUTP                                                | υT               |        |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|-----------------|-----------------------------------------------------|------------------|--------|------|
| SIGNAL                                                                                                                                                                                                                                    | SOURCE<br>FO-SH | SIGNAL                        | SOURCE<br>FO-SH | SIGNAL                                              | DESTINA<br>FO-SH | TION   |      |
| 3 ABOO 1 N<br>3 ABOO 1 N<br>3 ABOO 2 3 N<br>3 A Y O O T A<br>3 A Y O O T T B<br>3 A Y O 2 T C<br>3 D R O 5 2 N<br>3 D R O 6 3 N<br>3 D R O 7 4 N<br>3 D R O 9 2 N<br>3 D R 1 O 3 N<br>3 D R 1 1 4 N<br>3 D R 1 1 1 4 N<br>3 D R 1 1 0 B 1 | 10800           | 3M1350V                       | 31401<br>11600  | 3MZ241X                                             | 11400,           | 11500, | 1160 |
| 3AB023N                                                                                                                                                                                                                                   | 10800           | 3MI360V                       | 29502           | 3MZ261X                                             | 11400,           | 11500, | 1160 |
| 3AYO1TB                                                                                                                                                                                                                                   | 07900           | 3MR243E                       | 11500           | 3MZ281X                                             | 11400,           | 11500, | 1160 |
| 3 A Y D 2 T C                                                                                                                                                                                                                             | 07900           | 3MR252E                       | 11500           | 3MZ291X                                             | 11400,           | 11500, | 1160 |
| 30R052N                                                                                                                                                                                                                                   | 08800           | 3MR270E                       | 11500           | 3MZ301X                                             | 11400,           | 11500  | 1160 |
| 3 D R O 7 4 N                                                                                                                                                                                                                             | 08800           | 3MR283E                       | 11500           | 3MZ321X                                             | 11400,           | 11500  |      |
| 3 D R O 8 1 N                                                                                                                                                                                                                             | 08800           | 3MR292E                       | 11500           | 3MZ322X                                             | 11600            | 44500  |      |
| 30R092N                                                                                                                                                                                                                                   | 08800           | 3MR301E                       | 11500           | 3MZ331X                                             | 11400,           | 11500  |      |
| 30R114N                                                                                                                                                                                                                                   | 08800           | 3MR332E                       | 11500           | 3M2341X                                             | 11400,           | 11500  |      |
| 3DR114N<br>3DX10B1<br>3DX10B1<br>3FMJ10<br>3FMJ50<br>3FMVD0<br>3FWVD0<br>3FWVD12N<br>3FW012N<br>3FW023N<br>3FW034N                                                                                                                        | 09200           | 3MR341E                       | 11500           | 3M2341X<br>3M2342X<br>3M2351X<br>3M2352X<br>3M2361X | 11600            |        |      |
| 3DX10B1                                                                                                                                                                                                                                   | 29601           | 3MR350E                       | 11500           | 3MZ351X                                             | 11400,           | 11500  |      |
| 3 F M J 7 U                                                                                                                                                                                                                               | 10500           | 3MK363E                       | 00300           | 3MZ352X<br>3MZ361X<br>3MZ362X                       | 11600            | 11500  |      |
| 3FMRJ0                                                                                                                                                                                                                                    | 10500           | 3MZA5A                        | 09300           | 3MZ362X                                             | 11600            | 11700  |      |
| 3 F M V D O                                                                                                                                                                                                                               | 10500           | 3MZA6A                        | 09300           |                                                     |                  |        |      |
| 3 F W O O 1 N                                                                                                                                                                                                                             | 10300           | 3MZC3A                        | 09300           |                                                     |                  |        |      |
| 3 F W U 1 Z N                                                                                                                                                                                                                             | 10300           | 3M264A                        | 09300           |                                                     |                  |        |      |
| 3 F W O 3 4 N                                                                                                                                                                                                                             | 10300           | 3MZI3A                        | 09300           |                                                     |                  |        |      |
| 3 F W O 4 1 N<br>3 G B S 4 A<br>3 G I B S K Q                                                                                                                                                                                             | 10300           | 3QZ283E                       | 08501           |                                                     |                  |        |      |
| 3GBS4A                                                                                                                                                                                                                                    | 10600           | 3QZZ9ZE                       | 08501           |                                                     |                  |        |      |
| 30185KW                                                                                                                                                                                                                                   | 10100           | 307310F                       | 08501           |                                                     |                  |        |      |
| 31C212E<br>3MI243E                                                                                                                                                                                                                        | 11600           | 3 Q Z 3 2 3 E                 | 08501           |                                                     |                  |        |      |
| 3MI252E                                                                                                                                                                                                                                   | 11600           | 3Q2332E<br>3Q2341E<br>3RCO2KQ | 08501           |                                                     |                  |        |      |
| 3MI261E<br>3MI270E                                                                                                                                                                                                                        | 11600           | 3QZ341E                       | 11100           |                                                     |                  |        |      |
| 3M1283E<br>3M1292E                                                                                                                                                                                                                        | 11600           | 4M32B0V                       | 06402           |                                                     |                  |        |      |
| 3MI292E                                                                                                                                                                                                                                   | 11600           | 4M32B0V                       | 26802           |                                                     |                  |        |      |
| 3MI301E                                                                                                                                                                                                                                   | 11600           | 4M33B0V                       | 06402           |                                                     |                  |        |      |
| 3M1310E                                                                                                                                                                                                                                   | 11600           | 4M33BUV<br>4M34R0V            | 26602           |                                                     |                  |        |      |
| 3MI320                                                                                                                                                                                                                                    | 29501           | 4M34B0V                       | 26802           |                                                     |                  |        |      |
| 3MI320                                                                                                                                                                                                                                    | 31401           | 4 M 3 5 B O V                 | 06402           |                                                     |                  |        |      |
| 3MI330V                                                                                                                                                                                                                                   | 11600           | 4M35B0V                       | 26802           |                                                     |                  |        |      |
| 3M1391E<br>3M1310E<br>3M1320<br>3M1320<br>3M1320<br>3M1320<br>3M1330V<br>3M1330V<br>3M1330V                                                                                                                                               | 31401           | 4M36B0V                       | 26802           |                                                     |                  |        |      |
| 3MI340V                                                                                                                                                                                                                                   | 11600<br>29502  |                               |                 |                                                     |                  |        |      |
| 3MI34DV                                                                                                                                                                                                                                   | 29502           |                               |                 |                                                     |                  |        |      |
| 3MI340V<br>3MI350V                                                                                                                                                                                                                        | 31401<br>11600  |                               |                 |                                                     |                  |        |      |
| 3MI350V                                                                                                                                                                                                                                   | 11600<br>29502  |                               |                 |                                                     |                  |        |      |

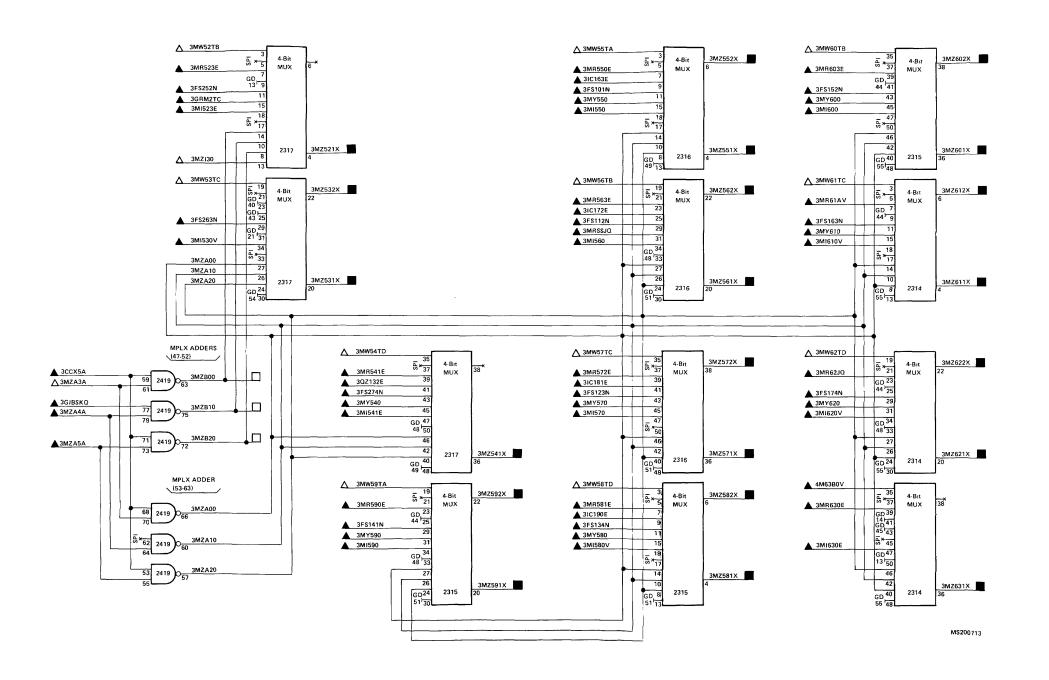


FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 6 of 9)

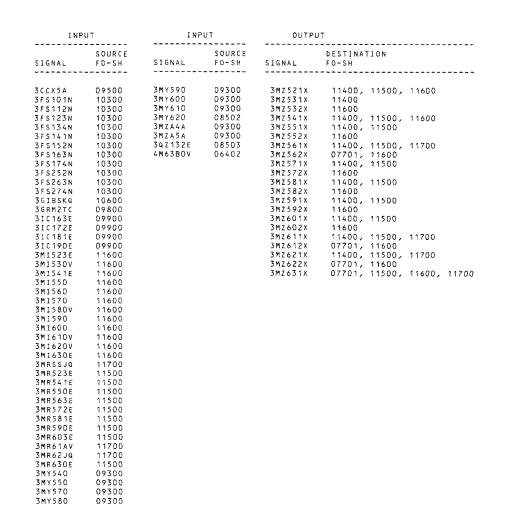


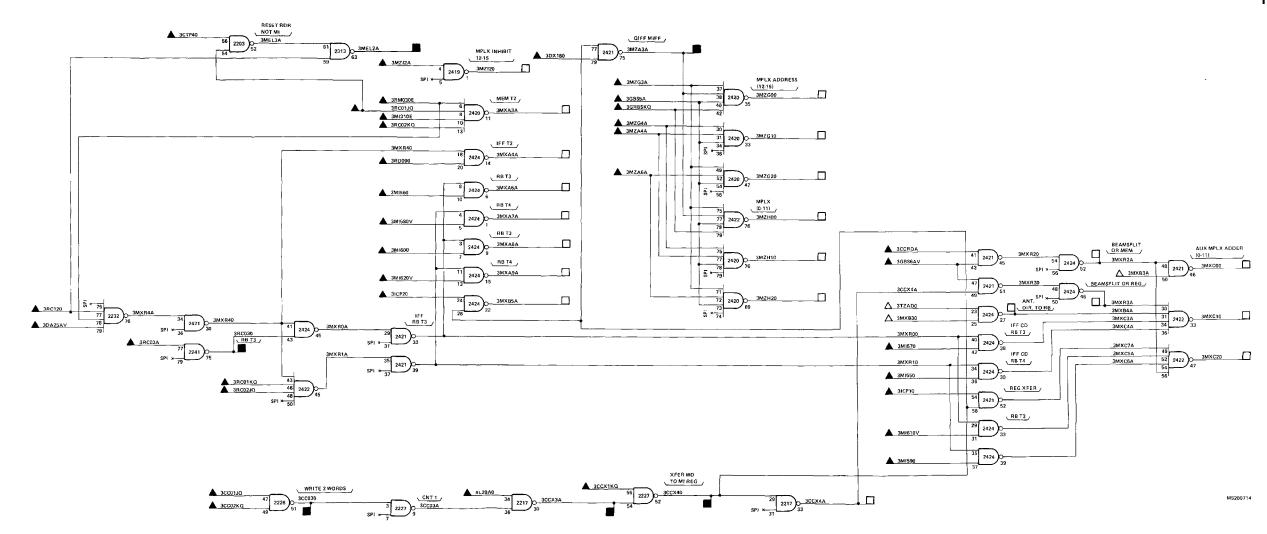
FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 7 of 9)



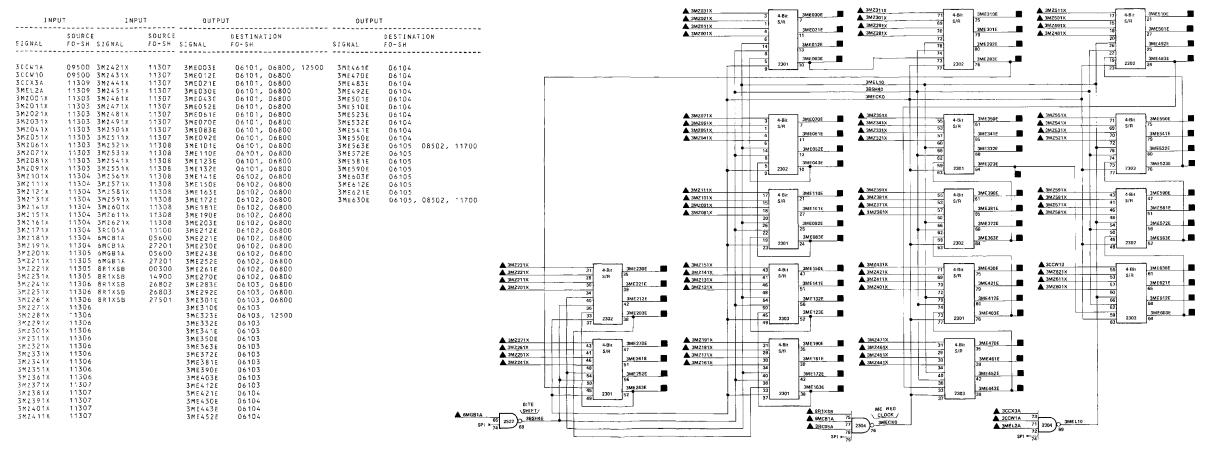


FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 8 of 9)





FO-113. TPU Memory Multiplexers Logic Diagram (Sheet 9 of 9)



- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- . REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
  - OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - FIGURE
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

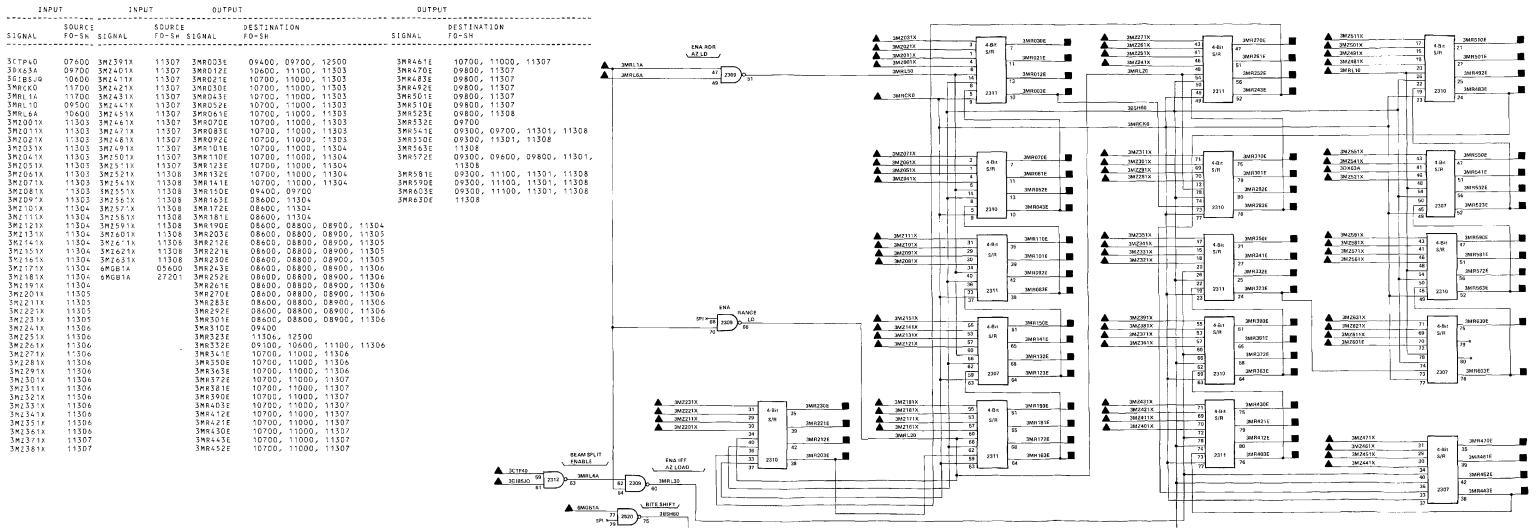
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5037 FOR CARD PART NUMBER.

C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS

 SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

FO-114. TPU Data Exchange Register Logic Diagram

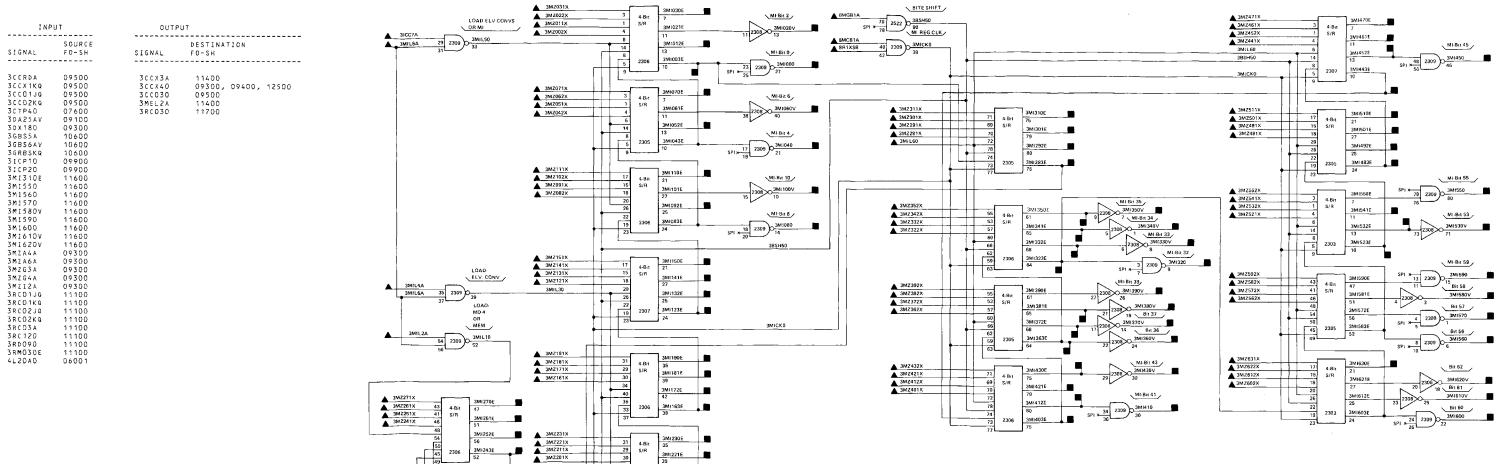


FO-115. TPU Memory Register Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATIONS , PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE

  - OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.



FO-116. TPU Memory Data Register Logic Diagram

## NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

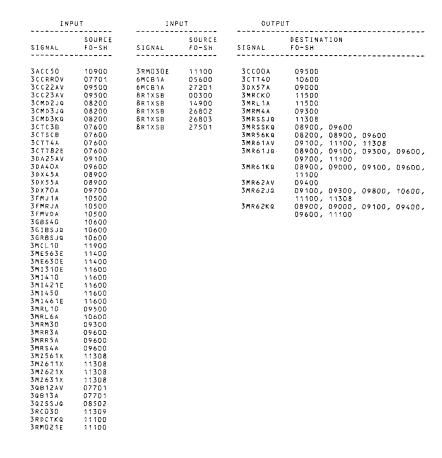
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

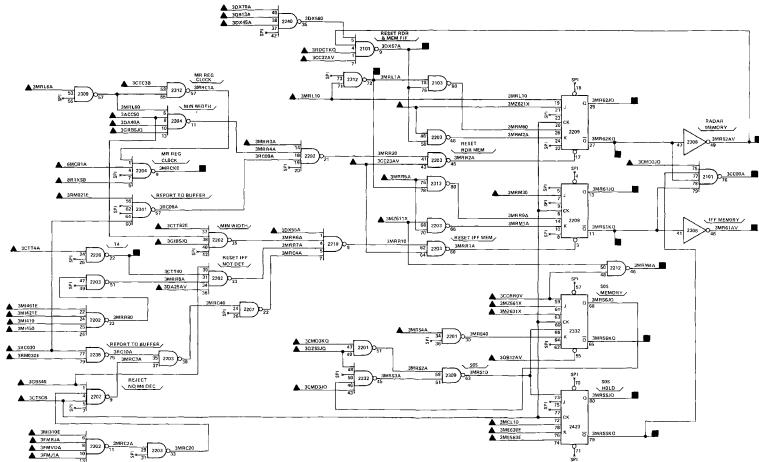
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

REFER TO TABLE 5037 FOR CARD PART

REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



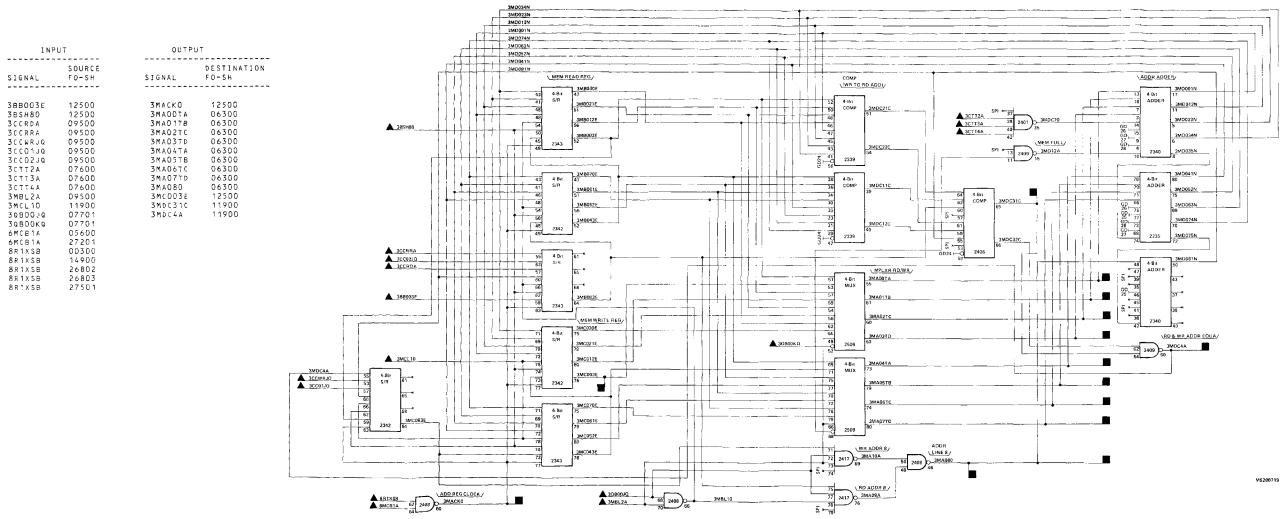


FO-117. TPU Memory Register Extension Bits and Cancel Target Logic Diagram

- PARTIAL REFERENCE
   DESIGNATIONS ARE SHOWN;
   FOR COMPLETE DESIGNATIONS,
   PREFIX WITH APPLICABLE UNIT
   NUMBER AND ASSEMBLY
   DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE A FOLLOWS:

INPUT FROM ANOTHER FIGURE
INPUT FROM SAME FIGURE
OUTPUT TO ANOTHER FIGURE
OUTPUT TO BOTH SAME AND AN
FIGURE
OUTPUT TO SAME FIGURE

- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-118. TPU Memory Address Logic Diagram

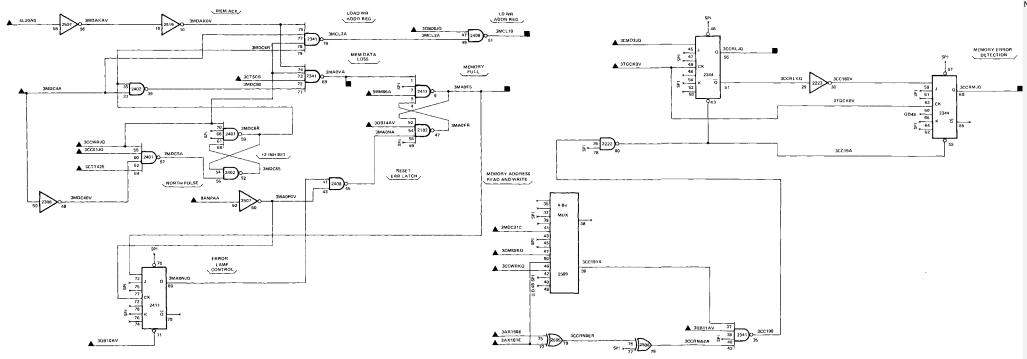
## NOTES: UNLESS OTHERWISE SPECIFIED

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- E. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:

INPUT FROM ANOTHER FIGURE
INPUT FROM SAME FIGURE
OUTPUT TO ANOTHER FIGURE
OUTPUT TO BOTH SAME AND ANOTH
FIGURE

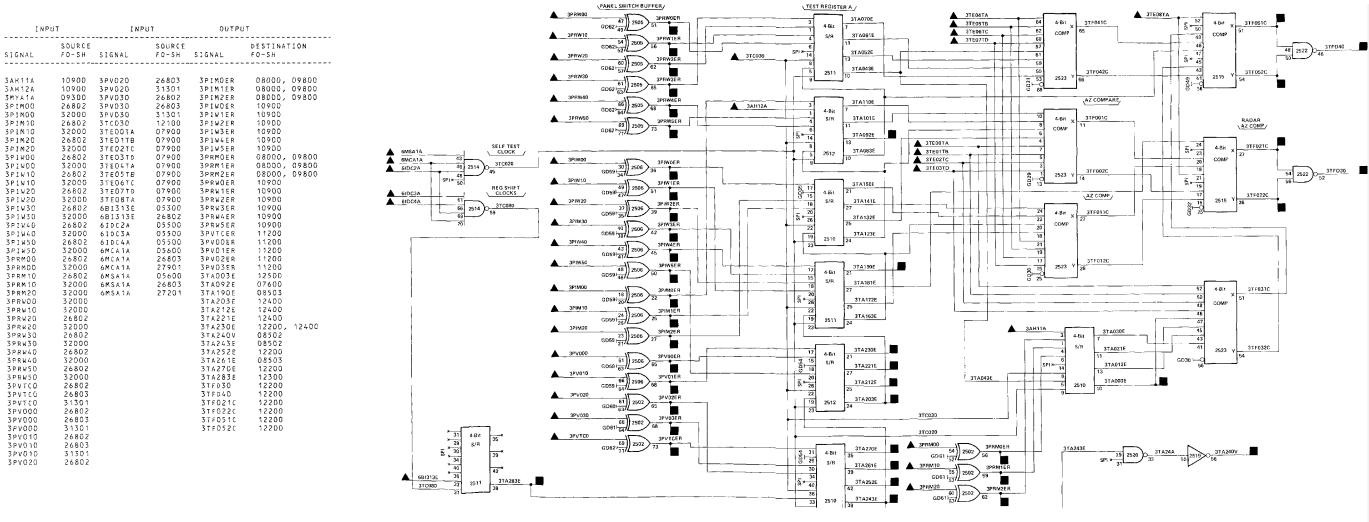
- OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

| INP              | UT    | 0UTP1         | JT                  |
|------------------|-------|---------------|---------------------|
|                  |       |               |                     |
|                  |       | SIGNAL        | FO-SK               |
|                  |       |               |                     |
| 3 A X 10 1 E     | 07900 | 3 C C R L J Q | 07701               |
| 3 A X 15 D E     | 07900 | 3 C C R M J Q | 07701               |
| 3 C C W R J Q    | 09500 | 3 M A O F S   | 13101, 26802, 31301 |
| 3 C C W R K Q    | 09500 | 3 M A O V A   | 07701               |
| 3 C C D 1 J Q    | 09500 | 3MCL10        | 11700, 11800        |
| 3 C M D 3 J Q    | 08200 |               |                     |
| 3 CMSSKQ         | 08200 |               |                     |
| 3 CTSCB          | 07600 |               |                     |
| 3 C T T 4 2 E    |       |               |                     |
| 3 M D C 3 1 C    | 11800 |               |                     |
| 3MDC4A           | 11800 |               |                     |
| 3aB00Ja          | 07701 |               |                     |
| 30810AV          | 07701 |               |                     |
| 3QB11AV          |       |               |                     |
| 3QB14AV          | 07701 |               |                     |
| 3 T G C K D V    | 12200 |               |                     |
| 4L20A0           |       |               |                     |
| 8ANPAA           | 17200 |               |                     |
| BANPAA<br>BANPAA | 26802 |               |                     |
| 8 a n P a a      | 28500 |               |                     |
| 9 W M O 6 A      | 19903 |               |                     |
| 9WM06A           | 26802 |               |                     |
| 9 W M O 6 A      | 27302 |               |                     |



FO-119. TPU Memory Full and Error Logic Diagram

- PARTIAL REFERENCE
  DESIGNATIONS ARE SHOWN;
  FOR COMPLETE
  DESIGNATIONS, PREFIX WITH
  APPLICABLE UNIT NUMBER
  AND ASSEMBLY
  DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - ▲ INPUT FROM ANOTHER FIGUI
    △ INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGUR
    OUTPUT TO BOTH SAME AND
    FIGURE
    OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- 7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.



FO-120. TPU Azimuth Compare Logic Diagram

- PARTIAL REFERENCE
   DESIGNATIONS ARE SHOWN;
   FOR COMPLETE
   DESIGNATIONS, PREFIX WITH
   APPLICABLE UNIT NUMBER
   AND ASSEMBLY
   DESIGNATION
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER I
    INPUT FROM SAME FIGU
    OUTPUT TO ANOTHER F
    OUTPUT TO BOTH SAME
  - FIGURE OUTPUT TO SAME FIGUR
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

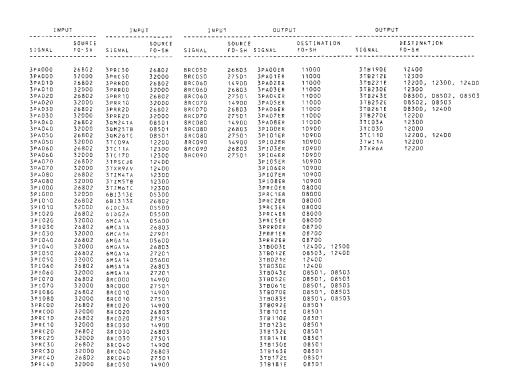
   REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR
- CIRCUITS.

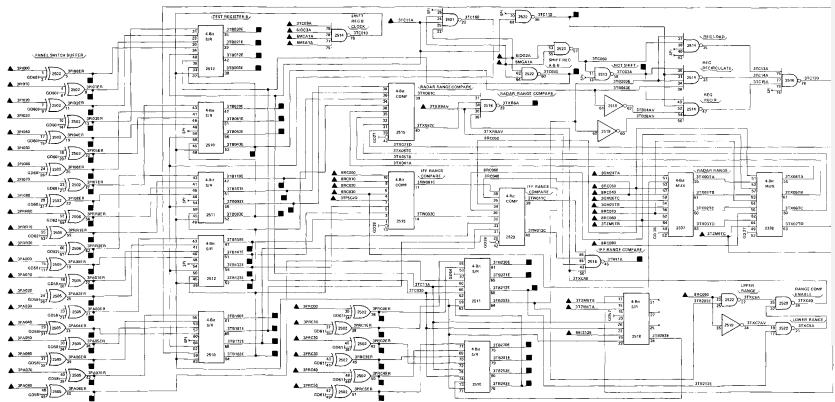
  8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION

DESIGNATIONS.

DC POWER AND GROUND

- CIRCUIT SYMBOLS INCLUDE
   CARD LOCATION AND CIRCUIT
   CARD PIN NI IMBERS
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

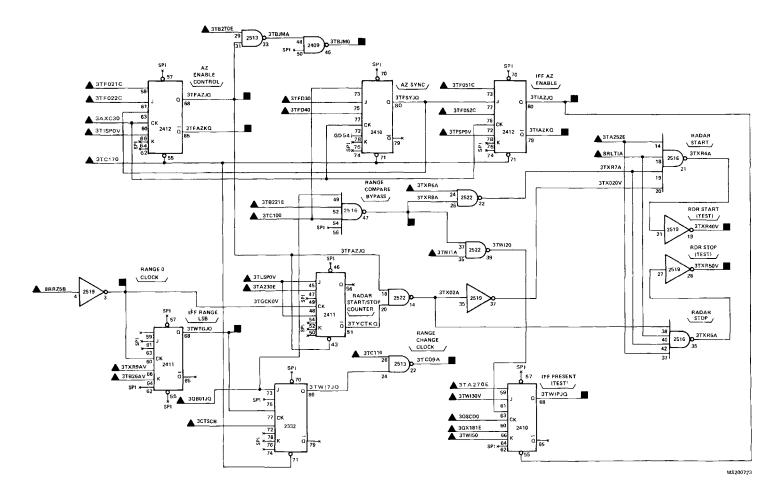




FO-121. TPU Radar/IFF Range Compare Logic Diagram

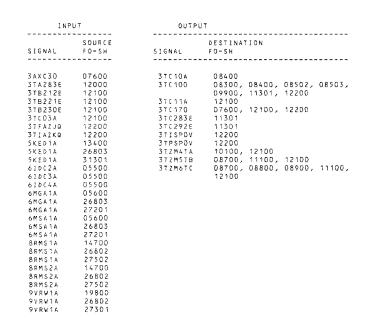
- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- 2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (141A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHE
    INPUT FROM SAME FI
    OUTPUT TO ANOTHER
    OUTPUT TO BOTH SAI
    FIGURE
  - OUTPUT TO SAME FIG
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT
  CARD PIN/TEST POINT
  PERFORM THE
  FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.

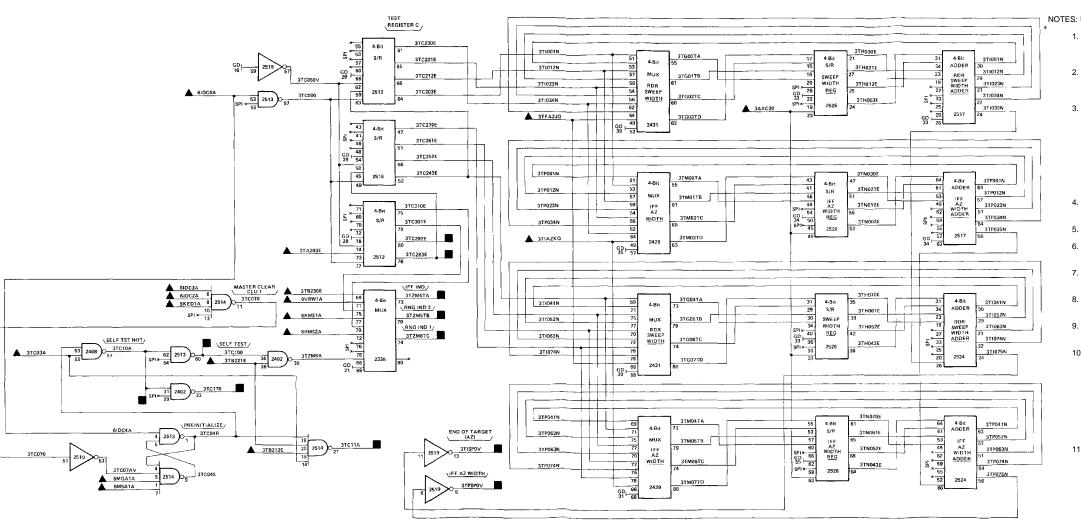
| INF                                                                                                                                                                                  | PUT                                                                                                                                  | OUTP                                                                  | TU                                                                  |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------|---------------------|
| SIGNAL                                                                                                                                                                               | SOURCE<br>FO~SH                                                                                                                      | SIGNAL                                                                | DESTINATION FO-SH                                                   | D N                 |
| SIGNAL  3AXC30  3Q801JQ  3Q8CD0  3TA230E  3TA230E  3TA270E  3TA270E  3TB26AV  3TB26AV  3TC100  3TC110  3TF030  3TF021C  3TF021C  3TF021C  3TF021C  3TF051C  3TF052C                  | F0-SH  07600 07600 07701 08300 08503 12000 12000 12100 12100 12100 12100 12100 12100 12100 12100 12300 12000 12000 12000 12000 12000 | 3TBJMO 3TCO9A 3TFAZJQ 3TFAZKQ 3TGCKOV 3TIAZJQ 3THAZKQ 3TWIPJQ 3TWTGJQ | 08502<br>12100<br>12300<br>12400<br>11900, 12<br>12400<br>12300, 13 | 2400<br>8400, 08503 |
| 3TLSPOV<br>3TPSPOV<br>3TWI1A<br>3TWI3OV<br>3TWI5O<br>3TXR6A<br>3TXR6A<br>3TXR9AV<br>8RLTIA<br>8RLTIA<br>8RLTIA<br>8RLTIA<br>8RLTIA<br>8RLTIA<br>8RLTIA<br>8RLTSB<br>8RRZSB<br>8RRZSB | 12400<br>12300<br>12100<br>12400<br>08400<br>12100<br>12400<br>14500<br>26802<br>26901<br>14600                                      |                                                                       |                                                                     |                     |



FO-122. TPU Test Control Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE
     INPUT FROM SAME FIGURE
     OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHEI
    - OUTPUT TO SAME FIGURE
- 4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- 5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- 6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- 8. REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- 9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
  - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
  - B. REFER TO TABLE 5037 FOR CARD PART NUMBER.
  - C. REFER TO TABLE 5-38 FOR CARD PINTEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A1224, A1230, AND A1438.





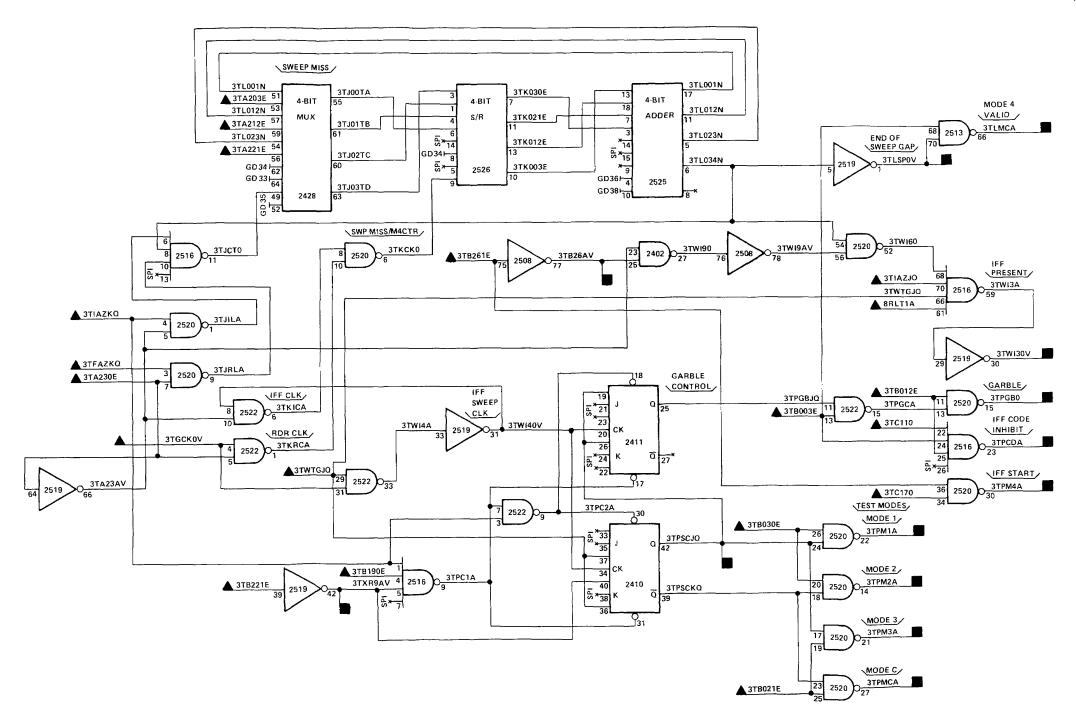
FO-123. TPU Sweep/Azimuth Test Logic Diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE
- 3. REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER

  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
- REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC
- REFER TO SECTION II FOR CIRCUITCATD CHIP FUNCTION
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
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- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

| INP                                                                                                                                                                                                                                                                                                                                                                                                                 | υT                                                                                                                                  | 0UTPU                                                                                           | ) T                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                              | SOURCE<br>FO-SH                                                                                                                     | SIGNAL                                                                                          | DESTINATION<br>FO-SH                                                                                     |
| 3TA203E<br>3TA212E<br>3TA221E<br>3TA221E<br>3TA230E<br>3TB003E<br>3TB0021E<br>3TB020E<br>3TB020E<br>3TB221E<br>3TB261E<br>3TC110<br>3TFAZKQ<br>3TGCKOV<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ<br>3TIAZKQ | 12000<br>12000<br>12000<br>12000<br>12100<br>12100<br>12100<br>12100<br>12100<br>12100<br>12100<br>12200<br>12200<br>12200<br>12200 | 3TB26AV 3TLMCA 3TLSPOV 3TPCDA 3TPGBO 3TPMCA 3TPM1A 3TPM2A 3TPM3A 3TPM4A 3TPSCJQ 3TWI3OV 3TXR9AV | 12200<br>08503<br>12200<br>08503<br>08503<br>09900<br>09900<br>09900<br>09900<br>08503<br>12100<br>12200 |
| 8RLTIA<br>8RLTIA                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                     |                                                                                                 |                                                                                                          |

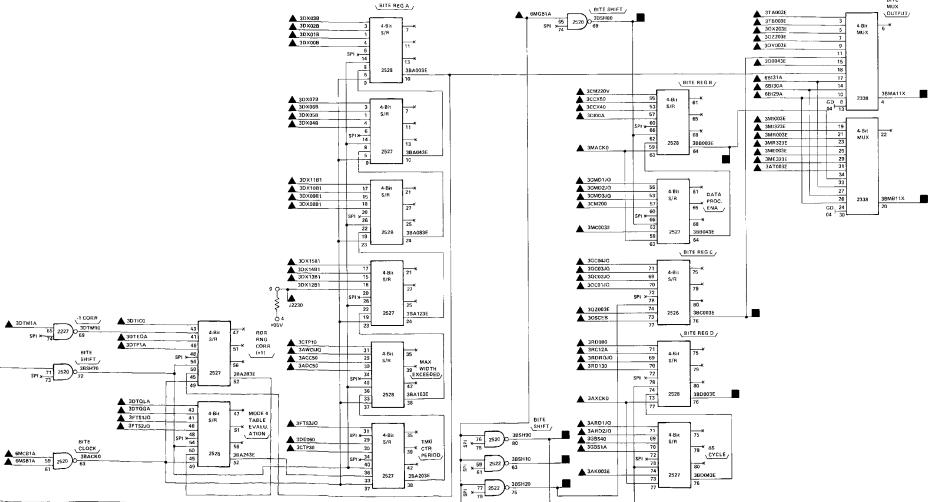


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- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FOR MTS TESTABLE CARDS.
- 11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

FO-124. TPU Sweep Miss/Garble Control Test Logic Diagram

| INP                                                          | υT                      | INP           | UT                      | INF        | TUT    | OUTPL        | JT                                                                                                                                    |
|--------------------------------------------------------------|-------------------------|---------------|-------------------------|------------|--------|--------------|---------------------------------------------------------------------------------------------------------------------------------------|
|                                                              | SOURCE                  |               | SOURCE                  |            | SOURCE |              | DESTINATION                                                                                                                           |
| SIGNAL                                                       | FO-SH                   | SIGNAL        | FO-SH                   | SIGNAL     | FO-SH  | SIGNAL       | DESTINATION<br>FO-SH                                                                                                                  |
| 3 A C C 5 O                                                  | 10000                   | 3 N V 1 N P 1 | 20401                   | 681304     | 27901  | 388003F      | 11800<br>08503<br>05400, 07900, 26802<br>05400, 26802<br>05400, 26802<br>08502, 08503<br>08501, 08503<br>11800<br>07900, 08000, 08100 |
| 3 A D C 5 O                                                  | 10900                   | 3071001       | 00200                   | 6B131A     | 05300  | 3BC003E      | 08503                                                                                                                                 |
| 3 A K O O 3 E                                                | 08100                   | 3 D Y 1 1 B 1 | 20601                   | 681314     | 26802  | 3BD003E      | 05400 - 07900 - 26802                                                                                                                 |
| 3ARD1JG                                                      | 08100<br>08100<br>08100 | 30X1701       | 00300                   | 6B1314     | 26803  | 3 BM A 1 1 X | 05400. 26802                                                                                                                          |
| 3ARD2JG                                                      | 08100                   | 36 X 12B 1    | 29601                   | 6B1314     | 27901  | 3 BMB 1 1 X  | 05400, 26802                                                                                                                          |
| 3 A T D O 3 F                                                | 08100                   | 30 X 13 B 1   | 09200                   | 6MCB14     | 05600  | 3BSH10       | 08502, 08503                                                                                                                          |
| 3 A W C I J Q                                                | 11000                   | 30 X 13 B 1   | 20601                   | 6MCB14     | 27201  | 3BSH20       | 08501 - 08503                                                                                                                         |
| 3 A X C K O                                                  | 07900                   | 3 D X 1 6 P 1 | 00200                   | 6M6B14     | 05600  | 385H80       | 11800                                                                                                                                 |
| 3 C C X 4 O                                                  | 11309                   | 30X14B1       | 29601                   | 6MGB1A     | 27201  | 3B5H90       | 07900. 08000. 08100                                                                                                                   |
| 3 C C X 5 O                                                  | 11309<br>09300          | 30×1401       | 00200                   | 6M S D 1 A | 05600  | 3531175      | 0.7007 000007 00.00                                                                                                                   |
| 301004                                                       | 09600                   | 3071501       | 20601                   | 6MCB16     | 26802  |              |                                                                                                                                       |
|                                                              | 08200                   | 307.1361      | 10500                   | 6MSD1A     | 26803  |              |                                                                                                                                       |
| 3 CMD 2 JQ                                                   | 08200<br>08200          | 3 F T C 2 10  | 10500                   | AMCD1A     | 27201  |              |                                                                                                                                       |
| 3 C M D 3 10                                                 | 08200                   | 3 5 7 5 3 10  | 10500                   | 0113017    | 2,20,  |              |                                                                                                                                       |
| 3 C M 2 D D                                                  | 08200                   | 360014        | 10300                   |            |        |              |                                                                                                                                       |
| 3CMD3JQ<br>3CM200<br>3CM220V<br>3CM220V<br>3CTP10<br>3CDE060 | 00000                   | 3GBS40        | 10600                   |            |        |              |                                                                                                                                       |
| 3 C T P 1 C                                                  | 07600                   | 3MACKO        | 11800                   |            |        |              |                                                                                                                                       |
| 3 C T P 3 O                                                  | 07600                   |               | 11800                   |            |        |              |                                                                                                                                       |
| 3 D E D A D                                                  | 0.000                   | 3ME003E       | 11400                   |            |        |              |                                                                                                                                       |
| 3 D E O 6 O                                                  | 29602                   | 3ME323E       | 11400                   |            |        |              |                                                                                                                                       |
| 3 D T E Q A                                                  |                         | 3MID03E       | 11400<br>11600          |            |        |              |                                                                                                                                       |
| 30T1C0                                                       | 09000                   | 3M1323E       | 11600                   |            |        |              |                                                                                                                                       |
| 3 D T M 1 A                                                  |                         | 3MI323E       | 11600<br>29502          |            |        |              |                                                                                                                                       |
| 3DTP1A                                                       | 09000                   | 3MR003E       | 11500                   |            |        |              |                                                                                                                                       |
| 3 D T Q G A                                                  | 09000                   | 3MR323E       | 11500                   |            |        |              |                                                                                                                                       |
| 3 D T Q L A                                                  |                         | 3 Q C O 1 J Q | 11500<br>08400          |            |        |              |                                                                                                                                       |
| 3 D X D O B                                                  | 09200                   |               | 08400                   |            |        |              |                                                                                                                                       |
| 3 D X D O B                                                  | 29601                   |               | 08400                   |            |        |              |                                                                                                                                       |
| 3 D X O 1 B                                                  | 09200                   | 3 Q C O 4 J Q | 08400                   |            |        |              |                                                                                                                                       |
| 3 D X O 2 B                                                  | 09200                   | 3QSCEB        | 08300                   |            |        |              |                                                                                                                                       |
| 3 D X O 2 B                                                  | 29601                   | 3QX203E       | 08300<br>08501          |            |        |              |                                                                                                                                       |
| 3 D X O 3 B                                                  |                         | 30Y003E       | 08503                   |            |        |              |                                                                                                                                       |
| 30X03B                                                       | 29601                   | 302003E       | 08503<br>08503<br>08501 |            |        |              |                                                                                                                                       |
| 3 D X D 4 B                                                  |                         | 3 Q Z 2 O 3 E | 08501                   |            |        |              |                                                                                                                                       |
| 30x04B                                                       | 29601                   | 300043E       | 08502                   |            |        |              |                                                                                                                                       |
| 3 D X D 5 B                                                  |                         |               |                         |            |        |              |                                                                                                                                       |
| 3 D X D 5 B                                                  | 29601                   | 3 R D R Q J Q | 11100<br>11100          |            |        |              |                                                                                                                                       |
| 30x06B                                                       | 09200                   | 3 R D R Q J Q | 26802                   |            |        |              |                                                                                                                                       |
| 3 D X D 6 B                                                  | 29601                   | 3RD080        | 11100                   |            |        |              |                                                                                                                                       |
| 3 D X C 7 B                                                  |                         | 3RD130        | 11100                   |            |        |              |                                                                                                                                       |
| 30x078                                                       | 29601                   | 3 T A O O 3 E | 12000                   |            |        |              |                                                                                                                                       |
| 3 D X O 8 B 1<br>3 D X O 8 B 1                               | 09200                   | 3TB003E       | 12100                   |            |        |              |                                                                                                                                       |
| 3 D X O 8 B 1                                                | 29601                   | 6B129A        | 26802                   |            |        |              |                                                                                                                                       |
| 3 D X O 9 B 1                                                | 09200                   | 6B129A        | 26803                   |            |        |              |                                                                                                                                       |
| 3 D X D 9 B 1                                                | 29601                   | 6B129A        | 26802<br>26803<br>27901 |            |        |              |                                                                                                                                       |
|                                                              |                         | 6813DA        | 26803                   |            |        |              |                                                                                                                                       |



FO-125. TPU BITE Registers and Output Multiplexers Logic diagram

- PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
- ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VPU BAY 1 CARD CAGE (1A1A1A5).
- REFERENCES ARE AS FOLLOWS:
  - INPUT FROM ANOTHER FIGURE

  - INPUT FROM SAME FIGURE
    OUTPUT TO ANOTHER FIGURE
    OUTPUT TO BOTH SAME AND ANOTHER
  - OUTPUT TO SAME FIGURE
- REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
- REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP
- REFER TO CABLING DIAGRAM SECTIONXII FOR UNIT-TO-UNIT SIGNAL CABLING.
- REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
- REFER TO SECTION II FOR CIRCUIT CATD CHIP FUNCTION DESIGNATIONS.
- CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
- 10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
- A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
- B. REFER TO TABLE 5-37 FOR CARD PART NUMBER.
- C. REFER TO TABLE 5-38 FOR CARD PIN/TEST POINT FORMTS TESTABLE CARDS.
- SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A2130, A2230, A2330, A2430, AND A2530.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR. General, United States Army Chief of Staff

Official:

DONALD J. DELANDRO Brigadier General, United States Army The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-32, Section III, Organizational Maintenance requirements for AN/TSQ-73 Missile System.

# RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

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**DA** 1 FORM 2028-2

PREVIOUS EDITIONS ARE OBSOLETE. P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

# The Metric System and Equivalents

# Linear Measure

- 1 centimeter = 10 millimeters = .39 inch
- 1 decimeter = 10 centimeters = 3.94 inches
- 1 meter = 10 decimeters = 39.37 inches
- 1 dekameter = 10 meters = 32.8 feet
- 1 hectometer = 10 dekameters = 328.08 feet
- 1 kilometer = 10 hectometers = 3,280.8 feet

## Weights

- 1 centigram = 10 milligrams = .15 grain
- 1 decigram = 10 centigrams = 1.54 grains
- 1 gram = 10 decigram = .035 ounce
- 1 decagram = 10 grams = .35 ounce
- 1 hectogram = 10 decagrams = 3.52 ounces
- 1 kilogram = 10 hectograms = 2.2 pounds
- 1 quintal = 100 kilograms = 220.46 pounds
- 1 metric ton = 10 quintals = 1.1 short tons

- Liquid Measure
- 1 centiliter = 10 milliliters = .34 fl. ounce
- 1 deciliter = 10 centiliters = 3.38 fl. ounces
- 1 liter = 10 deciliters = 33.81 fl. ounces
- 1 dekaliter = 10 liters = 2.64 gallons
- 1 hectoliter = 10 dekaliters = 26.42 gallons
- 1 kiloliter = 10 hectoliters = 264.18 gallons

## Square Measure

- 1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
- 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
- 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
- 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
- 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

## **Cubic Measure**

- 1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
- 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
- 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

# **Approximate Conversion Factors**

| To change     | То                 | Multiply by | To change          | То            | Multiply by |
|---------------|--------------------|-------------|--------------------|---------------|-------------|
| inches        | centimeters        | 2.540       | ounce-inches       | Newton-meters | .007062     |
| feet          | meters             | .305        | centimeters        | inches        | .394        |
| yards         | meters             | .914        | meters             | feet          | 3.280       |
| miles         | kilometers         | 1.609       | meters             | yards         | 1.094       |
| square inches | square centimeters | 6.451       | kilometers         | miles         | .621        |
| square feet   | square meters      | .093        | square centimeters | square inches | .155        |
| square yards  | square meters      | .836        | square meters      | square feet   | 10.764      |
| square miles  | square kilometers  | 2.590       | square meters      | square yards  | 1.196       |
| acres         | square hectometers | .405        | square kilometers  | square miles  | .386        |
| cubic feet    | cubic meters       | .028        | square hectometers | acres         | 2.471       |
| cubic yards   | cubic meters       | .765        | cubic meters       | cubic feet    | 35.315      |
| fluid ounces  | milliliters        | 29,573      | cubic meters       | cubic yards   | 1.308       |
| pints         | liters             | .473        | milliliters        | fluid ounces  | .034        |
| quarts        | liters             | .946        | liters             | pints         | 2.113       |
| gallons       | liters             | 3.785       | liters             | quarts        | 1.057       |
| ounces        | grams              | 28.349      | liters             | gallons       | .264        |
| pounds        | kilograms          | .454        | grams              | ounces        | .035        |
| short tons    | metric tons        | .907        | kilograms          | pounds        | 2.205       |
| pound-feet    | Newton-meters      | 1.356       | metric tons        | short tons    | 1.102       |
| pound-inches  | Newton-meters      | .11296      |                    |               |             |

# **Temperature (Exact)**

| °F | Fahrenheit  | 5/9 (after      | Celsius     | °C |
|----|-------------|-----------------|-------------|----|
|    | temperature | subtracting 32) | temperature |    |

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