

ENGINEERING SPECIFICATION		SECURITY NOTATION		SPEC NO. IT4061400-907		H REV LTR
				CAGE CODE 58960		
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DOCUMENT TYPE INTEGRATED TEST				CLASS A		INITIAL RELEASE DATE 8 JUL 93
DIVISION AES - DV	DEPARTMENT NO. 5237	PRODUCT LINE NO. 3834	CONTRACT NO.			
TITLE INTEGRATED TEST SPECIFICATION FOR MODE S TRANSPONDER, PART NO. 4061400-9XX						
PREPARED BY: B. Gardner		DATE 93-07-02	APPROVED BY TECHNICAL MANAGER J. Finnegan		DATE 93-07-02	APPROVED BY ENGINEERING DEPARTMENT MANAGER
APPROVED FOR SCM		DATE	APPROVED FOR SQA		DATE	APPROVED BY: DATE
REF AWAEB/PSAEB NO. 4055000	CHECKER R. Scott Jones 93-07-08	PRODUCT DESIGN CHECKER (FOR REF, SPCL CONT PER EPM 1-A-40)			COGNIZANCE OF QE SUPVR (FOR REF, SPCL CONT PER EPM 1-A-40)	
FOR PAGE INDEX, SEE PAGE CR-2. REVISION RECORD FOLLOWS PAGE INDEX.						
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REV LTR	TITLE: INTEGRATED TEST SPECIFICATION FOR MODE S TRANSPONDER, PART NO. 4061400-9XX 1. SCOPE This Integrated Test Specification (IT) establishes the manufacturing and operational requirements that the Mode S Transponder, Part No. 4061400-9XX, must meet to ensure that the unit is in proper operating condition. 2. REFERENCE DOCUMENTS These reference documents are not required for performance of the test procedure. The purpose of listing these documents is to provide an aid for troubleshooting should any discrepancies occur during the performance of the test procedure. <table> <tr> <td>4061400-9XX</td> <td>End Item Drawing - Mode S Transponder</td> </tr> <tr> <td>4061401</td> <td>Outline and Installation Drawing</td> </tr> <tr> <td>64980-90912</td> <td>HP 64000 System Overview Reference</td> </tr> <tr> <td>64980-90928</td> <td>HP 64000 System Software Reference</td> </tr> <tr> <td>1002-6801-000</td> <td>IFR 1403 Operation/Maintenance Manual</td> </tr> <tr> <td>C35-3641-05</td> <td>System Control Panel User's Manual</td> </tr> </table> 3. GENERAL INFORMATION 3.1 All tests shall be performed under the following conditions: Temperature = 25 ± 5 C Relative humidity = 95% maximum Pressure = between 20 and 32 inHg 3.2 Tests 1 thru 10 shall be performed with the HP 64000/UDE or PC/CPI emulation system attached to the top connector of the unit under test (UUT) A1 CCA (refer to figure 1). All subsequent tests shall be performed in a stand-alone configuration with the emulation system removed or deactivated. Power to the UUT shall be removed before attaching or removing any interconnecting systems.			4061400-9XX	End Item Drawing - Mode S Transponder	4061401	Outline and Installation Drawing	64980-90912	HP 64000 System Overview Reference	64980-90928	HP 64000 System Software Reference	1002-6801-000	IFR 1403 Operation/Maintenance Manual	C35-3641-05	System Control Panel User's Manual
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	3.3 Notes on operating the HP 64000 emulation system are as follows: 3.3.1 All tests requiring the HP 64000 emulation system shall be performed while executing the SDP-185 monitor software. In the engineering environment, the monitor is invoked by executing the 'HW' command file from within the MODESP user ID of the HP 64000 system. 3.3.2 All address and data information should be entered in Hex with a leading 0 and trailing H (the H indicates the data is in hexadecimal). See example in 3.3.3. 3.3.3 Most emulation commands are invoked by pressing HP 64000 softkeys, found directly below the CRT. Only hexadecimal addresses and data are typed using the standard typewriter keypad of the HP 64000. For example, to change the contents of location C000 (Hex) to the value AAAA (Hex), the following HP 64000 command would be entered: modify memory 0C000H to 0AAAAH In this example, the words (modify, memory, and to) are entered with single-keystroke softkeys. 3.4 Notes on operation of the PC emulation system are as follows: 3.4.1 All tests requiring the PC emulation system shall be performed while executing the SDP-185 monitor software. In the engineering environment, the monitor is invoked by executing the 'SCP MDS' command file. 3.4.2 All address and data information should be entered in Hex with a leading 0# for CACHE locations and a leading 1# for local memory. See example in 3.4.3. 3.4.3 Most emulation commands are invoked by pressing the softkeys. Only addresses, data, and 'MDS' are typed using the standard typewriter keys. For example, to change the contents of location C000 (Hex) to the value AAAA (Hex), the following PC command would be entered: modify memory MDS word 0#C000 to AAAA In this example, the words (modify, memory, word, and to) are entered with single-keystroke softkeys. 3.5 When testing diversity, the two antenna signals are referred to as ANT A and ANT B. This conversion is consistent with that used by the IFR transponder test equipment and does not need to be correlated to the actual top and bottom antenna signals. In other words, the TOP ANT cable can be connected to either ANT A port or ANT B port of the IFR equipment.				
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	3.6 Standard rate and power for ATCRBS and Mode S interrogations are defined as follows: ATCRBS: 450 Hz, -50 dBm Mode S: 45 Hz, -50 dBm 3.7 Input discrete signal standards are as follows: GND - <3.5 V at 100 mA OPEN - >100k ohms +5V - 5 ± 1 V dc at 20 mA +28V - >18 V dc 3.8 Output discrete signal standards are as follows: GND - <3.5 V dc OPEN - >100k ohms +28V - >18 V dc 3.9 Notes on entering data into the IFR S-1403 are listed below: 3.9.1 Data is entered by use of the cursor keys, slew knob, and numeric keypad. Use the cursor keys to move between input fields (the cursor will not move to an output/display field). Once in the desired field, use the slew knob and/or numeric keypad to alter the data. 3.9.2 Some fields require the data to toggle through one or more states (for example, the SPR: ON/OFF field). Use the ON/CAL button to toggle such fields. 3.9.3 Some input fields can be moved through a range of numeric values (for example, the Dv=CAL field). These fields must first be toggled out of the CAL state and into the data entry mode. The slew knob and numeric keypad can then be used to provide the desired value. 3.9.4 Some fields require the ENTER key to be pressed after the required data has been selected (for example, the UF= field). 3.10 Notes and a list of HP 64000 command files (Honeywell Part No. MT4061400-902) are as follows: 3.10.1 The total execution time of this Integrated Test Procedure may be greatly reduced by using the HP 64000 command files listed in paragraph 3.10.3. These command files automatically execute many keystrokes found in certain tests and match statement-for-statement (excluding 'wait' statements) the steps found in the IT work steps. 3.10.2 After executing the 'HW' batch file (see paragraph 3.3), execute the command file by typing the filename (using all caps) into the HP 64000 and pressing RETURN. Most command files pause to allow the operator to record data. Press any key to resume command file execution.				
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	3.10.3 <table border="0"> <tr> <td><u>IT Test No.</u></td> <td><u>HP 64000 Command Filename</u></td> </tr> <tr><td>1</td><td>IT10</td></tr> <tr><td>2</td><td>IT20</td></tr> <tr><td>3</td><td>IT30 (See note 1.)</td></tr> <tr><td>4</td><td>IT40</td></tr> <tr><td>5</td><td>IT50</td></tr> <tr><td>6</td><td>IT60</td></tr> <tr><td>7</td><td>IT70 (Shall be executed twice to complete test 7.)</td></tr> <tr><td>8</td><td>IT80</td></tr> <tr><td>9</td><td>IT81</td></tr> <tr><td>10</td><td>IT90</td></tr> <tr><td>11</td><td>IT100 (See note 2.)</td></tr> </table> <u>NOTE 1:</u> Before running IT30, test 3 must be performed. IT30 must also be performed at the completion of the IT to clear E². <u>NOTE 2:</u> Before running IT100, end out of emulation mode by entering "END" into the HP 64000.	<u>IT Test No.</u>	<u>HP 64000 Command Filename</u>	1	IT10	2	IT20	3	IT30 (See note 1.)	4	IT40	5	IT50	6	IT60	7	IT70 (Shall be executed twice to complete test 7.)	8	IT80	9	IT81	10	IT90	11	IT100 (See note 2.)				
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REV LTR						
Table 2(Cont). Initial Mode S Transponder (UUT) Configuration						
(Mode S Interface Panel)						
Signal Name		Switch Position		Signal Sense		UUT Rear Connector Pin No.
ANT PGM		2		OPEN		J1A-6K
ANT CABLE DLY		T/B	BOT	GND		J1A-3C
		B	1	OPEN		J1A-3D
		A	0	GND		J1A-3E
GILHAM ALT 1		A1	1	GND		J1B-4A
		A2	0	OPEN		J1B-4B
		A4	1	GND		J1B-4C
		B1	0	OPEN		J1B-4D
		B2	1	GND		J1B-4E
		B4	0	OPEN		J1B-4F
		C1	1	GND		J1B-4G
		C2	0	OPEN		J1B-4H
		C4	1	GND		J1B-4J
		D2	0	OPEN		J1B-4K
		D1	1	GND		J1B-5K
GILHAM ALT 2		A1	0	OPEN		J1A-1A
		A2	1	GND		J1A-1B
		A4	0	OPEN		J1A-1C
		B1	1	GND		J1A-1D
		B2	0	OPEN		J1A-1E
		B4	1	GND		J1A-1F
		C1	0	OPEN		J1A-1G
		C2	1	GND		J1A-1H
		C4	0	OPEN		J1A-1J
		D2	1	GND		J1A-1K
		D4	0	OPEN		J1A-2K
ANT BITE		ON		GND		J1B-5J
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REV LTR	Table 3(Cont). Complemented Mode S Transponder (UUT) Configuration (Mode S Interface Panel)					
Signal Name		Switch Position		Signal Sense		
ANT PGM		1		GND		
ANT CABLE DLY		T/B	TOP	OPEN		
		B	0	GND		
		A	1	OPEN		
GILHAM ALT 1		A1	0	OPEN		
		A2	1	GND		
		A4	0	OPEN		
		B1	1	GND		
		B2	0	OPEN		
		B4	1	GND		
		C1	0	OPEN		
		C2	1	GND		
		C4	0	OPEN		
		D2	1	GND		
		D4	0	OPEN		
GILHAM ALT 2		A1	1	GND		
		A2	0	OPEN		
		A4	1	GND		
		B1	0	OPEN		
		B2	1	GND		
		B4	0	OPEN		
		C1	1	GND		
		C2	0	OPEN		
		C4	1	GND		
		D2	0	OPEN		
		D4	1	GND		
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REV LTR	Table 4. Initial Setup For Internal RF Self-Test					
Address		Modify to				
C000H thru C006H		0000H				
C007H thru C00DH		5555H				
C00EH		D457H				
C00FH		AAAAH				
C01FH		FFFFH				
C020H		AAAAH				
C021H		AAAAH				
C022H		5555H				
C023H		5555H				
C024H		000DH				
C025H		009EH				
C026H		00BFH				
C028H		002AH				
C02AH		5500H				
C02BH		FFAAH				
C02FH		0007H				
NOTE 1: Read 1DW4 (location 0D604).						
NOTE 2: Copy bits 0 thru 3 of 1DW4 into bits 4 thru 7 and write the value 7H into bits 0 thru 3 of RF 0DW15 (location 0C027).						
NOTE 3: Copy bits 4 thru 7 of 1DW4 plus 01DH into bits 0 thru 5 of RF 0DW17(location 0C029).						
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REV LTR	Table 5. Initial Settings For Mode S And ATCRBS (Mode S SW Running)									
	(Mode S Interface Panel)									
	Signal Name			Switch Position			Signal Sense			
	MODE S ADDRESS			A1	0		OPEN			
			A2	1		GND				
			A3	0		OPEN				
			A4	1		GND				
			A5	0		OPEN				
			A6	1		GND				
			A7	0		OPEN				
			A8	1		GND				
			A9	0		OPEN				
			A10	1		GND				
			A11	0		OPEN				
			A12	1		GND				
			A13	0		OPEN				
			A14	1		GND				
			A15	0		OPEN				
			A16	1		GND				
			A17	0		OPEN				
			A18	1		GND				
			A19	0		OPEN				
			A20	1		GND				
			A21	0		OPEN				
			A22	1		GND				
			A23	0		OPEN				
			A24	1		GND				
	ANT PGM				2		OPEN			
	ANT CABLE DELAY			T/B	BOT		OPEN			
			B	1		OPEN				
			A	1		OPEN				
	ANT BITE				ON		GND			
	FUNC TEST				OFF		OPEN			
	STBY/ON				ON		OPEN			

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		SEE THE TITLE PAGE FOR PROPRIETARY AND DATA RIGHTS NOTATIONS.								REV LTR																																																																							
REV LTR	Table 5(Cont). Initial Settings For Mode S And ATCRBS (Mode S SW Running) (Mode S Interface Panel) <table><thead><tr><th colspan="2">Signal Name</th><th colspan="2">Switch Position</th><th colspan="2">Signal Sense</th></tr></thead><tbody><tr><td colspan="2">ALT COMP</td><td colspan="2">OFF</td><td colspan="2">OPEN</td></tr><tr><td colspan="2">ALT SRC SEL</td><td colspan="2">2</td><td colspan="2">GND</td></tr><tr><td colspan="2">ALT TYPE SEL</td><td>B</td><td>1</td><td colspan="2">OPEN</td></tr><tr><td colspan="2"></td><td>A</td><td>1</td><td colspan="2">OPEN</td></tr><tr><td colspan="2">CNTL PNL</td><td colspan="2">B</td><td colspan="2">OPEN</td></tr><tr><td colspan="2">AIR/GND</td><td>1</td><td>GROUND</td><td colspan="2">GND</td></tr><tr><td colspan="2">AIR/GND</td><td>2</td><td>AIR</td><td colspan="2">OPEN</td></tr></tbody></table> NOTE 1: Disconnect all wires from MAINT DATA OUT A, B jacks on the Mode S interface panel. NOTE 2: Set up two ARINC sources as shown (can be provided by one 429 source with dual-label capability):<table><thead><tr><th></th><th>SOURCE 1</th><th>SOURCE 2</th></tr></thead><tbody><tr><td>Transmit speed:</td><td>LOW</td><td>LOW</td></tr><tr><td>Transmit parity:</td><td>ODD</td><td>ODD</td></tr><tr><td>Transmit rate:</td><td>168 ms</td><td>50 ms</td></tr><tr><td>429 Label:</td><td>016 (octal)</td><td>203 (octal)</td></tr><tr><td>429 Data:</td><td>1FFE48 (Hex)</td><td>627740 (Hex)</td></tr><tr><td>Connect to:</td><td>CNTL DATA B</td><td>429 ADC 1 and</td></tr><tr><td>(On MDS interface panel)</td><td></td><td>429 ADC 2</td></tr></tbody></table> NOTE 3: Run Mode S software by removing or disabling the UDE or CPI interface from the UUT and reenergizing the unit. NOTE 4: The UDE or CPI must be removed or disabled to allow LRU software to operate.									Signal Name		Switch Position		Signal Sense		ALT COMP		OFF		OPEN		ALT SRC SEL		2		GND		ALT TYPE SEL		B	1	OPEN				A	1	OPEN		CNTL PNL		B		OPEN		AIR/GND		1	GROUND	GND		AIR/GND		2	AIR	OPEN			SOURCE 1	SOURCE 2	Transmit speed:	LOW	LOW	Transmit parity:	ODD	ODD	Transmit rate:	168 ms	50 ms	429 Label:	016 (octal)	203 (octal)	429 Data:	1FFE48 (Hex)	627740 (Hex)	Connect to:	CNTL DATA B	429 ADC 1 and	(On MDS interface panel)		429 ADC 2
Signal Name		Switch Position		Signal Sense																																																																													
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	Table 6. Initial 429 Setup (Internal Wrap)									
	Config Reg			Address			Modify To			
	0			0D218H			08888H			
	1			0D21AH			08888H			
	2			0D21CH			00000H			
	3			0D400H			0FFE0H			
	N/A			0D220H thru 0D22EH			0FFAAH			
	Table 6.1. Walking 1S 429 Setup (Internal Wrap)									
	Config Reg			Address			Modify To			
	0			0D218H			08888H			
	1			0D21AH			08888H			
	2			0D21CH			00000H			
	3			0D400H			0FFE0H			
	N/A			0D220H thru 0D22EH			00000H			
	Table 7. Initial 429 Setup (External Wrap)									
	Config Reg			Address			Modify To			
	0			0D218H			08888H			
	1			0D21AH			088AAH			
	2			0D21CH			00090H			
	3			0D400H			0FF76H			
	N/A			0D220H thru 0D22EH			0FF00H			

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REV LTR	Table 8. Initial 429 I/O Interconnects (Mode S Interface Panel) <table><tr><td colspan="3">From</td><td colspan="3">To</td></tr><tr><td>Signal Name</td><td></td><td>UUT Rear Connector Pin No.</td><td>Signal Name</td><td></td><td>UUT Rear Connector Pin No.</td></tr><tr><td rowspan="2">DATA LINK OUT</td><td>A</td><td>J1B-5E</td><td rowspan="2">DATA LINK IN</td><td>A</td><td>J1A-2A</td></tr><tr><td>B</td><td>J1B-5F</td><td>B</td><td>J1A-2B</td></tr><tr><td rowspan="2">XT COORD</td><td>A</td><td>J1A-5G</td><td rowspan="2">TX COORD</td><td>A</td><td>J1A-5E</td></tr><tr><td>B</td><td>J1A-5H</td><td>B</td><td>J1A-5F</td></tr><tr><td rowspan="2">MAINT DATA IN</td><td>A</td><td>J1B-6A</td><td rowspan="2">FLT ID</td><td>A</td><td>J1A-6A</td></tr><tr><td>B</td><td>J1B-6B</td><td>B</td><td>J1A-6B</td></tr><tr><td rowspan="2">MAINT DATA OUT</td><td>A</td><td>J1B-6C</td><td rowspan="2">MAINT DATA IN</td><td>A</td><td>J1A-6A</td></tr><tr><td>B</td><td>J1B-6D</td><td>B</td><td>J1A-6B</td></tr><tr><td rowspan="2">429 ADC #1</td><td>A</td><td>J1A-7H</td><td rowspan="2">CNTL DATA A</td><td>A</td><td>J1A-7A</td></tr><tr><td>B</td><td>J1A-7J</td><td>B</td><td>J1A-7B</td></tr><tr><td rowspan="2">429 ADC #2</td><td>A</td><td>J1B-5A</td><td rowspan="2">CNTL DATA B</td><td>A</td><td>J1A-7E</td></tr><tr><td>B</td><td>J1B-5B</td><td>B</td><td>J1A-7F</td></tr><tr><td rowspan="2">FLT ID</td><td>A</td><td>J1A-6A</td><td rowspan="2">CNTL DATA A</td><td>A</td><td>J1A-7A</td></tr><tr><td>B</td><td>J1A-6B</td><td>B</td><td>J1A-7B</td></tr><tr><td rowspan="2">CNTL DATA A</td><td>A</td><td>J1A-7A</td><td rowspan="2">CNTL DATA B</td><td>A</td><td>J1A-7E</td></tr><tr><td>B</td><td>J1A-7B</td><td>B</td><td>J1A-7F</td></tr></table>						From			To			Signal Name		UUT Rear Connector Pin No.	Signal Name		UUT Rear Connector Pin No.	DATA LINK OUT	A	J1B-5E	DATA LINK IN	A	J1A-2A	B	J1B-5F	B	J1A-2B	XT COORD	A	J1A-5G	TX COORD	A	J1A-5E	B	J1A-5H	B	J1A-5F	MAINT DATA IN	A	J1B-6A	FLT ID	A	J1A-6A	B	J1B-6B	B	J1A-6B	MAINT DATA OUT	A	J1B-6C	MAINT DATA IN	A	J1A-6A	B	J1B-6D	B	J1A-6B	429 ADC #1	A	J1A-7H	CNTL DATA A	A	J1A-7A	B	J1A-7J	B	J1A-7B	429 ADC #2	A	J1B-5A	CNTL DATA B	A	J1A-7E	B	J1B-5B	B	J1A-7F	FLT ID	A	J1A-6A	CNTL DATA A	A	J1A-7A	B	J1A-6B	B	J1A-7B	CNTL DATA A	A	J1A-7A	CNTL DATA B	A	J1A-7E	B	J1A-7B	B	J1A-7F
From			To																																																																																															
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G	4. POWER REQUIREMENTS 115 ± 5 V ac, 400 ± 10 Hz 115 ± 5 V ac or 230 ± 10 V ac, 48 to 66 Hz				
	5. TEST EQUIPMENT 5.1 <u>Honeywell Test Equipment</u> 4066423-902 CPI (modified with connector board, Part No. 4067220) 4067839 Mode S Interface Panel 4067841-901 RF Cable 4067841-902 RF Cable 4067842 M-S LRU Cooling Tray 4067846 SDP-185 UDE MT4061400-902 HP 64000/UDE Test Software MT4061400-101 PC/CPI Test Software 5.2 <u>Commercial Test Equipment</u> IEEE-488 Cable, 10833A IFR ATC-1400A Transponder Tester IFR S-1403 Mode S Tester HP 64000 System, or equivalent JCAir 429E ARINC 429 Analyzer, or equivalent Tektronix 2432A Digital Oscilloscope, or equivalent Digital Voltmeter, Fluke 77, or equivalent Omni Spectra, 2021-1314-02, or equivalent zero ohm terminator Omni Spectra, 3082-2240-00, Type N-SMA or equivalent connector IBM PC, or equivalent, with a Ziatech IEEE-488 interface card, ZT1444A				
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REV LTR	6. TEST SETUP 6.1 Turn on the commercial test equipment and allow it to warm up. Verify that the test equipment used is calibrated and working properly. 6.2 Connect the UUT to the IFR test equipment, Mode S interface panel, and HP 64000 system. (See figure 1.) 7. TEST REQUIREMENTS 7.1 The IFR equipment requires a 5-minute warmup period. No other warmup is required before testing the Mode S Transponder.					
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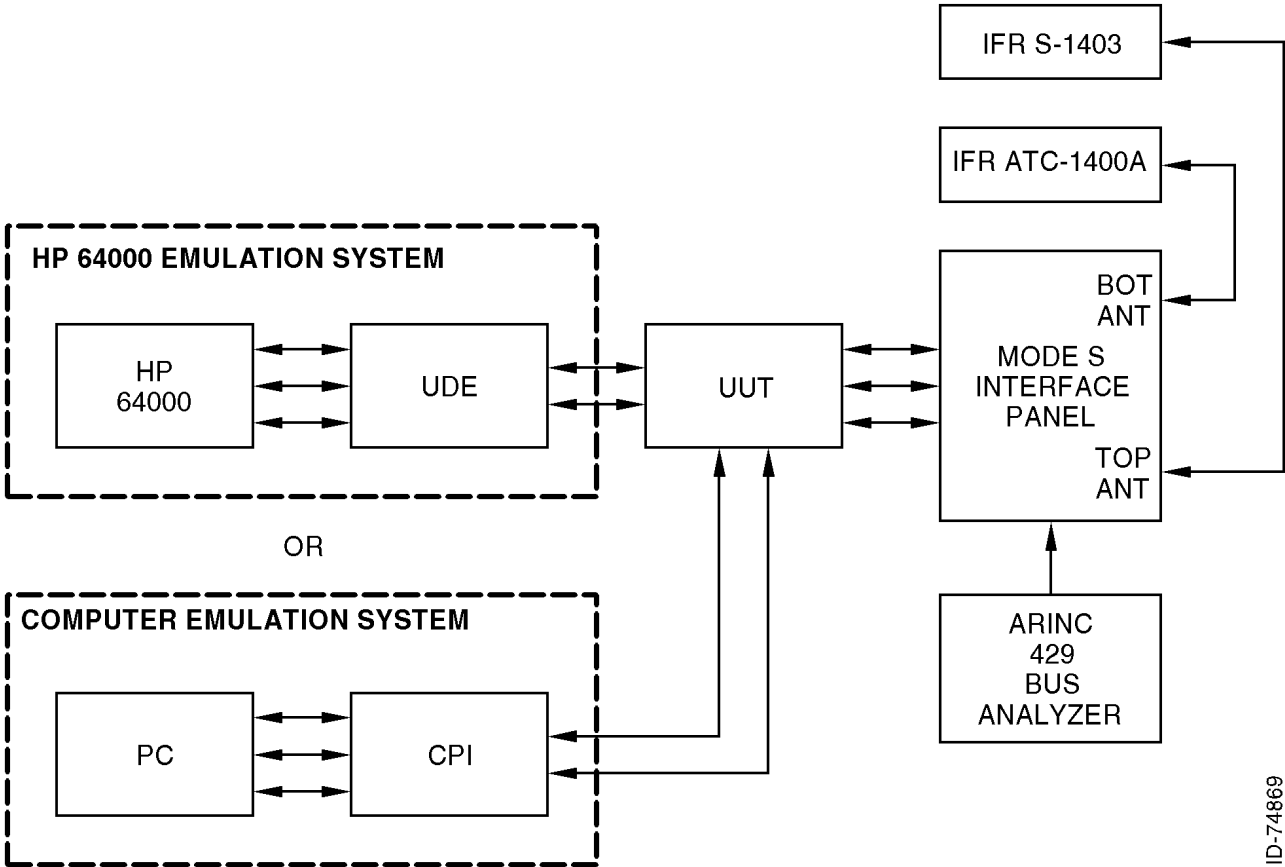
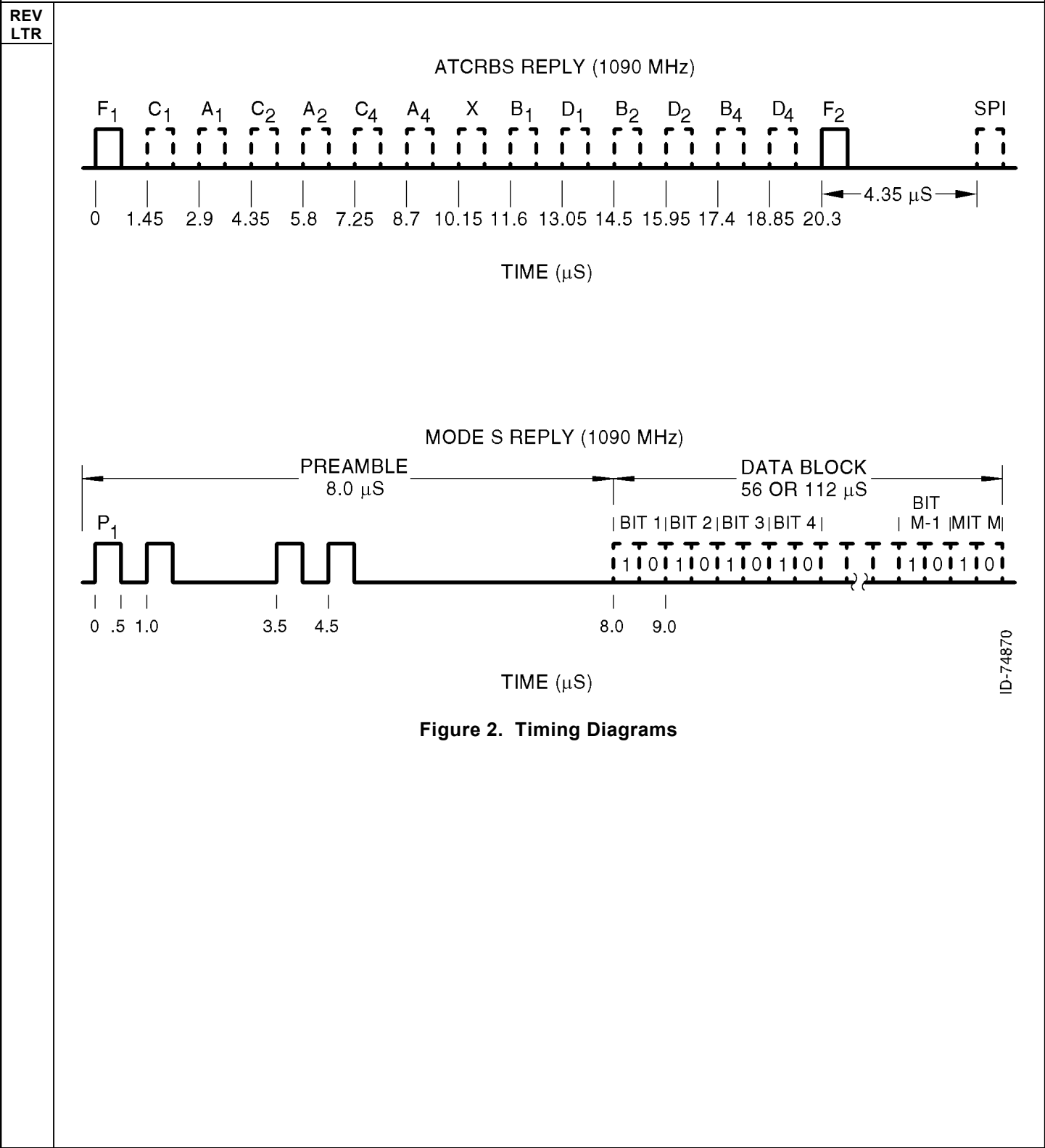


Figure 1. Initial Test Equipment Setup



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	7.2 The test steps shall be performed in the order listed. In the event of a failure and repair, the test must be performed again from the beginning. 7.3 All control settings that are altered during the course of a specific test should be returned to their initial settings before starting a new procedure. 7.4 This procedure is intended to be performed by a knowledgeable technician or engineer. It is assumed that the equipment will be energized and deenergized as appropriate when changing connections and setups. 7.5 Individual column definitions are as follows: <table border="1"> <thead> <tr> <th><u>Column</u></th> <th><u>Description</u></th> </tr> </thead> <tbody> <tr> <td>Rev Ltr</td> <td>Revision letters are used to identify revised material.</td> </tr> <tr> <td>Test No.</td> <td>Tests are numbered in sequence.</td> </tr> <tr> <td>Opr Limits</td> <td>Unit under test (UUT) shall meet these limits when tested at other than the manufacturing facility. When an item is marked OPTIONAL, the corresponding test is not required except as an aid in troubleshooting.</td> </tr> <tr> <td>Test Description</td> <td>These items are the parameters to which the UUT was designed and aid in troubleshooting by specifying the input and output signal terminals. All conditions required are not repeated for each test, and conditions established in previous tests also apply.</td> </tr> <tr> <td>Switch Pos</td> <td>Positions to which switches must be set are listed in required order and are grouped to correspond to applicable work steps.</td> </tr> <tr> <td>Work Steps</td> <td>This column defines the operations necessary to perform a test and achieve a result. Set switches to designated positions before performing corresponding work step.</td> </tr> <tr> <td>Mfg Limits</td> <td>UUT shall meet these limits at final buyoff before customer delivery.</td> </tr> </tbody> </table>					<u>Column</u>	<u>Description</u>	Rev Ltr	Revision letters are used to identify revised material.	Test No.	Tests are numbered in sequence.	Opr Limits	Unit under test (UUT) shall meet these limits when tested at other than the manufacturing facility. When an item is marked OPTIONAL, the corresponding test is not required except as an aid in troubleshooting.	Test Description	These items are the parameters to which the UUT was designed and aid in troubleshooting by specifying the input and output signal terminals. All conditions required are not repeated for each test, and conditions established in previous tests also apply.	Switch Pos	Positions to which switches must be set are listed in required order and are grouped to correspond to applicable work steps.	Work Steps	This column defines the operations necessary to perform a test and achieve a result. Set switches to designated positions before performing corresponding work step.	Mfg Limits	UUT shall meet these limits at final buyoff before customer delivery.
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	8. TEST PROCEDURE 8.1 Perform tests 1 thru 28 if using the HP 64000 emulation system. 8.2 Perform tests A1 thru A10 in Appendix A if using the PC/CPI emulation system. 8.3 When alternative tests A1 thru A10 are completed, perform tests 11 thru 28 to complete the test procedures.					
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	1			SOFTWARE LOAD While running the SDP-185 monitor program (refer to paragraph 3.3.1), modify the following SDP-185 registers as shown: Modify register CACHE to 1. Modify register EPROM_EN to 1.			<u>SOFTWARE LOAD</u> Run the SDP-185 monitor program (refer to paragraph 3.3.1). Modify the following SDP-185 registers as shown: Enter "modify register CACHE to 1" "modify register EPROM_EN to 1"	
	1.1	7FDE:580D 7FDF:EEEE		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -902.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -902.	7FDE:580D 7FDF:EEEE
	1.2	7FDE:718F 7FDF:3150		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -903.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -903.	7FDE:718F 7FDF:3150
	1.3	7FDE:0E2D 7FDF:F202		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -904.			Enter "display memory 07FDEH thru 07FDFH" The values shall be a specified for a -904.	7FDE:0E2D 7FDF:F202
	1.4	7FDE:4353 7FDF:F5DF		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -905 not MOD E.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -905 not MOD E.	7FDE:4353 7FDF:F5DF
	1.5	7FDE:6C8B 7FDF:BA1D		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -905 MOD E.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -905 MOD E.	7FDE:6C8B 7FDF:BA1D
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	2			<u>CACHE RAM</u> Modify register CACHE to 0. If this IT is being performed using an automated test facility, complete test 2.1. If this IT is being performed using the manual test fixture, complete test 2.2.			<u>CACHE RAM</u> Modify register CACHE to 0. If this IT is being performed using an automated test facility, complete test 2.1. If this IT is being performed using the manual test fixture, complete test 2.2.	
	2.1	N/A		<u>Automated Procedure</u> Write the cache RAM address (0000H thru 3FFFFH) to each location in cache RAM (20000H thru 23FFFFH).			<u>Automated Procedure</u> Write the cache RAM address (0000H thru 3FFFFH) to each location in cache RAM (20000H thru 23FFFFH).	N/A
	2.1.1	0000H thru 3FFFFH		Verify that each cache RAM location contains the correct data. Write the complement of each cache RAM address (FFFFH thru C000H) to each location in cache RAM (20000H thru 23FFFFH).			Verify that each cache RAM location contains the correct data. Write the complement of each cache RAM address (FFFFH thru C000H) to each location in cache RAM (20000H thru 23FFFFH).	0000H thru 3FFFFH
	2.1.2	FFFFH thru C000H		Verify that each cache RAM location contains the correct data.			Verify that each cache RAM location contains the correct data.	FFFFH thru C000H
	2.2	N/A		<u>Manual Test Procedure</u> Enter "modify memory 20000H thru 23FFFFH to 0AAAAH"			<u>Manual Test Procedure</u> Enter "modify memory 20000H thru 23FFFFH to 0AAAAH"	N/A
	2.2.1	AAAAH		Enter "display memory 20000H thru 2007FH" Enter "modify memory 20000H thru 23FFFFH to 05555H"			Enter "display memory 20000H thru 2007FH" Enter "modify memory 20000H thru 23FFFFH to 05555H"	AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	2.2.2	5555H		Enter "display memory 20000H thru 2007FH"			Enter "display memory 20000H thru 2007FH"	5555H
	2.2.3	5555H		Enter "display memory 23E80H thru 23FFFH"			Enter "display memory 23E80H thru 23FFFH"	5555H
	3	N/A		<u>EEPROM</u> Enter "modify register CACHE TO 0" Write LRU dash and serial numbers to the EEPROM locations 9FC0H to 9FCAH respectively. D/N stands for dash number and S/N stands for serial number.			<u>EEPROM</u> Enter "modify register CACHE to 0" Enter "modify memory 20000H thru 2000AH to (1st digit of D/N). (2nd digit of D/N). (3rd digit of D/N). (1st digit of S/N). (2nd digit of S/N). (3rd digit of S/N). (4th digit of S/N). (5th digit of S/N). (6th digit of S/N). (7th digit of S/N). (8th digit of S/N)." D/N stands for dash number and S/N for serial number. Enter "END" Switch HBDIS* on UDE (LED shall be illuminated).	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	3.1	N/A		<u>NOTE:</u> EEPROM is only 8 bits wide, instead of 16. If 16 bits of data are specified, only the least significant 8 bits are used. Thus, FE34H is the same as 34H. Write the EEPROM address (00H thru FFH) to each location in EEPROM (8000H thru 9FFFH). Verify each location. Write the complement of each EEPROM address (FFH thru 00H) to each location in EEPROM (8000H thru 9FFFH). Verify each location. Write the value FFH to each location in EEPROM (8000H thru 9FFFH). Verify each location. Write the LRU dash and serial numbers, in ISO-5 format, to the EEPROM locations 9FC0H to 9FCAH.			Enter "SW IT30P" Enter "run from startup" Program will take several minutes to complete. Front panel LEDs shall flash in a repetitive pattern while the program is executing. When the program is complete all six LEDs shall be illuminated.	N/A
	3.2	PASS					Enter "modify register CACHE to 0" Enter "display memory 20010H thru 20011H" Look in the ASCII decode display for the Pass/Fail indicator. Status shall be as indicated. Enter "modify register CACHE to 1"	PASS
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	3.3	PASS		Verify that each 8-bit word in locations 9FC0H thru 9FCAH contains the proper dash and serial numbers.			Enter "display memory 9FC0H thru 9FCAH" Look in the ASCII decode display and verify that each 8-bit word contains the proper dash and serial numbers. Enter "END" Switch HBDIS* on VDE (LED shall not illuminate). Enter "HW" <u>VIDEO RAM</u> Write the video RAM address (C000H thru C00FH) to each location in video RAM (C000H thru C00FH).	PASS
	4			<u>VIDEO RAM</u> Write the video RAM address (C000H thru C00FH) to each location in video RAM (C000H thru C00FH).			<u>VIDEO RAM</u> Enter "modify register CACHE to 1" Enter "modify memory 0C000H thru 0C003H to 0C000H, 0C001H, 0C002H, 0C003H" Enter "modify memory 0C004H thru 0C007H to 0C004H, 0C005H, 0C006H, 0C007H" Enter "modify memory 0C008H thru 0C00BH to 0C008H, 0C009H, 0C00AH, 0C00BH" Enter "modify memory 0C00CH thru 0C00FH to 0C00CH, 0C00DH, 0C00EH, 0C00FH" Enter "display memory 0C000H thru 0C00FH"	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	4.1	C000H thru C00FH		Verify that each video RAM location contains the correct data. Write the complement of each video RAM address (3FFFH thru 3FF0H) to each location in video RAM (C000H thru C00FH).			Verify that each video RAM location contains the correct data. Enter "modify memory 0C000H thru 0C003H to 3FFFH, 3FFEh, 3FFDH, 3FFCH" Enter "modify memory 0C004H thru 0C007H to 3FFBH, 3FFAH, 3FF9H, 3FF8H" Enter "modify memory 0C008H thru 0C00BH to 3FF7H, 3FF6H, 3FF5H, 3FF4H" Enter "modify memory 0C00CH thru 0C00FH to 3FF3H, 3FF2H, 3FF1H, 3FF0H" Enter "display memory 0C000H thru 0C00FH"	C000H thru C00FH
	4.2	3FFFH thru 3FF0H		Verify that each video RAM location contains the correct data.			Verify that each video RAM location contains the correct data.	3FFFH thru 3FF0H
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	5			<u>INPUT DISCRETES</u> Perform test setup in accordance with table 2. Read the following memory locations:			<u>INPUT DISCRETES</u> Perform test setup for the transponder interface panel in accordance with table 2. Enter "modify register CACHE to 1" Enter "display memory 0D600H thru 0D605H repetitively" The memory locations shall indicate as follows: (X = don't care)		
	5.1	X355H or XB55H X4AAH or XCAAH 5555H 55XXH 6AXXH XABFH, bit 12 = 0		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT. Read the following memory locations:			0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT by performing test setup in accordance with table 3. The memory locations shall indicate as follows: (X = don't care)	X355H or XB55H X4AAH or XCAAH 5555H 55XXH 6AXXH XABFH, bit 12 = 0	
	5.2	X4AAH or XCAAH X355H or XB55H AAAAH AAXXH 95XXH X744H, bit 12 = 1		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT by performing test setup in accordance with table 3. The memory locations shall indicate as follows: (X = don't care)	Mode S Interface <u>Panel</u> Table 3		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT by performing test setup in accordance with table 3. The memory locations shall indicate as follows: (X = don't care)	X4AAH or XCAAH X355H or XB55H AAAAH AAXXH 95XXH X744H, bit 12 = 1	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION												
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS												
	5.3	X5XXH		While pressing the Push To Test button on the front panel of the UUT, read memory location D605H. The value shall be as indicated. (X = don't care)			While pressing the Push To Test button on the front panel of the UUT, enter "display memory 0D605H". The value shall be as indicated. (X = don't care)	X5XXH												
	6			<u>OUTPUT DISCRETES</u> Perform test setup in accordance with table 2. Write to Output Data Word 0 and Configuration Register 3 as shown: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0012H</td> </tr> <tr> <td>0D400H</td> <td>2A00H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The signal sense shall be as specified.	<u>Address</u>	<u>Data</u>	0D607H	0012H	0D400H	2A00H			<u>OUTPUT DISCRETES</u> Perform test setup in accordance with table 2. Write to Output Data Word 0 and Configuration Register 3 as shown: (Enter "modify memory <address> to <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0012H</td> </tr> <tr> <td>0D400H</td> <td>2A00H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified.	<u>Address</u>	<u>Data</u>	0D607H	0012H	0D400H	2A00H	
<u>Address</u>	<u>Data</u>																			
0D607H	0012H																			
0D400H	2A00H																			
<u>Address</u>	<u>Data</u>																			
0D607H	0012H																			
0D400H	2A00H																			
	6.1	on off off on off on		XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The signal sense shall be as specified.			XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified.	on off off on off on												
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION												
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS												
	6.2	<u>Sig/Lamp</u> OPN/ON (Green) GND/OFF OPN/OFF GND/ON (Green)		<u>Sig/Lamp</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2 Write to Output Data Word 0 and Configuration Register 3 as shown: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0001H</td> </tr> <tr> <td>0D400H</td> <td>1500H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The signal sense shall be as specified.	<u>Address</u>	<u>Data</u>	0D607H	0001H	0D400H	1500H			<u>Sig/Lamp</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2 Write to Output Data Word 0 and Configuration Register 3 as shown: (Enter "modify memory <address> to <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0001H</td> </tr> <tr> <td>0D400H</td> <td>1500H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified.	<u>Address</u>	<u>Data</u>	0D607H	0001H	0D400H	1500H	<u>Sig/Lamp</u> OPN/ON (Green) GND/OFF OPN/OFF GND/ON (Green)
<u>Address</u>	<u>Data</u>																			
0D607H	0001H																			
0D400H	1500H																			
<u>Address</u>	<u>Data</u>																			
0D607H	0001H																			
0D400H	1500H																			
	6.3	off on on off on off		XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The signal sense shall be as specified.			XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified.	off on on off on off												

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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	6.4	<u>Sig/Lamp</u> GND/OFF OPN/ON (Red) +5V/ON (Red) OPN/OFF		<u>Signal Name</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2			<u>Signal Name</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2	<u>Sig/Lamp</u> GND/OFF OPN/ON (Red) +5V/ON (Red) OPN/OFF
	7			<u>SYNCHRO ALTITUDE</u> Perform test setup in accordance with table 2. Stimulate the UUT SYNCHRO REF H and SYNCHRO REF C signals with a 26 V ac, 400 Hz sinusoidal waveform. Stimulate the UUT synchro altitude inputs with a second 400 Hz sinusoid that is synchronous with the reference signal (above). Apply this signal across the following UUT synchro inputs with the negative side of the signal connected to the Z input: SYNC ALT 1 FINE X-Z SYNC ALT 1 FINE Y-Z SYNC ALT 1 CRSE X-Z SYNC ALT 1 CRSE Y-Z SYNC ALT 2 FINE X-Z SYNC ALT 2 FINE Y-Z SYNC ALT 2 CRSE X-Z SYNC ALT 2 CRSE Y-Z	Mode S Interface Panel 26 VAC POL = +		<u>SYNCHRO ALTITUDE</u> Perform test setup in accordance with table 2. On the Mode S interface panel, connect the 26 V ac REF + and - signals to the Sync Alt 1/2 RH and RC signals. Connect the TEST VAC + signal to the FX, FY, CX, and CY signals. Connect the TEST VAC - signal to the FZ and CZ signals. Adjust the amplitude of the TEST VAC signal to 9 V rms.	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION			
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS			
				1. Adjust the amplitude of this signal to 9 V rms. Read the digital value for each synchro source, using the following procedure: 1. Write the appropriate data (see following table) to memory location D607H. 2. Wait at least 75 μ s. 3. Read location D606H. 4. Record the value. The data should fall within the range shown in the Limits.			Read the digital value for each synchro source, using the following procedure: 1. Write the appropriate data (see following table) to memory location D607H. 2. Enter "modify memory 0D607H to <value from table>" 3. Enter "display memory 0D606H thru 0D606H" 4. Record the value. The data should fall within the range shown in the Limits.				
Honeywell				AW/CRITICAL NOTATION <table border="1"> <tr> <td>SECURITY NOTATION</td> <td>SUPPLEMENTS</td> <td> 34 PAGE </td> </tr> </table>					SECURITY NOTATION	SUPPLEMENTS	34 PAGE
SECURITY NOTATION	SUPPLEMENTS	34 PAGE									

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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	7.1	CD5 ± 6FH 0H CD5 ± 6FH 1H CD5 ± 6FH 2H CD5 ± 6FH 3H CD5 ± 6FH 4H CD5 ± 6FH 5H CD5 ± 6FH 6H CD5 ± 6FH 7H		Write Source To Being Tested <u>D607H</u> <u>Tested</u> 0100H ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits) 0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits) 0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits) 0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits) 0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits) 01A0H ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits) 01C0H ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits) 01E0H ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits) Reverse the phase 180 degrees on the SYNCHRO REFERENCE input to the UUT. Read the digital value for each synchro source, using the following procedure:			Write Source To Being Tested <u>D607H</u> <u>Tested</u> 0100H ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits) 0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits) 0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits) 0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits) 0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits) 01A0H ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits) 01C0H ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits) 01E0H ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits) Reverse the phase 180 degrees on the SYNCHRO REFERENCE input to the UUT. Read the digital value for each synchro source, using the following procedure:	CD5 ± 6FH 0H CD5 ± 6FH 1H CD5 ± 6FH 2H CD5 ± 6FH 3H CD5 ± 6FH 4H CD5 ± 6FH 5H CD5 ± 6FH 6H CD5 ± 6FH 7H	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	7.2	329 ± 6FH 0H		1. Write the appropriate data (see following table) to memory location D607H. 2. Wait at least 75 µs. 3. Read location D606H. 4. Record the value. The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u>			1. Write the appropriate data (see following table) to memory location D607H. 2. Enter "modify memory 0D607H to <value from table>" 3. Enter "display memory D606H" 4. Record the value. The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u>	329 ± 6FH 0H
		329 ± 6FH 1H		0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits)			0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 1H
		329 ± 6FH 2H		0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits)			0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 2H
		329 ± 6FH 3H		0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits)			0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 3H
		329 ± 6FH 4H		0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits)			0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 4H
		329 ± 6FH 5H		01A0H ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits)			01A0H ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 5H
		329 ± 6FH 6H		01C0H ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits)			01C0H ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 6H
		329 ± 6FH 7H		01E0H ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)			01E0H ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)	329 ± 6FH 7H
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8			429 RECEIVER TESTS (INTERNAL) Internal wrap on receiver 0 thru 7. Perform test setup in accordance with table 2. (Accept AAH label with no masking)			429 RECEIVER TESTS (INTERNAL) Perform test setup in accordance with table 2. (Accept AAH label with no masking)		
	8.1	N/A		Perform initial setup in accordance with table 6. Modify memory: Address Data 0D210H AAAAH 0D211H AAAAH Read the following block of memory: D200H thru D20FH.			Perform initial setup in accordance with table 6. Enter "modify memory 0D210H thru 0D211H to AAAAH"	N/A	
	8.2	AAAAH 2AAAH		Even Locations Odd Locations (Reject even parity data, no label qualification)			Even Locations Odd Locations (Reject even parity data, no label qualification)	AAAAH 2AAAH	
	8.3	N/A		Perform initial setup per table 6 except: Address Data 0D21CH 0249H 0D220H - 0D22EH 0044H Modify memory: Address Data 0D210H 5555H 0D211H 5555H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup per table 6 except: Address Data 0D21CH 0249H 0D220H - 0D22EH 0044H Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D200H thru 0D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.4	AAAAH 2AAAAH (no change from test 8.2)		Even Locations Odd Locations (Reject nonmatching labels)			Even Locations Odd Locations (Reject nonmatching labels)	AAAAH 2AAAAH (no change from test 8.2)	
	8.5	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D220H - 0D22EH EF44H Modify memory: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Read the following block of memory: D200H thru D20FH.			Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D220H - 0D22EH EF44H Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.6	AAAAH 2AAAAH (no change from test 8.2)		Even Locations Odd Locations (Reject due to disable feature)			Even Locations Odd Locations (Reject due to disable feature)	AAAAH 2AAAAH (no change from test 8.2)	
	8.7	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D218H 0000H 0D21AH 0000H 0D220H - 0D22EH EE44H Modify memory: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D218H 0000H 0D21AH 0000H 0D220H - 0D22EH EE44H Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D200H thru 0D20FH"	N/A	
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REV	TEST	SPECIFICATION				PROCEDURE				SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS		MFG LIMITS	
	8.8	AAAAH 2AAAAH (no change)		Even Locations Odd Locations (Accept valid data and label)				Even Locations Odd Locations (Accept valid data and label)		AAAAH 2AAAAH (no change)	
	8.9	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D220H - 0D22EH EE44H Modify memory: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Read the following block of memory: 0D200H thru 3D20FH.				Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 0D220H - 0D22EH EE44H Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D200H thru 0D20FH"		N/A	
	8.10	5555H D555H		Even Locations Odd Locations				Even Locations Odd Locations		5555H D555H	
	8.11	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 8000H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.				Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 8000H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"		N/A	
	8.12	8000H 0000H		Even locations Odd locations				Even locations Odd locations		8000H 0000H	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	8.13	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 4000H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 4000H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
	8.14	4000H 0000H		Even locations Odd locations			Even locations Odd locations	4000H 0000H
	8.15	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 2000H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 2000H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
	8.16	2000H 0000H		Even locations Odd locations			Even locations Odd locations	2000H 0000H
	8.17	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 1000H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 1000H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
	8.18	1000H 0000H		Even locations Odd locations			Even locations Odd locations	1000H 0000H
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REV	TEST	SPECIFICATION				PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.19	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0800H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0800H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.20	0800H 0000H		Even locations Odd locations			Even locations Odd locations	0800H 0000H	
	8.21	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0400H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0400H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.22	0400H 0000H		Even locations Odd locations			Even locations Odd locations	0400H 0000H	
	8.23	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0200H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0200H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.24	0200H 0000H		Even locations Odd locations			Even locations Odd locations	0200H 0000H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.25	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0100H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0100H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.26	0100H 0000H		Even locations Odd locations			Even locations Odd locations	0100H 0000H	
	8.27	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0080H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0080H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.28	0080H 0000H		Even locations Odd locations			Even locations Odd locations	0080H 0000H	
	8.29	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0040H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0040H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.30	0040H 0000H		Even locations Odd locations			Even locations Odd locations	0040H 0000H	

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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION						
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS						
	8.31	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0020H</td> </tr> <tr> <td>0D211H</td> <td>0000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0020H	0D211H	0000H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0020H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0020H													
0D211H	0000H													
	8.32	0020H 0000H		Even locations Odd locations			Even locations Odd locations	0020H 0000H						
	8.33	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0010H</td> </tr> <tr> <td>0D211H</td> <td>0000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0010H	0D211H	0000H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0010H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0010H													
0D211H	0000H													
	8.34	0010H 0000H		Even locations Odd locations			Even locations Odd locations	0010H 0000H						
	8.35	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0008H</td> </tr> <tr> <td>0D211H</td> <td>0000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0008H	0D211H	0000H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0008H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0008H													
0D211H	0000H													
	8.36	0008H 0000H		Even locations Odd locations			Even locations Odd locations	0008H 0000H						
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.37	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0004H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0004H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.38	0004H 0000H		Even locations Odd locations			Even locations Odd locations	0004H 0000H	
	8.39	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0002H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0002H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.40	0002H 0000H		Even locations Odd locations			Even locations Odd locations	0002H 0000H	
	8.41	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0001H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0001H" Enter "modify memory 0D211H to 0000H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.42	0001H 0000H		Even locations Odd locations			Even locations Odd locations	0001H 0000H	
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				SECURITY NOTATION		SUPPLEMENTS		44 PAGE	

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REV	TEST	SPECIFICATION				PROCEDURE				SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS			
	8.43	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0000H 0D211H8000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 8000H" Enter "display memory 0D200H thru 0D20FH"	N/A			
	8.44	0000H 8000H		Even locations Odd locations			Even locations Odd locations	0000H 8000H			
	8.45	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0000H 0D211H4000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 4000H" Enter "display memory 0D200H thru 0D20FH"	N/A			
	8.46	0000H 4000H		Even locations Odd locations			Even locations Odd locations	0000H 4000H			
	8.47	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0000H 0D211H2000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 2000H" Enter "display memory 0D200H thru 0D20FH"	N/A			
	8.48	0000H 2000H		Even locations Odd locations			Even locations Odd locations	0000H 2000H			
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION						
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS						
	8.49	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0000H</td> </tr> <tr> <td>0D211H</td> <td>1000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0000H	0D211H	1000H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 1000H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0000H													
0D211H	1000H													
	8.50	0000H 1000H		Even locations Odd locations			Even locations Odd locations	0000H 1000H						
	8.51	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0000H</td> </tr> <tr> <td>0D211H</td> <td>0800H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0000H	0D211H	0800H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0800H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0000H													
0D211H	0800H													
	8.52	0000H 0800H		Even locations Odd locations			Even locations Odd locations	0000H 0800H						
	8.53	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0000H</td> </tr> <tr> <td>0D211H</td> <td>0400H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0000H	0D211H	0400H			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0400H" Enter "display memory 0D200H thru 0D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0000H													
0D211H	0400H													
	8.54	0000H 0400H		Even locations Odd locations			Even locations Odd locations	0000H 0400H						
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.55	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0200H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0200H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.56	0000H 0200H		Even locations Odd locations			Even locations Odd locations	0000H 0200H	
	8.57	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0100H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0100H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.58	0000H 0100H		Even locations Odd locations			Even locations Odd locations	0000H 0100H	
	8.59	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0080H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0080H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.60	0000H 0080H		Even locations Odd locations			Even locations Odd locations	0000H 0080H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.61	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0040H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0040H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.62	0000H 0040H		Even locations Odd locations			Even locations Odd locations	0000H 0040H	
	8.63	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0020H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0020H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.64	0000H 0020H		Even locations Odd locations			Even locations Odd locations	0000H 0020H	
	8.65	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0000H 0D211H0010H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0010H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.66	0000H 0010H		Even locations Odd locations			Even locations Odd locations	0000H 0010H	
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				SECURITY NOTATION		SUPPLEMENTS		48 PAGE	

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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	8.67	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0008H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0008H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.68	0000H 0008H		Even locations Odd locations			Even locations Odd locations	0000H 0008H	
	8.69	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0004H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0004H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.70	0000H 0004H		Even locations Odd locations			Even locations Odd locations	0000H 0004H	
	8.71	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0002H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0002H" Enter "display memory 0D200H thru 0D20FH"	N/A	
	8.72	0000H 0002H		Even locations Odd locations			Even locations Odd locations	0000H 0002H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	8.73	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0001H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory 0D210H to 0000H" Enter "modify memory 0D211H to 0001H" Enter "display memory 0D200H thru 0D20FH"	N/A
	8.74	0000H 0001H		Even locations Odd locations 429 RECEIVER/ TRANSMITTER TESTS (EXTERNAL) Perform test setup in accordance with tables 2 and 8.			Even locations Odd locations 429 RECEIVER/ TRANSMITTER TESTS (EXTERNAL) Perform test setup in accordance with tables 2 and 8.	0000H 0001H
	9							
Honeywell				AW/CRITICAL NOTATION				
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.1	N/A		<u>Xmtr 0/Rcvr 0</u> (MAINT DATA OUT/AIR DATA 1) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> 0D220H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H AAAAH 0D211H AAAAH Data should read as follows:			<u>Xmtr 0/Rcvr 0</u> (MAINT DATA OUT/AIR DATA 1) Connect Xmtr 0 (Maint Data Out) to Rcvr 0 (429 Air Data 1). Perform initial setup in accordance with table 7. Enter "modify memory 0D220H to FFAAH" Enter "modify memory 0D210H thru 0D211H to AAAAH" Enter "display memory 0D200 thru 0D201H" Data should read as follows:	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.2	AAAAH 2AAAAH		<u>Address</u> 0D200H 0D201H On Mode S interface panel, remove connections on 429 ADC #1 and reconnect on 575 ADC #1. Modify receiver label: <u>Address</u> <u>Data</u> 0D220H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Data should read as follows: <u>Address</u>			<u>Address</u> 0D200H 0D201H On Mode S interface panel, remove connections on 429 ADC #1 and reconnect on 575 ADC #1. Enter "modify memory 0D220H to FF55H" Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D200H thru 0D201H" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
	9.3	5555H D555H		<u>Address</u> 0D200H 0D201H			<u>Address</u> 0D200H 0D201H	5555H D555H
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.4	N/A		<u>Xmtr 0/Rcvr 1</u> (MAINT DATA OUT/AIR DATA 2) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> 0D222H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H AAAAH 0D211H AAAAH Data should read as follows: <u>Address</u> 0D202H 0D203H			<u>Xmtr 0/Rcvr 1</u> (MAINT DATA OUT/AIR DATA 2) Perform initial setup in accordance with table 7. Enter "modify memory 0D222H to FFAAH" Enter "modify memory 0D210H thru 0D211H to AAAAH" Enter "display memory 0D202H thru 0D203H" Data should read as follows: <u>Address</u> 0D202H 0D203H	N/A
	9.5	AAAAH 2AAAAH		On Mode S interface panel, remove connections on 429 ADC #2 and reconnect on 575 ADC #2. Modify receiver label: <u>Address</u> <u>Data</u> 0D222H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Data should read as follows:			On Mode S interface panel, remove connections on 429 ADC #2 and reconnect on 575 ADC #2. Enter "modify memory 0D222H to FF55H" Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D202H thru 0D203H" Data should read as follows:	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.9	5555H D555H		<u>Address</u> 0D204H 0D205H <u>Xmtr 0/Rcvr 3</u> (MAINT DATA OUT/MAINT DATA IN) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> 0D226H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H AAAAH 0D211H AAAAH Data should read as follows: <u>Address</u> 0D206H 0D207H Modify receiver label: <u>Address</u> <u>Data</u> 0D226H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> 0D210H 5555H 0D211H 5555H Data should read as follows:			<u>Address</u> 0D204H 0D205H <u>Xmtr 0/Rcvr 3</u> (MAINT DATA OUT/MAINT DATA IN) Perform initial setup in accordance with table 7. Enter "modify memory 0D226H to FFAAH" Enter "modify memory 0D210H thru 0D211H to AAAAH" Enter "display memory 0D206H thru 0D207H" Data should read as follows: <u>Address</u> 0D206H 0D207H Enter "modify memory 0D226H to FF55H" Enter "modify memory 0D210H thru 0D211H to 5555H" Enter "display memory 0D206H thru 0D207H" Data should read as follows:	5555H D555H N/A AAAAH 2AAAH
	9.10	N/A						
	9.11	AAAAH 2AAAH						
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	9.18	5555H D555H		<u>Address</u> 0D20EH 0D20FH <u>Xmtr 1/Rcvr 4</u>			<u>Address</u> 0D20EH 0D20FH <u>Xmtr 1/Rcvr 4</u>	5555H D555H	
	9.19	N/A		(XT COORD/TX COORD) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> 0D228H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> 0D212H AAAAH 0D213H AAAAH Data should read as follows: <u>Address</u> 0D208H 0D209H			(XT COORD/TX COORD) Perform initial setup in accordance with table 7. Enter "modify memory 0D228H to FFAAH" Enter "modify memory 0D212H thru 0D213H to AAAAH" Enter "display memory 0D208H thru 0D209H" Data should read as follows: <u>Address</u> 0D208H 0D209H	N/A	
	9.20	AAAAH 2AAAAH		Modify receiver label: <u>Address</u> <u>Data</u> 0D228H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> 0D212H 5555H 0D213H 5555H Data should read as follows:			Enter "modify memory 0D228H to FF55H" Enter "modify memory 0D212H thru 0D213H to 5555H" Enter "display memory 0D208H thru 0D209H" Data should read as follows:	AAAAH 2AAAAH	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.21	5555H D555H		<u>Address</u> 0D208H 0D209H <u>Xmtr 2/Rcvr 5</u> (DATA LINK OUT/DATA LINK IN) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> 0D22AH FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> 0D214H AAAAH 0D215H AAAAH Data should read as follows: <u>Address</u> 0D20AH 0D20BH Modify receiver label: <u>Address</u> <u>Data</u> 0D22AH FF55H Modify transmitter data: <u>Address</u> <u>Data</u> 0D214H 5555H 0D215H 5555H Data should read as follows:			<u>Address</u> 0D208H 0D209H <u>Xmtr 2/Rcvr 5</u> (DATA LINK OUT/DATA LINK IN) Perform initial setup in accordance with table 7. Enter "modify memory 0D22AH to FFAAH" Enter "modify memory 0D214H thru 0D215H to AAAAH" Enter "display memory 0D20AH thru 0D20BH" Data should read as follows: <u>Address</u> 0D20AH 0D20BH Enter "modify memory 0D22AH to FF55H" Enter "modify memory 0D214H thru 0D215H to 5555H" Enter "display memory 0D20AH thru 0D20BH" Data should read as follows:	5555H D555H N/A AAAAH 2AAAH
	9.22	N/A						
	9.23	AAAAH 2AAAH						

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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	9.24	5555H D555H		<u>Address</u> 0D20AH 0D20BH INTERNAL RF <u>SELF-TEST</u> Perform test setup in accordance with table 4. Set up video ASIC according to table 4.			<u>Address</u> 0D20AH 0D20BH INTERNAL RF <u>SELF-TEST</u> Perform test setup in accordance with table 4. Enter "END" Disable heartbeat by switching HBDIS* switch on the UDE (LED should be illuminated). Enter "SWIT100P" Enter "trace about address FINISHED break_on measurement_complete" Enter "run from STARTUP". Program takes only a fraction of a second to run. When all six front panel LEDs are illuminated, program is complete. Enter "modify register CACHE to 1" Short Mode S <u>Bottom Antenna</u>	5555H D555H
	10			Short Mode S <u>Bottom Antenna</u> Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C02EH 0031H The received interrogation data shall be as shown.	Mode S Interface <u>Panel</u> STBY/ON: ON		Enter "modify memory 0C02EH to 0031H" Enter "display memory 0C000H thru 0C003H" Data shall indicate as follows:	N/A
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	10.2	5555H		<u>Address</u> 0C000H thru 0C003H Long Mode S <u>Top Antenna</u>			<u>Address</u> 0C000H thru 0C003H Long Mode S <u>Top Antenna</u>	5555H
	10.3	N/A		Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C007H thru 0C00DH AAAAH 0C02EH 0037H The received interrogation data shall be as shown.			Enter "modify memory 0C007H thru 0C00DH to AAAAH" Enter "modify memory 0C02EH to 0037H" Enter "display memory 0C000H thru 0C007H" Data shall indicate as follows:	N/A
	10.4	AAAAH		<u>Address</u> 0C000H thru 0C006H Mode S Long Squitter <u>Top Antenna Pwr Vld</u>			<u>Address</u> 0C000H thru 0C006H Mode S Long Squitter <u>Top Antenna Pwr Vld</u>	AAAAH
	10.5	N/A		Set up reply data by writing to memory as shown. (Send preamble pulses only.) <u>Address</u> <u>Data</u> 0C007H F000H 0C008H thru 0C00DH 0000H Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C02EH 003FH	Mode S Interface <u>Panel</u> STBY/ON: ON		Enter "modify memory 0C007H to F000H" Enter "modify memory 0C008H thru 0C00DH to 0000H" Enter "modify memory 0C02EH to 003FH"	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	10.6	XXX8H bits 4 and 5 = 1		Observe the top antenna power valid signal by reading the self-test status word, address 0C011H. This word shall be as specified. (X = don't care) Mode S Long Squitter Bot Antenna Pwr Vld			Enter "display memory 0C011H thru 0C011H" Location shall be as specified. (X = don't care) Mode S Long Squitter Bot Antenna Pwr Vld	XXX8H bits 4 and 5 = 1	
	10.7	N/A		Initiate the self-test by writing to memory as shown. Address Data 0C02EH 003DH	Mode S Interface Panel STBY/ON: ON		Enter "modify memory 0C02EH to 003DH"	N/A	
	10.8	XXXX4H bits 4 and 5 = 1		Observe the bottom antenna power valid signal by reading the self-test status word, address 0C011H. This word shall be as specified. (X = don't care) ATCRBS Mode A Top Antenna			Enter "display memory 0C011H thru 0C011H" This location shall be as specified. (X = don't care) ATCRBS Mode A Top Antenna	XXXX4H bits 4 and 5 = 1	
	10.9	N/A		Set up interrogation data for Mode A. Address Data 0C007H E000H 0C008H 0000H 0C009H E000H 0C00AH 0000H 0C00BH 0000H 0C00CH 0000H 0C00DH 0000H Initiate the self-test by writing to memory as shown. Address Data 0C02EH 0036H			Modify memory according to the following table: (Enter "modify memory <address> to <data>") Address Data 0C007H E000H 0C008H 0000H 0C009H E000H 0C00AH 0000H 0C00BH 0000H 0C00CH 0000H 0C00DH 0000H Enter "modify memory 0C02EH to 0036H"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION																																			
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																																			
	10.10	XXX2H		Observe the Mode A signal by reading the self-test status word, address 0C011H. Word shall be as specified. (X = don't care) ATCRBS Mode C <u>Bot Antenna</u>			Enter "display memory 0C011H thru 0C011H" This location shall be as specified. (X = don't care) ATCRBS Mode C <u>Bot Antenna</u>	XXX2H																																			
	10.11	N/A		Set up interrogation data for Mode C. <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0C007H</td> <td>E000H</td> </tr> <tr> <td>0C008H</td> <td>0000H</td> </tr> <tr> <td>0C009H</td> <td>0000H</td> </tr> <tr> <td>0C00AH</td> <td>0000H</td> </tr> <tr> <td>0C00BH</td> <td>0000H</td> </tr> <tr> <td>0C00CH</td> <td>0E00H</td> </tr> <tr> <td>0C00DH</td> <td>0000H</td> </tr> </table> Initiate the self-test by writing to memory as shown. <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0C02EH</td> <td>0030H</td> </tr> </table>	<u>Address</u>	<u>Data</u>	0C007H	E000H	0C008H	0000H	0C009H	0000H	0C00AH	0000H	0C00BH	0000H	0C00CH	0E00H	0C00DH	0000H	<u>Address</u>	<u>Data</u>	0C02EH	0030H		Modify memory according to the following table: (Enter "modify memory <address> to <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0C007H</td> <td>E000H</td> </tr> <tr> <td>0C008H</td> <td>0000H</td> </tr> <tr> <td>0C009H</td> <td>0000H</td> </tr> <tr> <td>0C00AH</td> <td>0000H</td> </tr> <tr> <td>0C00BH</td> <td>0000H</td> </tr> <tr> <td>0C00CH</td> <td>0E00H</td> </tr> <tr> <td>0C00DH</td> <td>0000H</td> </tr> </table> Enter "modify memory 0C02EH to 0030H"	<u>Address</u>	<u>Data</u>	0C007H	E000H	0C008H	0000H	0C009H	0000H	0C00AH	0000H	0C00BH	0000H	0C00CH	0E00H	0C00DH	0000H	N/A
<u>Address</u>	<u>Data</u>																																										
0C007H	E000H																																										
0C008H	0000H																																										
0C009H	0000H																																										
0C00AH	0000H																																										
0C00BH	0000H																																										
0C00CH	0E00H																																										
0C00DH	0000H																																										
<u>Address</u>	<u>Data</u>																																										
0C02EH	0030H																																										
<u>Address</u>	<u>Data</u>																																										
0C007H	E000H																																										
0C008H	0000H																																										
0C009H	0000H																																										
0C00AH	0000H																																										
0C00BH	0000H																																										
0C00CH	0E00H																																										
0C00DH	0000H																																										
	10.12	XXX1H		Observe the Mode A signal by reading the self-test status word, address 0C011H. Word shall be as specified. (X = don't care)			Enter "display memory 0C011H thru 0C011H" This location shall be as specified. (X = don't care)	XXX1H																																			
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	10.13	N/A		Perform test setup in accordance with table 1. STBY/ON discrete (hardware path) Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate and power.	S-1403 FUNC 1 ATC-1400A XPDR MODE A PRF: 0450 RF Lvl: -50 CW/NORM/ OFF: NORM Mode S Interface Panel STBY/ON: ON		Perform test setup in accordance with table 1. Turn XPDR MODE control knob to A position. Turn PRF thumbwheels to 450 Hz.	N/A
	10.14	>90%		Observe the ATCRBS % reply. The value shall be as specified. Switch the UUT to STANDBY mode.	Mode S Interface Panel STBY/ON: STBY		Read the % reply display on the ATC-1400A. The display shall indicate as specified. On the Mode S interface panel, toggle the STBY/ON switch to the STBY position.	>98%
	10.15	<10%		Observe the ATCRBS % reply. The value shall be as specified.			Read the % reply display on the ATC-1400A. The display shall indicate as specified.	<2%
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	11			ATCRBS MTL, REPLY FREQUENCY, DELAY, AND POWER Perform test setup in accordance with tables 1 and 5, except set CNTL DATA B source as shown. Remove the emulation system from the UUT. Turn on the UUT. Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate. ATCRBS MTL at 1029.8 MHz Set the interrogation frequency to 1029.8 MHz. Set the interrogation level to -70 dBm.	CNTL DATA B 429 source settings SPD: low PAR: odd RATE: 168 ms LBL: 016 DATA: 007E38 S-1403 FUNC 1 ATC-1400A XPDR MDE A PRF: 0450 ATC-1400A DSPLY SEL: FREQ FREQ and DELTA F: as required ATC-1400A RF Lvl: -70		ATCRBS MTL, REPLY FREQUENCY, DELAY, AND POWER Perform test setup in accordance with tables 1 and 5, except set CNTL DATA B source as shown. Remove the HP 64000 emulation system by performing the following steps: 1. Type "END" on the HP 64000 keyboard. 2. Turn off UUT. 3. Remove UDE connector from the UUT. 4. Turn on UUT. Turn XPDR MODE control to MODE A position. Turn PRF thumbwheels to 450 Hz. ATCRBS MTL at 1029.8 MHz Turn thumbwheels on FREQ SELECT and DELTA F until FREQ DISPLAY indicates 1029.80 MHz. Set ATC-1400A RF level to -70 dBm.	
	11.1	N/A						N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	11.2	ID 0077		Observe the 4096 code returned by the UUT. Code shall be as specified.	ATC-1400A CW/NORM/ OFF: NORM DPLY SEL: XPDR CODE		Observe the XPDR CODE display. Display shall indicate as specified.	ID 0077	
	11.3	250 TO 630 Watts		Measure and record the bottom antenna F1 pulse power. The power shall be within the limits specified.	ATC-1400A F2/P2 F1/P1: F1		On the ATC-1400A, observe and record the XMTR PWR display. This measurement is the bottom antenna F1 power, and shall be within the limits specified.	280 to 550 Watts	
	11.4	-76 ± 4 dBm		Slowly decrement the interrogation level in 1-dB steps until the % reply is less than 90%, then increment by 1 dB. The interrogation level shall be as specified. Record the value.			Slowly decrement the RF LEVEL knob on the ATC-1400A in 1-dB steps until the % reply indicates less than 90%, then increment the RF level by 1 dB. The RF level shall indicate as specified. Record the value.	-76 ± 4 dBm	
				Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate.	ATC-1400A XPDR MDE A PRF: 0450		Turn XPDR MODE control to MODE A position. Turn PRF thumbwheels to 450 Hz.		
				ATCRBS MTL at 1030.0 MHz			ATCRBS MTL at 1030.0 MHz		
	11.4.1	N/A		Set the interrogation frequency to 1030.0 MHz.	ATC-1400A DSPLY SEL: FREQ FREQ and DELTA F: as required		Turn thumbwheels on FREQ SELECT and DELTA F until FREQ DISPLAY indicates 1030.00 MHz.	N/A	
				Set the interrogation level to -70 dBm.	ATC-1400A RF Lvl: -70		Set ATC-1400A RF level to -70 dBm.		
	11.4.2	ID 0077		Observe the 4096 code returned by the UUT. Code shall be as specified.	ATC-1400A CW/NORM/ OFF: NORM DPLY SEL: XPDR CODE		Observe the XPDR CODE display. Display shall indicate as specified.	ID 0077	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	11.4.3	-76 ± 4 dBm		Slowly decrement the interrogation level in 1-dB steps until the % reply is less than 90%, then increment by 1 dB. The interrogation level shall be as specified. Record the value.			Slowly decrement the RF LEVEL knob on the ATC-1400A in 1-dB steps until the % reply indicates less than 90%, then increment the RF level by 1 dB. The RF level shall indicate as specified. Record the value.	-76 ± 4 dBm	
	11.4.4	N/A		Interrogate the UUT with an ATCRBS Mode C interrogation at the standard rate.	ATC-1400A XPDR MDE C CW/NORM: NORM		Turn XPDR MODE control to MODE C position, CW/NORM/OFF to NORM.	N/A	
	11.4.5	-76 ± 4 dBm		Set the interrogation level to -70 dBm.	ATC-1400A RF Lvl: -70		Set ATC-1400A RF level to -70 dBm.		
	11.4.5	-76 ± 4 dBm		Slowly decrement the interrogation level in 1-dB steps until the % reply is less than 90%, then increment by 1 dB. The interrogation level shall be as specified. Record the value.			Slowly decrement the RF LEVEL knob on the ATC-1400A in 1-dB steps until the % reply indicates less than 90%, then increment the RF level by 1 dB. The RF level shall indicate as specified. Record the value.	-76 ± 4 dBm	
	11.4.6	<1.0 dB		Compare values obtained in tests 11.4.3 and 11.4.5. Value obtained in 11.4.3 shall be equal to that obtained in 11.4.5 ±1.0 dB.			Compare values obtained in tests 11.4.3 and 11.4.5. Value obtained in 11.4.3 shall be equal to that obtained in 11.4.5 ±1.0 dB.	<1.0 dB	
				ATCRBS MTL at 1030.2 MHZ, Top and Bottom Antennas Switched			ATCRBS MTL at 1030.2 MHZ, Top and Bottom Antennas Switched		
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	11.5	N/A		Disable interrogations and turn off the UUT. Reverse the antenna cables connected to the Mode S test equipment. Turn on the UUT. Interrogate the UUT with an ATCRBS Mode C interrogation at the standard rate. Set the interrogation frequency to 1030.2 MHz. Set the interrogation level to -70 dBm.	ATC-1400A CW/NORM: OFF ATC-1400A XPDR MDE C CW/NORM: NORM ATC-1400A DSPLY SEL: FREQ FREQ and DELTA F: as required ATC-1400A RF Lvl: -70		Turn CW/NORM/OFF switch to OFF position on the ATC-1400A and turn off the UUT. Reverse the antenna cables connected to the IFR ANT A and ANT B ports. Turn on UUT. Turn XPDR MODE control to MODE C position, CW/NORM/OFF to NORM. Turn thumbwheels on FREQ SELECT and DELTA F until FREQ DISPLAY indicates 1030.20 MHz. Set ATC-1400A RF level to -70 dBm.	N/A
	11.6	7710		Observe the altitude code returned by the UUT. Code shall be as specified.	ATC-1400A DSPLY SEL: XPDR CODE		Observe the XPDR CODE display. Display shall indicate as specified.	7710
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	11.7	-76 ± 4 dBm		Slowly decrement the interrogation level in 1-dB steps until the % reply is less than 90%, then increment by 1 dB. The interrogation level shall be as specified. Record the value. Return the interrogation level to -50 dBm. Return the interrogation frequency to 1030.0 MHz.			Slowly decrement the RF LEVEL knob on the ATC-1400A in 1-dB steps until the % reply indicates less than 90%, then increment the RF level by 1 dB. The RF level shall indicate as specified. Record the value. Set ATC-1400A RF level to -50 dBm. Turn thumbwheels on FREQ SELECT and DELTA F until FREQ DISPLAY indicates 1030.00 MHz.	-76 ± 4 dBm	
	11.8	N/A		Change the 429 Cntl Data B source to provide an all 1s (7777) Mode A reply with SPI (ident).	ATC-1400A RF Lvl: -50 DSPLY SEL: FREQ		ATCRBS Reply Frequency Change the 429 Cntl Data B source to provide an all 1s (7777) Mode A reply with SPI (ident).	N/A	
	11.9	1090 ± 1 MHz		Measure and record the reply frequency. Frequency shall be as specified.	Cntl Data B 429 source settings SPD: low PAR: odd RATE: 168 ms LBL: 016 DATA: 1FFE48		ATCRBS Reply Frequency Observe the XMTR FREQ display on the ATC-1400A. Display shall indicate as specified. Record the value.	1090 ± 1 MHz	
	11.10	N/A		ATCRBS Reply Delay This test measures the reply delay.	ATC-1400A XPDR MDE A		ATCRBS Reply Delay	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	11.11	2.5 to 3.5 μs		Measure and record the reply delay. Delay shall be as specified.			Observe the reply delay field on the S-1403. Field shall indicate as specified. Record the value.	2.5 to 3.5 μs	
	11.12	N/A		<u>ATCRBS Reply Power</u> This test measures the reply power.			<u>ATCRBS Reply Power</u>	N/A	
	11.13	250 to 630 Watts		Measure and record the peak reply power of the F1 pulse.	<u>ATC-1400A</u> F2/P2 F1/P1: F1		On the ATC-1400A, select the F1 pulse for power detection. Observe and record the XMTR PWR display. Display shall indicate as shown.	280 to 550 Watts	
	11.14	250 to 630 Watts		Select the ATCRBS F2 pulse for power detection.	<u>S-1403</u> CONTROL MENU 2, Pulse Power Gate: F2		On the S-1403, change the pulse power gate (PPG) field to F2.		
	11.14	250 to 630 Watts		Measure and record the top antenna F2 pulse power.	<u>ATC-1400A</u> F2/P2 F1/P1: F2		On the ATC-1400A, select the F2 pulse for power detection. Observe and record the XMTR PWR display. This measurement is the top antenna F2 pulse power.	280 to 550 Watts	
	11.15	<1 dB		Calculate and record the absolute value of the transmitter droop (in dB), using the following formula: Droop = ABS [10(Log ₁₀ P1 - Log ₁₀ P2)], where P1 and P2 are the power measurements taken in tests 11.13 and 11.14, respectively. The droop shall not exceed the specified limits.			Calculate and record the absolute value of the transmitter droop (in dB), using the following formula: Droop = ABS [10(Log ₁₀ P1 - Log ₁₀ P2)], where P1 and P2 are the power measurements taken in tests 11.13 and 11.14, respectively. The droop shall not exceed the specified limits.	<1 dB	
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION																
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS																
	12			ATCRBS INTERROGATION PULSE WIDTH TOLERANCE Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with an ATCRBS Mode A interrogation with variable P1, P3 pulse width. Interrogate at the standard rate. Use the following table to set the P1, P3 pulse widths. The % ATCRBS reply shall be as specified. <table border="1"> <tr> <th colspan="2">P1, P3 Pulse Width</th> </tr> <tr> <td>0.70 μs</td> <td>>90%</td> </tr> <tr> <td>0.90 μs</td> <td>>90%</td> </tr> <tr> <td>0.30 μs</td> <td><10%</td> </tr> </table> Return the P1, P3 pulse width to the nominal setting.	P1, P3 Pulse Width		0.70 μs	>90%	0.90 μs	>90%	0.30 μs	<10%	ATC-1400A XPDR MDE A PRF: 0450 XPDR PLSE WDTH: VAR ATC-1400A CW/NORM/ OFF: NORM ATC-1400A XPDR PLSE WDTH: CAL		ATCRBS INTERROGATION PULSE WIDTH TOLERANCE Perform test setup in accordance with tables 1 and 5. Turn DISPLAY SELECT control to MODE A position. Turn PRF thumbwheels to 450 Hz. Set the XPDR PULSE WIDTH switch to VAR. Use the following table to set the P1, P3 pulse widths (on ATC-1400A, adjust the XPDR PULSE WIDTH thumbwheels). The % ATCRBS reply shall indicate as specified. <table border="1"> <tr> <th colspan="2">P1, P3 Pulse Width</th> </tr> <tr> <td>0.70 μs</td> <td>>98%</td> </tr> <tr> <td>0.90 μs</td> <td>>98%</td> </tr> <tr> <td>0.30 μs</td> <td><2%</td> </tr> </table> On the ATC-1400A, return the XPDR PULSE WIDTH switch to the CAL position.	P1, P3 Pulse Width		0.70 μs	>98%	0.90 μs	>98%	0.30 μs	<2%
P1, P3 Pulse Width																							
0.70 μs	>90%																						
0.90 μs	>90%																						
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REV	TEST	SPECIFICATION				PROCEDURE			SPECIFICATION																													
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																														
	13			ATCRBS INTERROGATION PULSE POSITION TOLERANCE (MODE A) Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate, with adjustable P1-P3 spacing. Use the following table to set the spacing of the P1-P3 pulses. The resulting ATCRBS % reply shall be as specified.	ATC-1400A XPDR MDE A PRF: 0450		ATCRBS INTERROGATION PULSE POSITION TOLERANCE (MODE A) Perform test setup in accordance with tables 1 and 5. Turn XPDR MODE control to the A position. Turn PRF thumbwheels to 450 Hz. Use the following table to set the XPDR P2/P3 DEV thumbwheels and P3 switch on the ATC-1400A. The resulting ATCRBS % reply shall be as specified.																															
	13.1	>90% >90% <10% <10%		<table border="1"> <thead> <tr> <th>Dev</th> <th>Delta</th> <th>P1-P3</th> </tr> </thead> <tbody> <tr> <td>0.20</td> <td>-</td> <td>7.8 μs</td> </tr> <tr> <td>0.20</td> <td>+</td> <td>8.2 μs</td> </tr> <tr> <td>1.00</td> <td>+</td> <td>9.0 μs</td> </tr> <tr> <td>1.00</td> <td>-</td> <td>7.0 μs</td> </tr> </tbody> </table>	Dev	Delta	P1-P3	0.20	-	7.8 μs	0.20	+	8.2 μs	1.00	+	9.0 μs	1.00	-	7.0 μs	ATC-1400A CW/NORM/ OFF: NORM		<table border="1"> <thead> <tr> <th>Dev</th> <th>Delta</th> <th>P1-P3</th> </tr> </thead> <tbody> <tr> <td>0.20</td> <td>-</td> <td>7.8 μs</td> </tr> <tr> <td>0.20</td> <td>+</td> <td>8.2 μs</td> </tr> <tr> <td>1.00</td> <td>+</td> <td>9.0 μs</td> </tr> <tr> <td>1.00</td> <td>-</td> <td>7.0 μs</td> </tr> </tbody> </table>	Dev	Delta	P1-P3	0.20	-	7.8 μs	0.20	+	8.2 μs	1.00	+	9.0 μs	1.00	-	7.0 μs	>98% >98% <2% <2%
Dev	Delta	P1-P3																																				
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION																															
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																														
	14			ATCRBS INTERROGATION PULSE POSITION TOLERANCE (MODE C) Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with an ATCRBS Mode C interrogation at the standard rate, with adjustable P1-P3 spacing. Use the following table to set the spacing of the P1- P3 pulses. The resulting ATCRBS % reply shall be as specified.			ATCRBS INTERROGATION PULSE POSITION TOLERANCE (MODE C) Perform test setup in accordance with tables 1 and 5. Turn XPDR MODE control to the C position. Turn PRF thumbwheels to 450 Hz. Use the following table to set the XPDR P2/P3 DEV thumbwheels and P3 switch on the ATC-1400A. The resulting ATCRBS % reply shall be as specified.																															
	14.1	>90% >90% <10% <10%		<table border="1"> <thead> <tr> <th>Dev</th> <th>Delta</th> <th>P1-P3</th> </tr> </thead> <tbody> <tr> <td>0.20</td> <td>-</td> <td>20.8 μs</td> </tr> <tr> <td>0.20</td> <td>+</td> <td>21.2 μs</td> </tr> <tr> <td>1.00</td> <td>+</td> <td>22.0 μs</td> </tr> <tr> <td>1.00</td> <td>-</td> <td>20.0 μs</td> </tr> </tbody> </table>	Dev	Delta	P1-P3	0.20	-	20.8 μs	0.20	+	21.2 μs	1.00	+	22.0 μs	1.00	-	20.0 μs			<table border="1"> <thead> <tr> <th>Dev</th> <th>Delta</th> <th>P1-P3</th> </tr> </thead> <tbody> <tr> <td>0.20</td> <td>-</td> <td>20.8 μs</td> </tr> <tr> <td>0.20</td> <td>+</td> <td>21.2 μs</td> </tr> <tr> <td>1.00</td> <td>+</td> <td>22.0 μs</td> </tr> <tr> <td>1.00</td> <td>-</td> <td>20.0 μs</td> </tr> </tbody> </table>	Dev	Delta	P1-P3	0.20	-	20.8 μs	0.20	+	21.2 μs	1.00	+	22.0 μs	1.00	-	20.0 μs	>98% >98% <2% <2%
Dev	Delta	P1-P3																																				
0.20	-	20.8 μs																																				
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1.00	-	20.0 μs																																				
	15			ATCRBS REPLY RATE CAPABILITY Perform test setup in accordance with tables 1 and 5.			ATCRBS REPLY RATE CAPABILITY Perform test setup in accordance with tables 1 and 5.																															
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	15.1	N/A		<u>Burst</u> Interrogate the UUT with a burst of 120 ATCRBS Mode A interrogations at a rate of 1200 per second and power of -30 dBm.	ATC-1400A CW/NORM/ OFF: OFF XPDR MDE A PRF: 1200 RF Lvl: -30		<u>Burst</u> Turn XPDR MODE control to MODE A position. Turn PRF thumbwheels to 1200 Hz. Turn RF LEVEL knob to -30 dBm. Select FUNC 7 (BURST). Using the cursor keys and slew knob, change the fields in the FUNC 7 menu as follows: FUNC 7 ATC 120. On the S-1403, press the BURST key to initiate the interrogations.	N/A
	15.2	>90%		Observe the % ATCRBS reply. The value shall be as specified.			Read the ATCRBS % reply display on the S-1403. The display shall indicate as specified.	>98%
	15.3	N/A		<u>Continuous</u> Interrogate the UUT with an ATCRBS Mode A interrogation at a rate of 500 per second.	ATC-1400A XPDR MDE A PRF: 0500		<u>Continuous</u> On the ATC-1400A, turn the XPDR MODE knob to the A position. Adjust the PRF thumbwheels to 500 Hz. On the S-1403, select FUNC 1 (ATCRBS).	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	15.4	>90% ID = 7777		Observe the % ATCRBS reply. The value shall be as specified. Data shall be as specified. <u>Reply Rate Limit</u>	<u>ATC-1400A</u> CW/NORM/ OFF: NORM		Read the % reply display on the ATC-1400A. The display shall indicate as specified. Data shall be as specified. <u>Reply Rate Limit</u>	>98% ID = 7777	
	15.5	N/A		Interrogate the UUT with an ATCRBS Mode A interrogation at a rate of 1500 per second.	<u>ATC-1400A</u> XPDR MDE A PRF: 1500 <u>S-1403</u> FUNC 1		On the ATC-1400A, turn the XPDR MODE knob to the A position. Adjust the PRF thumbwheels to 1500 Hz. On the S-1403, select FUNC 1 (ATCRBS).	N/A	
	15.6	>34%		Observe and record the % ATCRBS reply. The value shall be as specified. <u>ATCRBS SLS Characteristics</u>	<u>ATC-1400A</u> CW/NORM/ OFF: NORM		Read and record the % reply display on the ATC-1400A. The display shall indicate as specified. <u>ATCRBS SLS Characteristics</u>	43 to 46%	
	15.7	N/A		Perform test setup in accordance with tables 1 and 5. <u>Amplitude</u>			Perform test setup in accordance with tables 1 and 5. <u>Amplitude</u>	N/A	
	15.8	N/A		Interrogate the UUT with an ATCRBS Mode C interrogation with P2 SLS pulse of adjustable amplitude. Interrogate at the standard rate. Use the following table to adjust the interrogation RF level. The % ATCRBS reply for each case shall be as specified.	<u>ATC-1400A</u> XPDR MDE C PRF: 0450 SLS/ECHO: -0, ON <u>ATC-1400A</u> CW/NORM/ OFF: NORM		Turn XPDR MODE control to MODE C position. Turn PRF thumbwheels to 450 Hz. Turn SLS/ECHO switch to ON position. Use the following table to adjust the interrogation RF level. The % ATCRBS reply for each case shall be as specified.	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	15.9	<10% <10% <10% <10%		<u>RF Level</u> -68 dBm -40 dBm -21 dBm -50 dBm Reduce the amplitude of P2 in 1-dB steps until the % reply is greater than 90%.			<u>RF Level</u> -68 dBm -40 dBm -21 dBm -50 dBm Adjust the SLS thumbwheels on the ATC-1400A in 1-dB steps until the % reply display indicates >90%.	<2% <2% <2% <2%	
	15.10	-1 to -9 dB		Record the amount of P2 attenuation. This value shall be within the limits specified. Adjust the interrogation RF level to -21 dBm. Reduce the amplitude of P2 in 1-dB steps until the % reply is greater than 90%.	ATC-1400A SLS/ECHO: -X ATC-1400A CW/NORM/ OFF: NORM ATC-1400A RF Lvl: -21 SLS/ECHO: -0 ATC-1400A CW/NORM/ OFF: NORM		Record the value shown on the SLS thumbwheels. This value shall be within the limits specified. Adjust the interrogation RF level to -21 dBm. By adjusting the SLS thumbwheels on the ATC-1400A, reduce the amplitude of P2 in 1-dB steps until the % reply display reads >90%.	-1 to -9 dB	
	15.11	-1 to -9 dB		Record the amount of P2 attenuation. This value shall be within the limits specified.			Record the value shown on the SLS thumbwheels. This value shall be within the limits specified.	-1 to -9 dB	
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REV	TEST	SPECIFICATION				PROCEDURE				SPECIFICATION																		
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS		MFG LIMITS																		
	15.12	N/A		<u>Position</u> Set the P2 attenuation to 0 dB. Adjust the position of the P2 pulse as shown in the following table. P2 Dev indicates the amount by which the P2 position will move, and Delta indicates whether the deviation is added or subtracted (+/-) to the nominal position. The % reply for each position shall be as shown.		<u>ATC-1400A</u> SLS: -0, ON RF Lvl: -50 <u>ATC-1400A</u> CW/NORM/ OFF: NORM		<u>Position</u> Set the SLS/ECHO thumbwheels on ATL-1400A to -0, ON. Adjust the P2 DEV thumbwheels and switch as shown in the following table. P2 Dev indicates the amount by which the P2 position will move, and Delta indicates whether the deviation is added or subtracted (+/-) to the nominal position. The % reply for each position shall be as shown. (Read the % reply on the ATC-1400A.)		N/A																		
	15.13	>90% >90% <10% <10%		<table border="1"> <thead> <tr> <th>P2 Dev</th> <th>Delta</th> </tr> </thead> <tbody> <tr> <td>0.70</td> <td>-</td> </tr> <tr> <td>0.70</td> <td>+</td> </tr> <tr> <td>0.15</td> <td>+</td> </tr> <tr> <td>0.15</td> <td>-</td> </tr> </tbody> </table>	P2 Dev	Delta	0.70	-	0.70	+	0.15	+	0.15	-		<table border="1"> <thead> <tr> <th>P2 Dev</th> <th>Delta</th> </tr> </thead> <tbody> <tr> <td>0.70</td> <td>-</td> </tr> <tr> <td>0.70</td> <td>+</td> </tr> <tr> <td>0.15</td> <td>+</td> </tr> <tr> <td>0.15</td> <td>-</td> </tr> </tbody> </table>	P2 Dev	Delta	0.70	-	0.70	+	0.15	+	0.15	-		>98% >98% <2% <2%
P2 Dev	Delta																											
0.70	-																											
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION																								
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																								
	16			ATCRBS ONLY ALL-CALL, SHORT P4 POSITION Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with an ATCRBS Mode A interrogation with short P4 of adjustable position. Interrogate at the standard rate.			ATCRBS ONLY ALL-CALL, SHORT P4 POSITION Perform test setup in accordance with tables 1 and 5. Turn PRF thumbwheels to 450 Hz. Turn SLS/ECHO switch to OFF position. Turn the XPDR MODE CNTL to the MODE A position. Select FUNC 3 (ACS). Within the FUNC 3 menu, select ACS, <u>A</u> and P4:CAL.																									
	16.1	<10% >90% <10% <10% >90%		Adjust the position of the P4 pulse on S-1403 as shown in the table below. P4 Dv indicates the amount by which the P4 position will move from nominal. The % ATCRBS reply for each position shall be as shown. <table border="1"> <thead> <tr> <th colspan="2">P4 Dv</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>µs</td> </tr> <tr> <td>+0.3</td> <td>µs</td> </tr> <tr> <td>+0.05</td> <td>µs</td> </tr> <tr> <td>-0.05</td> <td>µs</td> </tr> <tr> <td>-0.3</td> <td>µs</td> </tr> </tbody> </table>	P4 Dv		0	µs	+0.3	µs	+0.05	µs	-0.05	µs	-0.3	µs	ATC-1400A PRF: 0450 SLS/ECHO: OFF XPDR MDE A S-1403 FUNC 3, (ACS, <u>A</u>) P4:CAL, Dv = 0 ATC-1400A CW/NORM/ OFF: NORM		On the S-1403, adjust the position of the P4 pulse as shown in the table below. P4 Dv indicates the amount by which the P4 position will move from nominal. The % ATCRBS reply for each position shall be as shown. (Read the % reply display on the ATC-1400A.) <table border="1"> <thead> <tr> <th colspan="2">P4 Dv</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>µs</td> </tr> <tr> <td>+0.3</td> <td>µs</td> </tr> <tr> <td>+0.05</td> <td>µs</td> </tr> <tr> <td>-0.05</td> <td>µs</td> </tr> <tr> <td>-0.3</td> <td>µs</td> </tr> </tbody> </table>	P4 Dv		0	µs	+0.3	µs	+0.05	µs	-0.05	µs	-0.3	µs	<2% >98% <2% <2% >98%
P4 Dv																																
0	µs																															
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS	MFG LIMITS
	17			<u>ATCRBS DIVERSITY</u> Perform test setup in accordance with tables 1 and 5. Simultaneously interrogate both UUT antennas with an ATCRBS Mode A at standard rate. See paragraph 3.4. Use the following table to set the relative power and timing of the two interrogations. The % ATCRBS reply shall be at the specified value and antenna.				<u>ATCRBS DIVERSITY</u> Perform test setup in accordance with tables 1 and 5. Set PRF thumbwheels to 0450 on ATC-1400A. In FUNC 1 menu on S-1403, turn on antenna B and ensure RF level is set to zero. See paragraph 3.4. Use the following table to set the relative power and timing of the two interrogations. The % ATCRBS reply shall be at the specified value and antenna. Read the % reply on the ATC-1400A.	
	17.1	<u>ANTA</u> <u>ANTB</u> <10% N/A >90% N/A >90% N/A >90% N/A <10% N/A >90% N/A <10% N/A <10% N/A		<u>ANT A</u> <u>ANT B</u> <u>RF LVL</u> <u>DELAY</u> -56 dBm +0.05 µs -44 dBm +0.05 µs -44 dBm +0.45 µs -70 dBm +0.45 µs -56 dBm -0.05 µs -44 dBm -0.05 µs -56 dBm -0.45 µs -44 dBm -0.45 µs			<u>ANT A</u> <u>ANT B</u> <u>RF LVL</u> <u>DELAY</u> -56 dBm +0.05 µs -44 dBm +0.05 µs -44 dBm +0.45 µs -70 dBm +0.45 µs -56 dBm -0.05 µs -44 dBm -0.05 µs -56 dBm -0.45 µs -44 dBm -0.45 µs	<u>ANTA</u> <u>ANTB</u> <2% N/A >98% N/A >98% N/A >98% N/A <2% N/A >98% N/A <2% N/A <2% N/A	
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	18			MODE S MTL, REPLY FORMAT, REPLY FREQUENCY, DELAY, POWER, AND <u>SQUITTERS</u> Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with Mode S UF 5 interrogation at the standard rate.	<u>ATC-1400A</u> PRF: 0045 <u>S-1403</u> FUNC 2 ANT B: OFF		MODE S MTL, REPLY FORMAT, REPLY FREQUENCY, DELAY, POWER, AND <u>SQUITTERS</u> Perform test setup in accordance with tables 1 and 5. Select 0045 on the PRF thumbwheels of the ATC-1400A. Select FUNC 2 (SEQ - MODE S ONLY) on the S-1403. <u>Mode S MTL</u>	
	18.1	N/A		Set interrogation level to -70 dBm.	<u>ATC-1400A</u> RF Lvl: -70		Set the RF level on the 1400A to -70 dBm.	N/A
	18.2	DF = 05 FS = 5 DR = 00 UM = 00 ID = 7777 ADD = 25252525		Observe the Mode S reply data. Data shall be as specified.	<u>ATC-1400A</u> CW/NORM/ OFF: NORM		Observe the decoded Mode S reply on the S-1403 sequence menu (S MENU) display. Data shall indicate as specified.	DF = 05 FS = 5 DR = 00 UM = 00 ID = 7777 ADD = 25252525
	18.3	-77 ± 3 dBm		Slowly decrement the interrogation level in 1-dB steps until the % reply is less than 90%, then increment by 1 dB. The interrogation level shall be as specified. Record the value.			Slowly decrement the RF LEVEL knob on the ATC-1400A in 1-dB steps until the % reply display indicates less than 90%, then increment the RF level by 1 dB. The RF level shall indicate as specified. Record the value.	-77 ± 3 dBm
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	18.3.1	N/A		Mode S Reply <u>Format</u> Return the RF LEVEL knob on the ATC-1400A to -70 dBm. Interrogate the UUT with a Mode S UF 4 interrogation.	ATC-1400A RF Lvl: -70 dBm S-1403 UF = 04		Mode S Reply <u>Format</u> Return the RF LEVEL knob on the ATC-1400A to -70 dBm. Select UF#04 on the S-1403.	N/A	
	18.3.2	DF = 04 FS = 5 DR = 00 UM = 00 AC = +20200 ADD = 25252525		Observe the decoded Mode S reply data. Data shall be as specified. Verify the AC value agrees with the coded altitude measured in paragraph 11.6. (+20200 = 7710 in Gilliam code) Interrogate the UUT with a Mode S UF 20 interrogation.	S-1403 UF = 20		Observe the decoded Mode S reply on the S-1403 sequence menu (S MENU) display. Data shall indicate as specified. Verify the AC value agrees with the coded altitude measured in paragraph 11.6. (+20200 = 7710 in Gilliam code) Select UF#20 on the S-1403.	DF = 04 FS = 5 DR = 00 UM = 00 AC = +20200 ADD = 25252525	
	18.3.3	DF = 04 FS = 5 DR = 00 UM = 00 AC = +20200 ADD = 25252525		Observe the decoded Mode S reply data. Data shall be as specified. Interrogate the UUT with a Mode S UF 21 interrogation.	S-1403 UF = 21		Observe the decoded Mode S reply on the S-1403 sequence menu (S MENU) display. Data shall indicate as specified. Select UF#21 on the S-1403.	DF = 04 FS = 5 DR = 00 UM = 00 AC = +20200 ADD = 25252525	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	18.3.4	DF = 05 FS = 5 DR = 00 UM = 00 ID = 7777 ADD = 25252525		Observe the decoded Mode S reply data. Data shall be as specified. Verify that this ID agrees with the ID data in paragraph 15.4. Interrogate the UUT with a Mode S UF 11 interrogation Perform test setup in accordance with tables 1 and 5 except set AIR/GND 1 to AIR. Restore to normal position after this test is completed.			Observe the decoded Mode S reply on the S-1403 sequence menu (S MENU) display. Data shall indicate as specified. Verify that this ID agrees with the ID data in paragraph 15.4. Select UF#11 on the S-1403. Perform test setup in accordance with tables 1 and 5 except set AIR/GND 1 to AIR. Restore to normal position after this test is completed.	DF = 05 FS = 5 DR = 00 UM = 00 ID = 7777 ADD = 25252525	
	18.3.5	DF = 11 AA = 25252525 PI = 00000000 CA = 1 for -902 1 for -903 1 for -904 0 for -905		Observe the decoded Mode S reply data. Data shall be as specified. <u>Mode S Reply Frequency</u>			Observe the decoded Mode S reply on the S-1403 sequence menu (S MENU) display. Data shall indicate as specified. <u>Mode S Reply Frequency</u>	DF = 11 AA = 25252525 PI = 00000000 CA = 1 for -902 1 for -903 1 for -904 0 for -905	
	18.4	N/A		This test measures Mode S reply frequency.			This test measures Mode S reply frequency.	N/A	
	18.5	1090 ± 1 MHz		Measure and record the reply frequency. Frequency shall be as specified. <u>Mode S Reply Delay</u>	ATC-1400A RF Lvl: -50		Observe and record the XMTR FREQ display on the ATC-1400A. Display shall indicate as shown. <u>Mode S Reply Delay</u>	1090 ± 1 MHz	
	18.6	N/A		This test measures Mode S reply delay.			This test measures Mode S reply delay.	N/A	
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	18.7	128 ± 0.25 µs		Measure and record the reply delay. Delay shall be as specified. <u>Mode S Reply Power</u>			Observe and record the reply field on the S-1403. Field shall indicate as specified. <u>Mode S Reply Power</u>	128 ± 0.25 µs	
	18.8	N/A		This test measures Mode S reply power.			This test measures Mode S reply power.	N/A	
	18.9	250 to 630 Watts		Measure and record the peak power of the first preamble pulse of the Mode S reply. The power shall be as specified.	S-1403 CONTROL MENU 2, Pulse Power Gate: p1 <u>ATC-1400A</u> F2/P2 F1/P1: F2		On the S-1403, change the pulse power gate to p1. Observe and record the XMTR PWR display on the ATC-1400. The display shall indicate as specified.	280 to 550 Watts	
	18.10	250 to 630 Watts		Measure and record the peak power of the last data pulse of the Mode S reply. The power shall be a specified.	S-1403 CONTROL MENU 2, Pulse Power Gate: P60 <u>ATC-1400A</u> F2/P2 F1/P1: F2		On the S-1403, change the pulse power gate to P60. Observe and record the XMTR PWR display on the ATC-1400. The display shall indicate as specified.	280 to 550 Watts	
	18.11	<2 dB		Calculate and record the absolute value of the transmitter droop (in dB), using the following formula: Droop = ABS [10(Log ₁₀ P1 - Log ₁₀ P2)], where P1 and P2 are the power measurements taken in tests 18.9 and 18.10, respectively. The droop shall not exceed the specified limits. <u>Squitter Monitor</u>			Calculate and record the absolute value of the transmitter droop (in dB), using the following formula: Droop = ABS [10(Log ₁₀ P1 - Log ₁₀ P2)], where P1 and P2 are the power measurements taken in tests 18.9 and 18.10, respectively. The droop shall not exceed the specified limits. <u>Squitter Monitor</u>	<2 dB	
	18.12	N/A			S1403 FUNC 2 ANT B: +.00		On S-1403, enter FUNC 2 and turn on ANT B.	N/A	
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	18.13	PASS		Observe the squitter interval over a period of 10 seconds. The value shall not exceed the limits from 0.8 to 1.2 seconds.			Observe the squitter interval on the S-1403 over a period of 10 seconds. The value shall not exceed the limits from 0.8 to 1.2 seconds.	PASS	
	19			Observe the squitter interval on the S-1403 over a period of 10 seconds. The value shall not exceed the limits from 0.8 to 1.2 seconds.	S-1403 ANT B: OFF		Observe the squitter interval on the S-1403 over a period of 10 seconds. The value shall not exceed the limits from 0.8 to 1.2 seconds.	PASS	
				MODE S REPLY RATE CAPABILITY			MODE S REPLY RATE CAPABILITY		
				Perform test setup in accordance with tables 1 and 5.			Perform test setup in accordance with tables 1 and 5.		
				Interrogate the UUT with a UF 5 interrogation at a rate of 177 per second.	ATC-1400A PRF: 0177		On the ATC-1400A, adjust the PRF thumbwheels to 0177.		
				Observe the following reply characteristics. The values shall be as specified.	S-1403 FUNC 2		On the S-1403, select FUNC 2 (SEQ - MODE S ONLY).		
				Observe the following reply characteristics. The values shall be as specified.	ATC-1400A CW/NORM/ OFF: NORM		Observe the following reply characteristics on the ATC-1400A displays. The values shall be as specified.		
	19.1	PASS		Over a period of 10 seconds, the Mode S % reply shall not fall below 90%.			Over a period of 10 seconds, the Mode S % reply shall not fall below 98%.	PASS	
	19.2	PASS		Reply Frequency 1090 ± 1 MHz			Reply Frequency 1090 ± 1 MHz	PASS	
	19.3	PASS		Reply Power 250 to 630 Watts			Reply Power 280 to 550 Watts	PASS	

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	20			<u>LONG MODE S</u> Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with a long Mode S interrogation at the standard rate.	<u>ATC-1400A</u> PRF: 0045 SLS/ECHO: OFF <u>S-1403</u> FUNC 2, ANT B: OFF S-MENU: SO1; UF = 16 RL = 1 MU = 06000 0000000 0000001 ADD = 2525 2525		<u>LONG MODE S</u> Perform test setup in accordance with tables 1 and 5. Turn PFR thumbwheels to 45 Hz, turn SLS/ECHO switch to OFF position. Select FUNC 2 and set the S-MENU: SO1; UF = 16 RL = 1 MU = 06000000000 00000001 ADD = 25252525	
	20.1	>90%		Observe the % Mode S reply. It shall not fall below 90%.	<u>ATC-1400A</u> CW/NORM/ OFF: NORM		Observe the % Mode S reply. It shall not fall below 98%.	>98%
	20.2			With an oscilloscope, look at both the suppression pulse output and the Mode S reply pulse train coming from the UUT.			With an oscilloscope look at both the suppression pulse output (Sup Pulse connector on the Mode S interface panel) and the Mode S reply transmitter output on the ATC-1400A. Use a 50-ohm impedance on the transmitter and 1M ohm on the suppression.	
	20.3	PASS		Verify that the suppression pulse brackets the Mode S reply.			Verify that the suppression pulse brackets the Mode S reply.	PASS
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION																												
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																												
	20.4	500 ± 50 ns		Measure and record the 50-50% pulse width of the P1 pulse in the Mode S reply. The measurement shall be as specified. ATCRBS/MODE S ALL-CALL, LONG P4 <u>AMPLITUDE</u> Perform test setup in accordance with tables 1 and 5 except set AIR/GND 1 to AIR. Interrogate the UUT with an ATCRBS Mode A interrogation with long P4 of adjustable amplitude. Interrogate at the standard rate. Use the following table to adjust the interrogation RF level and the amount of P4 attenuation. The % Mode S reply for each case shall be as specified.	AIR/GND 1 to air or open ATC-1400A PRF: 0045 SLS/ECHO: OFF XPDR MDE A S-1403 FUNC 4, (ACL) P4:VAR, Dv = CAL ATC-1400A CW/NORM/ OFF: NORM		Measure and record the 50-50% pulse width of the P1 pulse in the Mode S reply. The measurement shall be as specified. ATCRBS/MODE S ALL-CALL, LONG P4 <u>AMPLITUDE</u> Perform test setup in accordance with tables 1 and 5 except set AIR/GND 1 to AIR. Turn PRF thumbwheels to 45 Hz. Turn SLS/ECHO switch to OFF position. Turn the XPDR MODE CONTROL to MODE A. Select FUNC 4 (ACL). Within the FUNC 4 menu, select ACL and P4:VAR. Use the following table to adjust the interrogation RF level and the amount of P4 attenuation (SLS/ECHO thumbwheels on ATC-1400A). The % Mode S reply for each case shall be as specified. Read the value on the S-1403 Mode S % reply field.	500 ± 40 ns																												
	21.1	<10% >90% >90% <10% <10% >90%		<table border="1"> <thead> <tr> <th><u>RF Level</u></th> <th><u>P4</u></th> </tr> </thead> <tbody> <tr><td>-21 dBm</td><td>-6</td></tr> <tr><td>-21 dBm</td><td>-1</td></tr> <tr><td>-40 dBm</td><td>-1</td></tr> <tr><td>-40 dBm</td><td>-6</td></tr> <tr><td>-68 dBm</td><td>-6</td></tr> <tr><td>-68 dBm</td><td>-1</td></tr> </tbody> </table>	<u>RF Level</u>	<u>P4</u>	-21 dBm	-6	-21 dBm	-1	-40 dBm	-1	-40 dBm	-6	-68 dBm	-6	-68 dBm	-1			<table border="1"> <thead> <tr> <th><u>RF Level</u></th> <th><u>P4</u></th> </tr> </thead> <tbody> <tr><td>-21 dBm</td><td>-6</td></tr> <tr><td>-21 dBm</td><td>-1</td></tr> <tr><td>-40 dBm</td><td>-1</td></tr> <tr><td>-40 dBm</td><td>-6</td></tr> <tr><td>-68 dBm</td><td>-6</td></tr> <tr><td>-68 dBm</td><td>-1</td></tr> </tbody> </table>	<u>RF Level</u>	<u>P4</u>	-21 dBm	-6	-21 dBm	-1	-40 dBm	-1	-40 dBm	-6	-68 dBm	-6	-68 dBm	-1	<2% >98% >98% <2% <2% >98%
<u>RF Level</u>	<u>P4</u>																																			
-21 dBm	-6																																			
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	22			Return P4 to full amplitude (0 attenuation). MODE S SPR POSITION TOLERANCE Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with a Mode S UF 5 interrogation at the standard rate and power. Use the following table to vary the position of the SPR. The resulting % Mode S reply shall be as shown. <u>SPR Deviation</u> +0.25 µs +0.05 µs -0.05 µs -0.25 µs	S-1403 P4:CAL ATC-1400A PRF 0045 RF Lvl: -50 S-1403 FUNC 2, SPR, Dv = as indicated ATC-1400A CW/NORM/ OFF: NORM		Return P4 to full amplitude. MODE S SPR POSITION TOLERANCE Perform test setup in accordance with tables 1 and 5. On the ATC-1400A, adjust the PRF thumbwheels to 45 Hz. Use the following table to move the SPR from its nominal position. (Vary the SPR Dv field of the S-1403.) The resulting % Mode S reply shall be as shown. Read the % reply on the ATC-1400A. <u>SPR Deviation</u> +0.25 µs +0.05 µs -0.05 µs -0.25 µs	
	22.1	<10% >90% >90% <10%						<2% >98% >98% <2%
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LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS	MFG LIMITS
	23			<u>MODE S DIVERSITY</u> Perform test setup in accordance with tables 1 and 5. Simultaneously interrogate both UUT antennas with a Mode S UF 5 interrogation at standard rate. See paragraph 3.4. Use the following table to set the relative power and timing of the two interrogations. The % Mode S reply shall be at the specified value and antenna.				<u>MODE S DIVERSITY</u> Perform test setup in accordance with tables 1 and 5. Set PRF thumbwheels to 0045 on ATC-1400A. In FUNC 2 menu on S-1403, turn on antenna B and ensure RF level is set to zero. See paragraph 3.4 Use the following table to set the relative power and timing of the two interrogations. The % Mode S reply shall be at the specified value and antenna. Read ANT A % reply on the ATC-1400A. Read ANT B % reply on the S-1403.	
	23.1	<u>ANTA</u> <u>ANTB</u> <10% >90% >90% <10% >90% <10% >90% <10% <10% >90% >90% <10% <10% >90% <10% >90%		<u>ANT A</u> <u>ANT B</u> <u>RF LVL</u> <u>DELAY</u> -56 dBm +0.05 µs -44 dBm +0.05 µs -44 dBm +0.45 µs -70 dBm +0.45 µs -56 dBm -0.05 µs -44 dBm -0.05 µs -56 dBm -0.45 µs -44 dBm -0.45 µs			<u>ANT A</u> <u>ANT B</u> <u>RF LVL</u> <u>DELAY</u> -56 dBm +0.05 µs -44 dBm +0.05 µs -44 dBm +0.45 µs -70 dBm +0.45 µs -56 dBm -0.05 µs -44 dBm -0.05 µs -56 dBm -0.45 µs -44 dBm -0.45 µs		<u>ANTA</u> <u>ANTB</u> <2% >98% >98% <2% >98% <2% >98% <2% <2% >98% >98% <2% <2% >98% <2% >98%
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	24			<u>TRANSACTION RESET</u> Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with a Mode S UF 5 interrogation followed 75 μs later by ATCRBS Mode A interrogation. The rate of this double interrogation shall be 45 Hz.			<u>TRANSACTION RESET</u> Perform test setup in accordance with tables 1 and 5. On the ATC-1400A, adjust the DBL INTERRUPT/INTERF thumbwheels to 075.0 μs and OFF. Adjust the PRF thumbwheels to 0045. Turn the XPDR MODE knob to A. On the S-1403, select FUNC 6 (DI). In this menu, select 1ST = SEQ and 2ND = ATC.		
	24.1	ATCRBS: <10% Mode S: >90%		Observe the % reply for both Mode S and ATCRBS replies. The values shall be shown. Change 1 bit of the Mode S interrogation address.	ATC-1400A DBL INTER: OFF, 075.0 XPDR MDE A PRF: 0045 S-1403 FUNC 6, 1ST = SEQ 2ND = ATC ANT B: OFF		Read the % reply fields for both Mode S and ATCRBS on the S-1403 display. The values shall indicate as shown. In the sequence menu (S01) of the S-1403, change 1 bit in the interrogation address (ADD = 152525).	ATCRBS: <2% Mode S: >98%	
	24.2	ATCRBS: >90% Mode S: <10%		Observe the % reply for both Mode S and ATCRBS replies. The values shall be as shown. Change 1 bit of the Mode S interrogation address.	S-1403 FUNC 6 S-1403 S01: ADD = 152521		Read the % reply fields for both Mode S and ATCRBS on the S-1403 display. The values shall indicate as shown. In the sequence menu (S01) of the S-1403, change 1 bit in the interrogation address (ADD = 152521).	ATCRBS: >98% Mode S: <2%	
	24.3	ATCRBS: >90% Mode S: <10%		Observe the % reply for both Mode S and ATCRBS replies. The values shall be as shown.	S-1403 FUNC 6		Read the % reply fields for both Mode S and ATCRBS on the S-1403 display. The values shall indicate as shown.	ATCRBS: >98% Mode S: <2%	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	25			<u>SUPPRESSION BUS</u> Perform test setup in accordance with tables 1 and 5. Interrogate UUT with an ATCRBS Mode A interrogation at the standard rate and power. With an oscilloscope, look at both the suppression pulse output and the ATCRBS reply pulse train coming from the UUT.			<u>SUPPRESSION BUS</u> Perform test setup in accordance with tables 1 and 5. On the ATC-1400A, set the PRF thumbwheels to 0450 Hz and the XPDR MODE knob to A. With an oscilloscope, look at both the suppression pulse output (Sup Pulse connector on the Mode S interface panel) and the ATCRBS reply (Xmtr output on the ATC-1400A). Use a 50-ohm impedance to look at the Xmtr output and a 1M ohm impedance for the suppression pulse.	
	25.1	PASS		Verify that the suppression pulse brackets the ATCRBS reply.			Verify that the suppression pulse brackets the ATCRBS reply.	PASS
	25.2	>18 V <32 V		Measure and record the amplitude of the suppression pulse. The amplitude shall be as specified.			Measure and record the amplitude of the suppression pulse. The amplitude shall be as specified.	28 ± 3 V
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	26			<u>REPLY PULSE CHARACTERISTICS</u> Perform test setup in accordance with tables 1 and 5. Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate and power.			<u>REPLY PULSE CHARACTERISTICS</u> Perform test setup in accordance with tables 1 and 5. On the ATC-1400A, set the PRF thumbwheels to 0450 Hz and the XPDR MODE knob to A. On the S-1403, enter FUNC 1. Using an oscilloscope with 50-ohm impedance, look at the XMTR output of the ATC-1400A.	
	26.1	Rise: <0.1 μs Fall: <0.2 μs		Measure and record the 10% to 90% rise and fall times of the first framing pulse, F1. The measurements shall be as specified.			Measure and record the 10% to 90% rise and fall times of the first framing pulse, F1. The measurements shall be as specified.	Rise: <0.1 μs Fall: <0.2 μs
	26.2	450 ± 100 ns		Measure and record the 50-50% pulse width of the first framing pulse, F1. The measurement shall be as specified.			Measure and record the 50-50% pulse width of the first framing pulse, F1. The measurement shall be as specified.	450 ± 80 ns
	26.3	20.3 ± 1 μs		Measure and record the spacing between the two framing pulses, F1 and F2. The measurements shall be as specified.			Measure and record the spacing between the two framing pulses, F1 and F2. The measurements shall be as specified.	20.3 ± 1 μs
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	27			<u>ANTENNA TEST</u> Perform test setup in accordance with tables 1 and 5. Turn UUT off. Remove cable from TOP ANT and terminate the TOP ANT port with an open circuit (infinite ohm) terminator. Turn UUT on.			<u>ANTENNA TEST</u> Perform test setup in accordance with tables 1 and 5. Turn UUT off. Remove cable from TOP ANT port on Mode S interface panel, and terminate the TOP ANT port with an open circuit (infinite ohm) terminator. Turn UUT on.	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION			
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS			
	27.1	ON		Verify that TOP ANT and XPDR FAIL indicator lamps are illuminated when the TEST button is pushed momentarily for any version that is prior to a -905 MOD E. Verify that TOP ANT FAIL and XPDR PASS indicator lamps are illuminated when the TEST button is pushed momentarily for a -905 MOD E. Turn UUT off. Replace the TOP ANT cable. Remove cable from the BOT ANT port and terminate the BOT ANT port with an open circuit (infinite ohm) terminator. Turn UUT on.			Press the TEST button on the UUT. Verify that, on the front panel of the Mode S Transponder, the TOP ANT and XPDR FAIL indicator lamps are illuminated when the TEST button is pushed momentarily for any version that is prior to a -905 MOD E. Press the TEST button on the UUT. Verify that, on the front panel of the Mode S Transponder, the TOP ANT FAIL and XPDR PASS indicator lamps are illuminated when the TEST button is pushed momentarily for a -905 MOD E. Turn UUT off. On the Mode S inter-face panel, replace the TOP ANT cable. Remove cable from the BOT ANT port and terminate the port with an open circuit (infinite ohm) terminator. Turn UUT on.	ON			
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	27.2	ON		Verify that the BOT ANT and XPDR FAIL indicator lamps are illuminated when the TEST button is pushed momentarily for any version that is prior to a -905 MOD E. Verify that BOT ANT FAIL and XPDR PASS indicator lamps are illuminated when the TEST button is pushed momentarily for a -905 MOD E. Turn off UUT. Replace cable on BOT ANT port.			Press the TEST button on the UUT. Verify that, on the front panel of the Mode S Transponder, the BOT ANT and XPDR FAIL indicator lamps are illuminated when the TEST button is pushed momentarily for any version that is prior to a -905 MOD E. Press the TEST button on the UUT. Verify that, on the front panel of the Mode S Transponder, the BOT ANT FAIL and XPDR PASS indicator lamps are illuminated when the TEST button is pushed momentarily for a -905 MOD E. Turn off UUT. On the Mode S interface panel, replace BOT ANT cable.	ON
	28			<u>SYSTEM STATUS</u> Perform test setup in accordance with tables 1 and 5. With Mode S software running, press the TEST button on the front panel of the UUT. Observe the front panel LEDs. They should all illuminate briefly (lamp test), then display as specified.	<u>INTFC PNL</u> AIR/GND 1: GROUND AIR/GND 2: GROUND		<u>SYSTEM STATUS</u> Perform test setup in accordance with tables 1 and 5. With Mode S software running, press the TEST button on the front panel of the UUT. Observe the front panel LEDs. They should all illuminate briefly (lamp test), then display as specified.	
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REV	TEST	SPECIFICATION				PROCEDURE				SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS		MFG LIMITS	
	28.1	on off off off off off		Signal Name XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG				Signal Name XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG		on off off off off off	
	28.2			Perform test 3 to clear any failures logged in E ² . END OF TEST				END OF TEST			
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REV LTR	APPENDIX A ALTERNATIVE TEST PROCEDURE FOR PC EMULATION SYSTEM				
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REV LTR	APPENDIX A ALTERNATIVE TEST PROCEDURE FOR PC EMULATION SYSTEM A1. Notes on operation of the PC emulation system are as follows: A1.1 All tests requiring the PC emulation system shall be performed while executing the SDP-185 monitor software. In the engineering environment, the monitor is invoked by executing the 'SCP MDS' command file. A1.2 All address and data information should be entered in Hex with a leading # for CACHE locations and a leading 1# for local memory. See example in 3.4.3. A1.3 Most emulation commands are invoked by pressing the softkeys. Only addresses, data, and 'MDS' are typed using the standard typewriter keys. For example, to change the contents of location C000 (Hex) to the value AAAA (Hex), the following PC command would be entered: modify memory MDS word 0#C000 to AAAA In this example, the words (modify, memory, word, and to) are entered with single-keystroke softkeys. A2. Notes and a list of PC command files (Honeywell Part No. MT4061400-101, revision a) are as follows: A2.1 The total execution time of this Integrated Test Procedure may be greatly reduced by using the PC command files listed in paragraph 3.11.3. These command files automatically execute many keystrokes found in certain tests and match statement-for-statement (excluding 'pause' statements) the steps found in the IT work steps. A2.2 After executing the 'SCP MDS' batch file (see paragraph 3.4), execute the command file by typing the filename (using all caps) into the PC and pressing ENTER. Most command files pause to allow the operator to record data. Press any key to resume command file execution.		
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REV LTR						
	A2.3	<u>IT Test No.</u>	<u>PC Command Filename</u>			
		1	IT10			
		2	IT20			
		3	IT30 (See note 1.)			
		4	IT40			
		5	IT50			
		6	IT60			
		7	IT70 (Shall be executed twice to complete test 7.)			
		8	IT80			
		8.1	IT81			
		9	IT90			
		10	IT100 (See note 2.)			
	<u>NOTE 1:</u> Before running IT30, test A3 must be performed. IT30 must also be performed at the completion of the IT to clear E ² .					
	<u>NOTE 2:</u> Before running IT100, end out of emulation mode by entering "END" into the PC. (Resume testing at test 10.13.)					
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A1			<u>ALTERNATIVE TEST PROCEDURES</u> <u>SOFTWARE LOAD</u> Run the SCP MDS program (refer to paragraph 3.4.1).			<u>ALTERNATIVE TEST PROCEDURES</u> <u>SOFTWARE LOAD</u> Run the SCP MDS program (refer to paragraph 3.4.1).	
	A1.1	7FDE:580D 7FDF:EEEE		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -902.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -902.	7FDE:580D 7FDF:EEEE
	A1.2	7FDE:718F 7FDF:3150		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -903.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -903.	7FDE:718F 7FDF:3150
	A1.3	7FDE:0E2D 7FDF:F202		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -904.			Enter "display memory 07FDEH thru 07FDFH" The values shall be a specified for a -904.	7FDE:0E2D 7FDF:F202
	A1.4	7FDE:4353 7FDF:F5DF		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -905 not MOD E.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -905 not MOD E.	7FDE:4353 7FDF:F5DF
	A1.5	7FDE:6C8B 7FDF:BA1D		Observe the CRC words in program ROM (memory locations 7FDEH and 7FDFH). The values shall be as specified for a -905 MOD E.			Enter "display memory 07FDEH thru 07FDFH" The values shall be as specified for a -905 MOD E.	7FDE:6C8B 7FDF:BA1D
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A2			<u>CACHE RAM</u> Modify register CACHE to 0. If this IT is being performed using an automated test facility, complete test 2.1. If this IT is being performed using the manual test fixture, complete test 2.2.			<u>CACHE RAM</u> If this IT is being performed using an automated test facility, complete test 2.1. If this IT is being performed using the manual test fixture, complete test 2.2.	
	A2.1	N/A		<u>Automated Procedure</u> Write the cache RAM address (0000H thru 3FFFFH) to each location in cache RAM (20000H thru 23FFFFH).			<u>Automated Procedure</u> Write the cache RAM address (0000H thru 3FFFFH) to each location in cache RAM (20000H thru 23FFFFH).	N/A
	A2.1.1	0000H thru 3FFFFH		Verify that each cache RAM location contains the correct data. Write the complement of each cache RAM address (FFFFH thru C000H) to each location in cache RAM (20000H thru 23FFFFH).			Verify that each cache RAM location contains the correct data. Write the complement of each cache RAM address (FFFFH thru C000H) to each location in cache RAM (20000H thru 23FFFFH).	0000H thru 3FFFFH
	A2.1.2	FFFFH thru C000H		Verify that each cache RAM location contains the correct data.			Verify that each cache RAM location contains the correct data.	FFFFH thru C000H
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
H	A2.2	N/A		Manual Test Procedure Modify memory 20000H thru 23FFFH to 0AAAAH.			Manual Test Procedure Enter "modify memory MDS word 0#20000 thru 0#23FFF to AAAA"	N/A
H	A2.2 .1	AAAAH		Display memory 20000H thru 2007FH. Modify memory 20000H thru 23FFFH to 5555H.			Enter "display memory MDS word from 0#20000 to 0#23FFF" Enter "modify memory MDS word 0#20000 thru 0#23FFF to 5555"	AAAAH
	A2.2 .2	5555H		Display memory 20000H thru 2007FH.			Enter "display memory MDS word from 0#20000 to 0#2007F"	5555H
	A2.2 .3	5555H		Display memory 23E80H thru 23FFFH.			Enter "display memory MDS word from 0#23E80 to 0#23FFF"	5555H
H	A3	N/A		EEPROM Write LRU dash and serial numbers to the EEPROM locations 9FCOH to 9FAH respectively. D/N stands for dash number and S/N stands for serial number.			EEPROM Enter "modify memory MDS word 0#20000 (1st digit of D/N), (2nd digit of D/N), (3rd digit of D/N), (1st digit of S/N), (2nd digit of S/N), (3rd digit of S/N), (4th digit of S/N), (5th digit of S/N), (6th digit of S/N), (7th digit of S/N), (8th digit of S/N)." D/N stands for dash number and S/N for serial number. (Digit space comma space) Example: for unit with dash number 905 and serial number 90100257, enter modify memory MDS word 0#20000 9 , 0 , 5 , 9 , 0 , 1 , 0 , 0 , 2 , 5 , 7	N/A
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
H	A3.1	N/A		NOTE: EEPROM is only 8 bits wide, instead of 16. If 16 bits of data are specified, only the least significant 8 bits are used. Thus, FE34H is the same as 34H. Write the EEPROM address (OOH thru FFH) to each location in EEPROM (8000H thru 9FFFH). Verify each location. Write the complement of each EEPROM address (FFH thru OOH) to each location in EEPROM (8000H thru 9FFFH). Verify each location. Write the value FFH to each location in EEPROM (8000H thru 9FFFH). Verify each location.			Enter "SCP MDS" Enter "load verify MDS IT30P.RA" Enter "modify registers MDS E0 80E" Enter "modify registers MDS P 109" Enter "Set discretes MDS to 1FA" Enter "run MDS" Program will take several minutes to complete. Front panel LEDs shall flash in a repetitive pattern while the program is executing. When the program is complete all six LEDs shall be illuminated.	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A3.2	5041 5353		Write the LRU dash and serial numbers, in ISO-5 format, to the EEPROM locations 9FCOH to 9FCAH.			Enter "display memory MDS word from 0#20010 to 0#20011" The memory locations shall be as indicated.	5041 5353
	A3.3	PASS		Verify that each 8-bit word in locations 9FCOH thru 9FCAH contains the proper dash and serial numbers.			Enter "display memory MDS word from 1#9FC0 to 1#9FCA" Verify that the 8 bits for each word are as follows: - Lower 4 bits from the serial number and dash number of the UUT. - Upper 4 bits contain a 3 Hex. Enter "END" Enter "SCP MDS"	PASS
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A4			<u>VIDEO RAM</u> Write the video RAM address (C000H thru C00FH) to each location in video RAM (C000H thru C00FH).			<u>VIDEO RAM</u> Enter "modify memory MDS word 1#C000 0C000, 0C001, 0C002, 0C003" Enter "modify memory MDS word 1#C0004 0C004, 0C005, 0C006, 0C007" Enter "modify memory MDS word 1#C00B 0C008, 0C009, 0C00A, 0C00B" Enter "modify memory MDS word 1#C00C 0C00C, 0C00D, 0C00E, 0C00F" Enter "display memory MDS word from 1#C000 to 1#C00F"	
	A4.1	C000H thru C00FH		Verify that each video RAM location contains the correct data. Write the complement of each video RAM address (3FFFH thru 3FF0H) to each location in video RAM (C000H thru C00FH).			Verify that each video RAM location contains the correct data. Enter "modify memory MDS word 1#C000 3FFF, 3FFE, 3FFD, 3FFC" Enter "modify memory MDS word 1#C004 3FFB, 3FFA, 3FF9, 3FF8" Enter "modify memory MDS word 1#C008 3FF7, 3FF6, 3FF5, 3FF4" Enter "modify memory MDS word 1#C00C 3FF3, 3FF2, 3FF1, 3FF0" Enter "display memory MDS word from 1#C000 to 1#C00F"	C000H thru C00FH
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A4.2	3FFFH thru 3FF0H		Verify that each video RAM location contains the correct data.			Verify that each video RAM location contains the correct data.	3FFFH thru 3FF0H
	A5			<u>INPUT DISCRETES</u> Perform test setup in accordance with table 2. Read the following memory locations:			<u>INPUT DISCRETES</u> Perform test setup for the transponder interface panel in accordance with table 2. Enter "display memory MDS word from 1#D600 to 1#D605" The memory locations shall indicate as follows: (X = don't care)	
	A5.1	X355H or XB55H X4AAH or XCAAH 5555H 55XXH 6AXXH XABFH, bit 12 = 0		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT. Read the following memory locations:	Mode S Interface Panel Table 3		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H Complement all of the discrete input stimuli to the UUT by performing test setup in accordance with table 3. Enter "display memory MDS word from 1#D600 to 1#D605" The memory locations shall indicate as follows: (X = don't care)	X355H or XB55H X4AAH or XCAAH 5555H 55XXH 6AXXH XABFH, bit 12 = 0
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION												
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS												
	A5.2	X4AAH or XCAAH X355H or XB55H AAAAH AAXXH 95XXH X744H, bit 12 = 1		0D600H 0D601H 0D602H 0D603H 0D604H 0D605H			0D600H 0D601H 0D602H 0D603H 0D604H 0D605H	X4AAH or XCAAH X355H or XB55H AAAAH AAXXH 95XXH X744H, bit 12 = 1												
	A5.3	X5XXH		While pressing the Push To Test button on the front panel of the UUT, read memory location D605H. The value shall be as indicated. (X = don't care)			While pressing the Push To Test button on the front panel of the UUT, enter "display memory MDS word from 1#D605 to 1#D605" The value shall be as indicated. (X = don't care)	X5XXH												
	A6			<u>OUTPUT DISCRETES</u> Perform test setup in accordance with table 2. Write to Output Data Word 0 and Configuration Register 3 as shown: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0012H</td> </tr> <tr> <td>0D400H</td> <td>2A00H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG	<u>Address</u>	<u>Data</u>	0D607H	0012H	0D400H	2A00H			<u>OUTPUT DISCRETES</u> Perform test setup in accordance with table 2. Write to Output Data Word 0 and Configuration Register 3 as shown: (Enter "modify memory MDS word <address> <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>1#D607</td> <td>0012</td> </tr> <tr> <td>1#D400</td> <td>2A00</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u> XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG	<u>Address</u>	<u>Data</u>	1#D607	0012	1#D400	2A00	
<u>Address</u>	<u>Data</u>																			
0D607H	0012H																			
0D400H	2A00H																			
<u>Address</u>	<u>Data</u>																			
1#D607	0012																			
1#D400	2A00																			
	A6.1	on off off on off on		XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG			XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG	on off off on off on												
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION												
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS												
	A6.2	<u>Sig/Lamp</u> OPN/ON (Green) GND/OFF OPN/OFF GND/ON (Green)		Verify the following signals. The signal sense shall be as specified. <u>Sig/Lamp</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2 Write to Output Data Word 0 and Configuration Register 3 as shown: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D607H</td> <td>0001H</td> </tr> <tr> <td>0D400H</td> <td>1500H</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u>	<u>Address</u>	<u>Data</u>	0D607H	0001H	0D400H	1500H			Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified. <u>Sig/Lamp</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2 Write to Output Data Word 0 and Configuration Register 3 as shown: (Enter "modify memory MDS word <address> <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>1#D607</td> <td>0001</td> </tr> <tr> <td>1#D400</td> <td>1500</td> </tr> </table> Verify the state of the following UUT front panel LEDs: <u>Signal Name</u>	<u>Address</u>	<u>Data</u>	1#D607	0001	1#D400	1500	<u>Sig/Lamp</u> OPN/ON (Green) GND/OFF OPN/OFF GND/ON (Green)
<u>Address</u>	<u>Data</u>																			
0D607H	0001H																			
0D400H	1500H																			
<u>Address</u>	<u>Data</u>																			
1#D607	0001																			
1#D400	1500																			
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REV	TEST	SPECIFICATION				PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A6.3	off on on off on off		XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The signal sense shall be as specified.			XPDRPASS XPDRFAIL CNTLPNL TOPANT BOTANT ALTSIG Verify the following signals. The indicator lamps on the Mode S interface panel (or the signals themselves) shall be as specified.	off on on off on off	
	A6.4	<u>Sig/Lamp</u> GND/OFF OPN/ON(Red) +5V/ON(Red) OPN/OFF		<u>Signal Name</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2			<u>Signal Name</u> ALT FAIL 1 ALT FAIL 2 XPDR FAIL 1 XPDR FAIL 2	<u>Sig/Lamp</u> GND/OFF OPN/ON(Red) +5V/ON(Red) OPN/OFF	
	A7			<u>SYNCHRO ALTITUDE</u> Perform test setup in accordance with table 2. Stimulate the UUT SYNCHRO REF H and SYNCHRO REF C signals with a 26 V ac, 400 Hz sinusoidal waveform. Stimulate the UUT synchro altitude inputs with a second 400 Hz sinusoid that is synchronous with the reference signal (above). Apply this signal across the following UUT synchro inputs with the negative side of the signal connected to the Z input:	Mode S Interface Panel 26 VAC POL = +		<u>SYNCHRO ALTITUDE</u> Perform test setup in accordance with table 2. On the Mode S Interface Panel, connect the 26 V ac REF + and – signals to the Sync Alt 1/2 RH and RC signals. Connect the TEST VAC + signal to the FX, FY, CX, and CY signals. Connect the TEST VAC – signal to the FZ and CZ signals. Adjust the amplitude of the TEST VAC signal to 9 V rms.		
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
				SYNC ALT 1 FINE X-Z SYNC ALT 1 FINE Y-Z SYNC ALT 1 CRSE X-Z SYNC ALT 1 CRSE Y-Z SYNC ALT 2 FINE X-Z SYNC ALT 2 FINE Y-Z SYNC ALT 2 CRSE X-Z SYNC ALT 2 CRSE Y-Z 1. Adjust the amplitude of this signal to 9 V rms. Read the digital value for each synchro source, using the following procedure: 1. Write the appropriate data (see following table) to memory location D607H. 2. Wait at least 75 μ s. 3. Read location D606H. 4. Record the value. The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u>			Read the digital value for each synchro source, using the following procedure: 1. Write the appropriate data (see following table) to memory location D607H. 2. Enter "modify memory MDS word 1#D607 <value from table>" 3. Enter "display memory MDS word from 1#D606 to 1#D606" 4. Record the value. The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u>	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A7.1	CD5 ± 6FH OH		0100H ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits)			0100 ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH OH	
		CD5 ± 6FH 1H		0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits)			0120 ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 1H	
		CD5 ± 6FH 2H		0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits)			0140 ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 2H	
		CD5 ± 6FH 3H		0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits)			0160 ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 3H	
		CD5 ± 6FH 4H		0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits)			0180 ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 4H	
		CD5 ± 6FH 5H		01AOH ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits)			01AO ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 5H	
		CD5 ± 6FH 6H		01COH ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits)			01CO ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 6H	
		CD5 ± 6FH 7H		01EOH ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)			01EO ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)	CD5 ± 6FH 7H	
				Reverse the phase 180 degrees on the SYNCHRO REFERENCE input to the UUT.	Mode S Interface Panel		Reverse the phase 180 degrees on the SYNCHRO REFERENCE input to the UUT.		
				Read the digital value for each synchro source, using the following procedure:	26 VAC POL = -		Read the digital value for each synchro source, using the following procedure:		
				1. Write the appropriate data (see following table) to memory location D607H.			1. Write the appropriate data (see following table) to memory location D607H.		
				2. Wait at least 75 µs.			2. Enter "modify memory MDS word 1#D607 <value from table>"		
				3. Read location D606H.			3. Enter "display memory MDS word from 1#D606 to 1#D606"		
				4. Record the value.			4. Record the value.		
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A7.2			The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u> 0100H ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits) 0120H ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits) 0140H ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits) 0160H ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits) 0180H ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits) 01AOH ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits) 01COH ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits) 01EOH ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)			The data should fall within the range shown in the Limits. Write Source To Being <u>D607H</u> <u>Tested</u> 0100 ALT 1 FIN X-Z (upper 12 bits) (lower 4 bits) 0120 ALT 1 FIN Y-Z (upper 12 bits) (lower 4 bits) 0140 ALT 1 CRS X-Z (upper 12 bits) (lower 4 bits) 0160 ALT 1 CRS Y-Z (upper 12 bits) (lower 4 bits) 0180 ALT 2 FIN X-Z (upper 12 bits) (lower 4 bits) 01AO ALT 2 FIN Y-Z (upper 12 bits) (lower 4 bits) 01CO ALT 2 CRS X-Z (upper 12 bits) (lower 4 bits) 01EO ALT 2 CRS Y-Z (upper 12 bits) (lower 4 bits)	
		329 ± 6FH OH						329 ± 6FH OH
		329 ± 6FH 1H						329 ± 6FH 1H
		329 ± 6FH 2H						329 ± 6FH 2H
		329 ± 6FH 3H						329 ± 6FH 3H
		329 ± 6FH 4H						329 ± 6FH 4H
		329 ± 6FH 5H						329 ± 6FH 5H
		329 ± 6FH 6H						329 ± 6FH 6H
		329 ± 6FH 7H						329 ± 6FH 7H
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A8			429 RECEIVER TESTS (INTERNAL) Internal wrap on receiver 0 thru 7. Perform test setup in accordance with table 2. (Accept AAH label with no masking)			429 RECEIVER TESTS (INTERNAL) Perform test setup in accordance with table 2. (Accept AAH label with no masking)	
	A8.1	N/A		Perform initial setup in accordance with table 6. Modify Memory: <u>Address</u> <u>Data</u> OD210H AAAAH OD211H AAAAH			Perform initial setup in accordance with table 6. Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA"	N/A
	A8.2	AAAAH 2AAAH		Read the following block of memory: D200H thru D20FH. Even locations Odd locations (Reject even parity data, no label qualification)			Enter "display memory MDS word from 1#D200 to 1#D20F" Even locations Odd locations (Reject even parity data, no label qualification)	AAAAH 2AAAH
	A8.3	N/A		Perform initial setup per table 6 except: <u>Address</u> <u>Data</u> D21CH 0249H D220H - D22EH 0044H Modify Memory: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Read the following block of memory: D200H thru D20FH.			Perform initial setup per table 6 except: <u>Address</u> <u>Data</u> 1#D21C 0249 1#D220 - 1#D22E 0044 Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D200 to 1#D20F"	N/A
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REV	TEST	SPECIFICATION				PROCEDURE				SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS		MFG LIMITS	
	A8.4	AAAAH 2AAAAH		Even locations Odd locations (Reject nonmatching labels)				Even locations Odd locations (Reject nonmatching labels)		AAAAH 2AAAAH (no change from test 8.2)	
	A8.5	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> D220H - D22EH EF44H Modify Memory: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Read the following block of memory: D200H thru D20FH.				Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 1#D220 - 1#D22E EF44 Enter "modify memory MDS word 1#D210 thru 1#D210 to 5555" Enter "display memory MDS word from 1#D200 to 1#D20F"		N/A	
	A8.6	AAAAH 2AAAAH (no change from test 8.2)		Even locations Odd locations (Reject due to disable feature)				Even locations Odd locations (Reject due to disable feature)		AAAAH 2AAAAH (no change from test 8.2)	
	A8.7	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> D218H 0000H D21AH 0000H D220H - D22EH EE44H Modify Memory: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Read the following block of memory: D200H thru D20FH.				Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 1#D218 0000 1#D21A 0000 1#D220 - 1#D22E EE44 Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D200 to 1#D20F"		N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.8	AAAAH 2AAAAH (no change)		Even locations Odd locations (Accept valid data and label)			Even locations Odd locations (Accept valid data and label)	AAAAH 2AAAAH (no change)	
	A8.9	N/A		Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> D220H - D22EH EE44H Modify Memory: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Read the following block of memory: D200H thru D20FH.			Perform initial setup in accordance with table 6 except: <u>Address</u> <u>Data</u> 1#D220 - 1#D22E EE44 Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D200 to 1#D20F"	N/A	
	A8.10	5555H D555H		Even locations Odd locations			Even locations Odd locations	5555H D555H	
	A8.11	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 8000H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 8000H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.12	8000H 0000H		Even locations Odd locations			Even locations Odd locations	8000H 0000H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.13	N/A		Perform initial setup in accordance with table 6.1. Modify Memory Address Data 0D210H4000H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 4000H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.14	4000H 0000H		Even locations Odd locations			Even locations Odd locations	4000H 0000H	
	A8.15	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H2000H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 2000H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.16	2000H 0000H		Even locations Odd locations			Even locations Odd locations	2000H 0000H	
	A8.17	N/A		Perform initial setup in accordance with table 6.1. Modify memory: Address Data 0D210H1000H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 1000H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.18	1000H 0000H		Even locations Odd locations			Even locations Odd locations	1000H 0000H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.19	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0800H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0800H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.20	0800H 0000H		Even locations Odd locations			Even locations Odd locations	0800H 0000H	
	A8.21	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0400H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0400H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.22	0400H 0000H		Even locations Odd locations			Even locations Odd locations	0400H 0000H	
	A8.23	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0200H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0200H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.24	0200H 0000H		Even locations Odd locations			Even locations Odd locations	0200H 0000H	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.25	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0100H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0100H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.26	0100H 0000H		Even locations Odd locations			Even locations Odd locations	0100H 0000H	
	A8.27	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0080H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0080H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.28	0080H 0000H		Even locations Odd locations			Even locations Odd locations	0080H 0000H	
	A8.29	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: AddressData 0D210H0040H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0040H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.30	0040H 0000H		Even locations Odd locations			Even locations Odd locations	0040H 0000H	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION						
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS						
	A8.31	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0020H</td> </tr> <tr> <td>0D211H</td> <td>0000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0020H	0D211H	0000H			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0020H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0020H													
0D211H	0000H													
	A8.32	0020H 0000H		Even locations Odd locations			Even locations Odd locations	0020H 0000H						
	A8.33	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0D210H</td> <td>0010H</td> </tr> <tr> <td>0D211H</td> <td>0000H</td> </tr> </table> Read the following block of memory: 0D200H thru 0D20FH.	<u>Address</u>	<u>Data</u>	0D210H	0010H	0D211H	0000H			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0010H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A
<u>Address</u>	<u>Data</u>													
0D210H	0010H													
0D211H	0000H													
	A8.34	0010H 0000H		Even locations Odd locations			Even locations Odd locations	0010H 0000H						
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.35	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0008H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0008H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.36	0008H 0000H		Even locations Odd locations			Even locations Odd locations	0008H 0000H	
	A8.37	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0004H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0004H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.38	0004H 0000H		Even locations Odd locations			Even locations Odd locations	0004H 0000H	
	A8.39	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: Address Data 0D210H0002H 0D211H0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0002H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.40	0002H 0000H		Even locations Odd locations			Even locations Odd locations	0002H 0000H	
	A8.41	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0001H 0D211H 0000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0001H" Enter "modify memory MDS word 1#D211H to 0000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.42	0001H 0000H		Even locations Odd locations			Even locations Odd locations	0001H 0000H	
	A8.43	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 8000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 8000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.44	0000H 8000H		Even locations Odd locations			Even locations Odd locations	0000H 8000H	
	A8.45	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 4000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 4000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.46	0000H 4000H		Even locations Odd locations			Even locations Odd locations	0000H 4000H	
	A8.47	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 2000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 2000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.48	0000H 2000H		Even locations Odd locations			Even locations Odd locations	0000H 2000H	
	A8.49	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 1000H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 1000H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.50	0000H 1000H		Even locations Odd locations			Even locations Odd locations	0000H 1000H	
	A8.51	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0800H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0800H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.52	0000H 0800H		Even locations Odd locations			Even locations Odd locations	0000H 0800H	
	A8.53	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0400H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0400H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.54	0000H 0400H		Even locations Odd locations			Even locations Odd locations	0000H 0400H	
	A8.55	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0200H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0200H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.56	0000H 0020H		Even locations Odd locations			Even locations Odd locations	0000H 0200H	
	A8.57	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0100H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0100H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.58	0000H 0100H		Even locations Odd locations			Even locations Odd locations	0000H 0100H	
	A8.59	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0080H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0080H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.60	0000H 0080H		Even locations Odd locations			Even locations Odd locations	0000H 0080H	
	A8.61	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0040H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0040H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.62	0000H 0040H		Even locations Odd locations			Even locations Odd locations	0000H 0040H	
	A8.63	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0020H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0020H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A8.64	0000H 0020H		Even locations Odd locations			Even locations Odd locations	0000H 0020H	
	A8.65	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0010H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0010H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.66	0000H 0010H		Even locations Odd locations			Even locations Odd locations	0000H 0010H	
	A8.67	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0008H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0008H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
	A8.68	0000H 0008H		Even locations Odd locations			Even locations Odd locations	0000H 0008H	
	A8.69	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0004H Read the following block of memory: 0D200H thru 0D20FH.			Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0004H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A	
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REV	TEST	SPECIFICATION				PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION		SWITCH POS	C	WORK STEPS	MFG LIMITS
	A8.70	0000H 0004H		Even locations Odd locations				Even locations Odd locations	0000H 0004H
	A8.71	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0002H Read the following block of memory: 0D200H thru 0D20FH.				Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0002H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A
	A8.72	0000H 0002H		Even locations Odd locations				Even locations Odd locations	0000H 0002H
	A8.73	N/A		Perform initial setup in accordance with table 6.1. Modify Memory: <u>Address</u> <u>Data</u> 0D210H 0000H 0D211H 0001H Read the following block of memory: 0D200H thru 0D20FH.				Perform initial setup in accordance with table 6.1. Enter "modify memory MDS word 1#D210H to 0000H" Enter "modify memory MDS word 1#D211H to 0001H" Enter "display memory MDS word from 1#D200H thru 1#D20FH"	N/A
	A8.74	0000H 0001H		Even locations Odd locations				Even locations Odd locations	0000H 0001H
	A9			429 RECEIVER/ TRANSMITTER TESTS (EXTERNAL) Perform test setup in accordance with tables 2 and 8. <u>Xmtr 0/Rcvr 0</u>				429 RECEIVER/ TRANSMITTER TESTS (EXTERNAL) Perform test setup in accordance with tables 2 and 8. <u>Xmtr 0/Rcvr 0</u>	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.1	N/A		(MAINT DATA OUT/AIR DATA 1) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D220H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH Data should read as follows: <u>Address</u>			(MAINT DATA OUT/AIR DATA 1) Connect Xmtr 0 (Maint Data Out) to Rcvr 0 (429 Air Data 1). Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D220 FFAA" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D200 to 1#D201" Data should read as follows: <u>Address</u>	N/A
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.2	AAAAH 2AAAH		D200H D201H On Mode S interface panel, remove connections on 429 ADC #1 and reconnect on 575 ADC #1. Modify receiver label: <u>Address</u> <u>Data</u> D220H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D200H D201H On Mode S interface panel, remove connections on 429 ADC #1 and reconnect on 575 ADC #1. Enter "modify memory MDS word 1#0D220 FF55" Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D200 to 1#D201" Data should read as follows: <u>Address</u>	AAAAH 2AAAH
	A9.3	5555H D555H		D200H D201H <u>Xmtr 0/Rcvr 1</u>			D200H D201H <u>Xmtr 0/Rcvr 1</u>	5555H D555H
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.4	N/A		(MAINT DATA OUT/AIR DATA 2) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D222H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH			(MAINT DATA OUT/AIR DATA 2) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D222 FFAAH" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D202 to 1#D203" Data should read as follows: <u>Address</u>	N/A
	A9.5	AAAAH 2AAAH		D202H D203H On Mode S interface panel, remove connections on 429 ADC #2 and reconnect on 575 ADC #2. Modify receiver label: <u>Address</u> <u>Data</u> D222H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D202H D203H On Mode S interface panel, remove connections on 429 ADC #2 and reconnect on 575 ADC #2. Enter "modify memory MDS word 1#0D222 FF55H" Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D202 to 1#D203" Data should read as follows: <u>Address</u>	AAAAH 2AAAH
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	
	A9.6	5555H D555H		D202H D203H <u>Xmtr 0/Rcvr 2</u>			D202H D203H <u>Xmtr 0/Rcvr 2</u>	5555H D555H
	A9.7	N/A		(MAINT DATA OUT/CNTL DATA B) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D224H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH			(MAINT DATA OUT/CNTL DATA B) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D224 FFAAH" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D204 to 1#D205" Data should read as follows: <u>Address</u>	N/A
	A9.8	AAAAH 2AAAAH		D204H D205H Modify receiver label: <u>Address</u> <u>Data</u> D224H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D204H D205H Enter "modify memory MDS word 1#0D224 FF55H" Enter "modify memory MDS word 1#D201 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D204 to 1#D205" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	
	A9.9	5555H D555H		D204H D205H <u>Xmtr 0/Rcvr 3</u>			D204H D205H <u>Xmtr 0/Rcvr 3</u>	5555H D555H
	A9.10	N/A		(MAINT DATA OUT/MAINT DATA IN) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D226H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH			(MAINT DATA OUT/MAINT DATA IN) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D226 FFAA" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D206 to 1#D207" Data should read as follows: <u>Address</u>	N/A
	A9.11	AAAAH 2AAAH		D206H D207H Modify receiver label: <u>Address</u> <u>Data</u> D226H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D206H D207H Enter "modify memory MDS word 1#0D226 FF55" Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D206 to 1#D207" Data should read as follows: <u>Address</u>	AAAAH 2AAAH
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.12	5555H D555H		D206H D207H <u>Xmtr 0/Rcvr 6</u>			D206H D207H <u>Xmtr 0/Rcvr 6</u>	5555H D555H
	A9.13	N/A		(MAINT DATA OUT/FLIGHT ID) Perform setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D22CH FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH Data should read as follows: <u>Address</u>			(MAINT DATA OUT/FLIGHT ID) Perform setup in accordance with table 7. Enter "modify memory MDS word 1#0D22C FFAA" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D20C to 1#D20D" Data should read as follows: <u>Address</u>	N/A
	A9.14	AAAAH 2AAAAH		D20CH D20DH Modify receiver label: <u>Address</u> <u>Data</u> D22CH FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D20CH D20DH Enter "modify memory MDS word 1#0D22C FF55" Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word from 1#D20C to 1#D20D" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.15	5555H D555H		D20CH D20DH <u>Xmtr 0/Rcvr 7</u>			D20CH D20DH <u>Xmtr 0/Rcvr 7</u>	5555H D555H
	A9.16	N/A		(MAINT DATA OUT/CNTL DATA A) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D22EH FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D210H AAAAH D211H AAAAH Data should read as follows: <u>Address</u>			(MAINT DATA OUT/CNTL DATA A) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D22E FFAA" Enter "modify memory MDS word 1#D210 thru 1#D211 to AAAA" Enter "display memory MDS word from 1#D20E to 1#D20F" Data should read as follows: <u>Address</u>	N/A
	A9.17	AAAAH 2AAAAH		D20EH D20FH Modify receiver label: <u>Address</u> <u>Data</u> D22EH FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D210H 5555H D211H 5555H Data should read as follows: <u>Address</u>			D20EH D20FH Enter "modify memory MDS word 1#0D22E FF55" Enter "modify memory MDS word 1#D210 thru 1#D211 to 5555" Enter "display memory MDS word 1#D20E to 1#D20F" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.18	5555H D555H		D20EH D20FH <u>Xmtr 1/Rcvr 4</u>			D20EH D20FH <u>Xmtr 1/Rcvr 4</u>	5555H D555H
	A9.19	N/A		(XT COORD/TX COORD) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D228H FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D212H AAAAH D213H AAAAH			(XT COORD/TX COORD) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D228 FFAA" Enter "modify memory MDS word 1#D212 thru 1#D213 to AAAA" Enter "display memory MDS word from 1#D208 to 1#D209" Data should read as follows: <u>Address</u>	N/A
	A9.20	AAAAH 2AAAAH		D208H D209H Modify receiver label: <u>Address</u> <u>Data</u> D228H FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D212H 5555H D213H 5555H Data should read as follows: <u>Address</u>			D208H D209H Enter "modify memory MDS word 1#0D228 FF55" Enter "modify memory MDS word 1#D212 thru 1#D213 to 5555" Enter "display memory MDS word from 1#D208 to 1#D209" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE		SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.21	5555H D555H		D208H D209H <u>Xmtr 2/Rcvr 5</u>			D208H D209H <u>Xmtr 2/Rcvr 5</u>	5555H D555H
	A9.22	N/A		(DATA LINK OUT/DATA LINK IN) Perform initial setup in accordance with table 7. Modify receiver label: <u>Address</u> <u>Data</u> D22AH FFAAH Modify transmitter data: <u>Address</u> <u>Data</u> D214H AAAAH D215H AAAAH Data should read as follows: <u>Address</u>			(DATA LINK OUT/DATA LINK IN) Perform initial setup in accordance with table 7. Enter "modify memory MDS word 1#0D22A FFAA" Enter "modify memory MDS word 1#D214 thru 1#D215 to AAAA" Enter "display memory MDS word from 1#D20A to 1#D20B" Data should read as follows: <u>Address</u>	N/A
	A9.23	AAAAH 2AAAAH		D20AH D20BH Modify receiver label: <u>Address</u> <u>Data</u> D22AH FF55H Modify transmitter data: <u>Address</u> <u>Data</u> D214H 5555H D215H 5555H Data should read as follows: <u>Address</u>			D20AH D20BH Enter "modify memory MDS from 1#0D22A FF55" Enter "modify memory MDS from 1#D214 thru 1#D215 to 5555" Enter "display memory MDS word from 1#D20A to 1#D20B" Data should read as follows: <u>Address</u>	AAAAH 2AAAAH
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A9.24	5555H D555H		D20AH D20BH			D20AH D20BH	5555H D555H
	A10			INTERNAL RF <u>SELF-TEST</u> Perform test setup in accordance with table 4. Set up video ASIC according to table 4.	Mode S Interface <u>Panel</u> STBY/ON: ON		INTERNAL RF <u>SELF-TEST</u> Perform test setup in accordance with table 4. Enter "END" Enter "SCP MDS" Enter "load verify MDS IT100P.RA" Enter "modify registers MDS E0 80E" Enter "modify registers MDS P 109." Enter "Set discretes MDS to IFA." Enter "run MDS" Program takes only a fraction of a second to run. When all six front panel LEDs are illuminated, program is complete.	
	A10.1	N/A		Short Mode S <u>Bottom Antenna</u> Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> OC02EH 0031H The received interrogation data shall be as shown. <u>Address</u>			Short Mode S <u>Bottom Antenna</u> Enter "modify memory MDS word 1#0C02E 0031" Enter "display memory MDS word from 1#C000 to 1#C003" Data shall indicate as follows: <u>Address</u>	N/A
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS
	A10.2	5555H		0C000H thru 0C003H Long Mode S <u>Top Antenna</u>			0C000H thru 0C003H Long Mode S <u>Top Antenna</u>	5555H
	A10.3	N/A		Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C007H thru 0C00DH AAAAH 0C02EH 0037H			Enter "modify memory MDS word 1#C007 thru 1#C00D to AAAA" Enter "modify memory MDS word 1#0C02E 0037" Enter "display memory MDS word from 1#C000 to 1#C007" Data shall indicate as follows: <u>Address</u>	N/A
	A10.4	AAAAH		0C000H thru 0C006H Mode S Long Squitter <u>Top Antenna Pwr Vld</u>			0C000H thru 0C006H Mode S Long Squitter <u>Top Antenna Pwr Vld</u>	AAAAH
	A10.5	N/A		Set up reply data by writing to memory as shown. (Send preamble pulses only.) <u>Address</u> <u>Data</u> 0C007H F000H 0C008H thru 0C00DH 0000H Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C02EH 003FH	Mode S Interface <u>Panel</u> STBY/ON: ON		Enter "modify memory MDS word 1#C007 F000" Enter "modify memory MDS word 1#C008 thru 1#C00D to 0000" Enter "modify memory MDS word 1#0C02E 003F"	N/A
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REV	TEST	SPECIFICATION			PROCEDURE			SPECIFICATION	
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A10.6	XXX8H bits 4 and 5 = 1		Observe the top antenna power valid signal by reading the self-test status word, address 0C011H. This word shall be as specified. (X = don't care) Mode S Long Squitter <u>Bot Antenna Pwr Vld</u>			Enter "display memory MDS word from 1#C011 to 1#C011" Location shall be as specified. (X = don't care) Mode S Long Squitter <u>Bot Antenna Pwr Vld</u>	XXX8H bits 4 and 5 = 1	
	A10.7	N/A		Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C02EH 003DH	Mode S Interface <u>Panel</u> STBY/ON: ON		Enter "modify memory MDS word 1#C02E 003D"	N/A	
	A10.8	XXXX4H bits 4 and 5 = 1		Observe the bottom antenna power valid signal by reading the self-test status word, address 0C011H. This word shall be as specified. (X = don't care) ATCRBS Mode A <u>Top Antenna</u>			Enter "display memory MDS word from 1#C011 to 1#C011" This location shall be as specified. (X = don't care) ATCRBS Mode A <u>Top Antenna</u>	XXXX4H bits 4 and 5 = 1	
	A10.9	N/A		Set up interrogation data for Mode A. <u>Address</u> <u>Data</u> 0C007H E000H 0C008H 0000H 0C009H E000H 0C00AH 0000H 0C00BH 0000H 0C00CH 0000H 0C00DH 0000H Initiate the self-test by writing to memory as shown. <u>Address</u> <u>Data</u> 0C02EH 0036H			Modify memory according to the following table: (Enter "modify memory <address> to <data>") <u>Address</u> <u>Data</u> 1#C007 E000 1#C008 0000 1#C009 E000 1#C00A 0000 1#C00B 0000 1#C00C 0000 1#C00D 0000 Enter "modify memory MDS word 1#0C02E 0036"	N/A	
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REV	TEST	SPECIFICATION				PROCEDURE		SPECIFICATION																																				
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS																																				
H	A10 .10	XXX2H		Observe the Mode A signal by reading the self-test status word, address 0C011H. Word shall be as specified. (X = don't care) ATCRBS Mode C Bot Antenna	IFR 1400 CW/NORM/OFF: OFF		Turn IFR 1400 CW/NORM/OFF Switch to "OFF" position. Enter "display memory MDS word from 1#C011 to 1#C011" This location shall be as specified. (X = don't care) ATCRBS Mode C Bot Antenna	XXX2H																																				
	A10 .11	N/A		Set up interrogation data for Mode C. <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0C007H</td> <td>E000H</td> </tr> <tr> <td>0C008H</td> <td>0000H</td> </tr> <tr> <td>0C009H</td> <td>0000H</td> </tr> <tr> <td>0C00AH</td> <td>0000H</td> </tr> <tr> <td>0C00BH</td> <td>0000H</td> </tr> <tr> <td>0C00CH</td> <td>0E00H</td> </tr> <tr> <td>0C00DH</td> <td>0000H</td> </tr> </table> Initiate the self-test by writing to memory as shown. <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>0C02EH</td> <td>0030H</td> </tr> </table>	<u>Address</u>	<u>Data</u>	0C007H	E000H	0C008H	0000H	0C009H	0000H	0C00AH	0000H	0C00BH	0000H	0C00CH	0E00H	0C00DH	0000H	<u>Address</u>	<u>Data</u>	0C02EH	0030H			Modify memory according to the following table: (Enter "modify memory <address> to <data>") <table border="0"> <tr> <td><u>Address</u></td> <td><u>Data</u></td> </tr> <tr> <td>1#C007</td> <td>E000</td> </tr> <tr> <td>1#C008</td> <td>0000</td> </tr> <tr> <td>1#C009</td> <td>0000</td> </tr> <tr> <td>1#C00A</td> <td>0000</td> </tr> <tr> <td>1#C00B</td> <td>0000</td> </tr> <tr> <td>1#C00C</td> <td>0E00</td> </tr> <tr> <td>1#C00D</td> <td>0000</td> </tr> </table> Enter "modify memory MDS word 1#0C02E 0030"	<u>Address</u>	<u>Data</u>	1#C007	E000	1#C008	0000	1#C009	0000	1#C00A	0000	1#C00B	0000	1#C00C	0E00	1#C00D	0000	N/A
<u>Address</u>	<u>Data</u>																																											
0C007H	E000H																																											
0C008H	0000H																																											
0C009H	0000H																																											
0C00AH	0000H																																											
0C00BH	0000H																																											
0C00CH	0E00H																																											
0C00DH	0000H																																											
<u>Address</u>	<u>Data</u>																																											
0C02EH	0030H																																											
<u>Address</u>	<u>Data</u>																																											
1#C007	E000																																											
1#C008	0000																																											
1#C009	0000																																											
1#C00A	0000																																											
1#C00B	0000																																											
1#C00C	0E00																																											
1#C00D	0000																																											
	A10 .12	XXX1H		Observe the Mode A signal by reading the self-test status word, address 0C011H. Word shall be as specified. (X = don't care)			Enter "display memory MDS word from 1#C011 to 1#C011" This location shall be as specified. (X = don't care)	XXX1H																																				
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REV	TEST	SPECIFICATION				PROCEDURE			SPECIFICATION
LTR	NO.	OPR LIMITS	C	TEST DESCRIPTION	SWITCH POS	C	WORK STEPS	MFG LIMITS	
	A10 .13	N/A		Perform test setup in accordance with table 1. STBY/ON discrete (hardware path) Interrogate the UUT with an ATCRBS Mode A interrogation at the standard rate and power.	S-1403 FUNC 1 ATC-1400A XPDR MODE A PRF: 0450 RF Lvl: -50 CW/NORM/ OFF: NORM Mode S Interface Panel STBY/ON: ON		Perform test setup in accordance with table 1. Turn XPDR MODE control knob to A position. Turn PRF thumbwheels to 450 Hz.	N/A	
	A10 .14	>90%		Observe the ATCRBS % reply. The value shall be as specified. Switch the UUT to STANDBY mode.	Mode S Interface Panel STBY/ON: STBY		Read the % reply display on the ATC-1400A. The display shall indicate as specified. On the Mode S inter-face panel, toggle the STBY/ON switch to the STBY position.	>98%	
	A10 .15	<10%		Observe the ATCRBS % reply. The value shall be as specified. This is the end of PC/CPI emulation testing. Continue testing UUT with tests 11 thru 28.			Read the % reply display on the ATC-1400A. The display shall indicate as specified.	<2%	
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