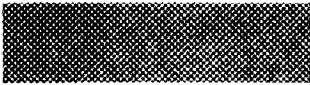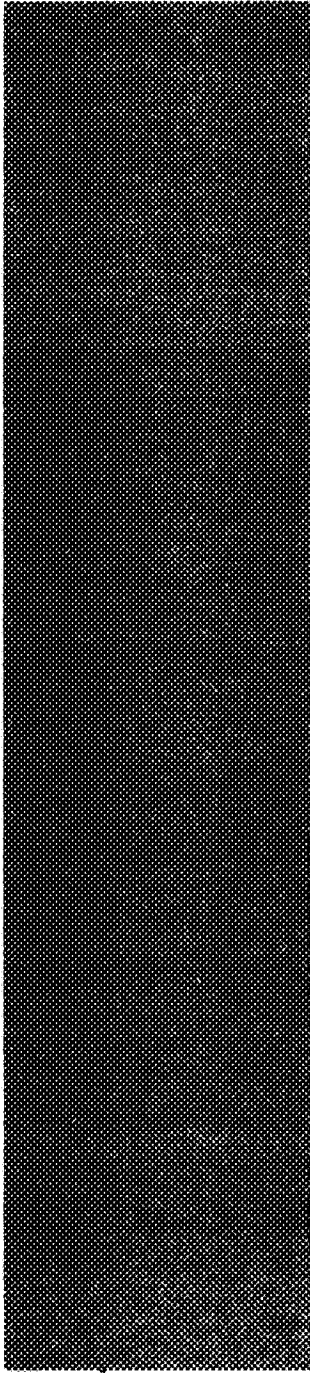*IN-35*

Report 11159
8 June 1998

GENCORP
AEROJET

Integrated
Advanced Microwave Sounding Unit-A (AMSU-A)
METSAT A2 Signal Processor Engineering Test Report
(P/N: 1331120-2, S/N: F02)

Contract No. NAS 5-32314
CDRL 207

Submitted to:

National Aeronautics and Space Administration
Goddard Space Flight Center
Grennbelt, Maryland 20771

Submitted by:

Aerojet
1100 West Hollyvale Street
Azusa, California 91702

Aerojet

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TABLE OF CONTENTS

1.0   Introduction

This report presents a description of the tests performed, and the test data, for the A2 METSAT Signal Processor Assembly PN: 1331120-2, S/N F02. The assembly was tested in accordance with AE-26754, "METSAT Signal Processor Scan Drive Test and Integration Procedure".

The tests were conducted at room temperature in the AMSU-A test area of building 57. · The tests fall into six categories: 1) Continuity, 2) Power Distribution, 3) Digital Processor, 4) Analog Processor, 5) Scan Drive, and 6) Supply Current.

2.0   Objective

The objective is to demonstrate functionality of the signal processor prior to instrument integration.

3.0   Test Data

All test data is presented on the enclosed copies of the test data sheets (TDSs) numbered A-15 through A-25. Redlined data sheets resulted from previous test on another unit.

4.0   TESTS

4.1   Continuity

A complete continuity test of the backplane wiring is performed at the facility where the wirewrapping of the backplane is done. The continuity tests performed here involve 1) the I/O interface card slots, J301 and J324, 2) the Aerojet added twisted-shielded clock lines, and 3) chassis return connections. The tests are manual resistance measurements tests. Test data is presented on TDS 11.

4.2   Power Distribution

In these tests supply voltages are input to the signal processor from the Test Relay Unit (TRU) as in normal testing. No CCAs are installed in the signal processor for the tests. The test verifies that the four supply voltages are present on the proper pins of all backplane connectors. The test setup block diagram is shown in Figure 1, and test data is presented on TDS 12.
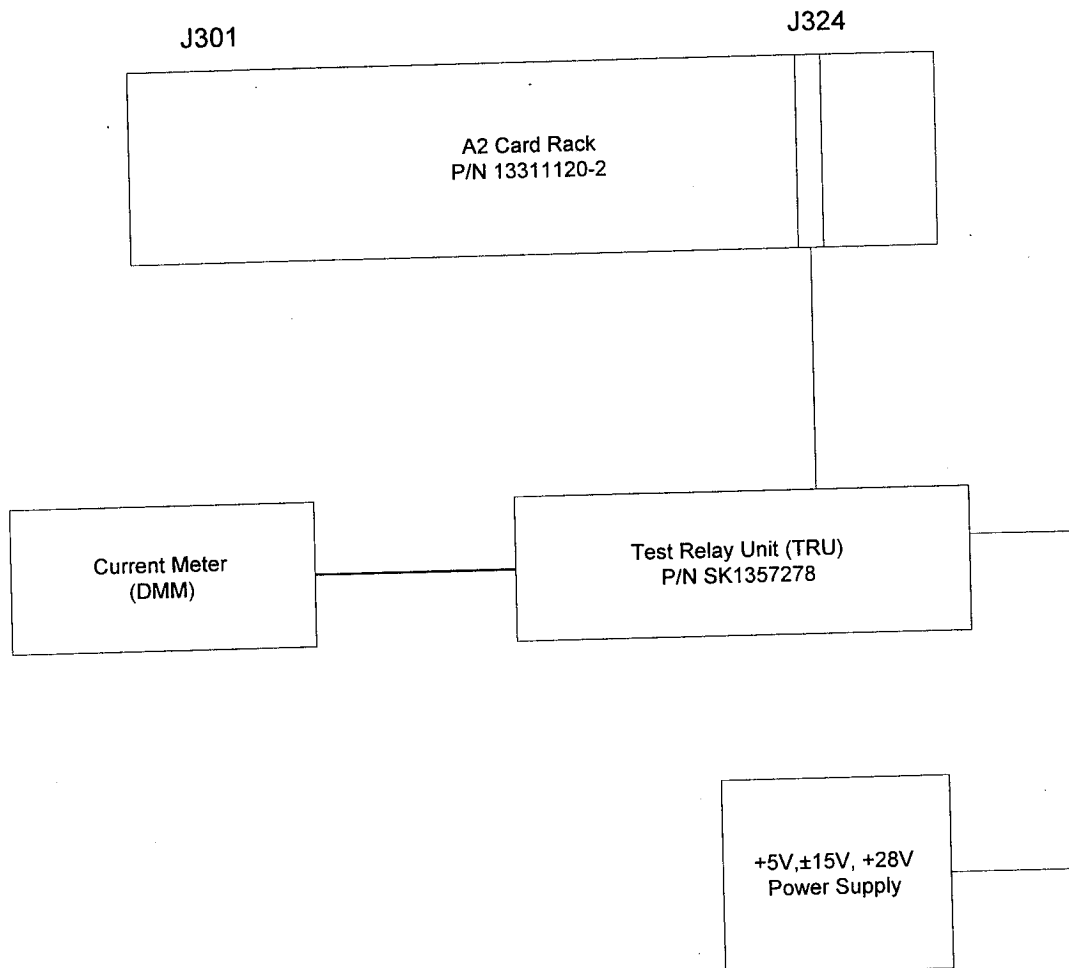
J301   J324

```
+------------------------------------------------+
|                                                |  |
|              A2 Card Rack                      |  |
|              P/N 13311120-2                    |  |
|                                                |  |
+------------------------------------------------+
```

```
+------------------+        +----------------------+
|  Current Meter   |--------| Test Relay Unit (TRU)|
|     (DMM)        |        |   P/N SK1357278      |
+------------------+        +----------------------+
```

```
+----------------------+
|  +5V,±15V, +28V       |
|   Power Supply        |
+----------------------+
```

Figure 1. A2 Signal Processor Test Setup

4.3   Digital Processor

Beginning with this test, CCAs are installed into the card cage as required to perform the test, and then remain installed. At the conclusion of all tests, a complete set of CCAs has been installed. The complete test setup block diagram which is required for performing any of the tests is shown in Figure 2.
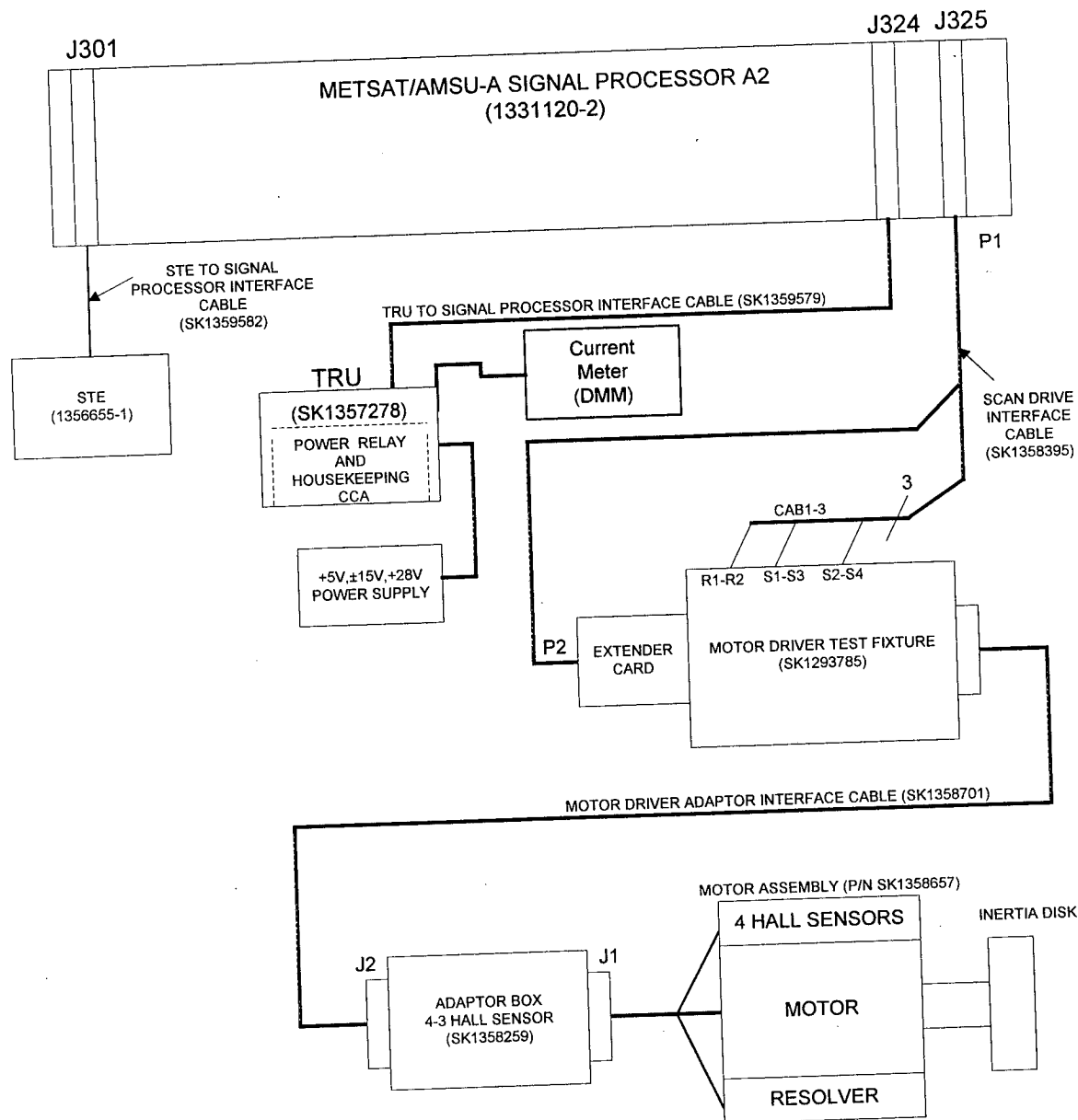
J301

J324 J325

METSAT/AMSU-A SIGNAL PROCESSOR A2
(1331120-2)

P1

STE TO SIGNAL
PROCESSOR INTERFACE
CABLE
(SK1359582)

TRU TO SIGNAL PROCESSOR INTERFACE CABLE (SK1359579)

Current
Meter
(DMM)

STE
(1356655-1)

TRU
(SK1357278)

POWER RELAY
AND
HOUSEKEEPING
CCA

SCAN DRIVE
INTERFACE
CABLE
(SK1358395)

3

CAB1-3

+5V,±15V,+28V
POWER SUPPLY

R1-R2   S1-S3   S2-S4

P2   EXTENDER
CARD

MOTOR DRIVER TEST FIXTURE
(SK1293785)

MOTOR DRIVER ADAPTOR INTERFACE CABLE (SK1358701)

MOTOR ASSEMBLY (P/N SK1358657)

4 HALL SENSORS

INERTIA DISK

J2

J1

ADAPTOR BOX
4-3 HALL SENSOR
(SK1358259)

MOTOR

RESOLVER

Figure 2. A2 Scan Drive Test Setup

3

4.3.1 Memory

In this test, the digital test set is used in place of the CPU CCA to read and verify data of the test PROMs on the "GOLD" Memory CCA. Test data is presented on TDS 13.

4.3.2 CPU

The CPU test requires that the CPU Auxiliary test CCA be installed in place of the Memory CCA. In this test, the RAM and various instructions performed by the CPU are tested. In addition, the waveform of the clock signal to the DC-DC converter is measured at the CLOCK jack on the TRU. Test data is presented on TDS 13.

4.3.3 Scan Control Interface

In this test, input and output ports 0 through 3 are tested. In addition, the disable feature of the input ports is checked out. Test data is presented on TDS 13.

4.3.4 Timing and Control

In this test, the proper time intervals of I/H, DUMP, INTCMPL,TSCMPL, STOP, and ANTENNA STROBE are verified. In addition to the above tests, the test set also checks the input ports 16 and 17, output port #13 (4 MSBs), output port 14, input port #15 (DAC BSY signal), and output port #13 (4 LSBs). Test data is presented on TDS 13.

4.3.5 Spacecraft Interface

In this test, the STE is turned on and initialized. The STE is tested with a series of self-tests to verify the readiness of the STE to test flight hardware. After successfully passing the self-tests, the STE is used to simulate the spacecraft command signals and retrieve limited test data for the remaining signal processor tests. STE test data is presented on TDS 14.

4.3.6 Relay Control

This test verifies the operation of the module power command and the survival heater command. The presence of the +10 volt Interface power is verified. The Scanner and Compensator relay drive and position indicators are also verified. Test data is presented on TDS 14.

4.4 Analog Processor

4.4.1 Independence of Measurements

This test is performed using the Analog CCA Test Fixture, the Integrate and Dump Filter and the Analog Mux and A/D Converter CCAs. The test gives a measurement of the sample-to-sample crosstalk within a channel, which is dependent on the completeness of the dump of the integration capacitor. Test data is presented on TDS 15.

4.4.2 Integrate/dump filter, radiometric data multiplexing, and digitization tests

In this test, a 2 volt dc signal is input to each integrate and dump filter, and the channel output code from the A/D converter is measured. The integrator output waveform is also displayed on an oscilloscope for verification of timing. Test data is presented on TDS 16.

4.4.3 Temperature monitoring circuits

In this test a resistor of value approximating the room temperature of the PRTs is connected at the input of each PRT readout circuit, and the output code from the A/D converter is measured. The reference voltage used in the PRT readout circuits is also measured. Test data is presented on TDS 17.

4.4.4 Analog telemetry

In this test each of the analog telemetry signals is measured at the ANALOG HSKP jack on the TRU. Test data is presented on TDS 18.

4.5 Scan Drive

This test includes all CCAs involved in the scan drive function. The circuitry is programmed to provide one complete revolution of the drive motor as it steps through each of the thirty scene positions and the two calibration positions. The circuitry is programmed to park at the Warm Cal, Cold Cal, and the Nadir positions during the test sequence. The GSE test modes are also verified. To verify proper performance, the inertia disk on the motor shaft is visually observed through the one revolution and the various calibration positions. Test data is presented on TDS 19.

4.6 Supply Current

In this test, the total current drawn by the signal processor from each of the four supply voltages is measured with the signal processor fully populated with CCA's. Test data is presented on TDS 20.

5.0 TEST ANOMALIES

One test anomaly occurred. The anomaly occurred when the motor did not move to the position commanded. The test was stopped and a Test Anomaly Report (attached) was opened (TAR 002393). Troubleshooting revealed that the old/new switches (SW1 & SW2) on the Motor Driver Test Fixture (SK1293785) were found to be intermittent, resulting in improper motor drive. The Test Equipment Anomaly Report (TEAR 0007) was opened, and the switches were removed and replaced. Then the test was continued until completion.

6.0 TEST RESULTS

The METSAT/AMSU A2 SIGNAL PROCESSOR TEST was successfully completed and all test data is within specified limits.

TEST DATA SHEET 11
A2 Continuity Tests (Paragraph 5.2.1)

Enter a Pass or Fail to indicate the result of the tests:

From	To	Signal Name	Pass/Fail
E1	J301-60	CHASSIS GND	Pass
E2	J301-90	CHASSIS GND	Pass
E3	J324-76	CHASSIS GND	Pass
E4	J302-46	CHASSIS GND	Pass
J324-73	J312-70	1.248 MHZ PS CLK	Pass
J324-74	J312-89	5V RTN(1) (1.248 MHZ PS CLK RTN)	Pass
J324-75	J312-91	5V RTN(1) (PS CLK SHIELD)	Pass

Assembly No. _1331120-2_

Serial No. _F02_

Test Engineer _D Lund_ _5/11/98_
     (Signature   (Date)

Customer Representative (Flight hardware only) _____
     (Signature)   (Date)

Shop Order No. _292309_

Pass _✓_   Fail _____

Quality Control _____ MAY 13 '98
     (Signature)   (Date)
MAY 13 '98

A-15

TEST DATA SHEET 12
A2 Power Distribution (Paragraphs 5.2.2 & 5.2.3)

)Lucy
2/24/9?

OS 226

"remove shade"

Power Supply Voltages:

+ 5.7 ± 0.1V: + 5.706
+15.7 ± 0.1V: + 15.763
-15.7 ± 0.1V: − 15.226
+28.7 ± 0.1V: +28.648

Test Set-up Verified:　　　　YES ✓　　　　NO _____

Para. 5.2.3 Step No.	Connector No.	+5 ±0.5V	P/F	+15 ±0.3V	P/F	-15 ±0.3V	P/F	+28 ±0.56V	P/F	+9 ±1V✱	P/F
1✱	J301									9.47	P
2	J302			+15.04	P	-15.02	P				
3	J303			+15.04	P	-15.02	P				
4	J304			+15.04	P	-15.02	P				
5	J305			+15.04	P	-15.02	P				
6	J306	+4.92	P	+15.04	P	-15.02	P				
6	J307			+15.04	P	-15.02	P				
6	J308	+4.93	P							9.47	P
6	J309	+4.93								9.47	P
6	J310	+4.93	P								
6	J311	+4.93	P								
6	J312	+4.93	P								
6	J313	+4.93	P								
6	J315	+4.93	P								
6	J317	+4.93	P	+15.04	P	-15.02	P	+27.9	P		
6	J318	+4.93	P	+15.04	P	-15.02	P				
6	J320	+4.95	P								
6	J321	+4.96	P	+15.04	P	-15.02	P				
6	J322	+4.95	P	+15.04	P	-15.02	P	+27.9	P		
6	J323	+4.95	P	+15.04	P	-15.02	P	+27.9	P		
7	J325							+27.9	P		

✱ Measured at paragraph 5.2.5.2 test

Assembly No. 133120-2

Serial No. F02

Test Engineer ___D. Lund___ 5/11/98
　　　　　　　(Signature)　　(Date)

Customer Representative (Flight hardware only) ___J. Sanford___
　　　　　　　　　　　　　　　(Signature)

Shop Order No. 292309

Pass ✓　　　Fail _____

Quality Control _____ MAY 12 '98
　　　　　　　(Signature)　　(Date)

MAY 12 '98
(Date)

A-16

TEST DATA SHEET 13 (Sheet 1 of 2)
A2 Digital Processor (Paragraph 5.2.4)

CPU CCA Serial No. (J312)____*F09*____

Scan Control Interface CCA Serial No. (J315)____*F21*____

Timing and Control CCA Serial No. (J311)____*F09*____

5.2.4.1 Memory tests:

5.2.4.1/10 Circle PASS or FAIL to indicate the result of the tests: (Pass)   Fail

If "Fail", record the error code and error description.

Error Code: *N/A*

Error Description: *N/A*

5.2.4.2 CPU tests:

	Measurements	Limits	Pass/Fail
5.2.4.2/10			
Vp-p	*3.86 V*	3.30 - 4.94 V	*Pass*
T	*809 nS*	761 - 841 ns	*Pass*

5.2.4.2/21 Circle PASS or FAIL to indicate if LEDs indicate CCA passed or failed: (Pass)   Fail

5.2.4.3 Scan Control Interface Tests:

		Pass/Fail
5.2.4.3/14	The input ports 0 and 1 tests	(Pass) Fail
5.2.4.3/21	Inhibit input port 0 and 1 tests	(Pass) Fail
5.2.4.3/29	The input ports 2 and 3 tests	(Pass) Fail
5.2.4.3/40	The output ports 0 and 1 tests	(Pass) Fail

If "Fail", record the error code and error description.

Error Code: *N/A*

Error Description: *N/A*

TEST DATA SHEET 13 (Sheet 2 of 2)
A2 Digital Processor (Paragraph 5.2.4)

5.2.4.4 Timing and Control Tests:

5.2.4.4/13   The Integrate and Hold pulse and the Dump pulse at the card rack slot J307.   (Pass)   Fail

5.2.4.4/25   The Integrate and Hold pulse and the Dump pulse at the card rack slot J301.   (Pass)   Fail

5.2.4.4/35   The Antenna Strobe pulse test.   (Pass)   Fail

5.2.4.4/47   The test of the interface to the Temp. Sensor Analog Mux card rack slot J303.   (Pass)   Fail

5.2.4.4/59   The test of the interface to the Analog Mux and Converter card rack slot J308.   (Pass)   Fail

If "Fail", record error code and error description:

Error Code: _____ N/A _____

Error Description: _____ N/A _____

Assembly No. _133112 0 - 2_

Serial No. _F-02_

Test Engineer _[signature]_ _5/11/98_
(Signature)   (Date)

Customer Representative (Flight hardware only) _[signature]_
(Signature)   (Date)

Shop Order No. _292309_

Pass _✓_   Fail _____

Quality Control _[signature]_   MAY 12 '98
(Signature)   (Date)

MAY 12 '98

TEST DATA SHEET 14
A2 Relay Driver Tests (Paragraph 5.2.5.2)

Spacecraft Interface #2 CCA (J308) Ser. No. _F21_

Spacecraft Interface #1 CCA (J309) Ser. No. _F18_

Parallel to Serial Converter CCA (J310) Ser. No. _F20_

Relay Driver And Current Monitor CCA (J317) Ser. No. _F02_

Test Set-up Verified: Yes _✓_ No ____   STE Self Test: Pass _✓_ Fail ____

QC 226

Step No.	Test Description	Pass/Fail
23 24	Module power connects	P
29 30	Survival heater power turns on	P
30 31	Survival heater power turns off	P
31 32	Module power disconnects	P
33 34	Scanner 2 power turns on	P
34 35	Compensator motor power turns on	P
38 36	Scanner 2 power turns off	P
35 36	Compensator motor power turns off	P
36 37	Module power disconnect	P

Assembly No. _1331120-2_

Serial No. _F02_

Test Engineer _D Lund_ _5/11/98_
(Signature)   (Date)

Customer Representative (Flight hardware only) _J. Safond_
(Signature)

Shop Order No. _292309_

Pass _✓_ Fail ____

Quality Control _____ MAY 12 '98
(Signature)   (Date)

MAY 12 '98
(Date)

TEST DATA SHEET 15
A2 Independence Of Measurements (Paragraph 5.2.6.1)

Integrate and Dump CCA (J307):   Serial No. _F23_

Analog Mux and A/D Converter CCA (J306): Serial No. _F07_

Test Set-up verified: YES___✓___   NO_____

Supply (V)	Measured Value (V)	Limits (V)
+5	4.79	+5 ± 0.25
+15	15.823	+15 ± 1.0
-15	-15.445	-15 ± 1.0

Channel No.	Average for SIGNAL switch in Hi position	Average for SIGNAL switch in LO position	Measurement Dependence ≤0.01%	Pass/ Fail
0	14088.5	14087.2	0.00198	PASS
1	14103.2	14101.3	0.0029	PASS
2	14079.7	14077.6	0.0032	PASS
3	14076	14074.2	0.00275	PASS

Assembly No. _133120-2_   Shop Order No. _292309_
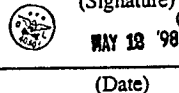
Serial No. _F02_   Pass _✓_   Fail ____

Test Engineer _____(Signature)_____ _5/11/98_ (Date)   Quality Control _____(Signature)_____ (Date)   MAY 12 '98
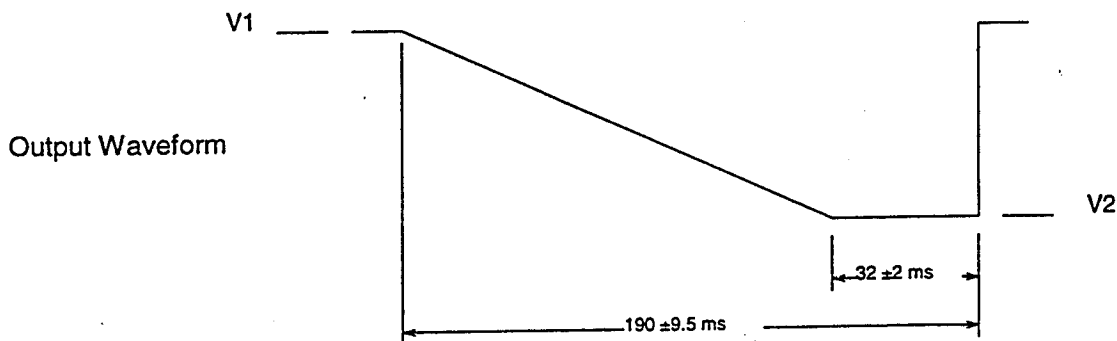
Customer Representative (Flight hardware only) _____(Signature)_____   (Date)   MAY 12 '98

TEST DATA SHEET 16
A2 Integrator Signal Multiplexing, And Digitization (Paragraph 5.2.6.2)

Analog Mux and A/D Converter CCA(J306):   Ser. No. *F07*

Integrate and Dump/Filter CCA (J307):   Ser. No. *F23*

Output Waveform

V1

V2

32 ±2 ms

190 ±9.5 ms

Channel	Data	Data Limits	Data Pass/Fail	Integrator Waveform Pass/Fail
1	27891	26125 to 29757	PASS	PASS
2	27839	26125 to 29757	PASS	PASS

Signal Name	Pass/Fail
I/H	PASS
Dump	PASS
+5 Vdc GSE Interlock A	PASS
+5 Vdc GSE Interlock B	PASS

Assembly No. *133112 0-2*   Shop Order No. *292309*

Serial No. *F02*   Pass ✓   Fail ____

Test Engineer _(Signature) 5/11/98_   Quality Control _(Signature)_ MAY 12 '98

Customer Representative (Flight hardware only) _(Signature)_   (Date)

A-21
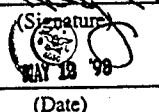
TEST DATA SHEET 17
A2 Temperature Monitoring Circuits (Paragraph 5.2.6.3)

Temperature Sensor Analog Mux CCA (J303) Serial No. ___F13___

Temperature Sensor B CCA (J304) Serial No. ___F22___

Temperature Sensor A CCA(J305) Serial No. ___F15___

Dig. A Temp No.	Description	Data	Data Limits	Pass/Fail
1	Scan Motor	30973	28259 to 32513	P
2	Feedhorn	30797	28259 to 32513	P
3	RF MUX	30999	28259 to 32513	P
4	Mixer IF CH 1	31152	28259 to 32513	P
5	Mixer IF CH 2	31146	28259 to 32513	P
6	LO Channel 1	31023	28259 to 32513	P
7	LO Channel 2	30700	28259 to 32513	P
8	Comp Motor	31166	28259 to 32513	P
9	Subreflector	30914	28259 to 32513	P
10	Dc/Dc Converter	30678	28259 to 32513	P
11	RF Shelf	30933	28259 to 32513	P
12	Det/Preamp	30813	28259 to 32513	P
13	Warm Load Cntr	22266	20339 to 23401	P
14	Warm Load 1	22003	20339 to 23401	P
15	Warm Load 2	22476	20339 to 23401	P
16	Warm Load 3	22361	20339 to 23401	P
17	Warm Load 4	22526	20339 to 23401	P
18	Warm Load 5	22521	20339 to 23401	P
19	Warm Load 6	22438	20339 to 23401	P
20	Thermal Reference	25057	23340 to 26320	P

Assembly No. ___133112 0 - 2___   Shop Order No. ___292309___

Serial No. ___F02___   Pass ___✓___   Fail _____

Test Engineer ___D. Lund___ 5/11/98   Quality Control ___[signature]___ MAY 12 '98
         (Signature)   (Date)   (Signature)   (Date)

Customer Representative (Flight hardware only) ___[signature]___ MAY 12 '98
         (Signature)   (Date)

TEST DATA SHEET 18
A2 Analog Telemetry (Paragraph 5.2.6.4)

ANALOG HSKP Switch Position	DVM Reading (V)	Limits (V)	Pass/Fail
1	2.994	2.85 to 3.15	P
2	3.458	3.30 to 3.66	P
3	2.998	2.87 to 3.17	P
4	3.011	2.85 to 3.15	P
5	3.452	3.30 to 3.66	P
6	3.007	2.87 to 3.17	P
10	3.569	3.42 to 3.78	P
12	2.962	2.84 to 3.14	P
13	2.954	2.84 to 3.14	P
21	0.0032	-0.05 to 0.05	P
21	2.96	2.8 to 3.4	P
22	0.0089	-0.05 to 0.05	P
22	2.96	2.8 to 3.4	P

Assembly No. _133112o-2_   Shop Order No. _292 309_

Serial No. _F02_   Pass _✓_   Fail ____

Test Engineer _(signature)_ 5/11/98   Quality Control _(signature)_ MAY 12 '98
      (Signature)   (Date)   (Signature)   (Date)

Customer Representative (Flight hardware only) _(signature)_   MAY 12 '98
                      (Signature)   (Date)

TEST DATA SHEET 19
A2 Scan Drive/Compensator Drive/Signal Processor Tests (Paragraph 5.3.1)

A2 Scan Drive Subsystem CCAs:

Interface Converter CCA (J318) Ser. No. _____F30_____
Resolver Data Isolator CCA (J320) Ser. No. _____F17_____
R/D Converter/Oscillator CCA (J321) Ser. No. _____F10_____
Motor Drive 3-hall sensor CCA (J322) Ser. No. _____F01_____

Test Set-up Verified: Yes __✓__   No _____

Para./Step No.	Mode	Pass/Fail
5.3.1.2.1/12	Motor in warm cal position	P
5.3.1.2.2/3	Motor in nadir position.	P
5.3.1.2.3/2	Motor in cold cal position 1	P
5.3.1.2.3/3	Motor in cold cal position 2	P
5.3.1.2.3/4	Motor in cold cal position 3	P
5.3.1.2.3/5	Motor in cold cal position 4	P
5.3.1.2.4/5	Motor in full scan mode	P
5.3.1.2.5/9	GSE mode 2	P
5.3.1.2.6/4	GSE mode 4	P
5.3.1.2.7/4	GSE mode 5	P
5.3.1.2.8/4	GSE mode 1	P
5.3.1.2.9/4	GSE mode 3	P
5.3.1.2.9/7	GSE mode 7	P
5.3.1.2.10/2	Scan power off	P

A2 Compensator Drive Subsystem CCAs:

Motor Driver 3-hall Sensor CCA (J323) Ser. No. _____F11_____

Test Set-up Verified: Yes __✓__   No _____

Para./Step No.	Mode	Pass/Fail
5.3.2.2/4	Compensator motor operation	P
5.3.2.2/5	Power-off test of compensator motor	P

Assembly No. _____133112 0-2_____   Shop Order No. _____292309_____

Serial No. _____F02_____   Pass __✓__   Fail _____

Test Engineer _____ 5/11/98   Quality Control _____ MAY 13 '98
(Signature)   (Date)   (Signature)   (Date)

Customer Representative (Flight hardware only) _____ MAY 13 '98
(Signature)   (Date)

TEST DATA SHEET 20
A2 Supply Currents (Paragraph 5.4)

Voltages	Measured Current	Limits (in mA)	Pass/Fail
+28.7 V	7.54 19 ~~~~	6 to 12	P
+5.7 V	~~5.33~~ 5 33 5/4/98	400 to 700	P
+15.7 V	129	100 to 196	P
-15.7 V	154	-110 to -218	P

Assembly No. _133112 0-2_   Shop Order No. _292309_

Serial No. _F02_   Pass _✔_   Fail ____

Test Engineer _D. Lund_ _5/11/98_   Quality Control _[signature]_ MAY 12 '98
(Signature)   (Date)   (Signature)   (Date)

Customer Representative (Flight hardware only) _[signature]_ MAY 12 '98
(Signature)   (Date)

TAR NO. 002393

TEST ANOMALY RECORD

(REF. MPI 00-005)

SYSTEM NO. _____

DATE 5/8/98 Page 1 of 1

SPEC (MPI, AE, ...) AE-26574 REV NC

CUMULATIVE TIME — hrs — min

ELAPSED TIME — hrs — min

ASSY NAME METSAT 42 SIGNAL PROC.

ASSY P/N 1331120-2 REV J

ASSY S/N F02

S/O NO. 292309

TEST OPER NO. 0120 STEP A

First time for failure at this point? YES ✓ NO __ . Test Proc Para No. where failure occurred 5.3.1.2.5

Type of test (EXP: T/C 1 FFT HOT) FUNCTIONAL   Para Step No. 7

DESCRIPTION OF ANOMALY (LIST EXPECTED AND RECORDED VALUES): INERTIA DISK SHOULD MOVE
TO 12 O'CLOCK POSITION; DID NOT MOVE

5/8/98

| TECH/TE NOTIFIED TEAM LEADER NAME A. NIETO | DEFECT CODE TP | TECH | DATE 5/8/9 |

INSTRUCTIONS:

OPER. STATION		PROD.	INSP
8010 Test	Test to notify inspection of failure/anomaly. (Except engineering, MPI or Pretest.)	5/8/98	
8015 INSP	Inspection to notify DCMC of failure / anomaly. (GFE)	DCMC B. BROWN 5/8/98	

TROUBLESHOOT/REWORK/RETEST ACTION PLAN:
TROUBLESHOOT TO FIND CAUSE OF MOTOR INERTIA DISK NOT MOVING

NOTE: NOTIFIED SERGEY K. VIA TELEPHONE BY AL NIETO. GAVE OK TO PROCEED WITH TE
ALSO LEFT VOICE MAIL FOR RICARDO R. 9:45 AM 5/8/98

| | TE | QE | RE | DATE |
| NOTE: Remove pink copy here. Deliver to QA drop box. | TEAM LEADER | 5/8/98 | 5/11/98 | |

TROUBLESHOOT/REWORK/RETEST/INSTRUCTIONS:

OPER.	STATION		PROD	INSP	RMK
8020	TEST	CHECK FOR PROPER OPERATION OF OLD/NEW TOGGLE SWITCHES ON MOTOR DRIVER TEST FIXTURE BY OBSERVING +28V CURRENT AS SWITCH POSITION IS CHANGED.	5/8/98		
8030	TEST	RETEST AFTER TEST FIXTURE REWORK (AE-26574 PAR 5.3.1.2.5 STEP 7)	5/11/98		

NOTE: For parts replacement continuation page is MANDATORY

| ◯ PASSED Retest/Start | ◯ FAILED Retest/Start | GO TO S/O, CONT., OR OPERATION 0120 PAGE 10 | TE/ME | QE |
| TECH DATE 5/11/98 | TECH DATE | | 5/11/98 | 5/11 |

WHAT WAS THE CAUSE OF THE ANOMALY?	CORRECTIVE ACTION:	QE
OLD/NEW SWITCHES (SW1 + SW2) WERE FOUND TO BE INTERMITTENT, RESULTING IN IMPROPER MOTOR DRIVE	INITIATE TEAR FOR TEST FIXTURE, REMOVE AND REPLACE SWITCHES (TEAR 0007)	DATE TEAM LEADER 5/11

Deliver completed yellow copy to QA drop box; Completed original to parent S/O

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Report Documentation Page

1. Report No. ---	2. Government Accession No. ---	3. Recipient's Catalog No. ---

4. Title and Subtitle Integrated Advanced Microwave Sounding Unit-A (AMSU-A), Engineering Test Report	5. Report Date **8 June 1998**
	6. Performing Organization Code ---

7. Author(s) **D. Luu**	8. Performing Organization Report No. **11159**
	10. Work Unit No. ---

9. Performing Organization Name and Address Aerojet 1100 W. Hollyvale Azusa, CA 91702	11. Contract or Grant No. NAS 5-32314
	13. Type of Report and Period Covered Final

12. Sponsoring Agency Name and Address NASA Goddard Space Flight Center Greenbelt, Maryland 20771	14. Sponsoring Agency Code ---

15. Supplementary Notes

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16. ABSTRACT (*Maximum 200 words*)

This is the METSAT A2 Signal Processor Engineering Test Report (P/N 1331120-2, S/N F02) for the Integrated Advanced Microwave Sounding Unit-A (AMSU-A).

17. Key Words (Suggested by Author(s)) EOS Microwave System	18. Distribution Statement Unclassified --- Unlimited

19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of pages	22. Price ---

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Integrated Advanced Microwave Sounding Unit-A (AMSU-A), Engineering Test Report	NAS 5-32314

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13. ABSTRACT (*Maximum 200 words*)

This is the METSAT A2 Signal Processor Engineering Test Report (P/N 1331120-2, S/N F02) for the Integrated Advanced Microwave Sounding Unit-A (AMSU-A).

14. SUBJECT TERMS	15. NUMBER OF PAGES
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