Report 11335
November 1998

Integrated Advanced Microwave Sounding Unit-A (AMSU-A)

Performance Verification Reports

Initial Comprehensive Performance Test Report

P/N: 1356008-1-IT, S/N: 202/A1

Contract No. NAS 5-32314
CDRL 208

Submitted to:

National Aeronautics and Space Administration
Goddard Space Flight Center
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ENGINEERING CHANGE NOTICE

ADVANCE REL. INCORPORATE SHEET 1 OF 107

1. PROGRAM	2. ECN NUMBER	3. CONTRACT NUMBER	4. PREPARED BY / DATE / EXT	6. DOCUMENT NUMBER	8. NEW REV.
COMBINED AMSU	CAMSU- 1876	NAS 5-32314	A. Nieto 7/20/98 X-2103	AE 26156/9 NC	A

7. CHANGE CLASS	8. MULTIPLE DOCUMENTS AFFECTED	9. CHG TYPE	10. HARDWARE PART NUMBER(S)	CURR REV MAND	CURR REV LTBT	NEW REV MAND	NEW REV LTBT	/ EFFECTIVITY	DATE	11. DOCUMENT TITLE
IA IB II CCR#	YES NO	LBOC CHG HARDWARE SOFTWARE						[x] END ITEM S/N [ ] PART SERIAL/LOT 202		EOS/AMSU-A1 Sys. Comp. and Limited Performance Tests, Test Proc.

12. DESCRIPTION OF CHANGE
ITEM ZONE

See attached Master Mark-Up
SO # 298561

Prepare as Approval Dft A - Requires Customer approval

___ Urgent ✓ Routine

13. SIGNATURES		DATE
Design Verif., Dwg.	NA	
Qual Eng	[signature]	7/21/98
PTL (Eng)	[signature]	7/21/98
Mfg Eng	N/A	—
Systems	[signature]	7/21/98
NASA T.O.	[signature]	7/28/98
Des. Assur.	N/A	—
Matls.	N/A	—
Design Verif., Spec.	JAG	7-22-98

14. JUSTIFICATION / REASON FOR CHANGE
Incorporate changes identified during testing

15. REMARKS/SPECIAL INSTRUCTIONS/TECHNICAL EVALUATION
No technical impact

16. DISPOSITION OF MATERIAL	USE AS IS	MODIFY	SCRAP	RETURN TO STORES
ON ORDER				
IN STOCK				
INSTALLED				

20. CONFIGURATION MGR.

21. DIST. CODE: 2

22. REL. DATE

17. NASA CONCURRENCE OF CLASSIFICATIONS
[signature]
DATE: 7/21/98

18. CHANGE CODE
II

19. PCCB CHAIRMAN / PMO:
APPROVE
DISAPPROVE [signature]
DEFER DATE: 7/21/98

23. INCORPORATION DATE
Inc. By ....
Design Verif. ....

98/08/11

Select **MATH**

Select Next

Select Intgrt: Note the display changes to present an integrated value of the current waveform.

Select X;

Move the X marker to the maximum right of the display. The Y value is indicative of the integrated current value over the entire 8 second period. Plot this waveform and attach a hard copy of the scan to TDS 5.

Multiply the maximum Y value by the current/ div as selected on the current amplifier, then divide by 8 seconds to acquire an average current/ second value. As an example: if the current amplifier is set up to display 200 ma/ 10 mv per division, and the maximum Y value = 32.4 mv:

$$[32.4\text{mv} \times (200\text{ma}/ 10\text{mv})]/ 8 \text{ sec} = 81\text{ma}/ \text{sec}$$

Enter this value on TDS 5

18. Compute the operating peak and average power in watts from the measured values in steps 16 and 17 above. Record the computed values on TDS 5. Compute Noisy Bus current during the integrrate/hold, dumpt (I/H, D) time period (Refer to Figure 15-A). Record the data on TDS 5.

19. With the multimeter, adjust the external power supply PS1 to 29±0.10vdc as measured between J1-5 (high) and J1-7 (low). Record this voltage on TDS 5.

20. Repeat steps 13 through 18.

21. With the multimeter, adjust the external power supply PS1 to 31±0.10vdc as measured between J1-5 (high) and J1-7 (low). Record this voltage on TDS 5.

22. Repeat steps 13 through 18.

SHEET 33 OF
ECR NO. 1876

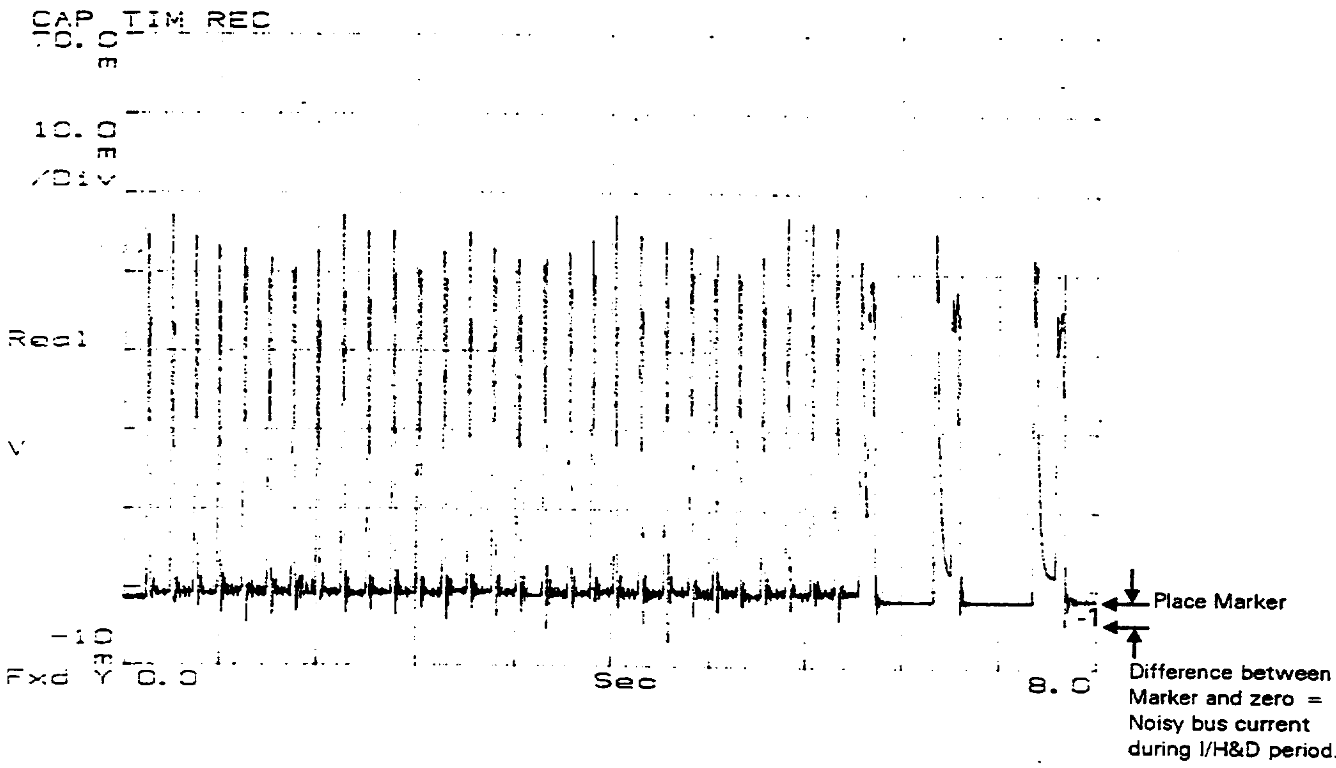

Figure 15-A. Typical Noisy Power Bus Current

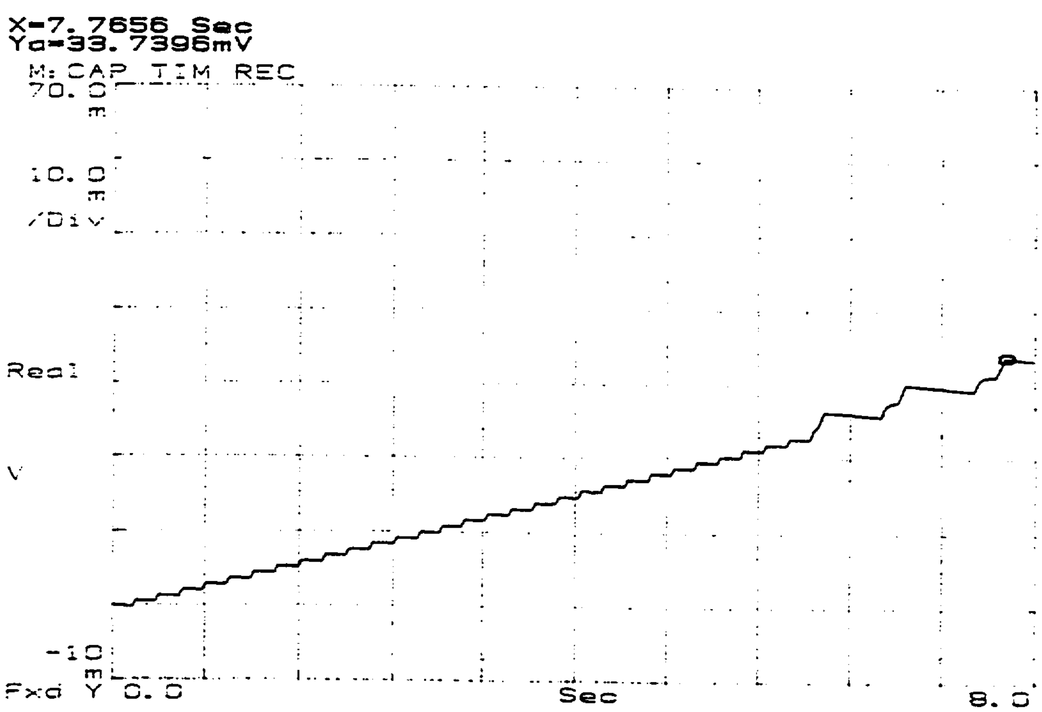

Figure 15. Typical Noisy Power Bus Integration

3.3.3.2.2 ***Noisy power bus turn on transient test.*** The Noisy Power Bus turn on transient shall be verified at +31 volts as follows:

1. The setup should be intact from paragraph 3.3.3.2.1 testing

2. Verify the external power supply (PS1) is adjusted to 31±.1vdc, make appropriate adjustments, and the unit is in WARM CAL position.

3. Configure the Dynamic Signal Analyzer (DSA) as follows:

Select **MEAS MODE**
Select *Time Capture*
Select *Capture Select*
Select *Capture Length*; Enter 80.0, Select *msec*
Select **FREQ**
Select *Freq Span*; Enter 100.0; Select *KHz*
Select E SMPL *Off*
Select *Time Length*; Enter 8.0; Select *msec*
Select **SELECT MEAS**
Select *Power Spec*
Select *CH1 Active*
Select **WINDOW**
Select *Hann*
Select **SOURCE**
Select Source *Off*
Select **AVG**
Select Avg *Off*
Select Tim Av *Off*
Select **RANGE**
Select *Chan 1 Range*; Enter 1; Select *V*
Select **INPUT COUPLE**
Select CH1 *DC*
Select CH 1 *Ground*
Select **INPUT TRIG**
Select *Trig Level*; Enter 100; Select *mv*
Select Arm *AU*
Select *Chan 1 Input*
Select *Slope +*
Select **TRIG DELAY**
Enter 0.0; Select *Sec*
Select **COORD**
Select *Real*
Select **VIEW INPUT**
Select *Time Buff*
Select **SCALE**
Select *X Fixd Scale*; Enter 0.0, 80.0; Select *msec*
Select *Y Fixd Scale*; Enter 0, 640.0; Select *mv*
Select **UNITS**
Select *Hz (sec)*

-NOTE-

Prior to collecting any current data, the current meter and DSA have to be "zeroed out"; zero current reference has to be established on the DSA. Follow this interim procedure to zero reference the current meter and DSA.

a) Remove the current probe from the circuit and close the probe. Place the probe in a magnetic benign location.

b) Depress "Start Capture" on the DSA.

c) With the "capture in process", adjust the "output DC level" control on the current amplifier to indicate zero current on the DSA.

d) Position the current probe to its original location in accordance with Figure 8.

4. Adjust PS2 for +28vdc.

5. Start the DSA signal capture by depressing "Start Capture"; wait for the DSA message "waiting for trigger" before proceeding.

6. On the Relay Board, turn the switch ON and obtain a record of the Noisy Bus Turn on current waveform. On the Relay Board, turn the switch OFF. Adjust the display time base and voltage sensitivity to allow for adequate current and pulse duration measurements. Plot the obtained waveform and attach a hard copy of the scan to TDS 6. A representative Noisy Bus Turn-on is shown in Figures 16-A and 16-B.

7. Measure the Turn On pulse width; record this value in TDS 6.

8. Compute the peak current as follows:
Multiply the maximum Y value by the current/ div as selected on the current amplifier. As an example: if the current amplifier is set up to display 200 ma/ 10 mv per division, and the maximum Y value = 276mv:

$$276\text{mv} \times (200\text{ma}/\ 10\text{mv}) = 5520\text{ma} = 5.52 \text{ amps}$$

Record this value on TDS 6.

9. The 1st derivative of the current waveform must be calculated. Compute the dI/dT as follows:

The most probable location of the greatest current demand is during the first positive transition after voltage application. If this is the case, expand that segment of the display and measure the greatest voltage transition in the smallest time transition. The change in voltage times the current/ div as selected on the current amplifier produces the change in current. Next divide this change in current by the change in time (in microseconds). This value is dI/dT. Example:

Change in voltage ....144 mv
Change in time (microseconds) ....19.5 us
Current/ div on current amp 200ma/ 10mv

$$144\text{mv} \times (200\text{ma}/\ 10\text{mv})/\ 19.5 \text{ us} = 147.7\text{ma per us}$$

10. Record the computed value on TDS 6.

11. With the multimeter, adjust the external power supply PS1 to 29±0.10vdc as measured between J1-5 (high) and J1-7 (low).

12. Repeat steps 3 through 10.

13. With the multimeter, adjust the external power supply PS1 to 27±0.10vdc as measured between J1-5 (high) and J1-7 (low).

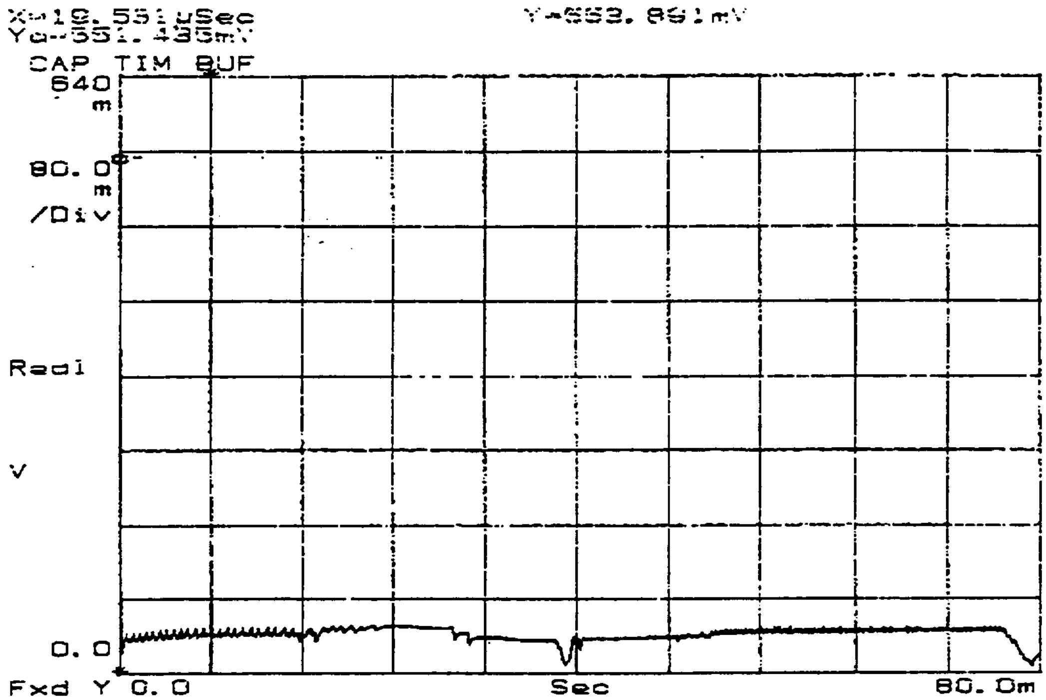

Figure 16-A. Typical Noisy Bus Turn On Transient

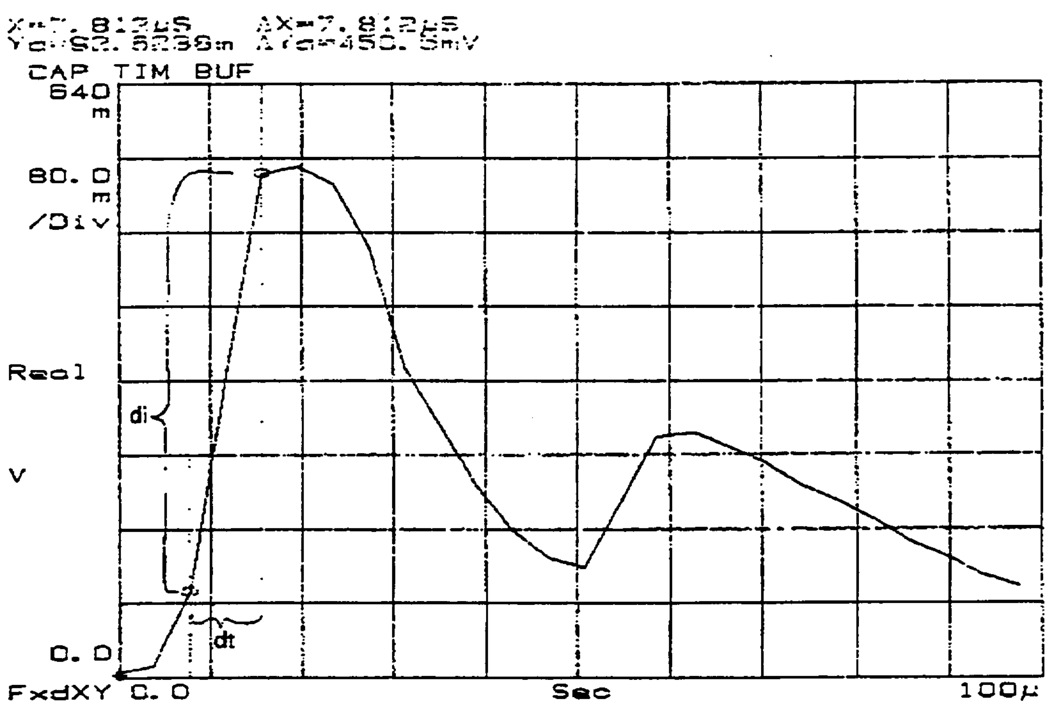

Figure 16-B. Typical Noisy Bus Turn On Expanded

14. Repeat steps 3 through 10.

15. Turn the STE power supply panel Q/ pulse switch OFF (refer to Figure 3).

16. Turn the STE power supply panel main power switch OFF (refer to Figure 3).

3.3.3.3 ***Survival heater power bus interface tests.*** The operational characteristics of the redundant survival buses A and B shall be verified during ambient thermal cycle testing using test procedure AE-26151/9. For final CPT attach data sheet from Survival Heater Test to this data package.

3.3.4 ***Passive analog interface test.*** This test provides the verification of the passive analog telemetry requirements found in the following documents:

UIID	None
GIRD	Sections 4.5.2, 4.5.3, and 6.3
POS	Section 4.6.3.6 (8)
ICD	Sections 4.5 and 6.3

Passive analog telemetry signals are output from the unit through the spacecraft interface connector J2. To verify these signals, perform the following procedures:

1. The unit should be configured as shown in Figure 12 if performing an LPT or Figure 14 if performing a CPT. Turn the STE main power switch on (computer should be on, STE power panel should be off). From the A1 directory and at the "$" prompt, enter the command to the STE "RUN E1". The EOS/AMSU-A1 software program should be running as evidenced by the STE screen shown in Figure 9.

2. Enter the STE command "[2] MONITOR ONLY". The screen should now be as shown in Figure 10.

3. Enter the STE command "[12] UNPOWERED THERMISTORS". The screen should now be as shown in Figure 17.

4. The thermistor data should update every 8 seconds. Enter STE command "[2]" to print the screen. Enter the data on TDS 7 and attach the printout to TDS 7.

3.3.5 ***Command and data handling bus interface test***

3.3.5.1 ***Formal qualification test of the EOS/AMSU-A1 firmware (protoflight model 1st CPT only.*** On 3/21/97, an initial Formal Qualification Test (FQT) of the EOS AMSU-A firmware was conducted using Test Procedure AE-26600 (CDRL 415). The results of that test were documented in Report 10974 (CDRL 217). As stated in that report, a final FQT would be performed as a part of the initial instrument CPT for the EOS protoflight models A1 and A2 to validate the firmware requirements (Report 10458, CDRL 306-2b) which could not be validated during the initial FQT. The purpose of this test is to perform that validation by repeating Test Procedure AE-26600 and conducting additional system level testing with the unit connected to the Special Test Equipment (STE). At the conclusion of paragraph 3.3.5 testing, the firmware will be validated. Perform Test Procedure AE-26600 with the following clarifications:

1. Paragraph 4.1, Load bonded Software - the last half of the paragraph beginning with "The tape labeled N7 ..." to the end of the paragraph should be ignored because the unit configuration uses flight CCAs.

2 Paragraph 4.2, Configure the test environment - replace this paragraph with the instructions provided in paragraph 3.3.5.2 steps 1 through 9 of this procedure.

3 Paragraph 4.4.4, C through L. These are replaced by section 3.3.5.3 of this procedure.

EOS A1 - XX OB.A1] E1. 29-SEP-97 14:44:25 SCAN NUMBER
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

UNPOWERED THERMISTORS

NO	DATA	TEMP C
1	A1-1 SCAN MOTOR TEMPERATURE	23.50
2	A1-2 SCAN MOTOR TEMPERATURE	23.40
3	A1-1 RF SHELF TEMPERATURE #1	20.00
4	A1-2 RF SHELF TEMPERATURE #1	19.90
5	A1-1 WARM LOAD TEMPERATURE	20.30
6	A1-2 WARM LOAD TEMPERATURE	20.50
7	A1-1 RF SHELF TEMPERATURE #2	20.05
8	A1-2 RF SHELF TEMPERATURE #2	19.95

POWER ON CHECKSUM IN CALC SA28 SA29
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON

Figure 17. EOS/AMSU-A1 STE Unpowered Thermistors Screen

3.3.5.2 ***Instrument commanding test.*** This test provides the verification of the instrument commanding capability. Each of the commands shown in Table III with the exception of [21] GSE Modes will be sent to the unit and verified that it was received and carried out by the unit. GSE Modes will be verified during test point interface testing (paragraph 3.3.6). Perform the following procedures.

1. Configure the unit as shown in Figure 12. If the unit is already configured, skip to step 7.

2. Connect a 25 pin breakout box to J1 of the instrument. Connect a 37 pin breakout box to J4 of the instrument.

3. Connect the STE to the instrument using the following STE interface cables:

   a. STE interface cable J1 (1356648-1)

   b. STE interface cable J2 (1356648-2)

   c. STE interface cable J3 (1356648-3)

4. Connect STE interface cable J1 from EOS J1 found on the STE power panel shown in Figure 4 to the remaining end of the 25 pin breakout box connected to J1 on the unit.

Table III. EOS/AMSU-A1 Instrument Commands

STE Command Screen Number	STE Command	Instrument Status
[9]	Scanner A1-1 Power	ON / OFF
[10]	Scanner A1-2 Power	ON / OFF
[11]	Antenna Full Scan Mode	YES / NO
[12]	Antenna Warm Cal Mode	YES / NO
[13]	Antenna Cold Cal Mode	YES / NO
[14]	Antenna Nadir Mode	YES / NO
[15]	PLO Power	PLO #1 / PLO #2
[16]	Cold Cal Position 1	YES / NO
[17]	Cold Cal Position 2	YES / NO
[18]	Cold Cal Position 3	YES / NO
[19]	Cold Cal Position 4	YES / NO
[20]	Reset C&DH Processor	Resets1553 firmware
[21]	GSE Modes	YES / NO

5. Connect STE interface cable J2 from EOS J2 found on the STE test panel shown in Figure 5 to J2 on the unit.

6. Connect STE interface cable J3 from EOS A&B J1 found on the STE interface panel shown in Figure 6 to J3 on the unit.

7. Turn the STE MAIN POWER switch on (refer to Figures 2 and 3 (computer should be on, STE power panel should be off)). From the A1 directory and at the "$" prompt, enter the command to the STE "RUN E1". The EOS/AMSU-A1 software program should be running as evidenced by the STE screen shown in Figure 9.

8. Turn the STE power supply panel Q/MAIN switch on (refer to Figure 3). With a multimeter, adjust the Quiet Bus voltage at the breakout box to 29 ± 0.10 volts (between J1-1 and J1-3).

9. Turn the STE power supply panel N/PULSE switch on (refer to Figure 3). With a multimeter, adjust the Noisy Bus voltage at the breakout box to 29 ± 0.10 volts (between J1-5 and J1-7).

10. Go to the Commands screen on the STE. From the Main screen shown in Figure 9, enter the STE command "[2] MONITOR ONLY". The screen should now be as shown in Figure 10. Enter the STE command "[14] COMMANDS". The screen should now be as shown in Figure 11.

11. The instrument commands shown in Table III are now ready to be tested.

12. Enter the STE command "[11] ANTENNA FULL SCAN MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES). Record the status on TDS 8.

13. Enter the STE command "[9] SCANNER A1-1 POWER". Look at the commands screen to see that the command was received by the instrument {the state of that command should go from NO (OFF) to YES (ON)}. The A1-1 scan motor should now be scanning. Record the status on TDS 8.

14. Enter the STE command "[9] SCANNER A1-1 POWER". Look at the commands screen to see that the command was received by the instrument {the state of that command should go from YES (ON) to NO (OFF)}. The A1-1 scan motor should stop scanning. Record the status on TDS 8.

15. Enter the STE command "[10] SCANNER A1-2 POWER". Look at the commands screen to see that the command was received by the instrument {the state of that command should go from NO (OFF) to YES (ON)}. The A1-2 scan motor should now be scanning. Record the status on TDS 8.

16. Enter the STE command "[10] SCANNER A1-2 POWER". Look at the commands screen to see that the command was received by the instrument {the state of that command should go from YES (ON) to NO (OFF)}. The A1-2 scan motor should stop scanning. Record the status on TDS 8.

17. Enter the STE command "[9] SCANNER A1-1 POWER". Wait for at least 18 seconds and then enter the STE command "[10] SCANNER A1-2 POWER". Look at the commands screen to see that the commands were received by the instrument {the state of those commands should go from NO (OFF) to YES (ON)}. Both A1-1 and A1-2 scan motors should now be scanning. Record the status on TDS 8.

18. Enter the STE command "[12] ANTENNA WARM CAL MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES and the state of ANTENNA IN FULL SCAN MODE should go from YES to NO). Both A1-1 and A1-2 scan motors should have moved to the warm calibration position. Record the status on TDS 8.

19. Enter the STE command "[14] ANTENNA NADIR MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES and the state of ANTENNA WARM CAL MODE should go from YES to NO). Both A1-1 and A1-2 scan motors should have moved to the nadir position. Record the status on TDS 8.

20. Enter the STE command "[13] ANTENNA COLD CAL MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES and the state of ANTENNA NADIR MODE should go from YES to NO). Both A1-1 and A1-2 scan motors should have moved to the cold calibration 1 position (LSB=0, MSB=0). Record the status on TDS 8.

21. Enter the STE command "[19] COLD CAL POSITION 4". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES. Also, the state of ANTENNA COLD CAL MODE should stay YES). Both A1-1 and A1-2 scan motors should have moved slightly to the cold calibration 4 position. Record the status on TDS 8.

22. Enter the STE command "[18] COLD CAL POSITION 3". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES. Also, the state of ANTENNA COLD CAL MODE should stay YES). Both A1-1 and A1-2 scan motors should have moved slightly to the cold calibration 3 position. Record the status on TDS 8.

23. Enter the STE command "[17] COLD CAL POSITION 2". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES. Also, the state of ANTENNA COLD CAL MODE should stay YES). Both A1-1 and A1-2 scan motors should have moved slightly to the cold calibration 2 position. Record the status on TDS 8.

24. Enter the STE command "[16] COLD CAL POSITION 1". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES. Also, the

state of ANTENNA COLD CAL MODE should stay YES). Both A1-1 and A1-2 scan motors should have moved slightly to the cold calibration 1 position. Record the status on TDS 8.

25. Enter the STE command "[15] PLO POWER". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from PLO #1 to PLO #2 or vice versa depending on its starting state. Record the status on TDS 8. Leave this step with PLO #1 active (if PLO #2 is active enter STE command "[15] PLO POWER" to make PLO #1 active).

26. Enter the STE command "[20] RESET C&DH PROCESSOR". Look at the bottom of the commands screen to see that SA28 resets and starts counting from 1. Record the status on TDS 8.

27. Leave the unit powered and the setup intact for paragraph 3.3.5.2 testing.

3.3.5.3 ***Science and engineering data verification.*** The engineering data in the engineering packet is also found embedded in the science data packet. The STE does a comparison between the data in the engineering packet and the same data located in the science data packet. If there is total agreement between the two data sets then a message "ENGR OK" appears at the bottom of the STE screen. Because of the fact that the two packets agree with respect to engineering data, this test validates both science and engineering data by verifying the data in the science data packet for each of the following instrument modes. Look at ENGINEERING DATA, also UNPOWERED THERMISTORS prior to starting these modes.

1. Full Scan Mode (3.3.5.3.1)

2. Warm Cal Mode (3.3.5.3.1)

3. Cold Cal Mode (3.3.5.3.3)

4. Nadir Mode (3.3.5.3.4)

3.3.5.3.1 ***Full scan mode.*** The full scan mode science and engineering data is verified as follows:

1. From the STE command screen shown in Figure 11, enter the STE command "[11] ANTENNA FULL SCAN MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES). Record the status on TDS 9.

2. Look to see that "ENGR OK" message is displayed in bottom left corner of screen. Record the status on TDS 9.

3. Look to see that the unit is operating in full scan mode. Enter the observed result on TDS 9.

4. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 9.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (use data from procedure AE-26002/1 TDS 5 and 6 for required position data) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

g. PRT temperature data (elements 1090 - 1180, page 7 of printout) Refer to Table IV for PRT data description.

h. Status (page 8 of printout)

i. Engineering data (page 8 of printout)

5. Attach the printout to TDS 9.

3.3.5.3.2 *Warm cal mode.* The warm cal mode science and engineering data is verified as follows:

1. From the STE command screen shown in Figure 11, enter the STE command "[12] WARM CAL MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES). Record the status on TDS 10.

2. Look to see that "ENGR OK" message is displayed in bottom left corner of screen. Record the status on TDS 10.

3. Look to see that the unit reflectors have moved to warm cal position. Enter the observed result on TDS 10.

4. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 10.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (use data from procedure AE-26002/1 TDS 5 and 6 for required position data for warm cal position) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

   g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

   h. Status (page 8 of printout)

   i. Engineering data (page 8 of printout)

5. Attach the printout to TDS 10.

Table IV PRT Data Description

PRT Number	Description
1	Scan Motor A1-1 Temperature
2	Scan Motor A1-2 Temperature
3	Feedhorn A1-1 Temperature
4	Feedhorn A1-2 Temperature
5	RF Mux - A1-1 Temperature
6	RF Mux - A1-2 Temperature
7	Local Oscillator - Channel 3 Temperature
8	Local Oscillator - Channel 4 Temperature
9	Local Oscillator - Channel 5 Temperature
10	Local Oscillator - Channel 6 Temperature
11	Local Oscillator - Channel 7 Temperature
12	Local Oscillator - Channel 8 Temperature
13	Local Oscillator - Channel 15 Temperature
14	Phase Locked Oscillator No. 2 Temperature
15	Phase Locked Oscillator No. 1 Temperature
16	S.P. (1553 Interface) Temperature
17	Mixer/IF Amplifier - Channel 3 Temperature
18	Mixer/IF Amplifier - Channel 4 Temperature
19	Mixer/IF Amplifier - Channel 5 Temperature
20	Mixer/IF Amplifier - Channel 6 Temperature
21	Mixer/IF Amplifier - Channel 7 Temperature
22	Mixer/IF Amplifier - Channel 8 Temperature
23	Mixer/IF Amplifier - Channel 9/14 Temp
24	Mixer/IF Amplifier - Channel 15 Temperature
25	IF Amp - Channel 11/14 Temperature
26	IF Amp - Channel 9 Temperature
27	IF Amp - Channel 10 Temperature
28	IF Amp - Channel 11 Temperature
29	DC/DC Converter Temperature
30	IF Amp - Channel 13 Temperature
31	IF Amp - Channel 14 Temperature
32	IF Amp - Channel 12 Temperature
33	RF Shelf - A1-1 Temperature
34	RF Shelf - A1-2 Temperature
35	Detector/Preamplifier Temperature
36	A1-1 Warm Load 1 Temperature
37	A1-1 Warm Load 2 Temperature
38	A1-1 Warm Load 3 Temperature
39	A1-1 Warm Load 4 Temperature
40	A1-1 Warm Load Center Temperature
41	A1-2 Warm Load 1 Temperature
42	A1-2 Warm Load 2 Temperature
43	A1-2 Warm Load 3 Temperature
44	A1-2 Warm Load 4 Temperature
45	A1-2 Warm Load Center Temperature

3.3.5.3.3 *Cold cal mode.* The cold cal mode science and engineering data is verified as follows:

1. From the STE command screen shown in Figure 11, enter the STE command "[13] COLD CAL MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES). Record the status on TDS 11.

2. Look to see that "ENGR OK" message is displayed in bottom left corner of screen. Record the status on TDS 11.

3. Look to see that the unit reflectors have moved to cold cal position 1. Enter the observed result on TDS 11. ENTER THE STE Command [3] to obtain a full printout. Use this data in step 6. RMP 7/13

4. From the STE command screen shown in Figure 11, enter the STE command"(10] ANTENNA FULL SCAN MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

5. From the STE command screen shown in Figure 11, enter the STE command" [12] ANTENNA COLD CAL MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

6. Enter the STE command [3] to obtain a full printout. Review the following data and record the results on TDS 11. RMP 7/13

   a.) packet ID (elements 1 and 2, page I of printout) (from step 3 full print)

   b.) packet length (elements 3 and 4, page I of printout) (from step 3 full print)

   c.) unit serial number (element 5 and 6, page I of printout) (from step 3 full print)

   d.) Instrument/ mode status (element 7 and 8, page 1 of printout) (from step 3 full print)

   e.) reflector positions (use data from procedure AE-26002/2 TDS 2 for required position data for cold cal position 1) (page 1 and 2 of printout) (STEP 3 full print used for TDS 11 sheet 3, step 6 full print used for TDS 11 sheet 4)

   f.) radiometric scene data (pages I and 2 of printout) (from step 3 full print)

   g.) PRT temperature data (elements 262 - 300, page 2 of printout) (from step 3 full print)

   h.) status (page 3 of printout) (from step 3 full print)

   i.) engineering data (page 3 of the printout) (from step 3 full print)

7. Attach the printout to T. DS 11

8. From the STE command screen shown in Figure ~~11~~ 13, enter the STE command"[15] COLD CAL POSITION 2". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES). Record status on TDS 11

9. Look to see that "ENGR OK" message is displaced in the bottom left comer of screen. Record status on TDS 11

10. Look to see that the unit reflector has moved to cold cal position 2. Enter the results on TDS 11. ENTER THE STE COMMAND [3] TO OBTAIN A FULL PRINTOUT, USE THIS DATA IN STEP 14. RMP 7/13

11. From the STE command screen shown in Figure 11, enter the STE command"[10] ANTENNA FULL SCAN MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

SHEET 45 OF ____
____ NO. ____

12. From the STE command screen shown in Figure 11, enter the STE command"[12] ANTENNA COLD CAL MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

13. Look to see that the unit reflector has moved to cold cal position 2

14. Enter the STE command [3] to obtain a full printout. Review the following data and record the results on TDS I 1

a.) Instrument/ mode status (element 7 and 8, page 1 of printout) (from step 10 full print)

b.) status (page 3 of printout) (from step 10 full print)

c.) reflector positions (use data from procedure AE-26002/2 TDS 2 for required position data for cold cal position 1) (page 1 and 2 of printout) (step 10 full print for TDS 11 sheet 3, step 14 full print for TDS 11 sheet 4)

15. Attach the printout to TDS I 1

16. From the STE command screen shown in Figure 1 1, enter the STE command"[16] COLD CAL POSITION 3". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES). Record status on TDS 11.

17. Look to see that "ENGR OK" message is displayed in the bottom left comer of screen. Record status on TDS 11.

18. Look to see that the unit reflector has moved to cold cal position 3. Enter the results on TDS 11. Enter the STE COMMAND [3] TO OBTAIN A FULL PRINTOUT. USE THIS DATA IN STEP 22.

19. From the STE command screen shown in Figure I 1, enter the STE command"[IO] ANTENNA FULL SCAN MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

20. From the STE command screen shown in Figure 11, enter the STE command"[12] ANTENNA COLD CAL MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

21. Look to see that the unit reflector has moved to cold cal position 3.

22. Enter the STE command [3] to obtain a full printout. Review the following data and record the results on TDS 11.

a.) Instrument/ mode status (element 7 and 8, page 1 of printout) (from step 18 full print)

b.) status (page 3 of printout) (from step 18 full print)

c.) reflector positions (use data from procedure AE-26002/2 TDS 2 for required position data for cold cal position 1) (page 1 and 2 of printout) (step 18 full print for TDS 11 sheet 3, step 22 full print for TDS 11 sheet 4)

23. Attach the printout to TDS 11

24. From the STE command screen shown in Figure II, enter the STE command"[17) COLD CAL POSITION 4". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES). Record status on TDS 11.

RH 7/13/98

QC 227

25. Look to see that "ENGR OK" message is displayed in ~~the bottom~~ left corner of screen. Record status, on TDS 11.

RAF 7/13/98 26. Look to see that the unit reflector has mo~~v~~ed to cold cal position 4. Enter the results on TDS 11. ENTER THE STE COMMAND [3] TO OBTAIN A FULL PRINTOUT, USE THIS DATA IN STEP 30.

27. From the STE command screen shown in Figure 11 enter the STE command"[10] ANTENNA FULL SCAN MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

QC 227

ANTENNA RAF 7/13/98

28. From the STE command screen shown in Figure II enter the STE command"[12] ~~NNA~~ COLD CAL MODE". Look at the command screen to see that the command was received by the instrument (the state of the command should go from NO to YES).

29. Look to see that the unit reflector has moved to cold cal position 4.

QC 227 RAF 7/13/98

30. Enter the STE command [3] to obtain a full printout. Review the following data and record the results on TDS ~~X~~ 11

a.) Instrument/ mode status (element 7 and 8, page 1 of printout) ~~FIRST~~ (FROM Step 26 full print)

b.) status (page 3 of printout) (From Step 26 Full print)

c.) reflector positions (use data from procedure AE-26002/2 TDS 2 for required position data for cold cal position 1) (page 1 and 2 of printout) Step 26 full print used for TDS 11 Sheet 3, Step 30 full print used for TDS 11 sheet 4

31. Attach the printout to TDS 11.

3.3.5.3.4 *Nadir mode.* The nadir mode science and engineering data is verified as follows:

1. From the STE command screen shown in Figure 11, enter the STE command "[14] NADIR MODE". Look at the commands screen to see that the command was received by the instrument (the state of that command should go from NO to YES). Record the status on TDS 12.

2. Look to see that "ENGR OK" message is displayed in bottom left corner of screen. Record the status on TDS 12.

3. Look to see that the unit reflectors have moved to nadir position. Enter the observed result on TDS 12.

4. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 12.

a. Packet ID (elements 1 and 2, page 1 of printout)

b. Packet length (elements 3 and 4, page 1 of printout)

c. Unit serial number (elements 5 and 6, page 1 of printout)

d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

e. Reflector positions (use data from procedure AE-26002/1 TDS 5 and 6 for nadir position data) (pages 1 - 6 of printout).

f. Radiometer scene data (pages 1 - 6 of printout)

g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

SHEET 47 OF ___
E.R. NO. 18752

h. Status (page 8 of printout)

i. Engineering data (page 8 of printout).

5. Attach the printout to TDS 12.

3.3.5.3.5 ***Noisy Bus current measurement during warm cal, cold cal and nadir mode.***

1. Place instrument in warm cal by repeating paragraph 3.3.5.3.2(1).

2. Record Noisy Bus current from STE noisy bus power supply display on TDS 13.

3. Command A1-1 scanner to "off" and record current.

4. Command A1-1 scanner to "on" and A1-2 scanner to "off" and record current.

5. Command A1-1 and A1-2 scanner to "on."

6. Place instrument in cold cal by repeating paragraph 3.3.5.3.3 (1). Repeat step number 2.

7. Place instrument in Nadir by repeating paragraph 3.3.5.3.4 (1). Repeat step number 2.

3.3.5.4 ***1553 Bus interface test.***

The 1553 Bus interface shall be verified by observing its operation during full scan operation. The interface test shall be accomplished by the following steps:

1. Configure the unit as shown below:

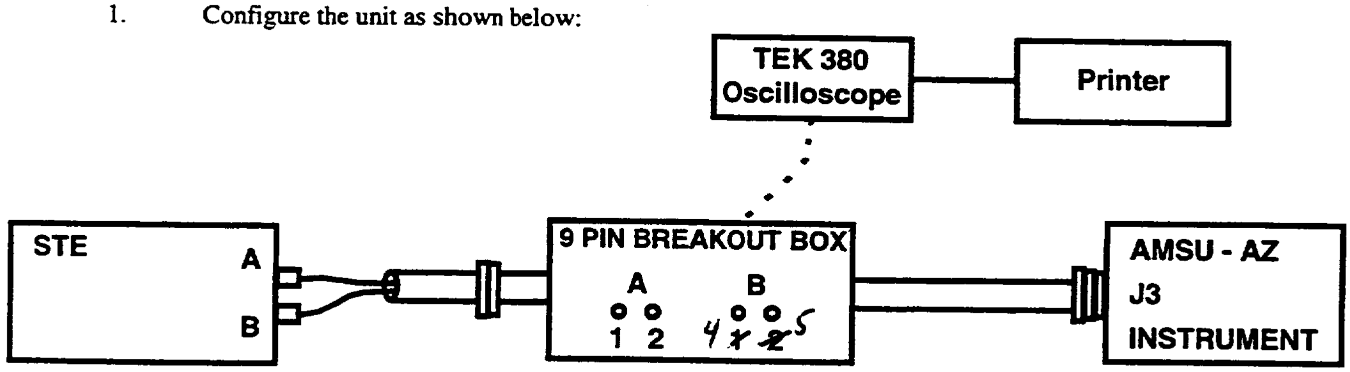

Figure ~~17~~. Configuration for 1553 Interface Set-Up

ENG 252
1/14/98
QC 227

2. Insure all switches are closed on the 9-pin breakout box.

3. Connect Ocsilloscope to J3-1 (Hi) and ~~J2-3~~ J3-2 (lo) to measure 1553 Interface A data. A representative waveform is shown in Figure A. Set the vertical to 5 volts; horizontal to 5 us, DC coupling: Trig-GH1. Print hard copy and attach to TDS 19.

4. Using the Vertical and Horizontal bars, measure the amplitude and rise time of the instrument response. Record these on TDS 19.

5. Repeat steps 3 and 4 for Interface B. Attach and record data on TDS 19. Connect to J3-4 (Hi) and J3-5 (Lo). Note: Figure B shows a typical rise-time measurement.

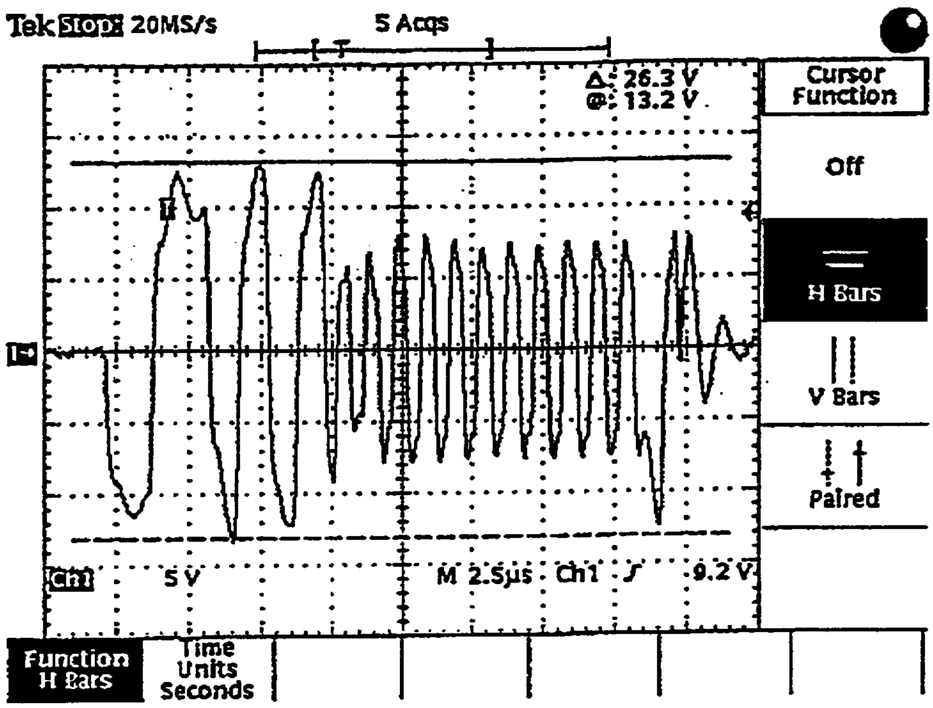

Figure A. Typical 1553 Bus Wave Form (Instrument Response)

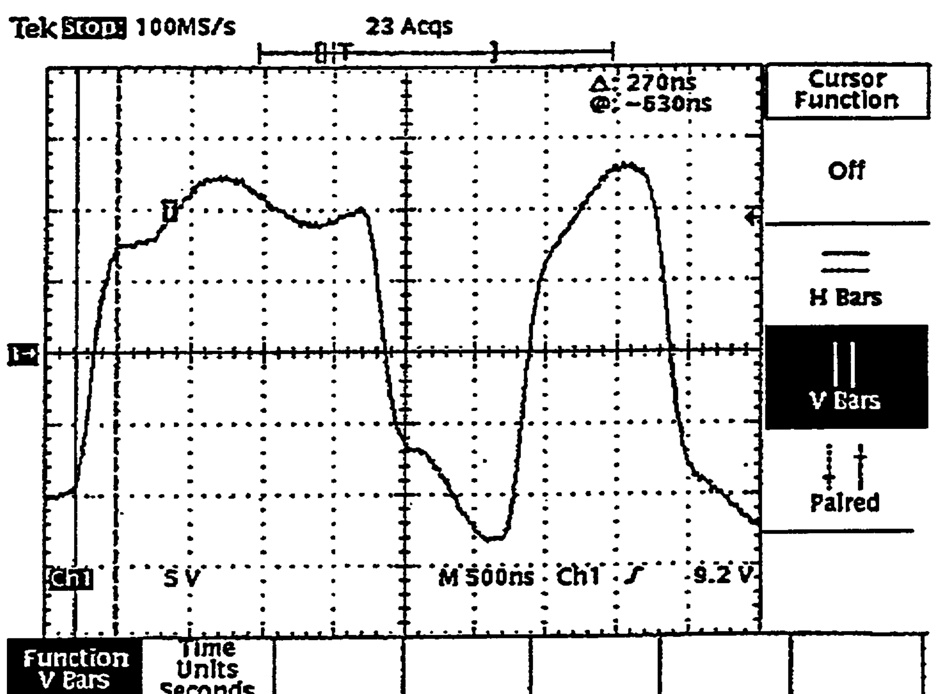

Figure B. Typical Rise-Time Measurement

Fig 19

SHEET 49 OF
ECR NO. 18772

3.3.6 ***Test point interface test.*** The purpose of this test is twofold:

1. Verify the following test point signals:

    a. Intentionally left blank

    b. 8 second sync pulse test point (3.3.6.2)

    c. Integrate/hold and dump test points (3.3.6.3)

    d. Channel 3 through 15 analog output test points (3.3.6.4)

    e. PLO #1 and PLO #2 lock test points (3.3.6.5).

2. Verify the following GSE mode operations:

    a. GSE-1 mode (3.3.6.6)

    b. GSE-2 mode (3.3.6.7)

    c. GSE-3 mode (3.3.6.8)

    d. GSE-4 mode (3.3.6.9)

    e. GSE-5 mode (3.3.6.10)

    f. GSE-7 mode (3.3.6.11).

The test point interface connector (J4) is not used during spacecraft configuration and is covered with a cover plate when the unit is operating in the flight configuration. The above test points and GSE modes are used only by Aerojet during test and evaluation of instrument performance and do not meet any system level requirements.

3.3.6.1 ***Intentionally left blank.*** Perform the following procedures.

3.3.6.2 ***8 second sync pulse test point verification.*** Perform the following procedures.

1. Connect channel 1 of the oscilloscope to pins J4-2 (High) and J4-21 (Low).

2. Plot the oscilloscope display and record the information indicated on TDS 14. Attach the plot to TDS 14.

3.3.6.3 ***Integrate/hold and dump test point verification.*** Perform the following procedures.

1. Connect channel 1 of the oscilloscope to pins J4-6 (High) and J4-5 (Low).

2. Connect channel 2 of the oscilloscope to pins J4-24 (High) and J4-5 (Low).

3. Set the scope to trigger internally on channel 1. Optimize time and amplitude for best resolution. The desired display should look similar to the top two traces shown in Figure 18.

4. Plot the oscilloscope display and record the information indicated on TDS 15. Attach the plot to TDS 15.

SHEET 50 OF
ECP NO. 1874

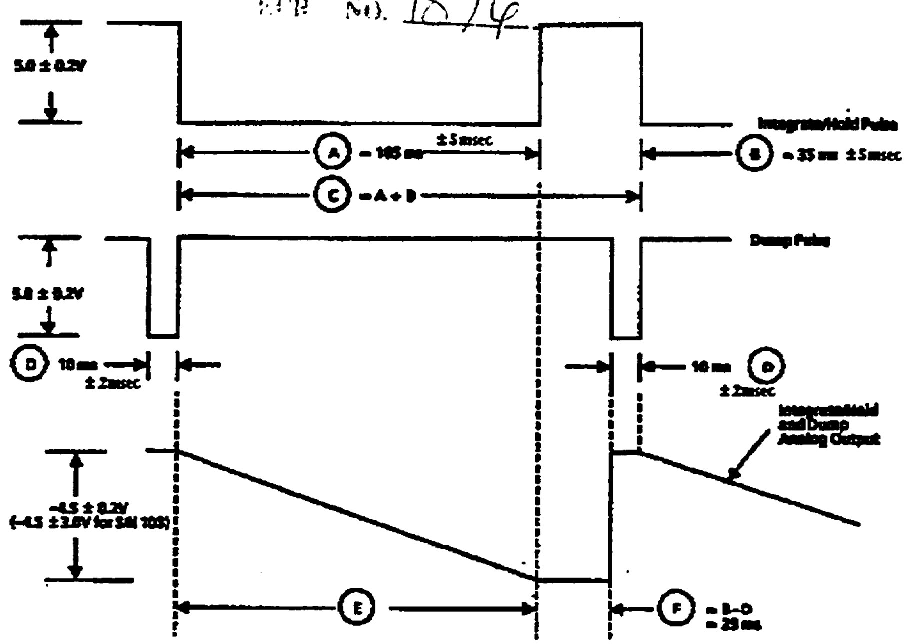

Figure ~~18~~ 20. Integrate/Hold, Dump, and Analog Out Test Point Signals

3.3.6.4 ***Radiometer channel analog output test point verification.*** Perform the following procedures.

1. Connect channel 1 of the oscilloscope to pins J4-8 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

2. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 3 and attach the plot to TDS 16.

3. Connect channel 1 of the oscilloscope to pins J4-9 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

4. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 4 and attach the plot to TDS 16.

5. Connect channel 1 of the oscilloscope to pins J4-10 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

6. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 5 and attach the plot to TDS 16.

7. Connect channel 1 of the oscilloscope to pins J4-11 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

8. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 6 and attach the plot to TDS 16.

9. Connect channel 1 of the oscilloscope to pins J4-12 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

10. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 7 and attach the plot to TDS 16.

11. Connect channel 1 of the oscilloscope to pins J4-13 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

12. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 8 and attach the plot to TDS 16.

13. Connect channel 1 of the oscilloscope to pins J4-14 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

14. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 9 and attach the plot to TDS 16.

15. Connect channel 1 of the oscilloscope to pins J4-27 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

16. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 10 and attach the plot to TDS 16.

17. Connect channel 1 of the oscilloscope to pins J4-28 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

18. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 11 and attach the plot to TDS 16.

19. Connect channel 1 of the oscilloscope to pins J4-29 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

20. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 12 and attach the plot to TDS 16.

21. Connect channel 1 of the oscilloscope to pins J4-30 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

22. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 13 and attach the plot to TDS 16.

23. Connect channel 1 of the oscilloscope to pins J4-31 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

24. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 14 and attach the plot to TDS 16.

25. Connect channel 1 of the oscilloscope to pins J4-32 (High) and J4-26 (Low). Optimize time and amplitude for best resolution. The desired display should look similar to the bottom trace shown in Figure 18.

26. Plot the oscilloscope display and record the information indicated on TDS 16. Label the plot Channel 15 and attach the plot to TDS 16.

3.3.6.5 ***PLO #1 and PLO #2 lock test point verification.*** Perform the following procedures.

1. Look to see that PLO #1 is enabled. If not enter STE command "PLO POWER". Wait for the screen to show PLO #1 active.

SHEET 52 OF
ECR NO. 1876

DVM

2. Connect ~~channel 1 of the oscilloscope~~ to pins J4-22 (High) and ~~J4-4~~ (Low). If the PLO is locked, the voltage observed will be less than or equal to ~~1~~ volt. If the PLO is unlocked, the voltage observed will be approximately ~~10~~ volts. -15 ± 1 Volt (1)

QC 227

3. ~~Plot the oscilloscope display and record the information indicated on TDS 17. Label the plot PLO #1 Lock Detect and attach the plot to TDS 17.~~ Record Voltage on TDS 17

4. Enter STE command "PLO POWER". Wait for the screen to show PLO #2 active.

DVM

5. Connect ~~channel 1 of the oscilloscope~~ to pins J4-3 (High) and J4-4 (Low). If the PLO is locked, the voltage observed will be less than or equal to ~~1~~ volt. If the PLO is unlocked, the voltage observed will be approximately ~~10~~ volts. -15 ± 1 Volt (1)

6. ~~Plot the oscilloscope display and record the information indicated on TDS 17. Label the plot PLO #2 Lock Detect and attach the plot to TDS 17~~. Record Voltage on TDS 17

P. R. Patel 7/14/98

3.3.6.6 ***GSE-1 mode verification***. This test mode positions the reflectors at beam position 6 for 10 integration periods, then to the cold calibration position for 10 integration periods, and finally to the warm cal position for 10 integration periods. This process is then repeated. To verify this mode, perform the following procedures. Look at ENGINEERING DATA, also UNPOWERED THERMISTORS prior to starting these modes.

1. Enter a "1" on the mode switch located on the front of the STE test panel (refer to Figure 2 for test panel location).

2. From the STE command screen shown in Figure 11, enter the STE command "[21] GSE MODE".

3. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

4. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (1st 10 at beam position 6, 2nd 10 at cold cal position, 3rd 10 at warm cal position, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

   g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

   h. Status (page 8 of printout)

   i. Engineering data (page 8 of printout).

5. Attach the printout to TDS 18. There is no Pass/Fail criteria.

3.3.6.7 ***GSE-2 mode verification.*** This test mode positions the reflectors at beam position 1 for 30 integration periods. This process is then repeated. To verify this mode, perform the following procedures.

1. Enter a "2" on the mode switch located on the front of the STE test panel.

2. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

3. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (30 positions at beam position 1, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

   g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

   h. Status (page 8 of printout)

   i. Engineering data (page 8 of printout).

4. Attach the printout to TDS 18. There is no Pass/Fail criteria.

3.3.6.8 ***GSE-3 mode verification.*** This test mode positions the reflectors at each beam position for 30 integration periods incrementing the beam position to the next beam position each 8 seconds. This process is then repeated. To verify this mode, perform the following procedures.

1. Enter a "3" on the mode switch located on the front of the STE test panel.

2. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

3. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (30 positions at beam position when printout obtained, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

h. Status (page 8 of printout)

i. Engineering data (page 8 of printout).

4. Attach the printout to TDS 18. There is not Pass/Fail criteria.

3.3.6.9 ***GSE-4 mode verification.*** This test mode positions the reflectors at beam position 30 for 30 integration periods. This process is then repeated. To verify this mode, perform the following procedures.

1. Enter a "4" on the mode switch located on the front of the STE test panel.

2. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

3. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (30 positions at beam position 30, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

   g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

   h. Status (page 8 of printout)

   i. Engineering data (page 8 of printout).

4. Attach the printout to TDS 18. There is no Pass/Fail criteria.

3.3.6.10 ***GSE-5 mode verification.*** This test mode positions the reflectors at beam position 6 for 39 integration periods. This process is then repeated. To verify this mode, perform the following procedures.

1. Enter a "5" on the mode switch located on the front of the STE test panel.

2. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

3. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

SHEET 55 OF
ECR NO. 1876

c. Unit serial number (elements 5 and 6, page 1 of printout)

d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

e. Reflector positions (30 positions at beam position 6, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

f. Radiometer scene data (pages 1 - 6 of printout)

g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

h. Status (page 8 of printout)

i. Engineering data (page 8 of printout).

4. Attach the printout to TDS 18. There is no Pass/Fail criteria.

3.3.6.11 ***GSE-7 mode verification.*** This test mode is used in conjunction with GSE-3 mode to pause the reflector at the current beam position for 30 integration periods. This process is then repeated. To verify this mode, perform the following procedures.

1. Enter a "7" on the mode switch located on the front of the STE test panel.

2. Wait 18 seconds, and look to see that the unit is performing the scan pattern described. Enter the observed result on TDS 18.

3. Enter the STE command "[3]" to obtain a full printout. Review the following data and record the results on TDS 18.

   a. Packet ID (elements 1 and 2, page 1 of printout)

   b. Packet length (elements 3 and 4, page 1 of printout)

   c. Unit serial number (elements 5 and 6, page 1 of printout)

   d. Instrument mode/.status (elements 7 and 8, page 1 of printout)

   e. Reflector positions (30 positions at current beam position, ignore cold cal and warm cal positions on the printout) (pages 1 - 6 of printout)

   f. Radiometer scene data (pages 1 - 6 of printout)

   g. PRT temperature data (elements 1090 - 1180, page 7 of printout)

   h. Status (page 8 of printout)

   i. Engineering data (page 8 of printout).

4. Attach the printout to TDS 18. There is no Pass/Fail criteria.

3.3.7 ***Radiometer functional performance test.*** The purpose of this test is to verify the radiometric performance of the AMSU-A1 instrument at the system level. This test consists of:

1. PLO frequency measurements (3.3.7.1)

2. Relative radiometer NEΔT measurements (3.3.7.2)

3.3.7.1 *PLO frequency measurements.* Perform the following procedures.

1. The unit should still be powered and configured as shown in Figure 12. The measurement feedhorn and mixer (items 16 and 17 from Table I) should be positioned looking into the A1-1 reflector when the reflector is looking at the cold scene position.

2. Enter the STE command "[11] ANTENNA COLD CAL MODE". Wait 18 seconds before issuing the next command.

3. Both reflectors should be positioned looking at the cold calibration position and PLO #2 should be active. Wait at least 1 hour for the instrument to stabilize.

4. Record the frequency measured for PLO #2 on TDS 19. Attach a plot of the spectrum analyzer display labeled PLO #2 to TDS 19. A sample display is shown in Figure 19.

5. Enter the STE command "[15] PLO POWER".

6. Both reflectors should be positioned looking at the cold calibration position and PLO #1 should now be active. Wait at least 1 hour for the instrument to stabilize.

7. Record the frequency measured for PLO #1 on TDS 19. Attach a plot of the spectrum analyzer display labeled PLO #1 to TDS 19.

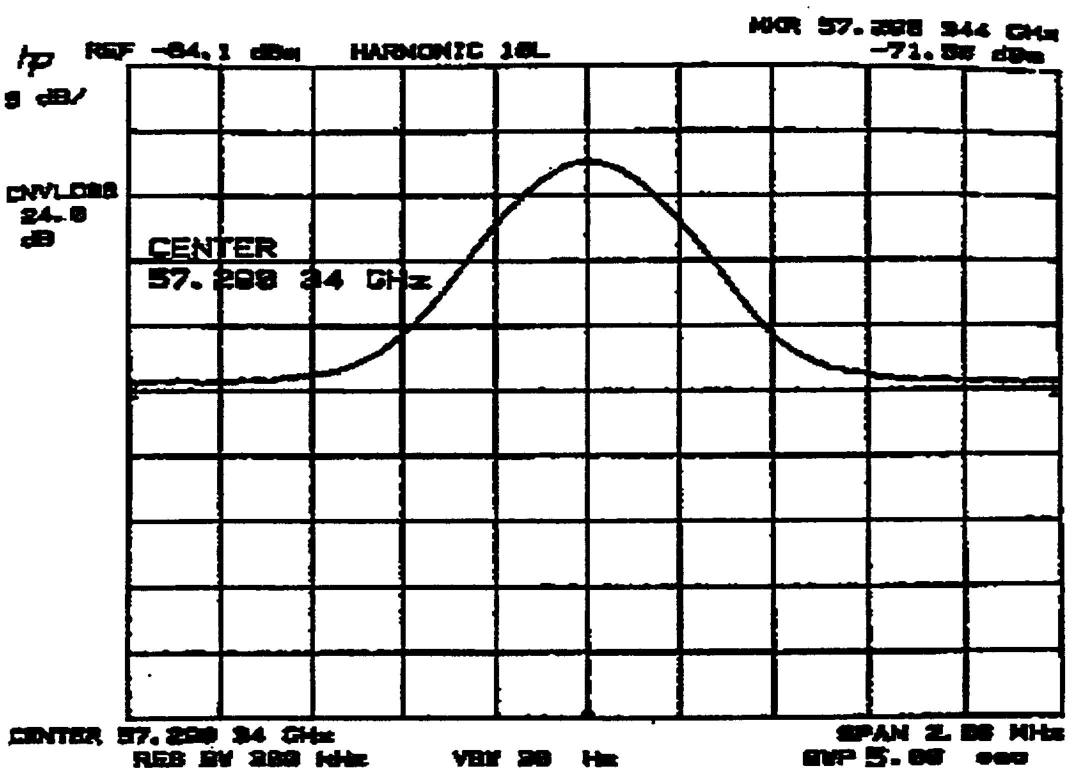

Figure 19. Typical Spectrum Analyzer Plot of PLO Frequency

8. Remove the feedhorn, mixer, and spectrum analyzer leaving the rest of the setup powered and intact for the next section.

3.3.7.2 ***Relative radiometer NEΔT measurements.*** The purpose of this test is to perform a preliminary evaluation of the radiometer NEΔT at the system level. Since the STE is not in the thermal vacuum configuration, no temperature readings from the cold load are available. To compute the NEΔT for this test, the temperature used for the cold load temperature shall be 80 K.

The data obtained from this test are considered as relative NEΔT and are to be used as a diagnostic tool to verify proper operation of each radiometer channel from antenna input to the spacecraft interface. The equation to determine relative NEΔT is as follows:

$$NE\Delta T = \frac{\left[SD*(T_h - T_c)\right]}{M - N}$$

where
- SD = Standard deviation of 120 radiometric samples looking at the warm load
- T_h = Physical temperature of the warm load (300 K)
- T_c = Physical temperature of the cold target (80 K)
- M = Average of the radiometric readings in counts viewing the warm load (120 samples)
- N = Average of the radiometric readings in counts viewing the cold target (30 samples).

Perform the following procedures:

WARNING

The use of liquid nitrogen in a confined poorly ventilated area can cause asphyxiation and death due to lack of oxygen (oxygen concentration below 20 percent). Accidental contact with liquid nitrogen will cause severe frostbite to the eyes or skin. When handling liquid nitrogen, personnel shall observe the following safety precautions:

a. Ensure that the work area is well ventilated to prevent excessive gas buildup.

b. To protect your eyes always wear a face shield or safety goggles (safety glasses without side shields do not provide adequate protection).

c. To protect exposed skin, always wear an apron when pouring LN2 and whenever exposed to LN2, always wear a lab coat, gloves made for cryogenic work, cuffless trousers (worn outside the boots or shoes), and safety shoes.

d. Do not fill target fuller than 1.0 inch from the top. Fill target at the floor level, away from unit.

e. Do not move filled target without cover in place.

1. The unit should still be powered and configured as shown in Figure 12. The unit should already be in a stabilized state with PLO #1 active.

2. Enter the STE command "[11] ANTENNA FULL SCAN MODE".

3. After the unit is stabilized (minimum of 30 minutes required), fill the cold targets with liquid nitrogen and position them as shown in Figure 20.

4. Enter the STE command "[1] RETURN" twice to return to the EOS/AMSU-A1 STE main screen shown in Figure 9.

5. From the Main screen, enter the STE command "[13] FUNCTIONAL TEST".

6. The STE then asks for "COLD TARGET POSITION... ENTER C=COLD, N=NADIR". Enter "C" for cold.

7. No additional operator input is needed as the computer will automatically display the results. There is typically a 40 second delay after executing a functional test before the results are displayed. A typical screen is shown in Figure 21.

8. Obtain a screen printout by issuing the STE command "[2]".

9. Repeat steps 5 through 8 four more times obtaining four additional screen printouts. Average the NEΔT readings from the five printouts for each channel and enter those averages on TDS 20. Attach the printouts to TDS 20.

10. Go to the Commands screen on the STE. From the main screen shown in Figure 9, enter a [2] and then a [14].

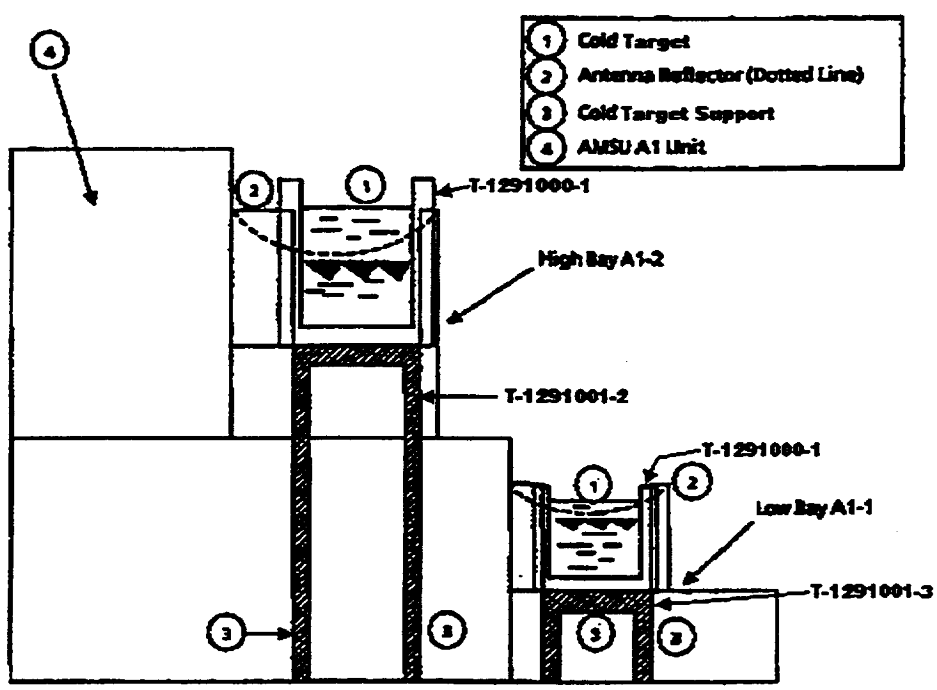

Figure 20. Relative NEΔT Test Setup

CH	WARM TEMP.	WARM COUNTS	COLD COUNTS	GAIN	DELTA-T
3	297.45	16558.0	13752.0	0.069	0.623
4	297.44	16317.0	13108.0	0.061	0.556
5	"	"	"	"	"
6	"	"	"	"	"
7	"	"	"	"	"
8	"	"	"	"	"
9	"	"	"	"	"
10	"	"	"	"	"
11	"	"	"	"	"
12	"	"	"	"	"
13	"	"	"	"	"
14	"	"	"	"	"
15	"	"	"	"	"

Figure 21. Typical Screen Display Following a Functional Test

11. Enter the STE command "[15] PLO POWER" to change from PLO #1 to PLO #2. Wait at least 30 minutes to allow the unit to stabilize after changing to PLO #2.

12. Change out the cold targets for newly filled cold targets if available. If new targets are unavailable, refill the old targets and wipe off the front surface of the targets to remove any ice or water before proceeding.

13. Repeat steps 5 through 9 to obtain data using PLO #2.

14. Remove the cold loads and associated hardware.

15. Turn the STE power supply panel N/PULSE switch off (refer to Figure 3).

16. Turn the STE power supply panel Q/MAIN switch off (refer to Figure 3).

17. Turn the STE power supply panel MAIN POWER switch off (refer to Figure 3).

SHEET 62 OF
NO. 1876

3.3.8 **Channel Identification Test. The purpose of the Channel Identification Test is to verify the proper final configuration/assembly of each radiometer channel from antenna input to the spacecraft interface.**

4

1. Configure the unit and test equipment as shown in Figure 3
2. Connect the STE to instrument using the following STE interface cables.
    a. STE interface cable J1 (1356648-1)
    b. STE interface cable J2 (1356648-2)
    c. STE interface cable J3 (1356648-3)
    d. STE interface cable J4 (1356648-4)
3. Turn the STE main power switch ON. From the A1 directory, and at the "$" prompt, enter the command to the STE "RUN EI." The A1 software program should be running as evidenced by the STE screen shown in Figure 9.
4. Turn the STE power supply panel main power switch ON (refer to Figure 3).
5. Turn the STE power supply panel Q/Main switch ON (refer to Figure 3).
6. Turn the STE power supply panel N/pulse switch ON (refer to Figure 3).
7. From the main screen shown in Figure 9, enter the STE command [2] "MONITOR ONLY." The screen should now be as shown in Figure 10. Enter the STE command "[14] COMMANDS." The screen should now be as shown in Figure 11.
8. Enter the STE command "SCANNER A1-1 POWER." Wait 18 seconds before issuing the next command.
9. Enter the STE command "SCANNER A1-2 POWER." Wait 18 seconds before issuing the next command.
10. Enter the STE command "ANTENNA COLD CAL." Wait 18 seconds before issuing the next command. Both reflectors should scan to the cold calibration beam position.
11. Enter the STE command "[1] RETURN" to return to the monitor only screen shown in Figure 10.

5

12. Enter the STE command "[10] SCIENCE DATA." The STE should now display the science data screen shown in Figure 22. From this screen enter the STE command "[9] BEAM POSITION NN-ALL CHANNELS.

55 a

QC 227 P. K. Patel 7/14/98

SHEET 63 OF
ECR NO. 1876

13. The STE then asks "ENTER BEAM POSITION NO (1 TO 30)." Enter "30" to show the radiometric counts data for channels 3-15. The STE should now display the radiometric data screen shown in Figure ~~23~~ 27; except with a different set of count data.

14. Allow the instrument to stabilize for approximately 20 minutes. Enter the STE command "[2]" to obtain a screen only printout.

15. Configure the unit and test equipment as shown in Figure 24. Turn ON the sweeper and allow to warm up approximately 10 minutes. Make sure that the RF power is OFF during sweeper warm up.

*****CAUTION*****

Extreme care must be used when turning on RF power. When RF power is first applied the multiplier/gain horn should be approximately three to four feet from the unit. The RF power setting should be no greater than --20 dBm.

16. Set the sweeper frequency to 50.35 ± .01 GHz and set the RF power level to -20 dBm. Position the multiplier/gain horn three to four feet from the instrument so that the A1-2 antenna and gain horn are approximately aligned. Rotate the gain horn, if needed, to the vertical polarization position.

17. Turn ON the RF power making sure the power level is set to -20 dBm. Allow the multiplier to warm up approximately five minutes.

18. At the STE screen compare the radiometric data counts of channel 3 to the counts printed out at step 14. Enter the STE command "[2]" to obtain a screen only printout.

19. From the printouts obtained in steps 14 and 18 verify that the radiometric data counts for channel 3 have increased significantly ,approximately 10,000 or more, and that the other channels data counts have remained relatively unchanged, less than 300 counts.

20. Record the counts difference on TDS 21 of channel 3 from the printouts obtained ~~I~~ IN steps 18 and 14 and attach printouts to TDS 21.

21. Repeat steps 16 through 20 for the frequencies and polarizations listed on TDS 21.

55b

QC 227 P. R. Patel 7/14/98

22. After all A1 channels have been identified, turn OFF the RF power. Return the reflectors to the warm cal position.

23. Turn the STE Q/Main and N/Pulse switches to OFF.

24. Turn the STE power supply panel main power switch OFF.

55C
QC 227 P. K. Patel 7/14/98

SHEET 65 OF
ECR NO. 1516

EOS A1-03 E1.EXE;31 COLD CAL MODE P1 5-JUN-98 09:36:59 SCAN NUMBER 34

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

[8] DATA STREAM (64 VALUES)

[9] BEAM POSITION NN - ALL CHANNELS

[10] CHANNEL NN - ALL BEAAM POSITIONS

[11] WARM CALIBRATE

[12] COLD CALIBRATE

[13] REFLECTOR POSITIONS

[14] TEMPERATURE DATA (16 VALUES)

ENGR OK POWER ON CHECKSUM IN 15A1 SA28 34SA29 47
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

FIGURE ~~22~~ 23. SCIENCE DATA SCREEN

EOS A1-03 E1.EXE;31 COLD CAL MODE P1 5-JUN-98 09:49:07 SCAN NUMBER 11

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	15798	8	15414	13	15811
4	16252	9	16176	14	16029
5	15661	10	16010	15	15102
6	16413	11	15639		
7	18044	12	15817		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN DF5D CALC DFSD SA28 11 SA29 14
SELECT BUTTON 2

FIGURE ~~23~~ 24. RADIOMETRIC DATA SCREEN

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QC 227 55d

P.K. Patel 7/14/98

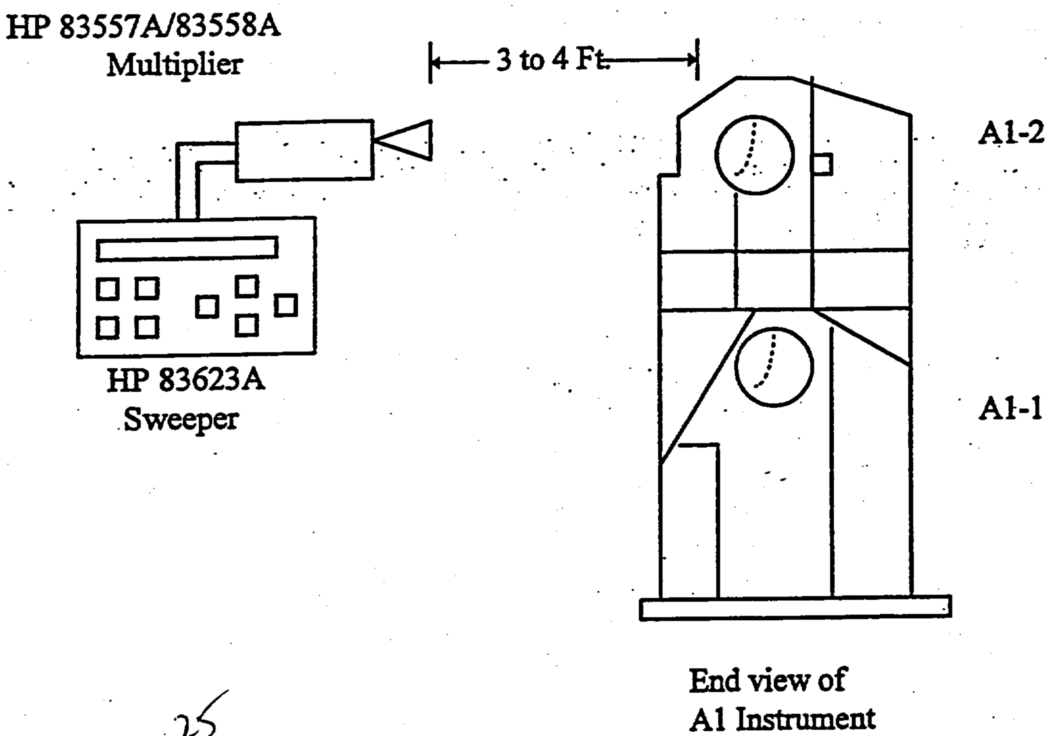

FIGURE ~~A~~ 25 CHANNEL IDENTIFICATION SET UP

QC 227 55e
P. K. Patel 7/14/98

SHEET 60 OF
SCR NO. 1876

(Add para 3.3.8)

See pages 55a through 55e

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P. K. Patel
1/14/98

QC 227

4. QUALITY ASSURANCE PROVISIONS

4.1 ***Responsibility for inspection.*** Aerojet Quality Assurance shall inspect in accordance with the requirements of this test procedure, S-480-80 and S-480-79. Quality Control shall verify all test set-ups prior to start of test. Bonded software shall be used for all tests and shall be obtained from Quality Control. Quality Control shall review all test data for conformance to success criteria. The test data shall include test limits. For tests that satisfy requirements from S-480-80 on protoflight and flight units, customer representatives shall be invited to monitor tests and shall be invited to review the data and show approval on the test data sheets.

4.1.1 ***Test facilities.*** Unless otherwise specified, the examinations and tests described herein shall be conducted at Aerojet, Azusa Operations, Azusa, California.

4.1.2 ***Electrostatic device (ESD) handling.*** All electronic hardware shall be handled in accordance with Aerojet Standard STD-2454.

4.2 ***Monitoring procedures.*** All tests in this procedure shall be witnessed by Quality Control.

4.2.1 ***Test equipment.*** Test equipment calibration procedures shall comply with the requirements of MIL-STD-45662.

4.2.2 ***Software.*** Bonded software shall be used at all times.

4.3 ***Monitoring procedures for materials.*** Not applicable.

4.4 ***Certification.*** Certification for handling ESD sensitive equipment is required for all personnel working on the assembly and test of the AMSU-A instrument.

4.5 ***Test methods***

4.5.1 ***Accept-reject criteria.*** The accept-reject criteria for each examination or test shall be as specified in the data sheets included in each phase of the applicable test procedure. The test results shall be recorded on the data sheets to demonstrate compliance with the applicable specification requirements. Methods of analysis shall be appropriate for the parameters being inspected. It shall be the responsibility of Aerojet to review the test data and determine conformance of the unit under test to the performance requirements contained in S-480-80 and this specification.

In the event of a failure during any phase of this test procedure, the test activity shall record the required information on the Test Anomaly Report and alert the design assurance and quality engineers. Except for failures which only represent a limited out-of-tolerance condition for a particular parameter and are not expected to interfere with the balance of the testing and which are non-destructive, the testing must be stopped until a complete description of the observed anomaly failure is documented and a Failure Analysis Strategy (FAS) is formulated, documented, and implemented to preclude loss of information or evidence that may facilitate determining the failure cause. The full set of data from the referenced tests are required in order to formulate a plan of action. The cognizant reliability engineer, quality assurance engineer, and the system or responsible test engineer shall jointly develop the FAS which must be approved by Design Assurance and Quality Assurance. Analysis and reporting shall be performed in accordance with Aerojet procedures.

4.5.2 ***General.*** Separate test reports shall be prepared in accordance with 4.5.2.1.1 for each series which has successfully completed testing. This report shall include all data sheets associated with the tests on the unit plus the data reduction and analysis of specific parameters required by each applicable test procedure specification obtained from screen printouts and plots, oscilloscope photographs, or magnetic recordings. During tests in which a CRT screen is to be printed or plotted and retained as a data sheet, the following annotation shall be applied:

Test/Systems Engineer: ______________________
(Signature)

Quality Control: ______________________
(Signature)

Customer Representative:
(Flight hardware only) ______________________
(Signature)

Date: ______________________
Test Paragraph No.: ______________________
Subassembly/Assembly Serial No. ______________________

The report shall also include a certification statement. A complete copy of the report shall be included in the shop order package.

4.5.2.1 *Acceptance test reports*

4.5.2.1.1 *Format.* The acceptance test report shall be prepared and shall include, as a minimum, the following:

a. Title page

b. Summary

c. Requirements satisfied (if any)

d. Discrepancy reports (if any)

e. Test data

4.5.2.1.2 *Test data.* The test data included in the report shall be that which was obtained during performance of the tests specified herein and recorded on the Test Data Sheet(s) (TDS) (see Appendix A) and on printouts and plots.

SHEET NO. 68 OF 1876

5. NOTES

5.1 ***Intended use.*** The intended use of this process specification is to establish the requirements for the comprehensive and limited performance testing of the Advanced Microwave Sounding Unit - A1 System.

5.2 *Abbreviations and acronyms*

AMSU	Advanced Microwave Sounding Unit
BW	Bandwidth
C	Celsius
CAL	Calibration
CCA	Circuit Card Assembly
CH	Channel
CPT	Comprehensive Performance Test
DMM	Digital Multimeter
DRB	Decade Resistor Box
DVM	Digital Voltmeter
ESD	Electrostatic Discharge
F	Fail
FAS	Failure Analysis Strategy
GND	Ground
GPIB	General Purpose Interface Bus
GSFC	Goddard Space Flight Center
HP	Hewlett-Packard
HTR	Heater
I/O	Input/Output
IF	Intermediate Frequency
K	Degrees Kelvin
LO	Local Oscillator
LPT	Limited Performance Test
max	Maximum
MUX	Multiplexer
NF	Noise Figure
P	Pass
P/N	Part Number
PRT	Platinum Resistance Transducer
RF	Radio Frequency
RTN	Return
S/N	Serial Number
STE	Special Test Equipment

SHEET 69 OF ___
ECN NO. 1876

TDS	Test Data Sheet
TLM	Telemetry
TAR	Test Anomaly Report

APPENDIX A

SHEET 70 OF ___
ECR NO. 1876

TEST DATA SHEETS

10. APPENDIX A

10.1 ***Scope.*** This appendix contains the test data sheets for all tests and inspections listed in section 3.

SHEET 71 OF
ECR NO. 1876

TEST DATA SHEET NO. 1 (Sheet 1 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J1 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J1-1	+29V QUIET PWR BUS	> 1M		
J1-2	+29V QUIET PWR BUS	> 1M		
J1-3	29V QUIET BUS RTN	> 1M		
J1-4	29V QUIET BUS RTN	> 1M		
J1-5	+29V NOISY PWR BUS	> 1M		
J1-6	+29V NOISY PWR BUS	> 1M		
J1-7	29V NOISY BUS RTN	> 1M		
J1-8	29V NOISY BUS RTN	> 1M		
J1-9	SURVIVAL PWR BUS A	> 1M		
J1-10	SURVIVAL BUS A RTN	> 1M		
J1-11	SURVIVAL PWR BUS A	> 1M		
J1-12	SURVIVAL BUS A RTN	> 1M		
J1-13	CHASSIS GROUND	< 1		
J1-14	+29V QUIET PWR BUS	> 1M		
J1-15	+29V QUIET PWR BUS	> 1M		
J1-16	29V QUIET BUS RTN	> 1M		
J1-17	29V QUIET BUS RTN	> 1M		
J1-18	+29V NOISY PWR BUS	> 1M		
J1-19	+29V NOISY PWR BUS	> 1M		
J1-20	29V NOISY BUS RTN	> 1M		
J1-21	29V NOISY BUS RTN	> 1M		
J1-22	SURVIVAL PWR BUS B	> 1M		
J1-23	SURVIVAL BUS B RTN	> 1M		
J1-24	SURVIVAL PWR BUS B	> 1M		
J1-25	SURVIVAL BUS B RTN	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 2 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J2 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J2-1	A1-1 MOTOR TEMP HI	> 1M		
J2-2	A1-1 MOTOR TEMP LO	> 1M		
J2-3	A1-1 RECEIVER TEMP 1 HI	> 1M		
J2-4	A1-1 RECEIVER TEMP 1 LO	> 1M		
J2-5	A1-1 WARM LOAD TEMP HI	> 1M		
J2-6	A1-1 WARM LOAD TEMP LO	> 1M		
J2-7	A1-2 MOTOR TEMP HI	> 1M		
J2-8	A1-2 MOTOR TEMP LO	> 1M		
J2-9	A1-2 RECEIVER TEMP 1 HI	> 1M		
J2-10	A1-2 RECEIVER TEMP 1 LO	> 1M		
J2-11	A1-2 WARM LOAD TEMP HI	> 1M		
J2-12	A1-2 WARM LOAD TEMP LO	> 1M		
J2-13	No Connection	> 1M		
J2-14	No Connection	> 1M		
J2-15	No Connection	> 1M		
J2-16	No Connection	> 1M		
J2-17	No Connection	> 1M		
J2-18	No Connection	> 1M		
J2-19	No Connection	> 1M		
J2-20	No Connection	> 1M		
J2-21	No Connection	> 1M		
J2-22	A1-1 RECEIVER TEMP 2 HI	> 1M		
J2-23	A1-1 RECEIVER TEMP 2 LO	> 1M		
J2-24	No Connection	> 1M		
J2-25	No Connection	> 1M		
J2-26	No Connection	> 1M		
J2-27	No Connection	> 1M		
J2-28	A1-2 RECEIVER TEMP 2 HI	> 1M		
J2-29	A1-2 RECEIVER TEMP 2 LO	> 1M		
J2-30	No Connection	> 1M		
J2-31	No Connection	> 1M		
J2-32	No Connection	> 1M		
J2-33	No Connection	> 1M		
J2-34	No Connection	> 1M		
J2-35	No Connection	> 1M		
J2-36	No Connection	> 1M		
J2-37	No Connection	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date Quality Control Date

SHEET 13 OF
ECR NO. 1876

TEST DATA SHEET NO. 1 (Sheet 3 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J3 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J3-1	1553 INTERFACE DATA A HI	> 100K		
J3-2	1553 INTERFACE DATA A LO	> 100K		
J3-3	No Connection	> 1M		
J3-4	1553 INTERFACE DATA B LO	> 100K		
J3-5	1553 INTERFACE DATA B HI	> 100K		
J3-6	1553 INTERFACE DATA A SHIELD	< 1		
J3-7	No Connection	> 1M		
J3-8	No Connection	> 1M		
J3-9	1553 INTERFACE DATA B SHIELD	< 1		

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 4 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J4 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J4-1	CHASSIS GROUND	< 1		
J4-2	8 SECOND SYNC PULSE TP	>20K ~~> 100K~~		
J4-3	PLO #2 LOCK TP	> 100K		
J4-4	PLO LOCK RTN (7/8)	< 1		
J4-5	I/H & DUMP RTN (2/3)	< 1		
J4-6	DUMP COMMAND TP	> 100K		
J4-7	No Connection	> 1M		
J4-8	CH 3 ANALOG OUT TP	> 100K		
J4-9	CH 4 ANALOG OUT TP	> 100K		
J4-10	CH 5 ANALOG OUT TP	> 100K		
J4-11	CH 6 ANALOG OUT TP	> 100K		
J4-12	CH 7 ANALOG OUT TP	> 100K		
J4-13	CH 8 ANALOG OUT TP	> 100K		
J4-14	CH 9 ANALOG OUT TP	> 100K		
J4-15	No Connection	> 1M		
J4-16	No Connection	> 1M		
J4-17	GSE COMMAND LSB	> 5K		
J4-18	GSE COMMAND MSB-1	> 5K		
J4-19	No Connection	> 1M		
J4-20	1.248 MHz CLOCK TP	> 100K		
J4-21	1.248 MHz CLOCK RTN (1)	< 1		
J4-22	PLO #1 LOCK TP	>20K ~~> 100K~~		
J4-23	No Connection	> 1M		
J4-24	I/H COMMAND TP	> 100K		
J4-25	No Connection	> 1M		
J4-26	ANALOG OUT RTN (2/3)	< 1		
J4-27	CH 10 ANALOG OUT TP	> 100K		
J4-28	CH 11 ANALOG OUT TP	> 100K		
J4-29	CH 12 ANALOG OUT TP	> 100K		
J4-30	CH 13 ANALOG OUT TP	> 100K		
J4-31	CH 14 ANALOG OUT TP	> 100K		
J4-32	CH 15 ANALOG OUT TP	> 100K		
J4-33	No Connection	> 1M		
J4-34	No Connection	> 1M		
J4-35	GSE COMMAND MSB	> 5K		
J4-36	GSE COMMAND RTN (1)	< 1		
J4-37	No Connection	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date Quality Control Date

SHEET 75 OF ____
ECP NO. 1876

TEST DATA SHEET NO. 1 (Sheet 5 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

Source	Destination	Source Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail*
J1-1	J1-2	+29V QUIET PWR BUS	<1		
J1-1	J1-14	+29V QUIET PWR BUS	<1		
J1-1	J1-15	+29V QUIET PWR BUS	<1		
J1-3	J1-4	29V QUIET BUS RTN	<1		
J1-3	J1-16	29V QUIET BUS RTN	<1		
J1-3	J1-17	29V QUIET BUS RTN	<1		
J1-5	J1-6	+29V NOISY PWR BUS	<1		
J1-5	J1-18	+29V NOISY PWR BUS	<1		
J1-5	J1-19	+29V NOISY PWR BUS	<1		
J1-7	J1-8	29V NOISY BUS RTN	<1		
J1-7	J1-20	29V NOISY BUS RTN	<1		
J1-7	J1-21	29V NOISY BUS RTN	<1		
J1-9	J1-11	SURVIVAL PWR BUS A	<1		
J1-10	J1-12	SURVIVAL BUS A RTN	<1		
J1-22	J1-24	SURVIVAL PWR BUS B	<1		
J1-23	J1-25	SURVIVAL BUS B RTN	<1		
J1-1	J1-5	+29V QUIET PWR BUS	> 1M		
J1-1	J1-7	+29V QUIET PWR BUS	> 1M		
J1-1	J1-9	+29V QUIET PWR BUS	> 1M		
J1-1	J1-10	+29V QUIET PWR BUS	> 1M		
J1-1	J1-22	+29V QUIET PWR BUS	> 1M		
J1-1	J1-23	+29V QUIET PWR BUS	> 1M		
J1-3	J1-5	29V QUIET BUS RTN	> 1M		
J1-3	J1-7	29V QUIET BUS RTN	> 1M		
J1-3	J1-9	29V QUIET BUS RTN	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: ____________ S/N: ____________
Circle Test: 1st CPT Final CPT Sub CPT ____________ LPT ____________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 6 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

Source	Destination	Source Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J1-3	J1-10	29V QUIET BUS RTN	> 1M		
J1-3	J1-22	29V QUIET BUS RTN	> 1M		
J1-3	J1-23	29V QUIET BUS RTN	> 1M		
J1-5	J1-9	+29V NOISY PWR BUS	> 1M		
J1-5	J1-10	+29V NOISY PWR BUS	> 1M		
J1-5	J1-22	+29V NOISY PWR BUS	> 1M		
J1-5	J1-23	+29V NOISY PWR BUS	> 1M		
J1-7	J1-9	29V NOISY BUS RTN	> 1M		
J1-7	J1-10	29V NOISY BUS RTN	> 1M		
J1-7	J1-22	29V NOISY BUS RTN	> 1M		
J1-7	J1-23	29V NOISY BUS RTN	> 1M		
J1-9	J1-22	SURVIVAL PWR BUS A	> 1M		
J1-9	J1-23	SURVIVAL PWR BUS A	> 1M		
J1-10	J1-22	SURVIVAL BUS A RTN	> 1M		
J1-10	J1-23	SURVIVAL BUS A RTN	> 1M		
J1-13	J1 OUTER SHELL	CHASSIS GROUND	< 1		
J1-13	J2 OUTER SHELL	CHASSIS GROUND	< 1		
J1-13	J3 OUTER SHELL	CHASSIS GROUND	< 1		
J1-13	J4 OUTER SHELL	CHASSIS GROUND	< 1		
J3-1	J3-5	1553 INTERFACE DATA A HI	> 100K		
J3-1	J3-4	1553 INTERFACE DATA A HI	> 100K		
J3-2	J3-5	1553 INTERFACE DATA A LO	> 100K		
J3-2	J3-4	1553 INTERFACE DATA A LO	> 100K		

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

____
Test Systems Engineer Date

____________________________________ ____________________________________
Customer Representative Date Quality Control Date

SHEET 77 OF ____
ECR NO. 1876

TEST DATA SHEET NO. 2
Quiet Power Bus Operational Power Test (Paragraph 3.3.3.1.1)

Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	PLO	Maximum Peak Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Peak Power (QBV x QBI) (Watts)	Pass/Fail
26.95 - 27.05		#1		≤94		
28.95 - 29.05		#1		≤94		
30.95 - 31.05		#1		≤94		
26.95 - 27.05		#2		≤94		
28.95 - 29.~~05~~ .10		#2		≤94		
30.95 - 31.05		#2		≤94		

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Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	PLO	Average Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Average Power (QBV x QBI) (Watts)	Pass/Fail
26.95 - 27.05		#1		~~≤88~~ ≤86		
28.95 - 29.05		#1		~~≤88~~ ≤86		
30.95 - 31.05		#1		~~≤88~~ ≤86		
26.95 - 27.05		#2		~~≤88~~ ≤86		
28.95 - 29.~~05~~ .08		#2		~~≤88~~ ≤86		
30.95 - 31.05		#2		~~≤88~~ ≤86		

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EOS/AMSU-A1 System P/N 1356008 Shop Order: ____________ S/N: ____________
Circle Test: 1st CPT Final CPT Sub CPT ____________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 3
Quiet Power Bus Operational Power Test (LPT) (Paragraph 3.3.3.1.2)

Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	Average Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Average Power (QBV x QBI) (Watts)	Pass/Fail
28.95 - 29.05			~~≤88~~ 86		

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EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
LPT ________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

SHEET 79 OF
ECR NO. 1876

TEST DATA SHEET NO. 4

Quiet Power Bus Turn On Transient Test (Paragraph 3.3.3.1.3)

+31 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<10.6 Amps	
Pulse Width (Steady State)	ms	< 250 msec ~~<150 ms~~	
Rate of Change(slope): dI/dT	ma/µs	<677 mA/µs	
Pulse Width (transient)	mS	< 100 mSec	

+29 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<10.6 Amps	
Pulse Width (Steady State)	ms	< 250 msec ~~<150 ms~~	
Rate of Change(slope): dI/dT	ma/µs	<677 mA/µs	
Pulse width (transient)	mS	< 100 mSec	

+27 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<10.6 Amps	
Pulse Width (steady State)	ms	< 250 mSec ~~<150 ms~~	
Rate of Change(slope): dI/dT	ma/µs	<677 mA/µs	
Pulse width (Transient)	mS	<100 msec	

RH 7-14-98

EOS AMSU-A1 P/N: ~~1356000~~ ______ SN: ______

S/O: ______

Circle Test 1ST CPT Final CPT Sub CPT

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Test Systems Engineer

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Customer Representative

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Quality Control

TEST DATA SHEET NO. 5
Noisy Power Bus Operational Power Test (Paragraph 3.3.3.2.1)

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Required Peak Current (Amps)	Maximum Peak Noisy Bus Current NBI (Amps)	Required Peak Power (Watts)	Calculated Peak Power (NBV x NBI) (Watts)	Pass/Fail
26.95 - 27.05		≤1		≤40		
28.95 - 29.05		≤1		≤40		
30.95 - 31.05		≤1		≤40		

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Average Noisy Bus Current NBI (Amps)/sec	Required Average Power (Watts)	Calculated Average Power (NBV x NBI) (Watts)	Pass/Fail
26.95 - 27.05			≤~~6~~ 8		
28.95 - 29.05			≤~~6~~ 8		
30.95 - 31.05			≤~~6~~ 8		

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Bus Current During the I/H, D. Period	Pass/Fail
26.95 — 27.05		ma ★ ma ★★	Not Applicable
28.95 — 29.05		ma ★ ma ★★	Not Applicable
30.95 — 31.05		ma ★ ma ★★	Not Applicable

★ between beams
★★ between Cal tests

EOS/AMSU-A1 System P/N 1356008   Shop Order: ________   S/N: ________
Circle Test: 1st CPT   Final CPT   Sub CPT ________

Test Systems Engineer   Date

Customer Representative   Date

Quality Control   Date

SHEET 81 OF
ECR NO. 1875

TEST DATA SHEET NO. 6
Noisy Power Bus Turn On Transient Test (Paragraph 3.3.3.2.2)

+31 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<11.5 Amps	
Pulse Width	ms	<100 ms	
Rate of Change(slope): dI/dT	ma/µs	<744 mA/µs	

+29 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<11.5 Amps	
Pulse Width	ms	<100 ms	
Rate of Change(slope): dI/dT	ma/µs	<744 mA/µs	

+27 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	Amps	<11.5 Amps	
Pulse Width	ms	<100 ms	
Rate of Change(slope): dI/dT	ma/µs	<744 mA/µs	

EOS AMSU-A1 P/N: ____________ SN: ________

S/O: ____________

Circle Test 1st CPT Final CPT Sub CPT

Test Systems Engineer Date:

Customer Representative

Quality: CONTROL

7/17

TEST DATA SHEET NO. 7
Passive Analog Interface Test (Paragraph 3.3.4)

Number	Thermistor	Required Temperature (Celsius)	Measured Temperature (Celsius)	Pass/Fail
1	A1-1 SCAN MOTOR	______* ± 5°		
2	A1-2 SCAN MOTOR	______* ± 5°		
3	A1-1 RF SHELF # 1	______* ± 5°		
4	A1-2 RF SHELF # 1	______* ± 5°		
5	A1-1 WARM LOAD	______* ± 5°		
6	A1-2 WARM LOAD	______* ± 5°		
7	A1-1 RF SHELF # 2	______* ± 5°		
8	A1-2 RF SHELF # 2	______* ± 5°		

* is the measured temperature of the unit environment

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date Quality Control Date

SHEET 83 OF ____
ECR NO. 1876

TEST DATA SHEET NO. 8
Instrument Commanding Test (Paragraph 3.3.5.2)

Step	Instrument Status	(Y)es / (N)o
12	Full Scan Mode command received?	
13	Is A1-1 motor scanning?	
14	Did A1-1 motor stop scanning?	
15	Is A1-2 motor scanning?	
16	Did A1-2 motor stop scanning?	
17	Are both motors scanning?	
18	Reflectors positioned looking at warm loads?	
19	Reflectors positioned looking at nadir?	
20	Reflectors positioned looking at cold cal 1?	
21	Reflectors positioned looking at cold cal 4?	
22	Reflectors positioned looking at cold cal 3?	
23	Reflectors positioned looking at cold cal 2?	
24	Reflectors positioned looking at cold cal 1?	
25	Did PLO toggle?	
25	Did C&DH processor reset?	

Yes = Pass No = Fail

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 9 (sheet 1 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

Step	Instrument Status	(Y)es / (N)o
1	Full Scan Mode command received?	
2	ENGR OK message seen?	
3	Unit (both reflectors) running in full scan mode?	

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000101	
4b	3-4	Packet Length		0000001010111111	
4c	5-6	Unit Serial Number		0000001100000000	
4d	7-8	Instrument Mode/ Status		10~~1~~1101000000010	

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RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	
4g	1180	Temperature Sensor Reference	23244-26317 counts	

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		YES	
	Antenna in Warm Cal Mode		NO	
	Antenna in Cold Cal Mode		NO	
	Antenna in Nadir Mode		NO	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

SHEET 85 OF
ECR NO. 1876

TEST DATA SHEET NO. 9 (sheet 2 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

REFLECTOR POSITIONS (Step 4e)								
	A1-1 REFLECTOR				A1-2 REFLECTOR			
BP	Element	Position (*)	Required (**) ± 5	(P)ass/ (F)ail	Element	Position (*)	Required (**) ± 5	(P)ass/ (F)ail
1	14				16			
2	48				50			
3	82				84			
4	116				118			
5	150				152			
6	184				186			
7	218				220			
8	252				254			
9	286				288			
10	320				322			
11	354				356			
12	388				390			
13	422				424			
14	456				458			
15	490				492			
16	524				526			
17	558				560			
18	592				594			
19	626				628			
20	660				662			
21	694				696			
22	728				730			
23	762				764			
24	796				798			
25	830				832			
26	864				866			
27	898				900			
28	932				934			
29	966				968			
30	1000				1002			
CC	1034				1036			
WC	1186				1188			

* Actual counts from printout. Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 9 (sheet 3 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

ENGINEERING DATA				
Step	Description	Measured*	Required	(P)ass/(F)ail
	Signal Processor (+5 VDC)		+4 to +6 volts	
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
4i	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

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Test Systems Engineer Date

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Customer Representative Date

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Quality Control Date

SHEET X7 OF ___
SCR NO. 1876

TEST DATA SHEET NO. 10 (Sheet 1 of 2)
Science and Engineering Data Test (Warm Cal Mode) (Paragraph 3.3.5.3.2)

Step	Instrument Status	(Y)es / (N)o
1	Warm Cal Mode command received?	
2	ENGR OK message seen?	
3	Both reflectors positioned at warm loads?	

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	
4b	3-4	Packet Length		0000001010111111	
4c	5-6	Unit Serial Number		0000001100000000	
4d	7-8	Instrument Mode/ Status		10~~1~~1101000000100	

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RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	
4g	1180	Temperature Sensor Reference	23244-26317 counts	

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	
	Antenna in Warm Cal Mode		YES	
	Antenna in Cold Cal Mode		NO	
	Antenna in Nadir Mode		NO	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

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Test Systems Engineer Date

____
Customer Representative Date

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Quality Control Date

TEST DATA SHEET NO. 10 (sheet 2 of 2)
Science and Engineering Data Test (Warm Cal Mode) (Paragraph 3.3.5.3.2)

REFLECTOR POSITIONS (Step 4e)						
	A1-1 REFLECTOR			A1-2 REFLECTOR		
BP	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						

* Actual range (min to max) of counts from printout (Only beam positions 1-30). Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 ± 5 counts for warm calibration position

Step	Description	Measured***	Required	(P)ass/(F)ail
	ENGINEERING DATA			
4i	Signal Processor (+5 VDC)		+4 to +6 volts	
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	

*** Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

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Test Systems Engineer Date

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Customer Representative Date

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Quality Control Date

SHEET 89 OF ___
ECR NO. 5276

TEST DATA SHEET NO. 11 (Sheet 1 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

Step	Instrument Status	(Y)es / (N)o
1	Cold Cal Mode command received?	
2	ENGR OK message seen?	
3	Both reflectors positioned at cold cal position 1?	
6	Cold Cal Position 2 command received?	
7	ENGR OK message seen?	
8	Both reflectors positioned at cold cal position 2?	
11	Cold Cal Position 3 command received?	
12	ENGR OK message seen?	
13	Both reflectors positioned at cold cal position 3?	
16	Cold Cal Position 4 command received?	
17	ENGR OK message seen?	
18	Both reflectors positioned at cold cal position 4?	

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	
4b	3-4	Packet Length		0000001010111111	
4c	5-6	Unit Serial Number		0000001100000000	
4d	7-8	Instrument Mode/ Status		10~~1~~1101000001000	
9a	7-8	Instrument Mode/ Status		10~~1~~1101000101000	
14a	7-8	Instrument Mode/ Status		10~~1~~1101001001000	
19a	7-8	Instrument Mode/ Status		10~~1~~1101001101000	

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RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	
4g	1180	Temperature Sensor Reference	23244-26317 counts	

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 11 (sheet 2 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	
	Antenna in Warm Cal Mode		NO	
	Antenna in Cold Cal Mode		YES	
	Antenna in Nadir Mode		NO	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	
9b	Cold Cal Position LSB		ONE	
	Cold Cal Position MSB		ZERO	
14b	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ONE	
19b	Cold Cal Position LSB		ONE	
	Cold Cal Position MSB		ONE	

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

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Test Systems Engineer Date

__________________________ __________________________
Customer Representative Date Quality Control Date

SHEET 91 OF
ECR NO. 1876

TEST DATA SHEET NO. 11 (sheet 3 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

REFLECTOR POSITIONS (Step ~~4e~~ 6e)						
BP	A1-1 REFLECTOR			A1-2 REFLECTOR		
	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #1						

REFLECTOR POSITIONS (Step ~~9c~~ 14c)						
BP	A1-1 REFLECTOR			A1-2 REFLECTOR		
	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #2						

REFLECTOR POSITIONS (Step ~~14c~~ 22c)						
BP	A1-1 REFLECTOR			A1-2 REFLECTOR		
	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #3						

REFLECTOR POSITIONS (Step ~~19c~~ 30c)						
BP	A1-1 REFLECTOR			A1-2 REFLECTOR		
	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #4						

* Actual range (min to max) of counts from printout (Only beam positions 1-30). Rewriting counts on this data sheet is optional.

7-13-

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

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7/13/98
QC 227

TEST DATA SHEET No 11 (sheet 4 of 5)

SCIENCE AND ENGINEERING DATA TEST (COLD CAL MODE) (PARAGRAPH 3.3.5.3.3)

92 OF

SHEET NO.

FOR

REFLECTOR POSITIONS (STEP 6C)

BEAM POSITION	A1-1 REFLECTOR			A1-2 REFLECTOR		
	ACTUAL POSITION*	REQUIRED** ± 5 COUNTS	(P)ASS/(F)AIL	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL
COLD CAL 1	4131	4129	P	3779	3777	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 1 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ±5 COUNTS FOR COLD CAL 1

REFLECTOR POSITIONS (STEP 14C)

BEAM POSITION	A1-1 REFLECTOR			A1-2 REFLECTOR		
	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL
COLD CAL 2	4050	4053	P	3703	3701	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 2 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ±5 COUNTS FOR COLD CAL 2

REFLECTOR POSITIONS (STEP 22C)

BEAM POSITION	A1-1 REFLECTOR			A1-2 REFLECTOR		
	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL
COLD CAL 3	3976	3977	P	3622	3625	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 3 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ± 5 COUNTS FOR COLD CAL 3

REFLECTOR POSITIONS (STEP 30C)

BEAM POSITION	A1-1 REFLECTOR			A1-2 REFLECTOR		
	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL	ACTUAL POSITION*	REQUIRED**	(P)ASS/(F)AIL
COLD CAL 4	3826	3826	P	3476	3471	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 4 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ± 5 COUNTS FOR COLD CAL 4

EOS/AMSU-A1 SYSTEM P/N 1356008 SHOP ORDER: 298561 S/N: 202

CIRCLE TEST: 1ST CPT FINAL CPT SUB CPT N/A LPT N/A

R Aj Platt 7/14/98
TEST SYSTEMS ENGINEER DATE

CUSTOMER REPRESENTATIVE DATE

QA 197
QUALITY CONTROL JUL 14 1998 DATE

SHEET 93 OF ___
ECR NO. ___

Replace By New TDS 11 A-BA [illegible] 7-1-98

TEST DATA SHEET NO. 11 (sheet 4 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
	* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1		

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
	* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1		

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
	* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1		

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
	* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1		

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

SHEET 94 OF ____
ECR NO. [illegible]

TEST DATA SHEET NO. 11 (sheet 5 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

ENGINEERING DATA				
Step	Description	Measured*	Required	(P)ass/(F)ail
	Signal Processor (+5 VDC)		+4 to +6 volts	
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
4i	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

____
Test Systems Engineer Date

____
Customer Representative Date

____
Quality Control Date

TEST DATA SHEET NO. 12 (Sheet 1 of 2)
Science and Engineering Data Test (Nadir Mode) (Paragraph 3.3.5.3.4)

Step	Instrument Status	(Y)es / (N)o
1	Nadir Mode command received?	
2	ENGR OK message seen?	
3	Both reflectors positioned at nadir position?	

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	
4b	3-4	Packet Length		0000001010111111	
4c	5-6	Unit Serial Number		0000001100000000	
4d	7-8	Instrument Mode/ Status		1001101000010000	

RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	
4g	1180	Temperature Sensor Reference	23244-26317 counts	

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	
	Antenna in Warm Cal Mode		NO	
	Antenna in Cold Cal Mode		NO	
	Antenna in Nadir Mode		YES	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

SHEET 96 OF ___
ECR NO. 1876

TEST DATA SHEET NO. 12 (sheet 2 of 2)
Science and Engineering Data Test (Nadir Mode) (Paragraph 3.3.5.3.4)

REFLECTOR POSITIONS (Step 4e)						
	A1-1 REFLECTOR			A1-2 REFLECTOR		
BP	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30						

* Actual range (min to max) of counts from printout (Only beam positions 1-30). Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for "true" nadir position.

ENGINEERING DATA				
Step	Description	Measured***	Required	(P)ass/(F)ail
4i	Signal Processor (+5 VDC)		+4 to +6 volts	
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	

*** Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer ________ Date ________

Customer Representative ________ Date ________

Quality Control ________ Date ________

TEST DATA SHEET NO. 19
1553 Bus Interface Test (Paragraph 3.3.5.4)

ATTACH BUS A WAVE FORM

			P/F
Bus A Amplitude	____________	: 18.0 – 27.0 VP-P	______
Bus A Rise Time	____________	: 100 – 300 nsec	______

ATTACH BUS B WAVE FORM

			P/F
Bus B Amplitude	____________	: 18.0 – 27.0 VP-P	______
Bus B Rise Time	____________	: 100 – 300 nsec	______

1st CPT: _______; Final CPT _______
S/O: __________
P/N: __________
SN: __________

Test Engineer Date

Quality Control Date

SHEET 98 OF ___
ECN NO. [illegible]

TEST DATA SHEET NO. 13

Noisy Bus Current Measurement During Warm Cal, Cold Cal and Nadir

Instrument Mode	Noisy Bus Current (mA)	Pass/Fail
Warm Cal A1-1 & A1-2 Scanner ON		Not Applicable
A1-1 Scanner / A1-2 Scanner OFF / ON		
A1-2 Scanner / A1-1 Scanner OFF / ON		
A1-1 Scanner / A1-2 Scanner OFF / OFF		
Cold Cal A1-1 & A1-2 Scanner ON		
Nadir A1-1 & A1-2 Scanner ON		
		Not Applicable

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________

Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

____
Test Systems Engineer Date

____
Customer Representative Date

____
Quality Control Date

AE
18

SHEET 99 OF ___
ECR NO. 1376

TEST DATA SHEET NO. 14

Test Point Interface Test (8 Second Sync Pulse TP) (Paragraph 3.3.6.2)

8 SECOND SYNC PULSE TEST POINT

Attach Photograph or Plot Here or to Back of TDS

8 SECOND SYNC PULSE TEST POINT				
Step	Parameter	Measured	Required	(P)ass / (F)ail
2	Pulse Length	seconds	8 seconds +/- 10%	
~~2~~	~~Amplitude~~	~~volts~~	~~3 - 5 volts~~	

K. Hartley 7-14-98

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________

____
Test Systems Engineer

____
Quality Control

TEST DATA SHEET NO. 16

Test Point Interface Test (Radiometer Channel Analog Output TPs) (Paragraph 3.3.6.4)

RADIOMETER CHANNEL ANALOG OUTPUT TEST POINTS

Attach Photographs or Plots Here or to Back of TDS

RADIOMETER CHANNEL ANALOG OUTPUT TEST POINTS							
Channel	Integration Time Measured (E)*	Integration Time Required 165 (ms)	Hold Time Measured (F)*	Hold Time Required (ms)	Dump Time Measured (F)*	Dump Time Required (ms)	(P)ass / (F)ail
3	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
4	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
5	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
6	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
7	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
8	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
9	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
10	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
11	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
12	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
13	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
14	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	
15	ms	~~158~~ ± 5 ms	ms	23-27	ms	9-15	

NOT REQUIRED

* Refer to Figure 18 for Waveform Definition

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________

Circle Test: 1st CPT Final CPT Sub CPT ________

____

Test Systems Engineer Date

____

Quality Control Date

SHEET 102 OF ____
ECR NO. 1876

TEST DATA SHEET NO. 17

Test Point Interface Test (PLO #1 and PLO #2 Lock TPs) (Paragraph 3.3.6.5)

PLO LOCK DETECT TEST POINTS

Attach Photographs or Plots Here or to Back of TDS

PLO LOCK DETECT TEST POINTS				
Step	Parameter	Measured	Required	(P)ass / (F)ail
3	PLO #1 Lock Detect*	volts	± ~~0.1~~ volt	
6	PLO #2 Lock Detect**	volts	± ~~0.1~~ volt	

± 1.0 Volt

* When PLO #1 is selected
** When PLO #2 is selected

EOS/AMSU-A1 System P/N 1356008   Shop Order: ________   S/N: ________
Circle Test: 1st CPT   Final CPT   Sub CPT ________

____
Test Systems Engineer   Date

____
Quality Control   Date

TEST DATA SHEET NO. 18
Test Point Interface Test (GSE Modes) (Paragraphs 3.3.6.6 - 3.3.6.11)

	GSE MODES					
	1	2	3	4	5	7
	MODE OBSERVED? (YES/NO)					
	DATA REVIEWED? (YES/NO)					
Printout data						
Packet ID						
Packet Length						
Unit Serial Number						
Instrument Mode/Status						
Reflector Positions						
Radiometer Scene Data						
PRT Temperature Data						
Engineering Data						

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT

Test Systems Engineer Date

Quality Control Date

SHEET 104 OF
ECR NO. 1876

TEST DATA SHEET NO. 19
Radiometer Functional Performance Test (PLO Frequency Measurements) (Paragraph 3.3.7.1)

PLO FREQUENCY MEASUREMENTS			
PLO	Measured Frequency (GHz)	Required Frequency (GHz)	Pass/Fail
# 1		57.290294 - 57.290394	
# 2		57.290294 - 57.290394	

P = Pass F = Fail

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 20 (Sheet 1 of 2)
Radiometer Functional Performance Test (Relative NEΔT Measurements*) (Paragraph 3.3.7.2)
PLO #1 Turned On

RELATIVE NEΔT MEASUREMENTS (PLO #1 ACTIVE)			
Channel Number	Average NEΔT for 5 Data Sets (K)	Required** NEΔT (K)	Pass/Fail
3		0.40	
4		0.25	
5		0.25	
6		0.25	
7		0.25	
8		0.25	
9		0.25	
10		0.40	
11		0.40	
12		0.60	
13		0.80	
14		1.20	
15		0.50	

P = Pass F = Fail
* Baseline data for acceptance tests. Use 1st CPT data along with specification value for pass/fail criteria.
** For reference only

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

SHEET 10_ OF
ECR NO. 12710

TEST DATA SHEET NO. 20 (Sheet 2 of 2)
Radiometer Functional Performance Test (Relative NEΔT Measurements*) (Paragraph 3.3.7.2)
PLO #2 Turned On

RELATIVE NEΔT MEASUREMENTS (PLO #2 ACTIVE)			
Channel Number	Average NEΔT for 5 Data Sets (K)	Required** NEΔT (K)	Pass/Fail
3	Not Applicable	0.40	Not Applicable
4		0.25	
5		0.25	
6		0.25	
7		0.25	
8		0.25	
9		0.25	
10		0.40	
11		0.40	
12		0.60	
13		0.80	
14		1.20	
~~15~~	NOT APPLICABLE	~~0.50~~	NOT APPLICABLE

P = Pass F = Fail

* Baseline data for acceptance tests. Use 1st CPT data along with specification value for pass/fail criteria.

** For reference only

EOS/AMSU-A1 System P/N 1356008 Shop Order: ________ S/N: ________
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

________________________ Test Systems Engineer Date

Customer Representative Date

________________________ Quality Control Date

CHANNEL IDENTIFICATION TEST SHEET 107 OF ECR NO. 1876 06/18/98

TEST DATA SHEET 21
Channel Identification Test
(para 3.3.8)

P.K. Patel 7/14/98 QC 227

Channel Number	Antenna Location	Sweeper Freq. Setting (GHz)	Polarization (H/V)	Radiometric Data ~~Counts~~ Δ Counts	Channel Verified (Yes/No)
3	A1-2	50.35	V	~~16666~~ 0	YES
4	A1-2	52.85	V	9162	YES
5	A1-2	53.70	H	15635	YES
6	A1-1	54.45	H	15681	YES
7	A1-1	54.99	V	16598	YES
8	A1-2	55.55	H	15873	YES
9	A1-1	57.34	H	16056	YES
10	A1-1	57.50	H	15953	YES
11	A1-1	57.564	H	15903	YES
12	A1-1	57.59	H	15557	YES
13	A1-1	57.602	H	15640	YES
14	A1-1	57.608	H	15237	YES
15	A1-1	89.55	V	16252	YES

QC 227 P.K. 7/1

S/N 202

EOS/AMSU-A1 System P/N 1356008 Shop order 298561

Circle Test: CPT Final CPT Sub CPT PT

R.A. Platt 7/14/98

Test Date

QC 197 JUL 14 1998

Customer Rep. Date Quality control Date

P.K. Patel 7/14/98 QC 227

ChIDTest.doc

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P.K. Patel 7/14/98

GENCORP AEROJET

DOCUMENT APPROVAL SHEET

TITLE	DOCUMENT NO.
Process Specification EOS/AMSU-A1 System Comprehensive and Limited Performance Tests Test Procedure	AE-26156/9 18 June 1998

INPUT FROM: P. Patel	DATE	CDRL: 409	SPECIFICATION ENGINEER:	DATE
CHECKED BY:	DATE		JOB NUMBER:	DATE

APPROVED SIGNATURES

	DEPT. NO.	DATE
Specifications Engineering (J. Kirk) RV Hauerwaas PMO	8631	6/30/98
Product Team Leader (A. Nieto) P. R. Patel	8341	6/30/98
Systems Engineer (R. Platt) R W Platt	8311	6/30/98
Safety (W. Neighbors) Tom Nicholas for	8331	6/30/98
Design Assurance (E. Lorenz) Albert Schlieter	8331	6/30/98
Quality Assurance (R. Taylor) RM Taylor	7831	6-30-98
Technical Director/PMO (R. Hauerwaas) RV Hauerwaas	4001	6/30/98
Configuration Management (J. Cavanaugh) J Cavanaugh	8361	7/1/98

This Revision incorporated approved Master Mark-Ups dated 18 June 1998

By my signature, I certify the above document has been reviewed by me and concurs with the technical requirements related to my area of responsibility.

RELEASE (Data Center) FINAL

Carla Marks Sundo 7-06-98

APPENDIX A

TEST DATA SHEETS

10. APPENDIX A

10.1 *Scope.* This appendix contains the test data sheets for all tests and inspections listed in section 3.

TEST DATA SHEET NO. 1 (Sheet 1 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J1 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J1-1	+29V QUIET PWR BUS	> 1M	>1MEG	P
J1-2	+29V QUIET PWR BUS	> 1M		
J1-3	29V QUIET BUS RTN	> 1M		
J1-4	29V QUIET BUS RTN	> 1M		
J1-5	+29V NOISY PWR BUS	> 1M		
J1-6	+29V NOISY PWR BUS	> 1M		
J1-7	29V NOISY BUS RTN	> 1M		
J1-8	29V NOISY BUS RTN	> 1M		
J1-9	SURVIVAL PWR BUS A	> 1M		
J1-10	SURVIVAL BUS A RTN	> 1M		
J1-11	SURVIVAL PWR BUS A	> 1M		
J1-12	SURVIVAL BUS A RTN	> 1M		
J1-13	CHASSIS GROUND	< 1	.135Ω	
J1-14	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-15	+29V QUIET PWR BUS	> 1M		
J1-16	29V QUIET BUS RTN	> 1M		
J1-17	29V QUIET BUS RTN	> 1M		
J1-18	+29V NOISY PWR BUS	> 1M		
J1-19	+29V NOISY PWR BUS	> 1M		
J1-20	29V NOISY BUS RTN	> 1M		
J1-21	29V NOISY BUS RTN	> 1M		
J1-22	SURVIVAL PWR BUS B	> 1M		
J1-23	SURVIVAL BUS B RTN	> 1M		
J1-24	SURVIVAL PWR BUS B	> 1M		
J1-25	SURVIVAL BUS B RTN	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT ______ LPT ______

R. Hall 7/13/98
Test Systems Engineer Date

J. Sanford 7-22-98
Customer Representative Date

JUN 14 1998
Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 2 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J2 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J2-1	A1-1 MOTOR TEMP HI	> 1M	>1MEG	P
J2-2	A1-1 MOTOR TEMP LO	> 1M		
J2-3	A1-1 RECEIVER TEMP 1 HI	> 1M		
J2-4	A1-1 RECEIVER TEMP 1 LO	> 1M		
J2-5	A1-1 WARM LOAD TEMP HI	> 1M		
J2-6	A1-1 WARM LOAD TEMP LO	> 1M		
J2-7	A1-2 MOTOR TEMP HI	> 1M		
J2-8	A1-2 MOTOR TEMP LO	> 1M		
J2-9	A1-2 RECEIVER TEMP 1 HI	> 1M		
J2-10	A1-2 RECEIVER TEMP 1 LO	> 1M		
J2-11	A1-2 WARM LOAD TEMP HI	> 1M		
J2-12	A1-2 WARM LOAD TEMP LO	> 1M		
J2-13	No Connection	> 1M		
J2-14	No Connection	> 1M		
J2-15	No Connection	> 1M		
J2-16	No Connection	> 1M		
J2-17	No Connection	> 1M		
J2-18	No Connection	> 1M		
J2-19	No Connection	> 1M		
J2-20	No Connection	> 1M		
J2-21	No Connection	> 1M		
J2-22	A1-1 RECEIVER TEMP 2 HI	> 1M		
J2-23	A1-1 RECEIVER TEMP 2 LO	> 1M		
J2-24	No Connection	> 1M		
J2-25	No Connection	> 1M		
J2-26	No Connection	> 1M		
J2-27	No Connection	> 1M		
J2-28	A1-2 RECEIVER TEMP 2 HI	> 1M		
J2-29	A1-2 RECEIVER TEMP 2 LO	> 1M		
J2-30	No Connection	> 1M		
J2-31	No Connection	> 1M		
J2-32	No Connection	> 1M		
J2-33	No Connection	> 1M		
J2-34	No Connection	> 1M		
J2-35	No Connection	> 1M		
J2-36	No Connection	> 1M		
J2-37	No Connection	> 1M		

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer — Date: 7/13/98

Quality Control — Date: JUL 14 1998

Customer Representative — Date: 7-21-98

TEST DATA SHEET NO. 1 (Sheet 3 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J3 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J3-1	1553 INTERFACE DATA A HI	> 100K	>100K	PASS
J3-2	1553 INTERFACE DATA A LO	> 100K	>100K	
J3-3	No Connection	> 1M	>1M	
J3-4	1553 INTERFACE DATA B LO	> 100K	>100K	
J3-5	1553 INTERFACE DATA B HI	> 100K	>100K	
J3-6	1553 INTERFACE DATA A SHIELD	< 1	0.25	
J3-7	No Connection	> 1M	>1M	
J3-8	No Connection	> 1M	>1M	
J3-9	1553 INTERFACE DATA B SHIELD	< 1	0.26	PASS

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT ________ LPT ________

Test Systems Engineer 7-13-98 Date

Customer Representative 7-22-98 Date

Quality Control JUL 14 1998 Date

TEST DATA SHEET NO. 1 (Sheet 4 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

J4 of Spacecraft Interface				
From Chassis Ground to	Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J4-1	CHASSIS GROUND	< 1	.118Ω	Pass
J4-2	8 SECOND SYNC PULSE TP	> 100K	>100K	
J4-3	PLO #2 LOCK TP	>20K ~~>100K~~ 7/13/98	22K	
J4-4	PLO LOCK RTN (7/8)	< 1	.97 ~~1.07Ω~~	
J4-5	I/H & DUMP RTN (2/3)	< 1 7/13/98	.291Ω	
J4-6	DUMP COMMAND TP	> 100K	~~44.9K~~ >100k	
J4-7	No Connection	> 1M	>1MEG	
J4-8	CH 3 ANALOG OUT TP	> 100K	>100K	
J4-9	CH 4 ANALOG OUT TP	> 100K		
J4-10	CH 5 ANALOG OUT TP	> 100K		
J4-11	CH 6 ANALOG OUT TP	> 100K		
J4-12	CH 7 ANALOG OUT TP	> 100K		
J4-13	CH 8 ANALOG OUT TP	> 100K		
J4-14	CH 9 ANALOG OUT TP	> 100K		
J4-15	No Connection	> 1M	>1MEG	
J4-16	No Connection	> 1M	>1MEG	
J4-17	GSE COMMAND LSB	> 5K	>5K	
J4-18	GSE COMMAND MSB-1	> 5K	>5K	
J4-19	No Connection	> 1M	>1MEG	
J4-20	1.248 MHz CLOCK TP	> 100K	>100K	
J4-21	1.248 MHz CLOCK RTN (1)	< 1	.328Ω	
J4-22	PLO #1 LOCK TP	>20K ~~>100K~~ 7/13/98	22K	
J4-23	No Connection	> 1M	>1MEG	
J4-24	I/H COMMAND TP	> 100K	>100K	
J4-25	No Connection	> 1M	>1MEG	
J4-26	ANALOG OUT RTN (2/3)	< 1	.280Ω	
J4-27	CH 10 ANALOG OUT TP	> 100K	>100K	
J4-28	CH 11 ANALOG OUT TP	> 100K		
J4-29	CH 12 ANALOG OUT TP	> 100K		
J4-30	CH 13 ANALOG OUT TP	> 100K		
J4-31	CH 14 ANALOG OUT TP	> 100K		
J4-32	CH 15 ANALOG OUT TP	> 100K		
J4-33	No Connection	> 1M	>1MEG	
J4-34	No Connection	> 1M	>1MEG	
J4-35	GSE COMMAND MSB	> 5K	>5K	
J4-36	GSE COMMAND RTN (1)	< 1	.31Ω	
J4-37	No Connection	> 1M	>1MEG	Pass

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R. Hair 7/13/98
Test Systems Engineer Date

J. Cranford 7-22-98
Customer Representative Date

JUL 14 1998
Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 5 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

Source	Destination	Source Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail*
J1-1	J1-2	+29V QUIET PWR BUS	<1	.257Ω	P
J1-1	J1-14	+29V QUIET PWR BUS	<1	.268Ω	
J1-1	J1-15	+29V QUIET PWR BUS	<1	.261Ω	
J1-3	J1-4	29V QUIET BUS RTN	<1	.259Ω	
J1-3	J1-16	29V QUIET BUS RTN	<1	.258Ω	
J1-3	J1-17	29V QUIET BUS RTN	<1	.256Ω	
J1-5	J1-6	+29V NOISY PWR BUS	<1	.247Ω	
J1-5	J1-18	+29V NOISY PWR BUS	<1	.269Ω	
J1-5	J1-19	+29V NOISY PWR BUS	<1	.268Ω	
J1-7	J1-8	29V NOISY BUS RTN	<1	.240Ω	
J1-7	J1-20	29V NOISY BUS RTN	<1	.260Ω	
J1-7	J1-21	29V NOISY BUS RTN	<1	.259Ω	
J1-9	J1-11	SURVIVAL PWR BUS A	<1	.226Ω	
J1-10	J1-12	SURVIVAL BUS A RTN	<1	.223Ω	
J1-22	J1-24	SURVIVAL PWR BUS B	<1	.228Ω	
J1-23	J1-25	SURVIVAL BUS B RTN	<1	.228Ω	
J1-1	J1-5	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-1	J1-7	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-1	J1-9	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-1	J1-10	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-1	J1-22	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-1	J1-23	+29V QUIET PWR BUS	> 1M	>1MEG	
J1-3	J1-5	29V QUIET BUS RTN	> 1M	>1MEG	
J1-3	J1-7	29V QUIET BUS RTN	> 1M	>1MEG	
J1-3	J1-9	29V QUIET BUS RTN	> 1M	>1MEG	

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R. Haigh 7/13/98
Test Systems Engineer Date

J. Sanford 7-22-98
Customer Representative Date

JUL 1 4 1998
Quality Control Date

TEST DATA SHEET NO. 1 (Sheet 6 of 6)
Grounding Interface Test (Paragraph 3.3.2, Step 2)

Source	Destination	Source Pin Description	Required Resistance (Ohms)	Measured Value (Ohms)	Pass/Fail
J1-3	J1-10	29V QUIET BUS RTN	> 1M	>1MEG	P
J1-3	J1-22	29V QUIET BUS RTN	> 1M	>1MEG	
J1-3	J1-23	29V QUIET BUS RTN	> 1M	>1MEG	
J1-5	J1-9	+29V NOISY PWR BUS	> 1M	>1MEG	
J1-5	J1-10	+29V NOISY PWR BUS	> 1M	>1MEG	
J1-5	J1-22	+29V NOISY PWR BUS	> 1M	>1MEG	
J1-5	J1-23	+29V NOISY PWR BUS	> 1M	>1MEG	
J1-7	J1-9	29V NOISY BUS RTN	> 1M	>1MEG	
J1-7	J1-10	29V NOISY BUS RTN	> 1M	>1MEG	
J1-7	J1-22	29V NOISY BUS RTN	> 1M	>1MEG	
J1-7	J1-23	29V NOISY BUS RTN	> 1M	>1MEG	
J1-9	J1-22	SURVIVAL PWR BUS A	> 1M	>1MEG	
J1-9	J1-23	SURVIVAL PWR BUS A	> 1M	>1MEG	
J1-10	J1-22	SURVIVAL BUS A RTN	> 1M	>1MEG	
J1-10	J1-23	SURVIVAL BUS A RTN	> 1M	>1MEG	
J1-13	J1 OUTER SHELL	CHASSIS GROUND	< 1	.131Ω	
J1-13	J2 OUTER SHELL	CHASSIS GROUND	< 1	.130Ω	
J1-13	J3 OUTER SHELL	CHASSIS GROUND	< 1	.131Ω	
J1-13	J4 OUTER SHELL	CHASSIS GROUND	< 1	.130Ω	
J3-1	J3-5	1553 INTERFACE DATA A HI	> 100K	>1MEG	
J3-1	J3-4	1553 INTERFACE DATA A HI	> 100K	>1MEG	
J3-2	J3-5	1553 INTERFACE DATA A LO	> 100K	>1MEG	
J3-2	J3-4	1553 INTERFACE DATA A LO	> 100K	>1MEG	

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

7/13/98
Test Systems Engineer Date

7-22-98
Customer Representative Date

JUL 14 1998
Quality Control Date

TEST DATA SHEET NO. 2
Quiet Power Bus Operational Power Test (Paragraph 3.3.3.1.1)

Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	PLO	Maximum Peak Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Peak Power (QBV x QBI) (Watts)	Pass/Fail
26.95 - 27.05	27.03V	#1	2.5848 A.	≤94	69.86 Watts	P
28.95 - 29.05	29.01 V	#1	2.388 A	≤94	69.27 Watts	P
30.95 - 31.05	31.01 V	#1	2.229 A	≤94	69.12 Watts	P
26.95 - 27.05	27.03 V	#2	2.586 A	≤94	69.89 Watts	P
28.95 - 29.~~05~~ 10	29.09 V	#2	2.40 A	≤94	69.81 Watts	P
30.95 - 31.05	31.04V	#2	2.2486 A	≤94	69.79 Watts	P

QC 227
7/14/98

Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	PLO	Average Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Average Power (QBV x QBI) (Watts)	Pass/Fail
26.95 - 27.05	27.03V	#1	2.555 A	≤~~88~~ 86	69.06 Watts	P
28.95 - 29.05	29.01 V	#1	2.3855 A	≤~~88~~ 86	69.20 Watts	P
30.95 - 31.05	31.01 V	#1	2.218 A	≤~~88~~ 86	68.78 Watts	P
26.95 - 27.05	27.03 V	#2	2.612 A	≤~~88~~ 86	70.6 Watts	P
28.95 - 29.~~05~~ 10	29.09 V	#2	2.407 A	≤~~88~~ 86	70.01 Watts	P
30.95 - 31.05	31.04V	#2	2.216 A	≤~~88~~ 86	67.66 Watts	P

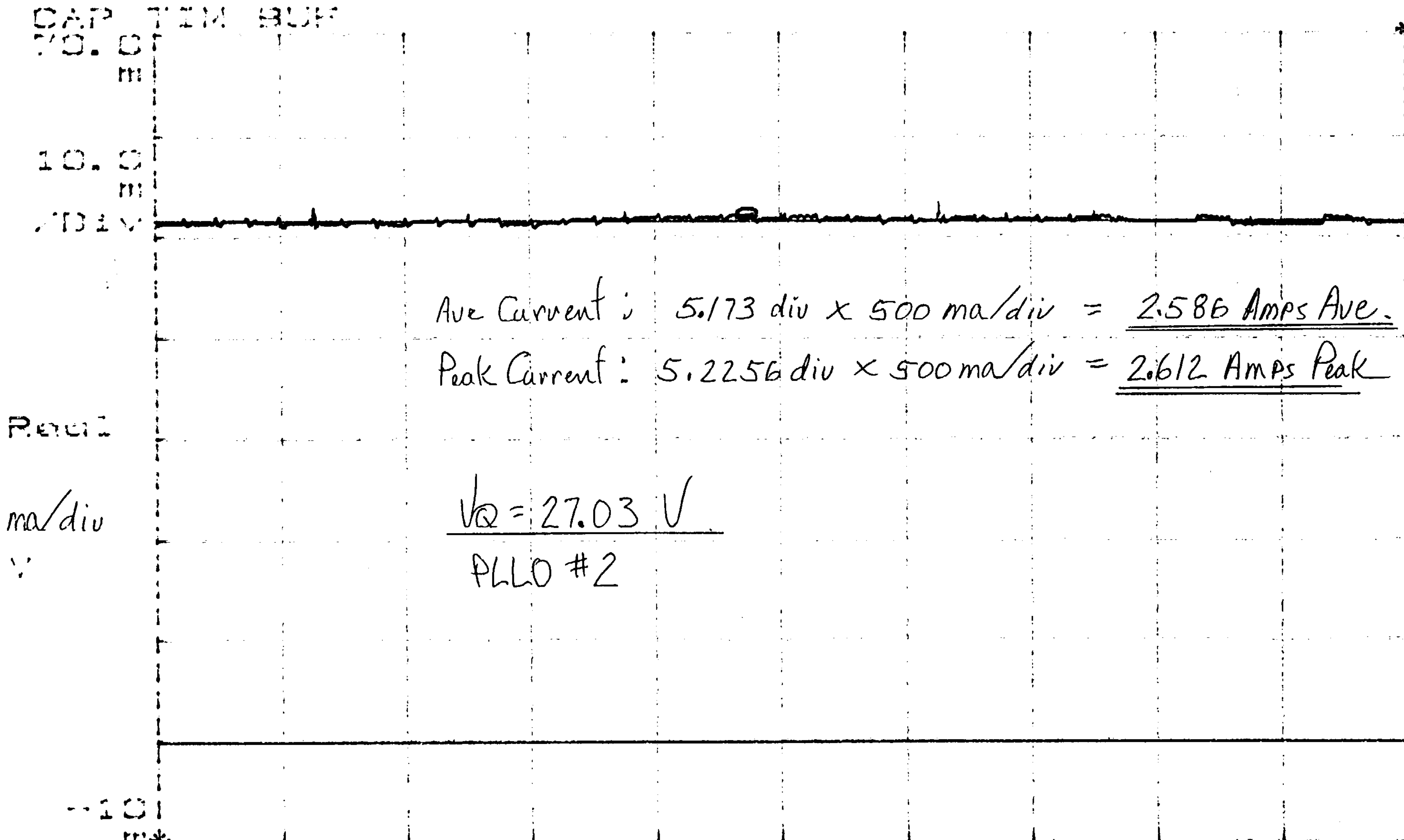
7/14/98
QC 227
QC 227
7/14/98

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A

J. Sanford 7-22-98	7-14-98
Customer Representative Date	Test Systems Engineer Date
	JUL 14 1998
	Quality Control Date

X=3.793 Sec
Ya=52.2566mV

Y=-157.58μ ΔY=51.73mV



Qbus Ave Current
Qbus Peak Current

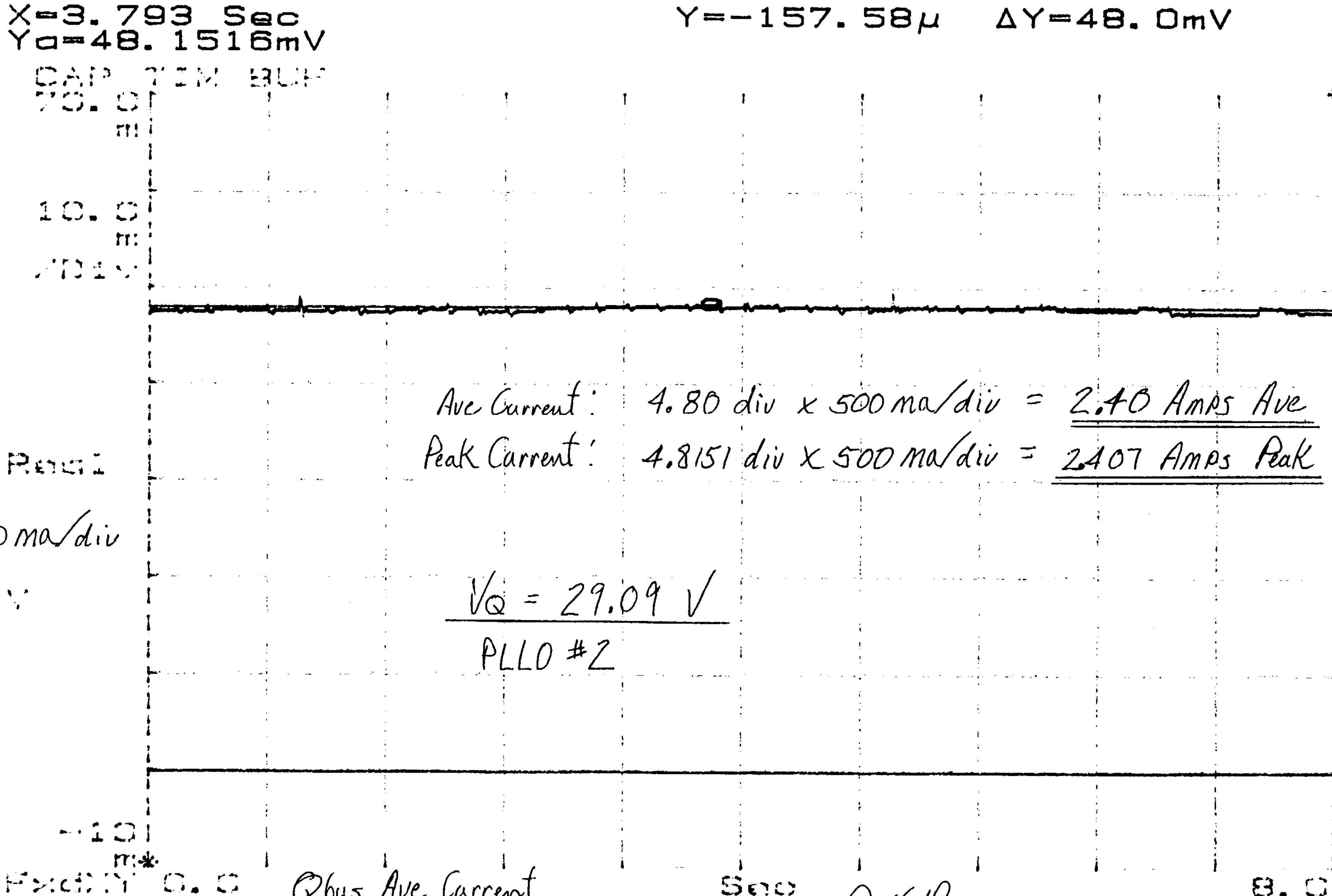
S/O: 278561

P/N: 1356008-1-1T SN: 202

Test Eng: [signature]

Quality [stamp] JUL 14 1998

Date: 7-14-98



Ave Current: 4.80 div x 500 ma/div = 2.40 Amps Ave

Peak Current: 4.8151 div X 500 ma/div = 2.407 Amps Peak

V_Q = 29.09 V

PLLO #2

Qbus Ave Current
Qbus Peak Current

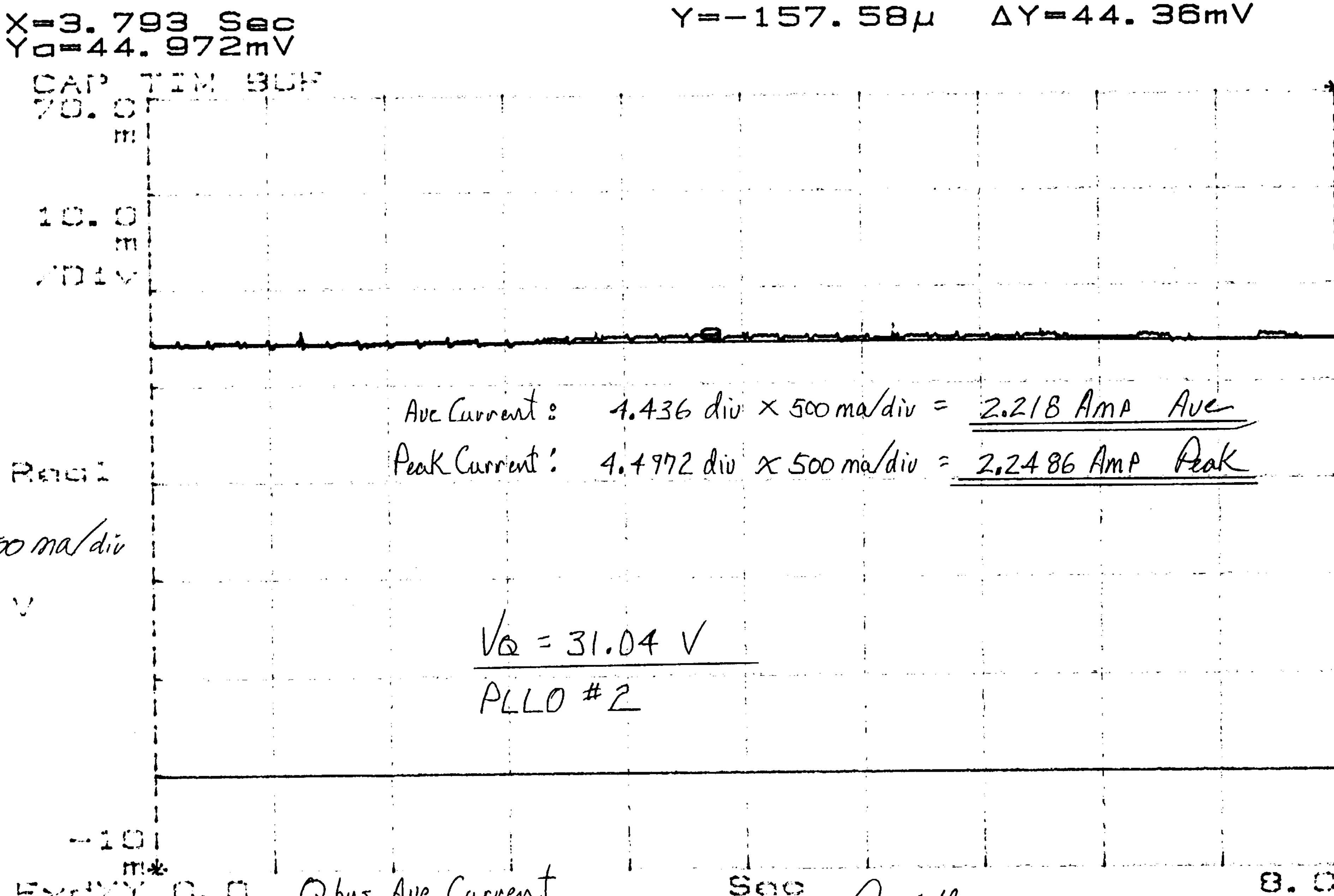
S/O: 298561

P/N: 135600B-1-1T SN: 202

Test Eng: [signature] Date: 7-14-98

Quality:

JUL 14 1998



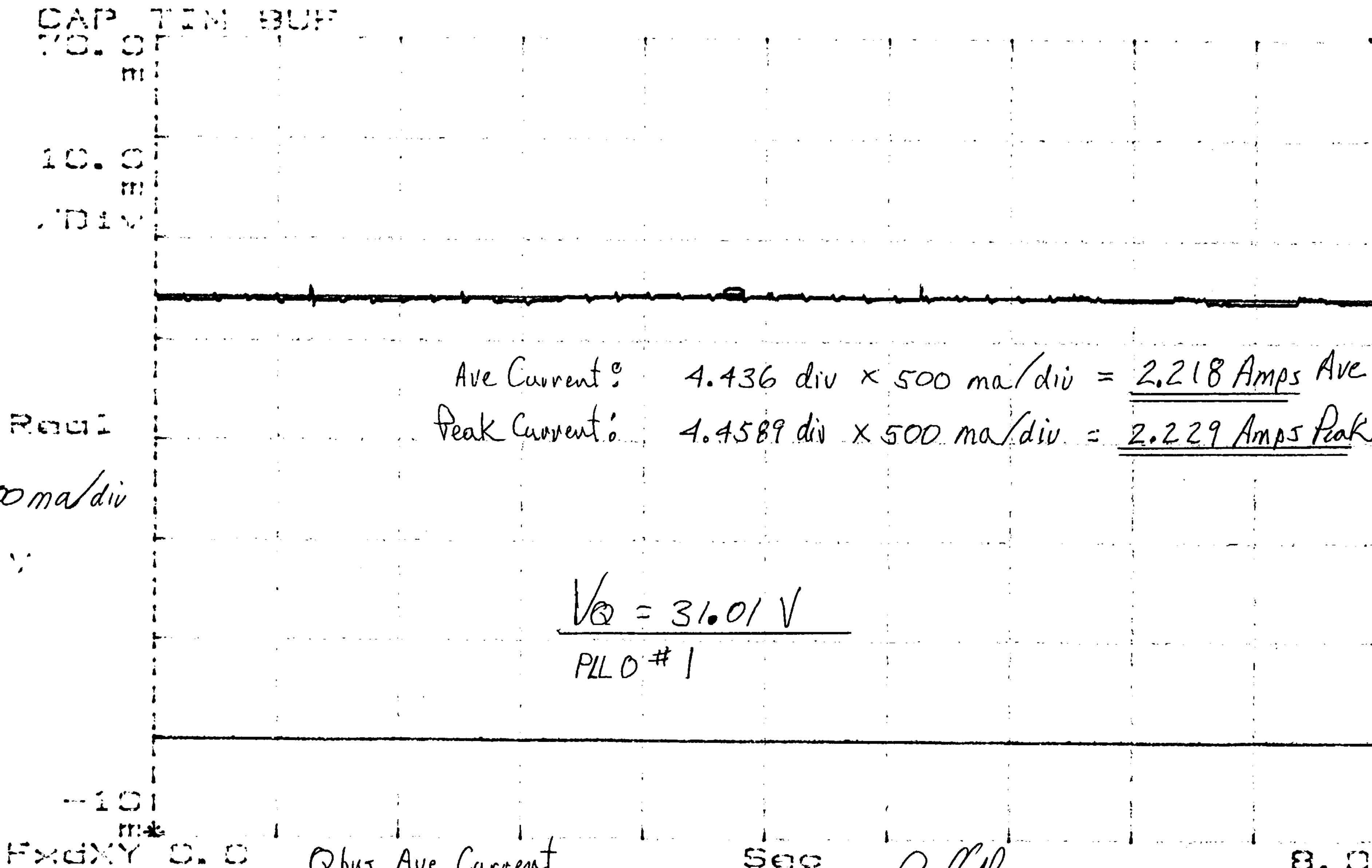
S/O: 278561

P/N: 1356008-1-1T SN: 202

Test Eng: [signature] Date: 7-14-98

Quality: JUL 14 1998

X=3.793 Sec Y=-157.58µ ΔY=44.36mV
Ya=44.5891mV



500 ma/div

Ave Current: 4.436 div × 500 ma/div = 2.218 Amps Ave

Peak Current: 4.4589 div × 500 ma/div = 2.229 Amps Peak

V_Q = 31.01 V

PLLO # 1

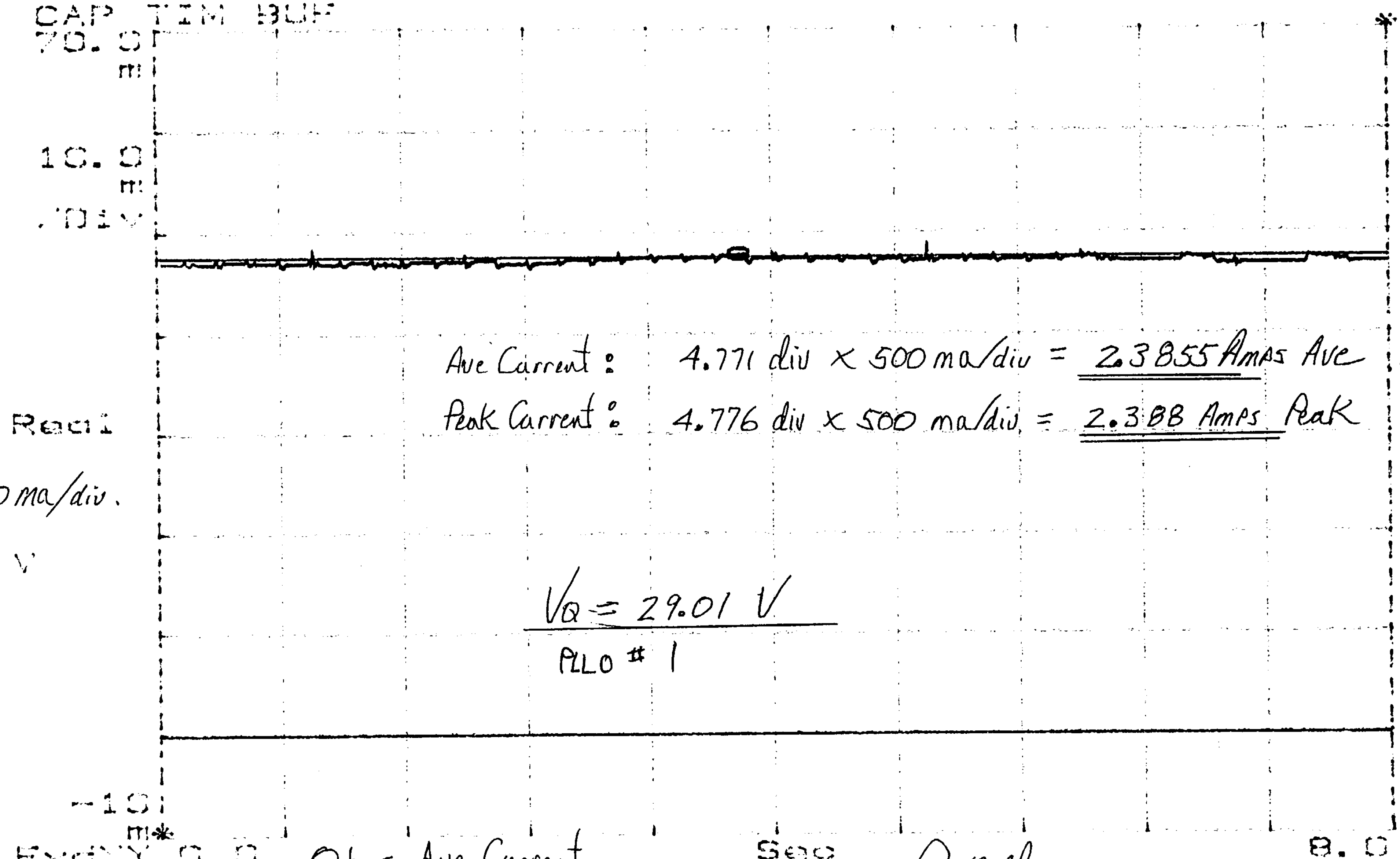
Qbus Ave Current
Qbus Peak Current
1ST CPT

S/O: 298561
P/N: 1356008-1-1T SN: 202

Test Eng: [signature] Date: 07-14-98

Quality: JUL 14 1998

X=3.793 Sec   Y=-157.58μ   ΔY=47.71mV
Ya=47.7609mV



Ave Current: 4.771 div × 500 ma/div = 2.3855 Amps Ave

Peak Current: 4.776 div × 500 ma/div = 2.388 Amps Peak

$V_Q = 29.01\ V$

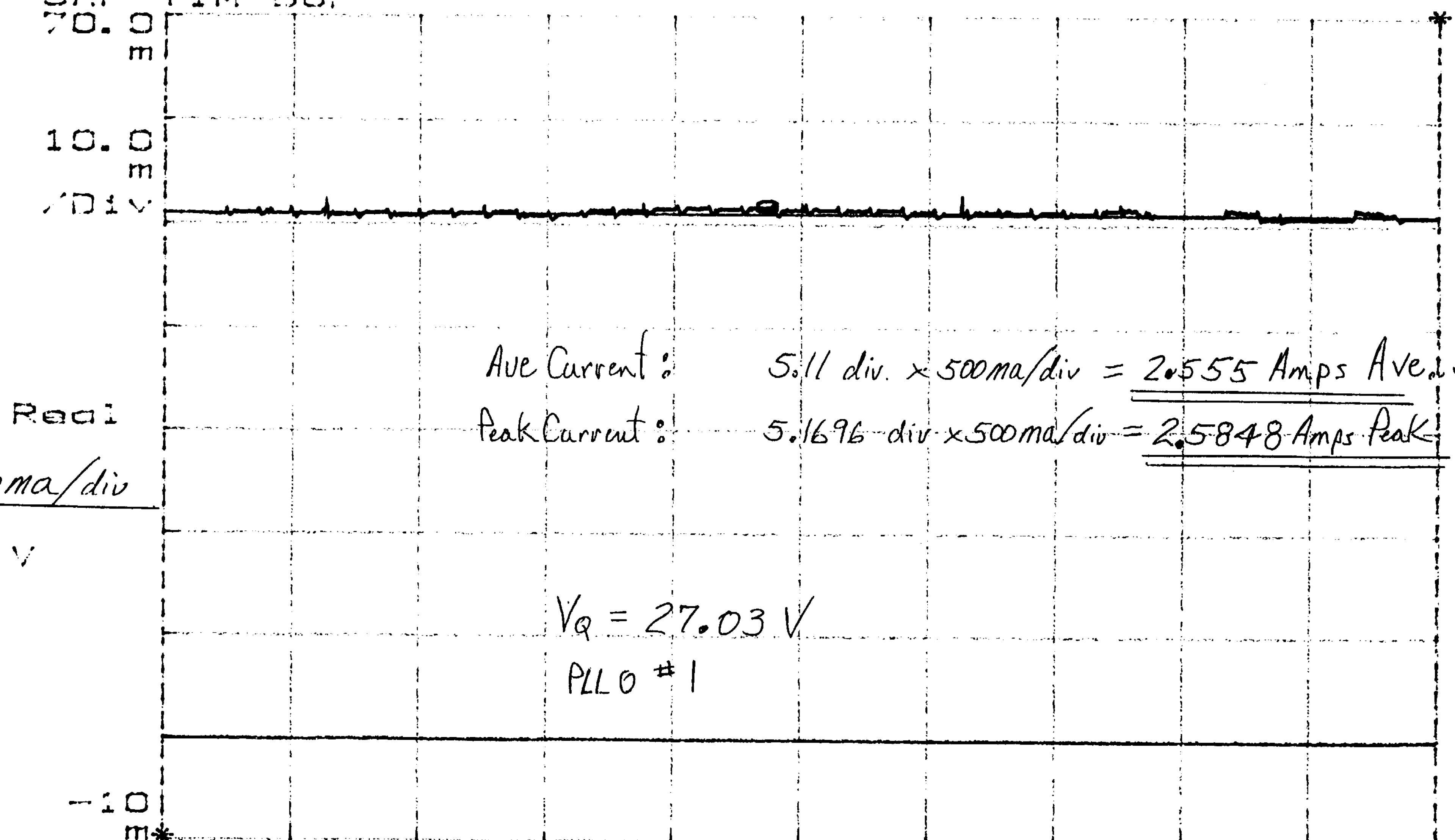
PLLO # 1

S/O: 278561   Qbus Ave Current   Test Eng: [signature]   Date: 7-14-98

P/N: 1356008-1-1T   SN: 202   Qbus Peak Current   Quality: [signature]   JUL 14 1998

1st CAT

X=3.793 Sec   Y=-157.58μ   ΔY=51.1mV
Ya=51.6963mV
CAP TIM BUF



FxdXY 0.0   Sec   8.0

Qbus Ave Current
Qbus Peak Current

S/O: 298561

P/N: 1356008-1-1T SN: 202 1st CPT

Test Eng: Ray Herzberg Date: 7-14-98

Quality: JUL 14 1998

TEST DATA SHEET NO. 3
Quiet Power Bus Operational Power Test (LPT) (Paragraph 3.3.3.1.2)

Required Quiet Bus Voltage QBV (Volts)	Measured QBV (Volts)	Average Quiet Bus Current QBI (Amps)	Required Power (Watts)	Calculated Average Power (QBV x QBI) (Watts)	Pass/Fail
28.95 - 29.05	29.0	2.27	~~≤88~~ 86	65.83	P

RHP
7/14/98 QC 227

EOS/AMSU-A1 System P/N 1356008 Shop Order: 245561 S/N: 202
LPT N/A

Test Systems Engineer 7/14/98 Date

Quality Control 197 JUL 14 1998 Date

Customer Representative 7-22-98 Date

AE-26156/9
18 June 1998

TEST DATA SHEET NO. 4
Quiet Power Bus Turn On Transient Test (Paragraph 3.3.3.1.3)

+31 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	~~1.317~~ 5.194 Amps	<10.6 Amps	P
Pulse Width (Steady State)	~~229.3~~ 229.3 ms	<250 ms ~~<150 ms~~	P
Rate of Change(slope): dI/dT	~~2.344~~ 8.936 ma/µs	<677 mA/µs	P
Pulse Width (Transient)	64ms ~~64 ms~~	<100 ms	P

+29 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	4.748 Amps	<10.6 Amps	P
Pulse Width (Steady State)	207.4 ms	<250 ms ~~<150 ms~~	P
Rate of Change(slope): dI/dT	~~1.03~~ 10.3 ma/µs	<677 mA/µs	P
Pulse Width (Transient)	64ms ~~64 ms~~	<100 ms	P

+27 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	4.792 Amps	<10.6 Amps	P
Pulse Width (Steady State)	223.6 ms	<250 ms ~~<150 ms~~	P
Rate of Change(slope): dI/dT	12.78 ma/µs	<677 mA/µs	P
Pulse Width (Transient)	60 ms	<100 ms	P

EOS/AMSU-A1 P/N: 1356008-1-1T SN: 202
S/O: 298561
Circle Test (1st CPT) Final CPT Sub CPT ____ LPT ____

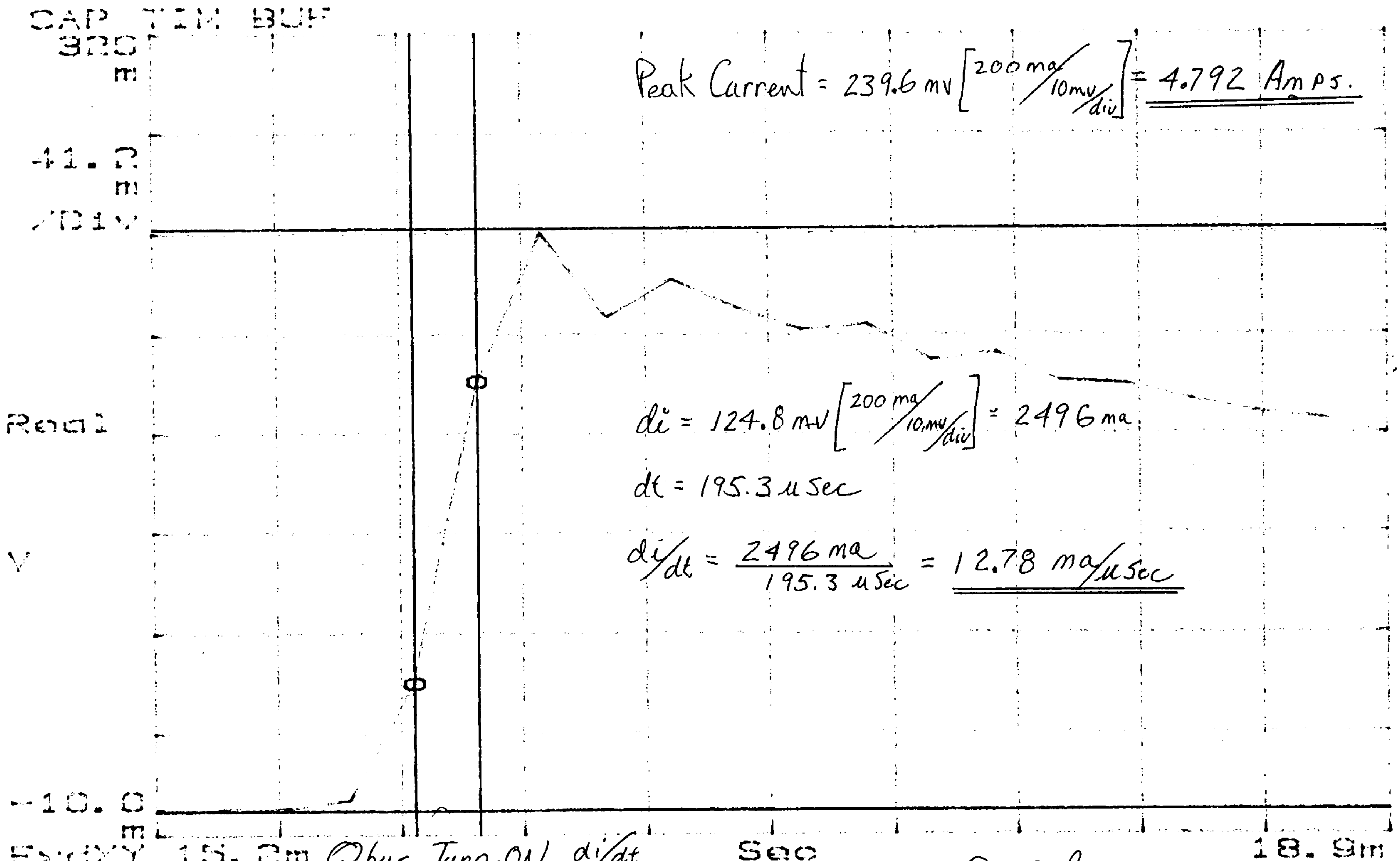
R H Platt 7/14/98
Test Systems Engineer DATE

J Sanford 7-22-98
Customer Representative Date

JUL 14 98
Quality Control DATE

P.R. Patel 7/14/98

X=16.21mS ΔX=195.3µS Y=-200.0µ ΔY=239.6mV
Ya=176.272m ΔYa=124.8mV



Peak Current $= 239.6\,mv\left[\frac{200\,ma}{10\,mv/div}\right] = \underline{\underline{4.792\ Amps.}}$

$di = 124.8\,mv\left[\frac{200\,ma}{10\,mv/div}\right] = 2496\,ma$

$dt = 195.3\,\mu Sec$

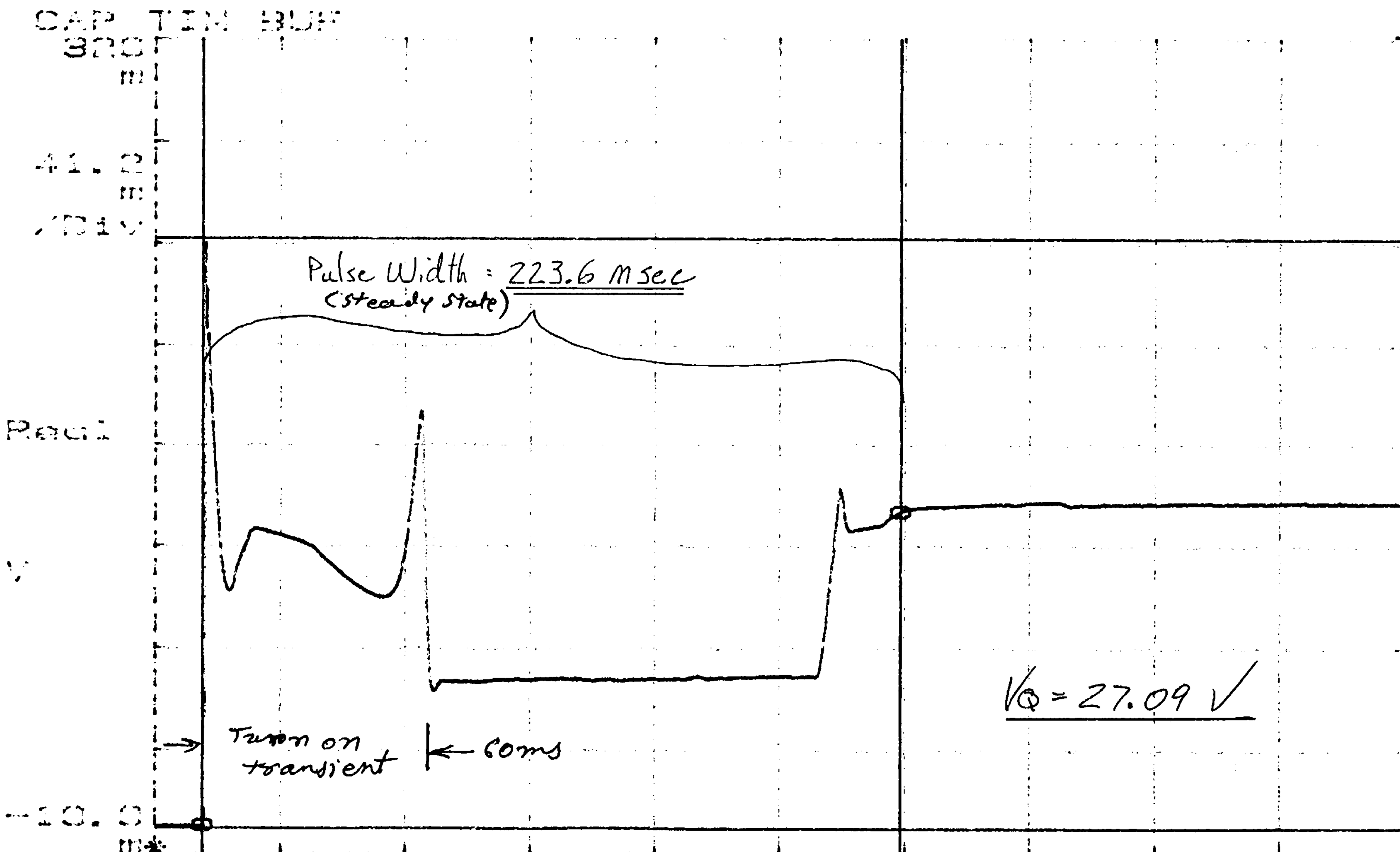
$di/dt = \frac{2496\,ma}{195.3\,\mu Sec} = \underline{\underline{12.78\ ma/\mu Sec}}$

Qbus Turn-ON di/dt
Qbus Turn-ON Peak Current
1st CPT

S/O: 298561
P/N: 1356008-1-1T SN: 202

Test Eng: Ray Hagberg Date: 7-14-98
Quality: 62 JUL 14 1998

X=15.23mS ΔX=223.6mS Y=-200.0μ ΔY=239.6mV
Ya=615.441μ ΔYa=127.0mV

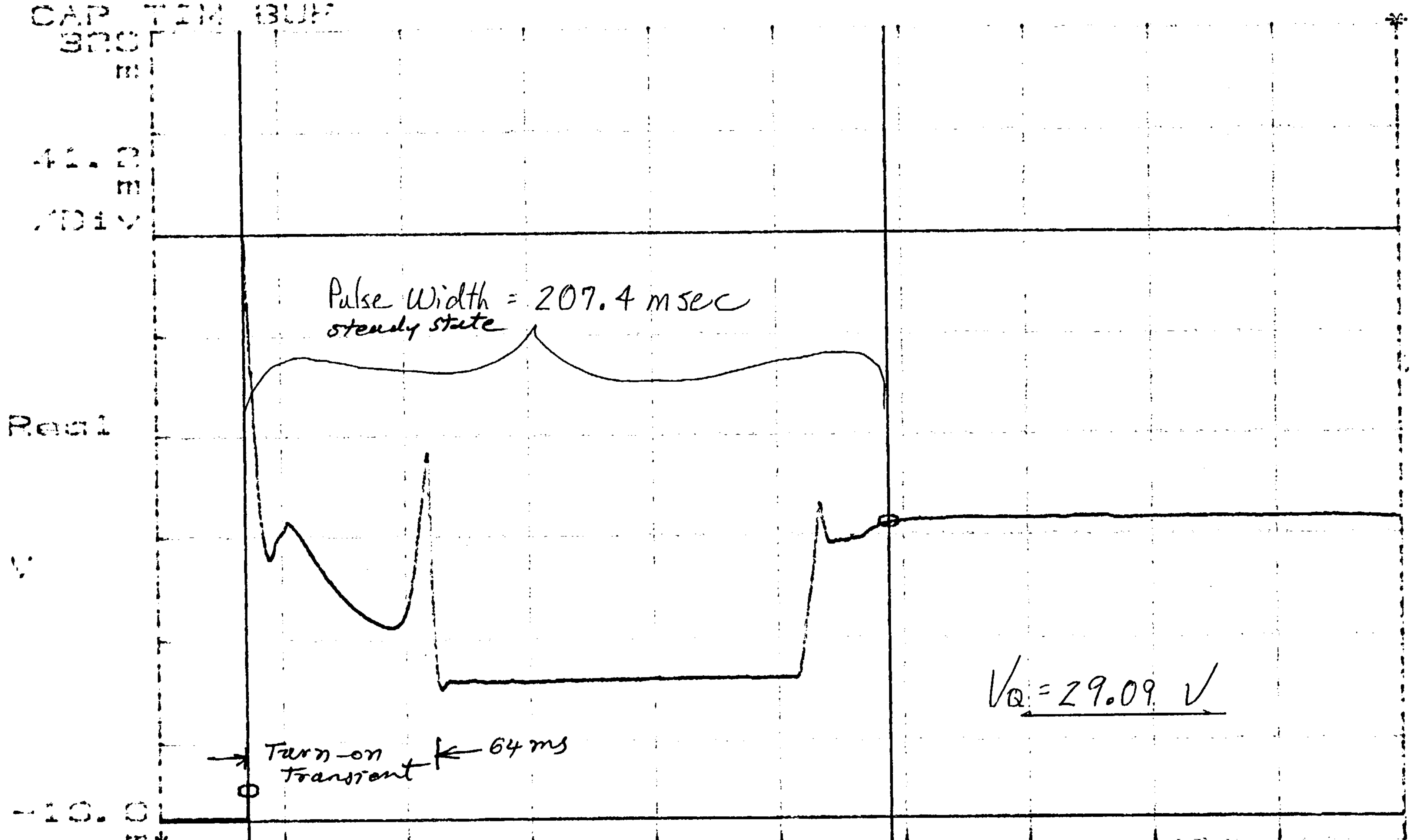


Qbus Turn-ON Pulse Width

S/O: 298561
1st CPT
Test Eng: [signature]
Date: 7-14-98

P/N: 1356008-1-1T SN: 202
3.3.3.1.3
Quality:
JUL 14 1998

X=28.32mS ΔX=207.4mS Y=-200.0μ ΔY=237.4mV
Ya=12.0524m ΔYa=106.8mV

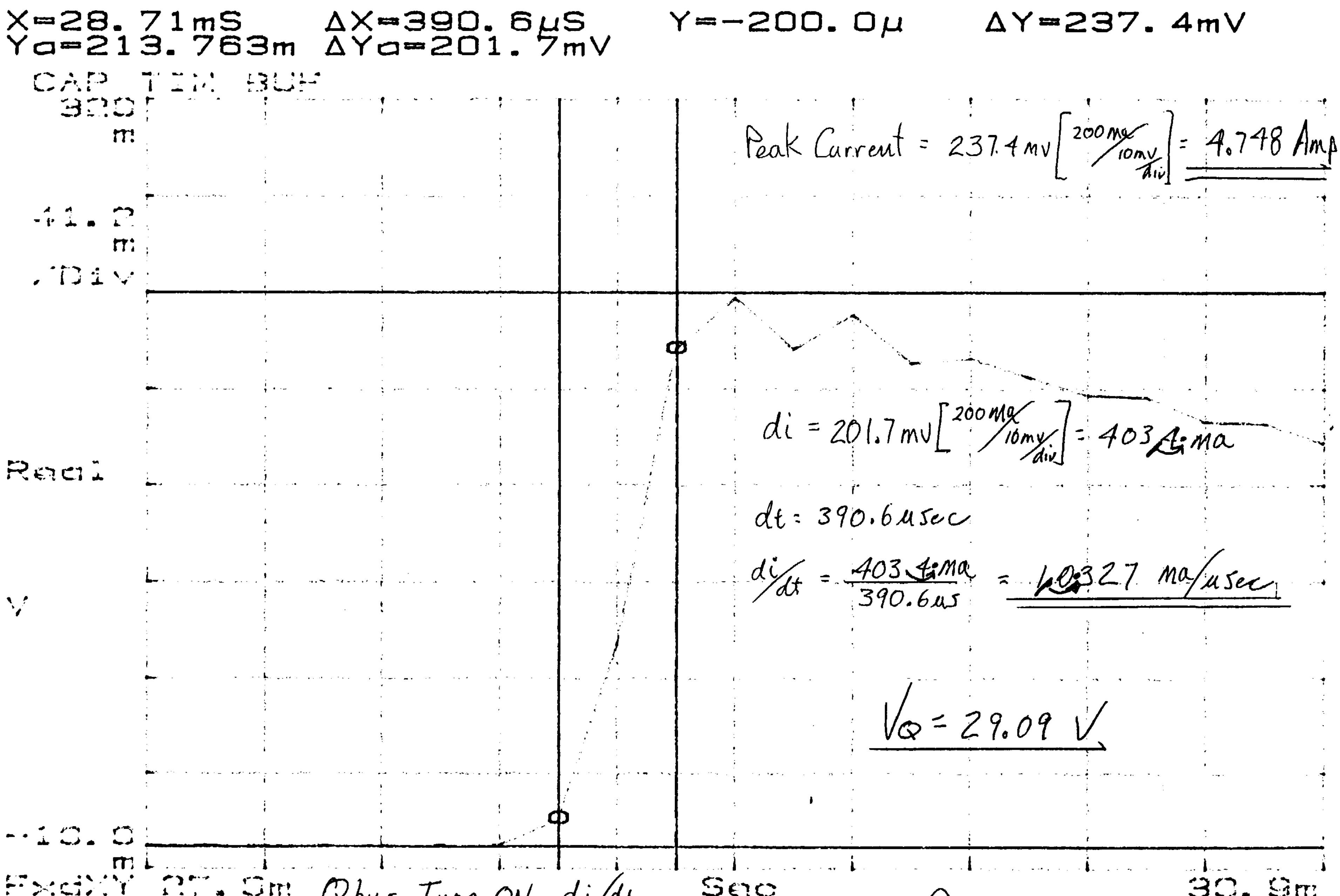


FxdXY 0.0 Qbus Turn-ON PulseWidth Sec

S/O: 298561 1ST CPT Test Eng: Date: 7-14-98

P/N: 1356008-1-1T SO: 202 [illegible] Q 14.

JUL 14 1998

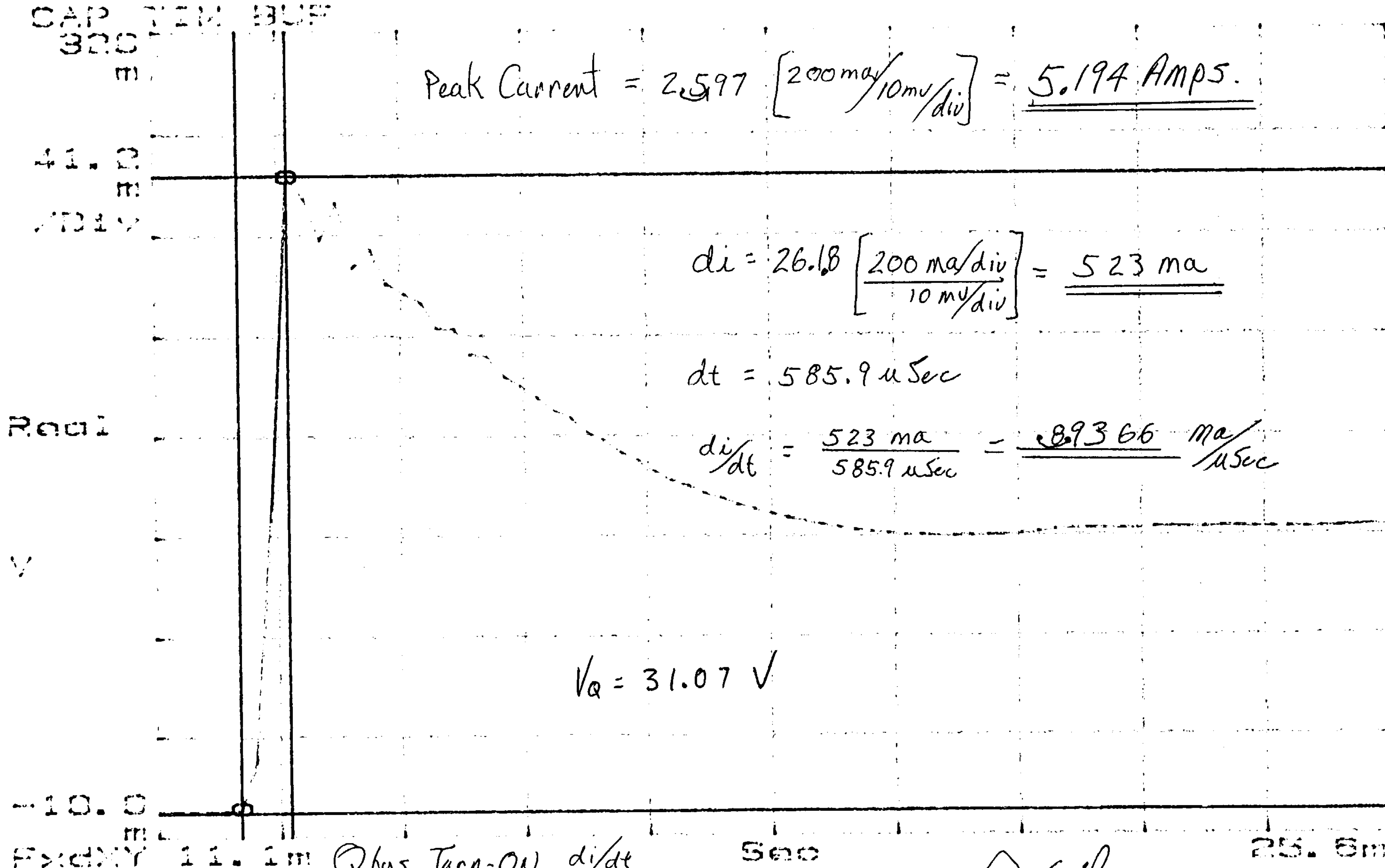


Qbus Turn-ON di/dt

S/O: 298561 1st CPT Test Eng: [signature] Date: 7-14-98

DW: 1356008-1-1T SK 202 333 13 Qualif.: JUL 14 1998

X=12.7mS ΔX=585.9µS Y=-200.0µ ΔY=261.8mV
Ya=261.101m ΔYa=259.7mV



Peak Current = 2.597 $\left[200 ma / \frac{10mv}{div} \right]$ = 5.194 Amps.

$di = 26.18 \left[\frac{200\ ma/div}{10\ mv/div} \right] = 523\ ma$

$dt = 585.9\ \mu Sec$

$\frac{di}{dt} = \frac{523\ ma}{585.9\ \mu Sec} = .89366\ \frac{ma}{\mu Sec}$

$V_Q = 31.07\ V$

Qbus Turn-ON di/dt

1ST CAT

3.3.3.1.3

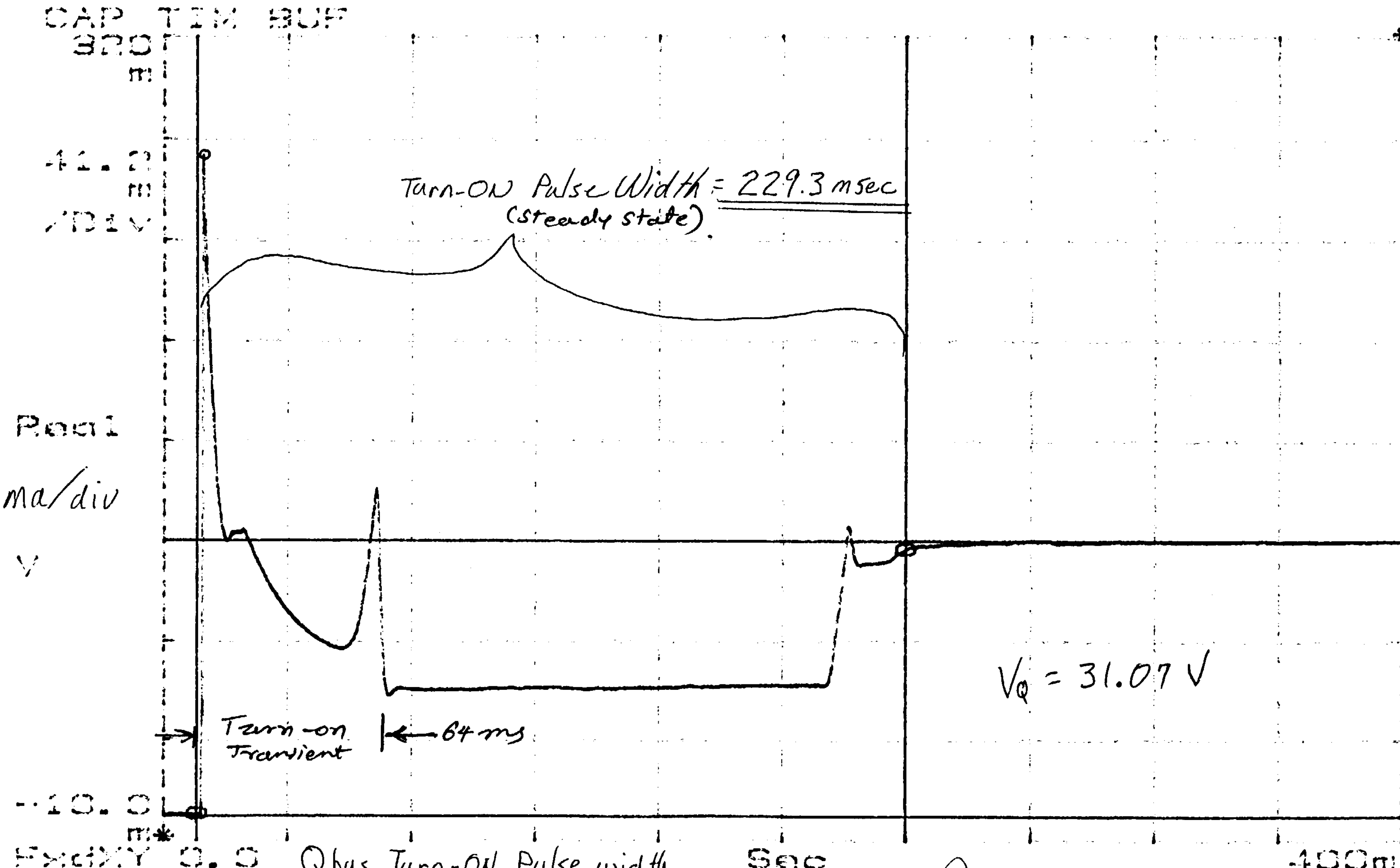
S/O: 278561

P/N: 1356008-1-1T SN: 202

Test Eng: [signature] Date: 7-14-98

Quality: JUL 14 1998

X=240. 0mS ΔX=229. 3mS Y=-200. 0μ ΔY=11.3. 8mV
Ya=110. 113m ΔYa=109. 4mV



Qbus Turn-ON Pulse width
Qbus Turn-ON Peak Current

S/O: 298561
P/N: 1356008-1-1T SN: 202 1^{st} CPT

Test Eng: [signature] Date: 7-14-98
Quality: JUL 14 1998

TEST DATA SHEET NO. 5
Noisy Power Bus Operational Power Test (Paragraph 3.3.3.2.1)

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Required Peak Current (Amps)	Maximum Peak Noisy Bus Current NBI (Amps)	Required Peak Power (Watts)	Calculated Peak Power (NBV x NBI) (Watts)	Pass/Fail
26.95 - 27.05	27.01	≤1	.989	≤40	26.7	P
28.95 - 29.05	29.01	≤1	.984	≤40	28.6	P
30.95 - 31.05	31.01	≤1	.983	≤40	30.5	P

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Average Noisy Bus Current NBI (Amps)/SEC	Required Average Power (Watts)	Calculated Average Power (NBV x NBI) (Watts)	Pass/Fail
26.95 - 27.05	27.01	.119	≤~~6~~8	5.6	P
28.95 - 29.05	29.01	.130	≤~~6~~8	6.8	P
30.95 - 31.05	31.01	.133	≤~~6~~8	7.1	P

RJH 7/14/98 QC 227

Required Noisy Bus Voltage NBV (Volts)	Measured NBV (Volts)	Bus Current During the I/H, D. Period	Pass/Fail
26.95 - 27.05	27.01	30.4 ma * 15.32 ma **	Not Applicable
28.95 - 29.05	29.01	32 ma * 16.66 ma *	Not Applicable
30.95 - 31.05	31.01	35.2 ma * 18.1 ma *	Not Applicable

* between beams
** between Cal tgts

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT ________

Test Systems Engineer: [signature] Date: 7/14/98

Quality Control: [stamp] Date: JUL 14 1998

Customer Representative: [signature] Date: 7-22-98

TEST DATA SHEET NO. 6
Noisy Power Bus Turn On Transient Test (Paragraph 3.3.3.2.2)

+31 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	16.2 Amps	<11.5 Amps	F *
Pulse Width	0.1 ms	<100 ms	P
Rate of Change(slope): dI/dT	1856 ma/µs	<744 mA/µs	F *

+29 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	15.2 Amps	<11.5 Amps	F *
Pulse Width	0.1 ms	<100 ms	P
Rate of Change(slope): dI/dT	1158 ma/µs	<744 mA/µs	F *

+27 Volts

Parameter	Measured/Calculated	Required	Pass/Fail
Peak Current	14.2 Amps	<11.5 Amps	F *
Pulse Width	0.1 ms	<100 ms	P
Rate of Change(slope): dI/dT	1710 ma/µs	<744 mA/µs	F *

TAR # 3190

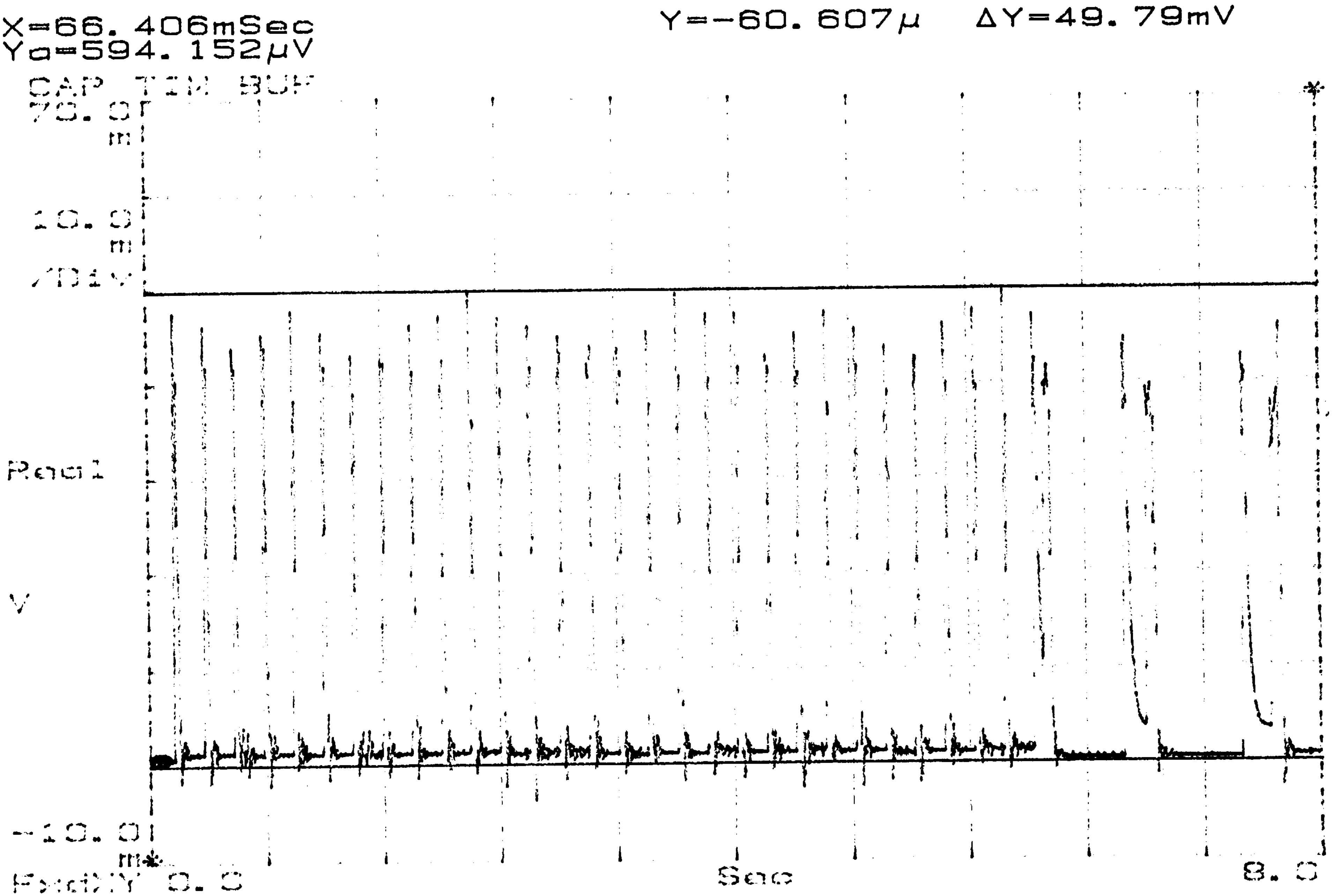
EOS/AMSU-A1 P/N: 1356008-1-IT SN: 202
S/O: 298561
Circle Test 1st CPT Final CPT Sub CPT N/A

7/14/98
Test Systems Engineer

7-22-98
Customer Representative

Failed
Quality Control

7-14-98
QC 227

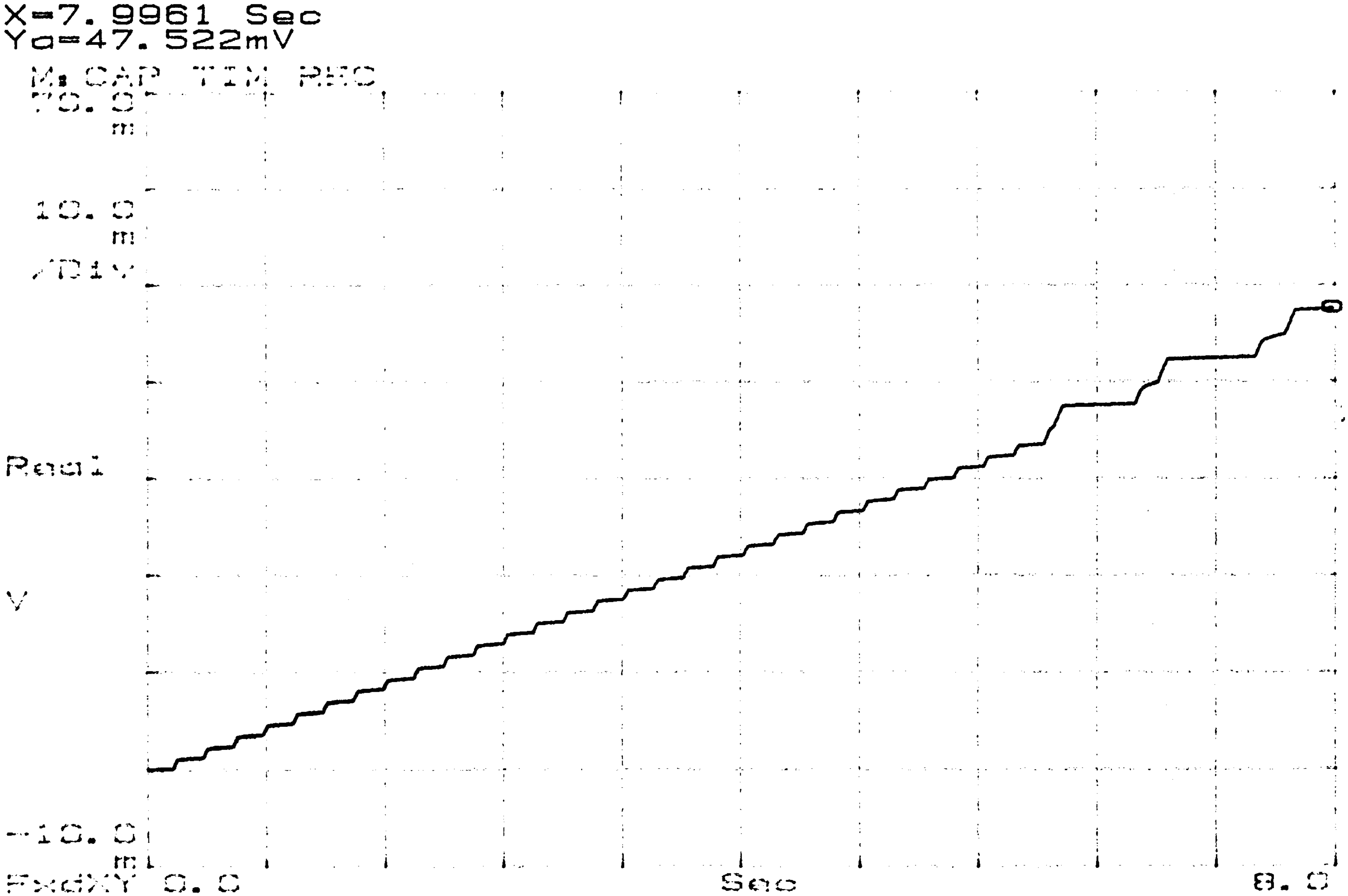


S/O: 298561 OPERATION: 0810
AE 26156/9

PEAK CURRENT MEASUREMENT

JUL 1 4 1998

Bus Voltage: 27.01
T.E. Tom Wigfi...
DATE: 7/14/98

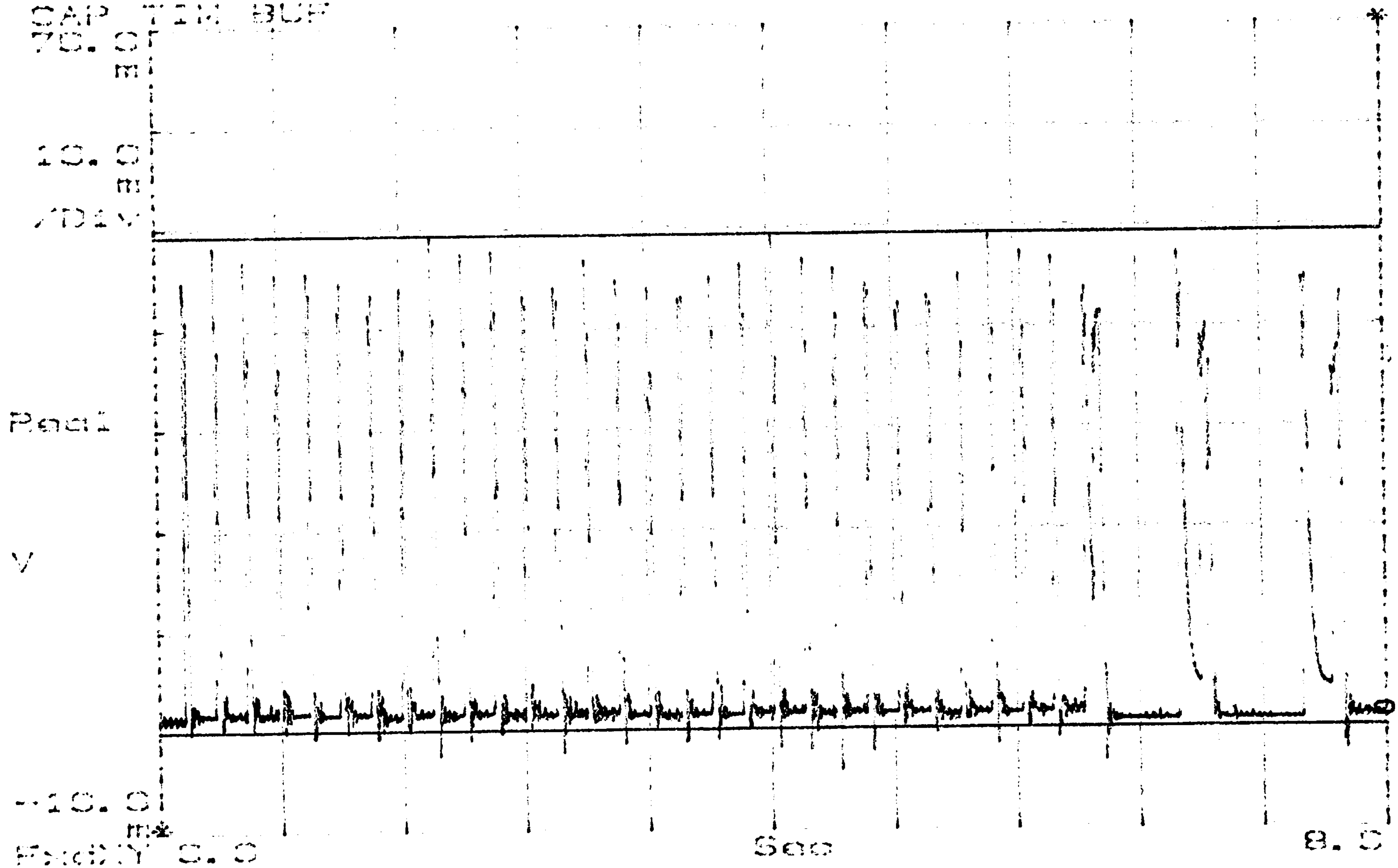


S/O: 298561 OPERATION: 0810
AE 26156/a

AVERAGE CURRENT

Bus Voltage: 27.01
TE. [signature]

X=7.9961 Sec Y=-12.122µ ΔY=49.21mV
Ya=1.39831mV



S/O: 298561 Operation: 0810

AE26156/9

Para: 3.3.3.2.1 Operational Power JUL 14 1998

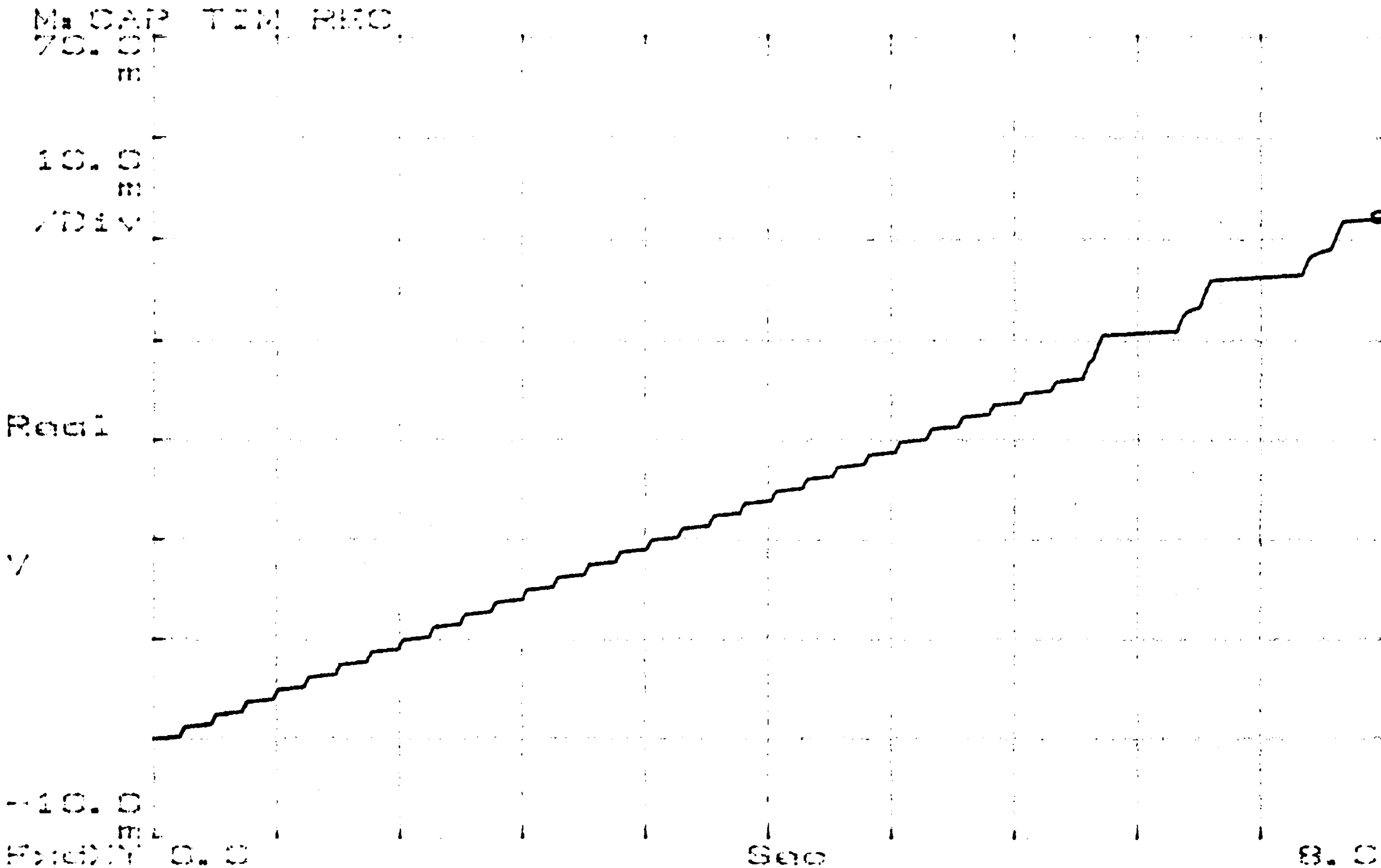
PEAK CURRENT MEASUREMENT

Bus Voltage: 29.01

T.E. [signature]

DATE: 7/14/98

X=7.9961 Sec
Ya=52.0268mV



S/O: 298561 Operation: 0810

AE 26156/9

AVERAGE CURRENT MEASUREMENT

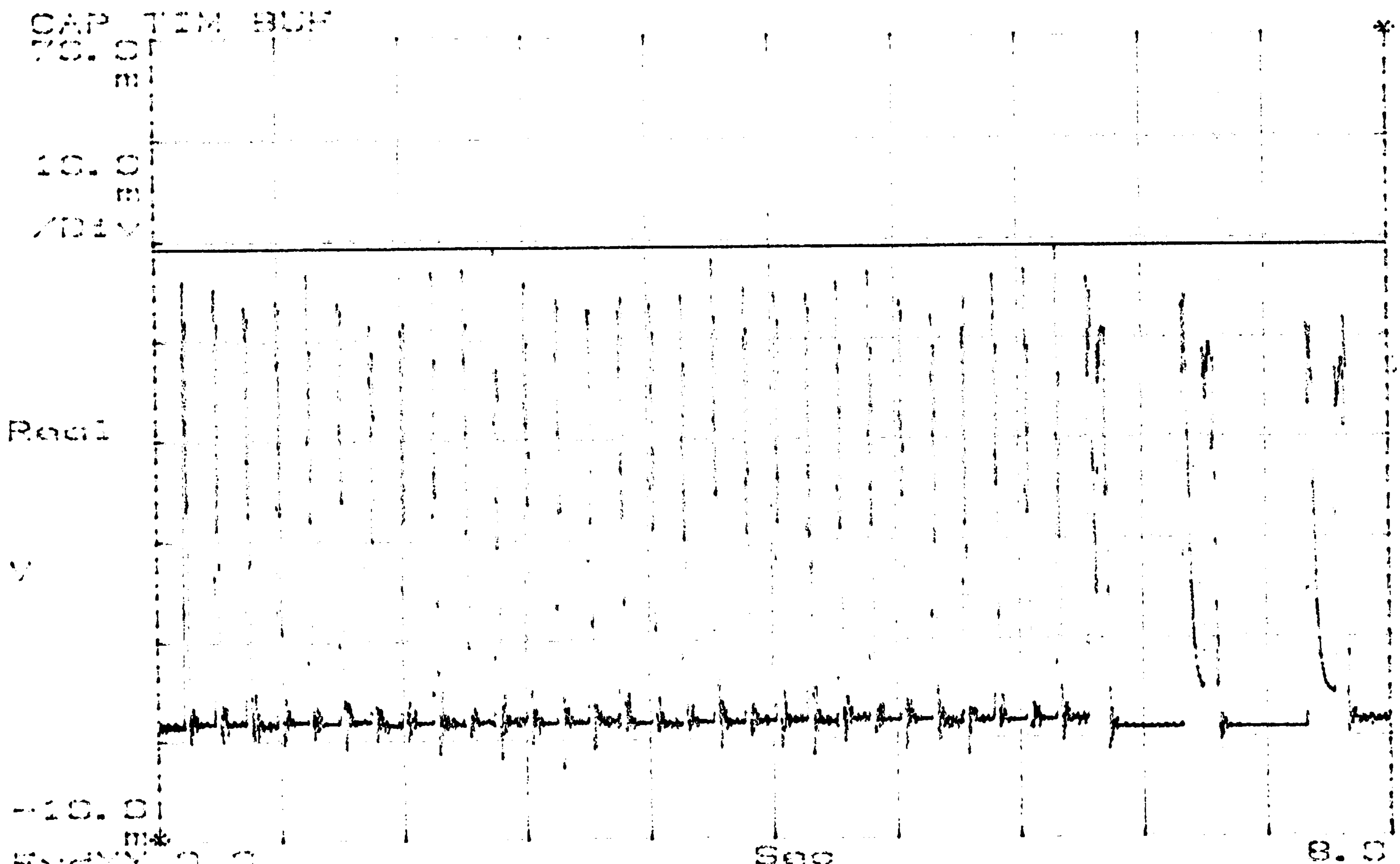
Bus Voltage: 29.01

T.E. Tom

DATE: 7/14/

JUL 14 1998

Y=49. 1515mV



S/O : 298561 Operation: 0810

AE 26156/9

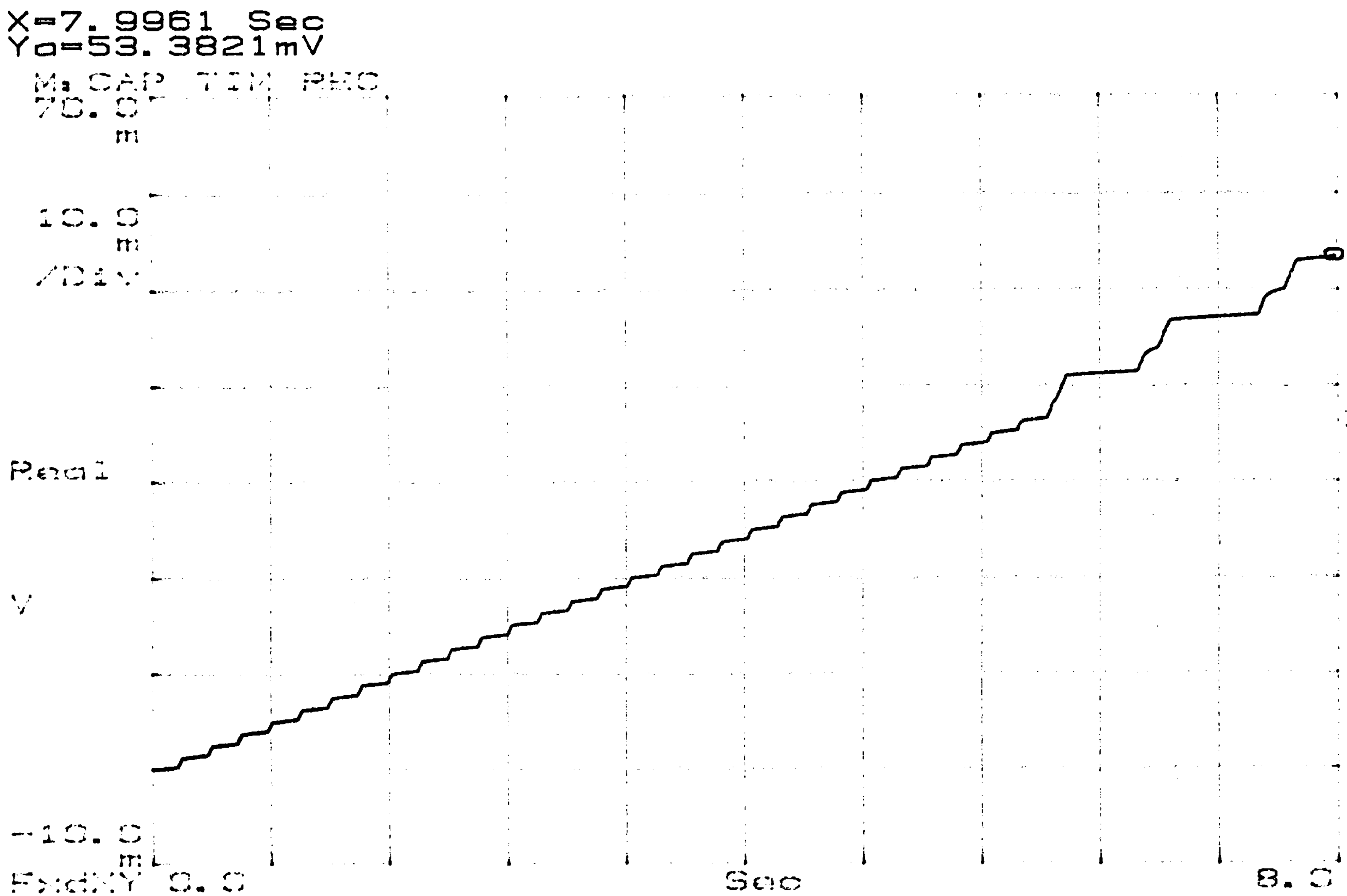
PEAK CURRENT MEASUREMENT

Bus Voltage: 31.01

T.E. [signature]

DATE: 7/14/98

JUL 1 4 1998



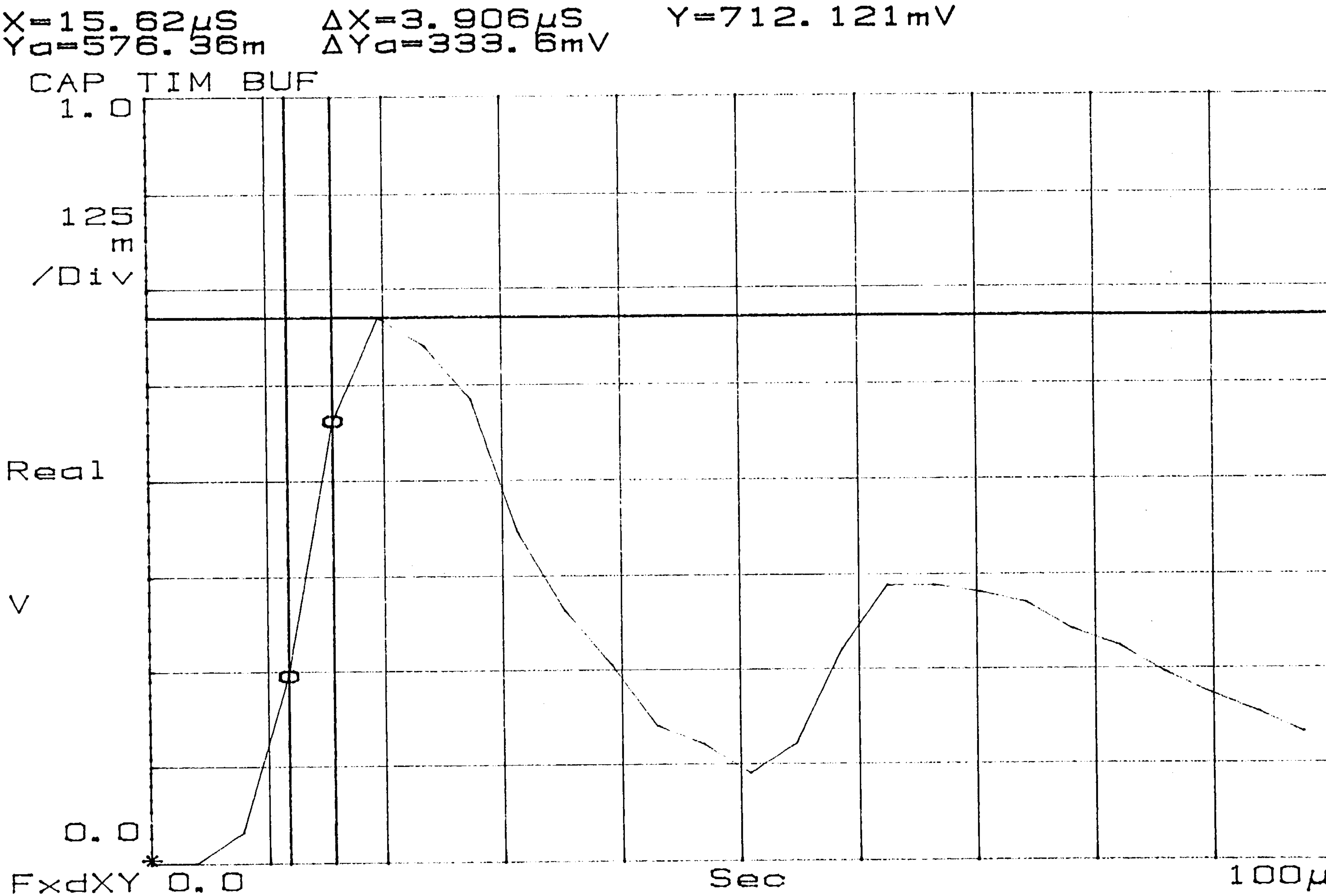
S/O: 298561 Operation: 0810

AE26156/9

JUL 14 1998

AVERAGE CURRENT

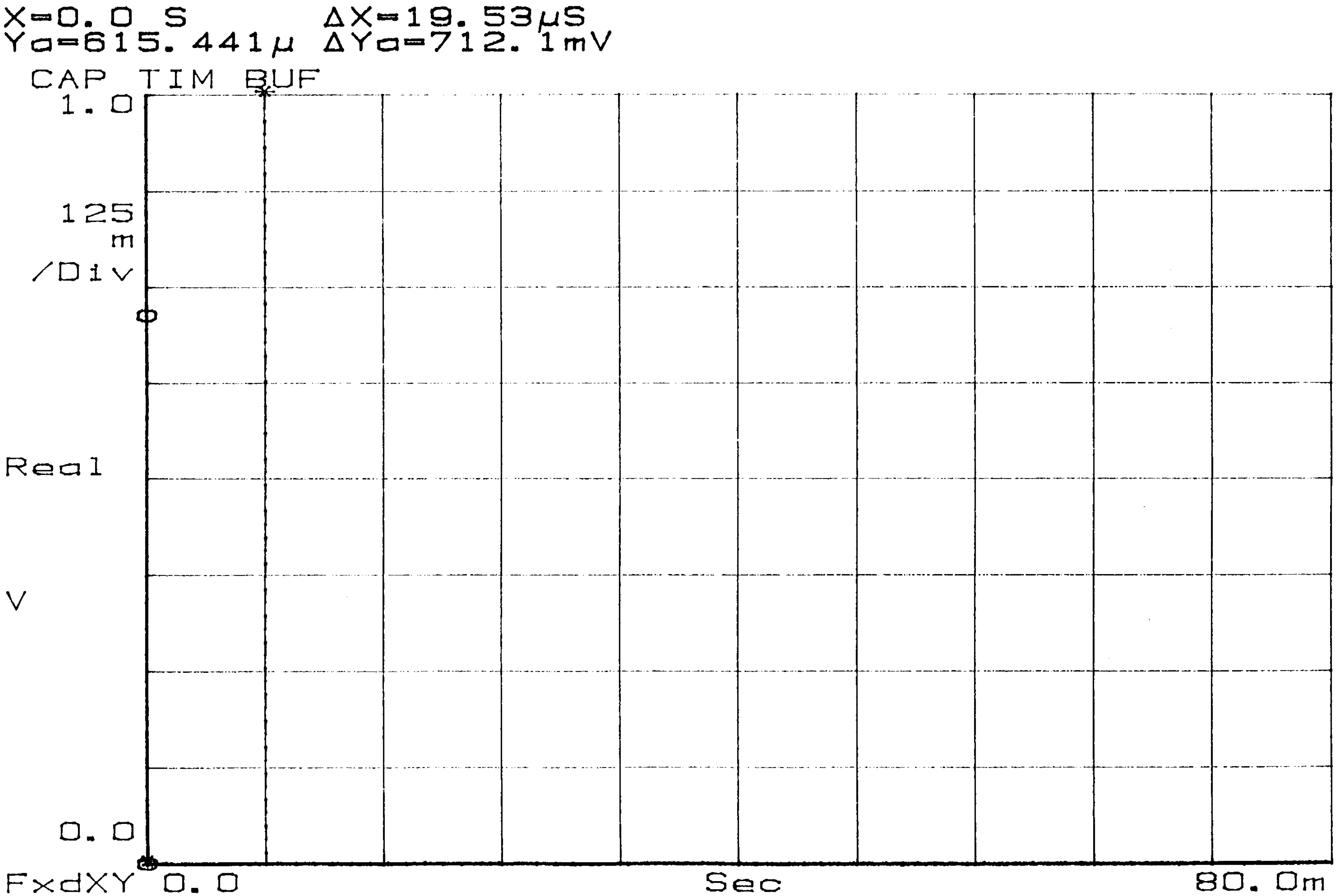
Bus Voltage 31.01
T.E. [signature]
DATE: 7/14/...



S/O: 298561 Operation: 0810
AE26156/9

TURN ON TRANSIENT
PEAK CURRENT & dv/dt

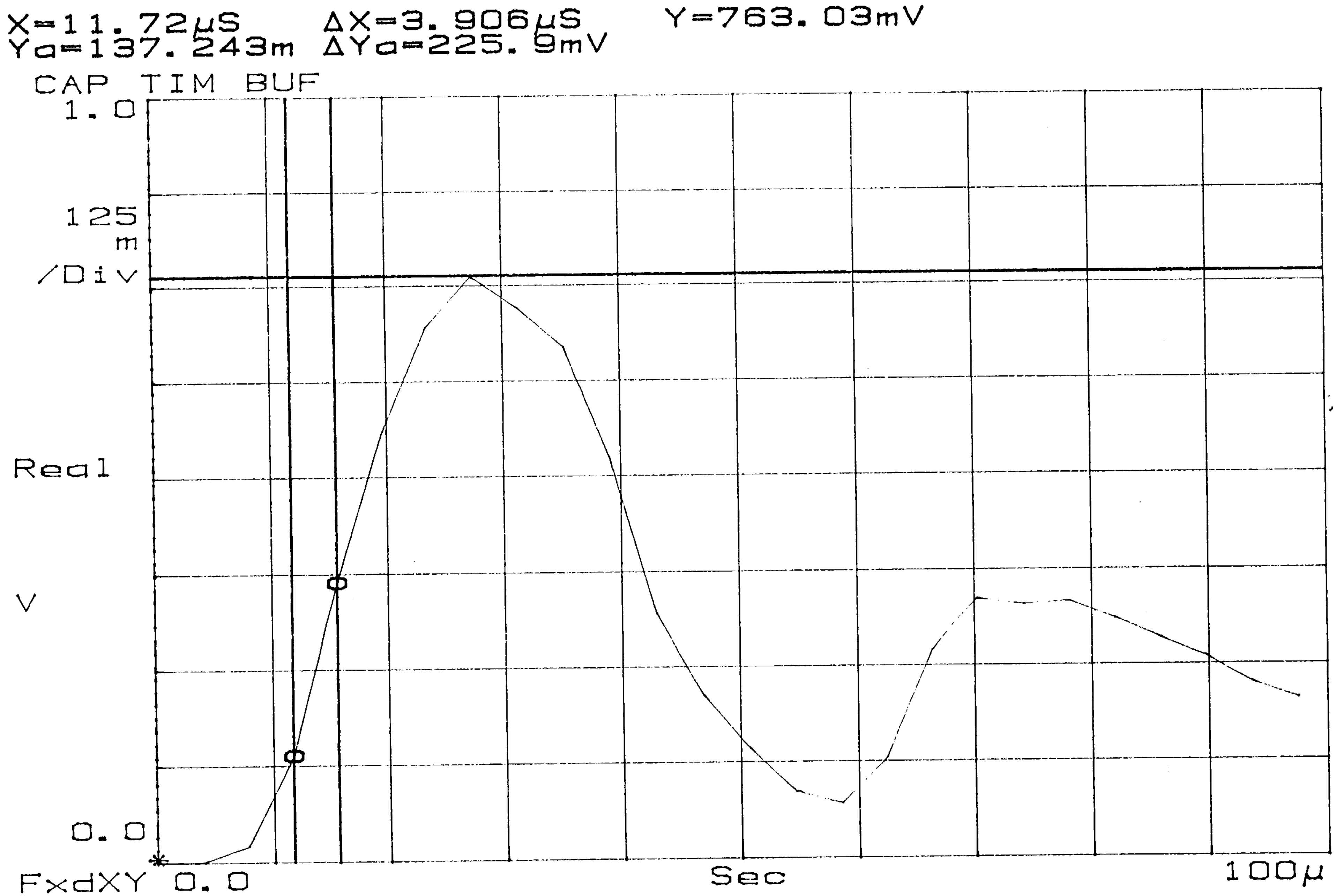
Bus Voltage: 27.00
T.E. [signature]
DATE: 7/14/90



S/O: 298561 Operation: 0810
AE2615G/9

TURN ON TRANSIENT
SETTLE TIME

Bus Voltage: 27.00
T.E. Tom [illegible]
DATE: [illegible]

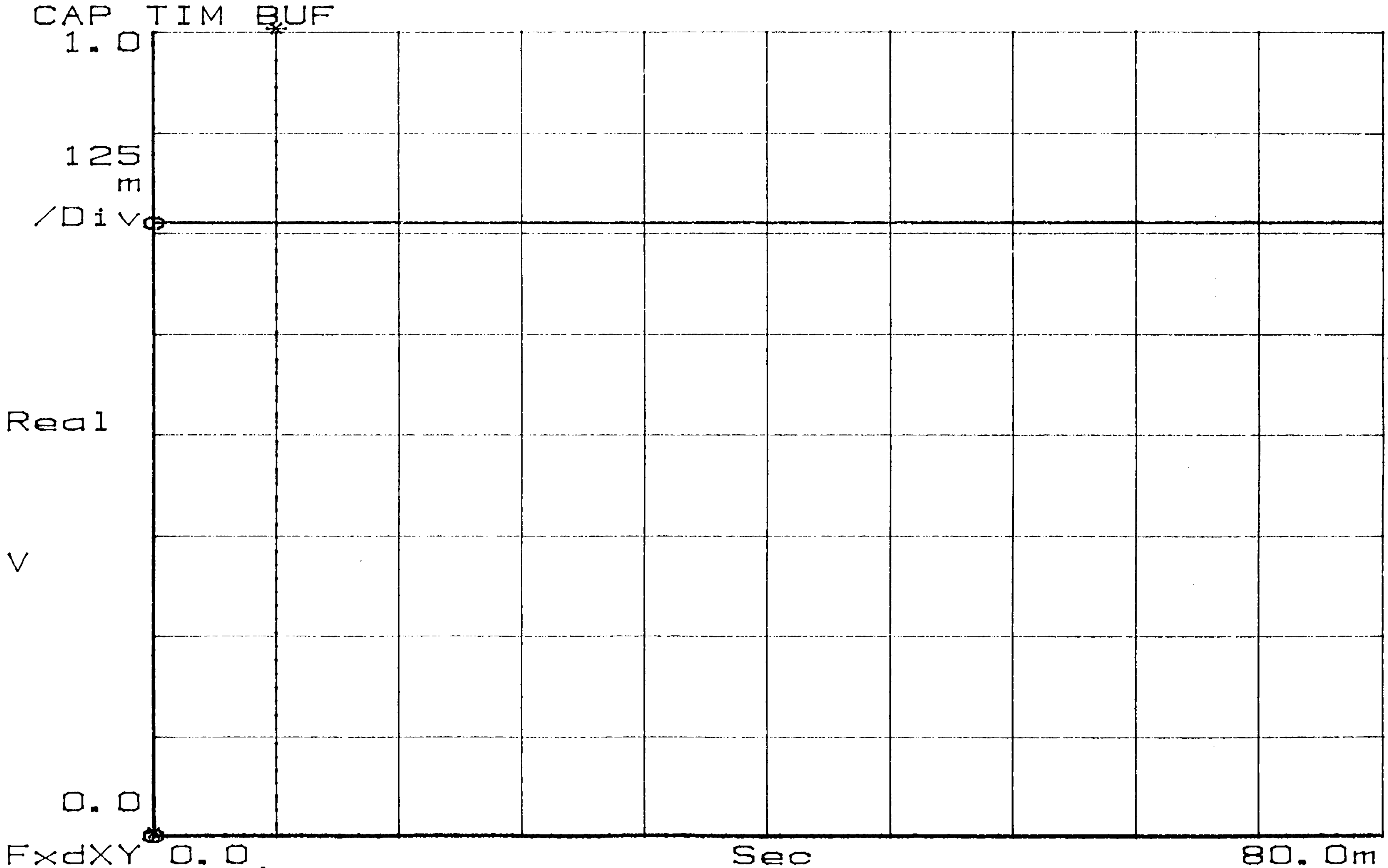


S/O: 298561 Operation: 0810
AE 26156/9

TURN ON TRANSIENT
PEAK CURRENT & dV/dt

Bus Voltage: 29.00
T.E. Tom [illegible]
DATE: 7/[illegible]

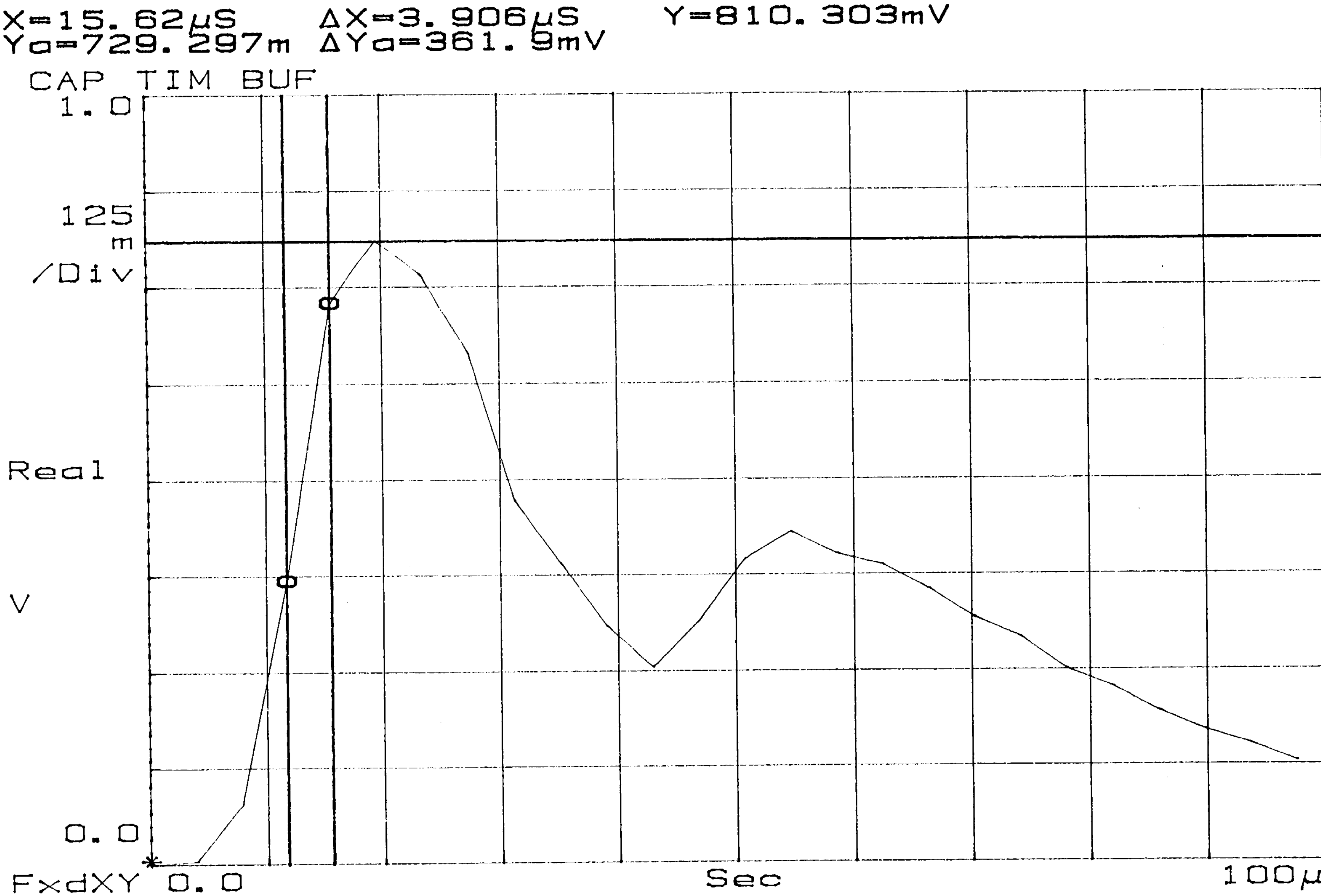
X=0.0 S ΔX=27.34µS Y=763.03mV
Ya=923.161µ ΔYa=761.0mV



S/O: 298561 Operation: 0810
AE 26156/9

TURN ON TRANSIENT
SETTLE TIME

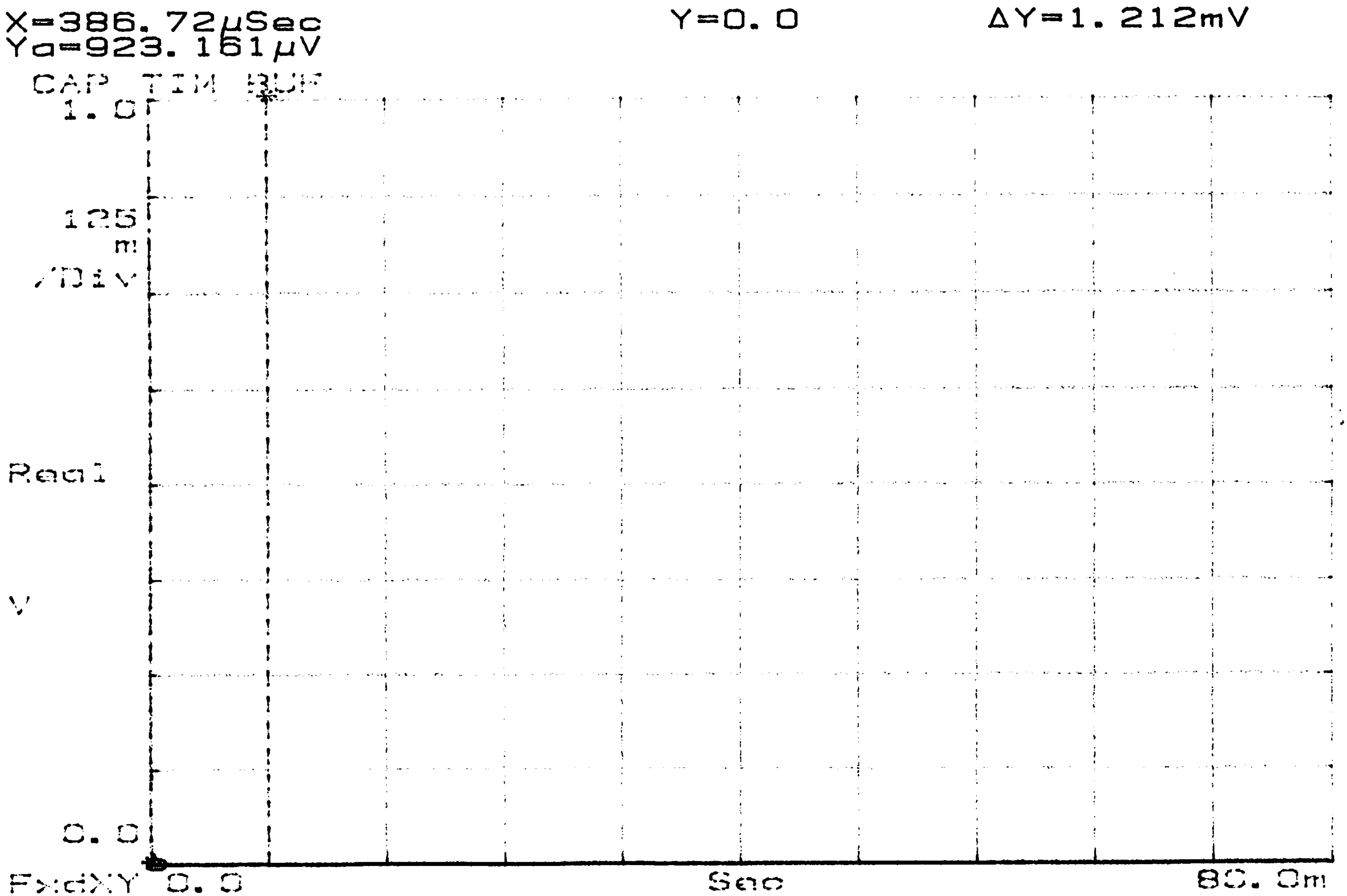
Bus Voltage: 29.00
T.E. Tom Wigfin



S/O: 298561 Operation: 0810
AE 26156/9
[illegible]

TURN ON TRANSIENT
PEAK CURRENT & dv/dt

Bus Voltage 31.01
T.E. Tom Wayne



S/o: 298561 Operation: 0810
AE 26156/9

TURN ON TRANSIENT
SETTLE TIME

Bus Voltage: 31.01
T.E.

TEST DATA SHEET NO. 7
Passive Analog Interface Test (Paragraph 3.3.4)

Number	Thermistor	Required Temperature (Celsius)	Measured Temperature (Celsius)	Pass/Fail
1	A1-1 SCAN MOTOR	20.9 * ± 5°	22.8	P
2	A1-2 SCAN MOTOR	20.9 * ± 5°	23.49	P
3	A1-1 RF SHELF # 1	20.9 * ± 5°	24.41	P
4	A1-2 RF SHELF # 1	20.9 * ± 5°	25.79	P
5	A1-1 WARM LOAD	20.9 * ± 5°	23.89	P
6	A1-2 WARM LOAD	20.9 * ± 5°	24.08	P
7	A1-1 RF SHELF # 2	20.9 * ± 5°	24.28	P
8	A1-2 RF SHELF # 2	20.9 * ± 5°	25.57	P

* is the measured temperature of the unit environment

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

Robert H. Platt 7/14/98
Test Systems Engineer Date

JUL 14 1998
Quality Control Date

JUL 22 98
Customer Representative Date

TEST DATA SHEET NO. 8
Instrument Commanding Test (Paragraph 3.3.5.2)

Step	Instrument Status	(Y)es / (N)o
12	Full Scan Mode command received?	Y
13	Is A1-1 motor scanning?	Y
14	Did A1-1 motor stop scanning?	Y
15	Is A1-2 motor scanning?	Y
16	Did A1-2 motor stop scanning?	Y
17	Are both motors scanning?	Y
18	Reflectors positioned looking at warm loads?	Y
19	Reflectors positioned looking at nadir?	Y
20	Reflectors positioned looking at cold cal 1?	Y
21	Reflectors positioned looking at cold cal 4?	Y
22	Reflectors positioned looking at cold cal 3?	Y
23	Reflectors positioned looking at cold cal 2?	Y
24	Reflectors positioned looking at cold cal 1?	Y
25	Did PLO toggle?	Y
25	Did C&DH processor reset?	Y

Yes = Pass No = Fail

EOS/AMSU-A1 ~~System~~ P/N 1356008 Shop Order: 298501 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

JUL 22 '98

Customer Representative Date

7/13/98
Test Systems Engineer Date

JUL 14 1998
Quality Control Date

EOS A1-03 E1.EXE;35 14-JUL-98 21:41:04 SCAN NUMBER

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

UNPOWERED THERMISTORS

NO	DATA	TEMP C
1	A1-1 SCAN MOTOR TEMPERATURE	22.80
2	A1-1 RF SHELF TEMPERATURE #1	24.41
3	A1-1 WARM LOAD TEMPERATURE	23.89
4	A1-2 SCAN MOTOR TEMPERATURE	23.49
5	A1-2 RF SHELF TEMPERATURE #1	25.79
6	A1-2 WARM LOAD TEMPERATURE	24.08
7	A1-1 RF SHELF TEMPERATURE #2	24.28
8	A1-2 RF SHELF TEMPERATURE #2	25.57

POWER OFF CHECKSUM IN CALC SA28 0 SA29 0
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

JUL 14 1998

TEST DATA SHEET NO. 9 (sheet 1 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

Step	Instrument Status	(Y)es / (N)o
1	Full Scan Mode command received?	Y
2	ENGR OK message seen?	Y
3	Unit (both reflectors) running in full scan mode?	Y

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000101	P
4b	3-4	Packet Length		0000001010111111	P
4c	5-6	Unit Serial Number		0000001100000000	P
4d	7-8	Instrument Mode/ Status		10~~1~~1101000000010 0 RHPlatt 7/13/98	P

QC 227

RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	P

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	P
4g	1180	Temperature Sensor Reference	23244-26317 counts	P

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		YES	P
	Antenna in Warm Cal Mode		NO	P
	Antenna in Cold Cal Mode		NO	P
	Antenna in Nadir Mode		NO	P
	Cold Cal Position LSB		ZERO	P
	Cold Cal Position MSB		ZERO	P
	PLO Redundancy		PLO #1	P
	Scanner A1-1 Power		ON	P
	Scanner A1-2 Power		ON	P
	PLO #1 Lock		YES	P
	PLO #2 Lock		OFF	P
	ADC Latchup Flag		ONE	P

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R H Platt 7/13/98
Test Systems Engineer Date

J. Sanford JUL 23 '98
Customer Representative Date

JUL 14 1998
Quality Control Date

TEST DATA SHEET NO. 9 (sheet 2 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

REFLECTOR POSITIONS (Step 4e)								
	A1-1 REFLECTOR				A1-2 REFLECTOR			
BP	Element	Position (*)	Required (**) ± 5	(P)ass/ (F)ail	Element	Position (*)	Required (**) ± 5	(P)ass/ (F)ail
1	14	f RMK	14520	PASS	16	~~PASS~~	14168	Pass
2	48		14672		50	f.K. [illegible]	14320	
3	82		14824		84	7/14/98	14472	
4	116		14975		118		14623	
5	150		15127		152		14775	
6	184		15279		186		14972	
7	218		15430		220		15078	
8	252		15582		254		15230	
9	286		15734		288		15382	
10	320		15885		322		15533	
11	354		16037		356		15685	
12	388		16189		390		15837	
13	422		16340		424	f.K. [illegible]	15988	
14	456		108		458	7/14/98	16140	
15	490		260		492		16292	
16	524		411		526		59	
17	558		563		560	STET	211	
18	592		715		594		363	
19	626		866		628	[illegible]	514	
20	660		1018		662	7/14/98	666	
21	694		1170		696	QC	818	
22	728		1321		730	221	969	
23	762		1473		764		1121	
24	796		1625		798		1273	
25	830		1776		832		1424	
26	864		1928		866		1576	
27	898		2080		900		1728	
28	932		2231		934		1879	
29	966		2383		968		2031	
30	1000		2535		1002	7/14/98	2183	
CC	1034		4129		1036	f.K. [illegible]	3777	
WC	1186		8528	PASS	1188	~~PASS~~	8176	Pass

* Actual counts from printout. Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

Roger N. Khaur 7/14/98
Test Systems Engineer Date

J. Sanford JUL 23 '98
Customer Representative Date

QC 197 JUL 14 1998
Quality Control Date

TEST DATA TO SUPPORT 11" 1007 EOS A1 SN 202 S/O 298561
1ST CPT

```
EOS   A1-03 E1.EXE;35 FULL SCAN MODE    P1 13-JUL-98 23:36:49  SCAN NUMBER   150
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS   ELEMENT    00

[ 7 ] ENGINEERING      ELEMENT    00

                    COMMANDS         PLLO POWER =              PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =     ON   COLD CAL POSITION 1 =      YES  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =     ON                     2 =      NO   [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE = YES                    3 =      NO   [ 18 ]

[ 12 ]        WARM CAL      =   NO   COLD CAL POSITION 4 =      NO   [ 19 ]

[ 13 ]        COLD CAL      =   NO   RESET C&DH PROCESSOR            [ 20 ]

[ 14 ]        NADIR         =   NO   GSE MODE                        [ 21 ]

ENGR OK       POWER    ON   CHECKSUM  IN 2C39 CALC 2C39   SA28    84 SA29   168
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
 SELECT BUTTON 3
```

7A 197

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16641
2		00000101	574	CH 9	16518
3	PACKET LENGTH	00000010	576	CH 10	16511
4		10111111	578	CH 11	16292
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16620
6		00000000	582	CH 13	16427
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16877
8		00000010	586	CH 15	16277
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14169	590	REFLECTOR 2 POSITION 18	366
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14169	594	REFL 2 POS 18 2ND LOOK	361
18	SCENE DATA BP 1 CH 3	15920	596	SCENE DATA BP 18 CH 3	15920
20	CH 4	16341	598	CH 4	16331
22	CH 5	16673	600	CH 5	16671
24	CH 6	16968	602	CH 6	16870
26	CH 7	16052	604	CH 7	15969
28	CH 8	16644	606	CH 8	16636
30	CH 9	16600	608	CH 9	16514
32	CH 10	16584	610	CH 10	16500
34	CH 11	16374	612	CH 11	16289
36	CH 12	16699	614	CH 12	16611
38	CH 13	16506	616	CH 13	16436
40	CH 14	16970	618	CH 14	16892
42	CH 15	16316	620	CH 15	16279
44	REFLECTOR 1 POSITION 2	14677	622	REFLECTOR 1 POSITION 19	873
46	REFLECTOR 2 POSITION 2	14324	624	REFLECTOR 2 POSITION 19	517
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14320	628	REFL 2 POS 19 2ND LOOK	513
52	SCENE DATA BP 2 CH 3	15926	630	SCENE DATA BP 19 CH 3	15921
54	CH 4	16342	632	CH 4	16331
56	CH 5	16675	634	CH 5	16672
58	CH 6	16956	636	CH 6	16872
60	CH 7	16046	638	CH 7	15975
62	CH 8	16640	640	CH 8	16639
64	CH 9	16584	642	CH 9	16518
66	CH 10	16576	644	CH 10	16504
68	CH 11	16364	646	CH 11	16289
70	CH 12	16685	648	CH 12	16605
72	CH 13	16488	650	CH 13	16432
74	CH 14	16943	652	CH 14	16884
76	CH 15	16312	654	CH 15	16279
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1022
80	REFLECTOR 2 POSITION 3	14473	658	REFLECTOR 2 POSITION 20	671
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1017
84	REFL 2 POS 3 2ND LOOK	14470	662	REFL 2 POS 20 2ND LOOK	664
86	SCENE DATA BP 3 CH 3	15927	664	SCENE DATA BP 20 CH 3	15917
88	CH 4	16346	666	CH 4	16338
90	CH 5	16677	668	CH 5	16671
92	CH 6	16955	670	CH 6	16897

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	16046	672	CH 7	15996
96	CH 8	16645	674	CH 8	16640
98	CH 9	16599	676	CH 9	16543
100	CH 10	16586	678	CH 10	16529
102	CH 11	16374	680	CH 11	16313
104	CH 12	16699	682	CH 12	16640
106	CH 13	16519	684	CH 13	16447
108	CH 14	16961	686	CH 14	16891
110	CH 15	16317	688	CH 15	16299
112	REFLECTOR 1 POSITION 4	14985	690	REFLECTOR 1 POSITION 21	1176
114	REFLECTOR 2 POSITION 4	14625	692	REFLECTOR 2 POSITION 21	821
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	816
120	SCENE DATA BP 4 CH 3	15935	698	SCENE DATA BP 21 CH 3	15923
122	CH 4	16351	700	CH 4	16334
124	CH 5	16681	702	CH 5	16670
126	CH 6	16944	704	CH 6	16937
128	CH 7	16043	706	CH 7	16033
130	CH 8	16651	708	CH 8	16637
132	CH 9	16575	710	CH 9	16557
134	CH 10	16566	712	CH 10	16548
136	CH 11	16354	714	CH 11	16334
138	CH 12	16678	716	CH 12	16650
140	CH 13	16489	718	CH 13	16469
142	CH 14	16939	720	CH 14	16922
144	CH 15	16309	722	CH 15	16307
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1331
148	REFLECTOR 2 POSITION 5	14775	726	REFLECTOR 2 POSITION 22	972
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1321
152	REFL 2 POS 5 2ND LOOK	14773	730	REFL 2 POS 22 2ND LOOK	967
154	SCENE DATA BP 5 CH 3	15934	732	SCENE DATA BP 22 CH 3	15920
156	CH 4	16352	734	CH 4	16336
158	CH 5	16687	736	CH 5	16672
160	CH 6	16988	738	CH 6	16935
162	CH 7	16078	740	CH 7	16040
164	CH 8	16656	742	CH 8	16640
166	CH 9	16605	744	CH 9	16555
168	CH 10	16600	746	CH 10	16541
170	CH 11	16385	748	CH 11	16331
172	CH 12	16720	750	CH 12	16653
174	CH 13	16518	752	CH 13	16467
176	CH 14	16985	754	CH 14	16913
178	CH 15	16326	756	CH 15	16301
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1479
182	REFLECTOR 2 POSITION 6	14930	760	REFLECTOR 2 POSITION 23	1122
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14927	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15933	766	SCENE DATA BP 23 CH 3	15917
190	CH 4	16350	768	CH 4	16340
192	CH 5	16687	770	CH 5	16672

7A 197

JUL 1 4

EOS A1_03 E1.EXE;35 SCIENCE DATA 13-JUL-98 23:36:53 PAGE 3
FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16965	772	CH 6	16923
196	CH 7	16052	774	CH 7	16016
198	CH 8	16653	776	CH 8	16639
200	CH 9	16580	778	CH 9	16573
202	CH 10	16574	780	CH 10	16559
204	CH 11	16356	782	CH 11	16347
206	CH 12	16684	784	CH 12	16674
208	CH 13	16490	786	CH 13	16481
210	CH 14	16971	788	CH 14	16945
212	CH 15	16317	790	CH 15	16301
214	REFLECTOR 1 POSITION 7	15440	792	REFLECTOR 1 POSITION 24	1631
216	REFLECTOR 2 POSITION 7	15081	794	REFLECTOR 2 POSITION 24	1275
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1625
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15930	800	SCENE DATA BP 24 CH 3	15926
224	CH 4	16344	802	CH 4	16340
226	CH 5	16682	804	CH 5	16677
228	CH 6	16951	806	CH 6	16914
230	CH 7	16044	808	CH 7	16016
232	CH 8	16650	810	CH 8	16639
234	CH 9	16588	812	CH 9	16561
236	CH 10	16582	814	CH 10	16548
238	CH 11	16358	816	CH 11	16334
240	CH 12	16686	818	CH 12	16650
242	CH 13	16496	820	CH 13	16462
244	CH 14	16954	822	CH 14	16912
246	CH 15	16315	824	CH 15	16298
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1785
250	REFLECTOR 2 POSITION 8	15232	828	REFLECTOR 2 POSITION 25	1428
252	REFL 1 POS 8 2ND LOOK	15582	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15229	832	REFL 2 POS 25 2ND LOOK	1423
256	SCENE DATA BP 8 CH 3	15938	834	SCENE DATA BP 25 CH 3	15923
258	CH 4	16353	836	CH 4	16338
260	CH 5	16687	838	CH 5	16670
262	CH 6	16956	840	CH 6	16926
264	CH 7	16041	842	CH 7	16011
266	CH 8	16654	844	CH 8	16645
268	CH 9	16584	846	CH 9	16548
270	CH 10	16572	848	CH 10	16533
272	CH 11	16364	850	CH 11	16322
274	CH 12	16690	852	CH 12	16646
276	CH 13	16495	854	CH 13	16452
278	CH 14	16961	856	CH 14	16908
280	CH 15	16316	858	CH 15	16297
282	REFLECTOR 1 POSITION 9	15740	860	REFLECTOR 1 POSITION 26	1936
284	REFLECTOR 2 POSITION 9	15386	862	REFLECTOR 2 POSITION 26	1577
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1928
288	REFL 2 POS 9 2ND LOOK	15380	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15942	868	SCENE DATA BP 26 CH 3	15923
292	CH 4	16360	870	CH 4	16331

7A 197
JUL 14 1

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16692	872	CH 5	16669
296	CH 6	16981	874	CH 6	16942
298	CH 7	16066	876	CH 7	16035
300	CH 8	16663	878	CH 8	16639
302	CH 9	16606	880	CH 9	16567
304	CH 10	16596	882	CH 10	16557
306	CH 11	16379	884	CH 11	16340
308	CH 12	16706	886	CH 12	16671
310	CH 13	16508	888	CH 13	16483
312	CH 14	16979	890	CH 14	16936
314	CH 15	16332	892	CH 15	16305
316	REFLECTOR 1 POSITION 10	15894	894	REFLECTOR 1 POSITION 27	2085
318	REFLECTOR 2 POSITION 10	15539	896	REFLECTOR 2 POSITION 27	1731
320	REFL 1 POS 10 2ND LOOK	15885	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15533	900	REFL 2 POS 27 2ND LOOK	1726
324	SCENE DATA BP 10 CH 3	15933	902	SCENE DATA BP 27 CH 3	15926
326	CH 4	16352	904	CH 4	16344
328	CH 5	16688	906	CH 5	16681
330	CH 6	16992	908	CH 6	16941
332	CH 7	16086	910	CH 7	16028
334	CH 8	16654	912	CH 8	16644
336	CH 9	16597	914	CH 9	16595
338	CH 10	16586	916	CH 10	16582
340	CH 11	16370	918	CH 11	16367
342	CH 12	16695	920	CH 12	16690
344	CH 13	16500	922	CH 13	16493
346	CH 14	16959	924	CH 14	16960
348	CH 15	16330	926	CH 15	16308
350	REFLECTOR 1 POSITION 11	16042	928	REFLECTOR 1 POSITION 28	2238
352	REFLECTOR 2 POSITION 11	15689	930	REFLECTOR 2 POSITION 28	1884
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15684	934	REFL 2 POS 28 2ND LOOK	1879
358	SCENE DATA BP 11 CH 3	15931	936	SCENE DATA BP 28 CH 3	15929
360	CH 4	16345	938	CH 4	16345
362	CH 5	16684	940	CH 5	16680
364	CH 6	16920	942	CH 6	16983
366	CH 7	16016	944	CH 7	16059
368	CH 8	16647	946	CH 8	16647
370	CH 9	16548	948	CH 9	16601
372	CH 10	16540	950	CH 10	16592
374	CH 11	16330	952	CH 11	16377
376	CH 12	16656	954	CH 12	16708
378	CH 13	16469	956	CH 13	16503
380	CH 14	16938	958	CH 14	16956
382	CH 15	16300	960	CH 15	16317
384	REFLECTOR 1 POSITION 12	16196	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15840	964	REFLECTOR 2 POSITION 29	2035
388	REFL 1 POS 12 2ND LOOK	16188	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15835	968	REFL 2 POS 29 2ND LOOK	2030
392	SCENE DATA BP 12 CH 3	15924	970	SCENE DATA BP 29 CH 3	15924

JUL 1
74 197
JUL 1 4

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16337	972	CH 4	16343
396	CH 5	16673	974	CH 5	16679
398	CH 6	16877	976	CH 6	17022
400	CH 7	15970	978	CH 7	16086
402	CH 8	16639	980	CH 8	16645
404	CH 9	16516	982	CH 9	16623
406	CH 10	16503	984	CH 10	16611
408	CH 11	16293	986	CH 11	16394
410	CH 12	16622	988	CH 12	16724
412	CH 13	16432	990	CH 13	16532
414	CH 14	16912	992	CH 14	17003
416	CH 15	16279	994	CH 15	16312
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2541
420	REFLECTOR 2 POSITION 13	15991	998	REFLECTOR 2 POSITION 30	2185
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15986	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15925	1004	SCENE DATA BP 30 CH 3	15915
428	CH 4	16341	1006	CH 4	16333
430	CH 5	16670	1008	CH 5	16675
432	CH 6	16875	1010	CH 6	17002
434	CH 7	15975	1012	CH 7	16070
436	CH 8	16643	1014	CH 8	16642
438	CH 9	16520	1016	CH 9	16650
440	CH 10	16500	1018	CH 10	16646
442	CH 11	16294	1020	CH 11	16424
444	CH 12	16612	1022	CH 12	16743
446	CH 13	16426	1024	CH 13	16553
448	CH 14	16889	1026	CH 14	17015
450	CH 15	16285	1028	CH 15	16319
452	REFLECTOR 1 POSITION 14	115	1030	REFLECTOR 1 COLD CAL POS	4131
454	REFLECTOR 2 POSITION 14	16140	1032	REFLECTOR 2 COLD CAL POS	3780
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	4131
458	REFL 2 POS 14 2ND LOOK	16138	1036	REFL 2 COLD CAL 2ND LOOK	3780
460	SCENE DATA BP 14 CH 3	15929	1038	COLD CAL DATA 1 CH 3	15931
462	CH 4	16344	1040	CH 4	16337
464	CH 5	16677	1042	CH 5	16687
466	CH 6	16882	1044	CH 6	16890
468	CH 7	15978	1046	CH 7	15979
470	CH 8	16646	1048	CH 8	16656
472	CH 9	16524	1050	CH 9	16529
474	CH 10	16510	1052	CH 10	16526
476	CH 11	16299	1054	CH 11	16308
478	CH 12	16610	1056	CH 12	16630
480	CH 13	16436	1058	CH 13	16448
482	CH 14	16892	1060	CH 14	16901
484	CH 15	16283	1062	CH 15	16277
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15928
488	REFLECTOR 2 POSITION 15	16294	1066	CH 4	16343
490	REFL 1 POS 15 2ND LOOK	260	1068	CH 5	16687
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16891

7A 197

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15932	1072	CH 7	15982
496	CH 4	16348	1074	CH 8	16653
498	CH 5	16678	1076	CH 9	16535
500	CH 6	16883	1078	CH 10	16521
502	CH 7	15980	1080	CH 11	16308
504	CH 8	16648	1082	CH 12	16625
506	CH 9	16528	1084	CH 13	16435
508	CH 10	16514	1086	CH 14	16905
510	CH 11	16305	1088	CH 15	16278
512	CH 12	16625	1182	REFLECTOR 1 WARM CAL POS	8527
514	CH 13	16426	1184	REFLECTOR 2 WARM CAL POS	8178
516	CH 14	16885	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16282	1188	REFL 2 WARM CAL 2ND LOOK	8178
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15964
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16380
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16717
526	REFL 2 POS 16 2ND LOOK	58	1196	CH 6	16903
528	SCENE DATA BP 16 CH 3	15929	1198	CH 7	16003
530	CH 4	16349	1200	CH 8	16687
532	CH 5	16672	1202	CH 9	16548
534	CH 6	16886	1204	CH 10	16531
536	CH 7	15980	1206	CH 11	16320
538	CH 8	16652	1208	CH 12	16651
540	CH 9	16526	1210	CH 13	16456
542	CH 10	16508	1212	CH 14	16928
544	CH 11	16292	1214	CH 15	16297
546	CH 12	16630	1216	WARM CAL DATA 2 CH 3	15960
548	CH 13	16426	1218	CH 4	16381
550	CH 14	16883	1220	CH 5	16719
552	CH 15	16280	1222	CH 6	16914
554	REFLECTOR 1 POSITION 17	572	1224	CH 7	16005
556	REFLECTOR 2 POSITION 17	212	1226	CH 8	16692
558	REFL 1 POS 17 2ND LOOK	562	1228	CH 9	16549
560	REFL 2 POS 17 2ND LOOK	210	1230	CH 10	16541
562	SCENE DATA BP 17 CH 3	15922	1232	CH 11	16326
564	CH 4	16337	1234	CH 12	16650
566	CH 5	16673	1236	CH 13	16453
568	CH 6	16878	1238	CH 14	16916
570	CH 7	15974	1240	CH 15	16297

7A 197

JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18467	23.81
1092	SCAN MOTOR A1-2	19366	24.82
1094	FEED HORN A1-1	19990	27.06
1096	FEED HORN A1-2	20843	28.73
1098	RF MUX A1-1	21597	29.98
1100	RF MUX A1-2	22676	32.18
1102	LOCAL OSCILLATOR CHANNEL 3	23675	34.33
1104	LOCAL OSCILLATOR CHANNEL 4	24106	34.49
1106	LOCAL OSCILLATOR CHANNEL 5	22946	32.89
1108	LOCAL OSCILLATOR CHANNEL 6	22147	30.42
1110	LOCAL OSCILLATOR CHANNEL 7	22262	31.36
1112	LOCAL OSCILLATOR CHANNEL 8	23553	33.86
1114	LOCAL OSCILLATOR CHANNEL 15	23092	32.58
1116	PLLO #2	21804	30.41
1118	PLLO #1	24123	34.93
1120	1553 INTERFACE	17468	35.03
1122	MIXER/IF AMPLIFIER CHANNEL 3	22956	32.68
1124	MIXER/IF AMPLIFIER CHANNEL 4	23141	32.54
1126	MIXER/IF AMPLIFIER CHANNEL 5	22803	32.30
1128	MIXER/IF AMPLIFIER CHANNEL 6	21894	30.56
1130	MIXER/IF AMPLIFIER CHANNEL 7	21819	30.97
1132	MIXER/IF AMPLIFIER CHANNEL 8	23070	32.76
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	21343	29.72
1136	MIXER/IF AMPLIFIER CHANNEL 15	23035	32.99
1138	IF AMPLIFIER CHANNEL 11 THRU 14	22709	31.98
1140	IF AMPLIFIER CHANNEL 9	22859	31.80
1142	IF AMPLIFIER CHANNEL 10	22730	32.37
1144	IF AMPLIFIER CHANNEL 11	21949	29.99
1146	DC/DC CONVERTER	24651	35.35
1148	IF AMPLIFIER CHANNEL 13	21542	29.33
1150	IF AMPLIFIER CHANNEL 14	21907	30.48
1152	IF AMPLIFIER CHANNEL 12	21710	29.89
1154	RF SHELF A1-1	22305	31.34
1156	RF SHELF A1-2	22877	31.81
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20454	27.80
1160	A1-1 WARM LOAD 1	23869	24.73
1162	A1-1 WARM LOAD 2	24355	24.82
1164	A1-1 WARM LOAD 3	23858	24.86
1166	A1-1 WARM LOAD 4	23936	24.83
1168	A1-1 WARM LOAD CENTER	24137	24.85
1170	A1-2 WARM LOAD 1	24636	25.71
1172	A1-2 WARM LOAD 2	24694	25.73
1174	A1-2 WARM LOAD 3	24718	25.75
1176	A1-2 WARM LOAD 4	24704	25.62
1178	A1-2 WARM LOAD CENTER	24706	25.72
1180	TEMP SENSOR REFERENCE VOLTAGE	25265	

JUL 1 4 1998

7A 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.2
A1-1 RF SHELF TEMPERATURE #1	27.1
A1-1 WARM LOAD TEMPERATURE	24.3
A1-2 SCANNER MOTOR TEMPERATURE	24.8
A1-2 RF SHELF TEMPERATURE #1	29.7
A1-2 WARM LOAD TEMPERATURE	25.2
A1-1 RF SHELF TEMPERATURE #2	27.0
A1-2 RF SHELF TEMPERATURE #2	29.4

DESCRIPTION			VALUE	AMPS/VOLTS
SIGNAL PROCESSOR		+5 VDC	22067	4.9
		+15 VDC	21835	15.1
		-15 VDC	21799	-15.0
SCAN DRIVE		+5 VDC	22190	4.9
		+15 VDC	22203	14.9
		-15 VDC	21866	-15.1
PLO		+15 VDC	22461	14.8
		-15 VDC	22070	-15.2
RECEIVER		+8 VDC	21812	7.9
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21418	10.0
	A1-2	+10 VDC	21435	10.0
LO CHANNEL	6	+10 VDC	21393	10.0
	7	+10 VDC	21475	10.0
SPARE			32767	0.0
LO CHANNEL	3	+10 VDC	21258	10.1
	4	+10 VDC	21204	10.1
	5	+10 VDC	21355	10.0
	8	+10 VDC	21325	10.0
	15	+15 VDC	22034	15.0
QUIET BUS CURRENT			16504	2266.6
A1-1 NOISY POWER BUS CURRENT			18116	58.0
A1-2 NOISY POWER BUS CURRENT			16926	54.3

JUL 14 1998
7A 197

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 1 4 1998
74 197

TEST DATA SHEET NO. 9 (sheet 3 of 3)
Science and Engineering Data Test (Full Scan Mode) (Paragraph 3.3.5.3.1)

ENGINEERING DATA				
Step	Description	Measured*	Required	(P)ass/(F)ail
4i	Signal Processor (+5 VDC)		+4 to +6 volts	P
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	P

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R H Platt 7/14/98
Test Systems Engineer Date

J. Songard JUL 22 '98
Customer Representative Date

Quality Control JUL 14 1998
Date

TEST DATA SHEET NO. 10 (Sheet 1 of 2)
Science and Engineering Data Test (Warm Cal Mode) (Paragraph 3.3.5.3.2)

Step	Instrument Status	(Y)es / (N)o
1	Warm Cal Mode command received?	Y
2	ENGR OK message seen?	Y
3	Both reflectors positioned at warm loads?	Y

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	P
4b	3-4	Packet Length		0000001010111111	P
4c	5-6	Unit Serial Number		0000001100000000	P
4d	7-8	Instrument Mode/ Status		10~~1~~1101000000100	P

0 RGtPlatt 7/13/98 QC 227

RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	P

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	P
4g	1180	Temperature Sensor Reference	23244-26317 counts	P

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	P
	Antenna in Warm Cal Mode		YES	
	Antenna in Cold Cal Mode		NO	
	Antenna in Nadir Mode		NO	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	P

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R Gt Platt 7/14/98
Test Systems Engineer Date

J. Sanford JUL 23 98
Customer Representative Date

JUL 1 4 1998
Quality Control Date

SUPPORT DATA FOR TDS 1D ECD-?? S/N 202 S/O 248561 1ST CP

```
EOS   A1-03 E1.EXE;35 WARM CAL MODE      P1 14-JUL-98 01:06:42  SCAN NUMBER   506
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT    00

[ 7 ] ENGINEERING     ELEMENT    00

                      COMMANDS          PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON   COLD CAL POSITION 1 =       YES  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                     2 =       NO   [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    NO                     3 =       NO   [ 18 ]

[ 12 ]        WARM CAL       =     YES  COLD CAL POSITION 4 =       NO   [ 19 ]

[ 13 ]        COLD CAL       =     NO   RESET C&DH PROCESSOR             [ 20 ]

[ 14 ]        NADIR          =     NO   GSE MODE                         [ 21 ]

ENGR OK       POWER    ON    CHECKSUM  IN 8FB5 CALC 8FB5   SA28   759 SA29  1517
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
```

JUL 1 4 1998

TA 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16590
2		00000011	574	CH 9	16462
3	PACKET LENGTH	00000010	576	CH 10	16407
4		10111111	578	CH 11	16035
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16333
6		00000000	582	CH 13	16109
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16552
8		00000100	586	CH 15	16187
10	REFLECTOR 1 POSITION 1	8525	588	REFLECTOR 1 POSITION 18	8525
12	REFLECTOR 2 POSITION 1	8171	590	REFLECTOR 2 POSITION 18	8171
14	REFL 1 POS 1 2ND LOOK	8525	592	REFL 1 POS 18 2ND LOOK	8525
16	REFL 2 POS 1 2ND LOOK	8171	594	REFL 2 POS 18 2ND LOOK	8171
18	SCENE DATA BP 1 CH 3	15887	596	SCENE DATA BP 18 CH 3	15888
20	CH 4	16236	598	CH 4	16238
22	CH 5	16546	600	CH 5	16547
24	CH 6	16842	602	CH 6	16842
26	CH 7	15913	604	CH 7	15909
28	CH 8	16591	606	CH 8	16590
30	CH 9	16462	608	CH 9	16459
32	CH 10	16402	610	CH 10	16403
34	CH 11	16038	612	CH 11	16039
36	CH 12	16333	614	CH 12	16339
38	CH 13	16115	616	CH 13	16104
40	CH 14	16536	618	CH 14	16558
42	CH 15	16188	620	CH 15	16186
44	REFLECTOR 1 POSITION 2	8525	622	REFLECTOR 1 POSITION 19	8525
46	REFLECTOR 2 POSITION 2	8171	624	REFLECTOR 2 POSITION 19	8171
48	REFL 1 POS 2 2ND LOOK	8525	626	REFL 1 POS 19 2ND LOOK	8525
50	REFL 2 POS 2 2ND LOOK	8171	628	REFL 2 POS 19 2ND LOOK	8171
52	SCENE DATA BP 2 CH 3	15893	630	SCENE DATA BP 19 CH 3	15888
54	CH 4	16240	632	CH 4	16236
56	CH 5	16543	634	CH 5	16546
58	CH 6	16838	636	CH 6	16842
60	CH 7	15910	638	CH 7	15909
62	CH 8	16593	640	CH 8	16591
64	CH 9	16461	642	CH 9	16459
66	CH 10	16402	644	CH 10	16401
68	CH 11	16045	646	CH 11	16039
70	CH 12	16345	648	CH 12	16329
72	CH 13	16107	650	CH 13	16113
74	CH 14	16562	652	CH 14	16539
76	CH 15	16186	654	CH 15	16184
78	REFLECTOR 1 POSITION 3	8525	656	REFLECTOR 1 POSITION 20	8525
80	REFLECTOR 2 POSITION 3	8171	658	REFLECTOR 2 POSITION 20	8171
82	REFL 1 POS 3 2ND LOOK	8525	660	REFL 1 POS 20 2ND LOOK	8525
84	REFL 2 POS 3 2ND LOOK	8171	662	REFL 2 POS 20 2ND LOOK	8171
86	SCENE DATA BP 3 CH 3	15890	664	SCENE DATA BP 20 CH 3	15885
88	CH 4	16239	666	CH 4	16238
90	CH 5	16547	668	CH 5	16549
92	CH 6	16839	670	CH 6	16842

JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15912	672	CH 7	15907
96	CH 8	16595	674	CH 8	16590
98	CH 9	16460	676	CH 9	16462
100	CH 10	16405	678	CH 10	16400
102	CH 11	16041	680	CH 11	16040
104	CH 12	16344	682	CH 12	16339
106	CH 13	16107	684	CH 13	16104
108	CH 14	16557	686	CH 14	16549
110	CH 15	16186	688	CH 15	16186
112	REFLECTOR 1 POSITION 4	8525	690	REFLECTOR 1 POSITION 21	8525
114	REFLECTOR 2 POSITION 4	8171	692	REFLECTOR 2 POSITION 21	8171
116	REFL 1 POS 4 2ND LOOK	8525	694	REFL 1 POS 21 2ND LOOK	8525
118	REFL 2 POS 4 2ND LOOK	8171	696	REFL 2 POS 21 2ND LOOK	8171
120	SCENE DATA BP 4 CH 3	15884	698	SCENE DATA BP 21 CH 3	15885
122	CH 4	16238	700	CH 4	16243
124	CH 5	16548	702	CH 5	16545
126	CH 6	16839	704	CH 6	16839
128	CH 7	15911	706	CH 7	15911
130	CH 8	16592	708	CH 8	16589
132	CH 9	16460	710	CH 9	16461
134	CH 10	16404	712	CH 10	16408
136	CH 11	16039	714	CH 11	16041
138	CH 12	16336	716	CH 12	16330
140	CH 13	16103	718	CH 13	16112
142	CH 14	16570	720	CH 14	16550
144	CH 15	16185	722	CH 15	16185
146	REFLECTOR 1 POSITION 5	8525	724	REFLECTOR 1 POSITION 22	8525
148	REFLECTOR 2 POSITION 5	8171	726	REFLECTOR 2 POSITION 22	8171
150	REFL 1 POS 5 2ND LOOK	8525	728	REFL 1 POS 22 2ND LOOK	8525
152	REFL 2 POS 5 2ND LOOK	8171	730	REFL 2 POS 22 2ND LOOK	8171
154	SCENE DATA BP 5 CH 3	15886	732	SCENE DATA BP 22 CH 3	15892
156	CH 4	16241	734	CH 4	16242
158	CH 5	16552	736	CH 5	16544
160	CH 6	16845	738	CH 6	16841
162	CH 7	15911	740	CH 7	15913
164	CH 8	16588	742	CH 8	16588
166	CH 9	16459	744	CH 9	16460
168	CH 10	16403	746	CH 10	16400
170	CH 11	16043	748	CH 11	16043
172	CH 12	16340	750	CH 12	16329
174	CH 13	16103	752	CH 13	16102
176	CH 14	16553	754	CH 14	16551
178	CH 15	16185	756	CH 15	16186
180	REFLECTOR 1 POSITION 6	8525	758	REFLECTOR 1 POSITION 23	8525
182	REFLECTOR 2 POSITION 6	8171	760	REFLECTOR 2 POSITION 23	8171
184	REFL 1 POS 6 2ND LOOK	8525	762	REFL 1 POS 23 2ND LOOK	8525
186	REFL 2 POS 6 2ND LOOK	8171	764	REFL 2 POS 23 2ND LOOK	8171
188	SCENE DATA BP 6 CH 3	15886	766	SCENE DATA BP 23 CH 3	15887
190	CH 4	16242	768	CH 4	16237
192	CH 5	16549	770	CH 5	16547

JUL 1 4 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16844	772	CH 6	16837
196	CH 7	15913	774	CH 7	15915
198	CH 8	16589	776	CH 8	16591
200	CH 9	16459	778	CH 9	16460
202	CH 10	16399	780	CH 10	16407
204	CH 11	16038	782	CH 11	16038
206	CH 12	16333	784	CH 12	16333
208	CH 13	16097	786	CH 13	16107
210	CH 14	16540	788	CH 14	16560
212	CH 15	16186	790	CH 15	16187
214	REFLECTOR 1 POSITION 7	8525	792	REFLECTOR 1 POSITION 24	8525
216	REFLECTOR 2 POSITION 7	8171	794	REFLECTOR 2 POSITION 24	8171
218	REFL 1 POS 7 2ND LOOK	8525	796	REFL 1 POS 24 2ND LOOK	8525
220	REFL 2 POS 7 2ND LOOK	8171	798	REFL 2 POS 24 2ND LOOK	8171
222	SCENE DATA BP 7 CH 3	15890	800	SCENE DATA BP 24 CH 3	15886
224	CH 4	16241	802	CH 4	16237
226	CH 5	16545	804	CH 5	16548
228	CH 6	16841	806	CH 6	16840
230	CH 7	15914	808	CH 7	15911
232	CH 8	16593	810	CH 8	16591
234	CH 9	16458	812	CH 9	16462
236	CH 10	16409	814	CH 10	16400
238	CH 11	16033	816	CH 11	16038
240	CH 12	16330	818	CH 12	16338
242	CH 13	16100	820	CH 13	16105
244	CH 14	16553	822	CH 14	16572
246	CH 15	16185	824	CH 15	16188
248	REFLECTOR 1 POSITION 8	8525	826	REFLECTOR 1 POSITION 25	8525
250	REFLECTOR 2 POSITION 8	8171	828	REFLECTOR 2 POSITION 25	8171
252	REFL 1 POS 8 2ND LOOK	8525	830	REFL 1 POS 25 2ND LOOK	8525
254	REFL 2 POS 8 2ND LOOK	8171	832	REFL 2 POS 25 2ND LOOK	8171
256	SCENE DATA BP 8 CH 3	15883	834	SCENE DATA BP 25 CH 3	15886
258	CH 4	16242	836	CH 4	16241
260	CH 5	16547	838	CH 5	16547
262	CH 6	16840	840	CH 6	16837
264	CH 7	15909	842	CH 7	15914
266	CH 8	16592	844	CH 8	16592
268	CH 9	16458	846	CH 9	16457
270	CH 10	16404	848	CH 10	16400
272	CH 11	16039	850	CH 11	16038
274	CH 12	16329	852	CH 12	16334
276	CH 13	16102	854	CH 13	16104
278	CH 14	16568	856	CH 14	16560
280	CH 15	16189	858	CH 15	16186
282	REFLECTOR 1 POSITION 9	8525	860	REFLECTOR 1 POSITION 26	8525
284	REFLECTOR 2 POSITION 9	8171	862	REFLECTOR 2 POSITION 26	8171
286	REFL 1 POS 9 2ND LOOK	8525	864	REFL 1 POS 26 2ND LOOK	8525
288	REFL 2 POS 9 2ND LOOK	8171	866	REFL 2 POS 26 2ND LOOK	8171
290	SCENE DATA BP 9 CH 3	15891	868	SCENE DATA BP 26 CH 3	15886
292	CH 4	16239	870	CH 4	16239

JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16549	872	CH 5	16549
296	CH 6	16843	874	CH 6	16841
298	CH 7	15907	876	CH 7	15909
300	CH 8	16593	878	CH 8	16593
302	CH 9	16461	880	CH 9	16460
304	CH 10	16404	882	CH 10	16405
306	CH 11	16035	884	CH 11	16040
308	CH 12	16340	886	CH 12	16331
310	CH 13	16100	888	CH 13	16099
312	CH 14	16549	890	CH 14	16560
314	CH 15	16185	892	CH 15	16186
316	REFLECTOR 1 POSITION 10	8525	894	REFLECTOR 1 POSITION 27	8525
318	REFLECTOR 2 POSITION 10	8171	896	REFLECTOR 2 POSITION 27	8171
320	REFL 1 POS 10 2ND LOOK	8525	898	REFL 1 POS 27 2ND LOOK	8525
322	REFL 2 POS 10 2ND LOOK	8171	900	REFL 2 POS 27 2ND LOOK	8171
324	SCENE DATA BP 10 CH 3	15890	902	SCENE DATA BP 27 CH 3	15892
326	CH 4	16242	904	CH 4	16241
328	CH 5	16548	906	CH 5	16550
330	CH 6	16842	908	CH 6	16844
332	CH 7	15913	910	CH 7	15910
334	CH 8	16591	912	CH 8	16590
336	CH 9	16459	914	CH 9	16460
338	CH 10	16408	916	CH 10	16401
340	CH 11	16038	918	CH 11	16046
342	CH 12	16338	920	CH 12	16329
344	CH 13	16110	922	CH 13	16097
346	CH 14	16567	924	CH 14	16576
348	CH 15	16187	926	CH 15	16186
350	REFLECTOR 1 POSITION 11	8525	928	REFLECTOR 1 POSITION 28	8525
352	REFLECTOR 2 POSITION 11	8171	930	REFLECTOR 2 POSITION 28	8171
354	REFL 1 POS 11 2ND LOOK	8525	932	REFL 1 POS 28 2ND LOOK	8525
356	REFL 2 POS 11 2ND LOOK	8171	934	REFL 2 POS 28 2ND LOOK	8171
358	SCENE DATA BP 11 CH 3	15886	936	SCENE DATA BP 28 CH 3	15888
360	CH 4	16240	938	CH 4	16239
362	CH 5	16550	940	CH 5	16548
364	CH 6	16842	942	CH 6	16843
366	CH 7	15913	944	CH 7	15908
368	CH 8	16595	946	CH 8	16592
370	CH 9	16460	948	CH 9	16459
372	CH 10	16402	950	CH 10	16400
374	CH 11	16040	952	CH 11	16040
376	CH 12	16333	954	CH 12	16332
378	CH 13	16101	956	CH 13	16104
380	CH 14	16556	958	CH 14	16574
382	CH 15	16184	960	CH 15	16186
384	REFLECTOR 1 POSITION 12	8525	962	REFLECTOR 1 POSITION 29	8525
386	REFLECTOR 2 POSITION 12	8171	964	REFLECTOR 2 POSITION 29	8171
388	REFL 1 POS 12 2ND LOOK	8525	966	REFL 1 POS 29 2ND LOOK	8525
390	REFL 2 POS 12 2ND LOOK	8171	968	REFL 2 POS 29 2ND LOOK	8171
392	SCENE DATA BP 12 CH 3	15889	970	SCENE DATA BP 29 CH 3	15884

JUL 1

7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16238	972	CH 4	16240
396	CH 5	16548	974	CH 5	16545
398	CH 6	16840	976	CH 6	16838
400	CH 7	15915	978	CH 7	15916
402	CH 8	16594	980	CH 8	16591
404	CH 9	16462	982	CH 9	16459
406	CH 10	16404	984	CH 10	16405
408	CH 11	16041	986	CH 11	16037
410	CH 12	16334	988	CH 12	16332
412	CH 13	16105	990	CH 13	16120
414	CH 14	16548	992	CH 14	16546
416	CH 15	16187	994	CH 15	16187
418	REFLECTOR 1 POSITION 13	8525	996	REFLECTOR 1 POSITION 30	8525
420	REFLECTOR 2 POSITION 13	8171	998	REFLECTOR 2 POSITION 30	8171
422	REFL 1 POS 13 2ND LOOK	8525	1000	REFL 1 POS 30 2ND LOOK	8525
424	REFL 2 POS 13 2ND LOOK	8171	1002	REFL 2 POS 30 2ND LOOK	8171
426	SCENE DATA BP 13 CH 3	15886	1004	SCENE DATA BP 30 CH 3	15890
428	CH 4	16242	1006	CH 4	16241
430	CH 5	16548	1008	CH 5	16544
432	CH 6	16837	1010	CH 6	16842
434	CH 7	15915	1012	CH 7	15909
436	CH 8	16591	1014	CH 8	16593
438	CH 9	16463	1016	CH 9	16458
440	CH 10	16402	1018	CH 10	16405
442	CH 11	16041	1020	CH 11	16042
444	CH 12	16339	1022	CH 12	16324
446	CH 13	16113	1024	CH 13	16111
448	CH 14	16567	1026	CH 14	16531
450	CH 15	16186	1028	CH 15	16184
452	REFLECTOR 1 POSITION 14	8525	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	8171	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	8525	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	8171	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15887	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16239	1040	CH 4	0
464	CH 5	16546	1042	CH 5	0
466	CH 6	16840	1044	CH 6	0
468	CH 7	15911	1046	CH 7	0
470	CH 8	16591	1048	CH 8	0
472	CH 9	16458	1050	CH 9	0
474	CH 10	16401	1052	CH 10	0
476	CH 11	16039	1054	CH 11	0
478	CH 12	16328	1056	CH 12	0
480	CH 13	16102	1058	CH 13	0
482	CH 14	16548	1060	CH 14	0
484	CH 15	16186	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	8525	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	8171	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	8525	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	8171	1070	CH 6	0

TA 197

JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15888	1072	CH 7	0
496	CH 4	16243	1074	CH 8	0
498	CH 5	16549	1076	CH 9	0
500	CH 6	16842	1078	CH 10	0
502	CH 7	15914	1080	CH 11	0
504	CH 8	16594	1082	CH 12	0
506	CH 9	16460	1084	CH 13	0
508	CH 10	16404	1086	CH 14	0
510	CH 11	16042	1088	CH 15	0
512	CH 12	16339	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16105	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16552	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16183	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	8525	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	8171	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	8525	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	8171	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15887	1198	CH 7	0
530	CH 4	16242	1200	CH 8	0
532	CH 5	16548	1202	CH 9	0
534	CH 6	16841	1204	CH 10	0
536	CH 7	15913	1206	CH 11	0
538	CH 8	16592	1208	CH 12	0
540	CH 9	16462	1210	CH 13	0
542	CH 10	16403	1212	CH 14	0
544	CH 11	16037	1214	CH 15	0
546	CH 12	16330	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16115	1218	CH 4	0
550	CH 14	16545	1220	CH 5	0
552	CH 15	16186	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	8525	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	8171	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	8525	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	8171	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15879	1232	CH 11	0
564	CH 4	16239	1234	CH 12	0
566	CH 5	16549	1236	CH 13	0
568	CH 6	16842	1238	CH 14	0
570	CH 7	15911	1240	CH 15	0

JUL 1 4 1998
7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18738	24.32
1092	SCAN MOTOR A1-2	19947	25.93
1094	FEED HORN A1-1	20987	28.95
1096	FEED HORN A1-2	22178	31.29
1098	RF MUX A1-1	23002	32.68
1100	RF MUX A1-2	24494	35.72
1102	LOCAL OSCILLATOR CHANNEL 3	25588	38.05
1104	LOCAL OSCILLATOR CHANNEL 4	26029	38.23
1106	LOCAL OSCILLATOR CHANNEL 5	24680	36.25
1108	LOCAL OSCILLATOR CHANNEL 6	23309	32.65
1110	LOCAL OSCILLATOR CHANNEL 7	23682	34.11
1112	LOCAL OSCILLATOR CHANNEL 8	25404	37.54
1114	LOCAL OSCILLATOR CHANNEL 15	24633	35.55
1116	PLLO #2	22980	32.67
1118	PLLO #1	25863	38.31
1120	1553 INTERFACE	18920	37.83
1122	MIXER/IF AMPLIFIER CHANNEL 3	24809	36.25
1124	MIXER/IF AMPLIFIER CHANNEL 4	24976	36.10
1126	MIXER/IF AMPLIFIER CHANNEL 5	24568	35.71
1128	MIXER/IF AMPLIFIER CHANNEL 6	23303	33.26
1130	MIXER/IF AMPLIFIER CHANNEL 7	23312	33.84
1132	MIXER/IF AMPLIFIER CHANNEL 8	24932	36.36
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22750	32.42
1136	MIXER/IF AMPLIFIER CHANNEL 15	24541	35.90
1138	IF AMPLIFIER CHANNEL 11 THRU 14	24261	35.16
1140	IF AMPLIFIER CHANNEL 9	24426	35.38
1142	IF AMPLIFIER CHANNEL 10	24292	35.39
1144	IF AMPLIFIER CHANNEL 11	23404	32.81
1146	DC/DC CONVERTER	25763	37.52
1148	IF AMPLIFIER CHANNEL 13	22980	32.10
1150	IF AMPLIFIER CHANNEL 14	23345	33.25
1152	IF AMPLIFIER CHANNEL 12	23159	32.68
1154	RF SHELF A1-1	23711	34.03
1156	RF SHELF A1-2	24643	35.23
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21444	29.69
1160	A1-1 WARM LOAD 1	24225	25.43
1162	A1-1 WARM LOAD 2	24720	25.54
1164	A1-1 WARM LOAD 3	24217	25.57
1166	A1-1 WARM LOAD 4	24302	25.55
1168	A1-1 WARM LOAD CENTER	24501	25.57
1170	A1-2 WARM LOAD 1	25393	27.21
1172	A1-2 WARM LOAD 2	25450	27.23
1174	A1-2 WARM LOAD 3	25474	27.25
1176	A1-2 WARM LOAD 4	25460	27.13
1178	A1-2 WARM LOAD CENTER	25466	27.22
1180	TEMP SENSOR REFERENCE VOLTAGE	25269	

JUL 1 4 1998

7A 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	YES
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22070	4.9
	+15 VDC	21840	15.1
	-15 VDC	21799	-15.0
SCAN DRIVE	+5 VDC	22161	4.9
	+15 VDC	22128	14.9
	-15 VDC	21854	-15.1
PLO	+15 VDC	22455	14.8
	-15 VDC	22071	-15.2
RECEIVER	+8 VDC	21808	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21416	10.0
A1-2	+10 VDC	21432	10.0
LO CHANNEL 6	+10 VDC	21391	10.0
7	+10 VDC	21460	10.0
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21256	10.1
4	+10 VDC	21205	10.1
5	+10 VDC	21339	10.0
8	+10 VDC	21323	10.0
15	+15 VDC	22033	15.0
QUIET BUS CURRENT		16625	2283.2
A1-1 NOISY POWER BUS CURRENT		75	0.3
A1-2 NOISY POWER BUS CURRENT		43	0.2

7A 197

JUL 14 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197 JUL 1 4

TEST DATA SHEET NO. 10 (sheet 2 of 2)
Science and Engineering Data Test (Warm Cal Mode) (Paragraph 3.3.5.3.2)

REFLECTOR POSITIONS (Step 4e)						
	A1-1 REFLECTOR			A1-2 REFLECTOR		
BP	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	8525	8528	P	8171	8176	P

* Actual range (min to max) of counts from printout (Only beam positions 1-30). Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 ± 5 counts for warm calibration position

ENGINEERING DATA				
Step	Description	Measured***	Required	(P)ass/(F)ail
4i	Signal Processor (+5 VDC)		+4 to +6 volts	P
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	P

*** Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: 293561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

JUL 23 '98
J. Sanford
Customer Representative Date

R H Platt 7/14/98
Test Systems Engineer JUL 14 1998 Date

Quality Control Date

TEST DATA SHEET NO. 11 (Sheet 1 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

Step	Instrument Status	(Y)es / (N)o
1	Cold Cal Mode command received?	Y
2	ENGR OK message seen?	Y
3	Both reflectors positioned at cold cal position 1?	Y
6	Cold Cal Position 2 command received?	Y
7	ENGR OK message seen?	Y
8	Both reflectors positioned at cold cal position 2?	Y
11	Cold Cal Position 3 command received?	Y
12	ENGR OK message seen?	Y
13	Both reflectors positioned at cold cal position 3?	Y
16	Cold Cal Position 4 command received?	Y
17	ENGR OK message seen?	Y
18	Both reflectors positioned at cold cal position 4?	Y

Yes = Pass No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	P
4b	3-4	Packet Length		0000001010111111	P
4c	5-6	Unit Serial Number		0000001100000000	P
4d	7-8	Instrument Mode/ Status		10X1101000001000	P
9a	7-8	Instrument Mode/ Status		10X1101000101000	P
14a	7-8	Instrument Mode/ Status		10X1101001001000	P
19a	7-8	Instrument Mode/ Status		10X1101001101000	P

O RY Platt 7/13/98 QC 227

RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	P

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	P
4g	1180	Temperature Sensor Reference	23244-26317 counts	P

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R N Platt 7/14/98
Test Systems Engineer Date

J. Sanford JUL 22 '98
Customer Representative Date

JUL 14 1998
Quality Control Date

TEST DATA SHEET NO. 11 (sheet 2 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	P
	Antenna in Warm Cal Mode		NO	
	Antenna in Cold Cal Mode		YES	
	Antenna in Nadir Mode		NO	
	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ZERO	
	PLO Redundancy		PLO #1	
	Scanner A1-1 Power		ON	
	Scanner A1-2 Power		ON	
	PLO #1 Lock		YES	
	PLO #2 Lock		OFF	
	ADC Latchup Flag		ONE	
9b	Cold Cal Position LSB		ONE	
	Cold Cal Position MSB		ZERO	
14b	Cold Cal Position LSB		ZERO	
	Cold Cal Position MSB		ONE	
19b	Cold Cal Position LSB		ONE	
	Cold Cal Position MSB		ONE	P

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 ~~System~~ P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

[signature] 7/14/98
Test Systems Engineer Date

[signature] JUL 28 '98
Customer Representative Date

JUL 14 1998
Quality Control Date

TEST DATA SHEET NO. 11 (sheet 3 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

REFLECTOR POSITIONS (Step ~~4C~~ 6C) RM Platt 7/13/98 QC 227

BP	A1-1 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	A1-2 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	4128	4129	P	3779	3777	P

** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #1

REFLECTOR POSITIONS (Step ~~9C~~ 14C) RM Platt 7/13/98 QC 227

BP	A1-1 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	A1-2 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	4050	4053	P	3703	3701	P

** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #2

REFLECTOR POSITIONS (Step ~~14C~~ 22C) RM Platt 7/13/98 QC 227

BP	A1-1 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	A1-2 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	3980	3977	P	3626	3625	P

** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #3

REFLECTOR POSITIONS (Step ~~19C~~ 30C) RM Platt 7/13/98 QC 227

BP	A1-1 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	A1-2 REFLECTOR Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	3827	3826	P	3476	3474	P

** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for Cold Cal Position #4

* Actual range (min to max) of counts from printout (Only beam positions 1-30).
Rewriting counts on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

RM Platt 7/14/98
Test Systems Engineer Date

J. Sanford JUL 22 98
Customer Representative Date

JUL 1 4 1998
Quality Control Date

9J Platt 7/13/98 QC 227

TEST DATA SHEET No 11 (sheet 4 of 5)

SCIENCE AND ENGINEERING DATA TEST (COLD CAL MODE) (PARAGRAPH 33.5.3.3)

REFLECTOR POSITIONS (STEP 6C)

BEAM POSITION	A1-1 REFLECTOR ACTUAL POSITION*	A1-1 REFLECTOR REQUIRED** ± 5 COUNTS	(P)ASS/(F)AIL	A1-2 REFLECTOR ACTUAL POSITION*	A1-2 REFLECTOR REQUIRED**	(P)ASS/(F)AIL
COLD CAL 1	4131	4129	P	3779	3777	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 1 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ±5 COUNTS FOR COLD CAL 1

REFLECTOR POSITIONS (STEP 14C)

BEAM POSITION	A1-1 REFLECTOR ACTUAL POSITION*	A1-1 REFLECTOR REQUIRED** ±	(P)ASS/(F)AIL	A1-2 REFLECTOR ACTUAL POSITION*	A1-2 REFLECTOR REQUIRED**	(P)ASS/(F)AIL
COLD CAL 2	4050	4053	P	3703	3701	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 2 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ±5 COUNTS FOR COLD CAL 2

REFLECTOR POSITIONS (STEP 22C)

BEAM POSITION	A1-1 REFLECTOR ACTUAL POSITION*	A1-1 REFLECTOR REQUIRED**	(P)ASS/(F)AIL	A1-2 REFLECTOR ACTUAL POSITION*	A1-2 REFLECTOR REQUIRED**	(P)ASS/(F)AIL
COLD CAL 3	3976	3977	P	3627	3625	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 3 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ± 5 COUNTS FOR COLD CAL 3

REFLECTOR POSITIONS (STEP 30C)

BEAM POSITION	A1-1 REFLECTOR ACTUAL POSITION*	A1-1 REFLECTOR REQUIRED**	(P)ASS/(F)AIL	A1-2 REFLECTOR ACTUAL POSITION*	A1-2 REFLECTOR REQUIRED**	(P)ASS/(F)AIL
COLD CAL 4	3826	3826	P	3476	3474	P

* ACTUAL COUNT FROM PRINTOUT COLD CAL 4 BEAM POSITION
** REQUIRED COUNT FROM AE-26002/1C TDS 6 ± 5 COUNTS FOR COLD CAL 4

EOS/AMSU-A1 SYSTEM P/N 1356008 SHOP ORDER: 298561 S/N: 202

CIRCLE TEST: 1ST CPT FINAL CPT SUB CPT N/A LPT N/A

R 9J Platt 7/14/98
TEST SYSTEMS ENGINEER DATE

JUL 22 '98
CUSTOMER REPRESENTATIVE DATE

TA 197 JUL 14 1998
QUALITY CONTROL DATE

Replaced By new TDS 11 A-B A

RH Platt 7/13/98

QC 227

TEST DATA SHEET NO. 11 (sheet 4 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1			

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1			

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1			

A1 REFLECTOR POSITION (Step 4e)			
Beam Position	Actual Beam Count*	Required ** Beam Count (± 5 counts)	Pass/Fail
Cold Cal 1			
* Actual count from printout (Only beam positions Cold Cal 1) ** Required count from AE-26002/IC TDS 6 ± 5 counts for Cold Cal 1			

EOS/AMSU-A1 System P/N 1356008 Shop Order: __________ S/N: __________
Circle Test: 1st CPT Final CPT Sub CPT __________ LPT __________

Test Systems Engineer Date

Customer Representative Date

Quality Control Date

TEST DATA SHEET NO. 11 (sheet 5 of 5)
Science and Engineering Data Test (Cold Cal Mode) (Paragraph 3.3.5.3.3)

ENGINEERING DATA				
Step	Description	Measured*	Required	(P)ass/(F)ail
	Signal Processor (+5 VDC)		+4 to +6 volts	P
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
4i	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	P

* Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

[signature] 7/14/98
Test Systems Engineer Date

JUL 22 '98
Customer Representative Date

JUL 14 1998
Quality Control Date

SUPPORT DATA TDS 12 EQ. A1 S/N 202 P/N 298561

1st CPT

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EOS   A1-03 E1.EXE;35 COLD CAL MODE       P1 14-JUL-98 00:08:18  SCAN NUMBER    68
[ 5 ] SCIENCE    DATA  ELEMENT 0000
[ 6 ] CONTROL/STATUS  ELEMENT    00
[ 7 ] ENGINEERING     ELEMENT    00
                       COMMANDS           PLLO POWER =               PLLO#1  [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =        ON     COLD CAL POSITION 1 =         YES  [ 16 ]
[ 10 ] SCANNER A1-2 POWER =        ON                       2 =          NO  [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =    NO                       3 =          NO  [ 18 ]
[ 12 ]         WARM CAL      =     NO     COLD CAL POSITION 4 =          NO  [ 19 ]
[ 13 ]         COLD CAL      =     YES    RESET C&DH PROCESSOR               [ 20 ]
[ 14 ]         NADIR         =     NO     GSE MODE                           [ 21 ]
ENGR OK        POWER     ON    CHECKSUM  IN 33B9 CALC 33B9   SA28     321 SA29   641
                         SCREEN ONLY [ 2 ]  PRINT   [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
```

JUL 1 4 1998

7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16588
2		00000011	574	CH 9	16485
3	PACKET LENGTH	00000010	576	CH 10	16450
4		10111111	578	CH 11	16168
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16467
6		00000000	582	CH 13	16263
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16722
8		00001000	586	CH 15	16219
10	REFLECTOR 1 POSITION 1	4128	588	REFLECTOR 1 POSITION 18	4128
12	REFLECTOR 2 POSITION 1	3779	590	REFLECTOR 2 POSITION 18	3779
14	REFL 1 POS 1 2ND LOOK	4128	592	REFL 1 POS 18 2ND LOOK	4128
16	REFL 2 POS 1 2ND LOOK	3779	594	REFL 2 POS 18 2ND LOOK	3779
18	SCENE DATA BP 1 CH 3	15878	596	SCENE DATA BP 18 CH 3	15877
20	CH 4	16257	598	CH 4	16259
22	CH 5	16583	600	CH 5	16586
24	CH 6	16854	602	CH 6	16860
26	CH 7	15934	604	CH 7	15929
28	CH 8	16585	606	CH 8	16585
30	CH 9	16482	608	CH 9	16484
32	CH 10	16449	610	CH 10	16446
34	CH 11	16164	612	CH 11	16165
36	CH 12	16480	614	CH 12	16468
38	CH 13	16284	616	CH 13	16262
40	CH 14	16723	618	CH 14	16706
42	CH 15	16216	620	CH 15	16222
44	REFLECTOR 1 POSITION 2	4128	622	REFLECTOR 1 POSITION 19	4128
46	REFLECTOR 2 POSITION 2	3779	624	REFLECTOR 2 POSITION 19	3779
48	REFL 1 POS 2 2ND LOOK	4128	626	REFL 1 POS 19 2ND LOOK	4128
50	REFL 2 POS 2 2ND LOOK	3779	628	REFL 2 POS 19 2ND LOOK	3779
52	SCENE DATA BP 2 CH 3	15879	630	SCENE DATA BP 19 CH 3	15879
54	CH 4	16254	632	CH 4	16255
56	CH 5	16582	634	CH 5	16586
58	CH 6	16858	636	CH 6	16853
60	CH 7	15931	638	CH 7	15929
62	CH 8	16588	640	CH 8	16584
64	CH 9	16484	642	CH 9	16481
66	CH 10	16450	644	CH 10	16451
68	CH 11	16168	646	CH 11	16168
70	CH 12	16471	648	CH 12	16476
72	CH 13	16273	650	CH 13	16259
74	CH 14	16713	652	CH 14	16721
76	CH 15	16221	654	CH 15	16220
78	REFLECTOR 1 POSITION 3	4128	656	REFLECTOR 1 POSITION 20	4128
80	REFLECTOR 2 POSITION 3	3779	658	REFLECTOR 2 POSITION 20	3779
82	REFL 1 POS 3 2ND LOOK	4128	660	REFL 1 POS 20 2ND LOOK	4128
84	REFL 2 POS 3 2ND LOOK	3779	662	REFL 2 POS 20 2ND LOOK	3779
86	SCENE DATA BP 3 CH 3	15881	664	SCENE DATA BP 20 CH 3	15876
88	CH 4	16259	666	CH 4	16255
90	CH 5	16583	668	CH 5	16584
92	CH 6	16855	670	CH 6	16859

7A 197

JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15930	672	CH 7	15931
96	CH 8	16588	674	CH 8	16584
98	CH 9	16482	676	CH 9	16484
100	CH 10	16453	678	CH 10	16451
102	CH 11	16160	680	CH 11	16168
104	CH 12	16480	682	CH 12	16475
106	CH 13	16274	684	CH 13	16273
108	CH 14	16709	686	CH 14	16717
110	CH 15	16219	688	CH 15	16218
112	REFLECTOR 1 POSITION 4	4128	690	REFLECTOR 1 POSITION 21	4128
114	REFLECTOR 2 POSITION 4	3779	692	REFLECTOR 2 POSITION 21	3779
116	REFL 1 POS 4 2ND LOOK	4128	694	REFL 1 POS 21 2ND LOOK	4128
118	REFL 2 POS 4 2ND LOOK	3779	696	REFL 2 POS 21 2ND LOOK	3779
120	SCENE DATA BP 4 CH 3	15879	698	SCENE DATA BP 21 CH 3	15875
122	CH 4	16256	700	CH 4	16257
124	CH 5	16589	702	CH 5	16585
126	CH 6	16855	704	CH 6	16854
128	CH 7	15930	706	CH 7	15930
130	CH 8	16581	708	CH 8	16587
132	CH 9	16482	710	CH 9	16488
134	CH 10	16450	712	CH 10	16449
136	CH 11	16170	714	CH 11	16168
138	CH 12	16473	716	CH 12	16483
140	CH 13	16262	718	CH 13	16266
142	CH 14	16721	720	CH 14	16728
144	CH 15	16219	722	CH 15	16218
146	REFLECTOR 1 POSITION 5	4128	724	REFLECTOR 1 POSITION 22	4128
148	REFLECTOR 2 POSITION 5	3779	726	REFLECTOR 2 POSITION 22	3779
150	REFL 1 POS 5 2ND LOOK	4128	728	REFL 1 POS 22 2ND LOOK	4128
152	REFL 2 POS 5 2ND LOOK	3779	730	REFL 2 POS 22 2ND LOOK	3779
154	SCENE DATA BP 5 CH 3	15878	732	SCENE DATA BP 22 CH 3	15878
156	CH 4	16255	734	CH 4	16257
158	CH 5	16585	736	CH 5	16585
160	CH 6	16859	738	CH 6	16859
162	CH 7	15931	740	CH 7	15929
164	CH 8	16585	742	CH 8	16585
166	CH 9	16484	744	CH 9	16486
168	CH 10	16453	746	CH 10	16452
170	CH 11	16163	748	CH 11	16163
172	CH 12	16473	750	CH 12	16472
174	CH 13	16274	752	CH 13	16264
176	CH 14	16716	754	CH 14	16704
178	CH 15	16219	756	CH 15	16220
180	REFLECTOR 1 POSITION 6	4128	758	REFLECTOR 1 POSITION 23	4128
182	REFLECTOR 2 POSITION 6	3779	760	REFLECTOR 2 POSITION 23	3779
184	REFL 1 POS 6 2ND LOOK	4128	762	REFL 1 POS 23 2ND LOOK	4128
186	REFL 2 POS 6 2ND LOOK	3779	764	REFL 2 POS 23 2ND LOOK	3779
188	SCENE DATA BP 6 CH 3	15877	766	SCENE DATA BP 23 CH 3	15876
190	CH 4	16254	768	CH 4	16258
192	CH 5	16585	770	CH 5	16588

JUL 14 1998

7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16858	772	CH 6	16858
196	CH 7	15930	774	CH 7	15932
198	CH 8	16589	776	CH 8	16582
200	CH 9	16484	778	CH 9	16484
202	CH 10	16457	780	CH 10	16449
204	CH 11	16166	782	CH 11	16165
206	CH 12	16470	784	CH 12	16464
208	CH 13	16266	786	CH 13	16260
210	CH 14	16719	788	CH 14	16732
212	CH 15	16220	790	CH 15	16220
214	REFLECTOR 1 POSITION 7	4128	792	REFLECTOR 1 POSITION 24	4128
216	REFLECTOR 2 POSITION 7	3779	794	REFLECTOR 2 POSITION 24	3779
218	REFL 1 POS 7 2ND LOOK	4128	796	REFL 1 POS 24 2ND LOOK	4128
220	REFL 2 POS 7 2ND LOOK	3779	798	REFL 2 POS 24 2ND LOOK	3779
222	SCENE DATA BP 7 CH 3	15878	800	SCENE DATA BP 24 CH 3	15877
224	CH 4	16258	802	CH 4	16256
226	CH 5	16585	804	CH 5	16587
228	CH 6	16854	806	CH 6	16858
230	CH 7	15931	808	CH 7	15931
232	CH 8	16587	810	CH 8	16587
234	CH 9	16485	812	CH 9	16483
236	CH 10	16446	814	CH 10	16447
238	CH 11	16165	816	CH 11	16167
240	CH 12	16474	818	CH 12	16468
242	CH 13	16270	820	CH 13	16267
244	CH 14	16733	822	CH 14	16720
246	CH 15	16220	824	CH 15	16220
248	REFLECTOR 1 POSITION 8	4128	826	REFLECTOR 1 POSITION 25	4128
250	REFLECTOR 2 POSITION 8	3779	828	REFLECTOR 2 POSITION 25	3779
252	REFL 1 POS 8 2ND LOOK	4128	830	REFL 1 POS 25 2ND LOOK	4128
254	REFL 2 POS 8 2ND LOOK	3779	832	REFL 2 POS 25 2ND LOOK	3779
256	SCENE DATA BP 8 CH 3	15880	834	SCENE DATA BP 25 CH 3	15879
258	CH 4	16256	836	CH 4	16256
260	CH 5	16586	838	CH 5	16584
262	CH 6	16856	840	CH 6	16852
264	CH 7	15931	842	CH 7	15932
266	CH 8	16582	844	CH 8	16586
268	CH 9	16485	846	CH 9	16485
270	CH 10	16456	848	CH 10	16450
272	CH 11	16170	850	CH 11	16163
274	CH 12	16476	852	CH 12	16470
276	CH 13	16266	854	CH 13	16261
278	CH 14	16724	856	CH 14	16725
280	CH 15	16220	858	CH 15	16220
282	REFLECTOR 1 POSITION 9	4128	860	REFLECTOR 1 POSITION 26	4128
284	REFLECTOR 2 POSITION 9	3779	862	REFLECTOR 2 POSITION 26	3779
286	REFL 1 POS 9 2ND LOOK	4128	864	REFL 1 POS 26 2ND LOOK	4128
288	REFL 2 POS 9 2ND LOOK	3779	866	REFL 2 POS 26 2ND LOOK	3779
290	SCENE DATA BP 9 CH 3	15877	868	SCENE DATA BP 26 CH 3	15879
292	CH 4	16260	870	CH 4	16256

7A 197 JUL

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16587	872	CH 5	16589
296	CH 6	16855	874	CH 6	16857
298	CH 7	15932	876	CH 7	15929
300	CH 8	16583	878	CH 8	16584
302	CH 9	16485	880	CH 9	16485
304	CH 10	16451	882	CH 10	16447
306	CH 11	16164	884	CH 11	16162
308	CH 12	16469	886	CH 12	16470
310	CH 13	16278	888	CH 13	16265
312	CH 14	16749	890	CH 14	16724
314	CH 15	16219	892	CH 15	16218
316	REFLECTOR 1 POSITION 10	4128	894	REFLECTOR 1 POSITION 27	4128
318	REFLECTOR 2 POSITION 10	3779	896	REFLECTOR 2 POSITION 27	3779
320	REFL 1 POS 10 2ND LOOK	4128	898	REFL 1 POS 27 2ND LOOK	4128
322	REFL 2 POS 10 2ND LOOK	3779	900	REFL 2 POS 27 2ND LOOK	3779
324	SCENE DATA BP 10 CH 3	15875	902	SCENE DATA BP 27 CH 3	15877
326	CH 4	16256	904	CH 4	16259
328	CH 5	16586	906	CH 5	16586
330	CH 6	16854	908	CH 6	16858
332	CH 7	15929	910	CH 7	15930
334	CH 8	16585	912	CH 8	16589
336	CH 9	16484	914	CH 9	16483
338	CH 10	16446	916	CH 10	16444
340	CH 11	16159	918	CH 11	16163
342	CH 12	16475	920	CH 12	16471
344	CH 13	16254	922	CH 13	16260
346	CH 14	16734	924	CH 14	16733
348	CH 15	16218	926	CH 15	16219
350	REFLECTOR 1 POSITION 11	4128	928	REFLECTOR 1 POSITION 28	4128
352	REFLECTOR 2 POSITION 11	3779	930	REFLECTOR 2 POSITION 28	3779
354	REFL 1 POS 11 2ND LOOK	4128	932	REFL 1 POS 28 2ND LOOK	4128
356	REFL 2 POS 11 2ND LOOK	3779	934	REFL 2 POS 28 2ND LOOK	3779
358	SCENE DATA BP 11 CH 3	15880	936	SCENE DATA BP 28 CH 3	15879
360	CH 4	16257	938	CH 4	16256
362	CH 5	16587	940	CH 5	16587
364	CH 6	16857	942	CH 6	16856
366	CH 7	15930	944	CH 7	15930
368	CH 8	16583	946	CH 8	16588
370	CH 9	16481	948	CH 9	16483
372	CH 10	16448	950	CH 10	16447
374	CH 11	16169	952	CH 11	16165
376	CH 12	16466	954	CH 12	16473
378	CH 13	16267	956	CH 13	16259
380	CH 14	16717	958	CH 14	16719
382	CH 15	16219	960	CH 15	16219
384	REFLECTOR 1 POSITION 12	4128	962	REFLECTOR 1 POSITION 29	4128
386	REFLECTOR 2 POSITION 12	3779	964	REFLECTOR 2 POSITION 29	3779
388	REFL 1 POS 12 2ND LOOK	4128	966	REFL 1 POS 29 2ND LOOK	4128
390	REFL 2 POS 12 2ND LOOK	3779	968	REFL 2 POS 29 2ND LOOK	3779
392	SCENE DATA BP 12 CH 3	15881	970	SCENE DATA BP 29 CH 3	15878

7A 197

JUL 14 199

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16258	972	CH 4	16260
396	CH 5	16587	974	CH 5	16587
398	CH 6	16855	976	CH 6	16855
400	CH 7	15929	978	CH 7	15928
402	CH 8	16583	980	CH 8	16582
404	CH 9	16488	982	CH 9	16482
406	CH 10	16448	984	CH 10	16445
408	CH 11	16163	986	CH 11	16165
410	CH 12	16478	988	CH 12	16475
412	CH 13	16263	990	CH 13	16272
414	CH 14	16712	992	CH 14	16708
416	CH 15	16219	994	CH 15	16219
418	REFLECTOR 1 POSITION 13	4128	996	REFLECTOR 1 POSITION 30	4128
420	REFLECTOR 2 POSITION 13	3779	998	REFLECTOR 2 POSITION 30	3779
422	REFL 1 POS 13 2ND LOOK	4128	1000	REFL 1 POS 30 2ND LOOK	4128
424	REFL 2 POS 13 2ND LOOK	3779	1002	REFL 2 POS 30 2ND LOOK	3778
426	SCENE DATA BP 13 CH 3	15876	1004	SCENE DATA BP 30 CH 3	15877
428	CH 4	16260	1006	CH 4	16259
430	CH 5	16584	1008	CH 5	16588
432	CH 6	16853	1010	CH 6	16853
434	CH 7	15928	1012	CH 7	15931
436	CH 8	16584	1014	CH 8	16588
438	CH 9	16480	1016	CH 9	16479
440	CH 10	16452	1018	CH 10	16449
442	CH 11	16162	1020	CH 11	16160
444	CH 12	16469	1022	CH 12	16469
446	CH 13	16262	1024	CH 13	16278
448	CH 14	16707	1026	CH 14	16732
450	CH 15	16219	1028	CH 15	16222
452	REFLECTOR 1 POSITION 14	4128	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	3779	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	4128	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	3779	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15874	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16259	1040	CH 4	0
464	CH 5	16588	1042	CH 5	0
466	CH 6	16858	1044	CH 6	0
468	CH 7	15933	1046	CH 7	0
470	CH 8	16583	1048	CH 8	0
472	CH 9	16483	1050	CH 9	0
474	CH 10	16450	1052	CH 10	0
476	CH 11	16162	1054	CH 11	0
478	CH 12	16480	1056	CH 12	0
480	CH 13	16273	1058	CH 13	0
482	CH 14	16731	1060	CH 14	0
484	CH 15	16218	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	4128	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	3779	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	4128	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	3779	1070	CH 6	0

7A 197

JUL 1

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15875	1072	CH 7	0
496	CH 4	16260	1074	CH 8	0
498	CH 5	16584	1076	CH 9	0
500	CH 6	16858	1078	CH 10	0
502	CH 7	15931	1080	CH 11	0
504	CH 8	16586	1082	CH 12	0
506	CH 9	16484	1084	CH 13	0
508	CH 10	16450	1086	CH 14	0
510	CH 11	16165	1088	CH 15	0
512	CH 12	16473	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16272	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16728	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16218	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	4128	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	3779	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	4128	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	3779	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15881	1198	CH 7	0
530	CH 4	16256	1200	CH 8	0
532	CH 5	16586	1202	CH 9	0
534	CH 6	16857	1204	CH 10	0
536	CH 7	15930	1206	CH 11	0
538	CH 8	16589	1208	CH 12	0
540	CH 9	16483	1210	CH 13	0
542	CH 10	16450	1212	CH 14	0
544	CH 11	16168	1214	CH 15	0
546	CH 12	16474	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16257	1218	CH 4	0
550	CH 14	16721	1220	CH 5	0
552	CH 15	16220	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	4128	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	3779	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	4128	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	3779	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15874	1232	CH 11	0
564	CH 4	16258	1234	CH 12	0
566	CH 5	16587	1236	CH 13	0
568	CH 6	16857	1238	CH 14	0
570	CH 7	15931	1240	CH 15	0

7A 197
JUL 1 4 '98

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18542	23.95
1092	SCAN MOTOR A1-2	19604	25.28
1094	FEED HORN A1-1	20456	27.94
1096	FEED HORN A1-2	21482	29.95
1098	RF MUX A1-1	22281	31.30
1100	RF MUX A1-2	23592	33.96
1102	LOCAL OSCILLATOR CHANNEL 3	24641	36.21
1104	LOCAL OSCILLATOR CHANNEL 4	25072	36.37
1106	LOCAL OSCILLATOR CHANNEL 5	23818	34.58
1108	LOCAL OSCILLATOR CHANNEL 6	22705	31.49
1110	LOCAL OSCILLATOR CHANNEL 7	22937	32.66
1112	LOCAL OSCILLATOR CHANNEL 8	24493	35.71
1114	LOCAL OSCILLATOR CHANNEL 15	23877	34.09
1116	PLLO #2	22245	31.26
1118	PLLO #1	25117	36.86
1120	1553 INTERFACE	18167	36.37
1122	MIXER/IF AMPLIFIER CHANNEL 3	23893	34.53
1124	MIXER/IF AMPLIFIER CHANNEL 4	24069	34.32
1126	MIXER/IF AMPLIFIER CHANNEL 5	23696	34.01
1128	MIXER/IF AMPLIFIER CHANNEL 6	22577	31.87
1130	MIXER/IF AMPLIFIER CHANNEL 7	22553	32.38
1132	MIXER/IF AMPLIFIER CHANNEL 8	24010	34.57
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22023	31.03
1136	MIXER/IF AMPLIFIER CHANNEL 15	23778	34.42
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23509	33.65
1140	IF AMPLIFIER CHANNEL 9	23669	33.82
1142	IF AMPLIFIER CHANNEL 10	23535	33.92
1144	IF AMPLIFIER CHANNEL 11	22632	31.31
1146	DC/DC CONVERTER	25243	36.51
1148	IF AMPLIFIER CHANNEL 13	22219	30.63
1150	IF AMPLIFIER CHANNEL 14	22583	31.79
1152	IF AMPLIFIER CHANNEL 12	22391	31.20
1154	RF SHELF A1-1	22991	32.65
1156	RF SHELF A1-2	23765	33.52
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20906	28.66
1160	A1-1 WARM LOAD 1	23960	24.91
1162	A1-1 WARM LOAD 2	24454	25.02
1164	A1-1 WARM LOAD 3	23949	25.04
1166	A1-1 WARM LOAD 4	24026	25.00
1168	A1-1 WARM LOAD CENTER	24233	25.04
1170	A1-2 WARM LOAD 1	24905	26.24
1172	A1-2 WARM LOAD 2	24968	26.27
1174	A1-2 WARM LOAD 3	24982	26.27
1176	A1-2 WARM LOAD 4	24976	26.16
1178	A1-2 WARM LOAD CENTER	24979	26.26
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

7A 197
JUL 1

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	YES
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22154	4.9
	+15 VDC	21841	15.1
	-15 VDC	21795	-15.0
SCAN DRIVE	+5 VDC	22161	4.9
	+15 VDC	22151	14.9
	-15 VDC	21864	-15.1
PLO	+15 VDC	22459	14.8
	-15 VDC	22073	-15.2
RECEIVER	+8 VDC	21810	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21418	10.0
A1-2	+10 VDC	21435	10.0
LO CHANNEL 6	+10 VDC	21394	10.0
7	+10 VDC	21479	10.0
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21257	10.1
4	+10 VDC	21201	10.1
5	+10 VDC	21348	10.0
8	+10 VDC	21322	10.0
15	+15 VDC	22034	15.0
QUIET BUS CURRENT		16683	2275.0
A1-1 NOISY POWER BUS CURRENT		712	0.6
A1-2 NOISY POWER BUS CURRENT		648	0.5

7A 197
JUL 14 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 1 4 1998

7A 197

JUL 1

248561
1st CPT

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EOS   A1-03 E1.EXE;35 COLD CAL MODE     P1 14-JUL-98 00:13:06  SCAN NUMBER   104
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS   ELEMENT   00

[ 7 ] ENGINEERING      ELEMENT   00

                            COMMANDS       PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON      COLD CAL POSITION 1 =        NO  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                        2 =        YES [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    NO                        3 =        NO  [ 18 ]

[ 12 ]         WARM CAL      =     NO      COLD CAL POSITION 4 =        NO  [ 19 ]

[ 13 ]         COLD CAL      =     YES     RESET C&DH PROCESSOR             [ 20 ]

[ 14 ]         NADIR         =     NO      GSE MODE                         [ 21 ]

ENGR OK        POWER   ON    CHECKSUM  IN AD91 CALC AD91   SA28    356 SA29   712
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
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JUL 14 1998

JUL 14

7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16583
2		00000011	574	CH 9	16485
3	PACKET LENGTH	00000010	576	CH 10	16450
4		10111111	578	CH 11	16157
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16465
6		00000000	582	CH 13	16260
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16731
8		00101000	586	CH 15	16214
10	REFLECTOR 1 POSITION 1	4050	588	REFLECTOR 1 POSITION 18	4050
12	REFLECTOR 2 POSITION 1	3703	590	REFLECTOR 2 POSITION 18	3703
14	REFL 1 POS 1 2ND LOOK	4049	592	REFL 1 POS 18 2ND LOOK	4050
16	REFL 2 POS 1 2ND LOOK	3703	594	REFL 2 POS 18 2ND LOOK	3703
18	SCENE DATA BP 1 CH 3	15872	596	SCENE DATA BP 18 CH 3	15870
20	CH 4	16251	598	CH 4	16255
22	CH 5	16578	600	CH 5	16577
24	CH 6	16857	602	CH 6	16866
26	CH 7	15928	604	CH 7	15928
28	CH 8	16582	606	CH 8	16581
30	CH 9	16488	608	CH 9	16490
32	CH 10	16447	610	CH 10	16454
34	CH 11	16149	612	CH 11	16160
36	CH 12	16461	614	CH 12	16461
38	CH 13	16260	616	CH 13	16251
40	CH 14	16711	618	CH 14	16727
42	CH 15	16215	620	CH 15	16215
44	REFLECTOR 1 POSITION 2	4050	622	REFLECTOR 1 POSITION 19	4049
46	REFLECTOR 2 POSITION 2	3703	624	REFLECTOR 2 POSITION 19	3703
48	REFL 1 POS 2 2ND LOOK	4049	626	REFL 1 POS 19 2ND LOOK	4050
50	REFL 2 POS 2 2ND LOOK	3703	628	REFL 2 POS 19 2ND LOOK	3703
52	SCENE DATA BP 2 CH 3	15876	630	SCENE DATA BP 19 CH 3	15879
54	CH 4	16257	632	CH 4	16254
56	CH 5	16577	634	CH 5	16579
58	CH 6	16859	636	CH 6	16860
60	CH 7	15930	638	CH 7	15932
62	CH 8	16584	640	CH 8	16583
64	CH 9	16489	642	CH 9	16486
66	CH 10	16448	644	CH 10	16445
68	CH 11	16154	646	CH 11	16152
70	CH 12	16464	648	CH 12	16459
72	CH 13	16257	650	CH 13	16262
74	CH 14	16708	652	CH 14	16699
76	CH 15	16214	654	CH 15	16214
78	REFLECTOR 1 POSITION 3	4050	656	REFLECTOR 1 POSITION 20	4049
80	REFLECTOR 2 POSITION 3	3703	658	REFLECTOR 2 POSITION 20	3703
82	REFL 1 POS 3 2ND LOOK	4049	660	REFL 1 POS 20 2ND LOOK	4050
84	REFL 2 POS 3 2ND LOOK	3703	662	REFL 2 POS 20 2ND LOOK	3703
86	SCENE DATA BP 3 CH 3	15875	664	SCENE DATA BP 20 CH 3	15876
88	CH 4	16255	666	CH 4	16252
90	CH 5	16574	668	CH 5	16577
92	CH 6	16863	670	CH 6	16859

7A 197
JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15929	672	CH 7	15928
96	CH 8	16581	674	CH 8	16587
98	CH 9	16490	676	CH 9	16489
100	CH 10	16453	678	CH 10	16446
102	CH 11	16154	680	CH 11	16153
104	CH 12	16464	682	CH 12	16461
106	CH 13	16260	684	CH 13	16257
108	CH 14	16712	686	CH 14	16712
110	CH 15	16215	688	CH 15	16214
112	REFLECTOR 1 POSITION 4	4050	690	REFLECTOR 1 POSITION 21	4049
114	REFLECTOR 2 POSITION 4	3703	692	REFLECTOR 2 POSITION 21	3703
116	REFL 1 POS 4 2ND LOOK	4049	694	REFL 1 POS 21 2ND LOOK	4050
118	REFL 2 POS 4 2ND LOOK	3703	696	REFL 2 POS 21 2ND LOOK	3703
120	SCENE DATA BP 4 CH 3	15875	698	SCENE DATA BP 21 CH 3	15876
122	CH 4	16254	700	CH 4	16255
124	CH 5	16575	702	CH 5	16577
126	CH 6	16861	704	CH 6	16859
128	CH 7	15930	706	CH 7	15932
130	CH 8	16584	708	CH 8	16584
132	CH 9	16488	710	CH 9	16484
134	CH 10	16450	712	CH 10	16448
136	CH 11	16160	714	CH 11	16154
138	CH 12	16464	716	CH 12	16464
140	CH 13	16247	718	CH 13	16251
142	CH 14	16695	720	CH 14	16719
144	CH 15	16216	722	CH 15	16216
146	REFLECTOR 1 POSITION 5	4050	724	REFLECTOR 1 POSITION 22	4049
148	REFLECTOR 2 POSITION 5	3703	726	REFLECTOR 2 POSITION 22	3703
150	REFL 1 POS 5 2ND LOOK	4049	728	REFL 1 POS 22 2ND LOOK	4050
152	REFL 2 POS 5 2ND LOOK	3703	730	REFL 2 POS 22 2ND LOOK	3703
154	SCENE DATA BP 5 CH 3	15875	732	SCENE DATA BP 22 CH 3	15879
156	CH 4	16257	734	CH 4	16255
158	CH 5	16583	736	CH 5	16575
160	CH 6	16857	738	CH 6	16861
162	CH 7	15926	740	CH 7	15931
164	CH 8	16587	742	CH 8	16580
166	CH 9	16488	744	CH 9	16485
168	CH 10	16445	746	CH 10	16446
170	CH 11	16160	748	CH 11	16155
172	CH 12	16469	750	CH 12	16456
174	CH 13	16257	752	CH 13	16258
176	CH 14	16715	754	CH 14	16702
178	CH 15	16215	756	CH 15	16214
180	REFLECTOR 1 POSITION 6	4050	758	REFLECTOR 1 POSITION 23	4049
182	REFLECTOR 2 POSITION 6	3703	760	REFLECTOR 2 POSITION 23	3703
184	REFL 1 POS 6 2ND LOOK	4049	762	REFL 1 POS 23 2ND LOOK	4050
186	REFL 2 POS 6 2ND LOOK	3703	764	REFL 2 POS 23 2ND LOOK	3703
188	SCENE DATA BP 6 CH 3	15872	766	SCENE DATA BP 23 CH 3	15880
190	CH 4	16258	768	CH 4	16253
192	CH 5	16575	770	CH 5	16577

JUL 1 4 1998 7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16863	772	CH 6	16858
196	CH 7	15929	774	CH 7	15929
198	CH 8	16585	776	CH 8	16582
200	CH 9	16489	778	CH 9	16489
202	CH 10	16451	780	CH 10	16446
204	CH 11	16152	782	CH 11	16155
206	CH 12	16467	784	CH 12	16469
208	CH 13	16251	786	CH 13	16261
210	CH 14	16700	788	CH 14	16695
212	CH 15	16215	790	CH 15	16215
214	REFLECTOR 1 POSITION 7	4050	792	REFLECTOR 1 POSITION 24	4049
216	REFLECTOR 2 POSITION 7	3703	794	REFLECTOR 2 POSITION 24	3703
218	REFL 1 POS 7 2ND LOOK	4049	796	REFL 1 POS 24 2ND LOOK	4050
220	REFL 2 POS 7 2ND LOOK	3703	798	REFL 2 POS 24 2ND LOOK	3703
222	SCENE DATA BP 7 CH 3	15872	800	SCENE DATA BP 24 CH 3	15877
224	CH 4	16255	802	CH 4	16254
226	CH 5	16577	804	CH 5	16579
228	CH 6	16859	806	CH 6	16862
230	CH 7	15929	808	CH 7	15933
232	CH 8	16582	810	CH 8	16585
234	CH 9	16489	812	CH 9	16488
236	CH 10	16449	814	CH 10	16450
238	CH 11	16154	816	CH 11	16153
240	CH 12	16467	818	CH 12	16468
242	CH 13	16248	820	CH 13	16252
244	CH 14	16711	822	CH 14	16711
246	CH 15	16215	824	CH 15	16216
248	REFLECTOR 1 POSITION 8	4050	826	REFLECTOR 1 POSITION 25	4050
250	REFLECTOR 2 POSITION 8	3703	828	REFLECTOR 2 POSITION 25	3703
252	REFL 1 POS 8 2ND LOOK	4049	830	REFL 1 POS 25 2ND LOOK	4050
254	REFL 2 POS 8 2ND LOOK	3703	832	REFL 2 POS 25 2ND LOOK	3703
256	SCENE DATA BP 8 CH 3	15872	834	SCENE DATA BP 25 CH 3	15870
258	CH 4	16256	836	CH 4	16259
260	CH 5	16576	838	CH 5	16575
262	CH 6	16858	840	CH 6	16856
264	CH 7	15927	842	CH 7	15927
266	CH 8	16587	844	CH 8	16582
268	CH 9	16490	846	CH 9	16485
270	CH 10	16447	848	CH 10	16444
272	CH 11	16155	850	CH 11	16153
274	CH 12	16467	852	CH 12	16463
276	CH 13	16250	854	CH 13	16251
278	CH 14	16701	856	CH 14	16714
280	CH 15	16216	858	CH 15	16216
282	REFLECTOR 1 POSITION 9	4050	860	REFLECTOR 1 POSITION 26	4050
284	REFLECTOR 2 POSITION 9	3703	862	REFLECTOR 2 POSITION 26	3703
286	REFL 1 POS 9 2ND LOOK	4049	864	REFL 1 POS 26 2ND LOOK	4049
288	REFL 2 POS 9 2ND LOOK	3703	866	REFL 2 POS 26 2ND LOOK	3703
290	SCENE DATA BP 9 CH 3	15875	868	SCENE DATA BP 26 CH 3	15876
292	CH 4	16256	870	CH 4	16255

TA 197 JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16577	872	CH 5	16576
296	CH 6	16862	874	CH 6	16859
298	CH 7	15931	876	CH 7	15929
300	CH 8	16580	878	CH 8	16579
302	CH 9	16488	880	CH 9	16487
304	CH 10	16445	882	CH 10	16447
306	CH 11	16156	884	CH 11	16159
308	CH 12	16466	886	CH 12	16475
310	CH 13	16252	888	CH 13	16253
312	CH 14	16708	890	CH 14	16704
314	CH 15	16215	892	CH 15	16216
316	REFLECTOR 1 POSITION 10	4050	894	REFLECTOR 1 POSITION 27	4050
318	REFLECTOR 2 POSITION 10	3703	896	REFLECTOR 2 POSITION 27	3703
320	REFL 1 POS 10 2ND LOOK	4049	898	REFL 1 POS 27 2ND LOOK	4049
322	REFL 2 POS 10 2ND LOOK	3703	900	REFL 2 POS 27 2ND LOOK	3703
324	SCENE DATA BP 10 CH 3	15874	902	SCENE DATA BP 27 CH 3	15873
326	CH 4	16257	904	CH 4	16258
328	CH 5	16575	906	CH 5	16578
330	CH 6	16860	908	CH 6	16863
332	CH 7	15929	910	CH 7	15926
334	CH 8	16582	912	CH 8	16582
336	CH 9	16487	914	CH 9	16486
338	CH 10	16446	916	CH 10	16447
340	CH 11	16148	918	CH 11	16154
342	CH 12	16460	920	CH 12	16461
344	CH 13	16245	922	CH 13	16241
346	CH 14	16713	924	CH 14	16678
348	CH 15	16215	926	CH 15	16215
350	REFLECTOR 1 POSITION 11	4050	928	REFLECTOR 1 POSITION 28	4050
352	REFLECTOR 2 POSITION 11	3703	930	REFLECTOR 2 POSITION 28	3703
354	REFL 1 POS 11 2ND LOOK	4050	932	REFL 1 POS 28 2ND LOOK	4049
356	REFL 2 POS 11 2ND LOOK	3703	934	REFL 2 POS 28 2ND LOOK	3703
358	SCENE DATA BP 11 CH 3	15875	936	SCENE DATA BP 28 CH 3	15879
360	CH 4	16257	938	CH 4	16255
362	CH 5	16576	940	CH 5	16577
364	CH 6	16858	942	CH 6	16859
366	CH 7	15928	944	CH 7	15925
368	CH 8	16582	946	CH 8	16586
370	CH 9	16484	948	CH 9	16490
372	CH 10	16451	950	CH 10	16450
374	CH 11	16151	952	CH 11	16155
376	CH 12	16461	954	CH 12	16459
378	CH 13	16244	956	CH 13	16255
380	CH 14	16701	958	CH 14	16700
382	CH 15	16216	960	CH 15	16215
384	REFLECTOR 1 POSITION 12	4050	962	REFLECTOR 1 POSITION 29	4050
386	REFLECTOR 2 POSITION 12	3703	964	REFLECTOR 2 POSITION 29	3703
388	REFL 1 POS 12 2ND LOOK	4050	966	REFL 1 POS 29 2ND LOOK	4049
390	REFL 2 POS 12 2ND LOOK	3703	968	REFL 2 POS 29 2ND LOOK	3702
392	SCENE DATA BP 12 CH 3	15881	970	SCENE DATA BP 29 CH 3	15875

7A 197
JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16257	972	CH 4	16254
396	CH 5	16578	974	CH 5	16575
398	CH 6	16858	976	CH 6	16858
400	CH 7	15932	978	CH 7	15929
402	CH 8	16583	980	CH 8	16584
404	CH 9	16489	982	CH 9	16486
406	CH 10	16445	984	CH 10	16451
408	CH 11	16156	986	CH 11	16151
410	CH 12	16467	988	CH 12	16459
412	CH 13	16244	990	CH 13	16255
414	CH 14	16712	992	CH 14	16686
416	CH 15	16216	994	CH 15	16215
418	REFLECTOR 1 POSITION 13	4050	996	REFLECTOR 1 POSITION 30	4050
420	REFLECTOR 2 POSITION 13	3703	998	REFLECTOR 2 POSITION 30	3703
422	REFL 1 POS 13 2ND LOOK	4050	1000	REFL 1 POS 30 2ND LOOK	4049
424	REFL 2 POS 13 2ND LOOK	3703	1002	REFL 2 POS 30 2ND LOOK	3703
426	SCENE DATA BP 13 CH 3	15874	1004	SCENE DATA BP 30 CH 3	15878
428	CH 4	16256	1006	CH 4	16252
430	CH 5	16575	1008	CH 5	16578
432	CH 6	16859	1010	CH 6	16859
434	CH 7	15929	1012	CH 7	15932
436	CH 8	16584	1014	CH 8	16583
438	CH 9	16486	1016	CH 9	16488
440	CH 10	16453	1018	CH 10	16445
442	CH 11	16146	1020	CH 11	16154
444	CH 12	16458	1022	CH 12	16464
446	CH 13	16243	1024	CH 13	16242
448	CH 14	16700	1026	CH 14	16707
450	CH 15	16215	1028	CH 15	16214
452	REFLECTOR 1 POSITION 14	4050	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	3703	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	4050	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	3703	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15871	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16260	1040	CH 4	0
464	CH 5	16579	1042	CH 5	0
466	CH 6	16858	1044	CH 6	0
468	CH 7	15931	1046	CH 7	0
470	CH 8	16579	1048	CH 8	0
472	CH 9	16488	1050	CH 9	0
474	CH 10	16454	1052	CH 10	0
476	CH 11	16156	1054	CH 11	0
478	CH 12	16464	1056	CH 12	0
480	CH 13	16256	1058	CH 13	0
482	CH 14	16699	1060	CH 14	0
484	CH 15	16214	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	4050	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	3703	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	4050	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	3703	1070	CH 6	0

JUL 1

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15877	1072	CH 7	0
496	CH 4	16254	1074	CH 8	0
498	CH 5	16578	1076	CH 9	0
500	CH 6	16861	1078	CH 10	0
502	CH 7	15933	1080	CH 11	0
504	CH 8	16582	1082	CH 12	0
506	CH 9	16489	1084	CH 13	0
508	CH 10	16450	1086	CH 14	0
510	CH 11	16149	1088	CH 15	0
512	CH 12	16459	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16248	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16724	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16216	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	4050	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	3703	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	4050	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	3703	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15882	1198	CH 7	0
530	CH 4	16255	1200	CH 8	0
532	CH 5	16576	1202	CH 9	0
534	CH 6	16856	1204	CH 10	0
536	CH 7	15929	1206	CH 11	0
538	CH 8	16582	1208	CH 12	0
540	CH 9	16490	1210	CH 13	0
542	CH 10	16447	1212	CH 14	0
544	CH 11	16155	1214	CH 15	0
546	CH 12	16457	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16263	1218	CH 4	0
550	CH 14	16691	1220	CH 5	0
552	CH 15	16215	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	4050	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	3703	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	4050	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	3703	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15876	1232	CH 11	0
564	CH 4	16252	1234	CH 12	0
566	CH 5	16576	1236	CH 13	0
568	CH 6	16857	1238	CH 14	0
570	CH 7	15928	1240	CH 15	0

JUL 1 4 1998

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:13:09 PAGE 7

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18583	24.03
1092	SCAN MOTOR A1-2	19634	25.33
1094	FEED HORN A1-1	20503	28.03
1096	FEED HORN A1-2	21559	30.10
1098	RF MUX A1-1	22360	31.45
1100	RF MUX A1-2	23697	34.16
1102	LOCAL OSCILLATOR CHANNEL 3	24750	36.42
1104	LOCAL OSCILLATOR CHANNEL 4	25185	36.59
1106	LOCAL OSCILLATOR CHANNEL 5	23926	34.79
1108	LOCAL OSCILLATOR CHANNEL 6	22768	31.61
1110	LOCAL OSCILLATOR CHANNEL 7	23021	32.83
1112	LOCAL OSCILLATOR CHANNEL 8	24595	35.91
1114	LOCAL OSCILLATOR CHANNEL 15	23963	34.25
1116	PLLO #2	22327	31.41
1118	PLLO #1	25205	37.03
1120	1553 INTERFACE	18249	36.53
1122	MIXER/IF AMPLIFIER CHANNEL 3	23999	34.73
1124	MIXER/IF AMPLIFIER CHANNEL 4	24174	34.53
1126	MIXER/IF AMPLIFIER CHANNEL 5	23798	34.21
1128	MIXER/IF AMPLIFIER CHANNEL 6	22656	32.02
1130	MIXER/IF AMPLIFIER CHANNEL 7	22638	32.54
1132	MIXER/IF AMPLIFIER CHANNEL 8	24117	34.78
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22104	31.18
1136	MIXER/IF AMPLIFIER CHANNEL 15	23865	34.59
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23597	33.83
1140	IF AMPLIFIER CHANNEL 9	23754	34.03
1142	IF AMPLIFIER CHANNEL 10	23622	34.08
1144	IF AMPLIFIER CHANNEL 11	22718	31.48
1146	DC/DC CONVERTER	25319	36.65
1148	IF AMPLIFIER CHANNEL 13	22302	30.79
1150	IF AMPLIFIER CHANNEL 14	22667	31.95
1152	IF AMPLIFIER CHANNEL 12	22475	31.37
1154	RF SHELF A1-1	23073	32.81
1156	RF SHELF A1-2	23869	33.72
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20962	28.77
1160	A1-1 WARM LOAD 1	23979	24.95
1162	A1-1 WARM LOAD 2	24468	25.04
1164	A1-1 WARM LOAD 3	23972	25.08
1166	A1-1 WARM LOAD 4	24048	25.05
1168	A1-1 WARM LOAD CENTER	24248	25.07
1170	A1-2 WARM LOAD 1	24942	26.31
1172	A1-2 WARM LOAD 2	25003	26.34
1174	A1-2 WARM LOAD 3	25027	26.36
1176	A1-2 WARM LOAD 4	25017	26.24
1178	A1-2 WARM LOAD CENTER	25017	26.33
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

UL 1 4 1998

TA 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	YES
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ONE
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22080	5.2
	+15 VDC	21838	15.4
	-15 VDC	21799	-14.2
SCAN DRIVE	+5 VDC	22201	5.0
	+15 VDC	22246	15.1
	-15 VDC	21862	-14.8
PLO	+15 VDC	22455	15.0
	-15 VDC	22072	-14.9
RECEIVER	+8 VDC	21809	8.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	21415	10.1
A1-2	+10 VDC	21433	10.1
LO CHANNEL 6	+10 VDC	21393	10.1
7	+10 VDC	21480	10.1
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21265	10.2
4	+10 VDC	21194	10.2
5	+10 VDC	21342	10.3
8	+10 VDC	21328	10.4
15	+15 VDC	22033	15.4
QUIET BUS CURRENT		16593	2186.3
A1-1 NOISY POWER BUS CURRENT		718	29.2
A1-2 NOISY POWER BUS CURRENT		675	27.7

TA 197
JUL 14 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

.4 1998

SUPPORT DATA ... S/O 270561

1st CPT

```
EOS   A1-03 E1.EXE;35 COLD CAL MODE     P1 14-JUL-98 00:19:06  SCAN NUMBER   149
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT  00

[ 7 ] ENGINEERING     ELEMENT  00

                       COMMANDS       PLLO POWER =              PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =     ON    COLD CAL POSITION 1 =        NO   [ 16 ]

[ 10 ] SCANNER A1-2 POWER =     ON                      2 =        NO   [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE = NO                      3 =        YES  [ 18 ]

[ 12 ]        WARM CAL     =    NO    COLD CAL POSITION 4 =        NO   [ 19 ]

[ 13 ]        COLD CAL     =    YES   RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]        NADIR        =    NO    GSE MODE                          [ 21 ]

ENGR OK       POWER    ON    CHECKSUM  IN 1FAF CALC 1FAF   SA28    402 SA29   803
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
```

7A 197

JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16571
2		00000011	574	CH 9	16488
3	PACKET LENGTH	00000010	576	CH 10	16447
4		10111111	578	CH 11	16141
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16448
6		00000000	582	CH 13	16229
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16684
8		01001000	586	CH 15	16207
10	REFLECTOR 1 POSITION 1	3980	588	REFLECTOR 1 POSITION 18	3980
12	REFLECTOR 2 POSITION 1	3626	590	REFLECTOR 2 POSITION 18	3626
14	REFL 1 POS 1 2ND LOOK	3980	592	REFL 1 POS 18 2ND LOOK	3980
16	REFL 2 POS 1 2ND LOOK	3626	594	REFL 2 POS 18 2ND LOOK	3626
18	SCENE DATA BP 1 CH 3	15871	596	SCENE DATA BP 18 CH 3	15873
20	CH 4	16248	598	CH 4	16244
22	CH 5	16566	600	CH 5	16566
24	CH 6	16856	602	CH 6	16861
26	CH 7	15924	604	CH 7	15928
28	CH 8	16574	606	CH 8	16570
30	CH 9	16483	608	CH 9	16486
32	CH 10	16444	610	CH 10	16443
34	CH 11	16142	612	CH 11	16141
36	CH 12	16444	614	CH 12	16454
38	CH 13	16233	616	CH 13	16231
40	CH 14	16682	618	CH 14	16708
42	CH 15	16208	620	CH 15	16207
44	REFLECTOR 1 POSITION 2	3980	622	REFLECTOR 1 POSITION 19	3980
46	REFLECTOR 2 POSITION 2	3626	624	REFLECTOR 2 POSITION 19	3626
48	REFL 1 POS 2 2ND LOOK	3980	626	REFL 1 POS 19 2ND LOOK	3980
50	REFL 2 POS 2 2ND LOOK	3627	628	REFL 2 POS 19 2ND LOOK	3626
52	SCENE DATA BP 2 CH 3	15875	630	SCENE DATA BP 19 CH 3	15874
54	CH 4	16244	632	CH 4	16242
56	CH 5	16565	634	CH 5	16568
58	CH 6	16859	636	CH 6	16858
60	CH 7	15928	638	CH 7	15928
62	CH 8	16570	640	CH 8	16574
64	CH 9	16486	642	CH 9	16485
66	CH 10	16446	644	CH 10	16450
68	CH 11	16145	646	CH 11	16143
70	CH 12	16445	648	CH 12	16439
72	CH 13	16238	650	CH 13	16245
74	CH 14	16687	652	CH 14	16682
76	CH 15	16209	654	CH 15	16208
78	REFLECTOR 1 POSITION 3	3980	656	REFLECTOR 1 POSITION 20	3980
80	REFLECTOR 2 POSITION 3	3626	658	REFLECTOR 2 POSITION 20	3627
82	REFL 1 POS 3 2ND LOOK	3980	660	REFL 1 POS 20 2ND LOOK	3980
84	REFL 2 POS 3 2ND LOOK	3626	662	REFL 2 POS 20 2ND LOOK	3626
86	SCENE DATA BP 3 CH 3	15876	664	SCENE DATA BP 20 CH 3	15868
88	CH 4	16247	666	CH 4	16245
90	CH 5	16566	668	CH 5	16564
92	CH 6	16863	670	CH 6	16862

7A 197
1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15921	672	CH 7	15930
96	CH 8	16571	674	CH 8	16570
98	CH 9	16486	676	CH 9	16487
100	CH 10	16444	678	CH 10	16447
102	CH 11	16142	680	CH 11	16138
104	CH 12	16447	682	CH 12	16445
106	CH 13	16231	684	CH 13	16249
108	CH 14	16707	686	CH 14	16679
110	CH 15	16207	688	CH 15	16209
112	REFLECTOR 1 POSITION 4	3980	690	REFLECTOR 1 POSITION 21	3980
114	REFLECTOR 2 POSITION 4	3626	692	REFLECTOR 2 POSITION 21	3626
116	REFL 1 POS 4 2ND LOOK	3980	694	REFL 1 POS 21 2ND LOOK	3980
118	REFL 2 POS 4 2ND LOOK	3626	696	REFL 2 POS 21 2ND LOOK	3626
120	SCENE DATA BP 4 CH 3	15865	698	SCENE DATA BP 21 CH 3	15868
122	CH 4	16245	700	CH 4	16246
124	CH 5	16565	702	CH 5	16569
126	CH 6	16860	704	CH 6	16860
128	CH 7	15924	706	CH 7	15928
130	CH 8	16573	708	CH 8	16570
132	CH 9	16486	710	CH 9	16487
134	CH 10	16446	712	CH 10	16448
136	CH 11	16142	714	CH 11	16143
138	CH 12	16443	716	CH 12	16442
140	CH 13	16241	718	CH 13	16231
142	CH 14	16689	720	CH 14	16694
144	CH 15	16208	722	CH 15	16209
146	REFLECTOR 1 POSITION 5	3980	724	REFLECTOR 1 POSITION 22	3980
148	REFLECTOR 2 POSITION 5	3627	726	REFLECTOR 2 POSITION 22	3626
150	REFL 1 POS 5 2ND LOOK	3980	728	REFL 1 POS 22 2ND LOOK	3980
152	REFL 2 POS 5 2ND LOOK	3626	730	REFL 2 POS 22 2ND LOOK	3626
154	SCENE DATA BP 5 CH 3	15871	732	SCENE DATA BP 22 CH 3	15865
156	CH 4	16246	734	CH 4	16247
158	CH 5	16566	736	CH 5	16569
160	CH 6	16860	738	CH 6	16864
162	CH 7	15924	740	CH 7	15930
164	CH 8	16571	742	CH 8	16573
166	CH 9	16485	744	CH 9	16485
168	CH 10	16450	746	CH 10	16444
170	CH 11	16137	748	CH 11	16143
172	CH 12	16442	750	CH 12	16440
174	CH 13	16234	752	CH 13	16246
176	CH 14	16694	754	CH 14	16712
178	CH 15	16209	756	CH 15	16209
180	REFLECTOR 1 POSITION 6	3980	758	REFLECTOR 1 POSITION 23	3980
182	REFLECTOR 2 POSITION 6	3627	760	REFLECTOR 2 POSITION 23	3626
184	REFL 1 POS 6 2ND LOOK	3980	762	REFL 1 POS 23 2ND LOOK	3980
186	REFL 2 POS 6 2ND LOOK	3626	764	REFL 2 POS 23 2ND LOOK	3626
188	SCENE DATA BP 6 CH 3	15873	766	SCENE DATA BP 23 CH 3	15868
190	CH 4	16247	768	CH 4	16242
192	CH 5	16568	770	CH 5	16568

TA 197
JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16860	772	CH 6	16860
196	CH 7	15928	774	CH 7	15927
198	CH 8	16576	776	CH 8	16571
200	CH 9	16485	778	CH 9	16482
202	CH 10	16451	780	CH 10	16449
204	CH 11	16143	782	CH 11	16139
206	CH 12	16448	784	CH 12	16453
208	CH 13	16226	786	CH 13	16227
210	CH 14	16678	788	CH 14	16692
212	CH 15	16209	790	CH 15	16210
214	REFLECTOR 1 POSITION 7	3980	792	REFLECTOR 1 POSITION 24	3980
216	REFLECTOR 2 POSITION 7	3626	794	REFLECTOR 2 POSITION 24	3626
218	REFL 1 POS 7 2ND LOOK	3980	796	REFL 1 POS 24 2ND LOOK	3980
220	REFL 2 POS 7 2ND LOOK	3626	798	REFL 2 POS 24 2ND LOOK	3625
222	SCENE DATA BP 7 CH 3	15875	800	SCENE DATA BP 24 CH 3	15881
224	CH 4	16246	802	CH 4	16244
226	CH 5	16568	804	CH 5	16568
228	CH 6	16859	806	CH 6	16863
230	CH 7	15926	808	CH 7	15926
232	CH 8	16571	810	CH 8	16572
234	CH 9	16484	812	CH 9	16485
236	CH 10	16444	814	CH 10	16446
238	CH 11	16143	816	CH 11	16145
240	CH 12	16451	818	CH 12	16444
242	CH 13	16232	820	CH 13	16230
244	CH 14	16721	822	CH 14	16689
246	CH 15	16211	824	CH 15	16210
248	REFLECTOR 1 POSITION 8	3980	826	REFLECTOR 1 POSITION 25	3980
250	REFLECTOR 2 POSITION 8	3626	828	REFLECTOR 2 POSITION 25	3626
252	REFL 1 POS 8 2ND LOOK	3980	830	REFL 1 POS 25 2ND LOOK	3980
254	REFL 2 POS 8 2ND LOOK	3626	832	REFL 2 POS 25 2ND LOOK	3626
256	SCENE DATA BP 8 CH 3	15872	834	SCENE DATA BP 25 CH 3	15876
258	CH 4	16245	836	CH 4	16243
260	CH 5	16571	838	CH 5	16567
262	CH 6	16864	840	CH 6	16862
264	CH 7	15924	842	CH 7	15926
266	CH 8	16572	844	CH 8	16572
268	CH 9	16485	846	CH 9	16487
270	CH 10	16445	848	CH 10	16446
272	CH 11	16141	850	CH 11	16141
274	CH 12	16454	852	CH 12	16444
276	CH 13	16227	854	CH 13	16230
278	CH 14	16684	856	CH 14	16703
280	CH 15	16209	858	CH 15	16209
282	REFLECTOR 1 POSITION 9	3980	860	REFLECTOR 1 POSITION 26	3980
284	REFLECTOR 2 POSITION 9	3626	862	REFLECTOR 2 POSITION 26	3626
286	REFL 1 POS 9 2ND LOOK	3980	864	REFL 1 POS 26 2ND LOOK	3980
288	REFL 2 POS 9 2ND LOOK	3626	866	REFL 2 POS 26 2ND LOOK	3627
290	SCENE DATA BP 9 CH 3	15873	868	SCENE DATA BP 26 CH 3	15874
292	CH 4	16247	870	CH 4	16248

7A 197 JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16571	872	CH 5	16568
296	CH 6	16859	874	CH 6	16857
298	CH 7	15923	876	CH 7	15926
300	CH 8	16569	878	CH 8	16571
302	CH 9	16489	880	CH 9	16487
304	CH 10	16445	882	CH 10	16449
306	CH 11	16143	884	CH 11	16142
308	CH 12	16444	886	CH 12	16448
310	CH 13	16239	888	CH 13	16218
312	CH 14	16692	890	CH 14	16664
314	CH 15	16210	892	CH 15	16210
316	REFLECTOR 1 POSITION 10	3980	894	REFLECTOR 1 POSITION 27	3980
318	REFLECTOR 2 POSITION 10	3626	896	REFLECTOR 2 POSITION 27	3626
320	REFL 1 POS 10 2ND LOOK	3980	898	REFL 1 POS 27 2ND LOOK	3980
322	REFL 2 POS 10 2ND LOOK	3626	900	REFL 2 POS 27 2ND LOOK	3626
324	SCENE DATA BP 10 CH 3	15875	902	SCENE DATA BP 27 CH 3	15876
326	CH 4	16244	904	CH 4	16245
328	CH 5	16566	906	CH 5	16568
330	CH 6	16858	908	CH 6	16860
332	CH 7	15924	910	CH 7	15926
334	CH 8	16572	912	CH 8	16570
336	CH 9	16485	914	CH 9	16482
338	CH 10	16451	916	CH 10	16447
340	CH 11	16144	918	CH 11	16142
342	CH 12	16445	920	CH 12	16443
344	CH 13	16237	922	CH 13	16237
346	CH 14	16694	924	CH 14	16702
348	CH 15	16211	926	CH 15	16209
350	REFLECTOR 1 POSITION 11	3980	928	REFLECTOR 1 POSITION 28	3980
352	REFLECTOR 2 POSITION 11	3626	930	REFLECTOR 2 POSITION 28	3626
354	REFL 1 POS 11 2ND LOOK	3980	932	REFL 1 POS 28 2ND LOOK	3980
356	REFL 2 POS 11 2ND LOOK	3626	934	REFL 2 POS 28 2ND LOOK	3626
358	SCENE DATA BP 11 CH 3	15869	936	SCENE DATA BP 28 CH 3	15876
360	CH 4	16248	938	CH 4	16244
362	CH 5	16566	940	CH 5	16566
364	CH 6	16860	942	CH 6	16861
366	CH 7	15928	944	CH 7	15932
368	CH 8	16572	946	CH 8	16573
370	CH 9	16489	948	CH 9	16485
372	CH 10	16441	950	CH 10	16449
374	CH 11	16142	952	CH 11	16140
376	CH 12	16446	954	CH 12	16446
378	CH 13	16237	956	CH 13	16228
380	CH 14	16693	958	CH 14	16695
382	CH 15	16210	960	CH 15	16208
384	REFLECTOR 1 POSITION 12	3980	962	REFLECTOR 1 POSITION 29	3980
386	REFLECTOR 2 POSITION 12	3626	964	REFLECTOR 2 POSITION 29	3626
388	REFL 1 POS 12 2ND LOOK	3980	966	REFL 1 POS 29 2ND LOOK	3980
390	REFL 2 POS 12 2ND LOOK	3626	968	REFL 2 POS 29 2ND LOOK	3626
392	SCENE DATA BP 12 CH 3	15873	970	SCENE DATA BP 29 CH 3	15870

7A 197
JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16248	972	CH 4	16243
396	CH 5	16565	974	CH 5	16568
398	CH 6	16861	976	CH 6	16862
400	CH 7	15927	978	CH 7	15927
402	CH 8	16570	980	CH 8	16572
404	CH 9	16488	982	CH 9	16489
406	CH 10	16448	984	CH 10	16445
408	CH 11	16140	986	CH 11	16138
410	CH 12	16440	988	CH 12	16447
412	CH 13	16239	990	CH 13	16239
414	CH 14	16684	992	CH 14	16678
416	CH 15	16210	994	CH 15	16209
418	REFLECTOR 1 POSITION 13	3980	996	REFLECTOR 1 POSITION 30	3980
420	REFLECTOR 2 POSITION 13	3627	998	REFLECTOR 2 POSITION 30	3626
422	REFL 1 POS 13 2ND LOOK	3980	1000	REFL 1 POS 30 2ND LOOK	3980
424	REFL 2 POS 13 2ND LOOK	3626	1002	REFL 2 POS 30 2ND LOOK	3626
426	SCENE DATA BP 13 CH 3	15874	1004	SCENE DATA BP 30 CH 3	15865
428	CH 4	16241	1006	CH 4	16248
430	CH 5	16567	1008	CH 5	16568
432	CH 6	16862	1010	CH 6	16860
434	CH 7	15928	1012	CH 7	15927
436	CH 8	16571	1014	CH 8	16571
438	CH 9	16485	1016	CH 9	16489
440	CH 10	16445	1018	CH 10	16448
442	CH 11	16149	1020	CH 11	16144
444	CH 12	16446	1022	CH 12	16453
446	CH 13	16230	1024	CH 13	16226
448	CH 14	16682	1026	CH 14	16690
450	CH 15	16209	1028	CH 15	16207
452	REFLECTOR 1 POSITION 14	3980	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	3627	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	3980	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	3626	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15876	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16246	1040	CH 4	0
464	CH 5	16567	1042	CH 5	0
466	CH 6	16859	1044	CH 6	0
468	CH 7	15926	1046	CH 7	0
470	CH 8	16572	1048	CH 8	0
472	CH 9	16486	1050	CH 9	0
474	CH 10	16449	1052	CH 10	0
476	CH 11	16145	1054	CH 11	0
478	CH 12	16439	1056	CH 12	0
480	CH 13	16236	1058	CH 13	0
482	CH 14	16682	1060	CH 14	0
484	CH 15	16210	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	3980	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	3626	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	3980	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	3627	1070	CH 6	0

TA 197

1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15871	1072	CH 7	0
496	CH 4	16245	1074	CH 8	0
498	CH 5	16569	1076	CH 9	0
500	CH 6	16859	1078	CH 10	0
502	CH 7	15928	1080	CH 11	0
504	CH 8	16573	1082	CH 12	0
506	CH 9	16488	1084	CH 13	0
508	CH 10	16448	1086	CH 14	0
510	CH 11	16137	1088	CH 15	0
512	CH 12	16444	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16227	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16689	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16207	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	3980	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	3626	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	3980	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	3626	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15869	1198	CH 7	0
530	CH 4	16245	1200	CH 8	0
532	CH 5	16568	1202	CH 9	0
534	CH 6	16863	1204	CH 10	0
536	CH 7	15929	1206	CH 11	0
538	CH 8	16572	1208	CH 12	0
540	CH 9	16483	1210	CH 13	0
542	CH 10	16445	1212	CH 14	0
544	CH 11	16146	1214	CH 15	0
546	CH 12	16447	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16234	1218	CH 4	0
550	CH 14	16684	1220	CH 5	0
552	CH 15	16209	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	3980	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	3627	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	3980	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	3626	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15868	1232	CH 11	0
564	CH 4	16244	1234	CH 12	0
566	CH 5	16571	1236	CH 13	0
568	CH 6	16859	1238	CH 14	0
570	CH 7	15927	1240	CH 15	0

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18630	24.12
1092	SCAN MOTOR A1-2	19712	25.48
1094	FEED HORN A1-1	20564	28.15
1096	FEED HORN A1-2	21644	30.27
1098	RF MUX A1-1	22454	31.63
1100	RF MUX A1-2	23819	34.40
1102	LOCAL OSCILLATOR CHANNEL 3	24877	36.67
1104	LOCAL OSCILLATOR CHANNEL 4	25313	36.83
1106	LOCAL OSCILLATOR CHANNEL 5	24034	35.00
1108	LOCAL OSCILLATOR CHANNEL 6	22846	31.76
1110	LOCAL OSCILLATOR CHANNEL 7	23117	33.01
1112	LOCAL OSCILLATOR CHANNEL 8	24713	36.15
1114	LOCAL OSCILLATOR CHANNEL 15	24062	34.44
1116	PLLO #2	22421	31.59
1118	PLLO #1	25304	37.23
1120	1553 INTERFACE	18348	36.72
1122	MIXER/IF AMPLIFIER CHANNEL 3	24123	34.96
1124	MIXER/IF AMPLIFIER CHANNEL 4	24296	34.77
1126	MIXER/IF AMPLIFIER CHANNEL 5	23913	34.43
1128	MIXER/IF AMPLIFIER CHANNEL 6	22749	32.20
1130	MIXER/IF AMPLIFIER CHANNEL 7	22738	32.73
1132	MIXER/IF AMPLIFIER CHANNEL 8	24243	35.03
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22198	31.36
1136	MIXER/IF AMPLIFIER CHANNEL 15	23963	34.78
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23694	34.04
1140	IF AMPLIFIER CHANNEL 9	23855	34.27
1142	IF AMPLIFIER CHANNEL 10	23723	34.28
1144	IF AMPLIFIER CHANNEL 11	22817	31.67
1146	DC/DC CONVERTER	25380	36.77
1148	IF AMPLIFIER CHANNEL 13	22403	30.99
1150	IF AMPLIFIER CHANNEL 14	22766	32.14
1152	IF AMPLIFIER CHANNEL 12	22576	31.56
1154	RF SHELF A1-1	23167	32.99
1156	RF SHELF A1-2	23987	33.95
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21028	28.89
1160	A1-1 WARM LOAD 1	24001	24.99
1162	A1-1 WARM LOAD 2	24491	25.09
1164	A1-1 WARM LOAD 3	23990	25.12
1166	A1-1 WARM LOAD 4	24064	25.08
1168	A1-1 WARM LOAD CENTER	24275	25.12
1170	A1-2 WARM LOAD 1	24994	26.41
1172	A1-2 WARM LOAD 2	25050	26.43
1174	A1-2 WARM LOAD 3	25075	26.45
1176	A1-2 WARM LOAD 4	25060	26.33
1178	A1-2 WARM LOAD CENTER	25067	26.43
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

7A 197 1 4 1998

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	YES
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ONE
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22115	5.1
	+15 VDC	21841	15.3
	-15 VDC	21797	-14.6
SCAN DRIVE	+5 VDC	22179	5.0
	+15 VDC	22141	15.0
	-15 VDC	21868	-14.9
PLO	+15 VDC	22457	14.9
	-15 VDC	22069	-15.0
RECEIVER	+8 VDC	21811	8.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	21417	10.1
A1-2	+10 VDC	21433	10.1
LO CHANNEL 6	+10 VDC	21394	10.1
7	+10 VDC	21464	10.1
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21277	10.1
4	+10 VDC	21207	10.1
5	+10 VDC	21343	10.2
8	+10 VDC	21329	10.2
15	+15 VDC	22034	15.2
QUIET BUS CURRENT		16605	2222.5
A1-1 NOISY POWER BUS CURRENT		173	18.0
A1-2 NOISY POWER BUS CURRENT		137	17.1

7A 197

JUL 14 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197 4 1998

1st CPT

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EOS   A1-03 E1.EXE;35 COLD CAL MODE      P1 14-JUL-98 00:23:37  SCAN NUMBER   183
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                         COMMANDS        PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =       ON     COLD CAL POSITION 1 =        NO  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =       ON                       2 =        NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =   NO                       3 =        NO  [ 18 ]

[ 12 ]         WARM CAL      =    NO     COLD CAL POSITION 4 =       YES  [ 19 ]

[ 13 ]         COLD CAL      =    YES    RESET C&DH PROCESSOR             [ 20 ]

[ 14 ]         NADIR         =    NO     GSE MODE                         [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN 1A73 CALC 1A73   SA28    436 SA29   871
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
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TA 197

JUL 14 1998

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:23:42 PAGE 1

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16577
2		00000011	574	CH 9	16488
3	PACKET LENGTH	00000010	576	CH 10	16446
4		10111111	578	CH 11	16131
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16430
6		00000000	582	CH 13	16214
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16690
8		01101000	586	CH 15	16204
10	REFLECTOR 1 POSITION 1	3827	588	REFLECTOR 1 POSITION 18	3827
12	REFLECTOR 2 POSITION 1	3475	590	REFLECTOR 2 POSITION 18	3476
14	REFL 1 POS 1 2ND LOOK	3827	592	REFL 1 POS 18 2ND LOOK	3827
16	REFL 2 POS 1 2ND LOOK	3476	594	REFL 2 POS 18 2ND LOOK	3475
18	SCENE DATA BP 1 CH 3	15870	596	SCENE DATA BP 18 CH 3	15876
20	CH 4	16242	598	CH 4	16242
22	CH 5	16571	600	CH 5	16568
24	CH 6	16861	602	CH 6	16858
26	CH 7	15923	604	CH 7	15925
28	CH 8	16575	606	CH 8	16576
30	CH 9	16487	608	CH 9	16483
32	CH 10	16436	610	CH 10	16439
34	CH 11	16127	612	CH 11	16131
36	CH 12	16437	614	CH 12	16431
38	CH 13	16218	616	CH 13	16222
40	CH 14	16682	618	CH 14	16681
42	CH 15	16204	620	CH 15	16207
44	REFLECTOR 1 POSITION 2	3827	622	REFLECTOR 1 POSITION 19	3827
46	REFLECTOR 2 POSITION 2	3475	624	REFLECTOR 2 POSITION 19	3476
48	REFL 1 POS 2 2ND LOOK	3827	626	REFL 1 POS 19 2ND LOOK	3827
50	REFL 2 POS 2 2ND LOOK	3475	628	REFL 2 POS 19 2ND LOOK	3476
52	SCENE DATA BP 2 CH 3	15870	630	SCENE DATA BP 19 CH 3	15870
54	CH 4	16239	632	CH 4	16240
56	CH 5	16566	634	CH 5	16568
58	CH 6	16862	636	CH 6	16866
60	CH 7	15930	638	CH 7	15924
62	CH 8	16573	640	CH 8	16575
64	CH 9	16484	642	CH 9	16482
66	CH 10	16442	644	CH 10	16442
68	CH 11	16130	646	CH 11	16134
70	CH 12	16428	648	CH 12	16443
72	CH 13	16222	650	CH 13	16224
74	CH 14	16678	652	CH 14	16679
76	CH 15	16204	654	CH 15	16205
78	REFLECTOR 1 POSITION 3	3827	656	REFLECTOR 1 POSITION 20	3827
80	REFLECTOR 2 POSITION 3	3476	658	REFLECTOR 2 POSITION 20	3476
82	REFL 1 POS 3 2ND LOOK	3827	660	REFL 1 POS 20 2ND LOOK	3827
84	REFL 2 POS 3 2ND LOOK	3476	662	REFL 2 POS 20 2ND LOOK	3476
86	SCENE DATA BP 3 CH 3	15863	664	SCENE DATA BP 20 CH 3	15871
88	CH 4	16239	666	CH 4	16241
90	CH 5	16564	668	CH 5	16569
92	CH 6	16861	670	CH 6	16862

TA 187

1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15925	672	CH 7	15926
96	CH 8	16578	674	CH 8	16577
98	CH 9	16483	676	CH 9	16484
100	CH 10	16437	678	CH 10	16443
102	CH 11	16126	680	CH 11	16129
104	CH 12	16437	682	CH 12	16432
106	CH 13	16216	684	CH 13	16224
108	CH 14	16660	686	CH 14	16678
110	CH 15	16205	688	CH 15	16205
112	REFLECTOR 1 POSITION 4	3827	690	REFLECTOR 1 POSITION 21	3827
114	REFLECTOR 2 POSITION 4	3476	692	REFLECTOR 2 POSITION 21	3476
116	REFL 1 POS 4 2ND LOOK	3827	694	REFL 1 POS 21 2ND LOOK	3827
118	REFL 2 POS 4 2ND LOOK	3476	696	REFL 2 POS 21 2ND LOOK	3476
120	SCENE DATA BP 4 CH 3	15866	698	SCENE DATA BP 21 CH 3	15862
122	CH 4	16242	700	CH 4	16241
124	CH 5	16567	702	CH 5	16567
126	CH 6	16867	704	CH 6	16862
128	CH 7	15926	706	CH 7	15926
130	CH 8	16572	708	CH 8	16574
132	CH 9	16486	710	CH 9	16483
134	CH 10	16445	712	CH 10	16445
136	CH 11	16131	714	CH 11	16127
138	CH 12	16437	716	CH 12	16428
140	CH 13	16215	718	CH 13	16214
142	CH 14	16666	720	CH 14	16677
144	CH 15	16205	722	CH 15	16205
146	REFLECTOR 1 POSITION 5	3827	724	REFLECTOR 1 POSITION 22	3827
148	REFLECTOR 2 POSITION 5	3475	726	REFLECTOR 2 POSITION 22	3476
150	REFL 1 POS 5 2ND LOOK	3827	728	REFL 1 POS 22 2ND LOOK	3827
152	REFL 2 POS 5 2ND LOOK	3476	730	REFL 2 POS 22 2ND LOOK	3476
154	SCENE DATA BP 5 CH 3	15867	732	SCENE DATA BP 22 CH 3	15868
156	CH 4	16242	734	CH 4	16239
158	CH 5	16566	736	CH 5	16572
160	CH 6	16864	738	CH 6	16862
162	CH 7	15924	740	CH 7	15926
164	CH 8	16576	742	CH 8	16576
166	CH 9	16485	744	CH 9	16484
168	CH 10	16443	746	CH 10	16438
170	CH 11	16133	748	CH 11	16128
172	CH 12	16431	750	CH 12	16436
174	CH 13	16220	752	CH 13	16207
176	CH 14	16669	754	CH 14	16684
178	CH 15	16204	756	CH 15	16205
180	REFLECTOR 1 POSITION 6	3827	758	REFLECTOR 1 POSITION 23	3827
182	REFLECTOR 2 POSITION 6	3476	760	REFLECTOR 2 POSITION 23	3476
184	REFL 1 POS 6 2ND LOOK	3827	762	REFL 1 POS 23 2ND LOOK	3827
186	REFL 2 POS 6 2ND LOOK	3475	764	REFL 2 POS 23 2ND LOOK	3476
188	SCENE DATA BP 6 CH 3	15870	766	SCENE DATA BP 23 CH 3	15865
190	CH 4	16240	768	CH 4	16240
192	CH 5	16569	770	CH 5	16570

JUL 14 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16865	772	CH 6	16867
196	CH 7	15925	774	CH 7	15925
198	CH 8	16573	776	CH 8	16574
200	CH 9	16487	778	CH 9	16487
202	CH 10	16442	780	CH 10	16444
204	CH 11	16129	782	CH 11	16131
206	CH 12	16438	784	CH 12	16440
208	CH 13	16224	786	CH 13	16225
210	CH 14	16670	788	CH 14	16653
212	CH 15	16206	790	CH 15	16204
214	REFLECTOR 1 POSITION 7	3827	792	REFLECTOR 1 POSITION 24	3827
216	REFLECTOR 2 POSITION 7	3476	794	REFLECTOR 2 POSITION 24	3476
218	REFL 1 POS 7 2ND LOOK	3827	796	REFL 1 POS 24 2ND LOOK	3827
220	REFL 2 POS 7 2ND LOOK	3476	798	REFL 2 POS 24 2ND LOOK	3476
222	SCENE DATA BP 7 CH 3	15867	800	SCENE DATA BP 24 CH 3	15871
224	CH 4	16242	802	CH 4	16239
226	CH 5	16569	804	CH 5	16570
228	CH 6	16860	806	CH 6	16863
230	CH 7	15922	808	CH 7	15926
232	CH 8	16575	810	CH 8	16572
234	CH 9	16484	812	CH 9	16481
236	CH 10	16439	814	CH 10	16444
238	CH 11	16128	816	CH 11	16132
240	CH 12	16439	818	CH 12	16432
242	CH 13	16222	820	CH 13	16224
244	CH 14	16675	822	CH 14	16676
246	CH 15	16204	824	CH 15	16206
248	REFLECTOR 1 POSITION 8	3827	826	REFLECTOR 1 POSITION 25	3827
250	REFLECTOR 2 POSITION 8	3476	828	REFLECTOR 2 POSITION 25	3475
252	REFL 1 POS 8 2ND LOOK	3827	830	REFL 1 POS 25 2ND LOOK	3827
254	REFL 2 POS 8 2ND LOOK	3476	832	REFL 2 POS 25 2ND LOOK	3476
256	SCENE DATA BP 8 CH 3	15867	834	SCENE DATA BP 25 CH 3	15868
258	CH 4	16242	836	CH 4	16243
260	CH 5	16571	838	CH 5	16566
262	CH 6	16861	840	CH 6	16860
264	CH 7	15927	842	CH 7	15925
266	CH 8	16575	844	CH 8	16571
268	CH 9	16483	846	CH 9	16481
270	CH 10	16447	848	CH 10	16443
272	CH 11	16135	850	CH 11	16131
274	CH 12	16437	852	CH 12	16433
276	CH 13	16213	854	CH 13	16228
278	CH 14	16667	856	CH 14	16694
280	CH 15	16207	858	CH 15	16204
282	REFLECTOR 1 POSITION 9	3827	860	REFLECTOR 1 POSITION 26	3827
284	REFLECTOR 2 POSITION 9	3476	862	REFLECTOR 2 POSITION 26	3476
286	REFL 1 POS 9 2ND LOOK	3827	864	REFL 1 POS 26 2ND LOOK	3827
288	REFL 2 POS 9 2ND LOOK	3475	866	REFL 2 POS 26 2ND LOOK	3476
290	SCENE DATA BP 9 CH 3	15867	868	SCENE DATA BP 26 CH 3	15864
292	CH 4	16242	870	CH 4	16243

7A 197 JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16569	872	CH 5	16568
296	CH 6	16865	874	CH 6	16856
298	CH 7	15924	876	CH 7	15922
300	CH 8	16571	878	CH 8	16577
302	CH 9	16485	880	CH 9	16485
304	CH 10	16441	882	CH 10	16442
306	CH 11	16127	884	CH 11	16136
308	CH 12	16432	886	CH 12	16431
310	CH 13	16221	888	CH 13	16229
312	CH 14	16687	890	CH 14	16674
314	CH 15	16206	892	CH 15	16203
316	REFLECTOR 1 POSITION 10	3827	894	REFLECTOR 1 POSITION 27	3827
318	REFLECTOR 2 POSITION 10	3476	896	REFLECTOR 2 POSITION 27	3476
320	REFL 1 POS 10 2ND LOOK	3827	898	REFL 1 POS 27 2ND LOOK	3827
322	REFL 2 POS 10 2ND LOOK	3476	900	REFL 2 POS 27 2ND LOOK	3475
324	SCENE DATA BP 10 CH 3	15873	902	SCENE DATA BP 27 CH 3	15866
326	CH 4	16240	904	CH 4	16241
328	CH 5	16568	906	CH 5	16567
330	CH 6	16864	908	CH 6	16863
332	CH 7	15924	910	CH 7	15924
334	CH 8	16578	912	CH 8	16574
336	CH 9	16484	914	CH 9	16488
338	CH 10	16441	916	CH 10	16446
340	CH 11	16133	918	CH 11	16130
342	CH 12	16428	920	CH 12	16435
344	CH 13	16217	922	CH 13	16228
346	CH 14	16685	924	CH 14	16676
348	CH 15	16206	926	CH 15	16206
350	REFLECTOR 1 POSITION 11	3827	928	REFLECTOR 1 POSITION 28	3827
352	REFLECTOR 2 POSITION 11	3476	930	REFLECTOR 2 POSITION 28	3476
354	REFL 1 POS 11 2ND LOOK	3827	932	REFL 1 POS 28 2ND LOOK	3827
356	REFL 2 POS 11 2ND LOOK	3476	934	REFL 2 POS 28 2ND LOOK	3476
358	SCENE DATA BP 11 CH 3	15866	936	SCENE DATA BP 28 CH 3	15868
360	CH 4	16240	938	CH 4	16240
362	CH 5	16568	940	CH 5	16571
364	CH 6	16863	942	CH 6	16862
366	CH 7	15924	944	CH 7	15928
368	CH 8	16575	946	CH 8	16574
370	CH 9	16484	948	CH 9	16484
372	CH 10	16444	950	CH 10	16444
374	CH 11	16131	952	CH 11	16133
376	CH 12	16435	954	CH 12	16431
378	CH 13	16230	956	CH 13	16223
380	CH 14	16669	958	CH 14	16682
382	CH 15	16205	960	CH 15	16205
384	REFLECTOR 1 POSITION 12	3827	962	REFLECTOR 1 POSITION 29	3827
386	REFLECTOR 2 POSITION 12	3476	964	REFLECTOR 2 POSITION 29	3476
388	REFL 1 POS 12 2ND LOOK	3827	966	REFL 1 POS 29 2ND LOOK	3827
390	REFL 2 POS 12 2ND LOOK	3476	968	REFL 2 POS 29 2ND LOOK	3475
392	SCENE DATA BP 12 CH 3	15866	970	SCENE DATA BP 29 CH 3	15869

JUL 14 1998
TA 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16242	972	CH 4	16237
396	CH 5	16565	974	CH 5	16567
398	CH 6	16865	976	CH 6	16861
400	CH 7	15928	978	CH 7	15925
402	CH 8	16573	980	CH 8	16574
404	CH 9	16483	982	CH 9	16482
406	CH 10	16439	984	CH 10	16436
408	CH 11	16131	986	CH 11	16129
410	CH 12	16430	988	CH 12	16431
412	CH 13	16229	990	CH 13	16222
414	CH 14	16674	992	CH 14	16657
416	CH 15	16203	994	CH 15	16205
418	REFLECTOR 1 POSITION 13	3827	996	REFLECTOR 1 POSITION 30	3827
420	REFLECTOR 2 POSITION 13	3476	998	REFLECTOR 2 POSITION 30	3476
422	REFL 1 POS 13 2ND LOOK	3827	1000	REFL 1 POS 30 2ND LOOK	3827
424	REFL 2 POS 13 2ND LOOK	3476	1002	REFL 2 POS 30 2ND LOOK	3476
426	SCENE DATA BP 13 CH 3	15869	1004	SCENE DATA BP 30 CH 3	15872
428	CH 4	16239	1006	CH 4	16242
430	CH 5	16567	1008	CH 5	16567
432	CH 6	16862	1010	CH 6	16865
434	CH 7	15923	1012	CH 7	15926
436	CH 8	16578	1014	CH 8	16570
438	CH 9	16483	1016	CH 9	16485
440	CH 10	16442	1018	CH 10	16444
442	CH 11	16124	1020	CH 11	16131
444	CH 12	16433	1022	CH 12	16438
446	CH 13	16217	1024	CH 13	16215
448	CH 14	16682	1026	CH 14	16665
450	CH 15	16206	1028	CH 15	16203
452	REFLECTOR 1 POSITION 14	3827	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	3476	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	3827	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	3476	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15868	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16240	1040	CH 4	0
464	CH 5	16567	1042	CH 5	0
466	CH 6	16862	1044	CH 6	0
468	CH 7	15922	1046	CH 7	0
470	CH 8	16575	1048	CH 8	0
472	CH 9	16486	1050	CH 9	0
474	CH 10	16442	1052	CH 10	0
476	CH 11	16130	1054	CH 11	0
478	CH 12	16434	1056	CH 12	0
480	CH 13	16228	1058	CH 13	0
482	CH 14	16662	1060	CH 14	0
484	CH 15	16203	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	3827	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	3476	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	3827	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	3476	1070	CH 6	0

7A 197

JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15865	1072	CH 7	0
496	CH 4	16243	1074	CH 8	0
498	CH 5	16570	1076	CH 9	0
500	CH 6	16863	1078	CH 10	0
502	CH 7	15926	1080	CH 11	0
504	CH 8	16572	1082	CH 12	0
506	CH 9	16483	1084	CH 13	0
508	CH 10	16442	1086	CH 14	0
510	CH 11	16128	1088	CH 15	0
512	CH 12	16428	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16209	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16673	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16207	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	3827	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	3476	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	3827	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	3476	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15870	1198	CH 7	0
530	CH 4	16239	1200	CH 8	0
532	CH 5	16565	1202	CH 9	0
534	CH 6	16863	1204	CH 10	0
536	CH 7	15927	1206	CH 11	0
538	CH 8	16572	1208	CH 12	0
540	CH 9	16485	1210	CH 13	0
542	CH 10	16442	1212	CH 14	0
544	CH 11	16131	1214	CH 15	0
546	CH 12	16432	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16212	1218	CH 4	0
550	CH 14	16679	1220	CH 5	0
552	CH 15	16204	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	3827	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	3476	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	3827	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	3475	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15872	1232	CH 11	0
564	CH 4	16242	1234	CH 12	0
566	CH 5	16566	1236	CH 13	0
568	CH 6	16860	1238	CH 14	0
570	CH 7	15925	1240	CH 15	0

JUL 1 4 1998
7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18665	24.18
1092	SCAN MOTOR A1-2	19753	25.56
1094	FEED HORN A1-1	20619	28.25
1096	FEED HORN A1-2	21715	30.40
1098	RF MUX A1-1	22521	31.76
1100	RF MUX A1-2	23902	34.56
1102	LOCAL OSCILLATOR CHANNEL 3	24968	36.84
1104	LOCAL OSCILLATOR CHANNEL 4	25402	37.01
1106	LOCAL OSCILLATOR CHANNEL 5	24114	35.15
1108	LOCAL OSCILLATOR CHANNEL 6	22901	31.87
1110	LOCAL OSCILLATOR CHANNEL 7	23185	33.14
1112	LOCAL OSCILLATOR CHANNEL 8	24805	36.33
1114	LOCAL OSCILLATOR CHANNEL 15	24134	34.58
1116	PLLO #2	22491	31.73
1118	PLLO #1	25376	37.37
1120	1553 INTERFACE	18418	36.86
1122	MIXER/IF AMPLIFIER CHANNEL 3	24208	35.12
1124	MIXER/IF AMPLIFIER CHANNEL 4	24380	34.93
1126	MIXER/IF AMPLIFIER CHANNEL 5	23996	34.59
1128	MIXER/IF AMPLIFIER CHANNEL 6	22816	32.33
1130	MIXER/IF AMPLIFIER CHANNEL 7	22808	32.87
1132	MIXER/IF AMPLIFIER CHANNEL 8	24329	35.19
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22268	31.50
1136	MIXER/IF AMPLIFIER CHANNEL 15	24034	34.91
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23766	34.19
1140	IF AMPLIFIER CHANNEL 9	23926	34.41
1142	IF AMPLIFIER CHANNEL 10	23794	34.42
1144	IF AMPLIFIER CHANNEL 11	22890	31.81
1146	DC/DC CONVERTER	25437	36.88
1148	IF AMPLIFIER CHANNEL 13	22474	31.13
1150	IF AMPLIFIER CHANNEL 14	22836	32.27
1152	IF AMPLIFIER CHANNEL 12	22646	31.70
1154	RF SHELF A1-1	23236	33.12
1156	RF SHELF A1-2	24069	34.11
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21077	28.98
1160	A1-1 WARM LOAD 1	24023	25.03
1162	A1-1 WARM LOAD 2	24512	25.13
1164	A1-1 WARM LOAD 3	24009	25.16
1166	A1-1 WARM LOAD 4	24089	25.13
1168	A1-1 WARM LOAD CENTER	24292	25.15
1170	A1-2 WARM LOAD 1	25032	26.49
1172	A1-2 WARM LOAD 2	25094	26.52
1174	A1-2 WARM LOAD 3	25120	26.54
1176	A1-2 WARM LOAD 4	25103	26.41
1178	A1-2 WARM LOAD CENTER	25104	26.50
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

JUL 14

19

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	YES
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ONE
COLD CAL. POSITION MSB	ONE
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22092	5.3
	+15 VDC	21839	15.5
	-15 VDC	21798	-14.1
SCAN DRIVE	+5 VDC	22175	5.1
	+15 VDC	22144	15.1
	-15 VDC	21859	-14.7
PLO	+15 VDC	22455	15.0
	-15 VDC	22074	-14.8
RECEIVER	+8 VDC	21807	8.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	21416	10.1
A1-2	+10 VDC	21433	10.1
LO CHANNEL 6	+10 VDC	21392	10.2
7	+10 VDC	21460	10.1
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21265	10.2
4	+10 VDC	21191	10.2
5	+10 VDC	21345	10.4
8	+10 VDC	21325	10.4
15	+15 VDC	22034	15.5
QUIET BUS CURRENT		16573	2156.2
A1-1 NOISY POWER BUS CURRENT		1315	35.4
A1-2 NOISY POWER BUS CURRENT		1240	33.7

JUL 14 1998

197

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 14 1998

SUPPORT DATA TDS 12 EOD S/N 202 S/O 298561

1st CPT

```
FOS   A1-03 E1.EXE;35 FULL SCAN MODE    P1 14-JUL-98 00:10:42  SCAN NUMBER   86
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                       COMMANDS        PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =      ON    COLD CAL POSITION 1 =        YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =      ON                      2 =         NO [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =  YES                     3 =         NO [ 18 ]

[ 12 ]       WARM CAL       =    NO    COLD CAL POSITION 4 =         NO [ 19 ]

[ 13 ]       COLD CAL       =    NO    RESET C&DH PROCESSOR             [ 20 ]

[ 14 ]       NADIR          =    NO    GSE MODE                         [ 21 ]

ENGR OK      POWER    ON    CHECKSUM  IN 7A51 CALC 7A51   SA28   338 SA29   676
                      SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
```

TA 197

JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16566
2		00000101	574	CH 9	16463
3	PACKET LENGTH	00000010	576	CH 10	16432
4		10111111	578	CH 11	16147
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16449
6		00000000	582	CH 13	16229
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16688
8		00000010	586	CH 15	16216
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14170	590	REFLECTOR 2 POSITION 18	365
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14170	594	REFL 2 POS 18 2ND LOOK	361
18	SCENE DATA BP 1 CH 3	15868	596	SCENE DATA BP 18 CH 3	15870
20	CH 4	16250	598	CH 4	16247
22	CH 5	16568	600	CH 5	16559
24	CH 6	16931	602	CH 6	16834
26	CH 7	15999	604	CH 7	15916
28	CH 8	16574	606	CH 8	16570
30	CH 9	16546	608	CH 9	16462
32	CH 10	16513	610	CH 10	16433
34	CH 11	16214	612	CH 11	16140
36	CH 12	16540	614	CH 12	16447
38	CH 13	16311	616	CH 13	16244
40	CH 14	16761	618	CH 14	16713
42	CH 15	16254	620	CH 15	16220
44	REFLECTOR 1 POSITION 2	14677	622	REFLECTOR 1 POSITION 19	876
46	REFLECTOR 2 POSITION 2	14324	624	REFLECTOR 2 POSITION 19	519
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14319	628	REFL 2 POS 19 2ND LOOK	515
52	SCENE DATA BP 2 CH 3	15876	630	SCENE DATA BP 19 CH 3	15866
54	CH 4	16254	632	CH 4	16245
56	CH 5	16568	634	CH 5	16562
58	CH 6	16922	636	CH 6	16838
60	CH 7	15994	638	CH 7	15919
62	CH 8	16574	640	CH 8	16564
64	CH 9	16531	642	CH 9	16461
66	CH 10	16498	644	CH 10	16425
68	CH 11	16211	646	CH 11	16131
70	CH 12	16528	648	CH 12	16447
72	CH 13	16310	650	CH 13	16237
74	CH 14	16759	652	CH 14	16670
76	CH 15	16250	654	CH 15	16221
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1022
80	REFLECTOR 2 POSITION 3	14475	658	REFLECTOR 2 POSITION 20	670
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1016
84	REFL 2 POS 3 2ND LOOK	14470	662	REFL 2 POS 20 2ND LOOK	664
86	SCENE DATA BP 3 CH 3	15877	664	SCENE DATA BP 20 CH 3	15871
88	CH 4	16257	666	CH 4	16251
90	CH 5	16569	668	CH 5	16564
92	CH 6	16919	670	CH 6	16858

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15998	672	CH 7	15944
96	CH 8	16573	674	CH 8	16566
98	CH 9	16549	676	CH 9	16490
100	CH 10	16515	678	CH 10	16449
102	CH 11	16218	680	CH 11	16165
104	CH 12	16532	682	CH 12	16471
106	CH 13	16330	684	CH 13	16272
108	CH 14	16772	686	CH 14	16734
110	CH 15	16253	688	CH 15	16236
112	REFLECTOR 1 POSITION 4	14985	690	REFLECTOR 1 POSITION 21	1177
114	REFLECTOR 2 POSITION 4	14626	692	REFLECTOR 2 POSITION 21	820
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	817
120	SCENE DATA BP 4 CH 3	15884	698	SCENE DATA BP 21 CH 3	15872
122	CH 4	16258	700	CH 4	16248
124	CH 5	16576	702	CH 5	16563
126	CH 6	16909	704	CH 6	16900
128	CH 7	15990	706	CH 7	15985
130	CH 8	16580	708	CH 8	16568
132	CH 9	16523	710	CH 9	16510
134	CH 10	16493	712	CH 10	16474
136	CH 11	16201	714	CH 11	16184
138	CH 12	16515	716	CH 12	16495
140	CH 13	16305	718	CH 13	16280
142	CH 14	16757	720	CH 14	16742
144	CH 15	16247	722	CH 15	16246
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1331
148	REFLECTOR 2 POSITION 5	14776	726	REFLECTOR 2 POSITION 22	972
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1322
152	REFL 2 POS 5 2ND LOOK	14774	730	REFL 2 POS 22 2ND LOOK	967
154	SCENE DATA BP 5 CH 3	15887	732	SCENE DATA BP 22 CH 3	15870
156	CH 4	16266	734	CH 4	16246
158	CH 5	16582	736	CH 5	16566
160	CH 6	16951	738	CH 6	16897
162	CH 7	16027	740	CH 7	15986
164	CH 8	16588	742	CH 8	16570
166	CH 9	16551	744	CH 9	16500
168	CH 10	16521	746	CH 10	16468
170	CH 11	16231	748	CH 11	16178
172	CH 12	16539	750	CH 12	16489
174	CH 13	16330	752	CH 13	16277
176	CH 14	16793	754	CH 14	16743
178	CH 15	16266	756	CH 15	16240
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1480
182	REFLECTOR 2 POSITION 6	14929	760	REFLECTOR 2 POSITION 23	1122
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14926	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15882	766	SCENE DATA BP 23 CH 3	15867
190	CH 4	16264	768	CH 4	16248
192	CH 5	16577	770	CH 5	16567

JUL 14 1998 TA 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16928	772	CH 6	16886
196	CH 7	16001	774	CH 7	15964
198	CH 8	16585	776	CH 8	16569
200	CH 9	16531	778	CH 9	16519
202	CH 10	16498	780	CH 10	16487
204	CH 11	16208	782	CH 11	16195
206	CH 12	16517	784	CH 12	16500
208	CH 13	16303	786	CH 13	16297
210	CH 14	16756	788	CH 14	16766
212	CH 15	16260	790	CH 15	16238
214	REFLECTOR 1 POSITION 7	15439	792	REFLECTOR 1 POSITION 24	1631
216	REFLECTOR 2 POSITION 7	15083	794	REFLECTOR 2 POSITION 24	1276
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1625
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15881	800	SCENE DATA BP 24 CH 3	15875
224	CH 4	16260	802	CH 4	16252
226	CH 5	16575	804	CH 5	16571
228	CH 6	16914	806	CH 6	16874
230	CH 7	15988	808	CH 7	15964
232	CH 8	16579	810	CH 8	16576
234	CH 9	16532	812	CH 9	16508
236	CH 10	16505	814	CH 10	16473
238	CH 11	16211	816	CH 11	16180
240	CH 12	16518	818	CH 12	16490
242	CH 13	16303	820	CH 13	16287
244	CH 14	16781	822	CH 14	16738
246	CH 15	16259	824	CH 15	16236
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1784
250	REFLECTOR 2 POSITION 8	15235	828	REFLECTOR 2 POSITION 25	1427
252	REFL 1 POS 8 2ND LOOK	15582	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15229	832	REFL 2 POS 25 2ND LOOK	1422
256	SCENE DATA BP 8 CH 3	15881	834	SCENE DATA BP 25 CH 3	15874
258	CH 4	16267	836	CH 4	16250
260	CH 5	16583	838	CH 5	16569
262	CH 6	16920	840	CH 6	16887
264	CH 7	15987	842	CH 7	15960
266	CH 8	16588	844	CH 8	16573
268	CH 9	16534	846	CH 9	16493
270	CH 10	16501	848	CH 10	16460
272	CH 11	16210	850	CH 11	16170
274	CH 12	16509	852	CH 12	16476
276	CH 13	16306	854	CH 13	16262
278	CH 14	16761	856	CH 14	16722
280	CH 15	16256	858	CH 15	16236
282	REFLECTOR 1 POSITION 9	15740	860	REFLECTOR 1 POSITION 26	1936
284	REFLECTOR 2 POSITION 9	15385	862	REFLECTOR 2 POSITION 26	1578
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1927
288	REFL 2 POS 9 2ND LOOK	15381	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15890	868	SCENE DATA BP 26 CH 3	15868
292	CH 4	16272	870	CH 4	16248

JUL 1 4 19..

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16590	872	CH 5	16564
296	CH 6	16946	874	CH 6	16908
298	CH 7	16014	876	CH 7	15981
300	CH 8	16592	878	CH 8	16566
302	CH 9	16550	880	CH 9	16514
304	CH 10	16521	882	CH 10	16478
306	CH 11	16232	884	CH 11	16186
308	CH 12	16545	886	CH 12	16500
310	CH 13	16341	888	CH 13	16290
312	CH 14	16792	890	CH 14	16751
314	CH 15	16272	892	CH 15	16244
316	REFLECTOR 1 POSITION 10	15894	894	REFLECTOR 1 POSITION 27	2085
318	REFLECTOR 2 POSITION 10	15539	896	REFLECTOR 2 POSITION 27	1730
320	REFL 1 POS 10 2ND LOOK	15885	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15534	900	REFL 2 POS 27 2ND LOOK	1726
324	SCENE DATA BP 10 CH 3	15881	902	SCENE DATA BP 27 CH 3	15877
326	CH 4	16265	904	CH 4	16253
328	CH 5	16577	906	CH 5	16571
330	CH 6	16957	908	CH 6	16904
332	CH 7	16043	910	CH 7	15983
334	CH 8	16582	912	CH 8	16575
336	CH 9	16544	914	CH 9	16544
338	CH 10	16519	916	CH 10	16512
340	CH 11	16224	918	CH 11	16212
342	CH 12	16533	920	CH 12	16532
344	CH 13	16315	922	CH 13	16311
346	CH 14	16783	924	CH 14	16750
348	CH 15	16270	926	CH 15	16247
350	REFLECTOR 1 POSITION 11	16043	928	REFLECTOR 1 POSITION 28	2238
352	REFLECTOR 2 POSITION 11	15690	930	REFLECTOR 2 POSITION 28	1884
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15685	934	REFL 2 POS 28 2ND LOOK	1879
358	SCENE DATA BP 11 CH 3	15876	936	SCENE DATA BP 28 CH 3	15874
360	CH 4	16259	938	CH 4	16259
362	CH 5	16576	940	CH 5	16577
364	CH 6	16883	942	CH 6	16945
366	CH 7	15965	944	CH 7	16005
368	CH 8	16581	946	CH 8	16582
370	CH 9	16498	948	CH 9	16553
372	CH 10	16470	950	CH 10	16517
374	CH 11	16176	952	CH 11	16224
376	CH 12	16480	954	CH 12	16538
378	CH 13	16262	956	CH 13	16321
380	CH 14	16747	958	CH 14	16779
382	CH 15	16241	960	CH 15	16256
384	REFLECTOR 1 POSITION 12	16197	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15841	964	REFLECTOR 2 POSITION 29	2035
388	REFL 1 POS 12 2ND LOOK	16189	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15835	968	REFL 2 POS 29 2ND LOOK	2029
392	SCENE DATA BP 12 CH 3	15873	970	SCENE DATA BP 29 CH 3	15875

7A 197
JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16250	972	CH 4	16256
396	CH 5	16568	974	CH 5	16570
398	CH 6	16838	976	CH 6	16987
400	CH 7	15918	978	CH 7	16030
402	CH 8	16568	980	CH 8	16573
404	CH 9	16460	982	CH 9	16571
406	CH 10	16428	984	CH 10	16536
408	CH 11	16138	986	CH 11	16245
410	CH 12	16443	988	CH 12	16555
412	CH 13	16243	990	CH 13	16343
414	CH 14	16679	992	CH 14	16798
416	CH 15	16220	994	CH 15	16249
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2542
420	REFLECTOR 2 POSITION 13	15990	998	REFLECTOR 2 POSITION 30	2186
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15987	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15873	1004	SCENE DATA BP 30 CH 3	15866
428	CH 4	16249	1006	CH 4	16245
430	CH 5	16566	1008	CH 5	16568
432	CH 6	16840	1010	CH 6	16964
434	CH 7	15918	1012	CH 7	16019
436	CH 8	16573	1014	CH 8	16569
438	CH 9	16467	1016	CH 9	16595
440	CH 10	16434	1018	CH 10	16570
442	CH 11	16143	1020	CH 11	16269
444	CH 12	16451	1022	CH 12	16577
446	CH 13	16234	1024	CH 13	16372
448	CH 14	16696	1026	CH 14	16834
450	CH 15	16226	1028	CH 15	16259
452	REFLECTOR 1 POSITION 14	116	1030	REFLECTOR 1 COLD CAL POS	4132
454	REFLECTOR 2 POSITION 14	16140	1032	REFLECTOR 2 COLD CAL POS	3779
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	4131
458	REFL 2 POS 14 2ND LOOK	16139	1036	REFL 2 COLD CAL 2ND LOOK	3779
460	SCENE DATA BP 14 CH 3	15872	1038	COLD CAL DATA 1 CH 3	15868
462	CH 4	16253	1040	CH 4	16254
464	CH 5	16568	1042	CH 5	16577
466	CH 6	16843	1044	CH 6	16851
468	CH 7	15924	1046	CH 7	15928
470	CH 8	16578	1048	CH 8	16580
472	CH 9	16472	1050	CH 9	16480
474	CH 10	16432	1052	CH 10	16443
476	CH 11	16149	1054	CH 11	16151
478	CH 12	16453	1056	CH 12	16471
480	CH 13	16247	1058	CH 13	16256
482	CH 14	16696	1060	CH 14	16708
484	CH 15	16221	1062	CH 15	16216
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15877
488	REFLECTOR 2 POSITION 15	16295	1066	CH 4	16254
490	REFL 1 POS 15 2ND LOOK	259	1068	CH 5	16574
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16852

TA 197 JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15875	1072	CH 7	15925
496	CH 4	16260	1074	CH 8	16584
498	CH 5	16575	1076	CH 9	16480
500	CH 6	16849	1078	CH 10	16450
502	CH 7	15931	1080	CH 11	16148
504	CH 8	16584	1082	CH 12	16455
506	CH 9	16475	1084	CH 13	16258
508	CH 10	16436	1086	CH 14	16689
510	CH 11	16148	1088	CH 15	16217
512	CH 12	16465	1182	REFLECTOR 1 WARM CAL POS	8527
514	CH 13	16240	1184	REFLECTOR 2 WARM CAL POS	8177
516	CH 14	16690	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16221	1188	REFL 2 WARM CAL 2ND LOOK	8177
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15918
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16299
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16617
526	REFL 2 POS 16 2ND LOOK	58	1196	CH 6	16872
528	SCENE DATA BP 16 CH 3	15881	1198	CH 7	15955
530	CH 4	16254	1200	CH 8	16626
532	CH 5	16571	1202	CH 9	16501
534	CH 6	16848	1204	CH 10	16459
536	CH 7	15923	1206	CH 11	16170
538	CH 8	16577	1208	CH 12	16481
540	CH 9	16473	1210	CH 13	16273
542	CH 10	16436	1212	CH 14	16710
544	CH 11	16153	1214	CH 15	16236
546	CH 12	16461	1216	WARM CAL DATA 2 CH 3	15916
548	CH 13	16256	1218	CH 4	16304
550	CH 14	16689	1220	CH 5	16616
552	CH 15	16219	1222	CH 6	16873
554	REFLECTOR 1 POSITION 17	572	1224	CH 7	15958
556	REFLECTOR 2 POSITION 17	212	1226	CH 8	16627
558	REFL 1 POS 17 2ND LOOK	562	1228	CH 9	16499
560	REFL 2 POS 17 2ND LOOK	211	1230	CH 10	16460
562	SCENE DATA BP 17 CH 3	15867	1232	CH 11	16169
564	CH 4	16251	1234	CH 12	16488
566	CH 5	16563	1236	CH 13	16268
568	CH 6	16842	1238	CH 14	16740
570	CH 7	15922	1240	CH 15	16236

JUL 1 4 1998
7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18550	23.97
1092	SCAN MOTOR A1-2	19610	25.29
1094	FEED HORN A1-1	20477	27.98
1096	FEED HORN A1-2	21518	30.02
1098	RF MUX A1-1	22323	31.38
1100	RF MUX A1-2	23645	34.06
1102	LOCAL OSCILLATOR CHANNEL 3	24698	36.32
1104	LOCAL OSCILLATOR CHANNEL 4	25129	36.48
1106	LOCAL OSCILLATOR CHANNEL 5	23871	34.68
1108	LOCAL OSCILLATOR CHANNEL 6	22734	31.54
1110	LOCAL OSCILLATOR CHANNEL 7	22979	32.74
1112	LOCAL OSCILLATOR CHANNEL 8	24546	35.81
1114	LOCAL OSCILLATOR CHANNEL 15	23922	34.17
1116	PLLO #2	22285	31.33
1118	PLLO #1	25162	36.95
1120	1553 INTERFACE	18207	36.45
1122	MIXER/IF AMPLIFIER CHANNEL 3	23947	34.63
1124	MIXER/IF AMPLIFIER CHANNEL 4	24122	34.43
1126	MIXER/IF AMPLIFIER CHANNEL 5	23747	34.11
1128	MIXER/IF AMPLIFIER CHANNEL 6	22617	31.94
1130	MIXER/IF AMPLIFIER CHANNEL 7	22597	32.46
1132	MIXER/IF AMPLIFIER CHANNEL 8	24066	34.68
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22066	31.11
1136	MIXER/IF AMPLIFIER CHANNEL 15	23823	34.50
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23555	33.75
1140	IF AMPLIFIER CHANNEL 9	23712	33.93
1142	IF AMPLIFIER CHANNEL 10	23581	34.01
1144	IF AMPLIFIER CHANNEL 11	22676	31.40
1146	DC/DC CONVERTER	25294	36.60
1148	IF AMPLIFIER CHANNEL 13	22261	30.72
1150	IF AMPLIFIER CHANNEL 14	22625	31.87
1152	IF AMPLIFIER CHANNEL 12	22435	31.29
1154	RF SHELF A1-1	23033	32.73
1156	RF SHELF A1-2	23820	33.62
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20936	28.72
1160	A1-1 WARM LOAD 1	23967	24.92
1162	A1-1 WARM LOAD 2	24457	25.02
1164	A1-1 WARM LOAD 3	23963	25.06
1166	A1-1 WARM LOAD 4	24040	25.03
1168	A1-1 WARM LOAD CENTER	24247	25.07
1170	A1-2 WARM LOAD 1	24923	26.27
1172	A1-2 WARM LOAD 2	24982	26.30
1174	A1-2 WARM LOAD 3	25006	26.32
1176	A1-2 WARM LOAD 4	24998	26.21
1178	A1-2 WARM LOAD CENTER	24997	26.29
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

7A 197

JUL 1 4 '98

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22067	4.9
	+15 VDC	21838	14.9
	-15 VDC	21800	-15.2
SCAN DRIVE	+5 VDC	22195	4.9
	+15 VDC	22224	14.9
	-15 VDC	21866	-15.3
PLO	+15 VDC	22454	14.9
	-15 VDC	22072	-15.4
RECEIVER	+8 VDC	21810	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21416	9.9
A1-2	+10 VDC	21433	9.9
LO CHANNEL 6	+10 VDC	21393	10.0
7	+10 VDC	21468	9.8
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21264	10.0
4	+10 VDC	21196	10.0
5	+10 VDC	21344	10.0
8	+10 VDC	21319	9.9
15	+15 VDC	22033	15.0
QUIET BUS CURRENT		16521	2425.9
A1-1 NOISY POWER BUS CURRENT		14052	18.6
A1-2 NOISY POWER BUS CURRENT		13003	17.7

JUL 14 1998 7A 19

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197 JUL 1 4 1998

1st CPT

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EOS   A1-03 E1.EXE;35 FULL SCAN MODE     P1 14-JUL-98 00:15:45  SCAN NUMBER   124
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT  00

[ 7 ] ENGINEERING     ELEMENT  00

                         COMMANDS      PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =      ON    COLD CAL POSITION 1 =       NO  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =      ON                      2 =       YES [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =  YES                     3 =       NO  [ 18 ]

[ 12 ]         WARM CAL     =    NO    COLD CAL POSITION 4 =       NO  [ 19 ]

[ 13 ]         COLD CAL     =    NO    RESET C&DH PROCESSOR            [ 20 ]

[ 14 ]         NADIR        =    NO    GSE MODE                        [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN A50B CALC A50B   SA28   377 SA29   753
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
 SELECT BUTTON 3
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7A 197
JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16562
2		00000101	574	CH 9	16461
3	PACKET LENGTH	00000010	576	CH 10	16418
4		10111111	578	CH 11	16128
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16432
6		00000000	582	CH 13	16216
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16681
8		00100010	586	CH 15	16211
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14169	590	REFLECTOR 2 POSITION 18	367
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14169	594	REFL 2 POS 18 2ND LOOK	364
18	SCENE DATA BP 1 CH 3	15867	596	SCENE DATA BP 18 CH 3	15863
20	CH 4	16241	598	CH 4	16238
22	CH 5	16555	600	CH 5	16550
24	CH 6	16932	602	CH 6	16833
26	CH 7	15993	604	CH 7	15910
28	CH 8	16566	606	CH 8	16559
30	CH 9	16538	608	CH 9	16460
32	CH 10	16508	610	CH 10	16419
34	CH 11	16204	612	CH 11	16124
36	CH 12	16516	614	CH 12	16425
38	CH 13	16297	616	CH 13	16225
40	CH 14	16760	618	CH 14	16671
42	CH 15	16247	620	CH 15	16213
44	REFLECTOR 1 POSITION 2	14677	622	REFLECTOR 1 POSITION 19	874
46	REFLECTOR 2 POSITION 2	14323	624	REFLECTOR 2 POSITION 19	518
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14320	628	REFL 2 POS 19 2ND LOOK	514
52	SCENE DATA BP 2 CH 3	15870	630	SCENE DATA BP 19 CH 3	15861
54	CH 4	16243	632	CH 4	16235
56	CH 5	16558	634	CH 5	16550
58	CH 6	16912	636	CH 6	16832
60	CH 7	15986	638	CH 7	15913
62	CH 8	16568	640	CH 8	16556
64	CH 9	16525	642	CH 9	16458
66	CH 10	16493	644	CH 10	16424
68	CH 11	16191	646	CH 11	16122
70	CH 12	16492	648	CH 12	16429
72	CH 13	16275	650	CH 13	16220
74	CH 14	16721	652	CH 14	16674
76	CH 15	16244	654	CH 15	16213
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1022
80	REFLECTOR 2 POSITION 3	14475	658	REFLECTOR 2 POSITION 20	670
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1017
84	REFL 2 POS 3 2ND LOOK	14470	662	REFL 2 POS 20 2ND LOOK	664
86	SCENE DATA BP 3 CH 3	15864	664	SCENE DATA BP 20 CH 3	15862
88	CH 4	16243	666	CH 4	16240
90	CH 5	16563	668	CH 5	16548
92	CH 6	16914	670	CH 6	16858

7A 197 JUL 14 '98

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15986	672	CH 7	15941
96	CH 8	16569	674	CH 8	16562
98	CH 9	16539	676	CH 9	16485
100	CH 10	16496	678	CH 10	16455
102	CH 11	16199	680	CH 11	16145
104	CH 12	16512	682	CH 12	16455
106	CH 13	16290	684	CH 13	16245
108	CH 14	16738	686	CH 14	16681
110	CH 15	16251	688	CH 15	16230
112	REFLECTOR 1 POSITION 4	14985	690	REFLECTOR 1 POSITION 21	1178
114	REFLECTOR 2 POSITION 4	14627	692	REFLECTOR 2 POSITION 21	821
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	815
120	SCENE DATA BP 4 CH 3	15874	698	SCENE DATA BP 21 CH 3	15867
122	CH 4	16251	700	CH 4	16237
124	CH 5	16565	702	CH 5	16556
126	CH 6	16909	704	CH 6	16907
128	CH 7	15985	706	CH 7	15988
130	CH 8	16573	708	CH 8	16562
132	CH 9	16520	710	CH 9	16511
134	CH 10	16480	712	CH 10	16474
136	CH 11	16183	714	CH 11	16175
138	CH 12	16500	716	CH 12	16479
140	CH 13	16274	718	CH 13	16278
142	CH 14	16730	720	CH 14	16724
144	CH 15	16242	722	CH 15	16244
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1332
148	REFLECTOR 2 POSITION 5	14775	726	REFLECTOR 2 POSITION 22	972
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1321
152	REFL 2 POS 5 2ND LOOK	14773	730	REFL 2 POS 22 2ND LOOK	968
154	SCENE DATA BP 5 CH 3	15878	732	SCENE DATA BP 22 CH 3	15862
156	CH 4	16258	734	CH 4	16239
158	CH 5	16569	736	CH 5	16551
160	CH 6	16952	738	CH 6	16904
162	CH 7	16020	740	CH 7	15987
164	CH 8	16580	742	CH 8	16561
166	CH 9	16551	744	CH 9	16502
168	CH 10	16517	746	CH 10	16464
170	CH 11	16212	748	CH 11	16168
172	CH 12	16525	750	CH 12	16473
174	CH 13	16305	752	CH 13	16264
176	CH 14	16755	754	CH 14	16722
178	CH 15	16254	756	CH 15	16239
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1480
182	REFLECTOR 2 POSITION 6	14931	760	REFLECTOR 2 POSITION 23	1122
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14926	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15878	766	SCENE DATA BP 23 CH 3	15866
190	CH 4	16255	768	CH 4	16241
192	CH 5	16573	770	CH 5	16556

JUL 14 1998 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16930	772	CH 6	16881
196	CH 7	15992	774	CH 7	15957
198	CH 8	16581	776	CH 8	16563
200	CH 9	16526	778	CH 9	16513
202	CH 10	16494	780	CH 10	16480
204	CH 11	16186	782	CH 11	16177
206	CH 12	16501	784	CH 12	16482
208	CH 13	16285	786	CH 13	16270
210	CH 14	16729	788	CH 14	16703
212	CH 15	16247	790	CH 15	16232
214	REFLECTOR 1 POSITION 7	15440	792	REFLECTOR 1 POSITION 24	1632
216	REFLECTOR 2 POSITION 7	15081	794	REFLECTOR 2 POSITION 24	1275
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1625
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15874	800	SCENE DATA BP 24 CH 3	15861
224	CH 4	16249	802	CH 4	16241
226	CH 5	16566	804	CH 5	16557
228	CH 6	16913	806	CH 6	16871
230	CH 7	15985	808	CH 7	15955
232	CH 8	16571	810	CH 8	16565
234	CH 9	16531	812	CH 9	16499
236	CH 10	16498	814	CH 10	16464
238	CH 11	16196	816	CH 11	16163
240	CH 12	16507	818	CH 12	16468
242	CH 13	16287	820	CH 13	16259
244	CH 14	16761	822	CH 14	16731
246	CH 15	16249	824	CH 15	16230
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1785
250	REFLECTOR 2 POSITION 8	15233	828	REFLECTOR 2 POSITION 25	1427
252	REFL 1 POS 8 2ND LOOK	15582	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15230	832	REFL 2 POS 25 2ND LOOK	1423
256	SCENE DATA BP 8 CH 3	15877	834	SCENE DATA BP 25 CH 3	15865
258	CH 4	16257	836	CH 4	16241
260	CH 5	16569	838	CH 5	16557
262	CH 6	16919	840	CH 6	16883
264	CH 7	15982	842	CH 7	15951
266	CH 8	16582	844	CH 8	16565
268	CH 9	16531	846	CH 9	16492
270	CH 10	16501	848	CH 10	16453
272	CH 11	16193	850	CH 11	16155
274	CH 12	16509	852	CH 12	16459
276	CH 13	16274	854	CH 13	16248
278	CH 14	16736	856	CH 14	16703
280	CH 15	16251	858	CH 15	16230
282	REFLECTOR 1 POSITION 9	15740	860	REFLECTOR 1 POSITION 26	1937
284	REFLECTOR 2 POSITION 9	15386	862	REFLECTOR 2 POSITION 26	1578
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1927
288	REFL 2 POS 9 2ND LOOK	15380	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15887	868	SCENE DATA BP 26 CH 3	15858
292	CH 4	16262	870	CH 4	16242

7A 197
JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16574	872	CH 5	16551
296	CH 6	16942	874	CH 6	16902
298	CH 7	16008	876	CH 7	15974
300	CH 8	16582	878	CH 8	16560
302	CH 9	16549	880	CH 9	16509
304	CH 10	16513	882	CH 10	16469
306	CH 11	16211	884	CH 11	16166
308	CH 12	16529	886	CH 12	16481
310	CH 13	16311	888	CH 13	16255
312	CH 14	16768	890	CH 14	16711
314	CH 15	16265	892	CH 15	16237
316	REFLECTOR 1 POSITION 10	15893	894	REFLECTOR 1 POSITION 27	2085
318	REFLECTOR 2 POSITION 10	15538	896	REFLECTOR 2 POSITION 27	1731
320	REFL 1 POS 10 2ND LOOK	15885	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15532	900	REFL 2 POS 27 2ND LOOK	1727
324	SCENE DATA BP 10 CH 3	15879	902	SCENE DATA BP 27 CH 3	15872
326	CH 4	16254	904	CH 4	16244
328	CH 5	16568	906	CH 5	16559
330	CH 6	16947	908	CH 6	16903
332	CH 7	16031	910	CH 7	15974
334	CH 8	16580	912	CH 8	16564
336	CH 9	16540	914	CH 9	16536
338	CH 10	16503	916	CH 10	16498
340	CH 11	16202	918	CH 11	16200
342	CH 12	16514	920	CH 12	16505
344	CH 13	16289	922	CH 13	16302
346	CH 14	16760	924	CH 14	16754
348	CH 15	16261	926	CH 15	16242
350	REFLECTOR 1 POSITION 11	16043	928	REFLECTOR 1 POSITION 28	2239
352	REFLECTOR 2 POSITION 11	15688	930	REFLECTOR 2 POSITION 28	1884
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15684	934	REFL 2 POS 28 2ND LOOK	1878
358	SCENE DATA BP 11 CH 3	15871	936	SCENE DATA BP 28 CH 3	15868
360	CH 4	16249	938	CH 4	16246
362	CH 5	16563	940	CH 5	16555
364	CH 6	16874	942	CH 6	16945
366	CH 7	15956	944	CH 7	15993
368	CH 8	16571	946	CH 8	16566
370	CH 9	16498	948	CH 9	16545
372	CH 10	16455	950	CH 10	16516
374	CH 11	16160	952	CH 11	16208
376	CH 12	16459	954	CH 12	16515
378	CH 13	16250	956	CH 13	16307
380	CH 14	16698	958	CH 14	16766
382	CH 15	16231	960	CH 15	16249
384	REFLECTOR 1 POSITION 12	16196	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15841	964	REFLECTOR 2 POSITION 29	2035
388	REFL 1 POS 12 2ND LOOK	16188	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15835	968	REFL 2 POS 29 2ND LOOK	2029
392	SCENE DATA BP 12 CH 3	15867	970	SCENE DATA BP 29 CH 3	15866

JUL 14 1998 7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16242	972	CH 4	16244
396	CH 5	16555	974	CH 5	16559
398	CH 6	16832	976	CH 6	16982
400	CH 7	15911	978	CH 7	16026
402	CH 8	16564	980	CH 8	16565
404	CH 9	16459	982	CH 9	16566
406	CH 10	16421	984	CH 10	16533
408	CH 11	16123	986	CH 11	16224
410	CH 12	16436	988	CH 12	16538
412	CH 13	16218	990	CH 13	16324
414	CH 14	16661	992	CH 14	16775
416	CH 15	16212	994	CH 15	16244
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2542
420	REFLECTOR 2 POSITION 13	15992	998	REFLECTOR 2 POSITION 30	2186
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15987	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15866	1004	SCENE DATA BP 30 CH 3	15865
428	CH 4	16244	1006	CH 4	16239
430	CH 5	16554	1008	CH 5	16551
432	CH 6	16833	1010	CH 6	16958
434	CH 7	15909	1012	CH 7	16009
436	CH 8	16561	1014	CH 8	16564
438	CH 9	16459	1016	CH 9	16592
440	CH 10	16420	1018	CH 10	16559
442	CH 11	16125	1020	CH 11	16251
444	CH 12	16423	1022	CH 12	16562
446	CH 13	16216	1024	CH 13	16350
448	CH 14	16666	1026	CH 14	16793
450	CH 15	16218	1028	CH 15	16251
452	REFLECTOR 1 POSITION 14	115	1030	REFLECTOR 1 COLD CAL POS	4050
454	REFLECTOR 2 POSITION 14	16140	1032	REFLECTOR 2 COLD CAL POS	3703
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	4050
458	REFL 2 POS 14 2ND LOOK	16138	1036	REFL 2 COLD CAL 2ND LOOK	3703
460	SCENE DATA BP 14 CH 3	15867	1038	COLD CAL DATA 1 CH 3	15877
462	CH 4	16244	1040	CH 4	16251
464	CH 5	16557	1042	CH 5	16568
466	CH 6	16836	1044	CH 6	16855
468	CH 7	15914	1046	CH 7	15921
470	CH 8	16562	1048	CH 8	16581
472	CH 9	16467	1050	CH 9	16484
474	CH 10	16423	1052	CH 10	16444
476	CH 11	16131	1054	CH 11	16145
478	CH 12	16432	1056	CH 12	16452
480	CH 13	16220	1058	CH 13	16226
482	CH 14	16672	1060	CH 14	16704
484	CH 15	16214	1062	CH 15	16210
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15872
488	REFLECTOR 2 POSITION 15	16295	1066	CH 4	16253
490	REFL 1 POS 15 2ND LOOK	259	1068	CH 5	16566
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16860

7A 197 JUL 1 4

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15869	1072	CH 7	15924
496	CH 4	16253	1074	CH 8	16579
498	CH 5	16559	1076	CH 9	16481
500	CH 6	16840	1078	CH 10	16445
502	CH 7	15925	1080	CH 11	16140
504	CH 8	16570	1082	CH 12	16459
506	CH 9	16467	1084	CH 13	16245
508	CH 10	16427	1086	CH 14	16684
510	CH 11	16136	1088	CH 15	16212
512	CH 12	16443	1182	REFLECTOR 1 WARM CAL POS	8528
514	CH 13	16241	1184	REFLECTOR 2 WARM CAL POS	8178
516	CH 14	16672	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16213	1188	REFL 2 WARM CAL 2ND LOOK	8178
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15915
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16292
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16603
526	REFL 2 POS 16 2ND LOOK	57	1196	CH 6	16868
528	SCENE DATA BP 16 CH 3	15871	1198	CH 7	15951
530	CH 4	16252	1200	CH 8	16617
532	CH 5	16557	1202	CH 9	16495
534	CH 6	16846	1204	CH 10	16455
536	CH 7	15923	1206	CH 11	16158
538	CH 8	16573	1208	CH 12	16470
540	CH 9	16468	1210	CH 13	16243
542	CH 10	16429	1212	CH 14	16715
544	CH 11	16135	1214	CH 15	16230
546	CH 12	16449	1216	WARM CAL DATA 2 CH 3	15916
548	CH 13	16230	1218	CH 4	16292
550	CH 14	16676	1220	CH 5	16609
552	CH 15	16215	1222	CH 6	16871
554	REFLECTOR 1 POSITION 17	572	1224	CH 7	15945
556	REFLECTOR 2 POSITION 17	211	1226	CH 8	16622
558	REFL 1 POS 17 2ND LOOK	562	1228	CH 9	16498
560	REFL 2 POS 17 2ND LOOK	212	1230	CH 10	16455
562	SCENE DATA BP 17 CH 3	15864	1232	CH 11	16164
564	CH 4	16239	1234	CH 12	16471
566	CH 5	16555	1236	CH 13	16253
568	CH 6	16833	1238	CH 14	16703
570	CH 7	15913	1240	CH 15	16231

TA 197
JUL 14 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18598	24.06
1092	SCAN MOTOR A1-2	19667	25.40
1094	FEED HORN A1-1	20522	28.07
1096	FEED HORN A1-2	21596	30.17
1098	RF MUX A1-1	22402	31.53
1100	RF MUX A1-2	23755	34.27
1102	LOCAL OSCILLATOR CHANNEL 3	24813	36.54
1104	LOCAL OSCILLATOR CHANNEL 4	25242	36.70
1106	LOCAL OSCILLATOR CHANNEL 5	23968	34.87
1108	LOCAL OSCILLATOR CHANNEL 6	22800	31.67
1110	LOCAL OSCILLATOR CHANNEL 7	23064	32.91
1112	LOCAL OSCILLATOR CHANNEL 8	24648	36.02
1114	LOCAL OSCILLATOR CHANNEL 15	24009	34.34
1116	PLLO #2	22369	31.49
1118	PLLO #1	25251	37.12
1120	1553 INTERFACE	18296	36.62
1122	MIXER/IF AMPLIFIER CHANNEL 3	24054	34.83
1124	MIXER/IF AMPLIFIER CHANNEL 4	24229	34.64
1126	MIXER/IF AMPLIFIER CHANNEL 5	23851	34.31
1128	MIXER/IF AMPLIFIER CHANNEL 6	22699	32.10
1130	MIXER/IF AMPLIFIER CHANNEL 7	22682	32.63
1132	MIXER/IF AMPLIFIER CHANNEL 8	24175	34.89
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22148	31.27
1136	MIXER/IF AMPLIFIER CHANNEL 15	23910	34.67
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23640	33.92
1140	IF AMPLIFIER CHANNEL 9	23799	34.14
1142	IF AMPLIFIER CHANNEL 10	23669	34.18
1144	IF AMPLIFIER CHANNEL 11	22763	31.57
1146	DC/DC CONVERTER	25342	36.70
1148	IF AMPLIFIER CHANNEL 13	22347	30.88
1150	IF AMPLIFIER CHANNEL 14	22711	32.03
1152	IF AMPLIFIER CHANNEL 12	22521	31.45
1154	RF SHELF A1-1	23115	32.89
1156	RF SHELF A1-2	23921	33.82
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20992	28.82
1160	A1-1 WARM LOAD 1	23985	24.96
1162	A1-1 WARM LOAD 2	24481	25.07
1164	A1-1 WARM LOAD 3	23978	25.09
1166	A1-1 WARM LOAD 4	24055	25.06
1168	A1-1 WARM LOAD CENTER	24262	25.10
1170	A1-2 WARM LOAD 1	24967	26.36
1172	A1-2 WARM LOAD 2	25025	26.38
1174	A1-2 WARM LOAD 3	25046	26.40
1176	A1-2 WARM LOAD 4	25036	26.28
1178	A1-2 WARM LOAD CENTER	25041	26.38
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

7A 197
JUL 14 19

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ONE
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22070	4.9
	+15 VDC	21838	15.0
	-15 VDC	21800	-15.1
SCAN DRIVE	+5 VDC	22151	4.9
	+15 VDC	22109	14.9
	-15 VDC	21859	-15.2
PLO	+15 VDC	22456	14.9
	-15 VDC	22069	-15.3
RECEIVER	+8 VDC	21810	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21417	10.0
A1-2	+10 VDC	21433	10.0
LO CHANNEL 6	+10 VDC	21393	10.0
7	+10 VDC	21463	9.9
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21266	10.0
4	+10 VDC	21193	10.1
5	+10 VDC	21340	10.0
8	+10 VDC	21316	10.0
15	+15 VDC	22033	15.0
QUIET BUS CURRENT		16524	2339.0
A1-1 NOISY POWER BUS CURRENT		17888	38.5
A1-2 NOISY POWER BUS CURRENT		16772	36.3

7A 197
JUL 14 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 187

JUL 1 4 198

1st CPT

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EOS   A1-03 E1.EXE;35 FULL SCAN MODE    P1 14-JUL-98 00:21:05  SCAN NUMBER   164
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                        COMMANDS         PLLO POWER =              PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON    COLD CAL POSITION 1 =        NO  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                      2 =        NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    YES                     3 =        YES [ 18 ]

[ 12 ]          WARM CAL      =    NO    COLD CAL POSITION 4 =        NO  [ 19 ]

[ 13 ]          COLD CAL      =    NO    RESET C&DH PROCESSOR             [ 20 ]

[ 14 ]          NADIR         =    NO    GSE MODE                         [ 21 ]

ENGR OK         POWER    ON    CHECKSUM  IN 5A9B CALC 5A9B   SA28   416 SA29   832
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
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JUL 14

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16555
2		00000101	574	CH 9	16454
3	PACKET LENGTH	00000010	576	CH 10	16412
4		10111111	578	CH 11	16107
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16407
6		00000000	582	CH 13	16193
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16660
8		01000010	586	CH 15	16202
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14169	590	REFLECTOR 2 POSITION 18	367
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14170	594	REFL 2 POS 18 2ND LOOK	361
18	SCENE DATA BP 1 CH 3	15861	596	SCENE DATA BP 18 CH 3	15856
20	CH 4	16230	598	CH 4	16225
22	CH 5	16556	600	CH 5	16544
24	CH 6	16921	602	CH 6	16826
26	CH 7	15990	604	CH 7	15907
28	CH 8	16555	606	CH 8	16548
30	CH 9	16535	608	CH 9	16451
32	CH 10	16494	610	CH 10	16408
34	CH 11	16189	612	CH 11	16105
36	CH 12	16494	614	CH 12	16413
38	CH 13	16279	616	CH 13	16189
40	CH 14	16711	618	CH 14	16649
42	CH 15	16242	620	CH 15	16204
44	REFLECTOR 1 POSITION 2	14677	622	REFLECTOR 1 POSITION 19	874
46	REFLECTOR 2 POSITION 2	14324	624	REFLECTOR 2 POSITION 19	517
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14320	628	REFL 2 POS 19 2ND LOOK	513
52	SCENE DATA BP 2 CH 3	15858	630	SCENE DATA BP 19 CH 3	15853
54	CH 4	16233	632	CH 4	16226
56	CH 5	16557	634	CH 5	16545
58	CH 6	16908	636	CH 6	16828
60	CH 7	15978	638	CH 7	15906
62	CH 8	16560	640	CH 8	16551
64	CH 9	16516	642	CH 9	16454
66	CH 10	16480	644	CH 10	16411
68	CH 11	16169	646	CH 11	16102
70	CH 12	16482	648	CH 12	16409
72	CH 13	16271	650	CH 13	16206
74	CH 14	16712	652	CH 14	16647
76	CH 15	16236	654	CH 15	16206
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1023
80	REFLECTOR 2 POSITION 3	14474	658	REFLECTOR 2 POSITION 20	670
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1017
84	REFL 2 POS 3 2ND LOOK	14469	662	REFL 2 POS 20 2ND LOOK	664
86	SCENE DATA BP 3 CH 3	15860	664	SCENE DATA BP 20 CH 3	15859
88	CH 4	16236	666	CH 4	16227
90	CH 5	16554	668	CH 5	16545
92	CH 6	16908	670	CH 6	16852

7A 197 JUL 14

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15979	672	CH 7	15932
96	CH 8	16561	674	CH 8	16554
98	CH 9	16532	676	CH 9	16477
100	CH 10	16495	678	CH 10	16440
102	CH 11	16178	680	CH 11	16133
104	CH 12	16491	682	CH 12	16435
106	CH 13	16271	684	CH 13	16219
108	CH 14	16742	686	CH 14	16669
110	CH 15	16240	688	CH 15	16222
112	REFLECTOR 1 POSITION 4	14985	690	REFLECTOR 1 POSITION 21	1178
114	REFLECTOR 2 POSITION 4	14627	692	REFLECTOR 2 POSITION 21	820
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	815
120	SCENE DATA BP 4 CH 3	15869	698	SCENE DATA BP 21 CH 3	15856
122	CH 4	16246	700	CH 4	16228
124	CH 5	16562	702	CH 5	16547
126	CH 6	16907	704	CH 6	16891
128	CH 7	15975	706	CH 7	15969
130	CH 8	16566	708	CH 8	16553
132	CH 9	16515	710	CH 9	16493
134	CH 10	16482	712	CH 10	16457
136	CH 11	16166	714	CH 11	16148
138	CH 12	16474	716	CH 12	16452
140	CH 13	16252	718	CH 13	16242
142	CH 14	16700	720	CH 14	16691
144	CH 15	16236	722	CH 15	16232
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1332
148	REFLECTOR 2 POSITION 5	14776	726	REFLECTOR 2 POSITION 22	970
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1321
152	REFL 2 POS 5 2ND LOOK	14773	730	REFL 2 POS 22 2ND LOOK	967
154	SCENE DATA BP 5 CH 3	15871	732	SCENE DATA BP 22 CH 3	15859
156	CH 4	16246	734	CH 4	16229
158	CH 5	16565	736	CH 5	16550
160	CH 6	16944	738	CH 6	16888
162	CH 7	16017	740	CH 7	15969
164	CH 8	16567	742	CH 8	16554
166	CH 9	16544	744	CH 9	16489
168	CH 10	16510	746	CH 10	16452
170	CH 11	16200	748	CH 11	16138
172	CH 12	16508	750	CH 12	16438
174	CH 13	16297	752	CH 13	16224
176	CH 14	16740	754	CH 14	16677
178	CH 15	16250	756	CH 15	16226
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1480
182	REFLECTOR 2 POSITION 6	14930	760	REFLECTOR 2 POSITION 23	1121
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14927	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15871	766	SCENE DATA BP 23 CH 3	15860
190	CH 4	16244	768	CH 4	16231
192	CH 5	16562	770	CH 5	16547

JUL 14 '98 7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16921	772	CH 6	16874
196	CH 7	15990	774	CH 7	15948
198	CH 8	16567	776	CH 8	16558
200	CH 9	16519	778	CH 9	16507
202	CH 10	16480	780	CH 10	16464
204	CH 11	16174	782	CH 11	16159
206	CH 12	16480	784	CH 12	16460
208	CH 13	16270	786	CH 13	16250
210	CH 14	16711	788	CH 14	16694
212	CH 15	16240	790	CH 15	16225
214	REFLECTOR 1 POSITION 7	15439	792	REFLECTOR 1 POSITION 24	1632
216	REFLECTOR 2 POSITION 7	15081	794	REFLECTOR 2 POSITION 24	1275
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1625
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15858	800	SCENE DATA BP 24 CH 3	15864
224	CH 4	16241	802	CH 4	16233
226	CH 5	16557	804	CH 5	16548
228	CH 6	16905	806	CH 6	16867
230	CH 7	15980	808	CH 7	15950
232	CH 8	16566	810	CH 8	16555
234	CH 9	16529	812	CH 9	16496
236	CH 10	16487	814	CH 10	16455
238	CH 11	16174	816	CH 11	16145
240	CH 12	16476	818	CH 12	16453
242	CH 13	16274	820	CH 13	16232
244	CH 14	16727	822	CH 14	16678
246	CH 15	16239	824	CH 15	16222
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1784
250	REFLECTOR 2 POSITION 8	15233	828	REFLECTOR 2 POSITION 25	1426
252	REFL 1 POS 8 2ND LOOK	15582	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15229	832	REFL 2 POS 25 2ND LOOK	1422
256	SCENE DATA BP 8 CH 3	15866	834	SCENE DATA BP 25 CH 3	15859
258	CH 4	16248	836	CH 4	16231
260	CH 5	16568	838	CH 5	16554
262	CH 6	16912	840	CH 6	16884
264	CH 7	15978	842	CH 7	15949
266	CH 8	16570	844	CH 8	16557
268	CH 9	16526	846	CH 9	16490
270	CH 10	16492	848	CH 10	16448
272	CH 11	16183	850	CH 11	16136
274	CH 12	16486	852	CH 12	16437
276	CH 13	16261	854	CH 13	16229
278	CH 14	16733	856	CH 14	16688
280	CH 15	16243	858	CH 15	16226
282	REFLECTOR 1 POSITION 9	15740	860	REFLECTOR 1 POSITION 26	1937
284	REFLECTOR 2 POSITION 9	15385	862	REFLECTOR 2 POSITION 26	1579
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1927
288	REFL 2 POS 9 2ND LOOK	15381	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15877	868	SCENE DATA BP 26 CH 3	15857
292	CH 4	16252	870	CH 4	16229

7A 197
JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16572	872	CH 5	16550
296	CH 6	16937	874	CH 6	16901
298	CH 7	15999	876	CH 7	15969
300	CH 8	16578	878	CH 8	16551
302	CH 9	16546	880	CH 9	16507
304	CH 10	16505	882	CH 10	16470
306	CH 11	16199	884	CH 11	16161
308	CH 12	16502	886	CH 12	16460
310	CH 13	16280	888	CH 13	16246
312	CH 14	16736	890	CH 14	16696
314	CH 15	16258	892	CH 15	16234
316	REFLECTOR 1 POSITION 10	15894	894	REFLECTOR 1 POSITION 27	2086
318	REFLECTOR 2 POSITION 10	15539	896	REFLECTOR 2 POSITION 27	1731
320	REFL 1 POS 10 2ND LOOK	15884	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15533	900	REFL 2 POS 27 2ND LOOK	1727
324	SCENE DATA BP 10 CH 3	15869	902	SCENE DATA BP 27 CH 3	15862
326	CH 4	16242	904	CH 4	16238
328	CH 5	16560	906	CH 5	16554
330	CH 6	16943	908	CH 6	16895
332	CH 7	16024	910	CH 7	15970
334	CH 8	16568	912	CH 8	16558
336	CH 9	16536	914	CH 9	16529
338	CH 10	16497	916	CH 10	16494
340	CH 11	16182	918	CH 11	16184
342	CH 12	16495	920	CH 12	16483
344	CH 13	16282	922	CH 13	16282
346	CH 14	16743	924	CH 14	16742
348	CH 15	16252	926	CH 15	16233
350	REFLECTOR 1 POSITION 11	16042	928	REFLECTOR 1 POSITION 28	2238
352	REFLECTOR 2 POSITION 11	15690	930	REFLECTOR 2 POSITION 28	1884
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15684	934	REFL 2 POS 28 2ND LOOK	1879
358	SCENE DATA BP 11 CH 3	15863	936	SCENE DATA BP 28 CH 3	15864
360	CH 4	16240	938	CH 4	16238
362	CH 5	16558	940	CH 5	16558
364	CH 6	16870	942	CH 6	16939
366	CH 7	15952	944	CH 7	15988
368	CH 8	16561	946	CH 8	16560
370	CH 9	16491	948	CH 9	16543
372	CH 10	16444	950	CH 10	16502
374	CH 11	16140	952	CH 11	16195
376	CH 12	16450	954	CH 12	16499
378	CH 13	16229	956	CH 13	16278
380	CH 14	16685	958	CH 14	16741
382	CH 15	16226	960	CH 15	16242
384	REFLECTOR 1 POSITION 12	16196	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15841	964	REFLECTOR 2 POSITION 29	2034
388	REFL 1 POS 12 2ND LOOK	16189	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15835	968	REFL 2 POS 29 2ND LOOK	2029
392	SCENE DATA BP 12 CH 3	15859	970	SCENE DATA BP 29 CH 3	15856

7A 197
JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16231	972	CH 4	16238
396	CH 5	16550	974	CH 5	16556
398	CH 6	16830	976	CH 6	16976
400	CH 7	15905	978	CH 7	16020
402	CH 8	16555	980	CH 8	16561
404	CH 9	16452	982	CH 9	16564
406	CH 10	16414	984	CH 10	16522
408	CH 11	16102	986	CH 11	16206
410	CH 12	16408	988	CH 12	16520
412	CH 13	16200	990	CH 13	16295
414	CH 14	16650	992	CH 14	16770
416	CH 15	16204	994	CH 15	16238
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2542
420	REFLECTOR 2 POSITION 13	15991	998	REFLECTOR 2 POSITION 30	2187
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15986	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15860	1004	SCENE DATA BP 30 CH 3	15857
428	CH 4	16231	1006	CH 4	16228
430	CH 5	16547	1008	CH 5	16547
432	CH 6	16826	1010	CH 6	16958
434	CH 7	15907	1012	CH 7	16005
436	CH 8	16552	1014	CH 8	16550
438	CH 9	16455	1016	CH 9	16581
440	CH 10	16414	1018	CH 10	16553
442	CH 11	16107	1020	CH 11	16235
444	CH 12	16408	1022	CH 12	16541
446	CH 13	16190	1024	CH 13	16321
448	CH 14	16661	1026	CH 14	16758
450	CH 15	16212	1028	CH 15	16245
452	REFLECTOR 1 POSITION 14	115	1030	REFLECTOR 1 COLD CAL POS	3976
454	REFLECTOR 2 POSITION 14	16139	1032	REFLECTOR 2 COLD CAL POS	3627
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	3975
458	REFL 2 POS 14 2ND LOOK	16138	1036	REFL 2 COLD CAL 2ND LOOK	3627
460	SCENE DATA BP 14 CH 3	15859	1038	COLD CAL DATA 1 CH 3	15876
462	CH 4	16235	1040	CH 4	16240
464	CH 5	16552	1042	CH 5	16563
466	CH 6	16832	1044	CH 6	16861
468	CH 7	15909	1046	CH 7	15924
470	CH 8	16554	1048	CH 8	16570
472	CH 9	16458	1050	CH 9	16486
474	CH 10	16419	1052	CH 10	16445
476	CH 11	16109	1054	CH 11	16129
478	CH 12	16404	1056	CH 12	16441
480	CH 13	16196	1058	CH 13	16214
482	CH 14	16638	1060	CH 14	16666
484	CH 15	16210	1062	CH 15	16205
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15871
488	REFLECTOR 2 POSITION 15	16295	1066	CH 4	16243
490	REFL 1 POS 15 2ND LOOK	260	1068	CH 5	16561
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16858

JUL 1 4 1998

(AT 97)

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15858	1072	CH 7	15917
496	CH 4	16241	1074	CH 8	16568
498	CH 5	16558	1076	CH 9	16484
500	CH 6	16843	1078	CH 10	16442
502	CH 7	15921	1080	CH 11	16132
504	CH 8	16564	1082	CH 12	16436
506	CH 9	16461	1084	CH 13	16229
508	CH 10	16422	1086	CH 14	16678
510	CH 11	16112	1088	CH 15	16206
512	CH 12	16417	1182	REFLECTOR 1 WARM CAL POS	8527
514	CH 13	16201	1184	REFLECTOR 2 WARM CAL POS	8178
516	CH 14	16674	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16208	1188	REFL 2 WARM CAL 2ND LOOK	8178
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15905
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16288
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16600
526	REFL 2 POS 16 2ND LOOK	57	1196	CH 6	16868
528	SCENE DATA BP 16 CH 3	15865	1198	CH 7	15943
530	CH 4	16242	1200	CH 8	16609
532	CH 5	16554	1202	CH 9	16488
534	CH 6	16842	1204	CH 10	16447
536	CH 7	15915	1206	CH 11	16139
538	CH 8	16565	1208	CH 12	16447
540	CH 9	16466	1210	CH 13	16231
542	CH 10	16416	1212	CH 14	16695
544	CH 11	16112	1214	CH 15	16224
546	CH 12	16426	1216	WARM CAL DATA 2 CH 3	15907
548	CH 13	16197	1218	CH 4	16284
550	CH 14	16679	1220	CH 5	16599
552	CH 15	16207	1222	CH 6	16868
554	REFLECTOR 1 POSITION 17	573	1224	CH 7	15942
556	REFLECTOR 2 POSITION 17	212	1226	CH 8	16613
558	REFL 1 POS 17 2ND LOOK	562	1228	CH 9	16487
560	REFL 2 POS 17 2ND LOOK	211	1230	CH 10	16448
562	SCENE DATA BP 17 CH 3	15858	1232	CH 11	16139
564	CH 4	16228	1234	CH 12	16443
566	CH 5	16549	1236	CH 13	16229
568	CH 6	16828	1238	CH 14	16691
570	CH 7	15910	1240	CH 15	16225

TA 197 JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18634	24.12
1092	SCAN MOTOR A1-2	19722	25.50
1094	FEED HORN A1-1	20582	28.18
1096	FEED HORN A1-2	21671	30.32
1098	RF MUX A1-1	22482	31.68
1100	RF MUX A1-2	23856	34.47
1102	LOCAL OSCILLATOR CHANNEL 3	24919	36.75
1104	LOCAL OSCILLATOR CHANNEL 4	25354	36.91
1106	LOCAL OSCILLATOR CHANNEL 5	24065	35.06
1108	LOCAL OSCILLATOR CHANNEL 6	22866	31.80
1110	LOCAL OSCILLATOR CHANNEL 7	23146	33.07
1112	LOCAL OSCILLATOR CHANNEL 8	24755	36.23
1114	LOCAL OSCILLATOR CHANNEL 15	24094	34.51
1116	PLLO #2	22452	31.65
1118	PLLO #1	25335	37.29
1120	1553 INTERFACE	18379	36.78
1122	MIXER/IF AMPLIFIER CHANNEL 3	24162	35.04
1124	MIXER/IF AMPLIFIER CHANNEL 4	24335	34.84
1126	MIXER/IF AMPLIFIER CHANNEL 5	23950	34.50
1128	MIXER/IF AMPLIFIER CHANNEL 6	22780	32.26
1130	MIXER/IF AMPLIFIER CHANNEL 7	22768	32.79
1132	MIXER/IF AMPLIFIER CHANNEL 8	24281	35.10
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22229	31.42
1136	MIXER/IF AMPLIFIER CHANNEL 15	23995	34.84
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23727	34.11
1140	IF AMPLIFIER CHANNEL 9	23886	34.33
1142	IF AMPLIFIER CHANNEL 10	23753	34.34
1144	IF AMPLIFIER CHANNEL 11	22850	31.74
1146	DC/DC CONVERTER	25407	36.82
1148	IF AMPLIFIER CHANNEL 13	22435	31.05
1150	IF AMPLIFIER CHANNEL 14	22798	32.20
1152	IF AMPLIFIER CHANNEL 12	22608	31.62
1154	RF SHELF A1-1	23199	33.05
1156	RF SHELF A1-2	24023	34.02
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21050	28.93
1160	A1-1 WARM LOAD 1	24013	25.01
1162	A1-1 WARM LOAD 2	24503	25.11
1164	A1-1 WARM LOAD 3	24001	25.14
1166	A1-1 WARM LOAD 4	24079	25.11
1168	A1-1 WARM LOAD CENTER	24279	25.13
1170	A1-2 WARM LOAD 1	25013	26.45
1172	A1-2 WARM LOAD 2	25067	26.47
1174	A1-2 WARM LOAD 3	25098	26.50
1176	A1-2 WARM LOAD 4	25084	26.38
1178	A1-2 WARM LOAD CENTER	25086	26.47
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

JUL 14 1998 7A 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ONE
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22068	4.9
	+15 VDC	21839	14.9
	-15 VDC	21800	-15.2
SCAN DRIVE	+5 VDC	22153	4.9
	+15 VDC	22106	14.9
	-15 VDC	21855	-15.3
PLO	+15 VDC	22455	14.9
	-15 VDC	22072	-15.4
RECEIVER	+8 VDC	21811	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21415	9.9
A1-2	+10 VDC	21434	9.9
LO CHANNEL 6	+10 VDC	21392	10.0
7	+10 VDC	21473	9.8
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21269	10.0
4	+10 VDC	21195	10.0
5	+10 VDC	21340	10.0
8	+10 VDC	21324	9.9
15	+15 VDC	22032	15.0
QUIET BUS CURRENT		16526	2415.9
A1-1 NOISY POWER BUS CURRENT		14111	19.8
A1-2 NOISY POWER BUS CURRENT		13075	18.9

7A 197
JUL 1 4 199-

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197

JUL 14

SUPPORT DATA TVS 12 EOS A1 S/N 202 P/N 298561

1st CPT

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EOS   A1-03 E1.EXE;35 FULL SCAN MODE    P1 14-JUL-98 00:25:29  SCAN NUMBER   197
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                           COMMANDS       PLLO POWER =              PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON     COLD CAL POSITION 1 =        NO   [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                       2 =        NO   [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    YES                      3 =        NO   [ 18 ]

[ 12 ]          WARM CAL     =     NO     COLD CAL POSITION 4 =        YES  [ 19 ]

[ 13 ]          COLD CAL     =     NO     RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]          NADIR        =     NO     GSE MODE                          [ 21 ]

ENGR OK         POWER    ON    CHECKSUM  IN 7EF7 CALC 7EF7   SA28    450 SA29   899
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
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JUL 14 1998

TA 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16547
2		00000101	574	CH 9	16450
3	PACKET LENGTH	00000010	576	CH 10	16406
4		10111111	578	CH 11	16091
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16395
6		00000000	582	CH 13	16187
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16620
8		01100010	586	CH 15	16197
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14170	590	REFLECTOR 2 POSITION 18	366
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14169	594	REFL 2 POS 18 2ND LOOK	363
18	SCENE DATA BP 1 CH 3	15858	596	SCENE DATA BP 18 CH 3	15849
20	CH 4	16227	598	CH 4	16221
22	CH 5	16542	600	CH 5	16537
24	CH 6	16918	602	CH 6	16821
26	CH 7	15984	604	CH 7	15899
28	CH 8	16549	606	CH 8	16540
30	CH 9	16532	608	CH 9	16450
32	CH 10	16490	610	CH 10	16404
34	CH 11	16175	612	CH 11	16091
36	CH 12	16477	614	CH 12	16400
38	CH 13	16258	616	CH 13	16173
40	CH 14	16720	618	CH 14	16632
42	CH 15	16238	620	CH 15	16200
44	REFLECTOR 1 POSITION 2	14677	622	REFLECTOR 1 POSITION 19	875
46	REFLECTOR 2 POSITION 2	14324	624	REFLECTOR 2 POSITION 19	518
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14319	628	REFL 2 POS 19 2ND LOOK	514
52	SCENE DATA BP 2 CH 3	15861	630	SCENE DATA BP 19 CH 3	15848
54	CH 4	16229	632	CH 4	16222
56	CH 5	16546	634	CH 5	16538
58	CH 6	16906	636	CH 6	16822
60	CH 7	15979	638	CH 7	15899
62	CH 8	16555	640	CH 8	16544
64	CH 9	16519	642	CH 9	16447
66	CH 10	16478	644	CH 10	16398
68	CH 11	16164	646	CH 11	16091
70	CH 12	16465	648	CH 12	16391
72	CH 13	16247	650	CH 13	16172
74	CH 14	16699	652	CH 14	16624
76	CH 15	16232	654	CH 15	16203
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1022
80	REFLECTOR 2 POSITION 3	14474	658	REFLECTOR 2 POSITION 20	671
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1016
84	REFL 2 POS 3 2ND LOOK	14471	662	REFL 2 POS 20 2ND LOOK	665
86	SCENE DATA BP 3 CH 3	15868	664	SCENE DATA BP 20 CH 3	15856
88	CH 4	16231	666	CH 4	16224
90	CH 5	16550	668	CH 5	16535
92	CH 6	16913	670	CH 6	16848

7A 197
JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15975	672	CH 7	15927
96	CH 8	16559	674	CH 8	16543
98	CH 9	16531	676	CH 9	16474
100	CH 10	16491	678	CH 10	16435
102	CH 11	16175	680	CH 11	16118
104	CH 12	16485	682	CH 12	16426
106	CH 13	16265	684	CH 13	16220
108	CH 14	16709	686	CH 14	16667
110	CH 15	16239	688	CH 15	16219
112	REFLECTOR 1 POSITION 4	14986	690	REFLECTOR 1 POSITION 21	1178
114	REFLECTOR 2 POSITION 4	14627	692	REFLECTOR 2 POSITION 21	821
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	816
120	SCENE DATA BP 4 CH 3	15870	698	SCENE DATA BP 21 CH 3	15855
122	CH 4	16237	700	CH 4	16222
124	CH 5	16552	702	CH 5	16538
126	CH 6	16906	704	CH 6	16892
128	CH 7	15979	706	CH 7	15971
130	CH 8	16556	708	CH 8	16548
132	CH 9	16516	710	CH 9	16492
134	CH 10	16478	712	CH 10	16458
136	CH 11	16158	714	CH 11	16144
138	CH 12	16458	716	CH 12	16449
140	CH 13	16245	718	CH 13	16219
142	CH 14	16710	720	CH 14	16693
144	CH 15	16232	722	CH 15	16229
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1331
148	REFLECTOR 2 POSITION 5	14776	726	REFLECTOR 2 POSITION 22	972
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1322
152	REFL 2 POS 5 2ND LOOK	14773	730	REFL 2 POS 22 2ND LOOK	967
154	SCENE DATA BP 5 CH 3	15870	732	SCENE DATA BP 22 CH 3	15853
156	CH 4	16243	734	CH 4	16222
158	CH 5	16557	736	CH 5	16538
160	CH 6	16942	738	CH 6	16888
162	CH 7	16008	740	CH 7	15967
164	CH 8	16566	742	CH 8	16549
166	CH 9	16542	744	CH 9	16488
168	CH 10	16505	746	CH 10	16447
170	CH 11	16186	748	CH 11	16130
172	CH 12	16492	750	CH 12	16435
174	CH 13	16273	752	CH 13	16221
176	CH 14	16721	754	CH 14	16693
178	CH 15	16244	756	CH 15	16223
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1480
182	REFLECTOR 2 POSITION 6	14929	760	REFLECTOR 2 POSITION 23	1120
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14926	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15869	766	SCENE DATA BP 23 CH 3	15854
190	CH 4	16239	768	CH 4	16223
192	CH 5	16557	770	CH 5	16543

7A 197
JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16920	772	CH 6	16869
196	CH 7	15984	774	CH 7	15944
198	CH 8	16563	776	CH 8	16547
200	CH 9	16515	778	CH 9	16499
202	CH 10	16477	780	CH 10	16465
204	CH 11	16167	782	CH 11	16146
206	CH 12	16464	784	CH 12	16453
208	CH 13	16247	786	CH 13	16238
210	CH 14	16705	788	CH 14	16685
212	CH 15	16236	790	CH 15	16219
214	REFLECTOR 1 POSITION 7	15440	792	REFLECTOR 1 POSITION 24	1631
216	REFLECTOR 2 POSITION 7	15080	794	REFLECTOR 2 POSITION 24	1276
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1625
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15864	800	SCENE DATA BP 24 CH 3	15855
224	CH 4	16238	802	CH 4	16222
226	CH 5	16549	804	CH 5	16540
228	CH 6	16906	806	CH 6	16865
230	CH 7	15975	808	CH 7	15944
232	CH 8	16561	810	CH 8	16550
234	CH 9	16524	812	CH 9	16494
236	CH 10	16484	814	CH 10	16450
238	CH 11	16170	816	CH 11	16130
240	CH 12	16471	818	CH 12	16439
242	CH 13	16254	820	CH 13	16219
244	CH 14	16722	822	CH 14	16678
246	CH 15	16238	824	CH 15	16219
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1785
250	REFLECTOR 2 POSITION 8	15233	828	REFLECTOR 2 POSITION 25	1428
252	REFL 1 POS 8 2ND LOOK	15581	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15229	832	REFL 2 POS 25 2ND LOOK	1422
256	SCENE DATA BP 8 CH 3	15872	834	SCENE DATA BP 25 CH 3	15856
258	CH 4	16240	836	CH 4	16227
260	CH 5	16559	838	CH 5	16546
262	CH 6	16912	840	CH 6	16872
264	CH 7	15974	842	CH 7	15943
266	CH 8	16566	844	CH 8	16550
268	CH 9	16523	846	CH 9	16477
270	CH 10	16487	848	CH 10	16438
272	CH 11	16160	850	CH 11	16120
274	CH 12	16482	852	CH 12	16429
276	CH 13	16251	854	CH 13	16209
278	CH 14	16713	856	CH 14	16656
280	CH 15	16238	858	CH 15	16218
282	REFLECTOR 1 POSITION 9	15740	860	REFLECTOR 1 POSITION 26	1936
284	REFLECTOR 2 POSITION 9	15385	862	REFLECTOR 2 POSITION 26	1578
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1927
288	REFL 2 POS 9 2ND LOOK	15380	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15877	868	SCENE DATA BP 26 CH 3	15852
292	CH 4	16249	870	CH 4	16223

JUL 1 4 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16564	872	CH 5	16541
296	CH 6	16938	874	CH 6	16900
298	CH 7	16002	876	CH 7	15965
300	CH 8	16573	878	CH 8	16546
302	CH 9	16546	880	CH 9	16503
304	CH 10	16501	882	CH 10	16469
306	CH 11	16188	884	CH 11	16151
308	CH 12	16489	886	CH 12	16461
310	CH 13	16278	888	CH 13	16238
312	CH 14	16736	890	CH 14	16678
314	CH 15	16255	892	CH 15	16225
316	REFLECTOR 1 POSITION 10	15893	894	REFLECTOR 1 POSITION 27	2085
318	REFLECTOR 2 POSITION 10	15539	896	REFLECTOR 2 POSITION 27	1731
320	REFL 1 POS 10 2ND LOOK	15884	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15533	900	REFL 2 POS 27 2ND LOOK	1727
324	SCENE DATA BP 10 CH 3	15863	902	SCENE DATA BP 27 CH 3	15857
326	CH 4	16237	904	CH 4	16228
328	CH 5	16550	906	CH 5	16544
330	CH 6	16946	908	CH 6	16895
332	CH 7	16024	910	CH 7	15962
334	CH 8	16562	912	CH 8	16549
336	CH 9	16535	914	CH 9	16527
338	CH 10	16490	916	CH 10	16482
340	CH 11	16172	918	CH 11	16170
342	CH 12	16478	920	CH 12	16468
344	CH 13	16267	922	CH 13	16261
346	CH 14	16724	924	CH 14	16701
348	CH 15	16249	926	CH 15	16228
350	REFLECTOR 1 POSITION 11	16043	928	REFLECTOR 1 POSITION 28	2239
352	REFLECTOR 2 POSITION 11	15691	930	REFLECTOR 2 POSITION 28	1883
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15684	934	REFL 2 POS 28 2ND LOOK	1878
358	SCENE DATA BP 11 CH 3	15864	936	SCENE DATA BP 28 CH 3	15861
360	CH 4	16233	938	CH 4	16229
362	CH 5	16547	940	CH 5	16549
364	CH 6	16870	942	CH 6	16932
366	CH 7	15947	944	CH 7	15987
368	CH 8	16557	946	CH 8	16557
370	CH 9	16485	948	CH 9	16537
372	CH 10	16445	950	CH 10	16497
374	CH 11	16126	952	CH 11	16179
376	CH 12	16429	954	CH 12	16488
378	CH 13	16224	956	CH 13	16272
380	CH 14	16655	958	CH 14	16719
382	CH 15	16220	960	CH 15	16238
384	REFLECTOR 1 POSITION 12	16196	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15841	964	REFLECTOR 2 POSITION 29	2034
388	REFL 1 POS 12 2ND LOOK	16189	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15837	968	REFL 2 POS 29 2ND LOOK	2030
392	SCENE DATA BP 12 CH 3	15851	970	SCENE DATA BP 29 CH 3	15863

JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16225	972	CH 4	16232
396	CH 5	16542	974	CH 5	16545
398	CH 6	16826	976	CH 6	16973
400	CH 7	15904	978	CH 7	16014
402	CH 8	16546	980	CH 8	16554
404	CH 9	16449	982	CH 9	16553
406	CH 10	16402	984	CH 10	16516
408	CH 11	16098	986	CH 11	16191
410	CH 12	16398	988	CH 12	16501
412	CH 13	16178	990	CH 13	16286
414	CH 14	16623	992	CH 14	16753
416	CH 15	16199	994	CH 15	16232
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2542
420	REFLECTOR 2 POSITION 13	15993	998	REFLECTOR 2 POSITION 30	2185
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15987	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15858	1004	SCENE DATA BP 30 CH 3	15851
428	CH 4	16225	1006	CH 4	16226
430	CH 5	16541	1008	CH 5	16538
432	CH 6	16827	1010	CH 6	16955
434	CH 7	15905	1012	CH 7	16000
436	CH 8	16545	1014	CH 8	16546
438	CH 9	16445	1016	CH 9	16579
440	CH 10	16410	1018	CH 10	16547
442	CH 11	16098	1020	CH 11	16222
444	CH 12	16398	1022	CH 12	16529
446	CH 13	16183	1024	CH 13	16313
448	CH 14	16634	1026	CH 14	16771
450	CH 15	16207	1028	CH 15	16240
452	REFLECTOR 1 POSITION 14	115	1030	REFLECTOR 1 COLD CAL POS	3827
454	REFLECTOR 2 POSITION 14	16140	1032	REFLECTOR 2 COLD CAL POS	3475
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	3826
458	REFL 2 POS 14 2ND LOOK	16139	1036	REFL 2 COLD CAL 2ND LOOK	3476
460	SCENE DATA BP 14 CH 3	15854	1038	COLD CAL DATA 1 CH 3	15867
462	CH 4	16231	1040	CH 4	16236
464	CH 5	16546	1042	CH 5	16563
466	CH 6	16826	1044	CH 6	16858
468	CH 7	15906	1046	CH 7	15923
470	CH 8	16552	1048	CH 8	16575
472	CH 9	16455	1050	CH 9	16482
474	CH 10	16406	1052	CH 10	16442
476	CH 11	16099	1054	CH 11	16123
478	CH 12	16403	1056	CH 12	16424
480	CH 13	16193	1058	CH 13	16216
482	CH 14	16645	1060	CH 14	16681
484	CH 15	16203	1062	CH 15	16202
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15871
488	REFLECTOR 2 POSITION 15	16295	1066	CH 4	16239
490	REFL 1 POS 15 2ND LOOK	260	1068	CH 5	16564
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16862

7A 197

JUL 1 4

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15855	1072	CH 7	15921
496	CH 4	16236	1074	CH 8	16574
498	CH 5	16553	1076	CH 9	16485
500	CH 6	16834	1078	CH 10	16443
502	CH 7	15912	1080	CH 11	16125
504	CH 8	16558	1082	CH 12	16421
506	CH 9	16457	1084	CH 13	16206
508	CH 10	16415	1086	CH 14	16672
510	CH 11	16098	1088	CH 15	16203
512	CH 12	16409	1182	REFLECTOR 1 WARM CAL POS	8528
514	CH 13	16187	1184	REFLECTOR 2 WARM CAL POS	8177
516	CH 14	16642	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16202	1188	REFL 2 WARM CAL 2ND LOOK	8177
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15907
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16275
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16593
526	REFL 2 POS 16 2ND LOOK	57	1196	CH 6	16866
528	SCENE DATA BP 16 CH 3	15865	1198	CH 7	15936
530	CH 4	16233	1200	CH 8	16606
532	CH 5	16544	1202	CH 9	16484
534	CH 6	16834	1204	CH 10	16441
536	CH 7	15910	1206	CH 11	16128
538	CH 8	16560	1208	CH 12	16430
540	CH 9	16459	1210	CH 13	16214
542	CH 10	16418	1212	CH 14	16658
544	CH 11	16108	1214	CH 15	16219
546	CH 12	16403	1216	WARM CAL DATA 2 CH 3	15908
548	CH 13	16193	1218	CH 4	16279
550	CH 14	16637	1220	CH 5	16590
552	CH 15	16200	1222	CH 6	16865
554	REFLECTOR 1 POSITION 17	572	1224	CH 7	15938
556	REFLECTOR 2 POSITION 17	212	1226	CH 8	16604
558	REFL 1 POS 17 2ND LOOK	562	1228	CH 9	16485
560	REFL 2 POS 17 2ND LOOK	212	1230	CH 10	16442
562	SCENE DATA BP 17 CH 3	15854	1232	CH 11	16128
564	CH 4	16223	1234	CH 12	16431
566	CH 5	16540	1236	CH 13	16204
568	CH 6	16827	1238	CH 14	16669
570	CH 7	15902	1240	CH 15	16219

7A 197
JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18663	24.18
1092	SCAN MOTOR A1-2	19763	25.58
1094	FEED HORN A1-1	20633	28.28
1096	FEED HORN A1-2	21739	30.45
1098	RF MUX A1-1	22549	31.81
1100	RF MUX A1-2	23938	34.63
1102	LOCAL OSCILLATOR CHANNEL 3	25001	36.91
1104	LOCAL OSCILLATOR CHANNEL 4	25440	37.08
1106	LOCAL OSCILLATOR CHANNEL 5	24149	35.22
1108	LOCAL OSCILLATOR CHANNEL 6	22924	31.91
1110	LOCAL OSCILLATOR CHANNEL 7	23214	33.20
1112	LOCAL OSCILLATOR CHANNEL 8	24841	36.41
1114	LOCAL OSCILLATOR CHANNEL 15	24163	34.64
1116	PLLO #2	22518	31.78
1118	PLLO #1	25405	37.42
1120	1553 INTERFACE	18447	36.91
1122	MIXER/IF AMPLIFIER CHANNEL 3	24242	35.19
1124	MIXER/IF AMPLIFIER CHANNEL 4	24415	35.00
1126	MIXER/IF AMPLIFIER CHANNEL 5	24031	34.66
1128	MIXER/IF AMPLIFIER CHANNEL 6	22845	32.38
1130	MIXER/IF AMPLIFIER CHANNEL 7	22835	32.92
1132	MIXER/IF AMPLIFIER CHANNEL 8	24365	35.26
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22293	31.54
1136	MIXER/IF AMPLIFIER CHANNEL 15	24064	34.97
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23795	34.25
1140	IF AMPLIFIER CHANNEL 9	23954	34.47
1142	IF AMPLIFIER CHANNEL 10	23824	34.48
1144	IF AMPLIFIER CHANNEL 11	22917	31.87
1146	DC/DC CONVERTER	25457	36.92
1148	IF AMPLIFIER CHANNEL 13	22501	31.18
1150	IF AMPLIFIER CHANNEL 14	22864	32.33
1152	IF AMPLIFIER CHANNEL 12	22675	31.75
1154	RF SHELF A1-1	23265	33.18
1156	RF SHELF A1-2	24104	34.18
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21096	29.02
1160	A1-1 WARM LOAD 1	24032	25.05
1162	A1-1 WARM LOAD 2	24521	25.15
1164	A1-1 WARM LOAD 3	24020	25.18
1166	A1-1 WARM LOAD 4	24102	25.15
1168	A1-1 WARM LOAD CENTER	24303	25.18
1170	A1-2 WARM LOAD 1	25053	26.53
1172	A1-2 WARM LOAD 2	25108	26.55
1174	A1-2 WARM LOAD 3	25136	26.58
1176	A1-2 WARM LOAD 4	25116	26.44
1178	A1-2 WARM LOAD CENTER	25127	26.55
1180	TEMP SENSOR REFERENCE VOLTAGE	25267	

JUL 1 4 1998

7A 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ONE
COLD CAL. POSITION MSB	ONE
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22068	4.9
	+15 VDC	21838	15.0
	-15 VDC	21800	-15.1
SCAN DRIVE	+5 VDC	22187	4.9
	+15 VDC	22220	14.9
	-15 VDC	21867	-15.2
PLO	+15 VDC	22455	14.9
	-15 VDC	22073	-15.3
RECEIVER	+8 VDC	21809	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21414	10.0
A1-2	+10 VDC	21433	10.0
LO CHANNEL 6	+10 VDC	21392	10.0
7	+10 VDC	21459	9.9
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21258	10.0
4	+10 VDC	21200	10.0
5	+10 VDC	21342	10.0
8	+10 VDC	21323	10.0
15	+15 VDC	22032	15.1
QUIET BUS CURRENT		16526	2362.0
A1-1 NOISY POWER BUS CURRENT		17184	32.1
A1-2 NOISY POWER BUS CURRENT		16037	30.3

JUL 1 4 1998
7A
197

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 14 1998 7A 197

TEST DATA SHEET NO. 12 (Sheet 1 of 2)
Science and Engineering Data Test (Nadir Mode) (Paragraph 3.3.5.3.4)

Step	Instrument Status	(Y)es / (N)o
1	Nadir Mode command received?	Y
2	ENGR OK message seen?	Y
3	Both reflectors positioned at nadir position?	Y

Yes = Pass   No = Fail

Step	Element	Description	Measured Value* (Binary)	Required Value (Binary)	(P)ass/(F)ail
4a	1-2	Packet ID		0000100100000011	P
4b	3-4	Packet Length		0000001010111111	P
4c	5-6	Unit Serial Number		0000001100000000	P
4d	7-8	Instrument Mode/ Status		1001101000010000	P

RADIOMETER SCENE DATA			
Step	Description	Required Counts	(P)ass/(F)ail
4f	Review All Scene Data	12500-20500	P

PRT TEMPERATURE DATA				
Step	Element	Description	Required	(P)ass/(F)ail
4g	1090-1178	Review All PRT Data**	10-40 degrees C	P
4g	1180	Temperature Sensor Reference	23244-26317 counts	P

STATUS				
Step	Description	Status*	Required Status	(P)ass/(F)ail
4h	Antenna in Full Scan Mode		NO	P
	Antenna in Warm Cal Mode		NO	P
	Antenna in Cold Cal Mode		NO	P
	Antenna in Nadir Mode		YES	P
	Cold Cal Position LSB		ZERO	P
	Cold Cal Position MSB		ZERO	P
	PLO Redundancy		PLO #1	P
	Scanner A1-1 Power		ON	P
	Scanner A1-2 Power		ON	P
	PLO #1 Lock		YES	P
	PLO #2 Lock		OFF	P
	ADC Latchup Flag		ONE	P

* Rewriting printout data on this data sheet is optional.
** Refer to Table IV for PRT Data Description

EOS/AMSU-A1 System P/N 1356008   Shop Order: 298561   S/N: 202
Circle Test: 1st CPT   Final CPT   Sub CPT N/A   LPT N/A

JUL 28 98

[signature]   7/14/98
Test Systems Engineer   Date

[signature]
Customer Representative   Date

JUL 14 1998
Quality Control   Date

JUL 14 1998

TEST DATA SHEET NO. 12 (sheet 2 of 2)
Science and Engineering Data Test (Nadir Mode) (Paragraph 3.3.5.3.4)

REFLECTOR POSITIONS (Step 4e)						
	A1-1 REFLECTOR			A1-2 REFLECTOR		
BP	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail	Position Range (*)	Required (**) ± 5 counts	(P)ass/ (F)ail
1-30	333	336	P	16369	16368	P

* Actual range (min to max) of counts from printout (Only beam positions 1-30). Rewriting counts on this data sheet is optional.
** Required counts from AE26002/1 TDS 5&6 +/- 5 counts for "true" nadir position.

ENGINEERING DATA				
Step	Description	Measured***	Required	(P)ass/(F)ail
4i	Signal Processor (+5 VDC)		+4 to +6 volts	P
	Signal Processor (+15 VDC)		+14 to +16 volts	
	Signal Processor (-15 VDC)		-14 to -16 volts	
	Scan Drive (+5 VDC)		+4 to +6 volts	
	Scan Drive (+15 VDC)		+14 to +16 volts	
	Scan Drive (-15 VDC)		-14 to -16 volts	
	PLO (+15 VDC)		+14 to +16 volts	
	PLO (-15 VDC)		-14 to -16 volts	
	Receiver (+8 VDC)		+7 to +9 volts	
	Mixer/IF Amplifier A1-1 (+10 VDC)		+9 to +11 volts	
	Mixer/IF Amplifier A1-2 (+10 VDC)		+9 to +11 volts	
	LO Channel 6		+9 to +11 volts	
	LO Channel 7		+9 to +11 volts	
	LO Channel 3		+9 to +11 volts	
	LO Channel 4		+9 to +11 volts	
	LO Channel 5		+9 to +11 volts	
	LO Channel 8		+9 to +11 volts	
	LO Channel 15		+14 to +16 volts	
	Quiet Bus Current		≤ 3 Amps	
	A1-1 Noisy Bus Current		≤ 125 milliamps	
	A1-2 Noisy Bus Current		≤ 125 milliamps	P

*** Rewriting printout data on this data sheet is optional.

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

R W Platt 7/14/98
Test Systems Engineer Date

JUL 28 '98
J. Sanford
Customer Representative Date

JUL 14 1998
Quality Control Date

EOS A1-03 EL.EXE;35 NADIR MODE P1 13-JUL-98 23:56:57 SCAN NUMBER 301
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

	COMMANDS		PLLO POWER =	PLLO#1	[15]
[9]	SCANNER A1-1 POWER =	ON	COLD CAL POSITION 1 =	YES	[16]
[10]	SCANNER A1-2 POWER =	ON	2 =	NO	[17]
[11]	ANTENNA FULL SCAN MODE =	NO	3 =	NO	[18]
[12]	WARM CAL =	NO	COLD CAL POSITION 4 =	NO	[19]
[13]	COLD CAL =	NO	RESET C&DH PROCESSOR		[20]
[14]	NADIR =	YES	GSE MODE		[21]

ENGR OK POWER ON CHECKSUM IN 8617 CALC 8617 SA28 236 SA29 471
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 3

7A 197

JUL 14 1998

NADIR MODE

EOS A1_03 E1.EXE;35 SCIENCE DATA 13-JUL-98 23:57:04 PAGE 1

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16614
2		00000011	574	CH 9	16497
3	PACKET LENGTH	00000010	576	CH 10	16470
4		10111111	578	CH 11	16207
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16534
6		00000000	582	CH 13	16314
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16778
8		00010000	586	CH 15	16245
10	REFLECTOR 1 POSITION 1	333	588	REFLECTOR 1 POSITION 18	333
12	REFLECTOR 2 POSITION 1	16369	590	REFLECTOR 2 POSITION 18	16369
14	REFL 1 POS 1 2ND LOOK	333	592	REFL 1 POS 18 2ND LOOK	333
16	REFL 2 POS 1 2ND LOOK	16369	594	REFL 2 POS 18 2ND LOOK	16369
18	SCENE DATA BP 1 CH 3	15921	596	SCENE DATA BP 18 CH 3	15918
20	CH 4	16305	598	CH 4	16300
22	CH 5	16622	600	CH 5	16623
24	CH 6	16868	602	CH 6	16868
26	CH 7	15953	604	CH 7	15956
28	CH 8	16614	606	CH 8	16607
30	CH 9	16495	608	CH 9	16495
32	CH 10	16471	610	CH 10	16473
34	CH 11	16205	612	CH 11	16203
36	CH 12	16520	614	CH 12	16526
38	CH 13	16313	616	CH 13	16309
40	CH 14	16767	618	CH 14	16766
42	CH 15	16244	620	CH 15	16244
44	REFLECTOR 1 POSITION 2	333	622	REFLECTOR 1 POSITION 19	333
46	REFLECTOR 2 POSITION 2	16369	624	REFLECTOR 2 POSITION 19	16369
48	REFL 1 POS 2 2ND LOOK	333	626	REFL 1 POS 19 2ND LOOK	333
50	REFL 2 POS 2 2ND LOOK	16369	628	REFL 2 POS 19 2ND LOOK	16369
52	SCENE DATA BP 2 CH 3	15915	630	SCENE DATA BP 19 CH 3	15918
54	CH 4	16301	632	CH 4	16302
56	CH 5	16626	634	CH 5	16626
58	CH 6	16871	636	CH 6	16870
60	CH 7	15955	638	CH 7	15956
62	CH 8	16615	640	CH 8	16613
64	CH 9	16498	642	CH 9	16500
66	CH 10	16467	644	CH 10	16473
68	CH 11	16209	646	CH 11	16206
70	CH 12	16525	648	CH 12	16523
72	CH 13	16326	650	CH 13	16325
74	CH 14	16784	652	CH 14	16773
76	CH 15	16244	654	CH 15	16243
78	REFLECTOR 1 POSITION 3	333	656	REFLECTOR 1 POSITION 20	333
80	REFLECTOR 2 POSITION 3	16369	658	REFLECTOR 2 POSITION 20	16369
82	REFL 1 POS 3 2ND LOOK	333	660	REFL 1 POS 20 2ND LOOK	333
84	REFL 2 POS 3 2ND LOOK	16369	662	REFL 2 POS 20 2ND LOOK	16369
86	SCENE DATA BP 3 CH 3	15921	664	SCENE DATA BP 20 CH 3	15921
88	CH 4	16304	666	CH 4	16302
90	CH 5	16628	668	CH 5	16623
92	CH 6	16867	670	CH 6	16866

197

JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15956	672	CH 7	15958
96	CH 8	16615	674	CH 8	16613
98	CH 9	16500	676	CH 9	16498
100	CH 10	16469	678	CH 10	16471
102	CH 11	16210	680	CH 11	16208
104	CH 12	16534	682	CH 12	16526
106	CH 13	16316	684	CH 13	16323
108	CH 14	16797	686	CH 14	16791
110	CH 15	16244	688	CH 15	16246
112	REFLECTOR 1 POSITION 4	333	690	REFLECTOR 1 POSITION 21	333
114	REFLECTOR 2 POSITION 4	16369	692	REFLECTOR 2 POSITION 21	16369
116	REFL 1 POS 4 2ND LOOK	333	694	REFL 1 POS 21 2ND LOOK	333
118	REFL 2 POS 4 2ND LOOK	16369	696	REFL 2 POS 21 2ND LOOK	16369
120	SCENE DATA BP 4 CH 3	15919	698	SCENE DATA BP 21 CH 3	15923
122	CH 4	16301	700	CH 4	16301
124	CH 5	16625	702	CH 5	16620
126	CH 6	16869	704	CH 6	16869
128	CH 7	15953	706	CH 7	15951
130	CH 8	16612	708	CH 8	16615
132	CH 9	16498	710	CH 9	16502
134	CH 10	16469	712	CH 10	16473
136	CH 11	16206	714	CH 11	16209
138	CH 12	16523	716	CH 12	16527
140	CH 13	16325	718	CH 13	16324
142	CH 14	16777	720	CH 14	16761
144	CH 15	16243	722	CH 15	16244
146	REFLECTOR 1 POSITION 5	333	724	REFLECTOR 1 POSITION 22	333
148	REFLECTOR 2 POSITION 5	16369	726	REFLECTOR 2 POSITION 22	16369
150	REFL 1 POS 5 2ND LOOK	333	728	REFL 1 POS 22 2ND LOOK	333
152	REFL 2 POS 5 2ND LOOK	16369	730	REFL 2 POS 22 2ND LOOK	16369
154	SCENE DATA BP 5 CH 3	15917	732	SCENE DATA BP 22 CH 3	15920
156	CH 4	16301	734	CH 4	16304
158	CH 5	16625	736	CH 5	16623
160	CH 6	16869	738	CH 6	16868
162	CH 7	15953	740	CH 7	15954
164	CH 8	16613	742	CH 8	16614
166	CH 9	16500	744	CH 9	16497
168	CH 10	16468	746	CH 10	16473
170	CH 11	16203	748	CH 11	16210
172	CH 12	16524	750	CH 12	16535
174	CH 13	16312	752	CH 13	16324
176	CH 14	16769	754	CH 14	16779
178	CH 15	16245	756	CH 15	16244
180	REFLECTOR 1 POSITION 6	333	758	REFLECTOR 1 POSITION 23	333
182	REFLECTOR 2 POSITION 6	16369	760	REFLECTOR 2 POSITION 23	16369
184	REFL 1 POS 6 2ND LOOK	333	762	REFL 1 POS 23 2ND LOOK	333
186	REFL 2 POS 6 2ND LOOK	16369	764	REFL 2 POS 23 2ND LOOK	16369
188	SCENE DATA BP 6 CH 3	15916	766	SCENE DATA BP 23 CH 3	15918
190	CH 4	16304	768	CH 4	16301
192	CH 5	16629	770	CH 5	16621

JUL 14 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16869	772	CH 6	16869
196	CH 7	15950	774	CH 7	15956
198	CH 8	16615	776	CH 8	16613
200	CH 9	16500	778	CH 9	16498
202	CH 10	16470	780	CH 10	16474
204	CH 11	16205	782	CH 11	16206
206	CH 12	16527	784	CH 12	16526
208	CH 13	16330	786	CH 13	16317
210	CH 14	16771	788	CH 14	16781
212	CH 15	16244	790	CH 15	16246
214	REFLECTOR 1 POSITION 7	333	792	REFLECTOR 1 POSITION 24	333
216	REFLECTOR 2 POSITION 7	16369	794	REFLECTOR 2 POSITION 24	16369
218	REFL 1 POS 7 2ND LOOK	333	796	REFL 1 POS 24 2ND LOOK	333
220	REFL 2 POS 7 2ND LOOK	16369	798	REFL 2 POS 24 2ND LOOK	16369
222	SCENE DATA BP 7 CH 3	15920	800	SCENE DATA BP 24 CH 3	15920
224	CH 4	16300	802	CH 4	16302
226	CH 5	16623	804	CH 5	16624
228	CH 6	16869	806	CH 6	16873
230	CH 7	15954	808	CH 7	15954
232	CH 8	16610	810	CH 8	16615
234	CH 9	16496	812	CH 9	16500
236	CH 10	16469	814	CH 10	16471
238	CH 11	16200	816	CH 11	16203
240	CH 12	16528	818	CH 12	16536
242	CH 13	16322	820	CH 13	16315
244	CH 14	16776	822	CH 14	16763
246	CH 15	16243	824	CH 15	16245
248	REFLECTOR 1 POSITION 8	333	826	REFLECTOR 1 POSITION 25	333
250	REFLECTOR 2 POSITION 8	16369	828	REFLECTOR 2 POSITION 25	16369
252	REFL 1 POS 8 2ND LOOK	333	830	REFL 1 POS 25 2ND LOOK	333
254	REFL 2 POS 8 2ND LOOK	16369	832	REFL 2 POS 25 2ND LOOK	16369
256	SCENE DATA BP 8 CH 3	15921	834	SCENE DATA BP 25 CH 3	15914
258	CH 4	16301	836	CH 4	16300
260	CH 5	16626	838	CH 5	16621
262	CH 6	16872	840	CH 6	16871
264	CH 7	15955	842	CH 7	15954
266	CH 8	16616	844	CH 8	16616
268	CH 9	16497	846	CH 9	16497
270	CH 10	16470	848	CH 10	16470
272	CH 11	16207	850	CH 11	16197
274	CH 12	16517	852	CH 12	16526
276	CH 13	16321	854	CH 13	16322
278	CH 14	16773	856	CH 14	16786
280	CH 15	16244	858	CH 15	16245
282	REFLECTOR 1 POSITION 9	333	860	REFLECTOR 1 POSITION 26	333
284	REFLECTOR 2 POSITION 9	16369	862	REFLECTOR 2 POSITION 26	16369
286	REFL 1 POS 9 2ND LOOK	333	864	REFL 1 POS 26 2ND LOOK	333
288	REFL 2 POS 9 2ND LOOK	16369	866	REFL 2 POS 26 2ND LOOK	16369
290	SCENE DATA BP 9 CH 3	15922	868	SCENE DATA BP 26 CH 3	15918
292	CH 4	16303	870	CH 4	16300

7A 191
JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16623	872	CH 5	16624
296	CH 6	16871	874	CH 6	16870
298	CH 7	15958	876	CH 7	15952
300	CH 8	16614	878	CH 8	16613
302	CH 9	16497	880	CH 9	16498
304	CH 10	16470	882	CH 10	16472
306	CH 11	16207	884	CH 11	16207
308	CH 12	16527	886	CH 12	16534
310	CH 13	16335	888	CH 13	16322
312	CH 14	16778	890	CH 14	16787
314	CH 15	16243	892	CH 15	16245
316	REFLECTOR 1 POSITION 10	333	894	REFLECTOR 1 POSITION 27	333
318	REFLECTOR 2 POSITION 10	16369	896	REFLECTOR 2 POSITION 27	16369
320	REFL 1 POS 10 2ND LOOK	333	898	REFL 1 POS 27 2ND LOOK	333
322	REFL 2 POS 10 2ND LOOK	16369	900	REFL 2 POS 27 2ND LOOK	16369
324	SCENE DATA BP 10 CH 3	15926	902	SCENE DATA BP 27 CH 3	15916
326	CH 4	16302	904	CH 4	16304
328	CH 5	16625	906	CH 5	16628
330	CH 6	16870	908	CH 6	16868
332	CH 7	15954	910	CH 7	15953
334	CH 8	16616	912	CH 8	16612
336	CH 9	16497	914	CH 9	16494
338	CH 10	16471	916	CH 10	16470
340	CH 11	16210	918	CH 11	16203
342	CH 12	16527	920	CH 12	16527
344	CH 13	16318	922	CH 13	16322
346	CH 14	16765	924	CH 14	16757
348	CH 15	16245	926	CH 15	16242
350	REFLECTOR 1 POSITION 11	333	928	REFLECTOR 1 POSITION 28	333
352	REFLECTOR 2 POSITION 11	16369	930	REFLECTOR 2 POSITION 28	16369
354	REFL 1 POS 11 2ND LOOK	333	932	REFL 1 POS 28 2ND LOOK	333
356	REFL 2 POS 11 2ND LOOK	16369	934	REFL 2 POS 28 2ND LOOK	16369
358	SCENE DATA BP 11 CH 3	15923	936	SCENE DATA BP 28 CH 3	15920
360	CH 4	16300	938	CH 4	16302
362	CH 5	16623	940	CH 5	16623
364	CH 6	16870	942	CH 6	16867
366	CH 7	15955	944	CH 7	15951
368	CH 8	16611	946	CH 8	16613
370	CH 9	16499	948	CH 9	16494
372	CH 10	16473	950	CH 10	16471
374	CH 11	16206	952	CH 11	16204
376	CH 12	16529	954	CH 12	16530
378	CH 13	16323	956	CH 13	16327
380	CH 14	16772	958	CH 14	16766
382	CH 15	16244	960	CH 15	16246
384	REFLECTOR 1 POSITION 12	333	962	REFLECTOR 1 POSITION 29	333
386	REFLECTOR 2 POSITION 12	16369	964	REFLECTOR 2 POSITION 29	16369
388	REFL 1 POS 12 2ND LOOK	333	966	REFL 1 POS 29 2ND LOOK	333
390	REFL 2 POS 12 2ND LOOK	16369	968	REFL 2 POS 29 2ND LOOK	16369
392	SCENE DATA BP 12 CH 3	15918	970	SCENE DATA BP 29 CH 3	15926

TA 197
JUL 1 4 1998

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16299	972	CH 4	16300
396	CH 5	16626	974	CH 5	16624
398	CH 6	16873	976	CH 6	16867
400	CH 7	15955	978	CH 7	15954
402	CH 8	16612	980	CH 8	16615
404	CH 9	16498	982	CH 9	16497
406	CH 10	16469	984	CH 10	16467
408	CH 11	16206	986	CH 11	16208
410	CH 12	16526	988	CH 12	16526
412	CH 13	16322	990	CH 13	16312
414	CH 14	16768	992	CH 14	16768
416	CH 15	16243	994	CH 15	16244
418	REFLECTOR 1 POSITION 13	333	996	REFLECTOR 1 POSITION 30	333
420	REFLECTOR 2 POSITION 13	16369	998	REFLECTOR 2 POSITION 30	16369
422	REFL 1 POS 13 2ND LOOK	333	1000	REFL 1 POS 30 2ND LOOK	333
424	REFL 2 POS 13 2ND LOOK	16369	1002	REFL 2 POS 30 2ND LOOK	16369
426	SCENE DATA BP 13 CH 3	15913	1004	SCENE DATA BP 30 CH 3	15916
428	CH 4	16300	1006	CH 4	16302
430	CH 5	16625	1008	CH 5	16622
432	CH 6	16868	1010	CH 6	16868
434	CH 7	15951	1012	CH 7	15956
436	CH 8	16615	1014	CH 8	16611
438	CH 9	16499	1016	CH 9	16499
440	CH 10	16471	1018	CH 10	16471
442	CH 11	16206	1020	CH 11	16204
444	CH 12	16522	1022	CH 12	16529
446	CH 13	16327	1024	CH 13	16326
448	CH 14	16773	1026	CH 14	16785
450	CH 15	16246	1028	CH 15	16245
452	REFLECTOR 1 POSITION 14	333	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	16369	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	333	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	16369	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	15923	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16301	1040	CH 4	0
464	CH 5	16625	1042	CH 5	0
466	CH 6	16872	1044	CH 6	0
468	CH 7	15953	1046	CH 7	0
470	CH 8	16613	1048	CH 8	0
472	CH 9	16497	1050	CH 9	0
474	CH 10	16464	1052	CH 10	0
476	CH 11	16209	1054	CH 11	0
478	CH 12	16529	1056	CH 12	0
480	CH 13	16311	1058	CH 13	0
482	CH 14	16785	1060	CH 14	0
484	CH 15	16244	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	333	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	16369	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	333	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	16369	1070	CH 6	0

JUL 1 4 1998 7A 197

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15920	1072	CH 7	0
496	CH 4	16300	1074	CH 8	0
498	CH 5	16621	1076	CH 9	0
500	CH 6	16870	1078	CH 10	0
502	CH 7	15956	1080	CH 11	0
504	CH 8	16612	1082	CH 12	0
506	CH 9	16500	1084	CH 13	0
508	CH 10	16470	1086	CH 14	0
510	CH 11	16205	1088	CH 15	0
512	CH 12	16525	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16307	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16759	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16244	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	333	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	16369	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	333	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	16369	1196	CH 6	0
528	SCENE DATA BP 16 CH 3	15916	1198	CH 7	0
530	CH 4	16304	1200	CH 8	0
532	CH 5	16625	1202	CH 9	0
534	CH 6	16870	1204	CH 10	0
536	CH 7	15954	1206	CH 11	0
538	CH 8	16615	1208	CH 12	0
540	CH 9	16499	1210	CH 13	0
542	CH 10	16470	1212	CH 14	0
544	CH 11	16198	1214	CH 15	0
546	CH 12	16526	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16326	1218	CH 4	0
550	CH 14	16769	1220	CH 5	0
552	CH 15	16244	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	333	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	16369	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	333	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	16369	1230	CH 10	0
562	SCENE DATA BP 17 CH 3	15917	1232	CH 11	0
564	CH 4	16298	1234	CH 12	0
566	CH 5	16625	1236	CH 13	0
568	CH 6	16868	1238	CH 14	0
570	CH 7	15955	1240	CH 15	0

JUL 1 4 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18553	23.97
1092	SCAN MOTOR A1-2	19558	25.19
1094	FEED HORN A1-1	20342	27.73
1096	FEED HORN A1-2	21353	29.71
1098	RF MUX A1-1	22070	30.89
1100	RF MUX A1-2	23316	33.42
1102	LOCAL OSCILLATOR CHANNEL 3	24350	35.64
1104	LOCAL OSCILLATOR CHANNEL 4	24777	35.79
1106	LOCAL OSCILLATOR CHANNEL 5	23546	34.05
1108	LOCAL OSCILLATOR CHANNEL 6	22529	31.15
1110	LOCAL OSCILLATOR CHANNEL 7	22722	32.25
1112	LOCAL OSCILLATOR CHANNEL 8	24204	35.13
1114	LOCAL OSCILLATOR CHANNEL 15	23652	33.65
1116	PLLO #2	22037	30.86
1118	PLLO #1	24886	36.41
1120	1553 INTERFACE	17947	35.95
1122	MIXER/IF AMPLIFIER CHANNEL 3	23608	33.97
1124	MIXER/IF AMPLIFIER CHANNEL 4	23783	33.77
1126	MIXER/IF AMPLIFIER CHANNEL 5	23420	33.48
1128	MIXER/IF AMPLIFIER CHANNEL 6	22364	31.46
1130	MIXER/IF AMPLIFIER CHANNEL 7	22330	31.95
1132	MIXER/IF AMPLIFIER CHANNEL 8	23725	34.02
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	21811	30.62
1136	MIXER/IF AMPLIFIER CHANNEL 15	23554	33.99
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23282	33.18
1140	IF AMPLIFIER CHANNEL 9	23437	33.24
1142	IF AMPLIFIER CHANNEL 10	23307	33.48
1144	IF AMPLIFIER CHANNEL 11	22411	30.89
1146	DC/DC CONVERTER	25074	36.18
1148	IF AMPLIFIER CHANNEL 13	22000	30.21
1150	IF AMPLIFIER CHANNEL 14	22364	31.36
1152	IF AMPLIFIER CHANNEL 12	22171	30.78
1154	RF SHELF A1-1	22781	32.25
1156	RF SHELF A1-2	23496	33.00
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	20761	28.39
1160	A1-1 WARM LOAD 1	23922	24.83
1162	A1-1 WARM LOAD 2	24411	24.93
1164	A1-1 WARM LOAD 3	23911	24.96
1166	A1-1 WARM LOAD 4	23988	24.93
1168	A1-1 WARM LOAD CENTER	24192	24.96
1170	A1-2 WARM LOAD 1	24811	26.05
1172	A1-2 WARM LOAD 2	24871	26.08
1174	A1-2 WARM LOAD 3	24892	26.09
1176	A1-2 WARM LOAD 4	24883	25.98
1178	A1-2 WARM LOAD CENTER	24883	26.07
1180	TEMP SENSOR REFERENCE VOLTAGE	25266	

JUL 14 1998 197

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	YES
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION			VALUE	AMPS/VOLTS
SIGNAL PROCESSOR		+5 VDC	22078	4.9
		+15 VDC	21836	15.1
		-15 VDC	21799	-15.0
SCAN DRIVE		+5 VDC	22156	4.9
		+15 VDC	22145	14.9
		-15 VDC	21857	-15.1
PLO		+15 VDC	22457	14.8
		-15 VDC	22068	-15.2
RECEIVER		+8 VDC	21812	7.9
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21418	10.0
	A1-2	+10 VDC	21434	10.0
LO CHANNEL	6	+10 VDC	21394	10.0
	7	+10 VDC	21470	10.0
SPARE			32767	0.0
LO CHANNEL	3	+10 VDC	21257	10.1
	4	+10 VDC	21195	10.1
	5	+10 VDC	21347	10.0
	8	+10 VDC	21323	10.0
	15	+15 VDC	22034	15.0
QUIET BUS CURRENT			16538	2271.1
A1-1 NOISY POWER BUS CURRENT			77	0.4
A1-2 NOISY POWER BUS CURRENT			48	0.3

7A 197
JUL 1 4 1998

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197

JUL 1 4 1998

TEST DATA SHEET NO. 19

1553 Bus Interface Test (Paragraph 3.3.5.4)

ATTACH BUS A WAVE FORM

see attached figures 1A & 1B

QC 227 verified from attached data 7/14/98

			P/F
Bus A Amplitude	~~25.6V~~ 25.6V	: 18.0 – 27.0 VP-P	Pass
Bus A Rise Time	~~210ns.~~ 210 ns	: 100 – 300 nsec	Pass

7/14/98

ATTACH BUS B WAVE FORM

see Attached figures 2A & 2B

			P/F
Bus B Amplitude	25.3V	: 18.0 – 27.0 VP-P	Pass
Bus B Rise Time	220 ns	: 100 – 300 nsec	Pass

1st CPT: ✓; Final CPT N/A

S/O: 298561

P/N: 1356008-1-TST

SN: 202

Roger N. Khang 7/14/98

Test Engineer Date

QC 187 JUL 14 1998

Quality Control Date

TEST DATA SHEET NO. 13
Noisy Bus Current Measurement During Warm Cal, Cold Cal and Nadir

P.R. Patel 7/14/98 QC 227

Instrument Mode	Noisy Bus Current (mA)	Pass/Fail
Warm Cal A1-1 & A1-2 Scanner ON	27	Not Applicable
A1-1 Scanner / A1-2 Scanner OFF / ON	21	
A1-2 Scanner / A1-1 Scanner OFF / ON	21	
A1-1 Scanner / A1-2 Scanner OFF / OFF	15	
Cold Cal A1-1 & A1-2 Scanner ON	30	
Nadir A1-1 & A1-2 Scanner ON	27	Not Applicable

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

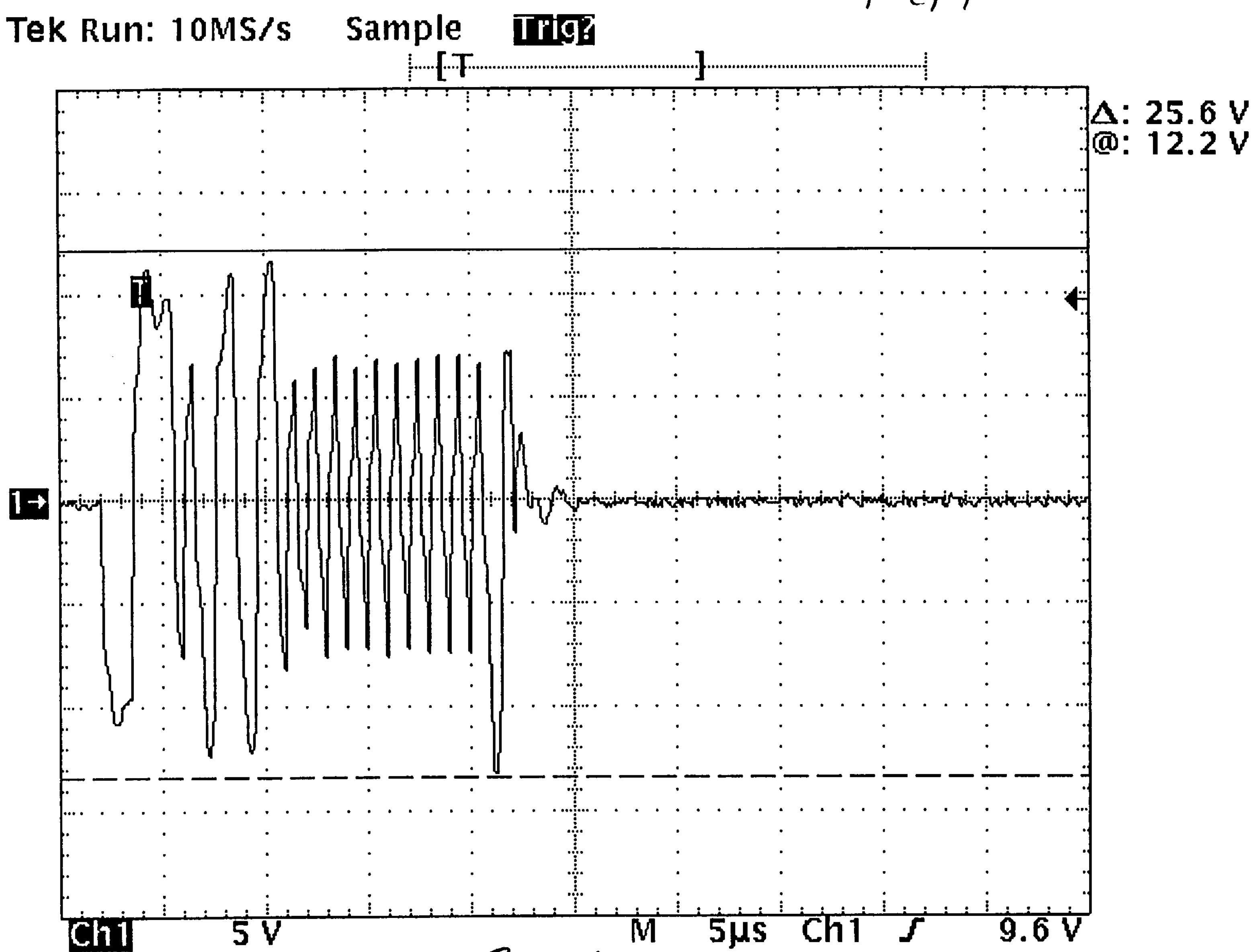
R. Platt 7/14/98
Test Systems Engineer Date

JUL 1 4 1998
Quality Control Date

JUL 22 '98
Customer Representative Date

P/N 1356008-1-TST
S/N 202

S/O: 298561
1st CPT



Bus A Amplitude
1553 Bus Interface Test
Figure 1A

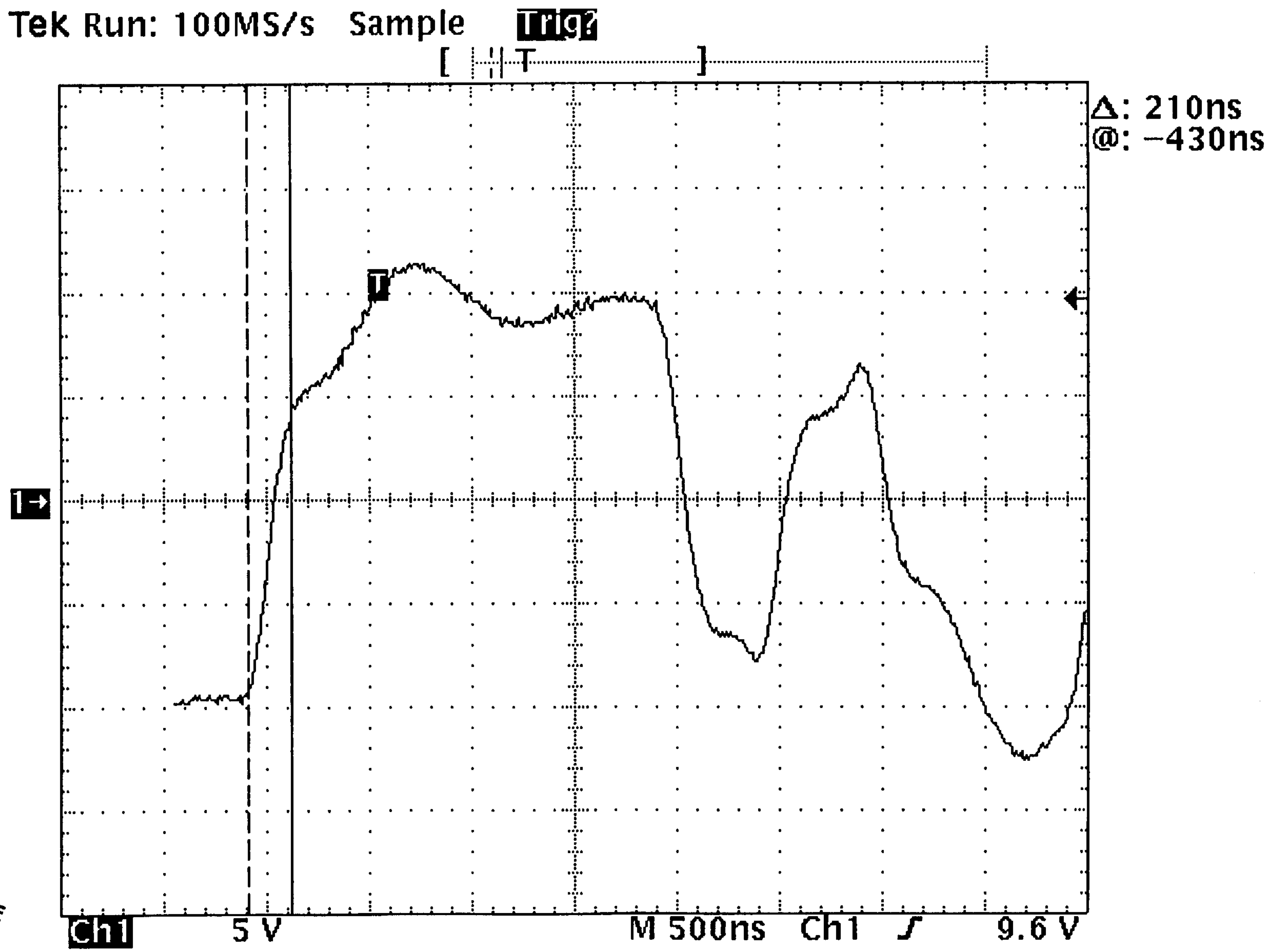
7/14/98

ENG 252

7A 197
JUL

P/N 1356008-1-TST
S/N 202

1st CPT
S/O: 298561



Bus A Rise Time
1553 Bus Interface Test
Figure 1B

7/14/98

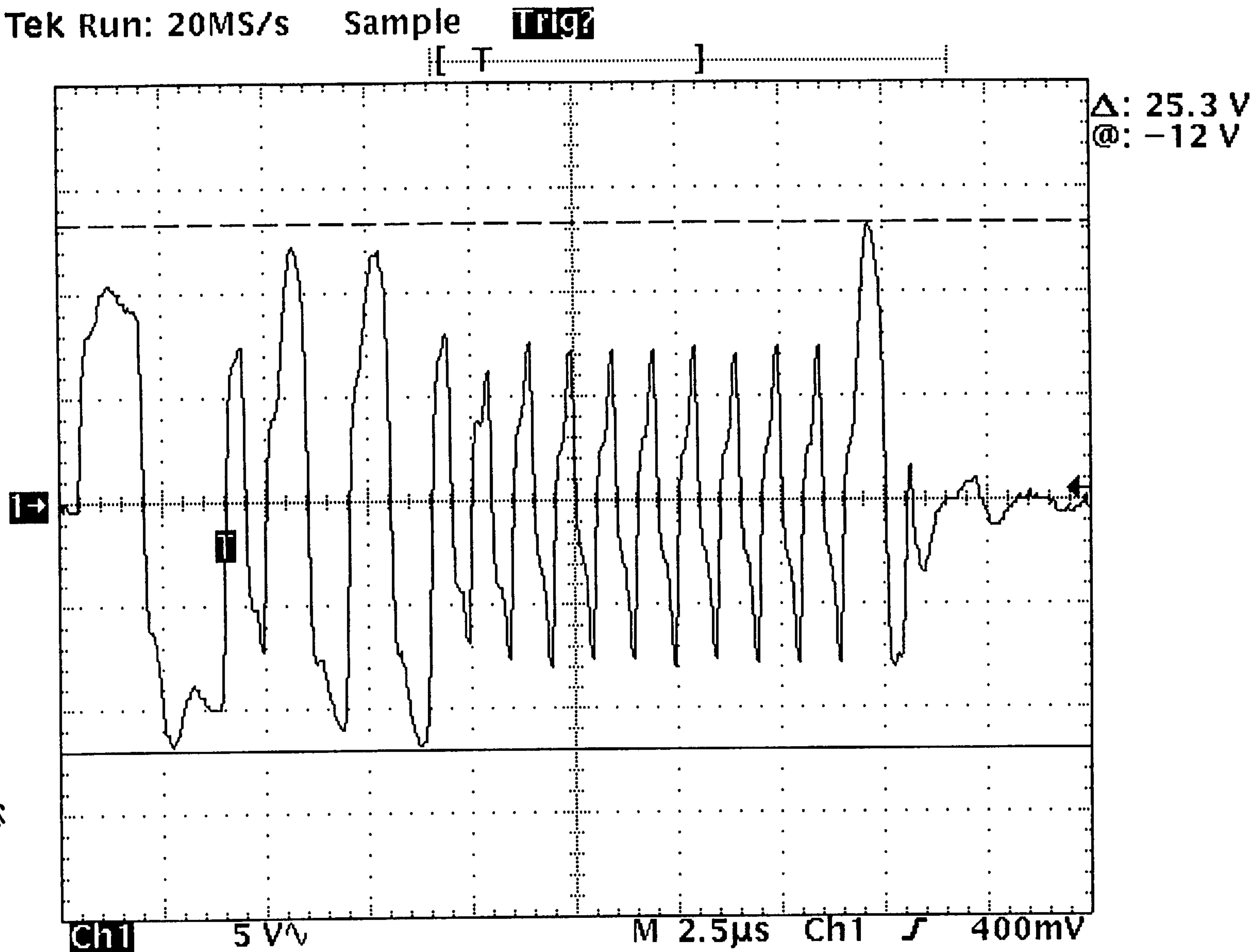
ENG 252

JUL 1 4 1998

TA 197

P/N: 1356008-1-TST
S/N: 202

S/O: 298561
1st CPT



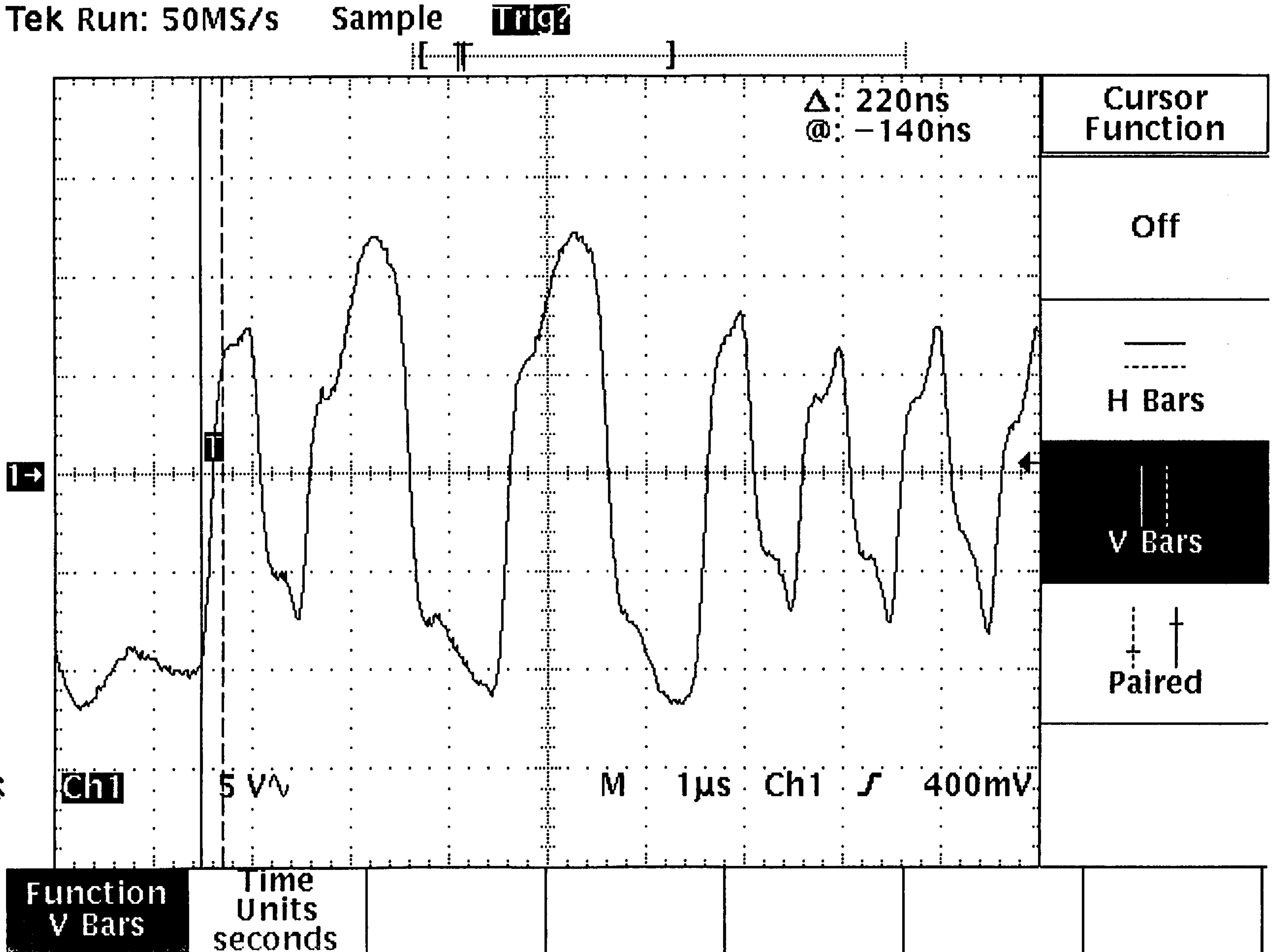
Bus B Amplitude
1553 Bus Interface Test
Figure 2A

7/14/98

JUL 14 1998

P/N: 1356008-1-TST
S/N: 202

S/O: 298561
1st CPT



Bus B Rise Time
1553 Bus Interface Test.

7/14/98

ENG 252

JUL 14 1998

7A 197

TEST DATA SHEET NO. 14

Test Point Interface Test (8 Second Sync Pulse TP) (Paragraph 3.3.6.2)

8 SECOND SYNC PULSE TEST POINT

Attach Photograph or Plot Here or to Back of TDS

8 SECOND SYNC PULSE TEST POINT				
Step	Parameter	Measured	Required	(P)ass / (F)ail
2	Pulse Length	7.999 seconds	8 seconds +/- 10%	P
~~2~~	~~Amplitude~~	~~volts~~	~~3 - 5 volts~~	N/A

QC 227
P.K. Patel
7/14/98

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202

Circle Test: 1st CPT Final CPT Sub CPT N/A

[signature] 7/14/98

Test Systems Engineer Date

QC 481 JUL 14 1998

Quality Control Date

TEST DATA SHEET NO. 15

Test Point Interface Test (Integrate/Hold and Dump TPs) (Paragraph 3.3.6.3)

INTEGRATE/HOLD AND DUMP TEST POINTS

Attach Photograph or Plot Here or to Back of TDS

INTEGRATE/HOLD SIGNAL TEST POINT				
Step	Parameter	Measured	Required	(P)ass / (F)ail
4	Time Measured (A)*	165 milliseconds	~~158~~ 165 ± 5 ms	P
4	Time Measured (B)*	37.5 milliseconds	32 -38 ms	P
4	Time Measurement (A+B)*	202.5 milliseconds	200 ± 5 ms	P
~~4~~	~~Amplitude~~	~~volts~~	~~4-6 volts~~	

QC 227 F.R.Patel 7/14/98

DUMP SIGNAL TEST POINT				
Step	Parameter	Measured	Required	(P)ass / (F)ail
4	Time Measured (D)*	12.5 ms	9-15 ms	P
~~4~~	~~Amplitude~~	~~volts~~	~~4-6 volts~~	

QC 227 F.R.Patel 7/14/98

* Refer to Figure 18 for Waveform Definition

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202

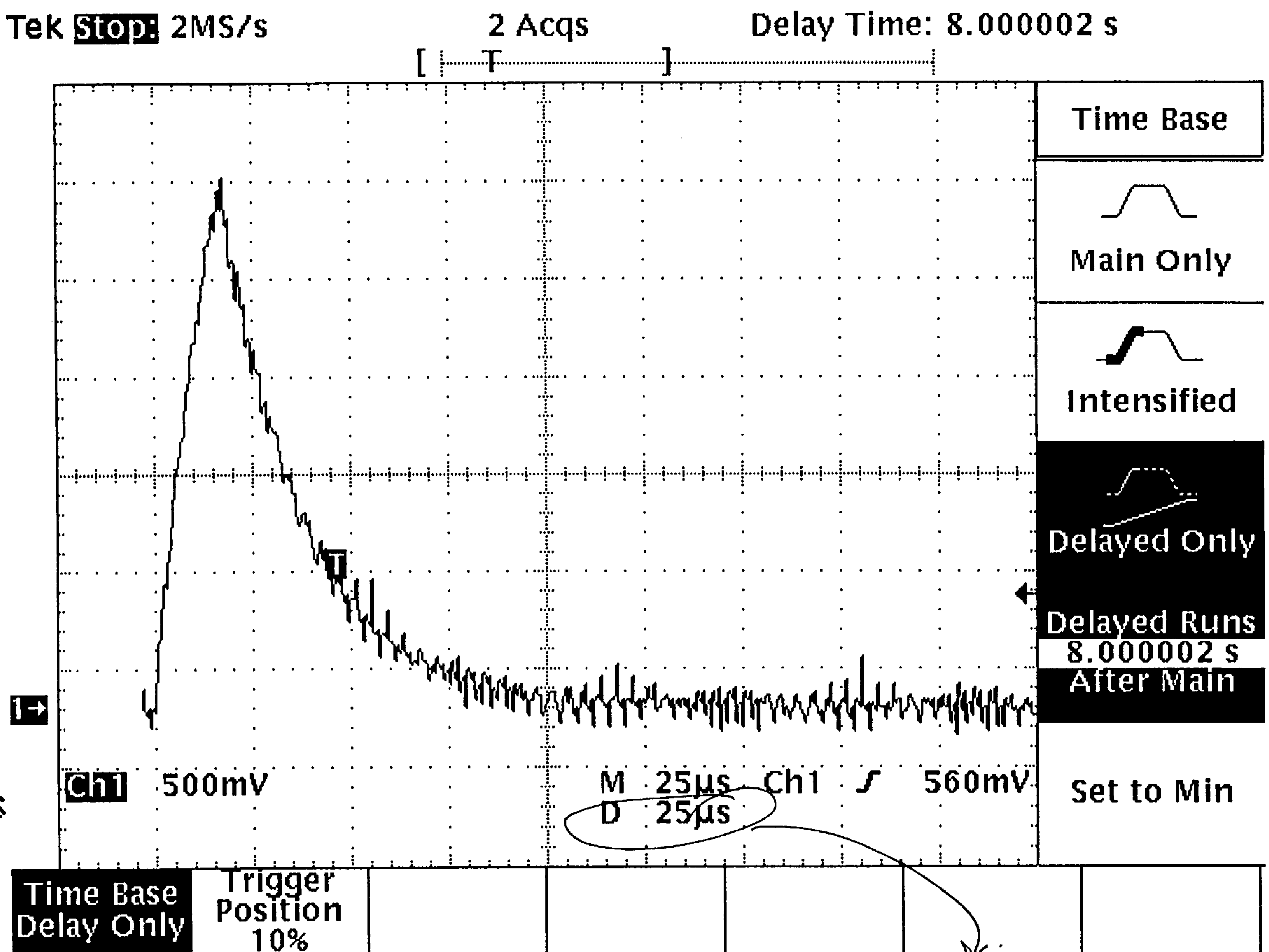
Circle Test: 1st CPT Final CPT Sub CPT N/A

7/14/98

Test Systems Engineer Date

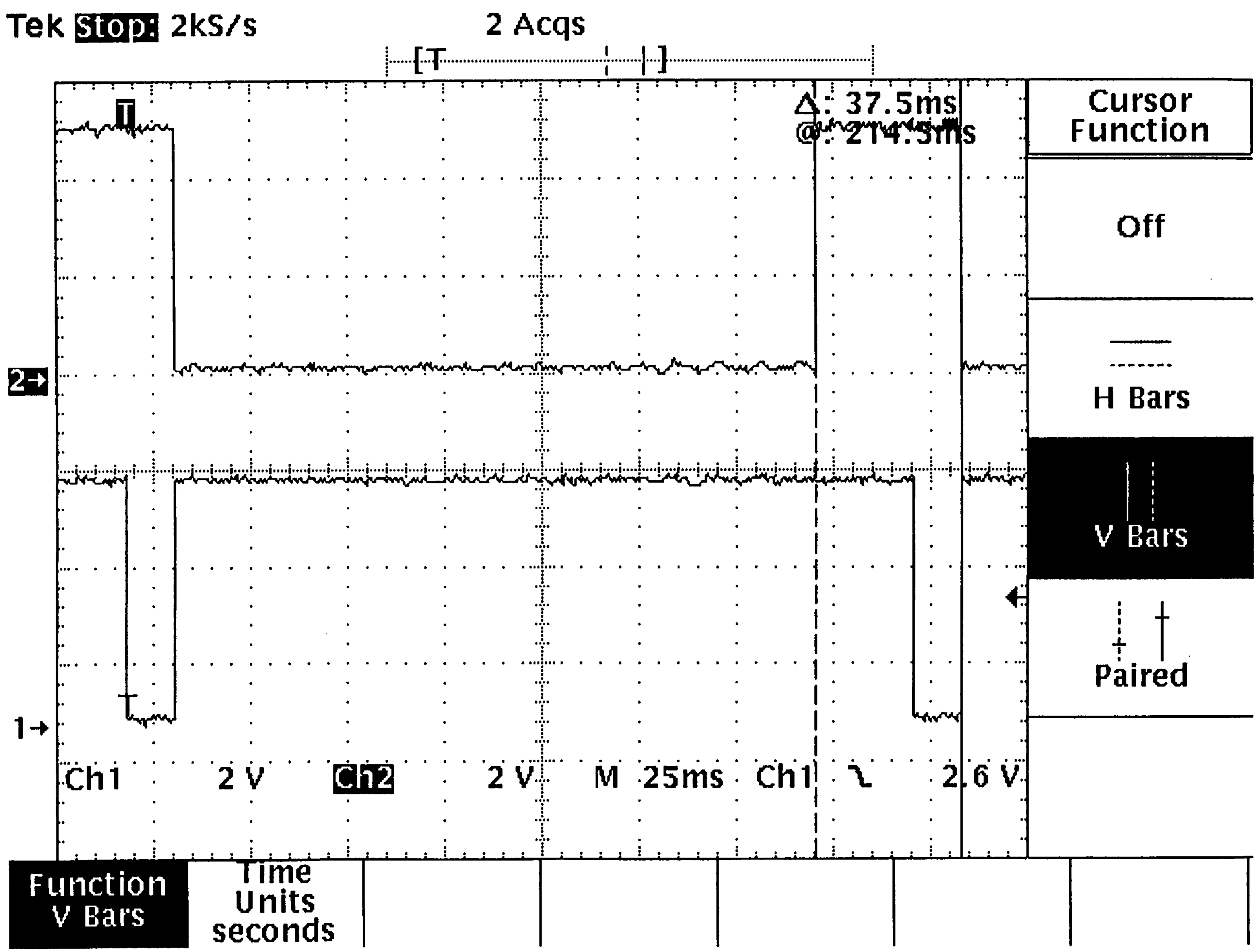
JUL 14 1998

Quality Control Date



8.0000025 − 25 µs = 7.999

JUL 14 1998



Tek Stop: 2kS/s
2 Acqs
Δ: 37.5ms
@: 214.5ms
Cursor Function
Off
H Bars
V Bars
Paired
2→
1→
Ch1 2 V Ch2 2 V M 25ms Ch1 ⅂ 2.6 V
Function V Bars
Time Units seconds

JUL 14 1998

TEST DATA SHEET NO. 16
Test Point Interface Test (Radiometer Channel Analog Output TPs) (Paragraph 3.3.6.4)

RADIOMETER CHANNEL ANALOG OUTPUT TEST POINTS

Attach Photographs or Plots Here or to Back of TDS

RADIOMETER CHANNEL ANALOG OUTPUT TEST POINTS							
Channel	Integration Time Measured (E)*	Integration Time Required (ms)	Hold Time Measured (F)*	Hold Time Required (ms)	Dump Time Measured (F)*	Dump Time Required (ms)	(P)ass / (F)ail
3	165 ms	165 ~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	P
4	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
5	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
6	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
7	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
8	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
9	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
10	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
11	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
12	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
13	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
14	165 ms	~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	
15	165 ms	165 ~~158~~ ± 5 ms	25 ms	23-27	ms	9-15	P

not required

* Refer to Figure 18 for Waveform Definition

D.K. Patel 7/14/98 QC 227

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A

Test Systems Engineer 7/14/98 Date

Quality Control JUL 1 4 1998 Date

TEST DATA SHEET NO. 17
Test Point Interface Test (PLO #1 and PLO #2 Lock TPs) (Paragraph 3.3.6.5)

PLO LOCK DETECT TEST POINTS

Attach Photographs or Plots Here or to Back of TDS

NOT Required
P.R.Patel
7/14/98
QC 227

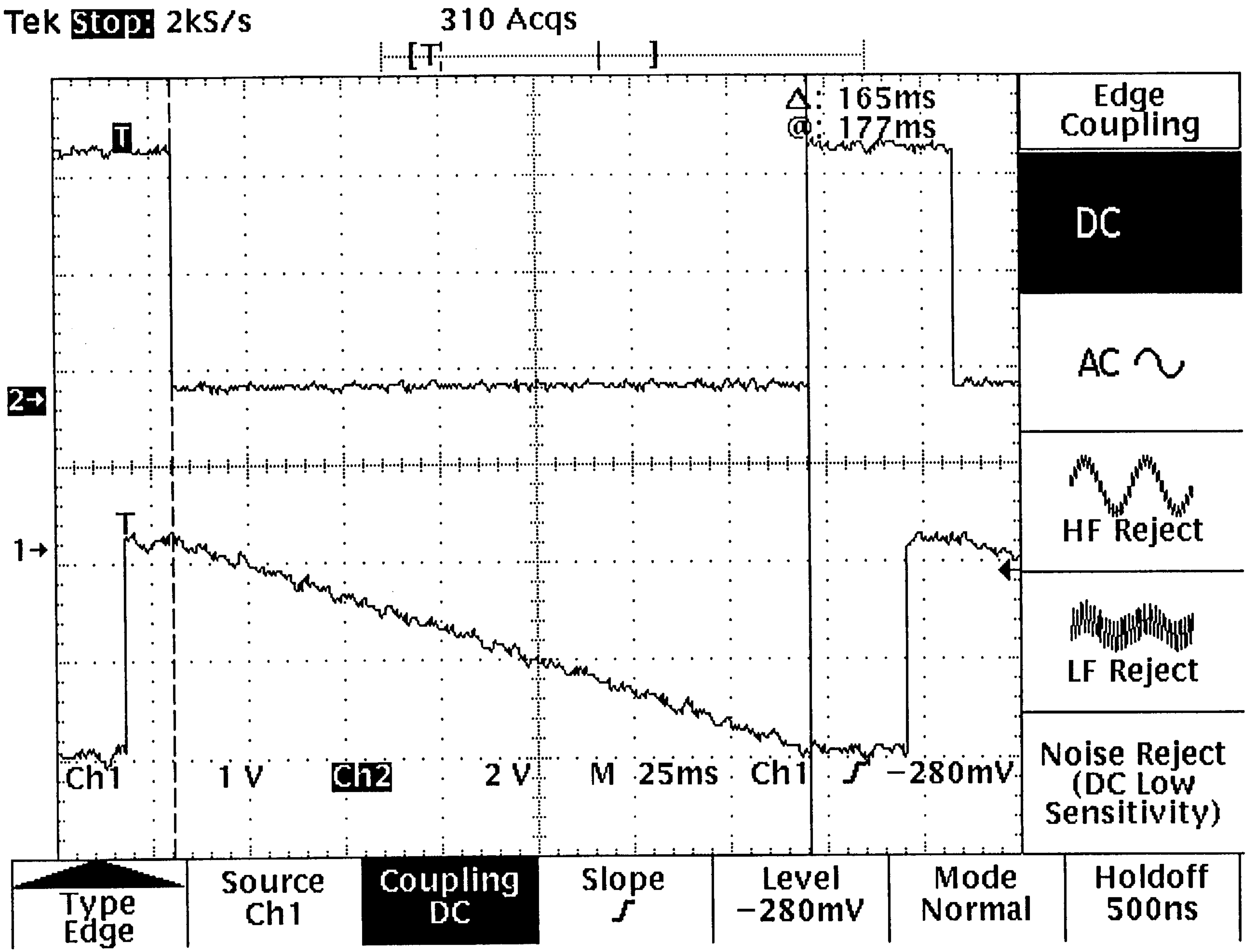
PLO LOCK DETECT TEST POINTS				
Step	Parameter	Measured	Required	(P)ass / (F)ail
3	PLO #1 Lock Detect*	0.012 mvolts	~~0.1 volt~~	P
6	PLO #2 Lock Detect**	-2.80 mvolts	~~0.1 volt~~	P.

* When PLO #1 is selected
** When PLO #2 is selected

±1.0Volt
7/14/98.
QC 227

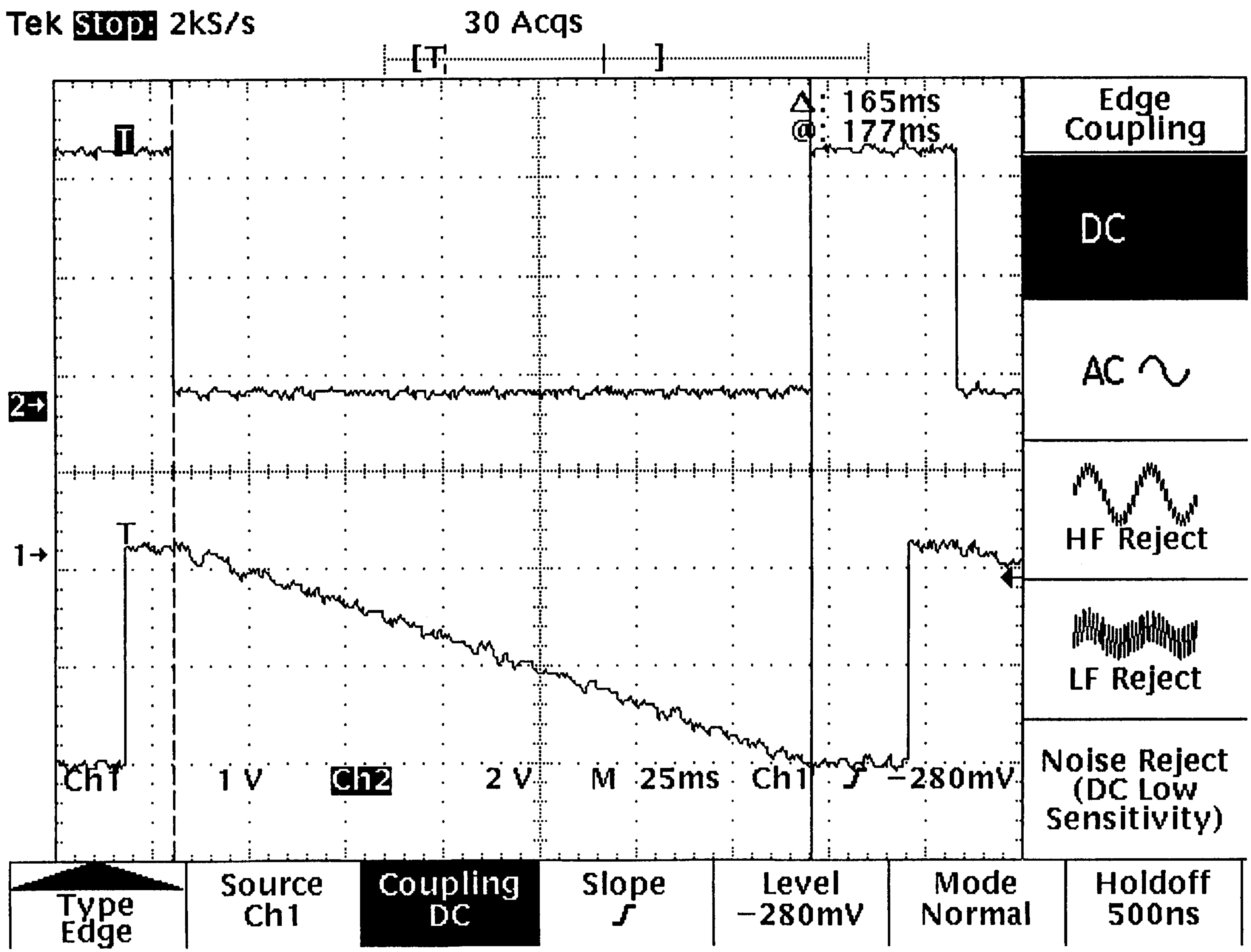
EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT Sub CPT N/A

Test Systems Engineer Date
JUL 14 1998
Quality Control Date



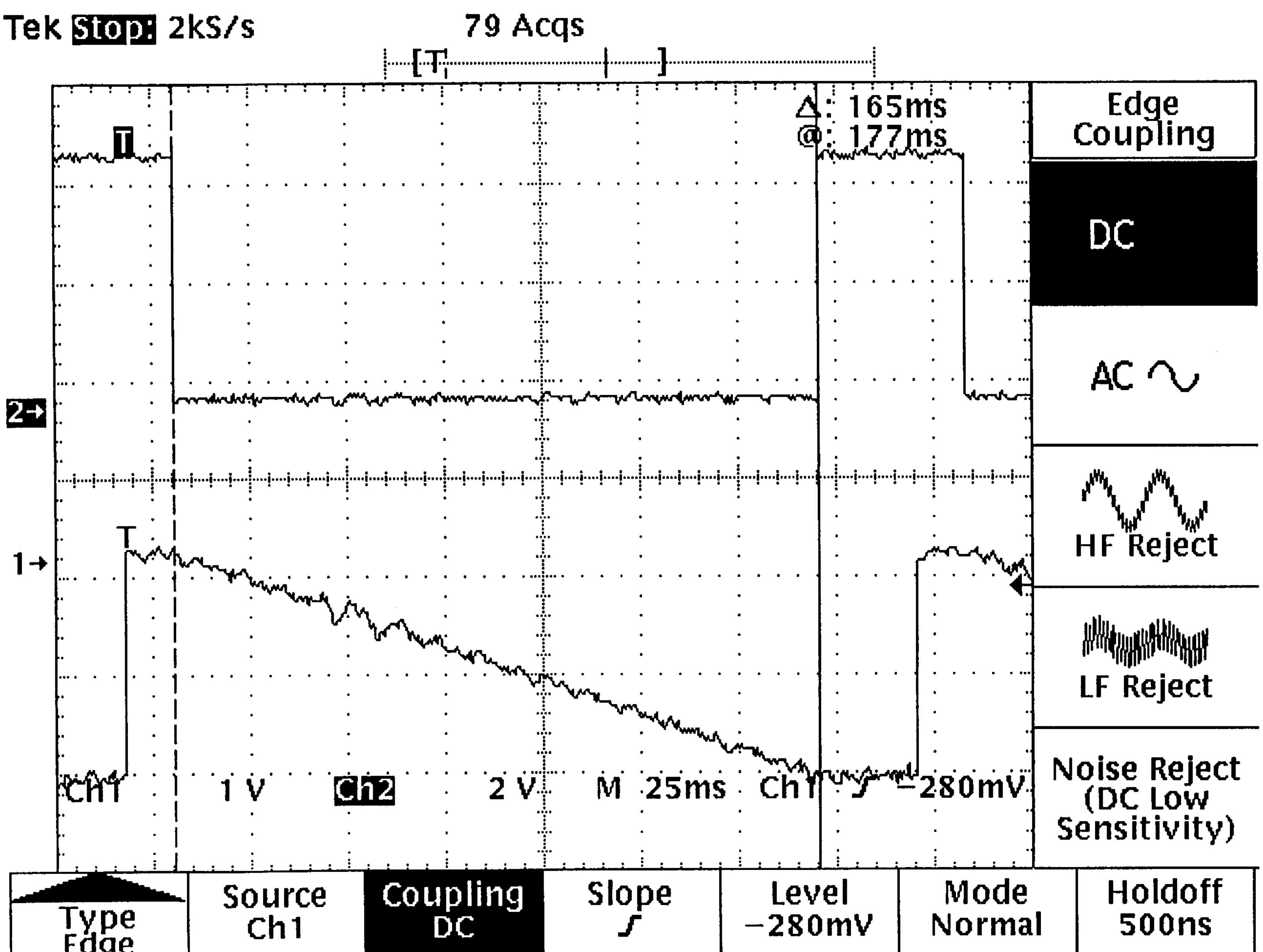
ch3

JUL 1 4 1998



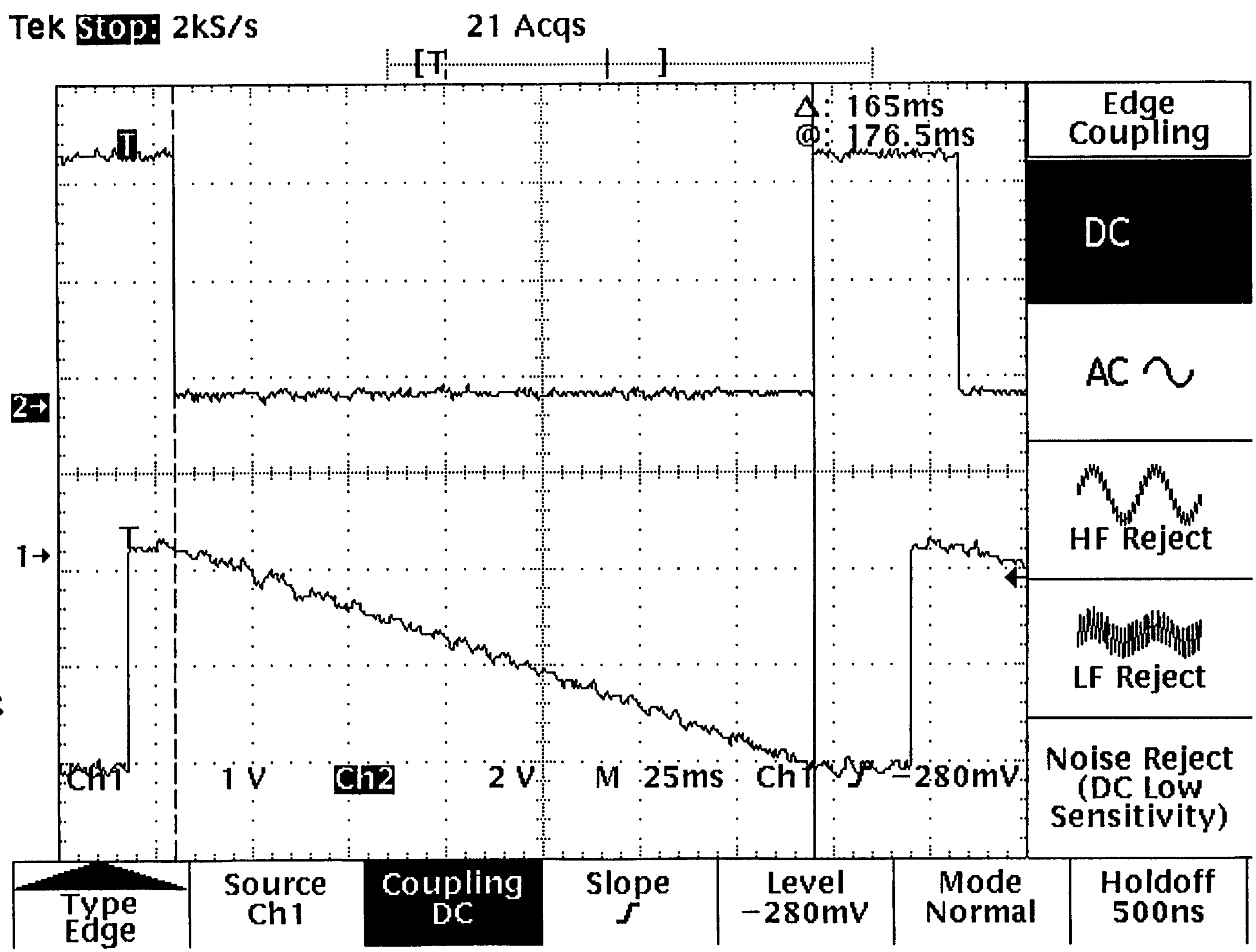
ch 4

JUL 1 4 1998
7A 197



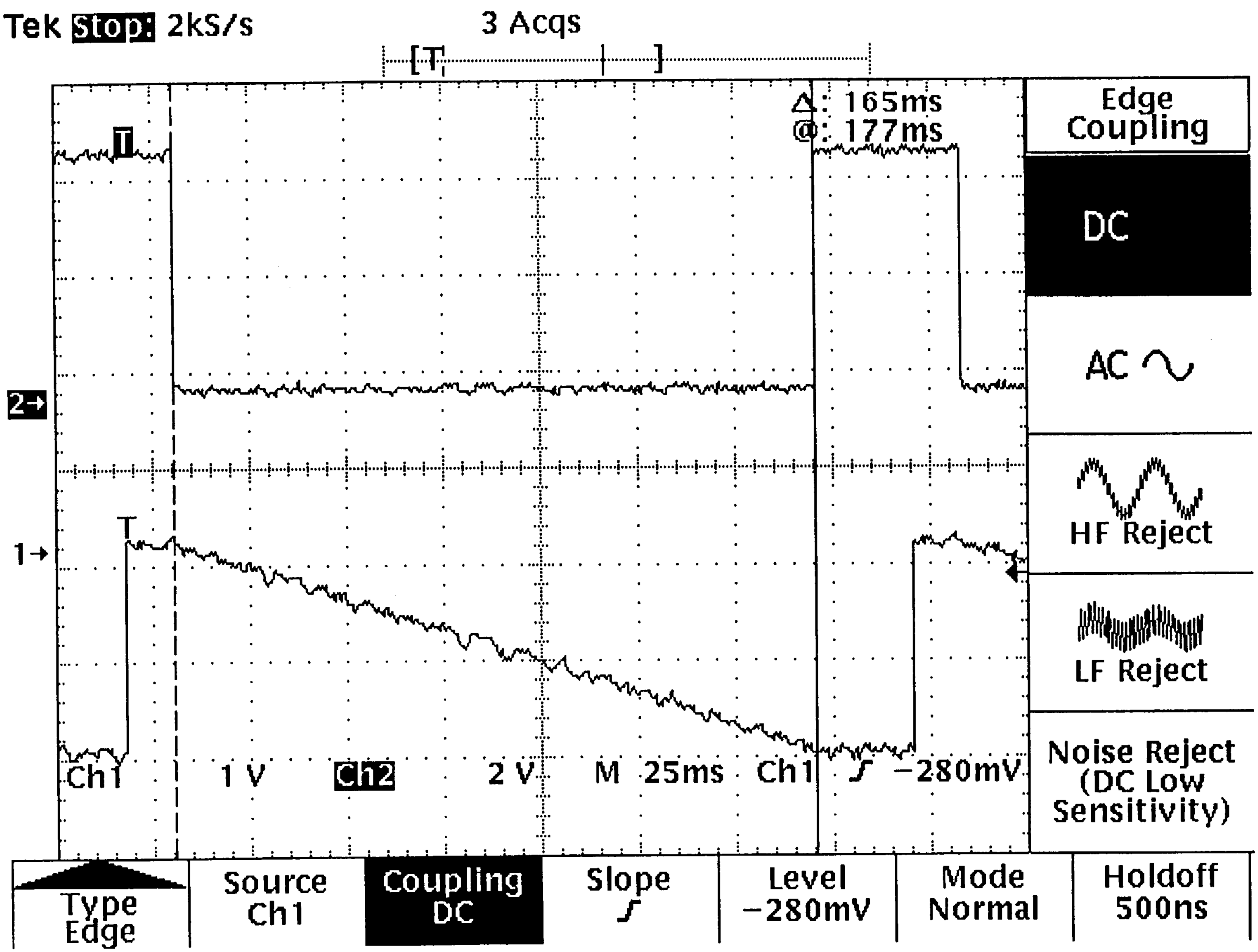
ch5

JUL 1 4 1998



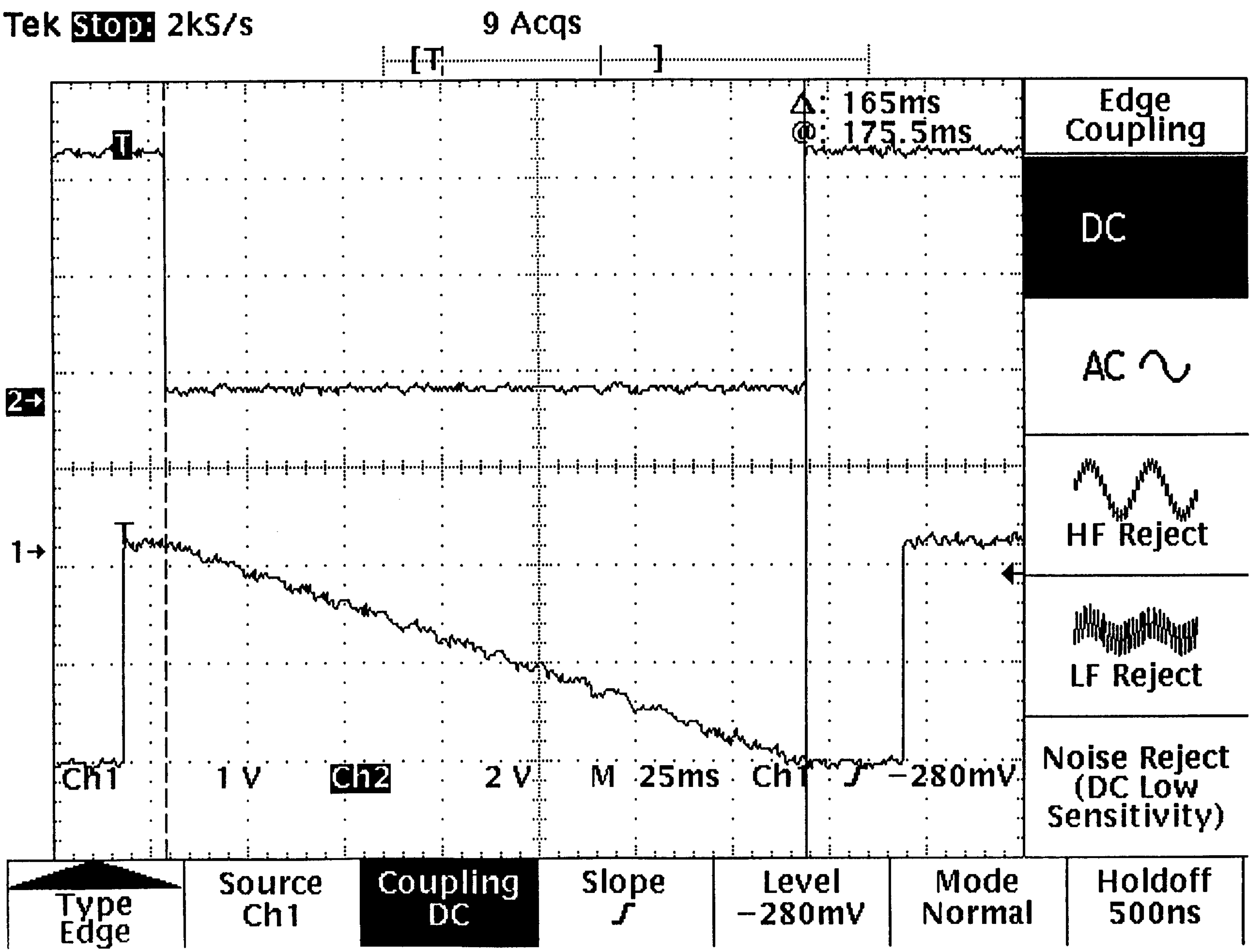
Tek Stop: 2kS/s
21 Acqs
Δ: 165ms
@: 176.5ms
Edge Coupling
DC
AC
HF Reject
LF Reject
Noise Reject (DC Low Sensitivity)
Ch1 1 V Ch2 2 V M 25ms Ch1 ∫ −280mV
Type Edge
Source Ch1
Coupling DC
Slope
Level −280mV
Mode Normal
Holdoff 500ns

ch6



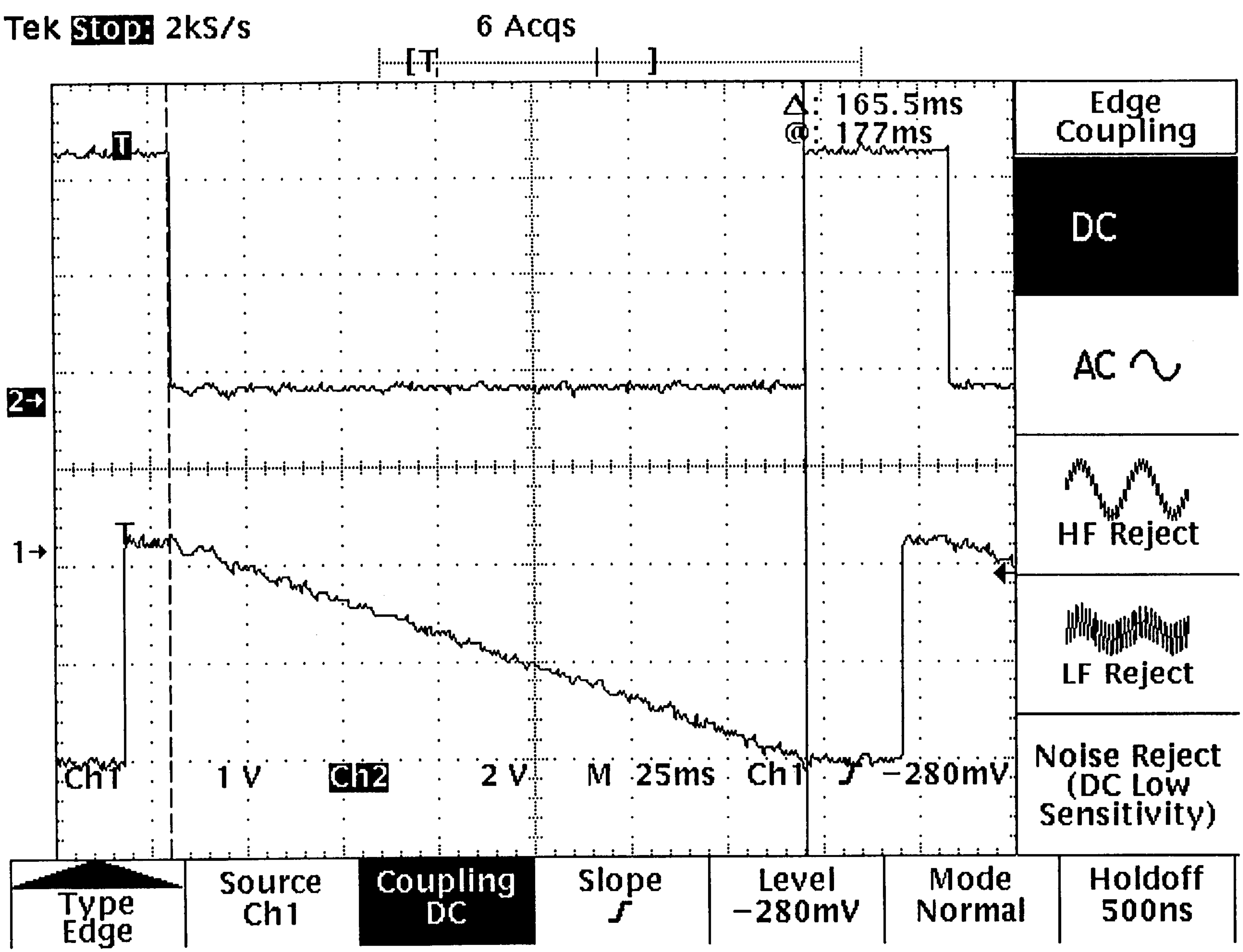
ch 7

JUL 14 1998



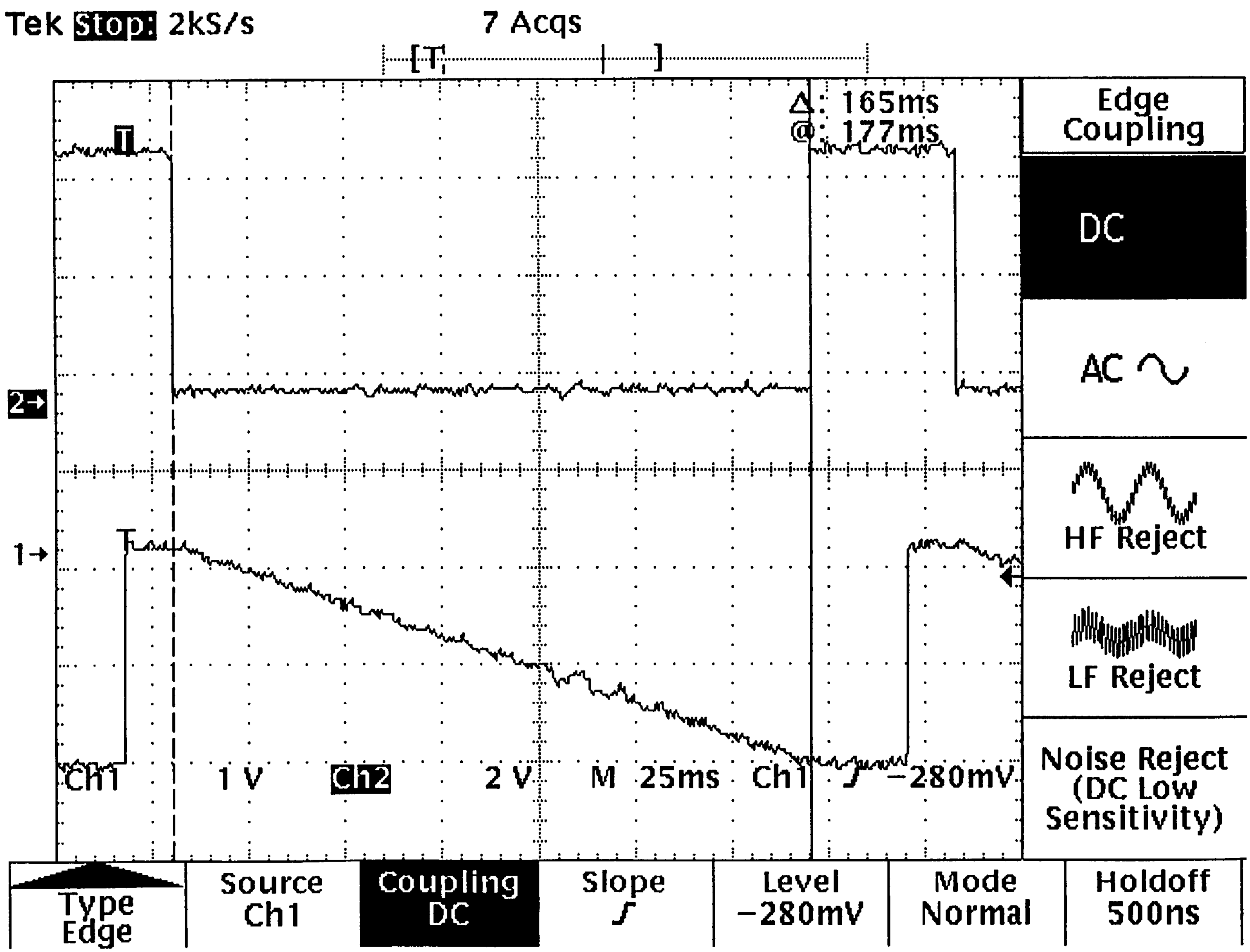
ch 8

JUL 1 4 1998



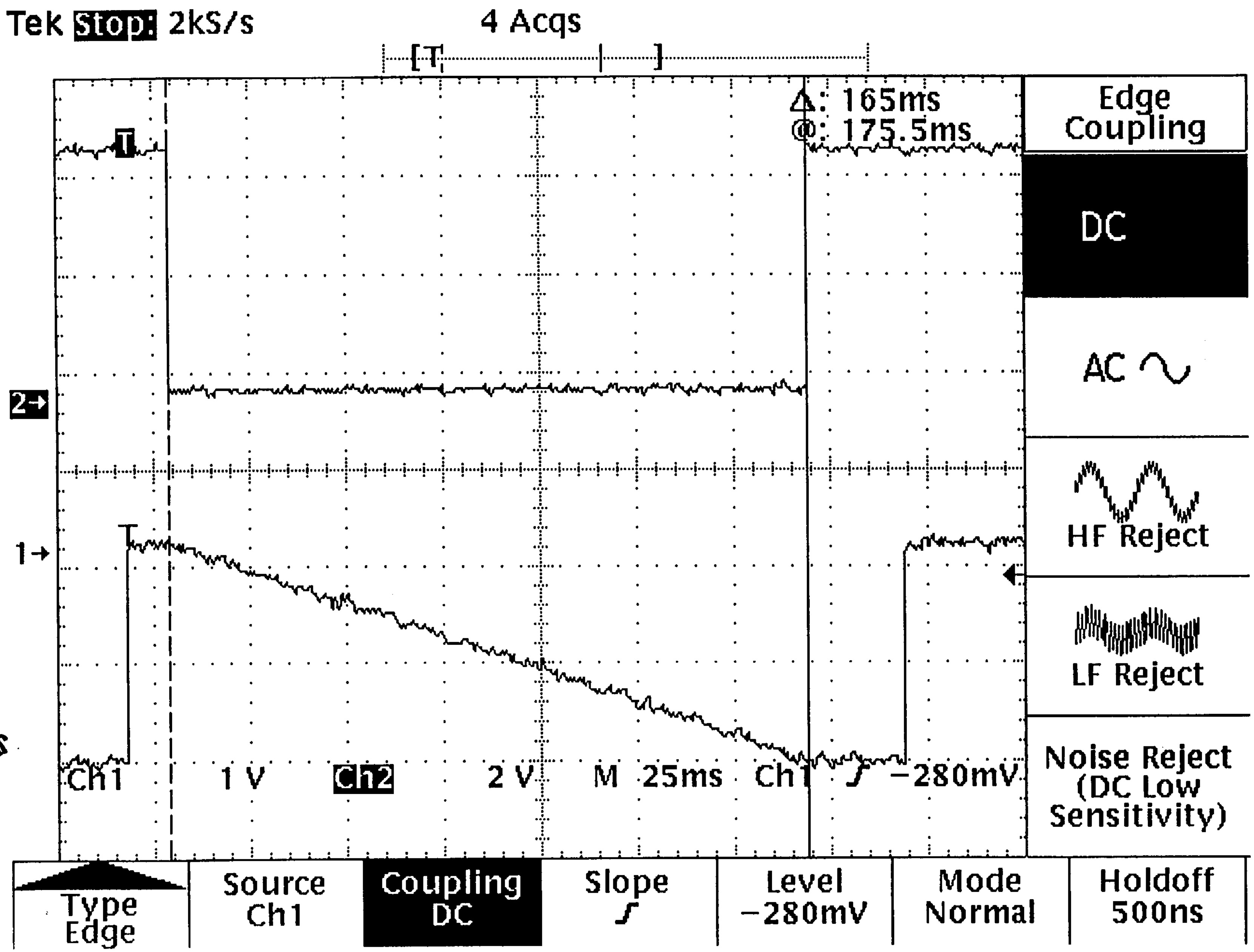
ch 9

JUL 1 4 1998



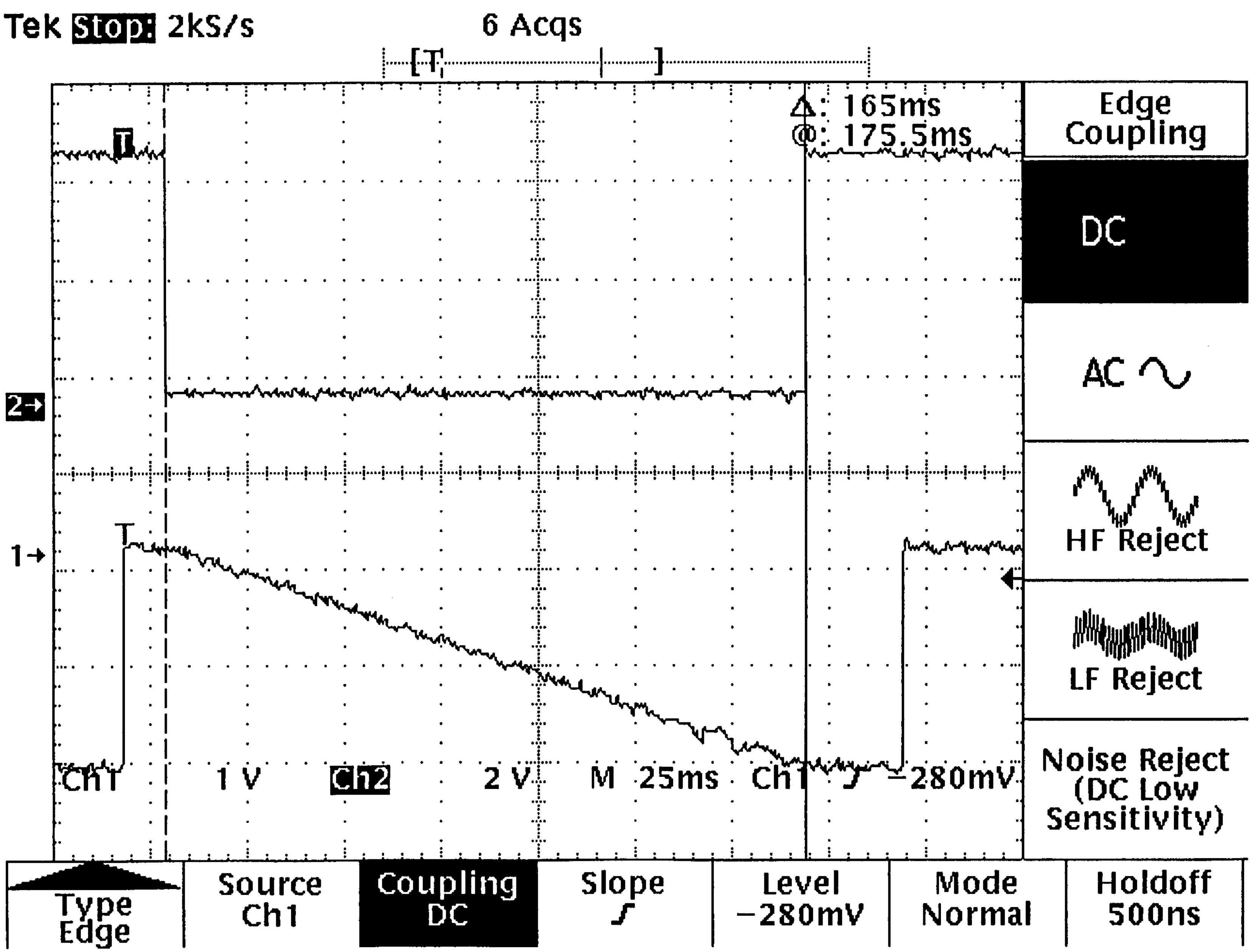
Ch 10

JUL 1 4 1998



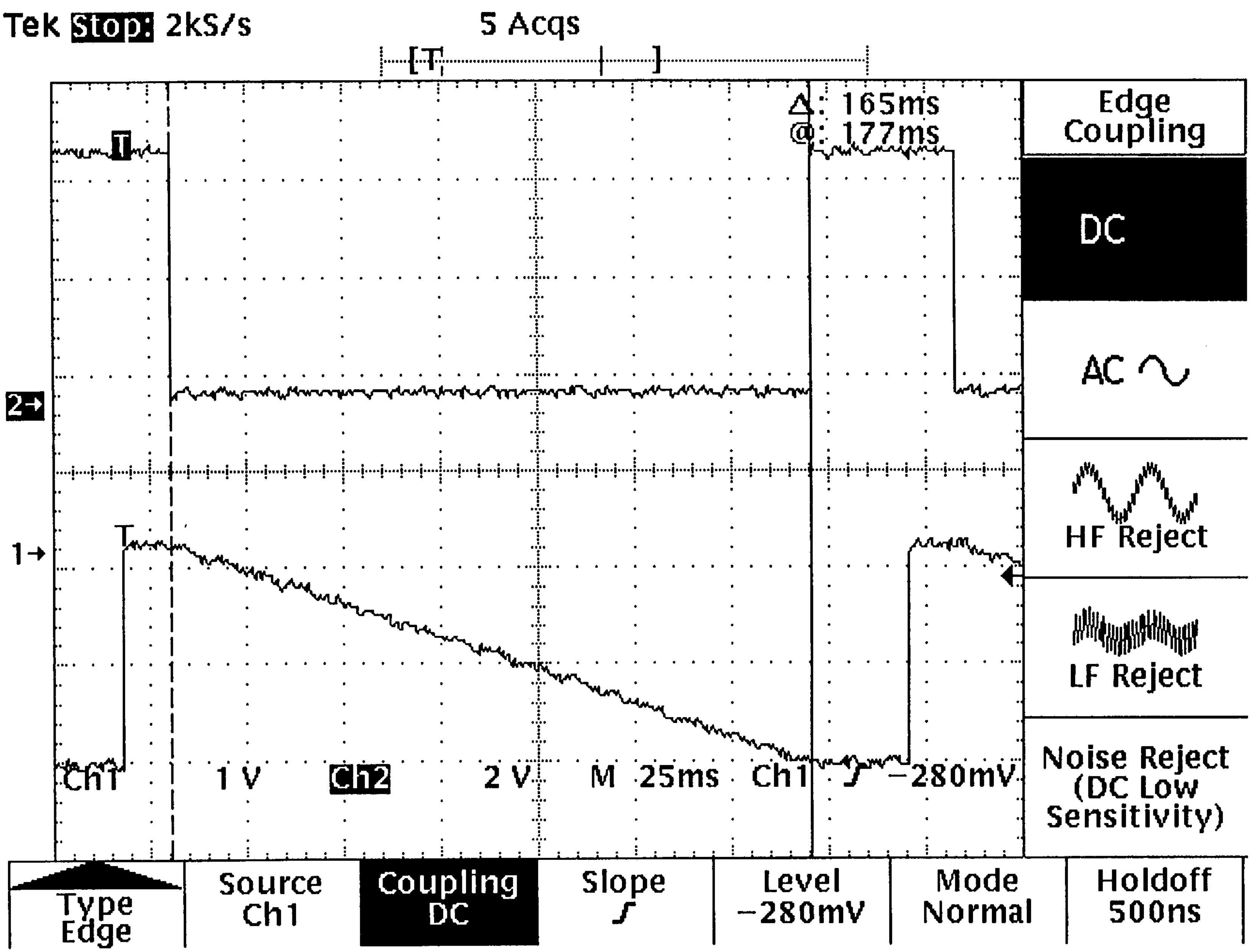
Ch11

JUL 1 4 1998



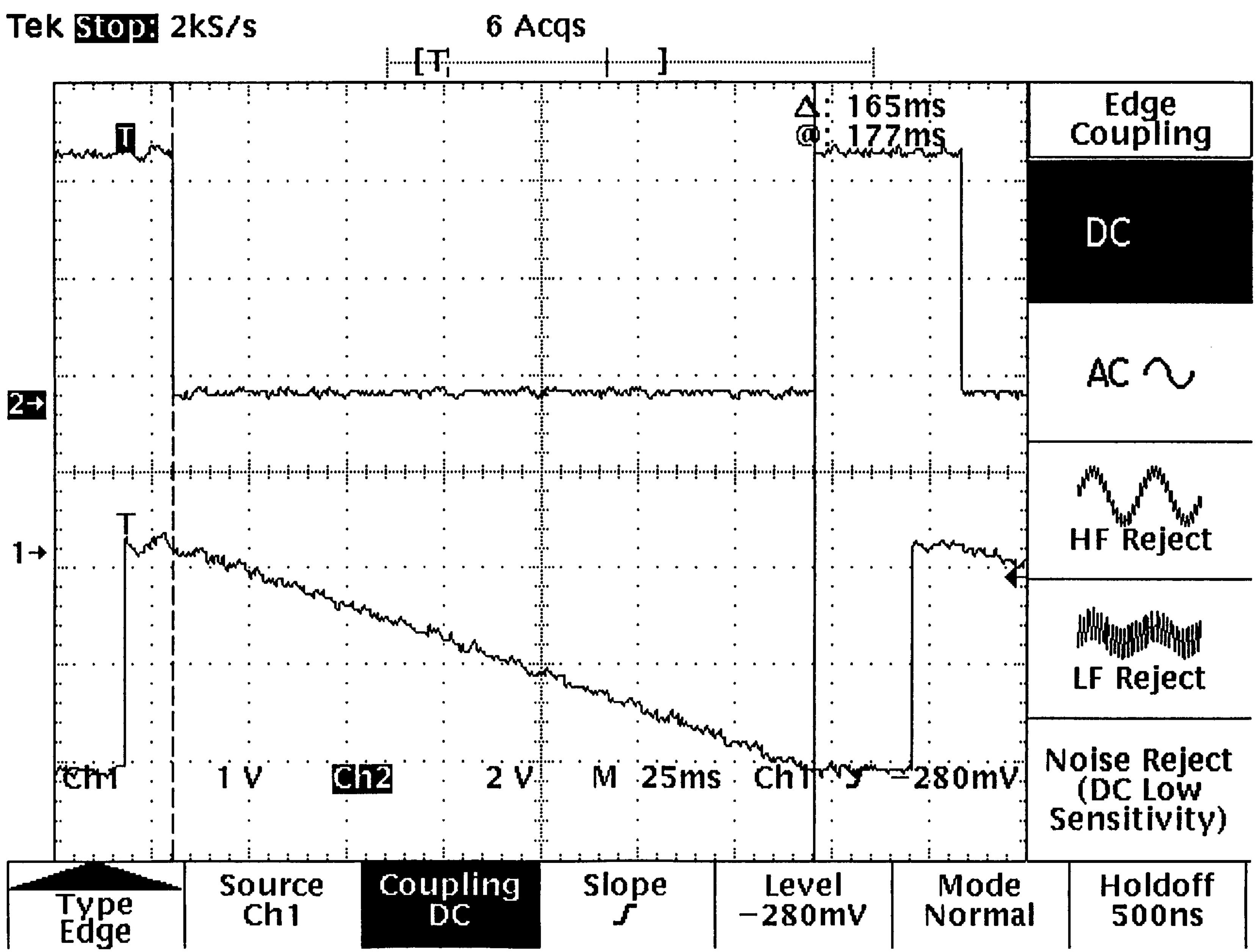
Ch 12.

JUL 1 4 1998



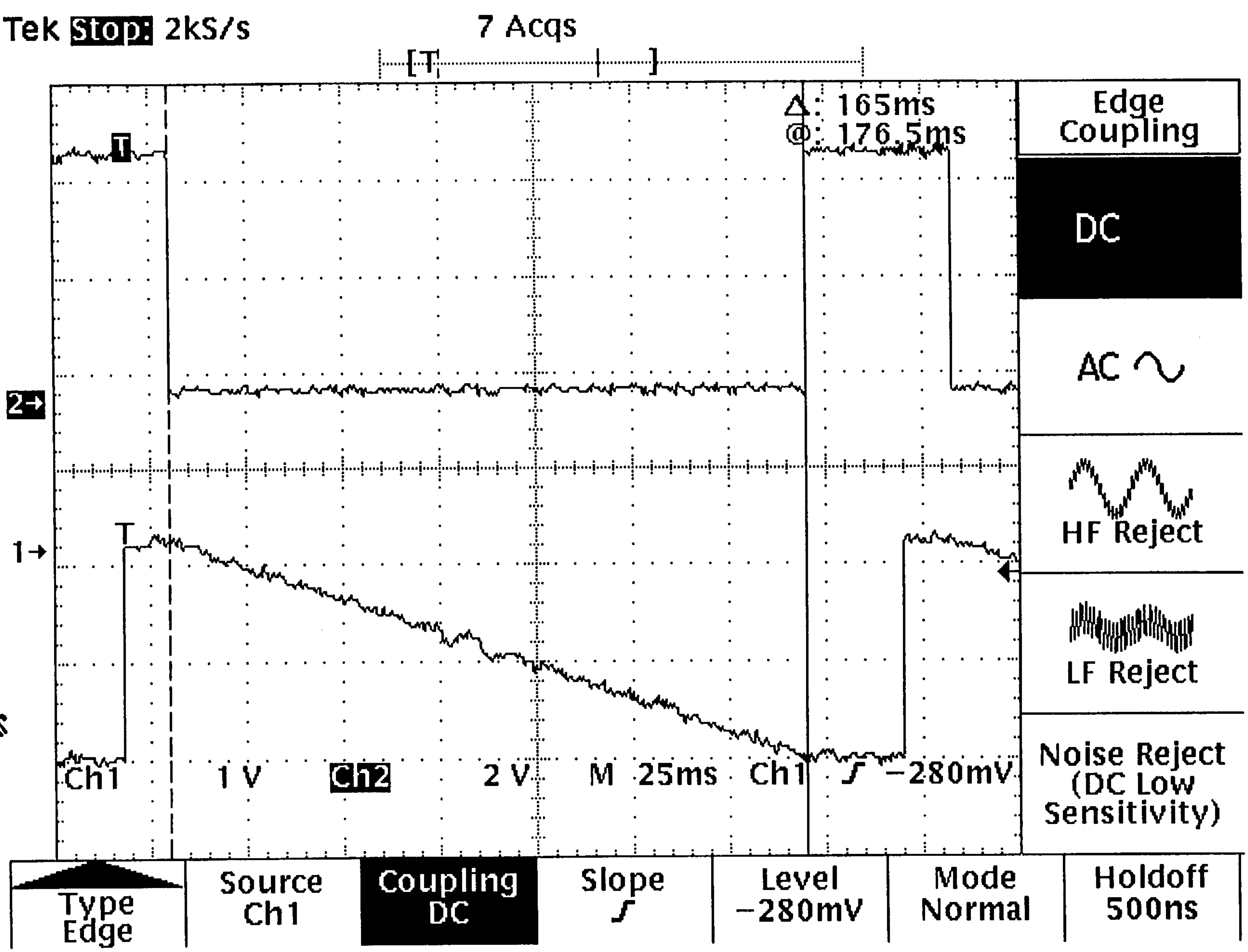
Ch 13

JUL 1 4 1998



ch 14

JUL 1 4 1998



JUL 1 4 1998

ch 15

TEST DATA SHEET NO. 18
Test Point Interface Test (GSE Modes) (Paragraphs 3.3.6.6 - 3.3.6.11)

	GSE MODES					
	1	2	3	4	5	7
	MODE OBSERVED? (YES/NO)					
	YES	YES	YES	YES	YES	YES
	DATA REVIEWED? (YES/NO)					
Printout data	YES	YES	YES	YES	YES	YES
Packet ID						
Packet Length						
Unit Serial Number						
Instrument Mode/Status						
Reflector Positions						
Radiometer Scene Data						
PRT Temperature Data						
Engineering Data	YES	YES	YES	YES	YES	YES

EOS/AMSU-A1 System P/N 1356008 Shop Order: 294561 S/N: 202
Circle Test: 1[st] CPT Final CPT

R H Platt 7/14/98
Test Systems Engineer Date

TA 197 JUL 1 4 1998
Quality Control Date

TA 197

TEST DATA SHEET NO. 19
Radiometer Functional Performance Test (PLO Frequency Measurements) (Paragraph 3.3.7.1)

PLO FREQUENCY MEASUREMENTS			
PLO	Measured Frequency (GHz)	Required Frequency (GHz)	Pass/Fail
# 1	57.290322	57.290294 - 57.290394	PASS
# 2	57.290330	57.290294 - 57.290394	PASS

P = Pass F = Fail

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202
Circle Test: 1st CPT Final CPT

7-13-98
Test Systems Engineer Date

JUL 22 '98
Customer Representative Date

JUL 14 1998
Quality Control Date

15+CPT

```
EOS   A1-03 E1:EXE;35 GSE MODE 1 6-C-W  P1 14-JUL-98 00:35:13  SCAN NUMBER   270
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                        COMMANDS        PLLO POWER =             PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =      ON     COLD CAL POSITION 1 =      YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =      ON                       2 =      NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =  NO                       3 =      NO  [ 18 ]

[ 12 ]         WARM CAL      =   NO     COLD CAL POSITION 4 =      NO  [ 19 ]

[ 13 ]         COLD CAL      =   NO     RESET C&DH PROCESSOR           [ 20 ]

[ 14 ]         NADIR         =   NO     GSE MODE                       [ 21 ]

ENGR OK        POWER   ON    CHECKSUM  IN DFC3 CALC DFC3   SA28   523 SA29  1045
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
```

7A 197
JUL 1 4 1998

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:35:20 PAGE 1
10-10-10 CAL MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	COLD CAL SAMPLE 7 CH 8	16563
2		00000011	574	CH 9	16472
3	PACKET LENGTH	00000010	576	CH 10	16425
4		10111111	578	CH 11	16102
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16398
6		00100000	582	CH 13	16176
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16629
8		00000000	586	CH 15	16192
10	REFLECTOR 1 POSITION 1	15281	588	REFLECTOR 1 POSITION 18	3824
12	REFLECTOR 2 POSITION 1	14935	590	REFLECTOR 2 POSITION 18	3475
14	REFL 1 POS 1 2ND LOOK	15281	592	REFL 1 POS 18 2ND LOOK	3824
16	REFL 2 POS 1 2ND LOOK	14934	594	REFL 2 POS 18 2ND LOOK	3476
18	POS #6 SAMPLE 1 CH 3	15857	596	COLD CAL SAMPLE 8 CH 3	15859
20	CH 4	16226	598	CH 4	16222
22	CH 5	16545	600	CH 5	16551
24	CH 6	16914	602	CH 6	16853
26	CH 7	15977	604	CH 7	15914
28	CH 8	16558	606	CH 8	16568
30	CH 9	16506	608	CH 9	16472
32	CH 10	16461	610	CH 10	16430
34	CH 11	16133	612	CH 11	16096
36	CH 12	16432	614	CH 12	16402
38	CH 13	16211	616	CH 13	16185
40	CH 14	16661	618	CH 14	16640
42	CH 15	16229	620	CH 15	16193
44	REFLECTOR 1 POSITION 2	15281	622	REFLECTOR 1 POSITION 19	3824
46	REFLECTOR 2 POSITION 2	14934	624	REFLECTOR 2 POSITION 19	3476
48	REFL 1 POS 2 2ND LOOK	15281	626	REFL 1 POS 19 2ND LOOK	3824
50	REFL 2 POS 2 2ND LOOK	14935	628	REFL 2 POS 19 2ND LOOK	3475
52	POS #6 SAMPLE 2 CH 3	15860	630	COLD CAL SAMPLE 9 CH 3	15856
54	CH 4	16227	632	CH 4	16225
56	CH 5	16540	634	CH 5	16550
58	CH 6	16915	636	CH 6	16856
60	CH 7	15975	638	CH 7	15914
62	CH 8	16556	640	CH 8	16568
64	CH 9	16507	642	CH 9	16471
66	CH 10	16462	644	CH 10	16428
68	CH 11	16136	646	CH 11	16098
70	CH 12	16439	648	CH 12	16401
72	CH 13	16213	650	CH 13	16192
74	CH 14	16683	652	CH 14	16633
76	CH 15	16231	654	CH 15	16192
78	REFLECTOR 1 POSITION 3	15281	656	REFLECTOR 1 POSITION 20	3824
80	REFLECTOR 2 POSITION 3	14934	658	REFLECTOR 2 POSITION 20	3475
82	REFL 1 POS 3 2ND LOOK	15281	660	REFL 1 POS 20 2ND LOOK	3824
84	REFL 2 POS 3 2ND LOOK	14934	662	REFL 2 POS 20 2ND LOOK	3476
86	POS #6 SAMPLE 3 CH 3	15858	664	COLD CAL SAMPLE 10 CH 3	15858
88	CH 4	16225	666	CH 4	16226
90	CH 5	16543	668	CH 5	16550
92	CH 6	16914	670	CH 6	16856

7A 197

JUL 1 4 1998

10-10-10 CAL MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15971	672	CH 7	15912
96	CH 8	16556	674	CH 8	16565
98	CH 9	16509	676	CH 9	16473
100	CH 10	16462	678	CH 10	16428
102	CH 11	16135	680	CH 11	16099
104	CH 12	16439	682	CH 12	16398
106	CH 13	16214	684	CH 13	16183
108	CH 14	16678	686	CH 14	16627
110	CH 15	16230	688	CH 15	16191
112	REFLECTOR 1 POSITION 4	15281	690	REFLECTOR 1 POSITION 21	8527
114	REFLECTOR 2 POSITION 4	14934	692	REFLECTOR 2 POSITION 21	8177
116	REFL 1 POS 4 2ND LOOK	15281	694	REFL 1 POS 21 2ND LOOK	8527
118	REFL 2 POS 4 2ND LOOK	14934	696	REFL 2 POS 21 2ND LOOK	8177
120	POS #6 SAMPLE 4 CH 3	15859	698	WARM CAL SAMPLE 1 CH 3	15897
122	CH 4	16226	700	CH 4	16267
124	CH 5	16544	702	CH 5	16581
126	CH 6	16912	704	CH 6	16861
128	CH 7	15971	706	CH 7	15928
130	CH 8	16554	708	CH 8	16604
132	CH 9	16509	710	CH 9	16477
134	CH 10	16461	712	CH 10	16426
136	CH 11	16131	714	CH 11	16098
138	CH 12	16430	716	CH 12	16404
140	CH 13	16218	718	CH 13	16191
142	CH 14	16663	720	CH 14	16621
144	CH 15	16227	722	CH 15	16209
146	REFLECTOR 1 POSITION 5	15281	724	REFLECTOR 1 POSITION 22	8527
148	REFLECTOR 2 POSITION 5	14934	726	REFLECTOR 2 POSITION 22	8177
150	REFL 1 POS 5 2ND LOOK	15281	728	REFL 1 POS 22 2ND LOOK	8527
152	REFL 2 POS 5 2ND LOOK	14934	730	REFL 2 POS 22 2ND LOOK	8177
154	POS #6 SAMPLE 5 CH 3	15859	732	WARM CAL SAMPLE 2 CH 3	15896
156	CH 4	16223	734	CH 4	16266
158	CH 5	16542	736	CH 5	16585
160	CH 6	16914	738	CH 6	16857
162	CH 7	15975	740	CH 7	15929
164	CH 8	16556	742	CH 8	16602
166	CH 9	16508	744	CH 9	16478
168	CH 10	16466	746	CH 10	16429
170	CH 11	16133	748	CH 11	16100
172	CH 12	16438	750	CH 12	16399
174	CH 13	16215	752	CH 13	16188
176	CH 14	16675	754	CH 14	16629
178	CH 15	16230	756	CH 15	16209
180	REFLECTOR 1 POSITION 6	15281	758	REFLECTOR 1 POSITION 23	8527
182	REFLECTOR 2 POSITION 6	14935	760	REFLECTOR 2 POSITION 23	8177
184	REFL 1 POS 6 2ND LOOK	15281	762	REFL 1 POS 23 2ND LOOK	8527
186	REFL 2 POS 6 2ND LOOK	14934	764	REFL 2 POS 23 2ND LOOK	8177
188	POS #6 SAMPLE 6 CH 3	15857	766	WARM CAL SAMPLE 3 CH 3	15895
190	CH 4	16224	768	CH 4	16265
192	CH 5	16540	770	CH 5	16586

7A 197
JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16913	772	CH 6	16858
196	CH 7	15975	774	CH 7	15930
198	CH 8	16554	776	CH 8	16598
200	CH 9	16506	778	CH 9	16478
202	CH 10	16462	780	CH 10	16430
204	CH 11	16130	782	CH 11	16102
206	CH 12	16434	784	CH 12	16404
208	CH 13	16211	786	CH 13	16190
210	CH 14	16681	788	CH 14	16637
212	CH 15	16229	790	CH 15	16209
214	REFLECTOR 1 POSITION 7	15281	792	REFLECTOR 1 POSITION 24	8527
216	REFLECTOR 2 POSITION 7	14935	794	REFLECTOR 2 POSITION 24	8177
218	REFL 1 POS 7 2ND LOOK	15281	796	REFL 1 POS 24 2ND LOOK	8527
220	REFL 2 POS 7 2ND LOOK	14934	798	REFL 2 POS 24 2ND LOOK	8177
222	POS #6 SAMPLE 7 CH 3	15858	800	WARM CAL SAMPLE 4 CH 3	15900
224	CH 4	16225	802	CH 4	16268
226	CH 5	16541	804	CH 5	16588
228	CH 6	16914	806	CH 6	16857
230	CH 7	15973	808	CH 7	15928
232	CH 8	16554	810	CH 8	16600
234	CH 9	16505	812	CH 9	16479
236	CH 10	16465	814	CH 10	16429
238	CH 11	16131	816	CH 11	16106
240	CH 12	16434	818	CH 12	16411
242	CH 13	16216	820	CH 13	16191
244	CH 14	16670	822	CH 14	16630
246	CH 15	16229	824	CH 15	16208
248	REFLECTOR 1 POSITION 8	15281	826	REFLECTOR 1 POSITION 25	8527
250	REFLECTOR 2 POSITION 8	14934	828	REFLECTOR 2 POSITION 25	8177
252	REFL 1 POS 8 2ND LOOK	15281	830	REFL 1 POS 25 2ND LOOK	8527
254	REFL 2 POS 8 2ND LOOK	14935	832	REFL 2 POS 25 2ND LOOK	8177
256	POS #6 SAMPLE 8 CH 3	15859	834	WARM CAL SAMPLE 5 CH 3	15895
258	CH 4	16224	836	CH 4	16268
260	CH 5	16541	838	CH 5	16584
262	CH 6	16914	840	CH 6	16858
264	CH 7	15980	842	CH 7	15927
266	CH 8	16553	844	CH 8	16601
268	CH 9	16503	846	CH 9	16475
270	CH 10	16459	848	CH 10	16426
272	CH 11	16131	850	CH 11	16098
274	CH 12	16435	852	CH 12	16400
276	CH 13	16198	854	CH 13	16184
278	CH 14	16668	856	CH 14	16637
280	CH 15	16229	858	CH 15	16209
282	REFLECTOR 1 POSITION 9	15281	860	REFLECTOR 1 POSITION 26	8527
284	REFLECTOR 2 POSITION 9	14934	862	REFLECTOR 2 POSITION 26	8177
286	REFL 1 POS 9 2ND LOOK	15281	864	REFL 1 POS 26 2ND LOOK	8527
288	REFL 2 POS 9 2ND LOOK	14934	866	REFL 2 POS 26 2ND LOOK	8177
290	POS #6 SAMPLE 9 CH 3	15862	868	WARM CAL SAMPLE 6 CH 3	15894
292	CH 4	16223	870	CH 4	16266

JUL 1998 191

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16540	872	CH 5	16583
296	CH 6	16916	874	CH 6	16860
298	CH 7	15975	876	CH 7	15932
300	CH 8	16557	878	CH 8	16602
302	CH 9	16510	880	CH 9	16478
304	CH 10	16465	882	CH 10	16429
306	CH 11	16131	884	CH 11	16100
308	CH 12	16440	886	CH 12	16403
310	CH 13	16208	888	CH 13	16179
312	CH 14	16683	890	CH 14	16636
314	CH 15	16229	892	CH 15	16210
316	REFLECTOR 1 POSITION 10	15281	894	REFLECTOR 1 POSITION 27	8527
318	REFLECTOR 2 POSITION 10	14934	896	REFLECTOR 2 POSITION 27	8177
320	REFL 1 POS 10 2ND LOOK	15281	898	REFL 1 POS 27 2ND LOOK	8527
322	REFL 2 POS 10 2ND LOOK	14934	900	REFL 2 POS 27 2ND LOOK	8177
324	POS #6 SAMPLE 10 CH 3	15856	902	WARM CAL SAMPLE 7 CH 3	15898
326	CH 4	16220	904	CH 4	16266
328	CH 5	16538	906	CH 5	16586
330	CH 6	16918	908	CH 6	16857
332	CH 7	15974	910	CH 7	15929
334	CH 8	16551	912	CH 8	16600
336	CH 9	16509	914	CH 9	16480
338	CH 10	16459	916	CH 10	16428
340	CH 11	16130	918	CH 11	16102
342	CH 12	16438	920	CH 12	16400
344	CH 13	16221	922	CH 13	16185
346	CH 14	16681	924	CH 14	16629
348	CH 15	16228	926	CH 15	16210
350	REFLECTOR 1 POSITION 11	3824	928	REFLECTOR 1 POSITION 28	8527
352	REFLECTOR 2 POSITION 11	3476	930	REFLECTOR 2 POSITION 28	8177
354	REFL 1 POS 11 2ND LOOK	3824	932	REFL 1 POS 28 2ND LOOK	8527
356	REFL 2 POS 11 2ND LOOK	3475	934	REFL 2 POS 28 2ND LOOK	8177
358	COLD CAL SAMPLE 1 CH 3	15856	936	WARM CAL SAMPLE 8 CH 3	15895
360	CH 4	16222	938	CH 4	16267
362	CH 5	16551	940	CH 5	16586
364	CH 6	16853	942	CH 6	16858
366	CH 7	15913	944	CH 7	15928
368	CH 8	16566	946	CH 8	16603
370	CH 9	16474	948	CH 9	16476
372	CH 10	16427	950	CH 10	16433
374	CH 11	16099	952	CH 11	16102
376	CH 12	16396	954	CH 12	16397
378	CH 13	16186	956	CH 13	16187
380	CH 14	16642	958	CH 14	16646
382	CH 15	16192	960	CH 15	16211
384	REFLECTOR 1 POSITION 12	3824	962	REFLECTOR 1 POSITION 29	8527
386	REFLECTOR 2 POSITION 12	3475	964	REFLECTOR 2 POSITION 29	8177
388	REFL 1 POS 12 2ND LOOK	3824	966	REFL 1 POS 29 2ND LOOK	8527
390	REFL 2 POS 12 2ND LOOK	3475	968	REFL 2 POS 29 2ND LOOK	8177
392	COLD CAL SAMPLE 2 CH 3	15857	970	WARM CAL SAMPLE 9 CH 3	15896

JUL 1 4 1998
TA 197

10-10-10 CAL MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16224	972	CH 4	16268
396	CH 5	16550	974	CH 5	16583
398	CH 6	16858	976	CH 6	16859
400	CH 7	15917	978	CH 7	15929
402	CH 8	16565	980	CH 8	16606
404	CH 9	16474	982	CH 9	16478
406	CH 10	16425	984	CH 10	16435
408	CH 11	16100	986	CH 11	16105
410	CH 12	16392	988	CH 12	16402
412	CH 13	16175	990	CH 13	16181
414	CH 14	16623	992	CH 14	16637
416	CH 15	16191	994	CH 15	16208
418	REFLECTOR 1 POSITION 13	3824	996	REFLECTOR 1 POSITION 30	8527
420	REFLECTOR 2 POSITION 13	3475	998	REFLECTOR 2 POSITION 30	8177
422	REFL 1 POS 13 2ND LOOK	3824	1000	REFL 1 POS 30 2ND LOOK	8527
424	REFL 2 POS 13 2ND LOOK	3475	1002	REFL 2 POS 30 2ND LOOK	8177
426	COLD CAL SAMPLE 3 CH 3	15856	1004	WARM CAL SAMPLE 10 CH 3	15892
428	CH 4	16224	1006	CH 4	16268
430	CH 5	16555	1008	CH 5	16580
432	CH 6	16859	1010	CH 6	16862
434	CH 7	15913	1012	CH 7	15932
436	CH 8	16567	1014	CH 8	16605
438	CH 9	16476	1016	CH 9	16477
440	CH 10	16427	1018	CH 10	16426
442	CH 11	16096	1020	CH 11	16103
444	CH 12	16394	1022	CH 12	16394
446	CH 13	16178	1024	CH 13	16190
448	CH 14	16640	1026	CH 14	16634
450	CH 15	16192	1028	CH 15	16210
452	REFLECTOR 1 POSITION 14	3824	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	3475	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	3824	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	3475	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	COLD CAL SAMPLE 4 CH 3	15856	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16225	1040	CH 4	0
464	CH 5	16551	1042	CH 5	0
466	CH 6	16857	1044	CH 6	0
468	CH 7	15912	1046	CH 7	0
470	CH 8	16563	1048	CH 8	0
472	CH 9	16475	1050	CH 9	0
474	CH 10	16426	1052	CH 10	0
476	CH 11	16101	1054	CH 11	0
478	CH 12	16401	1056	CH 12	0
480	CH 13	16167	1058	CH 13	0
482	CH 14	16626	1060	CH 14	0
484	CH 15	16190	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	3824	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	3475	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	3824	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	3475	1070	CH 6	0

7A 197 JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	COLD CAL SAMPLE 5 CH 3	15857	1072	CH 7	0
496	CH 4	16225	1074	CH 8	0
498	CH 5	16551	1076	CH 9	0
500	CH 6	16858	1078	CH 10	0
502	CH 7	15910	1080	CH 11	0
504	CH 8	16571	1082	CH 12	0
506	CH 9	16474	1084	CH 13	0
508	CH 10	16426	1086	CH 14	0
510	CH 11	16094	1088	CH 15	0
512	CH 12	16410	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16195	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16617	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16192	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	3824	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	3475	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	3824	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	3475	1196	CH 6	0
528	COLD CAL SAMPLE 6 CH 3	15855	1198	CH 7	0
530	CH 4	16227	1200	CH 8	0
532	CH 5	16551	1202	CH 9	0
534	CH 6	16855	1204	CH 10	0
536	CH 7	15914	1206	CH 11	0
538	CH 8	16568	1208	CH 12	0
540	CH 9	16476	1210	CH 13	0
542	CH 10	16428	1212	CH 14	0
544	CH 11	16105	1214	CH 15	0
546	CH 12	16405	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16187	1218	CH 4	0
550	CH 14	16637	1220	CH 5	0
552	CH 15	16192	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	3824	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	3475	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	3824	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	3475	1230	CH 10	0
562	COLD CAL SAMPLE 7 CH 3	15854	1232	CH 11	0
564	CH 4	16223	1234	CH 12	0
566	CH 5	16551	1236	CH 13	0
568	CH 6	16852	1238	CH 14	0
570	CH 7	15909	1240	CH 15	0

7A 197
JUL 1 4 1998

10-10-10 CAL MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18746	24.34
1092	SCAN MOTOR A1-2	19870	25.78
1094	FEED HORN A1-1	20741	28.49
1096	FEED HORN A1-2	21887	30.73
1098	RF MUX A1-1	22680	32.07
1100	RF MUX A1-2	24103	34.95
1102	LOCAL OSCILLATOR CHANNEL 3	25181	37.26
1104	LOCAL OSCILLATOR CHANNEL 4	25618	37.43
1106	LOCAL OSCILLATOR CHANNEL 5	24295	35.50
1108	LOCAL OSCILLATOR CHANNEL 6	23049	32.15
1110	LOCAL OSCILLATOR CHANNEL 7	23352	33.47
1112	LOCAL OSCILLATOR CHANNEL 8	25010	36.75
1114	LOCAL OSCILLATOR CHANNEL 15	24301	34.91
1116	PLLO #2	22657	32.05
1118	PLLO #1	25540	37.68
1120	1553 INTERFACE	18581	37.17
1122	MIXER/IF AMPLIFIER CHANNEL 3	24409	35.50
1124	MIXER/IF AMPLIFIER CHANNEL 4	24580	35.32
1126	MIXER/IF AMPLIFIER CHANNEL 5	24187	34.97
1128	MIXER/IF AMPLIFIER CHANNEL 6	22982	32.64
1130	MIXER/IF AMPLIFIER CHANNEL 7	22975	33.19
1132	MIXER/IF AMPLIFIER CHANNEL 8	24536	35.59
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22423	31.79
1136	MIXER/IF AMPLIFIER CHANNEL 15	24204	35.25
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23931	34.52
1140	IF AMPLIFIER CHANNEL 9	24092	34.73
1142	IF AMPLIFIER CHANNEL 10	23964	34.75
1144	IF AMPLIFIER CHANNEL 11	23056	32.14
1146	DC/DC CONVERTER	25563	37.13
1148	IF AMPLIFIER CHANNEL 13	22641	31.45
1150	IF AMPLIFIER CHANNEL 14	23003	32.59
1152	IF AMPLIFIER CHANNEL 12	22813	32.02
1154	RF SHELF A1-1	23399	33.43
1156	RF SHELF A1-2	24261	34.48
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21195	29.21
1160	A1-1 WARM LOAD 1	24075	25.14
1162	A1-1 WARM LOAD 2	24563	25.23
1164	A1-1 WARM LOAD 3	24063	25.26
1166	A1-1 WARM LOAD 4	24143	25.23
1168	A1-1 WARM LOAD CENTER	24340	25.25
1170	A1-2 WARM LOAD 1	25139	26.70
1172	A1-2 WARM LOAD 2	25199	26.73
1174	A1-2 WARM LOAD 3	25222	26.75
1176	A1-2 WARM LOAD 4	25209	26.63
1178	A1-2 WARM LOAD CENTER	25212	26.72
1180	TEMP SENSOR REFERENCE VOLTAGE	25268	

7A 197
JUL 1 4 1998

10-10-10 CAL MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22102	5.1
	+15 VDC	21838	15.2
	-15 VDC	21797	-14.7
SCAN DRIVE	+5 VDC	21323	5.1
	+15 VDC	21483	15.2
	-15 VDC	21042	-14.5
PLO	+15 VDC	22455	15.0
	-15 VDC	22070	-14.8
RECEIVER	+8 VDC	21808	8.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	21414	10.2
A1-2	+10 VDC	21427	10.1
LO CHANNEL 6	+10 VDC	21391	10.2
7	+10 VDC	21464	10.1
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21263	10.2
4	+10 VDC	21200	10.2
5	+10 VDC	21342	10.2
8	+10 VDC	21319	10.2
15	+15 VDC	22034	15.1
QUIET BUS CURRENT		16790	2280.0
A1-1 NOISY POWER BUS CURRENT		5605	40.3
A1-2 NOISY POWER BUS CURRENT		5349	38.2

JUL 1 4 1998
7A 197

10-10-10 CAL MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197
JUL 1 4 1998

SUPPORT DATA FOR ... A1 S/N 202 S/O 298561
1st CPT

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DS   A1-03 E1.EXE;35 GSE MODE 2 BP 1   P1 14-JUL-98 00:37:21  SCAN NUMBER   286
 5 ] SCIENCE   DATA  ELEMENT 0000

 6 ] CONTROL/STATUS  ELEMENT   00

 7 ] ENGINEERING     ELEMENT   00

                        COMMANDS        PLLO POWER =              PLLO#1 [ 15 ]

 9 ]  SCANNER A1-1 POWER =        ON    COLD CAL POSITION 1 =        YES [ 16 ]

 10 ] SCANNER A1-2 POWER =        ON                      2 =        NO  [ 17 ]

 11 ] ANTENNA FULL SCAN MODE =    NO                      3 =        NO  [ 18 ]

 12 ]          WARM CAL      =    NO    COLD CAL POSITION 4 =        NO  [ 19 ]

 13 ]          COLD CAL      =    NO    RESET C&DH PROCESSOR             [ 20 ]

 14 ]          NADIR         =    NO    GSE MODE                         [ 21 ]

NGR OK         POWER   ON    CHECKSUM  IN A52B CALC A52B   SA28   538 SA29  1076
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
SELECT BUTTON 3
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JUL 14 1998

LEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	GSE #2 SAMPLE 17 CH 8	16544
2		00000011	574	CH 9	16521
3	PACKET LENGTH	00000010	576	CH 10	16481
4		10111111	578	CH 11	16139
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16444
6		01000000	582	CH 13	16219
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16680
8		00000000	586	CH 15	16225
10	REFLECTOR 1 POSITION 1	14520	588	REFLECTOR 1 POSITION 18	14519
12	REFLECTOR 2 POSITION 1	14164	590	REFLECTOR 2 POSITION 18	14164
14	REFL 1 POS 1 2ND LOOK	14519	592	REFL 1 POS 18 2ND LOOK	14519
16	REFL 2 POS 1 2ND LOOK	14164	594	REFL 2 POS 18 2ND LOOK	14164
18	GSE #2 SAMPLE 1 CH 3	15849	596	GSE #2 SAMPLE 18 CH 3	15845
20	CH 4	16209	598	CH 4	16211
22	CH 5	16527	600	CH 5	16525
24	CH 6	16909	602	CH 6	16915
26	CH 7	15971	604	CH 7	15970
28	CH 8	16539	606	CH 8	16539
30	CH 9	16518	608	CH 9	16521
32	CH 10	16473	610	CH 10	16475
34	CH 11	16136	612	CH 11	16138
36	CH 12	16437	614	CH 12	16441
38	CH 13	16223	616	CH 13	16210
40	CH 14	16669	618	CH 14	16689
42	CH 15	16222	620	CH 15	16224
44	REFLECTOR 1 POSITION 2	14520	622	REFLECTOR 1 POSITION 19	14519
46	REFLECTOR 2 POSITION 2	14164	624	REFLECTOR 2 POSITION 19	14164
48	REFL 1 POS 2 2ND LOOK	14519	626	REFL 1 POS 19 2ND LOOK	14519
50	REFL 2 POS 2 2ND LOOK	14164	628	REFL 2 POS 19 2ND LOOK	14164
52	GSE #2 SAMPLE 2 CH 3	15847	630	GSE #2 SAMPLE 19 CH 3	15843
54	CH 4	16211	632	CH 4	16213
56	CH 5	16530	634	CH 5	16527
58	CH 6	16906	636	CH 6	16914
60	CH 7	15973	638	CH 7	15974
62	CH 8	16540	640	CH 8	16540
64	CH 9	16521	642	CH 9	16518
66	CH 10	16472	644	CH 10	16479
68	CH 11	16142	646	CH 11	16142
70	CH 12	16445	648	CH 12	16437
72	CH 13	16214	650	CH 13	16223
74	CH 14	16671	652	CH 14	16676
76	CH 15	16224	654	CH 15	16221
78	REFLECTOR 1 POSITION 3	14520	656	REFLECTOR 1 POSITION 20	14519
80	REFLECTOR 2 POSITION 3	14164	658	REFLECTOR 2 POSITION 20	14164
82	REFL 1 POS 3 2ND LOOK	14519	660	REFL 1 POS 20 2ND LOOK	14520
84	REFL 2 POS 3 2ND LOOK	14164	662	REFL 2 POS 20 2ND LOOK	14164
86	GSE #2 SAMPLE 3 CH 3	15845	664	GSE #2 SAMPLE 20 CH 3	15848
88	CH 4	16210	666	CH 4	16211
90	CH 5	16525	668	CH 5	16527
92	CH 6	16907	670	CH 6	16910

7A 197
JUL 1 4 1998

LEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15970	672	CH 7	15972
96	CH 8	16541	674	CH 8	16543
98	CH 9	16518	676	CH 9	16520
100	CH 10	16468	678	CH 10	16471
102	CH 11	16146	680	CH 11	16134
104	CH 12	16436	682	CH 12	16446
106	CH 13	16225	684	CH 13	16230
108	CH 14	16685	686	CH 14	16683
110	CH 15	16223	688	CH 15	16224
112	REFLECTOR 1 POSITION 4	14519	690	REFLECTOR 1 POSITION 21	14519
114	REFLECTOR 2 POSITION 4	14164	692	REFLECTOR 2 POSITION 21	14164
116	REFL 1 POS 4 2ND LOOK	14520	694	REFL 1 POS 21 2ND LOOK	14520
118	REFL 2 POS 4 2ND LOOK	14164	696	REFL 2 POS 21 2ND LOOK	14164
120	GSE #2 SAMPLE 4 CH 3	15855	698	GSE #2 SAMPLE 21 CH 3	15845
122	CH 4	16211	700	CH 4	16214
124	CH 5	16529	702	CH 5	16528
126	CH 6	16913	704	CH 6	16913
128	CH 7	15971	706	CH 7	15971
130	CH 8	16535	708	CH 8	16540
132	CH 9	16519	710	CH 9	16518
134	CH 10	16474	712	CH 10	16474
136	CH 11	16142	714	CH 11	16137
138	CH 12	16441	716	CH 12	16439
140	CH 13	16215	718	CH 13	16221
142	CH 14	16676	720	CH 14	16669
144	CH 15	16223	722	CH 15	16225
146	REFLECTOR 1 POSITION 5	14519	724	REFLECTOR 1 POSITION 22	14519
148	REFLECTOR 2 POSITION 5	14164	726	REFLECTOR 2 POSITION 22	14164
150	REFL 1 POS 5 2ND LOOK	14520	728	REFL 1 POS 22 2ND LOOK	14520
152	REFL 2 POS 5 2ND LOOK	14164	730	REFL 2 POS 22 2ND LOOK	14164
154	GSE #2 SAMPLE 5 CH 3	15846	732	GSE #2 SAMPLE 22 CH 3	15852
156	CH 4	16214	734	CH 4	16210
158	CH 5	16526	736	CH 5	16528
160	CH 6	16911	738	CH 6	16913
162	CH 7	15971	740	CH 7	15971
164	CH 8	16539	742	CH 8	16541
166	CH 9	16519	744	CH 9	16520
168	CH 10	16476	746	CH 10	16475
170	CH 11	16137	748	CH 11	16139
172	CH 12	16440	750	CH 12	16442
174	CH 13	16216	752	CH 13	16226
176	CH 14	16646	754	CH 14	16658
178	CH 15	16220	756	CH 15	16223
180	REFLECTOR 1 POSITION 6	14519	758	REFLECTOR 1 POSITION 23	14520
182	REFLECTOR 2 POSITION 6	14164	760	REFLECTOR 2 POSITION 23	14164
184	REFL 1 POS 6 2ND LOOK	14520	762	REFL 1 POS 23 2ND LOOK	14519
186	REFL 2 POS 6 2ND LOOK	14164	764	REFL 2 POS 23 2ND LOOK	14164
188	GSE #2 SAMPLE 6 CH 3	15848	766	GSE #2 SAMPLE 23 CH 3	15845
190	CH 4	16211	768	CH 4	16209
192	CH 5	16527	770	CH 5	16527

JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16911	772	CH 6	16910
196	CH 7	15971	774	CH 7	15973
198	CH 8	16542	776	CH 8	16536
200	CH 9	16525	778	CH 9	16519
202	CH 10	16473	780	CH 10	16475
204	CH 11	16140	782	CH 11	16135
206	CH 12	16443	784	CH 12	16435
208	CH 13	16216	786	CH 13	16218
210	CH 14	16689	788	CH 14	16680
212	CH 15	16222	790	CH 15	16223
214	REFLECTOR 1 POSITION 7	14519	792	REFLECTOR 1 POSITION 24	14520
216	REFLECTOR 2 POSITION 7	14164	794	REFLECTOR 2 POSITION 24	14164
218	REFL 1 POS 7 2ND LOOK	14519	796	REFL 1 POS 24 2ND LOOK	14519
220	REFL 2 POS 7 2ND LOOK	14164	798	REFL 2 POS 24 2ND LOOK	14164
222	GSE #2 SAMPLE 7 CH 3	15846	800	GSE #2 SAMPLE 24 CH 3	15847
224	CH 4	16210	802	CH 4	16211
226	CH 5	16529	804	CH 5	16528
228	CH 6	16909	806	CH 6	16912
230	CH 7	15973	808	CH 7	15972
232	CH 8	16542	810	CH 8	16540
234	CH 9	16519	812	CH 9	16520
236	CH 10	16475	814	CH 10	16478
238	CH 11	16143	816	CH 11	16138
240	CH 12	16443	818	CH 12	16438
242	CH 13	16226	820	CH 13	16206
244	CH 14	16694	822	CH 14	16675
246	CH 15	16225	824	CH 15	16224
248	REFLECTOR 1 POSITION 8	14520	826	REFLECTOR 1 POSITION 25	14520
250	REFLECTOR 2 POSITION 8	14164	828	REFLECTOR 2 POSITION 25	14164
252	REFL 1 POS 8 2ND LOOK	14519	830	REFL 1 POS 25 2ND LOOK	14519
254	REFL 2 POS 8 2ND LOOK	14164	832	REFL 2 POS 25 2ND LOOK	14164
256	GSE #2 SAMPLE 8 CH 3	15852	834	GSE #2 SAMPLE 25 CH 3	15850
258	CH 4	16208	836	CH 4	16211
260	CH 5	16523	838	CH 5	16527
262	CH 6	16915	840	CH 6	16909
264	CH 7	15970	842	CH 7	15969
266	CH 8	16543	844	CH 8	16541
268	CH 9	16520	846	CH 9	16518
270	CH 10	16478	848	CH 10	16475
272	CH 11	16146	850	CH 11	16141
274	CH 12	16439	852	CH 12	16437
276	CH 13	16220	854	CH 13	16215
278	CH 14	16676	856	CH 14	16677
280	CH 15	16222	858	CH 15	16222
282	REFLECTOR 1 POSITION 9	14520	860	REFLECTOR 1 POSITION 26	14519
284	REFLECTOR 2 POSITION 9	14164	862	REFLECTOR 2 POSITION 26	14164
286	REFL 1 POS 9 2ND LOOK	14519	864	REFL 1 POS 26 2ND LOOK	14519
288	REFL 2 POS 9 2ND LOOK	14164	866	REFL 2 POS 26 2ND LOOK	14164
290	GSE #2 SAMPLE 9 CH 3	15852	868	GSE #2 SAMPLE 26 CH 3	15848
292	CH 4	16210	870	CH 4	16209

7A 197

JUL 14

GSE MODE 2 BP 1

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16528	872	CH 5	16527
296	CH 6	16911	874	CH 6	16915
298	CH 7	15969	876	CH 7	15968
300	CH 8	16538	878	CH 8	16543
302	CH 9	16521	880	CH 9	16521
304	CH 10	16474	882	CH 10	16469
306	CH 11	16144	884	CH 11	16135
308	CH 12	16435	886	CH 12	16432
310	CH 13	16217	888	CH 13	16223
312	CH 14	16665	890	CH 14	16672
314	CH 15	16225	892	CH 15	16224
316	REFLECTOR 1 POSITION 10	14519	894	REFLECTOR 1 POSITION 27	14519
318	REFLECTOR 2 POSITION 10	14164	896	REFLECTOR 2 POSITION 27	14164
320	REFL 1 POS 10 2ND LOOK	14519	898	REFL 1 POS 27 2ND LOOK	14520
322	REFL 2 POS 10 2ND LOOK	14164	900	REFL 2 POS 27 2ND LOOK	14164
324	GSE #2 SAMPLE 10 CH 3	15846	902	GSE #2 SAMPLE 27 CH 3	15849
326	CH 4	16208	904	CH 4	16211
328	CH 5	16526	906	CH 5	16531
330	CH 6	16911	908	CH 6	16908
332	CH 7	15974	910	CH 7	15974
334	CH 8	16544	912	CH 8	16540
336	CH 9	16519	914	CH 9	16519
338	CH 10	16475	916	CH 10	16474
340	CH 11	16138	918	CH 11	16136
342	CH 12	16446	920	CH 12	16431
344	CH 13	16228	922	CH 13	16215
346	CH 14	16682	924	CH 14	16685
348	CH 15	16224	926	CH 15	16224
350	REFLECTOR 1 POSITION 11	14519	928	REFLECTOR 1 POSITION 28	14519
352	REFLECTOR 2 POSITION 11	14164	930	REFLECTOR 2 POSITION 28	14164
354	REFL 1 POS 11 2ND LOOK	14519	932	REFL 1 POS 28 2ND LOOK	14520
356	REFL 2 POS 11 2ND LOOK	14164	934	REFL 2 POS 28 2ND LOOK	14164
358	GSE #2 SAMPLE 11 CH 3	15848	936	GSE #2 SAMPLE 28 CH 3	15850
360	CH 4	16209	938	CH 4	16210
362	CH 5	16526	940	CH 5	16534
364	CH 6	16910	942	CH 6	16906
366	CH 7	15971	944	CH 7	15974
368	CH 8	16545	946	CH 8	16540
370	CH 9	16521	948	CH 9	16522
372	CH 10	16472	950	CH 10	16473
374	CH 11	16140	952	CH 11	16143
376	CH 12	16445	954	CH 12	16437
378	CH 13	16223	956	CH 13	16218
380	CH 14	16680	958	CH 14	16693
382	CH 15	16224	960	CH 15	16223
384	REFLECTOR 1 POSITION 12	14519	962	REFLECTOR 1 POSITION 29	14519
386	REFLECTOR 2 POSITION 12	14164	964	REFLECTOR 2 POSITION 29	14164
388	REFL 1 POS 12 2ND LOOK	14520	966	REFL 1 POS 29 2ND LOOK	14520
390	REFL 2 POS 12 2ND LOOK	14164	968	REFL 2 POS 29 2ND LOOK	14164
392	GSE #2 SAMPLE 12 CH 3	15843	970	GSE #2 SAMPLE 29 CH 3	15844

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16209	972	CH 4	16213
396	CH 5	16527	974	CH 5	16527
398	CH 6	16912	976	CH 6	16907
400	CH 7	15970	978	CH 7	15973
402	CH 8	16543	980	CH 8	16540
404	CH 9	16519	982	CH 9	16517
406	CH 10	16476	984	CH 10	16474
408	CH 11	16136	986	CH 11	16137
410	CH 12	16439	988	CH 12	16441
412	CH 13	16217	990	CH 13	16219
414	CH 14	16670	992	CH 14	16674
416	CH 15	16223	994	CH 15	16224
418	REFLECTOR 1 POSITION 13	14519	996	REFLECTOR 1 POSITION 30	14520
420	REFLECTOR 2 POSITION 13	14164	998	REFLECTOR 2 POSITION 30	14164
422	REFL 1 POS 13 2ND LOOK	14520	1000	REFL 1 POS 30 2ND LOOK	14519
424	REFL 2 POS 13 2ND LOOK	14164	1002	REFL 2 POS 30 2ND LOOK	14164
426	GSE #2 SAMPLE 13 CH 3	15849	1004	GSE #2 SAMPLE 30 CH 3	15845
428	CH 4	16212	1006	CH 4	16211
430	CH 5	16528	1008	CH 5	16528
432	CH 6	16915	1010	CH 6	16905
434	CH 7	15970	1012	CH 7	15967
436	CH 8	16540	1014	CH 8	16539
438	CH 9	16517	1016	CH 9	16516
440	CH 10	16474	1018	CH 10	16476
442	CH 11	16143	1020	CH 11	16142
444	CH 12	16438	1022	CH 12	16440
446	CH 13	16223	1024	CH 13	16215
448	CH 14	16670	1026	CH 14	16675
450	CH 15	16223	1028	CH 15	16224
452	REFLECTOR 1 POSITION 14	14519	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	14164	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	14520	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	14164	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	GSE #2 SAMPLE 14 CH 3	15847	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16212	1040	CH 4	0
464	CH 5	16525	1042	CH 5	0
466	CH 6	16911	1044	CH 6	0
468	CH 7	15969	1046	CH 7	0
470	CH 8	16541	1048	CH 8	0
472	CH 9	16521	1050	CH 9	0
474	CH 10	16472	1052	CH 10	0
476	CH 11	16141	1054	CH 11	0
478	CH 12	16443	1056	CH 12	0
480	CH 13	16221	1058	CH 13	0
482	CH 14	16673	1060	CH 14	0
484	CH 15	16222	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	14520	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	14164	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	14519	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	14164	1070	CH 6	0

7A 197 JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	GSE #2 SAMPLE 15 CH 3	15852	1072	CH 7	0
496	CH 4	16210	1074	CH 8	0
498	CH 5	16530	1076	CH 9	0
500	CH 6	16912	1078	CH 10	0
502	CH 7	15974	1080	CH 11	0
504	CH 8	16543	1082	CH 12	0
506	CH 9	16520	1084	CH 13	0
508	CH 10	16480	1086	CH 14	0
510	CH 11	16141	1088	CH 15	0
512	CH 12	16440	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16220	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16678	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16225	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	14520	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	14164	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	14519	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	14164	1196	CH 6	0
528	GSE #2 SAMPLE 16 CH 3	15847	1198	CH 7	0
530	CH 4	16211	1200	CH 8	0
532	CH 5	16526	1202	CH 9	0
534	CH 6	16910	1204	CH 10	0
536	CH 7	15971	1206	CH 11	0
538	CH 8	16541	1208	CH 12	0
540	CH 9	16521	1210	CH 13	0
542	CH 10	16476	1212	CH 14	0
544	CH 11	16143	1214	CH 15	0
546	CH 12	16450	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16213	1218	CH 4	0
550	CH 14	16664	1220	CH 5	0
552	CH 15	16222	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	14520	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	14164	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	14519	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	14164	1230	CH 10	0
562	GSE #2 SAMPLE 17 CH 3	15849	1232	CH 11	0
564	CH 4	16209	1234	CH 12	0
566	CH 5	16530	1236	CH 13	0
568	CH 6	16909	1238	CH 14	0
570	CH 7	15969	1240	CH 15	0

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18761	24.37
1092	SCAN MOTOR A1-2	19893	25.82
1094	FEED HORN A1-1	20758	28.52
1096	FEED HORN A1-2	21917	30.79
1098	RF MUX A1-1	22709	32.12
1100	RF MUX A1-2	24139	35.02
1102	LOCAL OSCILLATOR CHANNEL 3	25221	37.34
1104	LOCAL OSCILLATOR CHANNEL 4	25655	37.50
1106	LOCAL OSCILLATOR CHANNEL 5	24331	35.57
1108	LOCAL OSCILLATOR CHANNEL 6	23063	32.18
1110	LOCAL OSCILLATOR CHANNEL 7	23379	33.52
1112	LOCAL OSCILLATOR CHANNEL 8	25048	36.82
1114	LOCAL OSCILLATOR CHANNEL 15	24331	34.97
1116	PLLO #2	22685	32.10
1118	PLLO #1	25567	37.74
1120	1553 INTERFACE	18610	37.23
1122	MIXER/IF AMPLIFIER CHANNEL 3	24445	35.57
1124	MIXER/IF AMPLIFIER CHANNEL 4	24616	35.39
1126	MIXER/IF AMPLIFIER CHANNEL 5	24221	35.03
1128	MIXER/IF AMPLIFIER CHANNEL 6	23008	32.69
1130	MIXER/IF AMPLIFIER CHANNEL 7	23005	33.25
1132	MIXER/IF AMPLIFIER CHANNEL 8	24571	35.66
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22452	31.85
1136	MIXER/IF AMPLIFIER CHANNEL 15	24234	35.30
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23959	34.57
1140	IF AMPLIFIER CHANNEL 9	24122	34.79
1142	IF AMPLIFIER CHANNEL 10	23986	34.79
1144	IF AMPLIFIER CHANNEL 11	23085	32.19
1146	DC/DC CONVERTER	25581	37.16
1148	IF AMPLIFIER CHANNEL 13	22666	31.49
1150	IF AMPLIFIER CHANNEL 14	23030	32.65
1152	IF AMPLIFIER CHANNEL 12	22841	32.07
1154	RF SHELF A1-1	23426	33.49
1156	RF SHELF A1-2	24294	34.55
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21215	29.25
1160	A1-1 WARM LOAD 1	24084	25.15
1162	A1-1 WARM LOAD 2	24574	25.25
1164	A1-1 WARM LOAD 3	24074	25.28
1166	A1-1 WARM LOAD 4	24153	25.25
1168	A1-1 WARM LOAD CENTER	24354	25.28
1170	A1-2 WARM LOAD 1	25158	26.74
1172	A1-2 WARM LOAD 2	25216	26.76
1174	A1-2 WARM LOAD 3	25241	26.78
1176	A1-2 WARM LOAD 4	25226	26.66
1178	A1-2 WARM LOAD CENTER	25234	26.76
1180	TEMP SENSOR REFERENCE VOLTAGE	25268	

7A 197

JUL 1 4 1998

GSE MODE 2 BP 1

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION			VALUE	AMPS/VOLTS
SIGNAL PROCESSOR		+5 VDC	22076	4.9
		+15 VDC	21838	15.1
		-15 VDC	21798	-15.0
SCAN DRIVE		+5 VDC	22143	5.0
		+15 VDC	22130	15.1
		-15 VDC	21837	-14.8
PLO		+15 VDC	22451	14.9
		-15 VDC	22074	-15.2
RECEIVER		+8 VDC	21807	7.9
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21415	10.0
	A1-2	+10 VDC	21433	10.0
LO CHANNEL	6	+10 VDC	21391	10.0
	7	+10 VDC	21456	10.0
SPARE			32767	0.0
LO CHANNEL	3	+10 VDC	21268	10.1
	4	+10 VDC	21199	10.1
	5	+10 VDC	21343	10.0
	8	+10 VDC	21326	10.0
	15	+15 VDC	22033	15.0
QUIET BUS CURRENT			16602	2291.3
A1-1 NOISY POWER BUS CURRENT			306	10.9
A1-2 NOISY POWER BUS CURRENT			264	10.5

7A 197
JUL 14 1998

GSE MODE 2 BP 1

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

7A 197
JUL 1 4 1998

SUPPORT DATA FOR TDS 10 EOS A1 S/N 202 P/N 1356361
1st CPT

```
EOS   A1-03 E1.EXE;35 GSE MODE 3 8 SEC  P1 14-JUL-98 00:39:30  SCAN NUMBER   302
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                        COMMANDS        PLLO POWER =                PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =     ON      COLD CAL POSITION 1 =         YES   [ 16 ]

[ 10 ] SCANNER A1-2 POWER =     ON                        2 =         NO    [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE = NO                        3 =         NO    [ 18 ]

[ 12 ]         WARM CAL     =   NO      COLD CAL POSITION 4 =         NO    [ 19 ]

[ 13 ]         COLD CAL     =   NO      RESET C&DH PROCESSOR                [ 20 ]

[ 14 ]         NADIR        =   NO      GSE MODE                            [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN B341 CALC B341   SA28    555 SA29  1110
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
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7A 197

JUL 1 4 1998

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:39:38 PAGE 1

GSE MODE 3

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	GSE #3 SAMPLE 17 CH 8	16544
2		00000011	574	CH 9	16498
3	PACKET LENGTH	00000010	576	CH 10	16456
4		10111111	578	CH 11	16123
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16422
6		01100000	582	CH 13	16187
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16638
8		00000000	586	CH 15	16216
10	REFLECTOR 1 POSITION 1	14671	588	REFLECTOR 1 POSITION 18	14671
12	REFLECTOR 2 POSITION 1	14320	590	REFLECTOR 2 POSITION 18	14320
14	REFL 1 POS 1 2ND LOOK	14671	592	REFL 1 POS 18 2ND LOOK	14671
16	REFL 2 POS 1 2ND LOOK	14320	594	REFL 2 POS 18 2ND LOOK	14320
18	GSE #3 SAMPLE 1 CH 3	15851	596	GSE #3 SAMPLE 18 CH 3	15847
20	CH 4	16210	598	CH 4	16210
22	CH 5	16527	600	CH 5	16528
24	CH 6	16897	602	CH 6	16898
26	CH 7	15962	604	CH 7	15959
28	CH 8	16538	606	CH 8	16541
30	CH 9	16501	608	CH 9	16501
32	CH 10	16452	610	CH 10	16455
34	CH 11	16116	612	CH 11	16122
36	CH 12	16423	614	CH 12	16414
38	CH 13	16206	616	CH 13	16200
40	CH 14	16661	618	CH 14	16653
42	CH 15	16215	620	CH 15	16215
44	REFLECTOR 1 POSITION 2	14671	622	REFLECTOR 1 POSITION 19	14671
46	REFLECTOR 2 POSITION 2	14320	624	REFLECTOR 2 POSITION 19	14320
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	14671
50	REFL 2 POS 2 2ND LOOK	14320	628	REFL 2 POS 19 2ND LOOK	14319
52	GSE #3 SAMPLE 2 CH 3	15844	630	GSE #3 SAMPLE 19 CH 3	15847
54	CH 4	16208	632	CH 4	16209
56	CH 5	16526	634	CH 5	16525
58	CH 6	16895	636	CH 6	16895
60	CH 7	15965	638	CH 7	15964
62	CH 8	16541	640	CH 8	16545
64	CH 9	16501	642	CH 9	16505
66	CH 10	16453	644	CH 10	16452
68	CH 11	16119	646	CH 11	16121
70	CH 12	16427	648	CH 12	16420
72	CH 13	16204	650	CH 13	16209
74	CH 14	16637	652	CH 14	16656
76	CH 15	16214	654	CH 15	16216
78	REFLECTOR 1 POSITION 3	14671	656	REFLECTOR 1 POSITION 20	14671
80	REFLECTOR 2 POSITION 3	14320	658	REFLECTOR 2 POSITION 20	14320
82	REFL 1 POS 3 2ND LOOK	14671	660	REFL 1 POS 20 2ND LOOK	14671
84	REFL 2 POS 3 2ND LOOK	14320	662	REFL 2 POS 20 2ND LOOK	14320
86	GSE #3 SAMPLE 3 CH 3	15848	664	GSE #3 SAMPLE 20 CH 3	15847
88	CH 4	16209	666	CH 4	16213
90	CH 5	16526	668	CH 5	16523
92	CH 6	16896	670	CH 6	16896

JUL 1 4 1998

A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15961	672	CH 7	15964
96	CH 8	16544	674	CH 8	16546
98	CH 9	16500	676	CH 9	16501
100	CH 10	16456	678	CH 10	16458
102	CH 11	16118	680	CH 11	16116
104	CH 12	16423	682	CH 12	16418
106	CH 13	16199	684	CH 13	16192
108	CH 14	16659	686	CH 14	16641
110	CH 15	16216	688	CH 15	16216
112	REFLECTOR 1 POSITION 4	14671	690	REFLECTOR 1 POSITION 21	14671
114	REFLECTOR 2 POSITION 4	14320	692	REFLECTOR 2 POSITION 21	14320
116	REFL 1 POS 4 2ND LOOK	14671	694	REFL 1 POS 21 2ND LOOK	14671
118	REFL 2 POS 4 2ND LOOK	14319	696	REFL 2 POS 21 2ND LOOK	14320
120	GSE #3 SAMPLE 4 CH 3	15847	698	GSE #3 SAMPLE 21 CH 3	15848
122	CH 4	16208	700	CH 4	16206
124	CH 5	16528	702	CH 5	16528
126	CH 6	16899	704	CH 6	16892
128	CH 7	15962	706	CH 7	15960
130	CH 8	16542	708	CH 8	16544
132	CH 9	16503	710	CH 9	16502
134	CH 10	16456	712	CH 10	16461
136	CH 11	16115	714	CH 11	16119
138	CH 12	16414	716	CH 12	16419
140	CH 13	16207	718	CH 13	16202
142	CH 14	16671	720	CH 14	16632
144	CH 15	16215	722	CH 15	16215
146	REFLECTOR 1 POSITION 5	14671	724	REFLECTOR 1 POSITION 22	14671
148	REFLECTOR 2 POSITION 5	14320	726	REFLECTOR 2 POSITION 22	14320
150	REFL 1 POS 5 2ND LOOK	14671	728	REFL 1 POS 22 2ND LOOK	14671
152	REFL 2 POS 5 2ND LOOK	14320	730	REFL 2 POS 22 2ND LOOK	14320
154	GSE #3 SAMPLE 5 CH 3	15851	732	GSE #3 SAMPLE 22 CH 3	15845
156	CH 4	16211	734	CH 4	16209
158	CH 5	16527	736	CH 5	16529
160	CH 6	16899	738	CH 6	16899
162	CH 7	15965	740	CH 7	15962
164	CH 8	16544	742	CH 8	16541
166	CH 9	16500	744	CH 9	16501
168	CH 10	16452	746	CH 10	16453
170	CH 11	16121	748	CH 11	16119
172	CH 12	16419	750	CH 12	16417
174	CH 13	16214	752	CH 13	16197
176	CH 14	16661	754	CH 14	16647
178	CH 15	16215	756	CH 15	16215
180	REFLECTOR 1 POSITION 6	14671	758	REFLECTOR 1 POSITION 23	14671
182	REFLECTOR 2 POSITION 6	14320	760	REFLECTOR 2 POSITION 23	14320
184	REFL 1 POS 6 2ND LOOK	14671	762	REFL 1 POS 23 2ND LOOK	14671
186	REFL 2 POS 6 2ND LOOK	14320	764	REFL 2 POS 23 2ND LOOK	14320
188	GSE #3 SAMPLE 6 CH 3	15847	766	GSE #3 SAMPLE 23 CH 3	15844
190	CH 4	16209	768	CH 4	16205
192	CH 5	16529	770	CH 5	16525

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16893	772	CH 6	16894
196	CH 7	15964	774	CH 7	15964
198	CH 8	16544	776	CH 8	16545
200	CH 9	16503	778	CH 9	16499
202	CH 10	16454	780	CH 10	16455
204	CH 11	16120	782	CH 11	16116
206	CH 12	16422	784	CH 12	16425
208	CH 13	16200	786	CH 13	16208
210	CH 14	16655	788	CH 14	16661
212	CH 15	16217	790	CH 15	16215
214	REFLECTOR 1 POSITION 7	14671	792	REFLECTOR 1 POSITION 24	14671
216	REFLECTOR 2 POSITION 7	14319	794	REFLECTOR 2 POSITION 24	14320
218	REFL 1 POS 7 2ND LOOK	14671	796	REFL 1 POS 24 2ND LOOK	14671
220	REFL 2 POS 7 2ND LOOK	14320	798	REFL 2 POS 24 2ND LOOK	14319
222	GSE #3 SAMPLE 7 CH 3	15845	800	GSE #3 SAMPLE 24 CH 3	15848
224	CH 4	16210	802	CH 4	16208
226	CH 5	16525	804	CH 5	16526
228	CH 6	16893	806	CH 6	16896
230	CH 7	15961	808	CH 7	15965
232	CH 8	16542	810	CH 8	16541
234	CH 9	16502	812	CH 9	16502
236	CH 10	16462	814	CH 10	16459
238	CH 11	16119	816	CH 11	16119
240	CH 12	16425	818	CH 12	16424
242	CH 13	16206	820	CH 13	16192
244	CH 14	16650	822	CH 14	16661
246	CH 15	16217	824	CH 15	16215
248	REFLECTOR 1 POSITION 8	14671	826	REFLECTOR 1 POSITION 25	14671
250	REFLECTOR 2 POSITION 8	14320	828	REFLECTOR 2 POSITION 25	14320
252	REFL 1 POS 8 2ND LOOK	14671	830	REFL 1 POS 25 2ND LOOK	14671
254	REFL 2 POS 8 2ND LOOK	14320	832	REFL 2 POS 25 2ND LOOK	14320
256	GSE #3 SAMPLE 8 CH 3	15851	834	GSE #3 SAMPLE 25 CH 3	15843
258	CH 4	16208	836	CH 4	16210
260	CH 5	16525	838	CH 5	16526
262	CH 6	16897	840	CH 6	16900
264	CH 7	15962	842	CH 7	15963
266	CH 8	16540	844	CH 8	16538
268	CH 9	16499	846	CH 9	16501
270	CH 10	16456	848	CH 10	16462
272	CH 11	16121	850	CH 11	16115
274	CH 12	16421	852	CH 12	16425
276	CH 13	16193	854	CH 13	16195
278	CH 14	16649	856	CH 14	16654
280	CH 15	16216	858	CH 15	16216
282	REFLECTOR 1 POSITION 9	14671	860	REFLECTOR 1 POSITION 26	14671
284	REFLECTOR 2 POSITION 9	14320	862	REFLECTOR 2 POSITION 26	14320
286	REFL 1 POS 9 2ND LOOK	14671	864	REFL 1 POS 26 2ND LOOK	14671
288	REFL 2 POS 9 2ND LOOK	14320	866	REFL 2 POS 26 2ND LOOK	14320
290	GSE #3 SAMPLE 9 CH 3	15848	868	GSE #3 SAMPLE 26 CH 3	15851
292	CH 4	16207	870	CH 4	16212

JUL 1 4 199

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16525	872	CH 5	16523
296	CH 6	16898	874	CH 6	16897
298	CH 7	15961	876	CH 7	15961
300	CH 8	16541	878	CH 8	16542
302	CH 9	16504	880	CH 9	16502
304	CH 10	16457	882	CH 10	16456
306	CH 11	16118	884	CH 11	16118
308	CH 12	16426	886	CH 12	16416
310	CH 13	16200	888	CH 13	16201
312	CH 14	16644	890	CH 14	16667
314	CH 15	16216	892	CH 15	16216
316	REFLECTOR 1 POSITION 10	14671	894	REFLECTOR 1 POSITION 27	14671
318	REFLECTOR 2 POSITION 10	14320	896	REFLECTOR 2 POSITION 27	14320
320	REFL 1 POS 10 2ND LOOK	14671	898	REFL 1 POS 27 2ND LOOK	14671
322	REFL 2 POS 10 2ND LOOK	14320	900	REFL 2 POS 27 2ND LOOK	14319
324	GSE #3 SAMPLE 10 CH 3	15849	902	GSE #3 SAMPLE 27 CH 3	15842
326	CH 4	16212	904	CH 4	16210
328	CH 5	16527	906	CH 5	16523
330	CH 6	16898	908	CH 6	16898
332	CH 7	15965	910	CH 7	15964
334	CH 8	16541	912	CH 8	16541
336	CH 9	16502	914	CH 9	16503
338	CH 10	16459	916	CH 10	16456
340	CH 11	16127	918	CH 11	16119
342	CH 12	16420	920	CH 12	16424
344	CH 13	16204	922	CH 13	16202
346	CH 14	16657	924	CH 14	16643
348	CH 15	16217	926	CH 15	16217
350	REFLECTOR 1 POSITION 11	14671	928	REFLECTOR 1 POSITION 28	14671
352	REFLECTOR 2 POSITION 11	14320	930	REFLECTOR 2 POSITION 28	14320
354	REFL 1 POS 11 2ND LOOK	14671	932	REFL 1 POS 28 2ND LOOK	14671
356	REFL 2 POS 11 2ND LOOK	14320	934	REFL 2 POS 28 2ND LOOK	14320
358	GSE #3 SAMPLE 11 CH 3	15847	936	GSE #3 SAMPLE 28 CH 3	15848
360	CH 4	16207	938	CH 4	16208
362	CH 5	16525	940	CH 5	16522
364	CH 6	16899	942	CH 6	16900
366	CH 7	15964	944	CH 7	15961
368	CH 8	16540	946	CH 8	16543
370	CH 9	16499	948	CH 9	16502
372	CH 10	16455	950	CH 10	16458
374	CH 11	16120	952	CH 11	16120
376	CH 12	16420	954	CH 12	16422
378	CH 13	16193	956	CH 13	16190
380	CH 14	16652	958	CH 14	16655
382	CH 15	16216	960	CH 15	16215
384	REFLECTOR 1 POSITION 12	14671	962	REFLECTOR 1 POSITION 29	14671
386	REFLECTOR 2 POSITION 12	14319	964	REFLECTOR 2 POSITION 29	14320
388	REFL 1 POS 12 2ND LOOK	14671	966	REFL 1 POS 29 2ND LOOK	14671
390	REFL 2 POS 12 2ND LOOK	14320	968	REFL 2 POS 29 2ND LOOK	14320
392	GSE #3 SAMPLE 12 CH 3	15844	970	GSE #3 SAMPLE 29 CH 3	15846

TA 197
JUL 14 1998

GSE MODE 3

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16206	972	CH 4	16209
396	CH 5	16524	974	CH 5	16525
398	CH 6	16898	976	CH 6	16899
400	CH 7	15961	978	CH 7	15965
402	CH 8	16540	980	CH 8	16540
404	CH 9	16502	982	CH 9	16502
406	CH 10	16457	984	CH 10	16458
408	CH 11	16117	986	CH 11	16118
410	CH 12	16415	988	CH 12	16426
412	CH 13	16178	990	CH 13	16208
414	CH 14	16645	992	CH 14	16673
416	CH 15	16214	994	CH 15	16215
418	REFLECTOR 1 POSITION 13	14671	996	REFLECTOR 1 POSITION 30	14671
420	REFLECTOR 2 POSITION 13	14320	998	REFLECTOR 2 POSITION 30	14320
422	REFL 1 POS 13 2ND LOOK	14671	1000	REFL 1 POS 30 2ND LOOK	14671
424	REFL 2 POS 13 2ND LOOK	14319	1002	REFL 2 POS 30 2ND LOOK	14320
426	GSE #3 SAMPLE 13 CH 3	15849	1004	GSE #3 SAMPLE 30 CH 3	15850
428	CH 4	16211	1006	CH 4	16210
430	CH 5	16525	1008	CH 5	16525
432	CH 6	16898	1010	CH 6	16894
434	CH 7	15963	1012	CH 7	15962
436	CH 8	16540	1014	CH 8	16543
438	CH 9	16501	1016	CH 9	16505
440	CH 10	16458	1018	CH 10	16454
442	CH 11	16118	1020	CH 11	16126
444	CH 12	16426	1022	CH 12	16426
446	CH 13	16192	1024	CH 13	16195
448	CH 14	16658	1026	CH 14	16673
450	CH 15	16217	1028	CH 15	16215
452	REFLECTOR 1 POSITION 14	14671	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	14320	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	14671	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	14320	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	GSE #3 SAMPLE 14 CH 3	15843	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16210	1040	CH 4	0
464	CH 5	16527	1042	CH 5	0
466	CH 6	16897	1044	CH 6	0
468	CH 7	15960	1046	CH 7	0
470	CH 8	16541	1048	CH 8	0
472	CH 9	16501	1050	CH 9	0
474	CH 10	16459	1052	CH 10	0
476	CH 11	16118	1054	CH 11	0
478	CH 12	16425	1056	CH 12	0
480	CH 13	16197	1058	CH 13	0
482	CH 14	16647	1060	CH 14	0
484	CH 15	16214	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	14671	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	14319	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	14671	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	14320	1070	CH 6	0

TA 197 JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	GSE #3 SAMPLE 15 CH 3	15846	1072	CH 7	0
496	CH 4	16212	1074	CH 8	0
498	CH 5	16527	1076	CH 9	0
500	CH 6	16891	1078	CH 10	0
502	CH 7	15961	1080	CH 11	0
504	CH 8	16540	1082	CH 12	0
506	CH 9	16501	1084	CH 13	0
508	CH 10	16454	1086	CH 14	0
510	CH 11	16124	1088	CH 15	0
512	CH 12	16414	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16207	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16672	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16216	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	14671	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	14319	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	14671	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	14319	1196	CH 6	0
528	GSE #3 SAMPLE 16 CH 3	15843	1198	CH 7	0
530	CH 4	16208	1200	CH 8	0
532	CH 5	16524	1202	CH 9	0
534	CH 6	16894	1204	CH 10	0
536	CH 7	15963	1206	CH 11	0
538	CH 8	16545	1208	CH 12	0
540	CH 9	16505	1210	CH 13	0
542	CH 10	16457	1212	CH 14	0
544	CH 11	16123	1214	CH 15	0
546	CH 12	16422	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16187	1218	CH 4	0
550	CH 14	16651	1220	CH 5	0
552	CH 15	16214	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	14671	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	14320	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	14671	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	14320	1230	CH 10	0
562	GSE #3 SAMPLE 17 CH 3	15847	1232	CH 11	0
564	CH 4	16207	1234	CH 12	0
566	CH 5	16525	1236	CH 13	0
568	CH 6	16896	1238	CH 14	0
570	CH 7	15962	1240	CH 15	0

JUL 1 4 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18750	24.35
1092	SCAN MOTOR A1-2	19888	25.82
1094	FEED HORN A1-1	20771	28.54
1096	FEED HORN A1-2	21934	30.82
1098	RF MUX A1-1	22736	32.17
1100	RF MUX A1-2	24172	35.09
1102	LOCAL OSCILLATOR CHANNEL 3	25251	37.39
1104	LOCAL OSCILLATOR CHANNEL 4	25688	37.56
1106	LOCAL OSCILLATOR CHANNEL 5	24356	35.62
1108	LOCAL OSCILLATOR CHANNEL 6	23085	32.22
1110	LOCAL OSCILLATOR CHANNEL 7	23406	33.57
1112	LOCAL OSCILLATOR CHANNEL 8	25087	36.90
1114	LOCAL OSCILLATOR CHANNEL 15	24358	35.02
1116	PLLO #2	22713	32.16
1118	PLLO #1	25593	37.79
1120	1553 INTERFACE	18638	37.28
1122	MIXER/IF AMPLIFIER CHANNEL 3	24479	35.63
1124	MIXER/IF AMPLIFIER CHANNEL 4	24650	35.46
1126	MIXER/IF AMPLIFIER CHANNEL 5	24252	35.09
1128	MIXER/IF AMPLIFIER CHANNEL 6	23036	32.75
1130	MIXER/IF AMPLIFIER CHANNEL 7	23034	33.30
1132	MIXER/IF AMPLIFIER CHANNEL 8	24606	35.73
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22479	31.90
1136	MIXER/IF AMPLIFIER CHANNEL 15	24260	35.35
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23987	34.63
1140	IF AMPLIFIER CHANNEL 9	24149	34.85
1142	IF AMPLIFIER CHANNEL 10	24014	34.85
1144	IF AMPLIFIER CHANNEL 11	23112	32.24
1146	DC/DC CONVERTER	25599	37.20
1148	IF AMPLIFIER CHANNEL 13	22694	31.55
1150	IF AMPLIFIER CHANNEL 14	23059	32.70
1152	IF AMPLIFIER CHANNEL 12	22870	32.13
1154	RF SHELF A1-1	23452	33.54
1156	RF SHELF A1-2	24329	34.62
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21233	29.28
1160	A1-1 WARM LOAD 1	24093	25.17
1162	A1-1 WARM LOAD 2	24584	25.27
1164	A1-1 WARM LOAD 3	24085	25.31
1166	A1-1 WARM LOAD 4	24164	25.28
1168	A1-1 WARM LOAD CENTER	24365	25.30
1170	A1-2 WARM LOAD 1	25179	26.78
1172	A1-2 WARM LOAD 2	25237	26.80
1174	A1-2 WARM LOAD 3	25262	26.83
1176	A1-2 WARM LOAD 4	25252	26.71
1178	A1-2 WARM LOAD CENTER	25255	26.80
1180	TEMP SENSOR REFERENCE VOLTAGE	25268	

7A 197
JUL 1 4 1998

GSE MODE 3

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION			VALUE	AMPS/VOLTS
SIGNAL PROCESSOR		+5 VDC	22059	4.9
		+15 VDC	21837	15.1
		-15 VDC	21800	-15.0
SCAN DRIVE		+5 VDC	22196	4.9
		+15 VDC	22221	14.9
		-15 VDC	21844	-15.1
PLO		+15 VDC	22452	14.8
		-15 VDC	22072	-15.2
RECEIVER		+8 VDC	21806	7.9
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21413	10.0
	A1-2	+10 VDC	21432	10.0
LO CHANNEL	6	+10 VDC	21392	10.0
	7	+10 VDC	21474	10.0
SPARE			32767	0.0
LO CHANNEL	3	+10 VDC	21264	10.1
	4	+10 VDC	21199	10.1
	5	+10 VDC	21341	10.0
	8	+10 VDC	21326	10.0
	15	+15 VDC	22032	15.0
QUIET BUS CURRENT			16641	2279.9
A1-1 NOISY POWER BUS CURRENT			786	2.5
A1-2 NOISY POWER BUS CURRENT			717	2.3

JUL 14 1998 7A 197

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 1 4 1998
7A 197

SUPPORT DATA FOR TBS 10 EOS A1 S/N 202 P/N 1356
1st CPT

```
EOS   A1-03 E1.EXE;35 GSE MODE 4 BP 30  P1 14-JUL-98 00:41:45  SCAN NUMBER   319
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT    00

[ 7 ] ENGINEERING     ELEMENT    00

                         COMMANDS         PLLO POWER =               PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =       ON      COLD CAL POSITION 1 =        YES  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =       ON                        2 =         NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =   NO                        3 =         NO  [ 18 ]

[ 12 ]          WARM CAL      =   NO      COLD CAL POSITION 4 =         NO  [ 19 ]

[ 13 ]          COLD CAL      =   NO      RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]          NADIR         =   NO      GSE MODE                          [ 21 ]

ENGR OK         POWER    ON    CHECKSUM  IN 3547 CALC 3547   SA28   572 SA29  1143
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 3
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7A 197

JUL 14 2000

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:41:52 PAGE 1

GSE MODE 4 BP 30

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	GSE #4 SAMPLE 17 CH 8	16537
2		00000011	574	CH 9	16569
3	PACKET LENGTH	00000010	576	CH 10	16522
4		10111111	578	CH 11	16175
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16486
6		10000000	582	CH 13	16260
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16715
8		00000000	586	CH 15	16220
10	REFLECTOR 1 POSITION 1	2535	588	REFLECTOR 1 POSITION 18	2535
12	REFLECTOR 2 POSITION 1	2189	590	REFLECTOR 2 POSITION 18	2189
14	REFL 1 POS 1 2ND LOOK	2536	592	REFL 1 POS 18 2ND LOOK	2535
16	REFL 2 POS 1 2ND LOOK	2190	594	REFL 2 POS 18 2ND LOOK	2190
18	GSE #4 SAMPLE 1 CH 3	15839	596	GSE #4 SAMPLE 18 CH 3	15835
20	CH 4	16199	598	CH 4	16199
22	CH 5	16517	600	CH 5	16517
24	CH 6	16939	602	CH 6	16940
26	CH 7	15988	604	CH 7	15992
28	CH 8	16535	606	CH 8	16535
30	CH 9	16564	608	CH 9	16567
32	CH 10	16520	610	CH 10	16525
34	CH 11	16178	612	CH 11	16180
36	CH 12	16489	614	CH 12	16480
38	CH 13	16263	616	CH 13	16256
40	CH 14	16721	618	CH 14	16721
42	CH 15	16219	620	CH 15	16220
44	REFLECTOR 1 POSITION 2	2535	622	REFLECTOR 1 POSITION 19	2535
46	REFLECTOR 2 POSITION 2	2189	624	REFLECTOR 2 POSITION 19	2189
48	REFL 1 POS 2 2ND LOOK	2536	626	REFL 1 POS 19 2ND LOOK	2535
50	REFL 2 POS 2 2ND LOOK	2189	628	REFL 2 POS 19 2ND LOOK	2190
52	GSE #4 SAMPLE 2 CH 3	15837	630	GSE #4 SAMPLE 19 CH 3	15837
54	CH 4	16201	632	CH 4	16200
56	CH 5	16518	634	CH 5	16518
58	CH 6	16942	636	CH 6	16941
60	CH 7	15984	638	CH 7	15987
62	CH 8	16536	640	CH 8	16531
64	CH 9	16566	642	CH 9	16568
66	CH 10	16523	644	CH 10	16519
68	CH 11	16176	646	CH 11	16172
70	CH 12	16479	648	CH 12	16487
72	CH 13	16261	650	CH 13	16251
74	CH 14	16701	652	CH 14	16707
76	CH 15	16220	654	CH 15	16220
78	REFLECTOR 1 POSITION 3	2535	656	REFLECTOR 1 POSITION 20	2536
80	REFLECTOR 2 POSITION 3	2189	658	REFLECTOR 2 POSITION 20	2189
82	REFL 1 POS 3 2ND LOOK	2536	660	REFL 1 POS 20 2ND LOOK	2535
84	REFL 2 POS 3 2ND LOOK	2189	662	REFL 2 POS 20 2ND LOOK	2189
86	GSE #4 SAMPLE 3 CH 3	15834	664	GSE #4 SAMPLE 20 CH 3	15834
88	CH 4	16201	666	CH 4	16200
90	CH 5	16518	668	CH 5	16519
92	CH 6	16940	670	CH 6	16940

JUL 14 1998

TA 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15987	672	CH 7	15989
96	CH 8	16534	674	CH 8	16531
98	CH 9	16564	676	CH 9	16567
100	CH 10	16525	678	CH 10	16520
102	CH 11	16179	680	CH 11	16181
104	CH 12	16489	682	CH 12	16483
106	CH 13	16262	684	CH 13	16257
108	CH 14	16730	686	CH 14	16696
110	CH 15	16222	688	CH 15	16221
112	REFLECTOR 1 POSITION 4	2535	690	REFLECTOR 1 POSITION 21	2536
114	REFLECTOR 2 POSITION 4	2189	692	REFLECTOR 2 POSITION 21	2189
116	REFL 1 POS 4 2ND LOOK	2536	694	REFL 1 POS 21 2ND LOOK	2536
118	REFL 2 POS 4 2ND LOOK	2189	696	REFL 2 POS 21 2ND LOOK	2189
120	GSE #4 SAMPLE 4 CH 3	15835	698	GSE #4 SAMPLE 21 CH 3	15836
122	CH 4	16198	700	CH 4	16197
124	CH 5	16521	702	CH 5	16512
126	CH 6	16943	704	CH 6	16943
128	CH 7	15988	706	CH 7	15988
130	CH 8	16532	708	CH 8	16532
132	CH 9	16564	710	CH 9	16565
134	CH 10	16521	712	CH 10	16522
136	CH 11	16179	714	CH 11	16182
138	CH 12	16485	716	CH 12	16482
140	CH 13	16257	718	CH 13	16254
142	CH 14	16725	720	CH 14	16725
144	CH 15	16219	722	CH 15	16220
146	REFLECTOR 1 POSITION 5	2535	724	REFLECTOR 1 POSITION 22	2536
148	REFLECTOR 2 POSITION 5	2189	726	REFLECTOR 2 POSITION 22	2189
150	REFL 1 POS 5 2ND LOOK	2536	728	REFL 1 POS 22 2ND LOOK	2536
152	REFL 2 POS 5 2ND LOOK	2189	730	REFL 2 POS 22 2ND LOOK	2189
154	GSE #4 SAMPLE 5 CH 3	15835	732	GSE #4 SAMPLE 22 CH 3	15839
156	CH 4	16198	734	CH 4	16201
158	CH 5	16517	736	CH 5	16520
160	CH 6	16942	738	CH 6	16945
162	CH 7	15990	740	CH 7	15991
164	CH 8	16536	742	CH 8	16532
166	CH 9	16564	744	CH 9	16565
168	CH 10	16520	746	CH 10	16518
170	CH 11	16176	748	CH 11	16181
172	CH 12	16479	750	CH 12	16484
174	CH 13	16251	752	CH 13	16259
176	CH 14	16711	754	CH 14	16708
178	CH 15	16220	756	CH 15	16219
180	REFLECTOR 1 POSITION 6	2535	758	REFLECTOR 1 POSITION 23	2535
182	REFLECTOR 2 POSITION 6	2189	760	REFLECTOR 2 POSITION 23	2189
184	REFL 1 POS 6 2ND LOOK	2535	762	REFL 1 POS 23 2ND LOOK	2536
186	REFL 2 POS 6 2ND LOOK	2190	764	REFL 2 POS 23 2ND LOOK	2189
188	GSE #4 SAMPLE 6 CH 3	15843	766	GSE #4 SAMPLE 23 CH 3	15844
190	CH 4	16201	768	CH 4	16199
192	CH 5	16515	770	CH 5	16518

JUL 1 4 1998

7A
197

GSE MODE 4 BP 30

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16946	772	CH 6	16940
196	CH 7	15989	774	CH 7	15988
198	CH 8	16531	776	CH 8	16533
200	CH 9	16565	778	CH 9	16570
202	CH 10	16517	780	CH 10	16522
204	CH 11	16178	782	CH 11	16174
206	CH 12	16486	784	CH 12	16476
208	CH 13	16250	786	CH 13	16255
210	CH 14	16714	788	CH 14	16701
212	CH 15	16219	790	CH 15	16220
214	REFLECTOR 1 POSITION 7	2535	792	REFLECTOR 1 POSITION 24	2535
216	REFLECTOR 2 POSITION 7	2189	794	REFLECTOR 2 POSITION 24	2189
218	REFL 1 POS 7 2ND LOOK	2535	796	REFL 1 POS 24 2ND LOOK	2536
220	REFL 2 POS 7 2ND LOOK	2190	798	REFL 2 POS 24 2ND LOOK	2190
222	GSE #4 SAMPLE 7 CH 3	15837	800	GSE #4 SAMPLE 24 CH 3	15835
224	CH 4	16202	802	CH 4	16199
226	CH 5	16519	804	CH 5	16516
228	CH 6	16942	806	CH 6	16943
230	CH 7	15989	808	CH 7	15988
232	CH 8	16531	810	CH 8	16534
234	CH 9	16566	812	CH 9	16566
236	CH 10	16521	814	CH 10	16523
238	CH 11	16174	816	CH 11	16175
240	CH 12	16475	818	CH 12	16480
242	CH 13	16243	820	CH 13	16257
244	CH 14	16707	822	CH 14	16726
246	CH 15	16218	824	CH 15	16222
248	REFLECTOR 1 POSITION 8	2535	826	REFLECTOR 1 POSITION 25	2535
250	REFLECTOR 2 POSITION 8	2189	828	REFLECTOR 2 POSITION 25	2189
252	REFL 1 POS 8 2ND LOOK	2535	830	REFL 1 POS 25 2ND LOOK	2536
254	REFL 2 POS 8 2ND LOOK	2189	832	REFL 2 POS 25 2ND LOOK	2189
256	GSE #4 SAMPLE 8 CH 3	15835	834	GSE #4 SAMPLE 25 CH 3	15843
258	CH 4	16201	836	CH 4	16196
260	CH 5	16518	838	CH 5	16519
262	CH 6	16944	840	CH 6	16945
264	CH 7	15991	842	CH 7	15984
266	CH 8	16533	844	CH 8	16531
268	CH 9	16566	846	CH 9	16566
270	CH 10	16522	848	CH 10	16523
272	CH 11	16183	850	CH 11	16177
274	CH 12	16480	852	CH 12	16484
276	CH 13	16252	854	CH 13	16257
278	CH 14	16713	856	CH 14	16715
280	CH 15	16219	858	CH 15	16220
282	REFLECTOR 1 POSITION 9	2536	860	REFLECTOR 1 POSITION 26	2535
284	REFLECTOR 2 POSITION 9	2189	862	REFLECTOR 2 POSITION 26	2189
286	REFL 1 POS 9 2ND LOOK	2535	864	REFL 1 POS 26 2ND LOOK	2535
288	REFL 2 POS 9 2ND LOOK	2189	866	REFL 2 POS 26 2ND LOOK	2189
290	GSE #4 SAMPLE 9 CH 3	15836	868	GSE #4 SAMPLE 26 CH 3	15843
292	CH 4	16199	870	CH 4	16198

7A 197

JUL 1 4

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16519	872	CH 5	16515
296	CH 6	16940	874	CH 6	16942
298	CH 7	15987	876	CH 7	15985
300	CH 8	16534	878	CH 8	16532
302	CH 9	16565	880	CH 9	16564
304	CH 10	16520	882	CH 10	16521
306	CH 11	16181	884	CH 11	16176
308	CH 12	16479	886	CH 12	16479
310	CH 13	16251	888	CH 13	16252
312	CH 14	16695	890	CH 14	16708
314	CH 15	16221	892	CH 15	16221
316	REFLECTOR 1 POSITION 10	2536	894	REFLECTOR 1 POSITION 27	2536
318	REFLECTOR 2 POSITION 10	2189	896	REFLECTOR 2 POSITION 27	2189
320	REFL 1 POS 10 2ND LOOK	2535	898	REFL 1 POS 27 2ND LOOK	2535
322	REFL 2 POS 10 2ND LOOK	2189	900	REFL 2 POS 27 2ND LOOK	2189
324	GSE #4 SAMPLE 10 CH 3	15835	902	GSE #4 SAMPLE 27 CH 3	15842
326	CH 4	16200	904	CH 4	16197
328	CH 5	16516	906	CH 5	16518
330	CH 6	16942	908	CH 6	16942
332	CH 7	15985	910	CH 7	15984
334	CH 8	16529	912	CH 8	16535
336	CH 9	16565	914	CH 9	16565
338	CH 10	16520	916	CH 10	16521
340	CH 11	16178	918	CH 11	16177
342	CH 12	16480	920	CH 12	16486
344	CH 13	16252	922	CH 13	16254
346	CH 14	16718	924	CH 14	16691
348	CH 15	16220	926	CH 15	16220
350	REFLECTOR 1 POSITION 11	2536	928	REFLECTOR 1 POSITION 28	2536
352	REFLECTOR 2 POSITION 11	2189	930	REFLECTOR 2 POSITION 28	2189
354	REFL 1 POS 11 2ND LOOK	2535	932	REFL 1 POS 28 2ND LOOK	2535
356	REFL 2 POS 11 2ND LOOK	2189	934	REFL 2 POS 28 2ND LOOK	2189
358	GSE #4 SAMPLE 11 CH 3	15840	936	GSE #4 SAMPLE 28 CH 3	15844
360	CH 4	16198	938	CH 4	16202
362	CH 5	16520	940	CH 5	16516
364	CH 6	16944	942	CH 6	16940
366	CH 7	15987	944	CH 7	15990
368	CH 8	16529	946	CH 8	16530
370	CH 9	16568	948	CH 9	16568
372	CH 10	16520	950	CH 10	16522
374	CH 11	16177	952	CH 11	16178
376	CH 12	16482	954	CH 12	16482
378	CH 13	16271	956	CH 13	16251
380	CH 14	16692	958	CH 14	16697
382	CH 15	16220	960	CH 15	16220
384	REFLECTOR 1 POSITION 12	2536	962	REFLECTOR 1 POSITION 29	2536
386	REFLECTOR 2 POSITION 12	2189	964	REFLECTOR 2 POSITION 29	2189
388	REFL 1 POS 12 2ND LOOK	2535	966	REFL 1 POS 29 2ND LOOK	2536
390	REFL 2 POS 12 2ND LOOK	2189	968	REFL 2 POS 29 2ND LOOK	2189
392	GSE #4 SAMPLE 12 CH 3	15836	970	GSE #4 SAMPLE 29 CH 3	15838

TA 197

JUL 1 4 1998

LEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16197	972	CH 4	16199
396	CH 5	16518	974	CH 5	16521
398	CH 6	16942	976	CH 6	16942
400	CH 7	15986	978	CH 7	15984
402	CH 8	16534	980	CH 8	16532
404	CH 9	16565	982	CH 9	16563
406	CH 10	16523	984	CH 10	16525
408	CH 11	16178	986	CH 11	16181
410	CH 12	16474	988	CH 12	16481
412	CH 13	16256	990	CH 13	16250
414	CH 14	16717	992	CH 14	16692
416	CH 15	16219	994	CH 15	16220
418	REFLECTOR 1 POSITION 13	2536	996	REFLECTOR 1 POSITION 30	2536
420	REFLECTOR 2 POSITION 13	2190	998	REFLECTOR 2 POSITION 30	2189
422	REFL 1 POS 13 2ND LOOK	2536	1000	REFL 1 POS 30 2ND LOOK	2536
424	REFL 2 POS 13 2ND LOOK	2189	1002	REFL 2 POS 30 2ND LOOK	2189
426	GSE #4 SAMPLE 13 CH 3	15839	1004	GSE #4 SAMPLE 30 CH 3	15844
428	CH 4	16198	1006	CH 4	16197
430	CH 5	16517	1008	CH 5	16517
432	CH 6	16943	1010	CH 6	16940
434	CH 7	15988	1012	CH 7	15986
436	CH 8	16534	1014	CH 8	16533
438	CH 9	16565	1016	CH 9	16569
440	CH 10	16526	1018	CH 10	16523
442	CH 11	16179	1020	CH 11	16176
444	CH 12	16472	1022	CH 12	16481
446	CH 13	16244	1024	CH 13	16250
448	CH 14	16702	1026	CH 14	16694
450	CH 15	16219	1028	CH 15	16221
452	REFLECTOR 1 POSITION 14	2535	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	2189	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	2536	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	2190	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	GSE #4 SAMPLE 14 CH 3	15841	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16197	1040	CH 4	0
464	CH 5	16519	1042	CH 5	0
466	CH 6	16942	1044	CH 6	0
468	CH 7	15990	1046	CH 7	0
470	CH 8	16533	1048	CH 8	0
472	CH 9	16565	1050	CH 9	0
474	CH 10	16523	1052	CH 10	0
476	CH 11	16182	1054	CH 11	0
478	CH 12	16488	1056	CH 12	0
480	CH 13	16254	1058	CH 13	0
482	CH 14	16694	1060	CH 14	0
484	CH 15	16220	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	2535	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	2189	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	2536	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	2189	1070	CH 6	0

JUL 1 4 1998 TA 197

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18742	24.33
1092	SCAN MOTOR A1-2	19897	25.83
1094	FEED HORN A1-1	20786	28.57
1096	FEED HORN A1-2	21951	30.86
1098	RF MUX A1-1	22761	32.22
1100	RF MUX A1-2	24206	35.15
1102	LOCAL OSCILLATOR CHANNEL 3	25290	37.47
1104	LOCAL OSCILLATOR CHANNEL 4	25724	37.63
1106	LOCAL OSCILLATOR CHANNEL 5	24390	35.69
1108	LOCAL OSCILLATOR CHANNEL 6	23103	32.25
1110	LOCAL OSCILLATOR CHANNEL 7	23435	33.63
1112	LOCAL OSCILLATOR CHANNEL 8	25119	36.96
1114	LOCAL OSCILLATOR CHANNEL 15	24386	35.07
1116	PLLO #2	22741	32.21
1118	PLLO #1	25621	37.84
1120	1553 INTERFACE	18667	37.34
1122	MIXER/IF AMPLIFIER CHANNEL 3	24511	35.69
1124	MIXER/IF AMPLIFIER CHANNEL 4	24684	35.53
1126	MIXER/IF AMPLIFIER CHANNEL 5	24285	35.16
1128	MIXER/IF AMPLIFIER CHANNEL 6	23063	32.80
1130	MIXER/IF AMPLIFIER CHANNEL 7	23060	33.35
1132	MIXER/IF AMPLIFIER CHANNEL 8	24639	35.79
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22507	31.96
1136	MIXER/IF AMPLIFIER CHANNEL 15	24289	35.41
1138	IF AMPLIFIER CHANNEL 11 THRU 14	24014	34.68
1140	IF AMPLIFIER CHANNEL 9	24177	34.90
1142	IF AMPLIFIER CHANNEL 10	24042	34.90
1144	IF AMPLIFIER CHANNEL 11	23143	32.30
1146	DC/DC CONVERTER	25623	37.25
1148	IF AMPLIFIER CHANNEL 13	22722	31.60
1150	IF AMPLIFIER CHANNEL 14	23088	32.76
1152	IF AMPLIFIER CHANNEL 12	22898	32.18
1154	RF SHELF A1-1	23478	33.59
1156	RF SHELF A1-2	24360	34.68
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21255	29.33
1160	A1-1 WARM LOAD 1	24104	25.19
1162	A1-1 WARM LOAD 2	24596	25.30
1164	A1-1 WARM LOAD 3	24096	25.33
1166	A1-1 WARM LOAD 4	24173	25.29
1168	A1-1 WARM LOAD CENTER	24376	25.32
1170	A1-2 WARM LOAD 1	25201	26.83
1172	A1-2 WARM LOAD 2	25259	26.85
1174	A1-2 WARM LOAD 3	25280	26.86
1176	A1-2 WARM LOAD 4	25268	26.74
1178	A1-2 WARM LOAD CENTER	25274	26.84
1180	TEMP SENSOR REFERENCE VOLTAGE	25268	

7A 197
JUL 1 4 1998

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION			VALUE	AMPS/VOLTS
SIGNAL PROCESSOR		+5 VDC	22131	4.9
		+15 VDC	21842	15.1
		-15 VDC	21796	-15.0
SCAN DRIVE		+5 VDC	22191	4.9
		+15 VDC	22242	14.9
		-15 VDC	21867	-15.1
PLO		+15 VDC	22452	14.8
		-15 VDC	22073	-15.2
RECEIVER		+8 VDC	21809	7.9
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21414	10.0
	A1-2	+10 VDC	21433	10.0
LO CHANNEL 6		+10 VDC	21393	10.0
7		+10 VDC	21465	10.0
SPARE			32767	0.0
LO CHANNEL 3		+10 VDC	21266	10.1
4		+10 VDC	21206	10.1
5		+10 VDC	21340	10.0
8		+10 VDC	21332	10.0
15		+15 VDC	22033	15.0
QUIET BUS CURRENT			16705	2290.7
A1-1 NOISY POWER BUS CURRENT			250	1.4
A1-2 NOISY POWER BUS CURRENT			209	1.2

JUL 14 1998
TA 197

1st CPT

```
EOS   A1-03 E1.EXE;35 GSE MODE 5 BP 6   P1 14-JUL-98 00:43:29  SCAN NUMBER    332
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                          COMMANDS        PLLO POWER =             PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON     COLD CAL POSITION 1 =       YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                       2 =       NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    NO                       3 =       NO  [ 18 ]

[ 12 ]         WARM CAL      =     NO     COLD CAL POSITION 4 =       NO  [ 19 ]

[ 13 ]         COLD CAL      =     NO     RESET C&DH PROCESSOR            [ 20 ]

[ 14 ]         NADIR         =     NO     GSE MODE                        [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN 208D CALC 208D   SA28    584 SA29  1168
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 3
```

JUL 1 4 1998
TA 197

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 00:43:31 PAGE 1
GSE MODE 5 BP 6

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	GSE #5 SAMPLE 17 CH 8	16551
2		00000011	574	CH 9	16501
3	PACKET LENGTH	00000010	576	CH 10	16456
4		10111111	578	CH 11	16112
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16414
6		10100000	582	CH 13	16182
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16628
8		00000000	586	CH 15	16213
10	REFLECTOR 1 POSITION 1	15280	588	REFLECTOR 1 POSITION 18	15280
12	REFLECTOR 2 POSITION 1	14926	590	REFLECTOR 2 POSITION 18	14926
14	REFL 1 POS 1 2ND LOOK	15280	592	REFL 1 POS 18 2ND LOOK	15280
16	REFL 2 POS 1 2ND LOOK	14926	594	REFL 2 POS 18 2ND LOOK	14926
18	GSE #5 SAMPLE 1 CH 3	15856	596	GSE #5 SAMPLE 18 CH 3	15852
20	CH 4	16216	598	CH 4	16217
22	CH 5	16530	600	CH 5	16532
24	CH 6	16906	602	CH 6	16907
26	CH 7	15965	604	CH 7	15966
28	CH 8	16547	606	CH 8	16550
30	CH 9	16500	608	CH 9	16506
32	CH 10	16449	610	CH 10	16454
34	CH 11	16110	612	CH 11	16109
36	CH 12	16411	614	CH 12	16407
38	CH 13	16183	616	CH 13	16190
40	CH 14	16643	618	CH 14	16648
42	CH 15	16214	620	CH 15	16216
44	REFLECTOR 1 POSITION 2	15280	622	REFLECTOR 1 POSITION 19	15280
46	REFLECTOR 2 POSITION 2	14926	624	REFLECTOR 2 POSITION 19	14926
48	REFL 1 POS 2 2ND LOOK	15280	626	REFL 1 POS 19 2ND LOOK	15280
50	REFL 2 POS 2 2ND LOOK	14926	628	REFL 2 POS 19 2ND LOOK	14926
52	GSE #5 SAMPLE 2 CH 3	15852	630	GSE #5 SAMPLE 19 CH 3	15848
54	CH 4	16216	632	CH 4	16214
56	CH 5	16530	634	CH 5	16531
58	CH 6	16903	636	CH 6	16907
60	CH 7	15970	638	CH 7	15967
62	CH 8	16545	640	CH 8	16552
64	CH 9	16500	642	CH 9	16499
66	CH 10	16456	644	CH 10	16448
68	CH 11	16110	646	CH 11	16109
70	CH 12	16410	648	CH 12	16415
72	CH 13	16172	650	CH 13	16182
74	CH 14	16640	652	CH 14	16651
76	CH 15	16214	654	CH 15	16214
78	REFLECTOR 1 POSITION 3	15280	656	REFLECTOR 1 POSITION 20	15280
80	REFLECTOR 2 POSITION 3	14926	658	REFLECTOR 2 POSITION 20	14926
82	REFL 1 POS 3 2ND LOOK	15280	660	REFL 1 POS 20 2ND LOOK	15280
84	REFL 2 POS 3 2ND LOOK	14926	662	REFL 2 POS 20 2ND LOOK	14926
86	GSE #5 SAMPLE 3 CH 3	15854	664	GSE #5 SAMPLE 20 CH 3	15853
88	CH 4	16215	666	CH 4	16214
90	CH 5	16531	668	CH 5	16529
92	CH 6	16907	670	CH 6	16907

JUL 14 1998
7A 197

GSE MODE 5 BP 6

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15966	672	CH 7	15964
96	CH 8	16550	674	CH 8	16549
98	CH 9	16501	676	CH 9	16499
100	CH 10	16450	678	CH 10	16455
102	CH 11	16110	680	CH 11	16115
104	CH 12	16416	682	CH 12	16400
106	CH 13	16192	684	CH 13	16193
108	CH 14	16647	686	CH 14	16640
110	CH 15	16214	688	CH 15	16214
112	REFLECTOR 1 POSITION 4	15280	690	REFLECTOR 1 POSITION 21	15280
114	REFLECTOR 2 POSITION 4	14926	692	REFLECTOR 2 POSITION 21	27008
116	REFL 1 POS 4 2ND LOOK	15280	694	REFL 1 POS 21 2ND LOOK	1154E
118	REFL 2 POS 4 2ND LOOK	14926	696	REFL 2 POS 21 2ND LOOK	24867
120	GSE #5 SAMPLE 4 CH 3	15854	698	GSE #5 SAMPLE 21 CH 3	491
122	CH 4	16213	700	CH 4	174
124	CH 5	16530	702	CH 5	0
126	CH 6	16905	704	CH 6	0
128	CH 7	15969	706	CH 7	0
130	CH 8	16548	708	CH 8	0
132	CH 9	16501	710	CH 9	29853
134	CH 10	16449	712	CH 10	30561
136	CH 11	16110	714	CH 11	29853
138	CH 12	16409	716	CH 12	15854
140	CH 13	16178	718	CH 13	16214
142	CH 14	16641	720	CH 14	16529
144	CH 15	16214	722	CH 15	16904
146	REFLECTOR 1 POSITION 5	15280	724	REFLECTOR 1 POSITION 22	7986E
148	REFLECTOR 2 POSITION 5	14926	726	REFLECTOR 2 POSITION 22	8275E
150	REFL 1 POS 5 2ND LOOK	15280	728	REFL 1 POS 22 2ND LOOK	8249E
152	REFL 2 POS 5 2ND LOOK	14926	730	REFL 2 POS 22 2ND LOOK	8225E
154	GSE #5 SAMPLE 5 CH 3	15855	732	GSE #5 SAMPLE 22 CH 3	16114
156	CH 4	16215	734	CH 4	16413
158	CH 5	16532	736	CH 5	16186
160	CH 6	16907	738	CH 6	16635
162	CH 7	15968	740	CH 7	16215
164	CH 8	16549	742	CH 8	30561
166	CH 9	16496	744	CH 9	29853
168	CH 10	16449	746	CH 10	30561
170	CH 11	16107	748	CH 11	29853
172	CH 12	16413	750	CH 12	15852
174	CH 13	16193	752	CH 13	16215
176	CH 14	16655	754	CH 14	16533
178	CH 15	16213	756	CH 15	16905
180	REFLECTOR 1 POSITION 6	15280	758	REFLECTOR 1 POSITION 23	7984E
182	REFLECTOR 2 POSITION 6	14926	760	REFLECTOR 2 POSITION 23	8274E
184	REFL 1 POS 6 2ND LOOK	15280	762	REFL 1 POS 23 2ND LOOK	8250E
186	REFL 2 POS 6 2ND LOOK	14926	764	REFL 2 POS 23 2ND LOOK	8228E
188	GSE #5 SAMPLE 6 CH 3	15852	766	GSE #5 SAMPLE 23 CH 3	16111
190	CH 4	16218	768	CH 4	16416
192	CH 5	16534	770	CH 5	16185

JUL 1 4 1998
7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16906	772	CH 6	16652
196	CH 7	15971	774	CH 7	16215
198	CH 8	16547	776	CH 8	30561
200	CH 9	16499	778	CH 9	29853
202	CH 10	16453	780	CH 10	30561
204	CH 11	16114	782	CH 11	29853
206	CH 12	16411	784	CH 12	15858
208	CH 13	16183	786	CH 13	16216
210	CH 14	16627	788	CH 14	16533
212	CH 15	16213	790	CH 15	16906
214	REFLECTOR 1 POSITION 7	15280	792	REFLECTOR 1 POSITION 24	7985E
216	REFLECTOR 2 POSITION 7	14926	794	REFLECTOR 2 POSITION 24	8274
218	REFL 1 POS 7 2ND LOOK	15280	796	REFL 1 POS 24 2ND LOOK	8250E
220	REFL 2 POS 7 2ND LOOK	14926	798	REFL 2 POS 24 2ND LOOK	8225
222	GSE #5 SAMPLE 7 CH 3	15848	800	GSE #5 SAMPLE 24 CH 3	16109
224	CH 4	16215	802	CH 4	16411
226	CH 5	16528	804	CH 5	16197
228	CH 6	16906	806	CH 6	16648
230	CH 7	15970	808	CH 7	16215
232	CH 8	16545	810	CH 8	30561
234	CH 9	16499	812	CH 9	29853
236	CH 10	16450	814	CH 10	30561
238	CH 11	16115	816	CH 11	29853
240	CH 12	16407	818	CH 12	15850
242	CH 13	16185	820	CH 13	16213
244	CH 14	16639	822	CH 14	16533
246	CH 15	16216	824	CH 15	16905
248	REFLECTOR 1 POSITION 8	15280	826	REFLECTOR 1 POSITION 25	7985
250	REFLECTOR 2 POSITION 8	14926	828	REFLECTOR 2 POSITION 25	8272
252	REFL 1 POS 8 2ND LOOK	15280	830	REFL 1 POS 25 2ND LOOK	8250E
254	REFL 2 POS 8 2ND LOOK	14926	832	REFL 2 POS 25 2ND LOOK	8225E
256	GSE #5 SAMPLE 8 CH 3	15852	834	GSE #5 SAMPLE 25 CH 3	16113
258	CH 4	16214	836	CH 4	16403
260	CH 5	16530	838	CH 5	16197
262	CH 6	16907	840	CH 6	16642
264	CH 7	15967	842	CH 7	16215
266	CH 8	16547	844	CH 8	30561
268	CH 9	16500	846	CH 9	29853
270	CH 10	16460	848	CH 10	30561
272	CH 11	16108	850	CH 11	29853
274	CH 12	16407	852	CH 12	15855
276	CH 13	16181	854	CH 13	16214
278	CH 14	16639	856	CH 14	16531
280	CH 15	16214	858	CH 15	16904
282	REFLECTOR 1 POSITION 9	15280	860	REFLECTOR 1 POSITION 26	7983
284	REFLECTOR 2 POSITION 9	14926	862	REFLECTOR 2 POSITION 26	8274E
286	REFL 1 POS 9 2ND LOOK	15280	864	REFL 1 POS 26 2ND LOOK	8250
288	REFL 2 POS 9 2ND LOOK	14926	866	REFL 2 POS 26 2ND LOOK	8227E
290	GSE #5 SAMPLE 9 CH 3	15851	868	GSE #5 SAMPLE 26 CH 3	16113
292	CH 4	16212	870	CH 4	16407

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16532	872	CH 5	16182
296	CH 6	16907	874	CH 6	16656
298	CH 7	15968	876	CH 7	16216
300	CH 8	16549	878	CH 8	30561
302	CH 9	16500	880	CH 9	29853
304	CH 10	16454	882	CH 10	30561
306	CH 11	16112	884	CH 11	29853
308	CH 12	16414	886	CH 12	15852
310	CH 13	16182	888	CH 13	16215
312	CH 14	16647	890	CH 14	16533
314	CH 15	16215	892	CH 15	16910
316	REFLECTOR 1 POSITION 10	15280	894	REFLECTOR 1 POSITION 27	7983
318	REFLECTOR 2 POSITION 10	14926	896	REFLECTOR 2 POSITION 27	8274
320	REFL 1 POS 10 2ND LOOK	15280	898	REFL 1 POS 27 2ND LOOK	8251E
322	REFL 2 POS 10 2ND LOOK	14926	900	REFL 2 POS 27 2ND LOOK	8225E
324	GSE #5 SAMPLE 10 CH 3	15849	902	GSE #5 SAMPLE 27 CH 3	16116
326	CH 4	16212	904	CH 4	16416
328	CH 5	16532	906	CH 5	16197
330	CH 6	16907	908	CH 6	16632
332	CH 7	15967	910	CH 7	16215
334	CH 8	16545	912	CH 8	30561
336	CH 9	16499	914	CH 9	29853
338	CH 10	16455	916	CH 10	30561
340	CH 11	16113	918	CH 11	29853
342	CH 12	16411	920	CH 12	15856
344	CH 13	16189	922	CH 13	16214
346	CH 14	16644	924	CH 14	16530
348	CH 15	16216	926	CH 15	16906
350	REFLECTOR 1 POSITION 11	15280	928	REFLECTOR 1 POSITION 28	7986
352	REFLECTOR 2 POSITION 11	14926	930	REFLECTOR 2 POSITION 28	8274
354	REFL 1 POS 11 2ND LOOK	15280	932	REFL 1 POS 28 2ND LOOK	8248E
356	REFL 2 POS 11 2ND LOOK	14926	934	REFL 2 POS 28 2ND LOOK	8227E
358	GSE #5 SAMPLE 11 CH 3	15855	936	GSE #5 SAMPLE 28 CH 3	16112
360	CH 4	16216	938	CH 4	16412
362	CH 5	16530	940	CH 5	16189
364	CH 6	16907	942	CH 6	16639
366	CH 7	15968	944	CH 7	16215
368	CH 8	16546	946	CH 8	30561
370	CH 9	16501	948	CH 9	29853
372	CH 10	16457	950	CH 10	30561
374	CH 11	16111	952	CH 11	29853
376	CH 12	16413	954	CH 12	15850
378	CH 13	16184	956	CH 13	16217
380	CH 14	16643	958	CH 14	16536
382	CH 15	16214	960	CH 15	16905
384	REFLECTOR 1 POSITION 12	15280	962	REFLECTOR 1 POSITION 29	7985E
386	REFLECTOR 2 POSITION 12	14926	964	REFLECTOR 2 POSITION 29	8275
388	REFL 1 POS 12 2ND LOOK	15280	966	REFL 1 POS 29 2ND LOOK	8248E
390	REFL 2 POS 12 2ND LOOK	14926	968	REFL 2 POS 29 2ND LOOK	8226
392	GSE #5 SAMPLE 12 CH 3	15851	970	GSE #5 SAMPLE 29 CH 3	16112

JUL 14 1998
TA 197

GSE MODE 5 BP 6

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16216	972	CH 4	16413
396	CH 5	16529	974	CH 5	16199
398	CH 6	16909	976	CH 6	16629
400	CH 7	15968	978	CH 7	16214
402	CH 8	16545	980	CH 8	30561
404	CH 9	16496	982	CH 9	29853
406	CH 10	16455	984	CH 10	30561
408	CH 11	16114	986	CH 11	29853
410	CH 12	16408	988	CH 12	15857
412	CH 13	16190	990	CH 13	16216
414	CH 14	16674	992	CH 14	16532
416	CH 15	16214	994	CH 15	16907
418	REFLECTOR 1 POSITION 13	15280	996	REFLECTOR 1 POSITION 30	7983
420	REFLECTOR 2 POSITION 13	14926	998	REFLECTOR 2 POSITION 30	8273
422	REFL 1 POS 13 2ND LOOK	15280	1000	REFL 1 POS 30 2ND LOOK	8250
424	REFL 2 POS 13 2ND LOOK	14926	1002	REFL 2 POS 30 2ND LOOK	8225E
426	GSE #5 SAMPLE 13 CH 3	15855	1004	GSE #5 SAMPLE 30 CH 3	16108
428	CH 4	16215	1006	CH 4	16413
430	CH 5	16528	1008	CH 5	16197
432	CH 6	16904	1010	CH 6	16648
434	CH 7	15971	1012	CH 7	16216
436	CH 8	16547	1014	CH 8	30561
438	CH 9	16500	1016	CH 9	29853
440	CH 10	16453	1018	CH 10	30561
442	CH 11	16108	1020	CH 11	29853
444	CH 12	16417	1022	CH 12	15856
446	CH 13	16175	1024	CH 13	16215
448	CH 14	16630	1026	CH 14	16532
450	CH 15	16213	1028	CH 15	16905
452	REFLECTOR 1 POSITION 14	15280	1030	REFLECTOR 1 COLD CAL POS	7983E
454	REFLECTOR 2 POSITION 14	14926	1032	REFLECTOR 2 COLD CAL POS	8275E
456	REFL 1 POS 14 2ND LOOK	15280	1034	REFL 1 COLD CAL 2ND LOOK	8250
458	REFL 2 POS 14 2ND LOOK	14926	1036	REFL 2 COLD CAL 2ND LOOK	8223E
460	GSE #5 SAMPLE 14 CH 3	15853	1038	COLD CAL DATA 1 CH 3	16109
462	CH 4	16216	1040	CH 4	16404
464	CH 5	16532	1042	CH 5	16197
466	CH 6	16908	1044	CH 6	16631
468	CH 7	15966	1046	CH 7	16213
470	CH 8	16548	1048	CH 8	30561
472	CH 9	16507	1050	CH 9	29853
474	CH 10	16453	1052	CH 10	30561
476	CH 11	16113	1054	CH 11	29853
478	CH 12	16411	1056	CH 12	15851
480	CH 13	16187	1058	CH 13	16214
482	CH 14	16630	1060	CH 14	16533
484	CH 15	16215	1062	CH 15	16907
486	REFLECTOR 1 POSITION 15	15280	1064	COLD CAL DATA 2 CH 3	15966
488	REFLECTOR 2 POSITION 15	14926	1066	CH 4	16548
490	REFL 1 POS 15 2ND LOOK	15280	1068	CH 5	16498
492	REFL 2 POS 15 2ND LOOK	14926	1070	CH 6	16452

JUL 14 1998

7A

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	GSE #5 SAMPLE 15 CH 3	15860	1072	CH 7	16111
496	CH 4	16215	1074	CH 8	16414
498	CH 5	16526	1076	CH 9	16177
500	CH 6	16907	1078	CH 10	16634
502	CH 7	15967	1080	CH 11	16215
504	CH 8	16548	1082	CH 12	30561
506	CH 9	16500	1084	CH 13	29853
508	CH 10	16450	1086	CH 14	30561
510	CH 11	16110	1088	CH 15	29853
512	CH 12	16406	1182	REFLECTOR 1 WARM CAL POS	8108E
514	CH 13	16180	1184	REFLECTOR 2 WARM CAL POS	4963E
516	CH 14	16634	1186	REFL 1 WARM CAL 2ND LOOK	8315E
518	CH 15	16215	1188	REFL 2 WARM CAL 2ND LOOK	16215E
520	REFLECTOR 1 POSITION 16	15280	1190	WARM CAL DATA 1 CH 3	61122
522	REFLECTOR 2 POSITION 16	14926	1192	CH 4	59706
524	REFL 1 POS 16 2ND LOOK	15280	1194	CH 5	61122
526	REFL 2 POS 16 2ND LOOK	14926	1196	CH 6	59706
528	GSE #5 SAMPLE 16 CH 3	15852	1198	CH 7	31720
530	CH 4	16212	1200	CH 8	32430
532	CH 5	16530	1202	CH 9	33052
534	CH 6	16907	1204	CH 10	33814
536	CH 7	15964	1206	CH 11	31934
538	CH 8	16548	1208	CH 12	33096
540	CH 9	16503	1210	CH 13	33000
542	CH 10	16455	1212	CH 14	32900
544	CH 11	16110	1214	CH 15	32220
546	CH 12	16410	1216	WARM CAL DATA 2 CH 3	32812
548	CH 13	16182	1218	CH 4	32360
550	CH 14	16637	1220	CH 5	33268
552	CH 15	16214	1222	CH 6	32430
554	REFLECTOR 1 POSITION 17	15280	1224	CH 7	61122
556	REFLECTOR 2 POSITION 17	14926	1226	CH 8	59706
558	REFL 1 POS 17 2ND LOOK	15280	1228	CH 9	61122
560	REFL 2 POS 17 2ND LOOK	14926	1230	CH 10	59706
562	GSE #5 SAMPLE 17 CH 3	15852	1232	CH 11	31704
564	CH 4	16211	1234	CH 12	32424
566	CH 5	16531	1236	CH 13	33060
568	CH 6	16908	1238	CH 14	33814
570	CH 7	15966	1240	CH 15	31928

TA 197 JUL 14 1998

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	15854	18.91
1092	SCAN MOTOR A1-2	16216	18.90
1094	FEED HORN A1-1	16533	20.53
1096	FEED HORN A1-2	16909	21.28
1098	RF MUX A1-1	15968	19.34
1100	RF MUX A1-2	16550	20.49
1102	LOCAL OSCILLATOR CHANNEL 3	16501	20.70
1104	LOCAL OSCILLATOR CHANNEL 4	16459	19.93
1106	LOCAL OSCILLATOR CHANNEL 5	16109	19.91
1108	LOCAL OSCILLATOR CHANNEL 6	16410	19.56
1110	LOCAL OSCILLATOR CHANNEL 7	16183	19.78
1112	LOCAL OSCILLATOR CHANNEL 8	16631	20.73
1114	LOCAL OSCILLATOR CHANNEL 15	16216	19.54
1116	PLLO #2	30561	47.57
1118	PLLO #1	29853	46.16
1120	1553 INTERFACE	30561	61.03
1122	MIXER/IF AMPLIFIER CHANNEL 3	29853	46.05
1124	MIXER/IF AMPLIFIER CHANNEL 4	15856	18.78
1126	MIXER/IF AMPLIFIER CHANNEL 5	16216	19.83
1128	MIXER/IF AMPLIFIER CHANNEL 6	16530	20.41
1130	MIXER/IF AMPLIFIER CHANNEL 7	16905	21.66
1132	MIXER/IF AMPLIFIER CHANNEL 8	15965	19.28
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	16548	20.65
1136	MIXER/IF AMPLIFIER CHANNEL 15	16499	20.57
1138	IF AMPLIFIER CHANNEL 11 THRU 14	16453	20.24
1140	IF AMPLIFIER CHANNEL 9	16110	19.60
1142	IF AMPLIFIER CHANNEL 10	16414	20.35
1144	IF AMPLIFIER CHANNEL 11	16185	19.02
1146	DC/DC CONVERTER	16633	20.06
1148	IF AMPLIFIER CHANNEL 13	16215	19.25
1150	IF AMPLIFIER CHANNEL 14	30561	47.44
1152	IF AMPLIFIER CHANNEL 12	29853	45.83
1154	RF SHELF A1-1	30561	46.69
1156	RF SHELF A1-2	29853	45.50
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	15856	19.16
1160	A1-1 WARM LOAD 1	16215	10.09
1162	A1-1 WARM LOAD 2	16529	9.87
1164	A1-1 WARM LOAD 3	16910	11.53
1166	A1-1 WARM LOAD 4	15965	9.63
1168	A1-1 WARM LOAD CENTER	16550	10.31
1170	A1-2 WARM LOAD 1	16500	10.13
1172	A1-2 WARM LOAD 2	16451	9.96
1174	A1-2 WARM LOAD 3	16115	9.28
1176	A1-2 WARM LOAD 4	16410	9.73
1178	A1-2 WARM LOAD CENTER	16181	9.45
1180	TEMP SENSOR REFERENCE VOLTAGE	16645	

JUL 14

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	16110	5.5
	+15 VDC	16414	15.8
	-15 VDC	16185	-13.4
SCAN DRIVE	+5 VDC	16633	5.5
	+15 VDC	16215	15.8
	-15 VDC	30561	-17.6
PLO	+15 VDC	29853	13.8
	-15 VDC	30561	-17.7
RECEIVER	+8 VDC	29853	7.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	15856	10.7
A1-2	+10 VDC	16215	10.6
LO CHANNEL 6	+10 VDC	16529	10.6
7	+10 VDC	16910	10.5
SPARE		15965	0.0
LO CHANNEL 3	+10 VDC	16550	10.6
4	+10 VDC	16500	10.6
5	+10 VDC	16451	10.6
8	+10 VDC	16115	10.7
15	+15 VDC	16410	15.8
QUIET BUS CURRENT		16181	2262.2
A1-1 NOISY POWER BUS CURRENT		16645	22.7
A1-2 NOISY POWER BUS CURRENT		16216	22.1

7A 197
JUL 1 4 1998

GSE MODE 5 BP 6

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 14 1998

1st CPT

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EOS   A1-03 E1.EXE;35 GSE MODE 7 PAUSE  P1 14-JUL-98 01:02:09  SCAN NUMBER    472
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                          COMMANDS        PLLO POWER =             PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =         ON    COLD CAL POSITION 1 =       YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =         ON                      2 =       NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =     NO                      3 =       NO  [ 18 ]

[ 12 ]         WARM CAL       =     NO    COLD CAL POSITION 4 =       NO  [ 19 ]

[ 13 ]         COLD CAL       =     NO    RESET C&DH PROCESSOR            [ 20 ]

[ 14 ]         NADIR          =     NO    GSE MODE                        [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN 20B1 CALC 20B1   SA28    724 SA29  1448
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 3
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JUL 14 1998

TA 197

EOS A1_03 E1.EXE;35 SCIENCE DATA 14-JUL-98 01:02:12 PAGE 1
GSE MODE 7

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	GSE #7 SAMPLE 17 CH 8	16543
2		00000011	574	CH 9	16483
3	PACKET LENGTH	00000010	576	CH 10	16430
4		10111111	578	CH 11	16076
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16364
6		11100000	582	CH 13	16142
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16585
8		00000000	586	CH 15	16205
10	REFLECTOR 1 POSITION 1	15281	588	REFLECTOR 1 POSITION 18	15281
12	REFLECTOR 2 POSITION 1	14934	590	REFLECTOR 2 POSITION 18	14934
14	REFL 1 POS 1 2ND LOOK	15281	592	REFL 1 POS 18 2ND LOOK	15281
16	REFL 2 POS 1 2ND LOOK	14934	594	REFL 2 POS 18 2ND LOOK	14934
18	GSE #7 SAMPLE 1 CH 3	15848	596	GSE #7 SAMPLE 18 CH 3	15849
20	CH 4	16193	598	CH 4	16192
22	CH 5	16505	600	CH 5	16504
24	CH 6	16888	602	CH 6	16893
26	CH 7	15953	604	CH 7	15958
28	CH 8	16540	606	CH 8	16537
30	CH 9	16482	608	CH 9	16487
32	CH 10	16434	610	CH 10	16430
34	CH 11	16068	612	CH 11	16072
36	CH 12	16368	614	CH 12	16365
38	CH 13	16128	616	CH 13	16138
40	CH 14	16589	618	CH 14	16588
42	CH 15	16204	620	CH 15	16205
44	REFLECTOR 1 POSITION 2	15281	622	REFLECTOR 1 POSITION 19	15281
46	REFLECTOR 2 POSITION 2	14934	624	REFLECTOR 2 POSITION 19	14934
48	REFL 1 POS 2 2ND LOOK	15281	626	REFL 1 POS 19 2ND LOOK	15281
50	REFL 2 POS 2 2ND LOOK	14934	628	REFL 2 POS 19 2ND LOOK	14934
52	GSE #7 SAMPLE 2 CH 3	15850	630	GSE #7 SAMPLE 19 CH 3	15847
54	CH 4	16193	632	CH 4	16190
56	CH 5	16501	634	CH 5	16502
58	CH 6	16890	636	CH 6	16889
60	CH 7	15954	638	CH 7	15956
62	CH 8	16541	640	CH 8	16538
64	CH 9	16488	642	CH 9	16486
66	CH 10	16433	644	CH 10	16431
68	CH 11	16073	646	CH 11	16067
70	CH 12	16370	648	CH 12	16367
72	CH 13	16142	650	CH 13	16146
74	CH 14	16594	652	CH 14	16582
76	CH 15	16204	654	CH 15	16206
78	REFLECTOR 1 POSITION 3	15281	656	REFLECTOR 1 POSITION 20	15281
80	REFLECTOR 2 POSITION 3	14934	658	REFLECTOR 2 POSITION 20	14934
82	REFL 1 POS 3 2ND LOOK	15281	660	REFL 1 POS 20 2ND LOOK	15281
84	REFL 2 POS 3 2ND LOOK	14934	662	REFL 2 POS 20 2ND LOOK	14934
86	GSE #7 SAMPLE 3 CH 3	15848	664	GSE #7 SAMPLE 20 CH 3	15848
88	CH 4	16189	666	CH 4	16195
90	CH 5	16507	668	CH 5	16502
92	CH 6	16888	670	CH 6	16890

TA 197 JUL 1 4 199

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15955	672	CH 7	15956
96	CH 8	16540	674	CH 8	16541
98	CH 9	16487	676	CH 9	16487
100	CH 10	16432	678	CH 10	16432
102	CH 11	16075	680	CH 11	16067
104	CH 12	16365	682	CH 12	16365
106	CH 13	16145	684	CH 13	16126
108	CH 14	16591	686	CH 14	16569
110	CH 15	16203	688	CH 15	16206
112	REFLECTOR 1 POSITION 4	15281	690	REFLECTOR 1 POSITION 21	15281
114	REFLECTOR 2 POSITION 4	14934	692	REFLECTOR 2 POSITION 21	14934
116	REFL 1 POS 4 2ND LOOK	15281	694	REFL 1 POS 21 2ND LOOK	15281
118	REFL 2 POS 4 2ND LOOK	14934	696	REFL 2 POS 21 2ND LOOK	14934
120	GSE #7 SAMPLE 4 CH 3	15849	698	GSE #7 SAMPLE 21 CH 3	15845
122	CH 4	16193	700	CH 4	16192
124	CH 5	16507	702	CH 5	16505
126	CH 6	16891	704	CH 6	16891
128	CH 7	15958	706	CH 7	15955
130	CH 8	16540	708	CH 8	16540
132	CH 9	16488	710	CH 9	16495
134	CH 10	16430	712	CH 10	16434
136	CH 11	16067	714	CH 11	16067
138	CH 12	16374	716	CH 12	16379
140	CH 13	16138	718	CH 13	16154
142	CH 14	16588	720	CH 14	16586
144	CH 15	16205	722	CH 15	16205
146	REFLECTOR 1 POSITION 5	15281	724	REFLECTOR 1 POSITION 22	15281
148	REFLECTOR 2 POSITION 5	14934	726	REFLECTOR 2 POSITION 22	14934
150	REFL 1 POS 5 2ND LOOK	15281	728	REFL 1 POS 22 2ND LOOK	15281
152	REFL 2 POS 5 2ND LOOK	14934	730	REFL 2 POS 22 2ND LOOK	14934
154	GSE #7 SAMPLE 5 CH 3	15846	732	GSE #7 SAMPLE 22 CH 3	15847
156	CH 4	16192	734	CH 4	16192
158	CH 5	16503	736	CH 5	16503
160	CH 6	16890	738	CH 6	16891
162	CH 7	15953	740	CH 7	15957
164	CH 8	16539	742	CH 8	16545
166	CH 9	16484	744	CH 9	16487
168	CH 10	16431	746	CH 10	16432
170	CH 11	16071	748	CH 11	16073
172	CH 12	16368	750	CH 12	16366
174	CH 13	16124	752	CH 13	16128
176	CH 14	16593	754	CH 14	16581
178	CH 15	16203	756	CH 15	16205
180	REFLECTOR 1 POSITION 6	15281	758	REFLECTOR 1 POSITION 23	15281
182	REFLECTOR 2 POSITION 6	14934	760	REFLECTOR 2 POSITION 23	14934
184	REFL 1 POS 6 2ND LOOK	15281	762	REFL 1 POS 23 2ND LOOK	15281
186	REFL 2 POS 6 2ND LOOK	14934	764	REFL 2 POS 23 2ND LOOK	14934
188	GSE #7 SAMPLE 6 CH 3	15843	766	GSE #7 SAMPLE 23 CH 3	15850
190	CH 4	16194	768	CH 4	16192
192	CH 5	16504	770	CH 5	16500

7A 197

JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16891	772	CH 6	16883
196	CH 7	15957	774	CH 7	15958
198	CH 8	16540	776	CH 8	16544
200	CH 9	16487	778	CH 9	16486
202	CH 10	16434	780	CH 10	16435
204	CH 11	16072	782	CH 11	16071
206	CH 12	16372	784	CH 12	16376
208	CH 13	16137	786	CH 13	16131
210	CH 14	16591	788	CH 14	16591
212	CH 15	16206	790	CH 15	16206
214	REFLECTOR 1 POSITION 7	15281	792	REFLECTOR 1 POSITION 24	15281
216	REFLECTOR 2 POSITION 7	14934	794	REFLECTOR 2 POSITION 24	14934
218	REFL 1 POS 7 2ND LOOK	15281	796	REFL 1 POS 24 2ND LOOK	15281
220	REFL 2 POS 7 2ND LOOK	14934	798	REFL 2 POS 24 2ND LOOK	14934
222	GSE #7 SAMPLE 7 CH 3	15848	800	GSE #7 SAMPLE 24 CH 3	15851
224	CH 4	16191	802	CH 4	16189
226	CH 5	16501	804	CH 5	16501
228	CH 6	16893	806	CH 6	16891
230	CH 7	15953	808	CH 7	15957
232	CH 8	16543	810	CH 8	16541
234	CH 9	16486	812	CH 9	16483
236	CH 10	16431	814	CH 10	16431
238	CH 11	16068	816	CH 11	16064
240	CH 12	16369	818	CH 12	16370
242	CH 13	16138	820	CH 13	16136
244	CH 14	16594	822	CH 14	16572
246	CH 15	16203	824	CH 15	16205
248	REFLECTOR 1 POSITION 8	15281	826	REFLECTOR 1 POSITION 25	15281
250	REFLECTOR 2 POSITION 8	14934	828	REFLECTOR 2 POSITION 25	14934
252	REFL 1 POS 8 2ND LOOK	15281	830	REFL 1 POS 25 2ND LOOK	15281
254	REFL 2 POS 8 2ND LOOK	14934	832	REFL 2 POS 25 2ND LOOK	14934
256	GSE #7 SAMPLE 8 CH 3	15852	834	GSE #7 SAMPLE 25 CH 3	15847
258	CH 4	16192	836	CH 4	16191
260	CH 5	16504	838	CH 5	16500
262	CH 6	16891	840	CH 6	16888
264	CH 7	15957	842	CH 7	15955
266	CH 8	16541	844	CH 8	16542
268	CH 9	16489	846	CH 9	16487
270	CH 10	16433	848	CH 10	16429
272	CH 11	16072	850	CH 11	16073
274	CH 12	16358	852	CH 12	16360
276	CH 13	16139	854	CH 13	16136
278	CH 14	16592	856	CH 14	16602
280	CH 15	16204	858	CH 15	16206
282	REFLECTOR 1 POSITION 9	15281	860	REFLECTOR 1 POSITION 26	15281
284	REFLECTOR 2 POSITION 9	14934	862	REFLECTOR 2 POSITION 26	14934
286	REFL 1 POS 9 2ND LOOK	15281	864	REFL 1 POS 26 2ND LOOK	15281
288	REFL 2 POS 9 2ND LOOK	14934	866	REFL 2 POS 26 2ND LOOK	14934
290	GSE #7 SAMPLE 9 CH 3	15851	868	GSE #7 SAMPLE 26 CH 3	15845
292	CH 4	16193	870	CH 4	16192

JUL 14 1998 7A 197

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16502	872	CH 5	16503
296	CH 6	16891	874	CH 6	16890
298	CH 7	15954	876	CH 7	15949
300	CH 8	16541	878	CH 8	16540
302	CH 9	16485	880	CH 9	16486
304	CH 10	16437	882	CH 10	16432
306	CH 11	16069	884	CH 11	16066
308	CH 12	16365	886	CH 12	16368
310	CH 13	16149	888	CH 13	16146
312	CH 14	16572	890	CH 14	16607
314	CH 15	16206	892	CH 15	16206
316	REFLECTOR 1 POSITION 10	15281	894	REFLECTOR 1 POSITION 27	15281
318	REFLECTOR 2 POSITION 10	14934	896	REFLECTOR 2 POSITION 27	14934
320	REFL 1 POS 10 2ND LOOK	15281	898	REFL 1 POS 27 2ND LOOK	15281
322	REFL 2 POS 10 2ND LOOK	14934	900	REFL 2 POS 27 2ND LOOK	14934
324	GSE #7 SAMPLE 10 CH 3	15851	902	GSE #7 SAMPLE 27 CH 3	15850
326	CH 4	16195	904	CH 4	16190
328	CH 5	16502	906	CH 5	16503
330	CH 6	16889	908	CH 6	16888
332	CH 7	15958	910	CH 7	15950
334	CH 8	16541	912	CH 8	16541
336	CH 9	16491	914	CH 9	16487
338	CH 10	16434	916	CH 10	16429
340	CH 11	16073	918	CH 11	16065
342	CH 12	16373	920	CH 12	16366
344	CH 13	16135	922	CH 13	16141
346	CH 14	16607	924	CH 14	16593
348	CH 15	16204	926	CH 15	16206
350	REFLECTOR 1 POSITION 11	15281	928	REFLECTOR 1 POSITION 28	15281
352	REFLECTOR 2 POSITION 11	14934	930	REFLECTOR 2 POSITION 28	14934
354	REFL 1 POS 11 2ND LOOK	15281	932	REFL 1 POS 28 2ND LOOK	15281
356	REFL 2 POS 11 2ND LOOK	14934	934	REFL 2 POS 28 2ND LOOK	14934
358	GSE #7 SAMPLE 11 CH 3	15846	936	GSE #7 SAMPLE 28 CH 3	15844
360	CH 4	16195	938	CH 4	16196
362	CH 5	16504	940	CH 5	16506
364	CH 6	16886	942	CH 6	16886
366	CH 7	15954	944	CH 7	15953
368	CH 8	16539	946	CH 8	16543
370	CH 9	16485	948	CH 9	16485
372	CH 10	16429	950	CH 10	16430
374	CH 11	16079	952	CH 11	16067
376	CH 12	16368	954	CH 12	16369
378	CH 13	16133	956	CH 13	16141
380	CH 14	16581	958	CH 14	16579
382	CH 15	16204	960	CH 15	16204
384	REFLECTOR 1 POSITION 12	15281	962	REFLECTOR 1 POSITION 29	15281
386	REFLECTOR 2 POSITION 12	14934	964	REFLECTOR 2 POSITION 29	14934
388	REFL 1 POS 12 2ND LOOK	15281	966	REFL 1 POS 29 2ND LOOK	15281
390	REFL 2 POS 12 2ND LOOK	14934	968	REFL 2 POS 29 2ND LOOK	14934
392	GSE #7 SAMPLE 12 CH 3	15846	970	GSE #7 SAMPLE 29 CH 3	15849

7A 197 JUL 1 4 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16193	972	CH 4	16192
396	CH 5	16504	974	CH 5	16504
398	CH 6	16889	976	CH 6	16886
400	CH 7	15955	978	CH 7	15956
402	CH 8	16541	980	CH 8	16539
404	CH 9	16487	982	CH 9	16485
406	CH 10	16433	984	CH 10	16436
408	CH 11	16065	986	CH 11	16070
410	CH 12	16364	988	CH 12	16367
412	CH 13	16137	990	CH 13	16133
414	CH 14	16602	992	CH 14	16598
416	CH 15	16206	994	CH 15	16206
418	REFLECTOR 1 POSITION 13	15281	996	REFLECTOR 1 POSITION 30	15281
420	REFLECTOR 2 POSITION 13	14934	998	REFLECTOR 2 POSITION 30	14934
422	REFL 1 POS 13 2ND LOOK	15281	1000	REFL 1 POS 30 2ND LOOK	15281
424	REFL 2 POS 13 2ND LOOK	14934	1002	REFL 2 POS 30 2ND LOOK	14934
426	GSE #7 SAMPLE 13 CH 3	15848	1004	GSE #7 SAMPLE 30 CH 3	15845
428	CH 4	16192	1006	CH 4	16193
430	CH 5	16501	1008	CH 5	16507
432	CH 6	16889	1010	CH 6	16889
434	CH 7	15953	1012	CH 7	15956
436	CH 8	16542	1014	CH 8	16541
438	CH 9	16487	1016	CH 9	16488
440	CH 10	16432	1018	CH 10	16436
442	CH 11	16065	1020	CH 11	16071
444	CH 12	16373	1022	CH 12	16370
446	CH 13	16134	1024	CH 13	16134
448	CH 14	16583	1026	CH 14	16587
450	CH 15	16205	1028	CH 15	16207
452	REFLECTOR 1 POSITION 14	15281	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	14934	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	15281	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	14934	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	GSE #7 SAMPLE 14 CH 3	15843	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16195	1040	CH 4	0
464	CH 5	16502	1042	CH 5	0
466	CH 6	16887	1044	CH 6	0
468	CH 7	15956	1046	CH 7	0
470	CH 8	16539	1048	CH 8	0
472	CH 9	16487	1050	CH 9	0
474	CH 10	16430	1052	CH 10	0
476	CH 11	16067	1054	CH 11	0
478	CH 12	16370	1056	CH 12	0
480	CH 13	16137	1058	CH 13	0
482	CH 14	16594	1060	CH 14	0
484	CH 15	16205	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	15281	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	14934	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	15281	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	14934	1070	CH 6	0

JUL 1 1998

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	GSE #7 SAMPLE 15 CH 3	15847	1072	CH 7	0
496	CH 4	16195	1074	CH 8	0
498	CH 5	16501	1076	CH 9	0
500	CH 6	16890	1078	CH 10	0
502	CH 7	15959	1080	CH 11	0
504	CH 8	16542	1082	CH 12	0
506	CH 9	16484	1084	CH 13	0
508	CH 10	16432	1086	CH 14	0
510	CH 11	16074	1088	CH 15	0
512	CH 12	16363	1182	REFLECTOR 1 WARM CAL POS	0E
514	CH 13	16150	1184	REFLECTOR 2 WARM CAL POS	0E
516	CH 14	16581	1186	REFL 1 WARM CAL 2ND LOOK	0E
518	CH 15	16206	1188	REFL 2 WARM CAL 2ND LOOK	0E
520	REFLECTOR 1 POSITION 16	15281	1190	WARM CAL DATA 1 CH 3	0
522	REFLECTOR 2 POSITION 16	14934	1192	CH 4	0
524	REFL 1 POS 16 2ND LOOK	15281	1194	CH 5	0
526	REFL 2 POS 16 2ND LOOK	14934	1196	CH 6	0
528	GSE #7 SAMPLE 16 CH 3	15848	1198	CH 7	0
530	CH 4	16192	1200	CH 8	0
532	CH 5	16500	1202	CH 9	0
534	CH 6	16891	1204	CH 10	0
536	CH 7	15958	1206	CH 11	0
538	CH 8	16544	1208	CH 12	0
540	CH 9	16485	1210	CH 13	0
542	CH 10	16435	1212	CH 14	0
544	CH 11	16072	1214	CH 15	0
546	CH 12	16365	1216	WARM CAL DATA 2 CH 3	0
548	CH 13	16145	1218	CH 4	0
550	CH 14	16590	1220	CH 5	0
552	CH 15	16203	1222	CH 6	0
554	REFLECTOR 1 POSITION 17	15281	1224	CH 7	0
556	REFLECTOR 2 POSITION 17	14934	1226	CH 8	0
558	REFL 1 POS 17 2ND LOOK	15281	1228	CH 9	0
560	REFL 2 POS 17 2ND LOOK	14934	1230	CH 10	0
562	GSE #7 SAMPLE 17 CH 3	15849	1232	CH 11	0
564	CH 4	16189	1234	CH 12	0
566	CH 5	16505	1236	CH 13	0
568	CH 6	16890	1238	CH 14	0
570	CH 7	15956	1240	CH 15	0

JUL 14 1998

TA 197

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18731	24.31
1092	SCAN MOTOR A1-2	19918	25.87
1094	FEED HORN A1-1	20914	28.81
1096	FEED HORN A1-2	22100	31.14
1098	RF MUX A1-1	22963	32.61
1100	RF MUX A1-2	24448	35.63
1102	LOCAL OSCILLATOR CHANNEL 3	25538	37.95
1104	LOCAL OSCILLATOR CHANNEL 4	25985	38.14
1106	LOCAL OSCILLATOR CHANNEL 5	24639	36.17
1108	LOCAL OSCILLATOR CHANNEL 6	23277	32.59
1110	LOCAL OSCILLATOR CHANNEL 7	23644	34.03
1112	LOCAL OSCILLATOR CHANNEL 8	25362	37.45
1114	LOCAL OSCILLATOR CHANNEL 15	24595	35.48
1116	PLLO #2	22944	32.60
1118	PLLO #1	25826	38.24
1120	1553 INTERFACE	18881	37.75
1122	MIXER/IF AMPLIFIER CHANNEL 3	24763	36.17
1124	MIXER/IF AMPLIFIER CHANNEL 4	24933	36.01
1126	MIXER/IF AMPLIFIER CHANNEL 5	24524	35.62
1128	MIXER/IF AMPLIFIER CHANNEL 6	23267	33.19
1130	MIXER/IF AMPLIFIER CHANNEL 7	23275	33.76
1132	MIXER/IF AMPLIFIER CHANNEL 8	24889	36.28
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22711	32.35
1136	MIXER/IF AMPLIFIER CHANNEL 15	24502	35.82
1138	IF AMPLIFIER CHANNEL 11 THRU 14	24222	35.09
1140	IF AMPLIFIER CHANNEL 9	24388	35.31
1142	IF AMPLIFIER CHANNEL 10	24252	35.31
1144	IF AMPLIFIER CHANNEL 11	23362	32.73
1146	DC/DC CONVERTER	25743	37.48
1148	IF AMPLIFIER CHANNEL 13	22942	32.03
1150	IF AMPLIFIER CHANNEL 14	23305	33.18
1152	IF AMPLIFIER CHANNEL 12	23119	32.61
1154	RF SHELF A1-1	23677	33.97
1156	RF SHELF A1-2	24595	35.13
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21415	29.63
1160	A1-1 WARM LOAD 1	24205	25.39
1162	A1-1 WARM LOAD 2	24697	25.50
1164	A1-1 WARM LOAD 3	24193	25.52
1166	A1-1 WARM LOAD 4	24272	25.49
1168	A1-1 WARM LOAD CENTER	24475	25.52
1170	A1-2 WARM LOAD 1	25360	27.14
1172	A1-2 WARM LOAD 2	25417	27.16
1174	A1-2 WARM LOAD 3	25441	27.18
1176	A1-2 WARM LOAD 4	25427	27.06
1178	A1-2 WARM LOAD CENTER	25435	27.16
1180	TEMP SENSOR REFERENCE VOLTAGE	25269	

JUL 14 1998

7A
197

GSE MODE 7

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	23.4
A1-1 RF SHELF TEMPERATURE #1	28.7
A1-1 WARM LOAD TEMPERATURE	24.1
A1-2 SCANNER MOTOR TEMPERATURE	25.2
A1-2 RF SHELF TEMPERATURE #1	32.5
A1-2 WARM LOAD TEMPERATURE	25.3
A1-1 RF SHELF TEMPERATURE #2	28.6
A1-2 RF SHELF TEMPERATURE #2	32.1

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22062	4.9
	+15 VDC	21838	15.1
	-15 VDC	21799	-15.0
SCAN DRIVE	+5 VDC	22194	4.9
	+15 VDC	22242	14.9
	-15 VDC	21868	-15.1
PLO	+15 VDC	22453	14.8
	-15 VDC	22074	-15.2
RECEIVER	+8 VDC	21807	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21413	10.0
A1-2	+10 VDC	21431	10.0
LO CHANNEL 6	+10 VDC	21390	10.0
7	+10 VDC	21455	10.0
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21261	10.1
4	+10 VDC	21198	10.1
5	+10 VDC	21342	10.0
8	+10 VDC	21319	10.0
15	+15 VDC	22032	15.0
QUIET BUS CURRENT		16559	2273.9
A1-1 NOISY POWER BUS CURRENT		75	0.4
A1-2 NOISY POWER BUS CURRENT		44	0.3

7A 197

JUL 1 4 1998

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

JUL 14 1998
7A 197

AMSU-A1 S/N 202 PLLO #1 7/13/98
REF -84.0 dBm HARMONIC 10

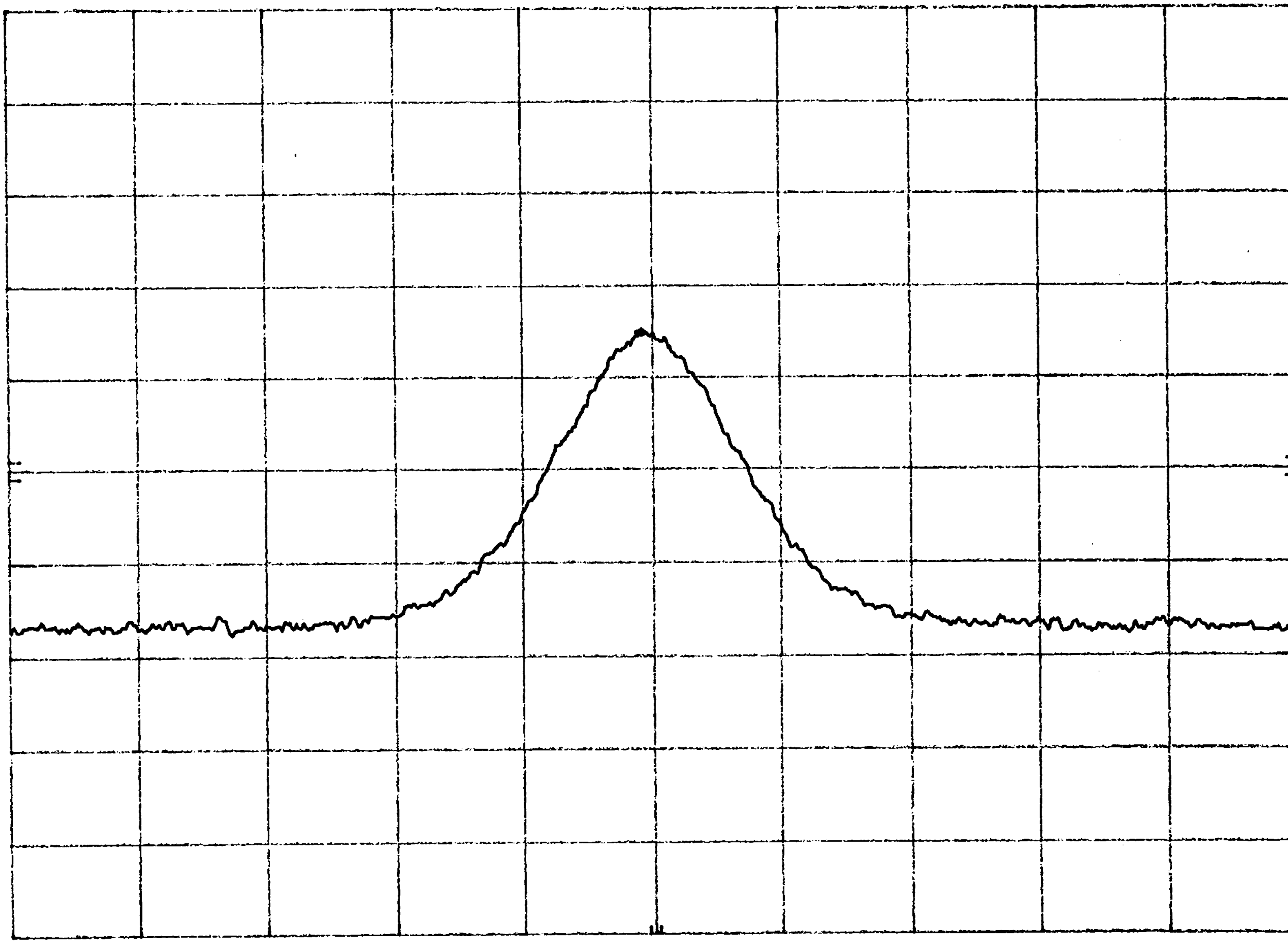
MKR 57.290 322 GHz
-87.52 dBm

hp

1 dB/

CNVLOSS
22.0
dB

S/O 298561
OPER 0810
PARA 3.3.7.1
TDS 19

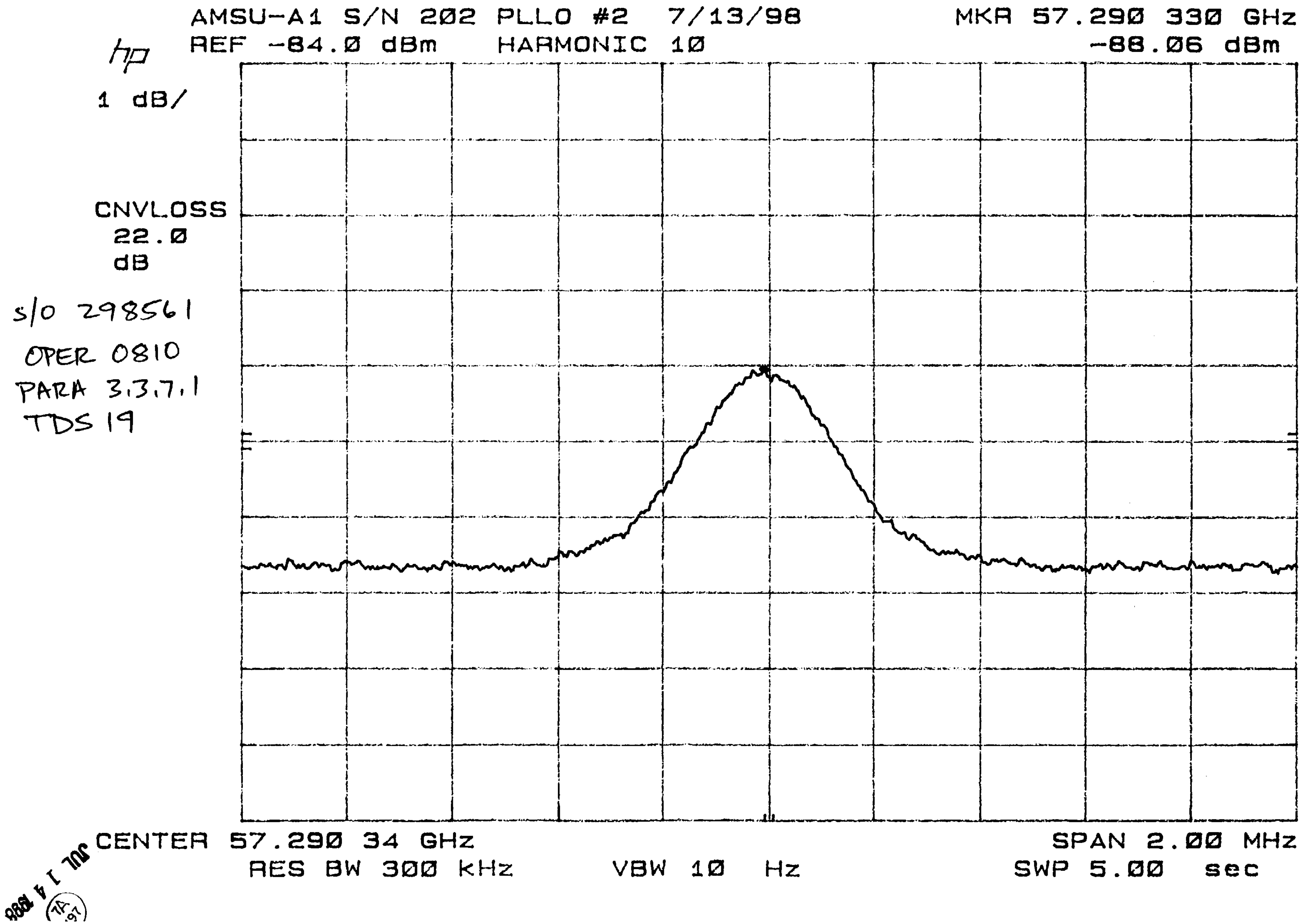


CENTER 57.290 34 GHz
RES BW 300 kHz VBW 10 Hz

SPAN 2.00 MHz
SWP 5.00 sec

TA 197

JUL 14 1998



AMSU-A1 S/N 202 PLLO #2 7/13/98
REF -84.0 dBm HARMONIC 10
MKR 57.290 330 GHz
-88.06 dBm
hp
1 dB/
CNVLOSS
22.0
dB
s/o 298561
OPER 0810
PARA 3.3.7.1
TDS 19
CENTER 57.290 34 GHz
RES BW 300 kHz
VBW 10 Hz
SPAN 2.00 MHz
SWP 5.00 sec
JUL 14 1998

TEST DATA SHEET NO. 20 (Sheet 1 of 2)
Radiometer Functional Performance Test (Relative NEΔT Measurements*) (Paragraph 3.3.7.2)
PLO #1 Turned On

RELATIVE NEΔT MEASUREMENTS (PLO #1 ACTIVE)			
Channel Number	Average NEΔT for 5 Data Sets (K)	Required** NEΔT (K)	Pass/Fail
3	.258	0.40	PASS
4	.142	0.25	PASS
5	.169	0.25	PASS
6	.152	0.25	PASS
7	.175	0.25	PASS
8	.173	0.25	PASS
9	.169	0.25	PASS
10	.226	0.40	PASS
11	.250	0.40	PASS
12	.365	0.60	PASS
13	.503	0.80	PASS
14	.806	1.20	PASS
15	.131	0.50	PASS

P = Pass F = Fail

* Baseline data for acceptance tests. Use 1st CPT data along with specification value for pass/fail criteria.

** For reference only

EOS/AMSU-A1 System P/N 1356008 Shop Order: 298561 S/N: 202

Circle Test: 1st CPT Final CPT Sub CPT N/A LPT N/A

Test Systems Engineer 7/13/98 Date

Customer Representative JUL 22 '98 Date

Quality Control JUL 14 1998 Date

A1 FUN... NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:14:27

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.06	15860.0	15803.0	1.000	3.022
4	301.06	16182.0	16123.0	1.000	1.747
5	301.06	16500.0	16446.0	1.000	2.317
6	299.46	16807.0	13900.0	0.075	0.137
7	299.46	15894.0	13313.0	0.085	0.201
8	301.06	16602.0	16544.0	1.000	2.102
9	299.46	16442.0	13726.0	0.081	0.163
10	299.46	16370.0	13522.0	0.077	0.223
11	299.46	15962.0	13311.0	0.083	0.250
12	299.46	16246.0	13535.0	0.081	0.429
13	299.46	16009.0	13401.0	0.084	0.546
14	299.46	16458.0	13752.0	0.081	0.694
15	299.46	16160.0	14378.0	0.123	0.138

A1-1 channels
PLD #1 active
RUN #1

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

JUL 1 4 1998
JUL 1 ...
7A 197

A1 FUNC NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:16:28

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.06	15860.0	15805.0	1.000	2.808
4	301.06	16182.0	16124.0	1.000	1.515
5	301.06	16503.0	16447.0	1.000	1.881
6	299.43	16807.0	13919.0	0.076	0.144
7	299.43	15894.0	13333.0	0.086	0.163
8	301.06	16603.0	16544.0	1.000	2.074
9	299.43	16441.0	13743.0	0.081	0.169
10	299.43	16370.0	13540.0	0.078	0.230
11	299.43	15964.0	13330.0	0.083	0.236
12	299.43	16246.0	13552.0	0.081	0.341
13	299.43	16009.0	13420.0	0.085	0.465
14	299.43	16459.0	13766.0	0.081	0.818
15	299.43	16160.0	14395.0	0.124	0.116

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 channels
PLO #1 Active
RUN #2

JUL 14 1998
7A
197

A1 FUNC NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:19:08

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.06	15859.0	15805.0	1.000	2.874
4	301.06	16182.0	16122.0	1.000	1.912
5	301.06	16501.0	16446.0	1.000	1.962
6	299.36	16805.0	13900.0	0.076	0.165
7	299.36	15894.0	13315.0	0.085	0.169
8	301.06	16604.0	16545.0	1.000	2.163
9	299.36	16443.0	13728.0	0.081	0.171
10	299.36	16371.0	13524.0	0.077	0.220
11	299.36	15966.0	13319.0	0.083	0.246
12	299.36	16247.0	13545.0	0.081	0.318
13	299.36	16012.0	13412.0	0.084	0.509
14	299.36	16463.0	13763.0	0.081	0.887
15	299.36	16160.0	14375.0	0.123	0.133

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 CHANNELS
PLO#1 ACTIVE
RUN #3

JUL 14 1998
7A 197

A1 FUNC ..NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:21:01

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.07	15861.0	15804.0	1.000	2.779
4	301.07	16182.0	16123.0	1.000	1.870
5	301.07	16501.0	16447.0	1.000	1.966
6	299.31	16804.0	13914.0	0.076	0.159
7	299.31	15894.0	13331.0	0.086	0.170
8	301.07	16606.0	16546.0	1.000	2.373
9	299.31	16443.0	13741.0	0.081	0.191
10	299.31	16372.0	13537.0	0.077	0.227
11	299.31	15966.0	13333.0	0.083	0.260
12	299.31	16249.0	13557.0	0.081	0.359
13	299.31	16012.0	13425.0	0.085	0.500
14	299.31	16463.0	13774.0	0.082	0.807
15	299.31	16159.0	14388.0	0.124	0.136

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 CHANNELS
PLO #1 ACTIVE
RUN #4

JUL 1 4 1998
7A 197

A1 FUNC NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:23:58

A1-1 channels
PLO # 1 ACTIVE
RUN # 5

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.08	15862.0	15803.0	1.000	3.060
4	301.08	16183.0	16124.0	1.000	1.556
5	301.08	16500.0	16445.0	1.000	2.473
6	299.23	16806.0	13897.0	0.075	0.154
7	299.23	15892.0	13311.0	0.085	0.172
8	301.08	16605.0	16546.0	1.000	2.000
9	299.23	16443.0	13726.0	0.081	0.150
10	299.23	16371.0	13522.0	0.077	0.229
11	299.23	15965.0	13314.0	0.083	0.256
12	299.23	16249.0	13539.0	0.081	0.378
13	299.23	16012.0	13408.0	0.084	0.494
14	299.23	16461.0	13757.0	0.081	0.823
15	299.23	16158.0	14373.0	0.123	0.133

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]

SELECT BUTTON 2

JUL 14 1998
7A 197

A1 FUNC. .NAL TEST RESULTS
E1.EXE;35 13-JUL-98 18:55:28

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.39	15859.0	13259.0	0.085	0.253
4	301.39	16185.0	13263.0	0.076	0.140
5	301.39	16502.0	13684.0	0.079	0.163
6	299.27	16811.0	16809.0	1.000	2.064
7	299.27	15899.0	15896.0	1.000	2.050
8	301.39	16603.0	13586.0	0.073	0.153
9	299.27	16447.0	16444.0	1.000	2.251
10	299.27	16378.0	16375.0	1.000	2.702
11	299.27	15980.0	15978.0	1.000	3.033
12	299.27	16264.0	16261.0	1.000	4.632
13	299.27	16030.0	16029.0	1.000	5.999
14	299.27	16481.0	16484.0	1.000	9.857
15	299.27	16166.0	16165.0	1.000	1.390

A1-2 channels
PLO# 1 active
RUN #1

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

JUL 1 4 1998
7A 197

A1 FUN. .NAL TEST RESULTS
E1.EXE;35 13-JUL-98 18:58:24

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.35	15861.0	13299.0	0.086	0.277
4	301.35	16183.0	13304.0	0.077	0.139
5	301.35	16500.0	13724.0	0.080	0.153
6	299.31	16809.0	16805.0	1.000	2.136
7	299.31	15898.0	15896.0	1.000	2.323
8	301.35	16602.0	13636.0	0.075	0.203
9	299.31	16446.0	16444.0	1.000	1.981
10	299.31	16376.0	16372.0	1.000	3.088
11	299.31	15976.0	15975.0	1.000	2.895
12	299.31	16259.0	16255.0	1.000	4.755
13	299.31	16025.0	16022.0	1.000	6.084
14	299.31	16477.0	16475.0	1.000	8.834
15	299.31	16165.0	16163.0	1.000	1.081

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-2 channels
PLO# 1 ACTIVE
RUN #2

JUL 14 1998
7A 197

A1 FUN[illegible]NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:01:29

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.30	15860.0	13312.0	0.087	0.237
4	301.30	16181.0	13321.0	0.077	0.145
5	301.30	16500.0	13738.0	0.080	0.164
6	299.35	16809.0	16804.0	1.000	2.056
7	299.35	15897.0	15894.0	1.000	2.021
8	301.30	16603.0	13654.0	0.075	0.170
9	299.35	16445.0	16443.0	1.000	2.158
10	299.35	16375.0	16370.0	1.000	2.517
11	299.35	15972.0	15972.0	1.000	2.821
12	299.35	16256.0	16250.0	1.000	4.641
13	299.35	16020.0	16019.0	1.000	5.944
14	299.35	16471.0	16468.0	1.000	9.837
15	299.35	16164.0	16162.0	1.000	1.145

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-2 channels
PLO#1 ACTIVE
RUN#3

7A 197
JUL 1 4 '9[illegible]

A1 FUNC NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:03:21

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.26	15859.0	13337.0	0.088	0.261
4	301.26	16180.0	13345.0	0.078	0.136
5	301.26	16499.0	13760.0	0.081	0.188
6	299.37	16809.0	16805.0	1.000	2.128
7	299.37	15896.0	15894.0	1.000	2.090
8	301.26	16602.0	13682.0	0.076	0.161
9	299.37	16445.0	16442.0	1.000	1.876
10	299.37	16374.0	16371.0	1.000	2.718
11	299.37	15970.0	15969.0	1.000	2.909
12	299.37	16253.0	16249.0	1.000	4.859
13	299.37	16018.0	16017.0	1.000	5.567
14	299.37	16469.0	16471.0	1.000	8.948
15	299.37	16163.0	16161.0	1.000	1.152

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-2 channels
PLO #1 ACTIVE
RUN#4

7A 197
JUL 1 4 1998

A1 FUN NAL TEST RESULTS
E1.EXE;35 13-JUL-98 19:06:58

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.18	15858.0	13352.0	0.088	0.262
4	301.18	16179.0	13357.0	0.078	0.152
5	301.18	16498.0	13773.0	0.081	0.176
6	299.41	16809.0	16803.0	1.000	2.158
7	299.41	15897.0	15892.0	1.000	2.422
8	301.18	16601.0	13697.0	0.076	0.177
9	299.41	16444.0	16441.0	1.000	1.899
10	299.41	16373.0	16369.0	1.000	3.065
11	299.41	15968.0	15966.0	1.000	2.735
12	299.41	16252.0	16248.0	1.000	4.162
13	299.41	16015.0	16013.0	1.000	5.725
14	299.41	16466.0	16462.0	1.000	10.497
15	299.41	16162.0	16159.0	1.000	1.220

A1-2 channels
PLO#1 ACTIVE
RUN #5

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

JUL 14 1998
7A 197

A1 FUN   NAL TEST RESULTS
E1.EXE;35   13-JUL-98   20:28:24

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.45	15859.0	15799.0	1.000	3.181
4	301.45	16174.0	16109.0	1.000	1.856
5	301.45	16438.0	16378.0	1.000	2.392
6	299.27	16787.0	14092.0	0.081	0.177
7	299.27	15869.0	13485.0	0.092	0.173
8	301.45	16599.0	16536.0	1.000	2.118
9	299.27	16434.0	13920.0	0.087	0.148
10	299.27	16367.0	13732.0	0.083	0.226
11	299.27	15948.0	13497.0	0.089	0.296
12	299.27	16230.0	13724.0	0.087	0.369
13	299.27	15987.0	13579.0	0.091	0.524
14	299.27	16438.0	13937.0	0.088	0.879
15	299.27	16144.0	14524.0	0.135	0.145

[2] PRINT SCREEN   [3] PRINT RAW DATA   [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH   RETURN [1]

SELECT BUTTON 2

A1-1 channels
PLO#2 Active
RUN #1

7A 197
JUL 14 1998

A1 FUNC NAL TEST RESULTS
E1.EXE;35 13-JUL-98 20:30:56

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.47	15859.0	15797.0	1.000	3.191
4	301.47	16174.0	16108.0	1.000	1.794
5	301.47	16437.0	16376.0	1.000	2.002
6	299.25	16787.0	14062.0	0.080	0.188
7	299.25	15868.0	13455.0	0.091	0.183
8	301.47	16601.0	16536.0	1.000	2.027
9	299.25	16434.0	13893.0	0.086	0.183
10	299.25	16369.0	13701.0	0.082	0.222
11	299.25	15949.0	13470.0	0.088	0.275
12	299.25	16232.0	13698.0	0.087	0.366
13	299.25	15989.0	13553.0	0.090	0.496
14	299.25	16438.0	13909.0	0.087	0.864
15	299.25	16144.0	14493.0	0.133	0.134

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 channels
PLO#2 Active
RUN #2

7A 197
JUL 14 199-

A1 FUN NAL TEST RESULTS
E1.EXE;35 13-JUL-98 20:32:49

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.48	15858.0	15797.0	1.000	3.006
4	301.48	16174.0	16109.0	1.000	1.796
5	301.48	16436.0	16377.0	1.000	2.048
6	299.22	16787.0	14059.0	0.080	0.172
7	299.22	15866.0	13454.0	0.091	0.191
8	301.48	16601.0	16535.0	1.000	2.217
9	299.22	16434.0	13890.0	0.086	0.168
10	299.22	16369.0	13698.0	0.082	0.244
11	299.22	15949.0	13469.0	0.088	0.256
12	299.22	16233.0	13696.0	0.086	0.399
13	299.22	15990.0	13552.0	0.090	0.529
14	299.22	16441.0	13909.0	0.087	0.885
15	299.22	16144.0	14495.0	0.133	0.149

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]

SELECT BUTTON 2

A1-1 channels
PLO # 2 ACTIVE
RUN #3

JUL 14 1998
7A 197

A1 FUN_ _NAL TEST RESULTS
E1.EXE;35 13-JUL-98 20:35:22

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.49	15860.0	15798.0	1.000	3.219
4	301.49	16175.0	16109.0	1.000	1.742
5	301.49	16436.0	16376.0	1.000	1.968
6	299.18	16787.0	14023.0	0.079	0.182
7	299.18	15865.0	13415.0	0.089	0.178
8	301.49	16601.0	16535.0	1.000	2.000
9	299.18	16435.0	13857.0	0.085	0.170
10	299.18	16369.0	13667.0	0.081	0.239
11	299.18	15950.0	13436.0	0.087	0.275
12	299.18	16235.0	13664.0	0.085	0.329
13	299.18	15992.0	13520.0	0.089	0.518
14	299.18	16442.0	13874.0	0.085	0.900
15	299.18	16143.0	14472.0	0.131	0.136

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 Channels
PLO#2 Active
RUN #4

JUL 1 4 1998
TA

A1 FUN. .NAL TEST RESULTS
E1.EXE;35 13-JUL-98 20:37:22

CH	WARM TEMP	WARM COUNTS	COLD COUNTS	GAIN	DELTA T
3	301.50	15861.0	15799.0	1.000	3.145
4	301.50	16174.0	16107.0	1.000	1.660
5	301.50	16437.0	16377.0	1.000	2.242
6	299.14	16788.0	14037.0	0.080	0.157
7	299.14	15864.0	13428.0	0.090	0.185
8	301.50	16600.0	16535.0	1.000	2.078
9	299.14	16434.0	13868.0	0.085	0.196
10	299.14	16368.0	13679.0	0.081	0.242
11	299.14	15951.0	13448.0	0.088	0.270
12	299.14	16235.0	13675.0	0.086	0.375
13	299.14	15992.0	13534.0	0.089	0.537
14	299.14	16442.0	13887.0	0.086	0.799
15	299.14	16142.0	14485.0	0.132	0.184

[2] PRINT SCREEN [3] PRINT RAW DATA [4] PRINT HISTOGRAM

[5] PRINT DISTRIBUTION GRAPH RETURN [1]
SELECT BUTTON 2

A1-1 channels
PLO#2 ACTIVE
RUN #5

JUL 1 4 1998
7A 197

TEST DATA SHEET 21
Channel Identification Test
(para 3.3.8)

P.K. Patel 7/14/98 QC 227

Channel Number	Antenna Location	Sweeper Freq. Setting (GHz)	Polarization (H/V)	Radiometric Data ~~Counts~~ Δ Counts	Channel Verified (Yes/No)
3	A1-2	50.35	V	16666	YES
				0	
4	A1-2	52.85	V	9162	YES
5	A1-2	53.70	H	15635	YES
6	A1-1	54.45	H	15681	YES
7	A1-1	54.99	V	16598	YES
8	A1-2	55.55	H	15873	YES
9	A1-1	57.34	H	16056	YES
10	A1-1	57.50	H	15953	YES
11	A1-1	57.564	H	15903	YES
12	A1-1	57.59	H	15557	YES
13	A1-1	57.602	H	15640	YES
14	A1-1	57.608	H	15237	YES
15	A1-1	89.55	V	16252	YES

QC 227 P.K. Pa[illegible] 7/14

S/N 202

EOS/AMSU-A1 System P/N 1356008 Shop order 298561

Circle Test: 1st CPT Final CPT Sub CPT ____ PT ____

R. Platt 7/14/98
Test Date

JUL 14 1998
Quality control Date

J. Sanford JUL 23 '98
Customer Rep. Date

* A-37 P.K. Patel 7/14/98

P.K. Patel QC 22

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:26:38 SCAN NUMBER 76 Baseline

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16101	8	16894	13	17127
4	16652	9	16711	14	17530
5	17132	10	16814	15	16515
6	17086	11	16864		
7	16169	12	17210		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN F459 CALC F459 SA28 69 SA29 137

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

TA 197

JUL 1 4 1998

ch 3

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:38:38 SCAN NUMBER 166

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	32767	8	16802	13	16914
4	16554	9	16633	14	17335
5	16997	10	16708	15	16424
6	16998	11	16751		
7	16138	12	17027		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN AA1F CALC AA1F SA28 160 SA29 318

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

7A 197
JUL 14 1998

ch 7

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:40:14 SCAN NUMBER 178

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16080	8	16820	13	16915
4	25814	9	16642	14	17351
5	16996	10	16733	15	16446
6	17007	11	16719		
7	16106	12	17051		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN BB51 CALC BB51 SA28 172 SA29 343

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

7A 197 JUL 14 1998

ch 5

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:44:14 SCAN NUMBER 208
[5] SCIENCE DATA ELEMENT 1 SYNC SEQUENCE BYTE 1 00000000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16033	8	16739	13	17032
4	16497	9	16618	14	17334
5	32767	10	16637	15	16349
6	16991	11	16632		
7	16043	12	16970		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN AD99 CALC AD99 SA28 202 SA29 402
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

JUL 14 ...

7A 197

Ch6

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:45:02 SCAN NUMBER 214
[5] SCIENCE DATA ELEMENT 1 SYNC SEQUENCE BYTE 1 00000000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16045	8	16768	13	16864
4	16515	9	16663	14	17378
5	16949	10	16672	15	16387
6	32767	11	16649		
7	16058	12	16990		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN C81D CALC C81D SA28 207 SA29 413
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

7A 197
JUL 14 1998

ch 7

```
EOS      A1-03 E1.EXE;35 COLD CAL MODE      P1 14-JUL-98 15:47:10  SCAN NUMBER    230
[ 5 ] SCIENCE   DATA  ELEMENT    1         SYNC SEQUENCE BYTE  1  00000000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                              RADIOMETRIC DATA

                           BEAM POSITION 30

                      CH  DATA   CH  DATA   CH  DATA

                       3 16113    8 16736   13 19987
                       4 16483    9 19242   14 20696
                       5 16869   10 19793   15 16350
                       6 17282   11 19615
                       7 32767   12 19920

[ 21 ] UP                  [ 22 ] DOWN

ENGR OK        POWER   ON     CHECKSUM  IN 6815 CALC 6815    SA28    224 SA29    446
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

JUL 14 1998
7A
197

ch 8

EOS   A1-03 E1.EXE;35 COLD CAL MODE   P1 14-JUL-98 15:45:50 SCAN NUMBER 220
[5] SCIENCE   DATA   ELEMENT   1   SYNC SEQUENCE BYTE 1 00000000

[6] CONTROL/STATUS   ELEMENT   00

[7] ENGINEERING   ELEMENT   00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16060	8	32767	13	16888
4	16529	9	16629	14	17334
5	16926	10	16701	15	16422
6	16989	11	16669		
7	16082	12	16993		

[21] UP   [22] DOWN

ENGR OK   POWER   ON   CHECKSUM IN 12D9 CALC 12D9   SA28   213 SA29   425
SCREEN ONLY [2] PRINT [3] FULL   [1] RETURN

SELECT BUTTON 2

JUL 1 4 1998

7A 197

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:31:34 SCAN NUMBER 113 ch 9

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16034	8	16797	13	14093
4	16571	9	32767	14	14489
5	17071	10	12095	15	16396
6	19480	11	14047		
7	22051	12	14199		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN F00D CALC F00D SA28 106 SA29 211

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

JUL 1 4 1998 7A 197

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:32:38 SCAN NUMBER 121 ch 10

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16051	8	16795	13	13458
4	16564	9	12619	14	13836
5	17042	10	32767	15	16573
6	19289	11	12568		
7	23050	12	13192		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN EBB7 CALC EBB7 SA28 115 SA29 228

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

TA 197 JUL 14 1998

ch 11

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:33:42 SCAN NUMBER 129

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16153	8	16785	13	14056
4	16554	9	12934	14	14456
5	17023	10	11140	15	16405
6	19341	11	32767		
7	23705	12	14385		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN BD55 CALC BD55 SA28 122 SA29 243

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

JUL 1 4 1998

TA 197

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:34:54 SCAN NUMBER 138 ch 1.2

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16029	8	16904	13	14115
4	16641	9	13180	14	14171
5	17015	10	12190	15	16391
6	19294	11	14296		
7	23535	12	32767		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 8FEF CALC 8FEF SA28 132 SA29 262

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

JUL 1 4 1998 74 197

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:35:34 SCAN NUMBER 143 Ch 13

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16026	8	16775	13	32767
4	16542	9	12781	14	17097
5	17166	10	12557	15	16380
6	19311	11	13683		
7	23567	12	14899		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 588F CALC 588F SA28 137 SA29 272

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

7A 197

JUL 14 19

Ch 1,

EOS A1-03 E1.EXE;35 COLD CAL MODE P1 14-JUL-98 15:37:26 SCAN NUMBER 157
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA

BEAM POSITION 30

CH	DATA	CH	DATA	CH	DATA
3	16060	8	16821	13	14946
4	16567	9	12593	14	32767
5	17012	10	13849	15	16452
6	19317	11	13452		
7	23651	12	14394		

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN F00D CALC F00D SA28 150 SA29 299
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

7A 197

JUL 1 4 1998

ch 15

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EOS      A1-03 E1.EXE;35 COLD CAL MODE      P1 14-JUL-98 15:49:58  SCAN NUMBER    251
[ 5 ]  SCIENCE    DATA   ELEMENT    1       SYNC SEQUENCE BYTE  1  00000000

[ 6 ]  CONTROL/STATUS    ELEMENT   00

[ 7 ]  ENGINEERING       ELEMENT   00

                               RADIOMETRIC DATA

                           BEAM POSITION 30

                         CH  DATA   CH  DATA   CH  DATA

                          3 16014    8 16774   13 16846
                          4 16511    9 16619   14 17303
                          5 16873   10 16694   15 32767
                          6 16988   11 16643
                          7 16074   12 16986

[ 21 ] UP                     [ 22 ] DOWN

ENGR OK          POWER    ON    CHECKSUM  IN 7187 CALC 7187   SA28    244 SA29    487
                          SCREEN ONLY [ 2 ]  PRINT   [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

JUL 14 1998

7A 197

AMSU-A1-1 MOTOR - BEAM POINTING POSITIONS FOR INFO ONLY

Position	Relative Differential Position	Relative Position	Binary Weights														4X		HEX Values	Decimal Printout
NADIR	0	336	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0540	336
1	2200	-1856	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	E300	14520
2	152	-1704	1	1	1	0	0	1	0	1	0	1	1	0	0	0	0	0	E560	14672
3	152	-1552	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	E7C0	14824
4	151	-1401	1	1	1	0	1	0	1	0	0	0	0	1	1	1	0	0	EA1C	14975
5	152	-1249	1	1	1	0	1	1	0	0	0	1	1	1	1	1	0	0	EC7C	15127
6	152	-1097	1	1	1	0	1	1	1	0	1	1	0	1	1	1	0	0	EEDC	15279
7	151	-946	1	1	1	1	0	0	0	1	0	0	1	1	1	0	0	0	F138	15430
8	152	-794	1	1	1	1	0	0	1	1	1	0	0	1	1	0	0	0	F398	15582
9	152	-642	1	1	1	1	0	1	0	1	1	1	1	1	1	0	0	0	F5F8	15734
10	151	-491	1	1	1	1	1	0	0	0	0	1	0	1	0	1	0	0	F854	15885
11	152	-339	1	1	1	1	1	0	1	0	1	0	1	1	0	1	0	0	FAB4	16037
12	152	-187	1	1	1	1	1	1	0	1	0	0	0	1	0	1	0	0	FD14	16189
13	151	-36	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	FF70	16340
14	152	116	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	01D0	108
15	152	268	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0430	260
16	151	419	0	0	0	0	0	1	1	0	1	0	0	0	1	1	0	0	068C	411
17	152	571	0	0	0	0	1	0	0	0	1	1	1	0	1	1	0	0	08EC	563
18	152	723	0	0	0	0	1	0	1	1	0	1	0	0	1	1	0	0	0B4C	715
19	151	874	0	0	0	0	1	1	0	1	1	0	1	0	1	0	0	0	0DA8	866
20	152	1026	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1008	1018
21	152	1178	0	0	0	1	0	0	1	0	0	1	1	0	1	0	0	0	1268	1170
22	151	1329	0	0	0	1	0	1	0	0	1	1	0	0	0	1	0	0	14C4	1321
23	152	1481	0	0	0	1	0	1	1	1	0	0	1	0	0	1	0	0	1724	1473
24	152	1633	0	0	0	1	1	0	0	1	1	0	0	0	0	1	0	0	1984	1625
25	151	1784	0	0	0	1	1	0	1	1	1	1	1	0	0	0	0	0	1BE0	1776
26	152	1936	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	1E40	1928
27	152	2088	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	20A0	2080
28	151	2239	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	0	22FC	2231
29	152	2391	0	0	1	0	0	1	0	1	0	1	0	1	1	1	0	0	255C	2383
30	152	2543	0	0	1	0	0	1	1	1	1	0	1	1	1	1	0	0	27BC	2535
CC 4	3490	3828	0	0	1	1	1	0	1	1	1	1	0	1	0	0	0	0	3BD0	3826
CC 3	3641	3979	0	0	1	1	1	1	1	0	0	0	1	0	1	1	0	0	3E2C	3977
CC 2	3717	4055	0	0	1	1	1	1	1	1	0	1	0	1	1	1	0	0	3F5C	4053
CC 1	3793	4131	0	1	0	0	0	0	0	0	1	0	0	0	1	1	0	0	408C	4129
WC	8192	8530	1	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	8548	8528

AMSU-A1-2 MOTOR - BEAM POINTING POSITIONS

FOR INFO ONLY

Position	Relative Differential Position	Relative Position	Binary Weights														4X		HEX Values	Decimal Printout
NADIR	0	-16	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	FFC0	16368
1	2200	-2216	1	1	0	1	1	1	0	1	0	1	1	0	0	0	0	0	DD60	14168
2	152	-2064	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	DFC0	14320
3	152	-1912	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	E220	14472
4	151	-1761	1	1	1	0	0	1	0	0	0	1	1	1	1	1	0	0	E47C	14623
5	152	-1609	1	1	1	0	0	1	1	0	1	1	0	1	1	1	0	0	E6DC	14775
6	152	-1457	1	1	1	0	1	0	0	1	0	0	1	1	1	1	0	0	E93C	14927
7	151	-1306	1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	0	EB98	15078
8	152	-1154	1	1	1	0	1	1	0	1	1	1	1	1	1	0	0	0	EDF8	15230
9	152	-1002	1	1	1	1	0	0	0	0	0	1	0	1	1	0	0	0	F058	15382
10	151	-851	1	1	1	1	0	0	1	0	1	0	1	1	0	1	0	0	F2B4	15533
11	152	-699	1	1	1	1	0	1	0	1	0	0	0	1	0	1	0	0	F514	15685
12	152	-547	1	1	1	1	0	1	1	1	0	1	1	1	0	1	0	0	F774	15837
13	151	-396	1	1	1	1	1	0	0	1	1	1	0	1	0	0	0	0	F9D0	15988
14	152	-244	1	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	FC30	16140
15	152	-92	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	FE90	16292
16	151	59	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	00EC	59
17	152	211	0	0	0	0	0	0	1	1	0	1	0	0	1	1	0	0	034C	211
18	152	363	0	0	0	0	0	1	0	1	1	0	1	0	1	1	0	0	05AC	363
19	151	514	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0808	514
20	152	666	0	0	0	0	1	0	1	0	0	1	1	0	1	0	0	0	0A68	666
21	152	818	0	0	0	0	1	1	0	0	1	1	0	0	1	0	0	0	0CC8	818
22	151	969	0	0	0	0	1	1	1	1	0	0	1	0	0	1	0	0	0F24	969
23	152	1121	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0	1184	1121
24	152	1273	0	0	0	1	0	0	1	1	1	1	1	0	0	1	0	0	13E4	1273
25	151	1424	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	1640	1424
26	152	1576	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	18A0	1576
27	152	1728	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1B00	1728
28	151	1879	0	0	0	1	1	1	0	1	0	1	0	1	1	1	0	0	1D5C	1879
29	152	2031	0	0	0	1	1	1	1	1	1	0	1	1	1	1	0	0	1FBC	2031
30	152	2183	0	0	1	0	0	0	1	0	0	0	0	1	1	1	0	0	221C	2183
CC 4	3490	3474	0	0	1	1	0	1	1	0	0	1	0	0	1	0	0	0	3648	3474
CC 3	3641	3625	0	0	1	1	1	0	0	0	1	0	1	0	0	1	0	0	38A4	3625
CC 2	3717	3701	0	0	1	1	1	0	0	1	1	1	0	1	0	1	0	0	39D4	3701
CC 1	3793	3777	0	0	1	1	1	0	1	1	0	0	0	0	0	1	0	0	3B04	3777
WC	8192	8176	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	7FC0	8176

DOCUMENT APPROVAL SHEET

GENCORP
AEROJET

TITLE	DOCUMENT NO.
Process Specification EOS/AMSU-A1 System Comprehensive and Limited Performance Tests Test Procedure	AE-26156/9 18 June 1998

INPUT FROM:	DATE	CDRL:	SPECIFICATION ENGINEER:	DATE
P. Patel		409		
CHECKED BY:	DATE		JOB NUMBER:	DATE

APPROVED SIGNATURES	DEPT. NO.	DATE
Specifications Engineering (J. Kirk) RV Hauerwaas PMO	8631	6/30/98
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Quality Assurance (R. Taylor) RM Taylor	7831	6-30-98
Technical Director/PMO (R. Hauerwaas) RV Hauerwaas	4001	6/30/98
Configuration Management (J. Cavanaugh) J. Cavanaugh	8361	7/1/98

This Revision incorporated approved Master Mark-Ups dated 18 June 1998

By my signature, I certify the above document has been reviewed by me and concurs with the technical requirements related to my area of responsibility.

RELEASE (Data Center) FINAL

Carla Marks Sunds 7-06-98

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GENCORP
AEROJET

AE-26600B
23 June 1998

Superseding AE-26600A
15 January 1998

S.O. # 298561
Op. 810
AE-26156/9 para 3.3.5.1.

PROCESS SPECIFICATION

Earth Observing System/ Advanced Microwave Sounding Unit-A (EOS/AMSU-A) Firmware Test Procedures

(CDRL: 415)

Contract No. NAS5-32314

Prepared for:
NASA/Goddard Space Flight Center
Greenbelt Road
Greenbelt, MD 20771

TABLE OF CONTENTS

FIGURES

TABLES

1. INTRODUCTION

1.1 ***Identification***. These are the Firmware Test Procedures for the Instrument Control and Command and Data Handling firmware. This document is submitted in response to Contract NAS 5-32314, CDRL 415.

1.2 ***Scope***. This document describes the steps necessary to test the Instrument Control and Command and Data Handling firmware and establish that all requirements in the Firmware Requirements Specification have been satisfied.

1.3 ***Purpose and objectives***. The purpose of this document is to provide the steps to verify that the requirements of the firmware have been accomplished. Through the use of tables, procedure steps, and test data sheets, the user of this document will be able to determine that the requirements of the specification for the firmware have been correctly implemented as described in the Firmware Test Plan.

1.4 ***Document status and schedule***. The requirements traceability and expected results tables are complete and are included in this revision.

1.5 ***Documentation organization***. The EOS/AMSU-A Software Documentation Tree is as shown in Figure 1.

Document	Document No.	CDRL No.
Software Management Plan	**10339**	**008**
Acquisition Activities Plan	10341	508
Software Standards and Procedures	—	402
Software Assurance Plan	10428	309
Configuration Management Plan	9803	005
Software Product Specifications	**—**	**306**
Software Concept Document	10432	306-1a
Software Requirements Specification	10457	306-2a
Software Architectural Design	10464	306-3a
Software Detailed Design Document	10463	306-5a
Firmware Support Manual	10466	306-7
Version Description Document	10467	306-8a
User's Guide	10443	306-10a
Firmware Product Specification	**—**	**306**
Firmware Concept Document	10436	306-1b
Firmware Requirements	10458	306-2b
Firmware Architectural Design	10460	306-3b
Firmware Detail Design Document	10387	306-5b
Firmware Version Description	10976	306-8b
Software/Firmware Test Plan	**10369/10352**	**033**
Software Test Procedures	AE-26602	415
Software Test Reports	10975	217
Firmware Test Procedures	AE-26600	415
Firmware Test Reports	10974	217

Figure 1. EOS/AMSU-A Software Documentation Tree

2. RELATED DOCUMENTATION

2.1 ***Parent documents***. The firmware test plan is the parent document to this test procedure as indicated in Figure 1.

2.2 ***Applicable documents***. The following documents are referenced or applicable to these test procedures. Unless otherwise specified, the latest issue is in effect.

NATIONAL AERONAUTICS And SPACE ADMINISTRATION

NASA-DID-A200	Test Procedures Data Item Description
GSFC 422-10-	Earth Observing System (EOS) Instrument Project Software Acquisition Management Plan
422-11-12-01	General Interface Requirements Document (GIRD)

AEROJET DOCUMENTS

Report 10352	EOS/AMSU-A Firmware Test Plan
Report 10458	Earth Observing System/Advanced Microwave Sounding Unit-A (EOS/AMSU-A) Firmware Requirements
Report 10974	Earth Observing System/Advanced Microwave Sounding Unit-A (EOS/AMSU-A) Firmware Test Report

2.3 *Information documents*

Report 10345	EOS/AMSU-A Project Plan, Including Project Organization Chart, WBS Diagram, and Task Description

(Copies of Aerojet documents should be obtained from Aerojet, CAGE 70143, P.O. Box 296, Azusa, California 91702-0296.)

3. TEST IDENTIFICATION AND OBJECTIVE

The tests described in this document are the EOS/AMSU-A test of the Instrument Control and Command and Data Handling firmware. The firmware requirements are specified in Report 10458, EOS/AMSU-A Firmware Requirements Specification and the plan for testing the firmware is described in Report 10352, the EOS/AMSU-A Firmware Test Plan. Table I provides traceability between the Firmware Requirements Specification and the test procedures found in this section. The objective of this test is to verify that the firmware meets the requirements specified in Report 10458.

Some requirements are shown to be satisfied through inspection of listings, equipment, or other indirect means. Those requirements are indicated in Table I under the test procedure step number heading.

Table I. Firmware Requirements Traceability

Firmware Requirement Specification Paragraph Number	Firmware Test Plan Paragraph Number	Requirements Description	Test Case Num-ber	Test Procedure Step Number	Test Data Sheet
5.1.1	4.1.4.1	Shall read the following data (see table)	2	All	
5.1.1	4.1.4.1	Shall write the following data (see table)	2	All	
5.1.1(1)	4.1.4.1	Upon power up, initialize the system	*	*	
5.1.1(2)	4.1.4.1	Upon receipt of an 8 second ..., begin the processing and output the data.	2	6	
5.1.1(2)a	4.1.4d	Output a data header including all instrument status and housekeeping data to the FIFO memory.	2	4a	
5.1.1(2)b1	4.1.4c	Operate the scanner, determine mode	1	2	
5.1.1(2)b2	4.1.4c	Operate the scanner, sequence the antenna.....	*	*	
5.1.1(2)b3	4.1.4f	Operate the scanner, test antenna position, and set error bit true or false	*	*	
5.1.1(2)b4	4.1.4e	Read and place antenna position data into FIFO memory.	2	4k	
5.1.1(2)b5	4.1.4e	Read and place radiometer data into FIFO memory.	2	All	
5.1.1(2)c	4.1.4d	Read all housekeeping data	2	4a	
5.1.1(2)d	4.1.4a	Read the commands from the input ports	1	2	
5.1.1(2)e	4.1.4a, b	For hardware control commands, send the appropriate pulse, or level to the output ports	*	*	
5.1.1(2)f	4.1.4a, b	Read instrument power commands from the input port and turn on or off appropriate scanner, PLL, and main power as indicated.	*	*	
5.1.2	4.1.4.1	The instrument control firmware shall read the following data ... (see table)	2	All	
5.1.2	4.1.4.1	The instrument control firmware shall write the following data ... (see table)	2	All	
5.1.2	All	The instrument control firmware shall provide identical functions for ..A2 as for.. A1.	All	All	
5.1.3	4.2.4.1	The input data shall come from two sources ...	All	All	
5.1.3	4.2.4.1	... the output shall go to the same 2 destinations.	All	All	

* The power and antenna position commands cannot be verified at this hardware level. They will be verified during system integration testing per AE-26156/9, 10 paragraph 3.2.4.3.3

Table I. Firmware Requirements Traceability (continued)

Firmware Requirement Specification Paragraph Number	Firmware Test Plan Paragraph Number	Requirements Description	Test Case Num-ber	Test Procedure Step Number	Test Data Sheet
5.1.3c	4.2.4c	The command and data handling firmware shall read the FIFO data and the FIFO status .... (see table)	2	4, 5	
5.1.3d	4.2.4a	The command bit locations shall match the bit locations	1	2	
5.1.3e	4.2.4a	and shall be sent 8 bits at a time	1	2	
5.1.3.1a	4.2.4a	Upon receipt of an instrument command, the firmware shall read ... and read the command word.	1	2	
5.1.3.1b	4.2.4a	If it is a valid input, restructure the bits of the command to match	1	2	
5.1.3.2	4.2.4b	Upon receipt of Synchronize with Data Time Mark Command interrupt, the firmware shall read the low-order bits ...	2	5, 6	
5.1.3.2	4.2.4b	This shall also be used to initiate all data output functions of the C&DH (command and data handling) firmware.	2	5, 6	
5.1.3.3	4.2.4c	Read Subaddress #28 and #29 to determine if previous data have been	2	5, 7	
5.1.3.4	4.2.4e	Create the CCSDS header for the low-rate science data and place this header into the RAM location assigned	2	4a	
5.1.3.5	4.2.4e	Create the CCSDS header for the engineering data and place this header into the RAM	2	4a	
5.1.3.6	4.2.4f	Read the time code data from the RAM memory addresses associated	2	4a	
5.1.3.7	4.2.4c	Acquire the data from the EOS/AMSU-A instrument FIFO memory and place them into the RAM memory	2	4a-4l	
5.1.3.8	4.2.4c	Place the instrument data allocated to the engineering data output stream into the RAM memory	2	4a	
5.1.3.9	4.2.4c	When a full block of data has been created in RAM memory, the ready flag shall be incremented in the corresponding subaddress memory location; subaddress	2	5	
5.1.3.10	4.2.4d	Upon receipt of the last data word for a full scan from the AMSU-A instrument is read, a checksum shall be placed	2	5	
5.2.1	4.1.1.3	Each of the three CSCI shall not exceed 4096 bytes		Inspect listing	
5.2.1	4.1.1.3	... and not utilize more than 4096 bytes of RAM.		Inspect listing	
5.2.2	4.1.4.1	The Instrument Control Firmware CSCI shall be capable of completing all their required tasks with the 8 seconds	2	6	

Table I. Firmware Requirements Traceability (continued)

Firmware Requirement Specification Paragraph Number	Firmware Test Plan Paragraph Number	Requirements Description	Test Case Num-ber	Test Procedure Step Number	Test Data Sheet
5.2.2	4.2.4.1	The Command and Data Handling firmware CSCI shall be capable of receiving all sensor data within the same 8-second time frame	2	6	
5.2.2		and capable of outputting the data at the required 3.2 kbps data rate ...		Analysis	
5.2.3		The Instrument Control firmware shall be capable of recovering from any data error condition by restarting with each 8-second sync pulse interrupt.		Analysis	
5.2.3	4.2.4a	The Command and Data Handling Firmware shall validate all incoming data packets by their headers and reject any invalid packets.	1	2	
5.3		N/A			
5.4		N/A			

The firmware tests will be conducted utilizing the AMSU-A Special Test Equipment (STE).

The STE block diagram is shown in Figure 2. It aids in the understanding of the test setup and the movement of data during the tests.

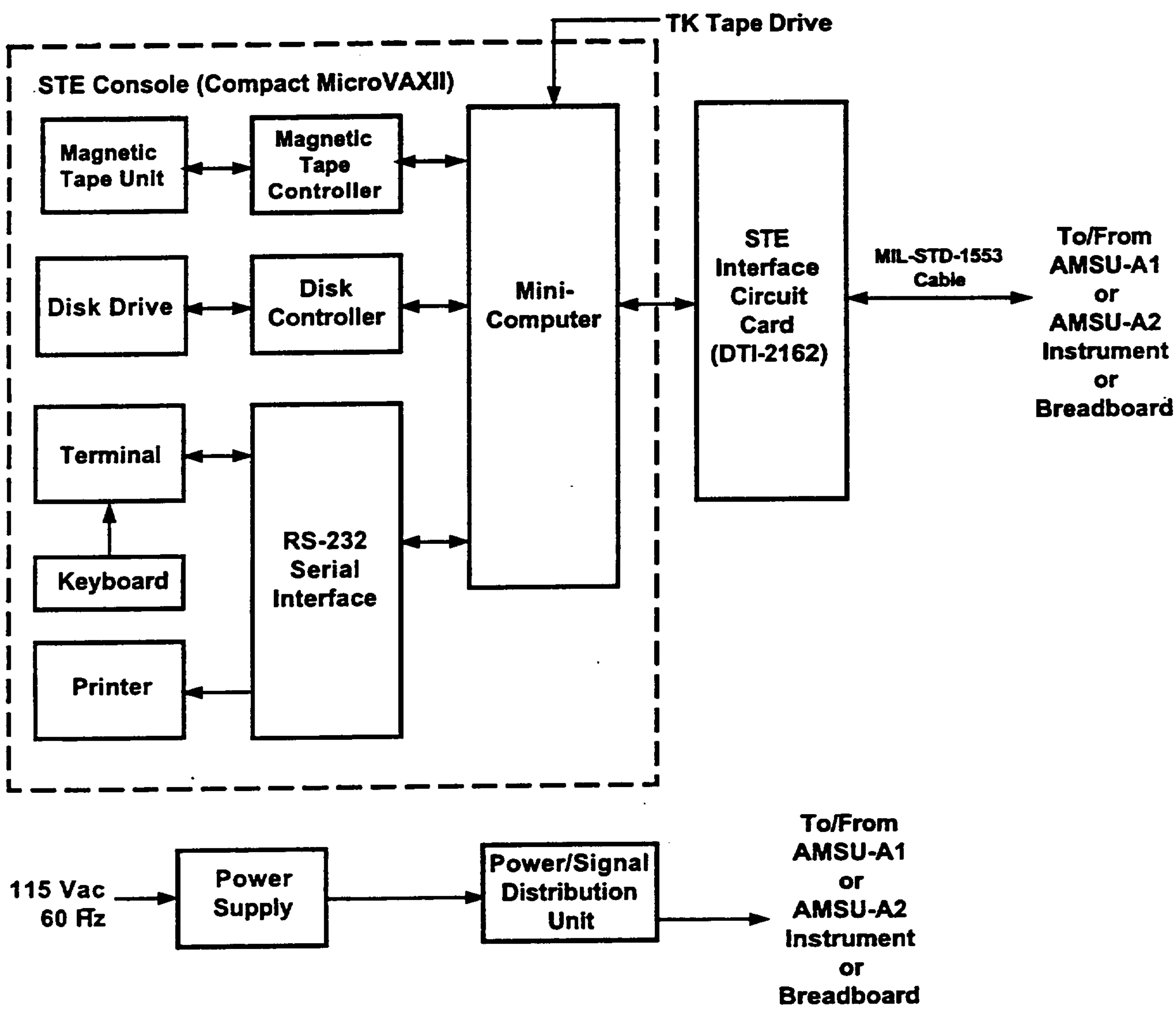

Figure 2. EOS/AMSU-A Special Test Equipment Block Diagram

4. DETAIL PROCEDURES

The following detailed procedure steps shall be utilized for both the AMSU-A1 and AMSU-A2 firmware. The media containing the respective firmware shall be labeled with the CSCI numbers and the test results shall be identified correspondingly. If a test failure or anomaly occurs during testing, the process described in paragraph 4.1.1.4 of the Software Test Plan, Report 10369, shall be followed.

4.1 Load Bonded Software. The tape labeled E1.EXE shall be loaded into the VAX STE computer using the VAX Backup utility for use in testing AMSU-A1 firmware CSCIs N7 and N8. The tape labeled E2.EXE shall be loaded into the VAX STE for use in testing AMSU-A2 firmware CSCIs N11 and N12. The tape loaded shall be noted on Test Data Sheet, (TDS) 1. The tape labeled N7 for AMSU-A1 or N11 for AMSU-A2 shall be loaded into the HP64000 development system and then downloaded into the DATA-IO prom burner. The two EEPROMS shall be burned and installed in the breadboard CPU board. The tape loaded shall be noted on TDS 1. The tape labeled N8 for AMSU-A1 or N12 for AMSU-A2 shall be loaded into the HP64000 development system and then downloaded into the DATA-IO prom burner. The two EEPROMS shall be burned and installed in the breadboard MIL-STD-1553 board. The tape loaded shall be noted on TDS 1.

4.2 Configure the Test Environment. Perform steps 1 through 5 only if not already configured. Verify setup and power status.

1. Verify that the STE and instrument power are OFF.
2. Interconnect the signal processor breadboard and STE using the special test MIL-STD-1553 cable as shown in Figure 2.
3. On the STE computer control panel, set the MAIN POWER switch to ON. (Switch indicator lit).
4. Turn on printer power.
5. Observe power-up messages on the terminal screen until the message SYTEM JOB TERMINATED AT (DATE) AND (TIME) is displayed (approximately three minutes). Press ENTER key on the terminal keyboard.
6. When prompted for the user name, enter E1 or E2 according to the unit under test. (If steps 1 through 5 are not performed, press RETURN key on terminal keyboard to obtain username prompt.)
7. The message PERFORMING INITIALIZATION - PLEASE WAIT will be displayed followed by the display of the Main Menu, which displays the heading message EOS AMSU - A1 (or A2) WHAT TYPE OF TEST?"
8. Turn on all power to the signal processor breadboard and wait until power "on" indication on Main menu display.
9. From the Main menu, select the MONITOR ONLY menu option.
10. From the Monitor Only menu, select the COMMANDS menu option.

4.3 Test case 1. The test objective is to verify implementation of instrument commands, including the ability of the software to receive command data within the 3.2 kbps rate, to read and interpret commands, to control sensor power, to operate the scanner in accordance with the scanner mode input commands, to initiate prescribed command activities, and to process the input commands.

1. From the Commands menu, select the PRINT SCREEN ONLY menu option to output the displayed sensor housekeeping status to the printer prior to making changes through the issuing of commands.

2. From the Commands menu, issue the following commands by selecting their menu option. Wait a minimum of twenty seconds after each selection and print the displayed results by selecting the SCREEN ONLY menu option prior to issuing the next command in the sequence. After each print, type: 1. Press <ENTER> (return to the Monitor Only menu). Select the SCIENCE DATA menu. From the Science Data menu, select the DATA STREAM menu. When prompted for Element Number, select element: 1. Select PRINT SCREEN ONLY. Type: 1. Press <ENTER> to return to the Science Data menu. Type: 1. Press <ENTER> to return to the Monitor Only menu. Then select the COMMANDS menu and select the next command.

   a. Reset C&DH Processor

   b. Cold Cal

   c. Cold Cal Position 4

   d. Cold Cal Position 3

   e. Cold Cal Position 2

   f. Cold Cal Position 1

   g. Nadir

   h. Warm Cal

   i. Antenna Full Scan Mode

3. From the Commands menu, type: 1. Press <ENTER> (return to the Monitor Only menu).

4. From the Monitor Only menu, type: 1. Press <ENTER> (return to the Main menu).

5. Compare actual versus expected data values. Record the results on TDS 1. The equality of the actual and expected results verify that all the objectives of this test, as stated in paragraph 4.3, have been successfully met. This verifies requirements 5.1.1.2b1), 5.1.1.2d), 5.1.3.1, and part of 5.2.3. The remainder of 5.2.3 will be verified in test case 2, step 8. Requirements 5.1.1.1, 5.1.1.2e and 5.1.1.2f cannot be verified until system level testing.

4.4 Test case 2. The following steps test proper acquisition and display of "Low Rate Science" data. The objectives are to acquire Low Rate Science" and "Engineering" data and verify "Low Rate Science" and "Engineering" data timing performance. The test steps will acquire and format sensor data into MIL-STD-1553 data packets. The firmware must receive all sensor data, format, and output sensor data within the required 3.2 kbps maximum rate and within the 8-second time frame for each sensor scan. Since "Engineering" data is a sub-set of the "Low Rate Science" data , the test equipment (STE) has no software routines to specifically process or display "Engineering" data except to acquire "Engineering" data packets and validate these data by comparing them with the corresponding "Low Rate Science" data. The result of this comparison is indicated by the operator terminal displayed "ENGR OK" or "ENGR FAIL". An indication of "ENGR OK" verifies requirement 5.1.1, 5.1.2, 5.1.3, 5.1.3.5 and 5.1.3.8.

1. From the Main menu, select the MONITOR ONLY option.

2. From the Monitor Only menu, select the SCIENCE DATA menu option.

3. For the first selected sub-menu below (paragraph 4.4.4a), select PRINT FULL (generates full scan printout and screen display printout). For the remainder of the selected sub-menus (paragraphs 4.4.4b - 4.4.4l) select SCREEN ONLY printouts. This will produce a hard copy of test results for evaluation and comparison purposes to verify that all "low rate science" data are properly output by the firmware.

4. Select from the Science Data menu:

   a. DATA STREAM menu that displays raw input data stream values. When prompted for Element Number, select element: 1. Scan header information is included in the first twenty bytes of the data stream.

   b. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of the first sixteen bytes in the output with the expected results verifies requirement 5.1.1.2a and 5.1.3.4 and 5.1.3.6.

   c. BEAM POSITION NN - ALL CHANNELS menu which displays channel data for operator selected beam position. When prompted for Beam Position, select beam position: 1.

   d. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of this data with the expected results verifies requirement 5.1.1.2b5 and 5.1.3.7. Requirements 5.1.1.2b2 & 5.1.1.2b3 cannot be verified until system level testing.

   e. CHANNEL NN ALL - BEAM POSITIONS menu which displays beam position data for operator selected channel. When prompted for Channel Number, select channel: 3 (for A1) 1 (for A2).

   f. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of this data with the expected results further verifies requirement 5.1.1.2b5 and 5.1.3.7.

   g. WARM CALIBRATE menu which displays warm calibration data for all channels. The matching of this data with the expected results further verifies requirement 5.1.1.2b5 and 5.1.3.7.

   h. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of this data with the expected results further verifies requirement 5.1.1.2b5 and 5.1.3.7.

   i. COLD CALIBRATE menu which displays cold calibration data for all channels.

   j. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of this data with the expected results further verifies requirement 5.1.1.2b5 and 5.1.3.7.

   k. REFLECTOR POSITIONS menu which displays reflector positions and error code for A1-1 or A1-2 antenna as selected by the operator. A1-1 antenna data is displayed initially. An "E" beside a value indicates a reflector position error outside threshold values. The presence or absence of an "E" are both acceptable for purposes of this test.

   l. After print is selected, type: 1. Press <ENTER> (return to the Science Data menu). The matching of this data with the expected results further verifies requirement 5.1.1.2b4 and 5.1.3.7.

5. On the display, observe that the received (IN) checksum and the computed (CALC) checksum of the data match. Also observe that the sub-address (SA) #28 increments at the same rate as the scan count and that the sub-address (SA) #29 increments at the same rate as the scan count for the A2 sensor and at twice the rate as the scan count for the A1 sensor. This verifies requirement 5.1.3.3 and 5.1.3.9 and 5.1.3.10.

6. Observe that the scan number increments at a rate of 8.0 ± 0.5 seconds per scan average after ten minutes of observation. Record a beginning scan number and the corresponding time. After ten minutes, record the scan number. Divide the 600 seconds by the scan number difference. The result is the average scan time which shall be within the above tolerance. Record this result on TDS 2. This verifies requirement 5.1.3.2

7. Select the STE procedure that skips the transmission of one of the one-second time marks during each eight-second scan so as to test that the C&DH firmware adapts to this anomalous condition by observing that the

scan count, checksums and SA counters all function as previously noted. Verify that selecting 7 as the number to skip causes all data functions to stop updating and that selecting 0 as the number to skip restores the firmware to normal operation.

8. Select the STE procedure to send an invalid command APID. From the Commands menu, select one or more commands (with a one minute wait between commands). Verify that the STE reports that the command was not accepted and that the previous sensor mode is unchanged.

9. Evaluate all displayed and printed low rate science data. Compare actual versus expected data values.

10. Record the results on TDS 2.

5. EVALUATION CRITERIA

The evaluation criteria for test cases 1 and 2 are contained in Tables II and III.

These tables describe criteria used to evaluate how each test satisfies requirements. The sources of actual and expected results relevant to each requirement are also shown.

Table II. Expected Results, Test Case 1

Step Number	Expected Results	Data Stream Byte No. 20	Error Condition
4.3(2a)	Subaddress #28 & 29 Values Reset		Values Do Not Reset
4.3(2b)	Cold Cal Position = YES	8	= NO
4.3(2c)	Cold Cal Position 4 = YES	104	= NO
4.3(2d)	Cold Cal Position 3 = YES	72	= NO
4.3(2e)	Cold Cal Position 2 = YES	40	= NO
4.3(2f)	Cold Cal Position 1 = YES	8	= NO
4.3(2g)	Nadir = YES	16	= NO
4.3(2h)	Warm Cal = YES	4	= NO
4.3(2i)	Full Scan = YES	2	= NO

Table III. Expected Results, Test Case 2

Step Number	Expected Results
4.4.4a	Packet ID, Packet Sequence, Length according to GIRD
4.4.4c	Channel 1 changes to 28800 ±500 with applied 2 volts, Channel 3 changes to 30000 ±500 with applied 2 volts
4.4.4e	Channel 1 changes to 28800 ±500 with applied 2 volts, Channel 3 changes to 30000 ±500 with applied 2 volts
4.4.4g	Channel 1 changes to 28800 ±500 with applied 2 volts, Channel 3 changes to 30000 ±500 with applied 2 volts
4.4.4i	Channel 1 changes to 28800 ±500 with applied 2 volts, Channel 3 changes to 30000 ±500 with applied 2 volts
4.4.4k	(no criteria at this hardware level)
4.4.5	Checksums match -SA 28 and 29 increment
4.4.6	8.0 ±0.5 sec scan time
4.4.7	Skip 1-6 cause no disruption; 7 causes stop; 0 restarts
4.4.8	Commands not accepted

6. EXPECTED RESULTS

The expected results for test cases 1 and 2 are contained in Tables II and III. These tables show the expected results from test sources described in the tables.

7. ACTUAL RESULTS

The actual results of the firmware test will be included in the Test Report (Report 10974).

8. ABBREVIATIONS AND ACRONYMS

AMSU	Advanced Microwave Sounding Unit
C&DH	Command and Data Handling
CCSDS	Consultative Committee for Space Data Systems
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CSCI	Computer Software Configuration Item
CTE	Calibration Test Equipment
EOS	Earth Observing System
FIFO	First In First Out
GIRD	General Interface Requirements Document
KBPS	Kilobytes per second
NASA	National Aeronautics and Space Administration
PWR	Power
RAM	Random Access Memory
STE	Special Test Equipment
WBS	Work Breakdown Structure

9. GLOSSARY

None.

10. NOTES

None.

11. TEST DATA SHEETS

AE-26156/9 PARAGRAPH 3.3.5.1
P/N 1356008-1-IT S/N 202 S6# 298561

TEST DATA SHEET 1
Test Case 1 (Paragraph 4.3)

Unit Tested (AMSU-A1 or AMSU-A2) EOS/AMSU-A1

STE Tape Loaded E1.EXE;35 E1X.EXE;31

Instrument Control Tape Loaded NONE - FLIGHT PROMS

Control and Data Handling Tape Loaded NONE - FLIGHT PROMS

Procedure Step	Requirement Description	Specification Reference	Requirement Satisfied ? yes or no	HardCopy Test Data Attached ?	Test Data on Tape ?	Related Discrepancy Reports
4.3.2a	Reset C&DH	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2b	Cold Cal	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2c	Cold Cal Position 4	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2d	Cold Cal Position 3	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2e	Cold Cal Position 2	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2f	Cold Cal Position 1	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2g	Nadir	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2h	Warm Cal	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A
4.3.2i	Full Scan	5.1.1.2b,d 5.1.3.1	YES	YES	NO	N/A

Comments:

Authentication:

Aerojet System Test: Robert W Platt Date: 7/14/98

Aerojet Quality Assurance: 893 Date: JUL 14 '98

Customer Representative: Date: JUL 23 '98

Other Witness (optional): Date:

TEST DATA SHEET 2
Test Case 2 (Paragraph 4.4)

Unit Tested (AMSU-A1 or AMSU-A2) EOS/AMSU-A1

STE Tape Loaded E1.EXE;35 E1X.EXE;31

Instrument Control Tape Loaded NONE - FLIGHT PROMS

Control and Data Handling Tape Loaded NONE - FLIGHT PROMS

Procedure Step	Requirement Description	Specification Reference	Requirement Satisfied ? yes or no	HardCopy Test Data Attached ?	Test Data on Tape ?	Related Discrepancy Reports
4.4.4a	Data Stream	5.1.1.2a, 5.1.3.4,5.1.3.6	YES	YES	NO	N/A
4.4.4c	Beam Position NN	5.1.1.2b5 5.1.3.7	YES	YES	NO	N/A
4.4.4e	Channel NN	5.1.1.2b5 5.1.3.7	YES	YES	NO	N/A
4.4.4g	Warm Calibrate	5.1.1.2b5 5.1.3.7	YES	YES	NO	N/A
4.4.4i	Cold Calibrate	5.1.1.2b5 5.1.3.7	YES	YES	NO	N/A
4.4.4k	Reflector Positions	5.1.1.2b4 5.1.3.7	YES	YES	NO	N/A
4.4.5	Checksum sub-address	5.1.3.3,5.1.3.9 5.1.3.10	YES	YES	NO	N/A
4.4.6	8 Sec Scan	5.1.3.2	YES	SEE BELOW	NO	N/A
4.4.7	Skip Time Mark	No Req't	YES	NO	NO	N/A
4.4.8	Invalid APID	5.2.3	YES	NO	NO	N/A

Comments: PARAGRAPH 4.4.6 START SCAN 366 START TIME 20:08:3
END SCAN 441 STOP TIME 20:18:3
75 SCANS PER 600 SECONDS
1 SCAN/8 SECON

Authentication:

Aerojet System Test: R H Platt Date: 7/14/98

Aerojet Quality Assurance: (stamp: QA 268) Date: JUL 15 '98

Customer Representative: Date: JUL 22 '98

Other Witness (optional): Date:

GENCORP
AEROJET

DOCUMENT APPROVAL SHEET

TITLE	DOCUMENT NO.
Earth Observing System/Advanced Microwave Sounding Unit-A (EOS/AMSU-A) Firmware Test Procedure	AE-26600B 23 June 1998

INPUT FROM: R. Schwantje	DATE	CDRL: 415	SPECIFICATION ENGINEER:	DATE
CHECKED BY: R S Schwantje	DATE 7/6/98		JOB NUMBER:	DATE

APPROVED SIGNATURES	DEPT. NO.	DATE
Specifications Engineering (J. Kirk) RV Hauerwaas PMO	8631	
Product Team Leader (A. Nieto)	8341	7/7/98
Systems Engineer (R. Platt) R H Platt	8311	7/7/98
Safety (W. Neighbors) W. A. Neighbors	8331	7/7/98
Design Assurance (E. Lorenz)	8331	7/7/98
Software Quality Assurance (M. Santos)	7831	7/10/98
Technical Director/PMO (R. Hauerwaas) RV Hauerwaas	4001	7/13/98
Configuration Management (J. Cavanaugh) J Cavanaugh	8361	7/13/98

This Revision incorporated ECN CAMSU-1763

By my signature, I certify the above document has been reviewed by me and concurs with the technical requirements related to my area of responsibility.

RELEASE (Data Center) FINAL

```
EOS    A1-6  E1.EXE;35 FULL SCAN MODE     P1 14-JUL-98  :09:13  SCAN NUMBER     13
[ 5 ] SCIENCE    DATA  ELEMENT 0000
[ 6 ] CONTROL/STATUS   ELEMENT    00
[ 7 ] ENGINEERING      ELEMENT    00
                           COMMANDS       PLLO POWER =              PLLO#1  [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =        ON     COLD CAL POSITION 1 =        YES  [ 16 ]
[ 10 ] SCANNER A1-2 POWER =        ON                       2 =        NO   [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =    YES                      3 =        NO   [ 18 ]
[ 12 ]         WARM CAL      =     NO     COLD CAL POSITION 4 =        NO   [ 19 ]
[ 13 ]         COLD CAL      =     NO     RESET C&DH PROCESSOR              [ 20 ]
[ 14 ]         NADIR         =     NO     GSE MODE                          [ 21 ]
ENGR OK        POWER    ON    CHECKSUM  IN A71F CALC A71F   SA28    368 SA29    590
                        SCREEN ONLY [ 2 ]  PRINT   [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.1

```
EOS    A1-C  E1.EXE;35 FULL SCAN MODE      P1 14-JUL-98  :14:00  SCAN NUMBER    49
[ 5 ] SCIENCE   DATA   ELEMENT 0000
[ 6 ] CONTROL/STATUS   ELEMENT   00
[ 7 ] ENGINEERING      ELEMENT   00
                          COMMANDS          PLLO POWER =                 PLLO#1 [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =       ON        COLD CAL POSITION 1 =         YES [ 16 ]
[ 10 ] SCANNER A1-2 POWER =       ON                          2 =          NO [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =   YES                         3 =          NO [ 18 ]
[ 12 ]         WARM CAL      =    NO        COLD CAL POSITION 4 =          NO [ 19 ]
[ 13 ]         COLD CAL      =    NO        RESET C&DH PROCESSOR              [ 20 ]
[ 14 ]         NADIR         =    NO        GSE MODE                          [ 21 ]
ENGR OK        POWER   ON    CHECKSUM  IN B49D CALC B49D   SA28      0 SA29       0
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.a

EOS A1-C E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 .:14:33 SCAN NUMBER 51
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	113	33	64	41	64	49	63	57	111
2	5	10	0	18	0	26	115	34	240	42	106	50	105	58	233
3	192	11	0	19	154	27	110	35	65	43	64	51	65	59	114
4	1	12	0	20	2	28	179	36	240	44	64	52	55	60	159
5	2	13	0	21	113	29	62	37	62	45	63	53	63	61	111
6	191	14	0	22	115	30	1	38	50	46	16	54	96	62	225
7	0	15	0	23	110	31	63	39	64	47	64	55	114	63	62
8	174	16	0	24	179	32	186	40	228	48	67	56	171	64	17

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN A795 CALC A795 SA28 2 SA29 4
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE 26600 PARAGRAPH 4.3.2.a

```
EOS    A1-(  E1.EXE;35 COLD CAL MODE      P1 14-JUL-98 . J:17:29  SCAN NUMBER    73
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT    00

[ 7 ] ENGINEERING     ELEMENT    00

                          COMMANDS         PLLO POWER =                PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        OFF     COLD CAL POSITION 1 =         YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        OFF                       2 =         NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    NO                        3 =         NO  [ 18 ]

[ 12 ]         WARM CAL      =     NO      COLD CAL POSITION 4 =         NO  [ 19 ]

[ 13 ]         COLD CAL      =     YES     RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]         NADIR         =     NO      GSE MODE                          [ 21 ]

ENGR OK        POWER   ON     CHECKSUM  IN B15F CALC B15F   SA28    25 SA29     49
                       SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.b

EOS A1-C E1.EXE;35 COLD CAL MODE P1 14-JUL-98 ..:17:46 SCAN NUMBER 75

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	229	42	104	50	107	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	25	12	0	20	8	28	24	36	245	44	73	52	65	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	10	38	50	46	19	54	100	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	175	40	227	48	66	56	128	64	9

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 7BDD CALC 7BDD SA28 27 SA29 53

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.b

```
EOS    A1-(  E1.EXE;35 COLD CAL MODE     P1 14-JUL-98 . :19:29  SCAN NUMBER    88
[ 5 ] SCIENCE   DATA  ELEMENT 0000
[ 6 ] CONTROL/STATUS  ELEMENT   00
[ 7 ] ENGINEERING     ELEMENT   00
                          COMMANDS        PLLO POWER =             PLLO#1 [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =        OFF    COLD CAL POSITION 1 =       NO  [ 16 ]
[ 10 ] SCANNER A1-2 POWER =        OFF                      2 =       NO  [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =    NO                       3 =       NO  [ 18 ]
[ 12 ]         WARM CAL        =   NO     COLD CAL POSITION 4 =       YES [ 19 ]
[ 13 ]         COLD CAL        =   YES    RESET C&DH PROCESSOR            [ 20 ]
[ 14 ]         NADIR           =   NO     GSE MODE                        [ 21 ]
ENGR OK        POWER    ON     CHECKSUM  IN 6CDD CALC 6CDD   SA28    39 SA29   78
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL      [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 - PARAGRAPH 4.3.2.C

EOS A1-(E1.EXE;35 COLD CAL MODE P1 14-JUL-98 .):20:01 SCAN NUMBER 2

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	228	42	103	50	103	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	42	12	0	20	104	28	24	36	239	44	73	52	50	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	8	38	53	46	22	54	100	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	176	40	227	48	59	56	128	64	9

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 6DDD CALC 6DDD SA28 43 SA29 86

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.C

```
EOS     A1-(  E1.EXE;35 COLD CAL MODE      P1 14-JUL-98  .):21:29  SCAN NUMBER     13
[ 5 ] SCIENCE    DATA   ELEMENT 0000
[ 6 ] CONTROL/STATUS    ELEMENT    00
[ 7 ] ENGINEERING       ELEMENT    00
                            COMMANDS          PLLO POWER =                PLLO#1 [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =         OFF      COLD CAL POSITION 1 =          NO   [ 16 ]
[ 10 ] SCANNER A1-2 POWER =         OFF                          2 =          NO   [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =     NO                           3 =          YES  [ 18 ]
[ 12 ]         WARM CAL        =    NO       COLD CAL POSITION 4 =          NO   [ 19 ]
[ 13 ]         COLD CAL        =    YES      RESET C&DH PROCESSOR                [ 20 ]
[ 14 ]         NADIR           =    NO       GSE MODE                            [ 21 ]
ENGR OK        POWER    ON     CHECKSUM  IN 6E45 CALC 6E45   SA28    54 SA29    108
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.d

EOS A1-(E1.EXE;35 COLD CAL MODE P1 14-JUL-98):21:46 SCAN NUMBER 15
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	227	42	101	50	100	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	55	12	0	20	72	28	24	36	241	44	74	52	66	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	8	38	55	46	19	54	99	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	175	40	227	48	57	56	128	64	10

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 6D7D CALC 6D7D SA28 56 SA29 112
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.d

```
EOS   A1-(  E1.EXE;35 COLD CAL MODE      P1 14-JUL-98  ):24:49  SCAN NUMBER    38
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                          COMMANDS         PLLO POWER =              PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =         OFF    COLD CAL POSITION 1 =        NO   [ 16 ]

[ 10 ] SCANNER A1-2 POWER =         OFF                      2 =        YES  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =     NO                       3 =        NO   [ 18 ]

[ 12 ]         WARM CAL       =     NO     COLD CAL POSITION 4 =        NO   [ 19 ]

[ 13 ]         COLD CAL       =     YES    RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]         NADIR          =     NO     GSE MODE                          [ 21 ]

ENGR OK        POWER    ON     CHECKSUM  IN 7193 CALC 7193   SA28     79 SA29    158
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL         [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.e

EOS A1-(E1.EXE;35 COLD CAL MODE P1 14-JUL-98):24:58 SCAN NUMBER 39
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	227	42	98	50	98	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	79	12	0	20	40	28	24	36	247	44	67	52	48	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	8	38	50	46	12	54	97	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	173	40	226	48	63	56	128	64	6

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 711D CALC 711D SA28 81 SA29 161
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAP 4.3.2.C

```
EOS    A1-(  E1.EXE;35 COLD CAL MODE      P1 14-JUL-98  .:26:10  SCAN NUMBER    48
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                          COMMANDS        PLLO POWER =               PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =         OFF   COLD CAL POSITION 1 =         YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =         OFF                     2 =         NO  [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =     NO                      3 =         NO  [ 18 ]

[ 12 ]         WARM CAL       =     NO    COLD CAL POSITION 4 =         NO  [ 19 ]

[ 13 ]         COLD CAL       =     YES   RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]         NADIR          =     NO    GSE MODE                          [ 21 ]

ENGR OK        POWER     ON    CHECKSUM  IN 716F CALC 716F   SA28    90 SA29    179
                         SCREEN ONLY [ 2 ]  PRINT   [ 3 ] FULL      [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.f

EOS A1-ι E1.EXE;35 COLD CAL MODE P1 14-JUL-98 ɹ:26:26 SCAN NUMBER 50

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	226	42	100	50	104	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	90	12	0	20	8	28	24	36	243	44	68	52	51	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	5	38	52	46	19	54	99	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	173	40	229	48	65	56	128	64	9

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 70DF CALC 70DF SA28 91 SA29 182

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.f

```
EOS    A1-(  E1.EXE;35 NADIR MODE        P1 14-JUL-98  ):28:02  SCAN NUMBER    62
[ 5 ] SCIENCE   DATA  ELEMENT 0000
[ 6 ] CONTROL/STATUS  ELEMENT   00
[ 7 ] ENGINEERING     ELEMENT   00
                          COMMANDS        PLLO POWER =                PLLO#1 [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =         OFF    COLD CAL POSITION 1 =        YES [ 16 ]
[ 10 ] SCANNER A1-2 POWER =         OFF                      2 =        NO  [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =     NO                       3 =        NO  [ 18 ]
[ 12 ]         WARM CAL       =     NO     COLD CAL POSITION 4 =        NO  [ 19 ]
[ 13 ]         COLD CAL       =     NO     RESET C&DH PROCESSOR             [ 20 ]
[ 14 ]         NADIR          =     YES    GSE MODE                         [ 21 ]
ENGR OK        POWER    ON     CHECKSUM  IN 725B CALC 725B   SA28    103 SA29   206
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.9

EOS A1-(E1.EXE;35 NADIR MODE P1 14-JUL-98):28:10 SCAN NUMBER 63

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	226	42	100	50	95	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	103	12	0	20	16	28	24	36	242	44	72	52	69	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	7	38	50	46	16	54	101	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	172	40	224	48	57	56	128	64	8

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 737B CALC 737B SA28 105 SA29 209
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE 26600 PARAGRAPH 4.3.2.9

```
EOS    A1-ւ  E1.EXE;35 WARM CAL MODE      P1 14-JUL-98  ɟ:30:42  SCAN NUMBER    82
[ 5 ] SCIENCE   DATA  ELEMENT 0000
[ 6 ] CONTROL/STATUS  ELEMENT   00
[ 7 ] ENGINEERING     ELEMENT   00
                          COMMANDS       PLLO POWER =                PLLO#1 [ 15 ]
[ 9 ]  SCANNER A1-1 POWER =       OFF    COLD CAL POSITION 1 =          YES [ 16 ]
[ 10 ] SCANNER A1-2 POWER =       OFF                      2 =          NO  [ 17 ]
[ 11 ] ANTENNA FULL SCAN MODE =   NO                       3 =          NO  [ 18 ]
[ 12 ]         WARM CAL     =     YES    COLD CAL POSITION 4 =          NO  [ 19 ]
[ 13 ]         COLD CAL     =     NO     RESET C&DH PROCESSOR               [ 20 ]
[ 14 ]         NADIR        =     NO     GSE MODE                           [ 21 ]
ENGR OK        POWER   ON    CHECKSUM  IN 722B CALC 722B   SA28    124 SA29    247
                       SCREEN ONLY [ 2 ]  PRINT   [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.h

EOS A1-ι E1.EXE;35 WARM CAL MODE P1 14-JUL-98 ϑ:30:57 SCAN NUMBER 84

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	3	10	0	18	0	26	128	34	223	42	105	50	103	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	124	12	0	20	4	28	24	36	245	44	72	52	43	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	7	38	53	46	11	54	98	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	176	40	226	48	55	56	128	64	11

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 7329 CALC 7329 SA28 126 SA29 251

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.h

```
EOS    A1-\  E1.EXE;35 FULL SCAN MODE    P1 14-JUL-98  J:32:58  SCAN NUMBER    99
[ 5 ] SCIENCE   DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS  ELEMENT   00

[ 7 ] ENGINEERING     ELEMENT   00

                         COMMANDS      PLLO POWER =               PLLO#1 [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =      OFF   COLD CAL POSITION 1 =         YES [ 16 ]

[ 10 ] SCANNER A1-2 POWER =      OFF                     2 =          NO [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =  YES                     3 =          NO [ 18 ]

[ 12 ]         WARM CAL       =  NO    COLD CAL POSITION 4 =          NO [ 19 ]

[ 13 ]         COLD CAL       =  NO    RESET C&DH PROCESSOR              [ 20 ]

[ 14 ]         NADIR          =  NO    GSE MODE                          [ 21 ]

ENGR OK        POWER    ON    CHECKSUM  IN A5E5 CALC A5E5  SA28   140 SA29   280
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.3.2.i

EOS A1-[illegible] E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 [illegible]:33:23 SCAN NUMBER 102

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	69	33	64	41	64	49	63	57	65
2	5	10	0	18	0	26	128	34	228	42	102	50	82	58	24
3	192	11	0	19	130	27	65	35	65	43	64	51	65	59	69
4	142	12	0	20	2	28	24	36	244	44	69	52	68	60	128
5	2	13	0	21	69	29	62	37	62	45	63	53	63	61	65
6	191	14	0	22	128	30	11	38	53	46	16	54	98	62	24
7	0	15	0	23	65	31	63	39	64	47	64	55	69	63	62
8	174	16	0	24	24	32	176	40	228	48	56	56	128	64	7

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN A759 CALC A759 SA28 144 SA29 287

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.3.2.i

```
EOS    A1-03 E1.EXE;35 FULL SCAN MODE     P1 14-JUL-98 19:41:39  SCAN NUMBER    164
[ 5 ] SCIENCE    DATA  ELEMENT 0000

[ 6 ] CONTROL/STATUS   ELEMENT    00

[ 7 ] ENGINEERING      ELEMENT    00

                            COMMANDS      PLLO POWER =                  PLLO#1  [ 15 ]

[ 9 ]  SCANNER A1-1 POWER =        ON     COLD CAL POSITION 1 =           YES  [ 16 ]

[ 10 ] SCANNER A1-2 POWER =        ON                       2 =           NO   [ 17 ]

[ 11 ] ANTENNA FULL SCAN MODE =    YES                      3 =           NO   [ 18 ]

[ 12 ]         WARM CAL        =   NO     COLD CAL POSITION 4 =           NO   [ 19 ]

[ 13 ]         COLD CAL        =   NO     RESET C&DH PROCESSOR                 [ 20 ]

[ 14 ]         NADIR           =   NO     GSE MODE                             [ 21 ]

ENGR OK        POWER      ON     CHECKSUM  IN AE33 CALC AE33   SA28    205 SA29    410
                          SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 3
```

AE 26600 PARAGRAPH 4.4.3

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16637
2		00000101	574	CH 9	16511
3	PACKET LENGTH	00000010	576	CH 10	16487
4		10111111	578	CH 11	16169
5	UNIT SERIAL NUMBER	00000011	580	CH 12	16455
6		00000000	582	CH 13	16220
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	16705
8		00000010	586	CH 15	16244
10	REFLECTOR 1 POSITION 1	14521	588	REFLECTOR 1 POSITION 18	720
12	REFLECTOR 2 POSITION 1	14169	590	REFLECTOR 2 POSITION 18	368
14	REFL 1 POS 1 2ND LOOK	14521	592	REFL 1 POS 18 2ND LOOK	714
16	REFL 2 POS 1 2ND LOOK	14170	594	REFL 2 POS 18 2ND LOOK	361
18	SCENE DATA BP 1 CH 3	15868	596	SCENE DATA BP 18 CH 3	15887
20	CH 4	16309	598	CH 4	16334
22	CH 5	16623	600	CH 5	16678
24	CH 6	16877	602	CH 6	16922
26	CH 7	15913	604	CH 7	15947
28	CH 8	16611	606	CH 8	16635
30	CH 9	16484	608	CH 9	16497
32	CH 10	16447	610	CH 10	16463
34	CH 11	16139	612	CH 11	16154
36	CH 12	16434	614	CH 12	16465
38	CH 13	16215	616	CH 13	16255
40	CH 14	16697	618	CH 14	16701
42	CH 15	16223	620	CH 15	16252
44	REFLECTOR 1 POSITION 2	14678	622	REFLECTOR 1 POSITION 19	874
46	REFLECTOR 2 POSITION 2	14324	624	REFLECTOR 2 POSITION 19	518
48	REFL 1 POS 2 2ND LOOK	14671	626	REFL 1 POS 19 2ND LOOK	865
50	REFL 2 POS 2 2ND LOOK	14320	628	REFL 2 POS 19 2ND LOOK	513
52	SCENE DATA BP 2 CH 3	15880	630	SCENE DATA BP 19 CH 3	15881
54	CH 4	16302	632	CH 4	16299
56	CH 5	16619	634	CH 5	16602
58	CH 6	16876	636	CH 6	16882
60	CH 7	15922	638	CH 7	15921
62	CH 8	16610	640	CH 8	16601
64	CH 9	16485	642	CH 9	16483
66	CH 10	16448	644	CH 10	16446
68	CH 11	16135	646	CH 11	16142
70	CH 12	16435	648	CH 12	16429
72	CH 13	16216	650	CH 13	16219
74	CH 14	16690	652	CH 14	16685
76	CH 15	16222	654	CH 15	16222
78	REFLECTOR 1 POSITION 3	14831	656	REFLECTOR 1 POSITION 20	1023
80	REFLECTOR 2 POSITION 3	14475	658	REFLECTOR 2 POSITION 20	670
82	REFL 1 POS 3 2ND LOOK	14823	660	REFL 1 POS 20 2ND LOOK	1017
84	REFL 2 POS 3 2ND LOOK	14470	662	REFL 2 POS 20 2ND LOOK	665
86	SCENE DATA BP 3 CH 3	15885	664	SCENE DATA BP 20 CH 3	15891
88	CH 4	16296	666	CH 4	16297
90	CH 5	16609	668	CH 5	16615
92	CH 6	16894	670	CH 6	16883

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
94	CH 7	15925	672	CH 7	15919
96	CH 8	16602	674	CH 8	16600
98	CH 9	16493	676	CH 9	16487
100	CH 10	16461	678	CH 10	16447
102	CH 11	16146	680	CH 11	16132
104	CH 12	16443	682	CH 12	16434
106	CH 13	16220	684	CH 13	16223
108	CH 14	16706	686	CH 14	16687
110	CH 15	16228	688	CH 15	16224
112	REFLECTOR 1 POSITION 4	14986	690	REFLECTOR 1 POSITION 21	1178
114	REFLECTOR 2 POSITION 4	14625	692	REFLECTOR 2 POSITION 21	821
116	REFL 1 POS 4 2ND LOOK	14974	694	REFL 1 POS 21 2ND LOOK	1169
118	REFL 2 POS 4 2ND LOOK	14621	696	REFL 2 POS 21 2ND LOOK	816
120	SCENE DATA BP 4 CH 3	15882	698	SCENE DATA BP 21 CH 3	15873
122	CH 4	16295	700	CH 4	16296
124	CH 5	16607	702	CH 5	16605
126	CH 6	16911	704	CH 6	16882
128	CH 7	15932	706	CH 7	15918
130	CH 8	16602	708	CH 8	16599
132	CH 9	16504	710	CH 9	16483
134	CH 10	16476	712	CH 10	16447
136	CH 11	16160	714	CH 11	16128
138	CH 12	16442	716	CH 12	16432
140	CH 13	16210	718	CH 13	16214
142	CH 14	16664	720	CH 14	16684
144	CH 15	16236	722	CH 15	16222
146	REFLECTOR 1 POSITION 5	15134	724	REFLECTOR 1 POSITION 22	1331
148	REFLECTOR 2 POSITION 5	14775	726	REFLECTOR 2 POSITION 22	972
150	REFL 1 POS 5 2ND LOOK	15127	728	REFL 1 POS 22 2ND LOOK	1321
152	REFL 2 POS 5 2ND LOOK	14773	730	REFL 2 POS 22 2ND LOOK	967
154	SCENE DATA BP 5 CH 3	15865	732	SCENE DATA BP 22 CH 3	15878
156	CH 4	16296	734	CH 4	16299
158	CH 5	16603	736	CH 5	16603
160	CH 6	16902	738	CH 6	16879
162	CH 7	15937	740	CH 7	15916
164	CH 8	16605	742	CH 8	16607
166	CH 9	16504	744	CH 9	16480
168	CH 10	16476	746	CH 10	16442
170	CH 11	16149	748	CH 11	16136
172	CH 12	16446	750	CH 12	16432
174	CH 13	16227	752	CH 13	16204
176	CH 14	16698	754	CH 14	16691
178	CH 15	16237	756	CH 15	16221
180	REFLECTOR 1 POSITION 6	15286	758	REFLECTOR 1 POSITION 23	1480
182	REFLECTOR 2 POSITION 6	14930	760	REFLECTOR 2 POSITION 23	1121
184	REFL 1 POS 6 2ND LOOK	15279	762	REFL 1 POS 23 2ND LOOK	1473
186	REFL 2 POS 6 2ND LOOK	14926	764	REFL 2 POS 23 2ND LOOK	1119
188	SCENE DATA BP 6 CH 3	15879	766	SCENE DATA BP 23 CH 3	15881
190	CH 4	16299	768	CH 4	16299
192	CH 5	16604	770	CH 5	16599

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
194	CH 6	16907	772	CH 6	16878
196	CH 7	15942	774	CH 7	15916
198	CH 8	16604	776	CH 8	16598
200	CH 9	16508	778	CH 9	16481
202	CH 10	16464	780	CH 10	16452
204	CH 11	16155	782	CH 11	16131
206	CH 12	16449	784	CH 12	16436
208	CH 13	16223	786	CH 13	16214
210	CH 14	16678	788	CH 14	16691
212	CH 15	16241	790	CH 15	16220
214	REFLECTOR 1 POSITION 7	15440	792	REFLECTOR 1 POSITION 24	1631
216	REFLECTOR 2 POSITION 7	15082	794	REFLECTOR 2 POSITION 24	1276
218	REFL 1 POS 7 2ND LOOK	15430	796	REFL 1 POS 24 2ND LOOK	1626
220	REFL 2 POS 7 2ND LOOK	15077	798	REFL 2 POS 24 2ND LOOK	1272
222	SCENE DATA BP 7 CH 3	15879	800	SCENE DATA BP 24 CH 3	15880
224	CH 4	16296	802	CH 4	16297
226	CH 5	16599	804	CH 5	16605
228	CH 6	16879	806	CH 6	16878
230	CH 7	15917	808	CH 7	15921
232	CH 8	16602	810	CH 8	16604
234	CH 9	16486	812	CH 9	16478
236	CH 10	16452	814	CH 10	16446
238	CH 11	16138	816	CH 11	16130
240	CH 12	16434	818	CH 12	16431
242	CH 13	16228	820	CH 13	16211
244	CH 14	16683	822	CH 14	16691
246	CH 15	16223	824	CH 15	16219
248	REFLECTOR 1 POSITION 8	15591	826	REFLECTOR 1 POSITION 25	1785
250	REFLECTOR 2 POSITION 8	15232	828	REFLECTOR 2 POSITION 25	1428
252	REFL 1 POS 8 2ND LOOK	15582	830	REFL 1 POS 25 2ND LOOK	1775
254	REFL 2 POS 8 2ND LOOK	15230	832	REFL 2 POS 25 2ND LOOK	1422
256	SCENE DATA BP 8 CH 3	15887	834	SCENE DATA BP 25 CH 3	15877
258	CH 4	16297	836	CH 4	16300
260	CH 5	16609	838	CH 5	16605
262	CH 6	16880	840	CH 6	16878
264	CH 7	15921	842	CH 7	15921
266	CH 8	16599	844	CH 8	16601
268	CH 9	16484	846	CH 9	16483
270	CH 10	16453	848	CH 10	16444
272	CH 11	16132	850	CH 11	16132
274	CH 12	16440	852	CH 12	16420
276	CH 13	16228	854	CH 13	16212
278	CH 14	16712	856	CH 14	16678
280	CH 15	16223	858	CH 15	16221
282	REFLECTOR 1 POSITION 9	15739	860	REFLECTOR 1 POSITION 26	1937
284	REFLECTOR 2 POSITION 9	15385	862	REFLECTOR 2 POSITION 26	1578
286	REFL 1 POS 9 2ND LOOK	15733	864	REFL 1 POS 26 2ND LOOK	1927
288	REFL 2 POS 9 2ND LOOK	15380	866	REFL 2 POS 26 2ND LOOK	1575
290	SCENE DATA BP 9 CH 3	15885	868	SCENE DATA BP 26 CH 3	15878
292	CH 4	16303	870	CH 4	16305

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	16635	872	CH 5	16606
296	CH 6	16878	874	CH 6	16881
298	CH 7	15915	876	CH 7	15916
300	CH 8	16605	878	CH 8	16607
302	CH 9	16483	880	CH 9	16479
304	CH 10	16449	882	CH 10	16450
306	CH 11	16136	884	CH 11	16135
308	CH 12	16423	886	CH 12	16435
310	CH 13	16215	888	CH 13	16218
312	CH 14	16688	890	CH 14	16685
314	CH 15	16220	892	CH 15	16221
316	REFLECTOR 1 POSITION 10	15893	894	REFLECTOR 1 POSITION 27	2085
318	REFLECTOR 2 POSITION 10	15538	896	REFLECTOR 2 POSITION 27	1731
320	REFL 1 POS 10 2ND LOOK	15884	898	REFL 1 POS 27 2ND LOOK	2079
322	REFL 2 POS 10 2ND LOOK	15533	900	REFL 2 POS 27 2ND LOOK	1726
324	SCENE DATA BP 10 CH 3	15885	902	SCENE DATA BP 27 CH 3	15902
326	CH 4	16298	904	CH 4	16315
328	CH 5	16611	906	CH 5	16596
330	CH 6	16881	908	CH 6	16875
332	CH 7	15916	910	CH 7	15915
334	CH 8	16605	912	CH 8	16616
336	CH 9	16481	914	CH 9	16482
338	CH 10	16453	916	CH 10	16450
340	CH 11	16135	918	CH 11	16132
342	CH 12	16437	920	CH 12	16436
344	CH 13	16207	922	CH 13	16206
346	CH 14	16686	924	CH 14	16692
348	CH 15	16221	926	CH 15	16222
350	REFLECTOR 1 POSITION 11	16043	928	REFLECTOR 1 POSITION 28	2239
352	REFLECTOR 2 POSITION 11	15689	930	REFLECTOR 2 POSITION 28	1884
354	REFL 1 POS 11 2ND LOOK	16036	932	REFL 1 POS 28 2ND LOOK	2230
356	REFL 2 POS 11 2ND LOOK	15684	934	REFL 2 POS 28 2ND LOOK	1878
358	SCENE DATA BP 11 CH 3	15892	936	SCENE DATA BP 28 CH 3	15905
360	CH 4	16298	938	CH 4	16323
362	CH 5	16598	940	CH 5	16608
364	CH 6	16880	942	CH 6	16882
366	CH 7	15921	944	CH 7	15913
368	CH 8	16603	946	CH 8	16621
370	CH 9	16484	948	CH 9	16483
372	CH 10	16449	950	CH 10	16446
374	CH 11	16137	952	CH 11	16132
376	CH 12	16431	954	CH 12	16431
378	CH 13	16212	956	CH 13	16209
380	CH 14	16692	958	CH 14	16699
382	CH 15	16223	960	CH 15	16222
384	REFLECTOR 1 POSITION 12	16197	962	REFLECTOR 1 POSITION 29	2388
386	REFLECTOR 2 POSITION 12	15840	964	REFLECTOR 2 POSITION 29	2034
388	REFL 1 POS 12 2ND LOOK	16189	966	REFL 1 POS 29 2ND LOOK	2382
390	REFL 2 POS 12 2ND LOOK	15835	968	REFL 2 POS 29 2ND LOOK	2029
392	SCENE DATA BP 12 CH 3	15879	970	SCENE DATA BP 29 CH 3	15949

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16298	972	CH 4	16377
396	CH 5	16609	974	CH 5	16683
398	CH 6	16882	976	CH 6	16880
400	CH 7	15919	978	CH 7	15917
402	CH 8	16601	980	CH 8	16684
404	CH 9	16479	982	CH 9	16481
406	CH 10	16453	984	CH 10	16444
408	CH 11	16133	986	CH 11	16133
410	CH 12	16443	988	CH 12	16438
412	CH 13	16207	990	CH 13	16215
414	CH 14	16688	992	CH 14	16689
416	CH 15	16222	994	CH 15	16221
418	REFLECTOR 1 POSITION 13	16350	996	REFLECTOR 1 POSITION 30	2542
420	REFLECTOR 2 POSITION 13	15991	998	REFLECTOR 2 POSITION 30	2185
422	REFL 1 POS 13 2ND LOOK	16340	1000	REFL 1 POS 30 2ND LOOK	2534
424	REFL 2 POS 13 2ND LOOK	15987	1002	REFL 2 POS 30 2ND LOOK	2181
426	SCENE DATA BP 13 CH 3	15888	1004	SCENE DATA BP 30 CH 3	15906
428	CH 4	16334	1006	CH 4	16317
430	CH 5	16644	1008	CH 5	16622
432	CH 6	16910	1010	CH 6	16872
434	CH 7	15958	1012	CH 7	15919
436	CH 8	16627	1014	CH 8	16620
438	CH 9	16514	1016	CH 9	16479
440	CH 10	16472	1018	CH 10	16449
442	CH 11	16166	1020	CH 11	16141
444	CH 12	16474	1022	CH 12	16431
446	CH 13	16260	1024	CH 13	16215
448	CH 14	16731	1026	CH 14	16689
450	CH 15	16254	1028	CH 15	16221
452	REFLECTOR 1 POSITION 14	115	1030	REFLECTOR 1 COLD CAL POS	4132
454	REFLECTOR 2 POSITION 14	16139	1032	REFLECTOR 2 COLD CAL POS	3778
456	REFL 1 POS 14 2ND LOOK	108	1034	REFL 1 COLD CAL 2ND LOOK	4132
458	REFL 2 POS 14 2ND LOOK	16139	1036	REFL 2 COLD CAL 2ND LOOK	3779
460	SCENE DATA BP 14 CH 3	15887	1038	COLD CAL DATA 1 CH 3	15924
462	CH 4	16317	1040	CH 4	16318
464	CH 5	16608	1042	CH 5	16647
466	CH 6	16917	1044	CH 6	16879
468	CH 7	15951	1046	CH 7	15920
470	CH 8	16641	1048	CH 8	16618
472	CH 9	16514	1050	CH 9	16482
474	CH 10	16478	1052	CH 10	16444
476	CH 11	16187	1054	CH 11	16138
478	CH 12	16461	1056	CH 12	16426
480	CH 13	16243	1058	CH 13	16202
482	CH 14	16703	1060	CH 14	16677
484	CH 15	16246	1062	CH 15	16221
486	REFLECTOR 1 POSITION 15	265	1064	COLD CAL DATA 2 CH 3	15926
488	REFLECTOR 2 POSITION 15	16294	1066	CH 4	16319
490	REFL 1 POS 15 2ND LOOK	260	1068	CH 5	16647
492	REFL 2 POS 15 2ND LOOK	16291	1070	CH 6	16876

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
494	SCENE DATA BP 15 CH 3	15889	1072	CH 7	15920
496	CH 4	16329	1074	CH 8	16619
498	CH 5	16635	1076	CH 9	16480
500	CH 6	16920	1078	CH 10	16452
502	CH 7	15949	1080	CH 11	16143
504	CH 8	16638	1082	CH 12	16429
506	CH 9	16511	1084	CH 13	16216
508	CH 10	16491	1086	CH 14	16676
510	CH 11	16166	1088	CH 15	16222
512	CH 12	16448	1182	REFLECTOR 1 WARM CAL POS	8527
514	CH 13	16221	1184	REFLECTOR 2 WARM CAL POS	8178
516	CH 14	16694	1186	REFL 1 WARM CAL 2ND LOOK	8527
518	CH 15	16240	1188	REFL 2 WARM CAL 2ND LOOK	8178
520	REFLECTOR 1 POSITION 16	422	1190	WARM CAL DATA 1 CH 3	15888
522	REFLECTOR 2 POSITION 16	62	1192	CH 4	16301
524	REFL 1 POS 16 2ND LOOK	410	1194	CH 5	16608
526	REFL 2 POS 16 2ND LOOK	58	1196	CH 6	16884
528	SCENE DATA BP 16 CH 3	15877	1198	CH 7	15923
530	CH 4	16334	1200	CH 8	16609
532	CH 5	16614	1202	CH 9	16487
534	CH 6	16911	1204	CH 10	16450
536	CH 7	15951	1206	CH 11	16137
538	CH 8	16645	1208	CH 12	16437
540	CH 9	16515	1210	CH 13	16211
542	CH 10	16484	1212	CH 14	16681
544	CH 11	16150	1214	CH 15	16225
546	CH 12	16443	1216	WARM CAL DATA 2 CH 3	15882
548	CH 13	16220	1218	CH 4	16304
550	CH 14	16702	1220	CH 5	16614
552	CH 15	16235	1222	CH 6	16883
554	REFLECTOR 1 POSITION 17	573	1224	CH 7	15919
556	REFLECTOR 2 POSITION 17	212	1226	CH 8	16607
558	REFL 1 POS 17 2ND LOOK	563	1228	CH 9	16489
560	REFL 2 POS 17 2ND LOOK	210	1230	CH 10	16452
562	SCENE DATA BP 17 CH 3	15868	1232	CH 11	16139
564	CH 4	16318	1234	CH 12	16443
566	CH 5	16647	1236	CH 13	16226
568	CH 6	16908	1238	CH 14	16704
570	CH 7	15937	1240	CH 15	16226

FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	18717	24.28
1092	SCAN MOTOR A1-2	19329	24.75
1094	FEED HORN A1-1	20667	28.35
1096	FEED HORN A1-2	21400	29.80
1098	RF MUX A1-1	22618	31.95
1100	RF MUX A1-2	23719	34.20
1102	LOCAL OSCILLATOR CHANNEL 3	24890	36.69
1104	LOCAL OSCILLATOR CHANNEL 4	25324	36.86
1106	LOCAL OSCILLATOR CHANNEL 5	23838	34.61
1108	LOCAL OSCILLATOR CHANNEL 6	22951	31.96
1110	LOCAL OSCILLATOR CHANNEL 7	23276	33.32
1112	LOCAL OSCILLATOR CHANNEL 8	24701	36.12
1114	LOCAL OSCILLATOR CHANNEL 15	24162	34.64
1116	PLLO #2	22450	31.65
1118	PLLO #1	25299	37.22
1120	1553 INTERFACE	18594	37.20
1122	MIXER/IF AMPLIFIER CHANNEL 3	24016	34.76
1124	MIXER/IF AMPLIFIER CHANNEL 4	24197	34.57
1126	MIXER/IF AMPLIFIER CHANNEL 5	23744	34.11
1128	MIXER/IF AMPLIFIER CHANNEL 6	22914	32.51
1130	MIXER/IF AMPLIFIER CHANNEL 7	22906	33.06
1132	MIXER/IF AMPLIFIER CHANNEL 8	24170	34.88
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	22376	31.70
1136	MIXER/IF AMPLIFIER CHANNEL 15	24114	35.07
1138	IF AMPLIFIER CHANNEL 11 THRU 14	23793	34.24
1140	IF AMPLIFIER CHANNEL 9	23953	34.46
1142	IF AMPLIFIER CHANNEL 10	23812	34.45
1144	IF AMPLIFIER CHANNEL 11	23039	32.10
1146	DC/DC CONVERTER	24623	35.30
1148	IF AMPLIFIER CHANNEL 13	22604	31.38
1150	IF AMPLIFIER CHANNEL 14	22978	32.55
1152	IF AMPLIFIER CHANNEL 12	22793	31.98
1154	RF SHELF A1-1	23191	33.03
1156	RF SHELF A1-2	23826	33.64
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	21259	29.33
1160	A1-1 WARM LOAD 1	24233	25.45
1162	A1-1 WARM LOAD 2	24728	25.56
1164	A1-1 WARM LOAD 3	24228	25.59
1166	A1-1 WARM LOAD 4	24305	25.55
1168	A1-1 WARM LOAD CENTER	24513	25.59
1170	A1-2 WARM LOAD 1	24879	26.19
1172	A1-2 WARM LOAD 2	24939	26.21
1174	A1-2 WARM LOAD 3	24962	26.23
1176	A1-2 WARM LOAD 4	24949	26.11
1178	A1-2 WARM LOAD CENTER	24955	26.21
1180	TEMP SENSOR REFERENCE VOLTAGE	25269	

FULL SCAN MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	0.0
A1-1 RF SHELF TEMPERATURE #1	0.0
A1-1 WARM LOAD TEMPERATURE	0.0
A1-2 SCANNER MOTOR TEMPERATURE	0.0
A1-2 RF SHELF TEMPERATURE #1	0.0
A1-2 WARM LOAD TEMPERATURE	0.0
A1-1 RF SHELF TEMPERATURE #2	0.0
A1-2 RF SHELF TEMPERATURE #2	0.0

DESCRIPTION		VALUE	AMPS/VOLTS
SIGNAL PROCESSOR	+5 VDC	22068	0.0
	+15 VDC	21836	0.0
	-15 VDC	21802	0.0
SCAN DRIVE	+5 VDC	22185	0.0
	+15 VDC	22219	0.0
	-15 VDC	21878	0.0
PLO	+15 VDC	22486	0.0
	-15 VDC	22073	0.0
RECEIVER	+8 VDC	21814	0.0
MIXER/IF AMPLIFIER A1-1	+10 VDC	21420	0.0
A1-2	+10 VDC	21437	0.0
LO CHANNEL 6	+10 VDC	21396	0.0
7	+10 VDC	21467	0.0
SPARE		32767	0.0
LO CHANNEL 3	+10 VDC	21268	0.0
4	+10 VDC	21202	0.0
5	+10 VDC	21361	0.0
8	+10 VDC	21323	0.0
15	+15 VDC	22035	0.0
QUIET BUS CURRENT		16509	0.0
A1-1 NOISY POWER BUS CURRENT		18036	0.0
A1-2 NOISY POWER BUS CURRENT		15062	0.0

FULL SCAN MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	42.00	601	14.00
	616	43.00	602	15.00
	617	44.00	603	16.00
	618	45.00	604	17.00
	619	46.00	605	18.00
	620	47.00	606	19.00
	621	48.00	607	20.00
FIXED TARGET	622	49.00	608	21.00
	623	50.00	609	22.00
	624	51.00	610	23.00
	625	52.00	611	24.00
	626	53.00	612	25.00
	627	67.00	613	69.00
	628	68.00	614	70.00
BASEPLATE	629	71.00	630	72.00
	631	26.00	632	27.00

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	5.00	537	34.00
	559	6.00	538	35.00
VARIABLE TARGET SHROUD	550	7.00	524	36.00
	551	8.00	525	37.00
FIXED TARGET N2	506	57.00	502	30.00
	507	58.00	503	31.00
VARIABLE TARGET N2	516	59.00	511	32.00
	517	60.00	512	33.00
HEATER N2	514	1.00	509	38.00
	515	2.00	510	39.00
FIXED TARGET FLOW METER	508	63.00	504	61.00
VARIABLE TARGET FLOW METER	518	64.00	513	62.00
BASEPLATE HEATER N2	519	3.00	520	4.00
BASEPLATE N2	521	9.00	522	10.00
BASEPLATE FLOW METER	523	65.00		
ADJUNCT RADIATORS	575	73.00	577	74.00
	579	75.00	581	76.00

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:44:27 SCAN NUMBER 185
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	113	33	64	41	64	49	63	57	111
2	5	10	0	18	0	26	115	34	238	42	97	50	85	58	235
3	192	11	0	19	154	27	110	35	65	43	64	51	65	59	114
4	225	12	0	20	2	28	179	36	242	44	65	52	18	60	159
5	2	13	0	21	113	29	61	37	62	45	63	53	63	61	111
6	191	14	0	22	115	30	255	38	47	46	5	54	93	62	225
7	0	15	0	23	110	31	63	39	64	47	64	55	114	63	62
8	174	16	0	24	179	32	179	40	229	48	52	56	171	64	5

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN BFF7 CALC BFF7 SA28 227 SA29 453
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.4.4 a & b

```
EOS     A1-03 E1.EXE;35 FULL SCAN MODE     P1 14-JUL-98 19:46:03   SCAN NUMBER    197
[ 5 ] SCIENCE   DATA   ELEMENT 0000

[ 6 ] CONTROL/STATUS   ELEMENT    00

[ 7 ] ENGINEERING      ELEMENT    00

                            RADIOMETRIC DATA

                         BEAM POSITION  1

                       CH  DATA   CH  DATA   CH  DATA

                        3 15871    8 16614   13 16199
                        4 16308    9 16480   14 16673
                        5 16621   10 16447   15 16221
                        6 16880   11 16132
                        7 15917   12 16432

[ 21 ] UP                  [ 22 ] DOWN

ENGR OK         POWER   ON     CHECKSUM  IN C149 CALC C149    SA28     239 SA29    477
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

AE-26600 PARAGRAPH 4.4.4.c 8d

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:48:27 SCAN NUMBER 215

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

RADIOMETRIC DATA
CHANNEL 3

BP	DATA	BP	DATA	BP	DATA	BP	DATA
1	15872	9	15888	17	15864	25	15875
2	15873	10	15880	18	15890	26	15874
3	15884	11	15891	19	15885	27	15902
4	15877	12	15878	20	15888	28	15900
5	15863	13	15882	21	15877	29	15947
6	15878	14	15885	22	15874	30	15909
7	15880	15	15888	23	15885	CC	15922
8	15883	16	15874	24	15882	WC	15882

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN C38D CALC C38D SA28 257 SA29 513

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.4.4.e 8-f

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:49:32 SCAN NUMBER 223
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

WARM CALIBRATE

CH	DATA	CH	DATA	CH	DATA	CH	DATA
3	15884	7	15923	10	16448	13	16218
3	15879	7	15921	10	16452	13	16232
4	16307	8	16610	11	16130	14	16687
4	16304	8	16607	11	16133	14	16687
5	16606	9	16488	12	16433	15	16224
5	16613	9	16485	12	16431	15	16225
6	16886						
6	16889						

ENGR OK POWER ON CHECKSUM IN C52F CALC C52F SA28 265 SA29 529
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE-26600 PARAGRAPH 4.4.4.g & h

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:50:35 SCAN NUMBER 231
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

COLD CALIBRATE

CH	DATA	CH	DATA	CH	DATA	CH	DATA
3	15926	7	15921	10	16449	13	16202
3	15925	7	15925	10	16452	13	16212
4	16320	8	16617	11	16134	14	16684
4	16323	8	16621	11	16137	14	16675
5	16646	9	16483	12	16433	15	16222
5	16646	9	16488	12	16424	15	16224
6	16884						
6	16878						

ENGR OK POWER ON CHECKSUM IN C477 CALC C477 SA28 272 SA29 544
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 2

AE-26600 PARAGRAPH 4.4.4. L & j

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:56:19 SCAN NUMBER 274

[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

REFLECTOR POSITIONS 1

BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2
1	14521	14521	9	15740	15734	17	572	562	25	1784	1775
2	14677	14671	10	15894	15884	18	720	714	26	1936	1927
3	14831	14823	11	16043	16036	19	874	865	27	2085	2079
4	14986	14974	12	16197	16189	20	1023	1017	28	2239	2230
5	15135	15127	13	16350	16340	21	1177	1169	29	2388	2382
6	15286	15279	14	115	108	22	1331	1322	30	2542	2534
7	15439	15430	15	265	260	23	1480	1473	CC	4131	4131
8	15591	15581	16	422	410	24	1632	1625	WC	8526	8526

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 1119 CALC 1119 SA28 315 SA29 630

SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

SELECT BUTTON 2

AE 26600 PARAGRAPH 4.4.4.K & l

EOS A1-03 E1.EXE;35 FULL SCAN MODE P1 14-JUL-98 19:56:19 SCAN NUMBER 274
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

REFLECTOR POSITIONS 2

BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2
1	14169	14170	9	15384	15381	17	213	210	25	1428	1422
2	14324	14320	10	15539	15533	18	366	362	26	1578	1575
3	14473	14470	11	15689	15684	19	518	513	27	1731	1727
4	14628	14622	12	15840	15835	20	670	665	28	1884	1879
5	14776	14773	13	15992	15986	21	820	816	29	2035	2030
6	14930	14926	14	16139	16138	22	973	967	30	2184	2181
7	15082	15077	15	16294	16291	23	1121	1119	CC	3780	3780
8	15235	15232	16	63	58	24	1275	1272	WC	8178	8178

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 1119 CALC 1119 SA28 316 SA29 631
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN

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AE-26600 PARAGRAPH 4.4.4.K & R

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Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
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7. Author(s) R. Haigh	8. Performing Organization Report No. 11335
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	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 Performance Verification Report, Initial Comprehensive Performance Test Report, P/N 1356008-1-IT, S/N 202/A1, for the Integrated Advanced Microwave Sounding Unit-A (AMSU-A).

17. Key Words (Suggested by Author(s))	18. Distribution Statement
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Unclassified	Unclassified		---

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6. AUTHOR(S) R. Haigh			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Aerojet 1100 W. Hollyvale Azusa, CA 91702		8. PERFORMING ORGANIZATION REPORT NUMBER 11335 November 1998	
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13. ABSTRACT (*Maximum 200 words*) This is the Performance Verification Report, Initial Comprehensive Performance Test Report, P/N 1356008-1-IT, S/N 202/A1, for the Integrated Advanced Microwave Sounding Unit-A (AMSU-A).			
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Block 13. Abstract. Include a brief *(Maximum 200 words)* factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phases identifying major subjects in the report.

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Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

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GenCorp Aerojet

DOCUMENT APPROVAL SHEET

TITLE	DOCUMENT NO.
Performance Verification Report Initial Comprehensive Performance Test Report P/N 1356008-1-IT, S/N 202/A1	Report 11335 November 1998

INPUT FROM:	DATE	CDRL:	SPECIFICATION ENGINEER:	DATE
R. Haigh		208	N/A	

CHECKED BY:	DATE	JOB NUMBER:	DATE
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APPROVED SIGNATURES	DEPT. NO.	DATE
Product Team Leader (P. Patel) J. R. Patel	8341	11/30/98
Systems Engineer (R. Platt) R. H. Platt	8341	11/30/98
Design Assurance (E. Lorenz) E. Lorenz	8331	12/1/98
Quality Assurance (R. Taylor) [signature] For	7831	11/30/98
Technical Director/PMO (R. Hauerwaas) R V Hauerwaas	4001	12/1/98
Released: Configuration Management (J. Cavanaugh) J Cavanaugh	8361	12/1/98

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SHEET 2 OF
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GENCORP
AEROJET

AE-26156/9
18 June 1998

OPER 0810
S/O 298561 P/N 1356008-1-IT S/N 202
EOS-AMSU-A1 PARA 3.3 → 3.3.7.2.
1ST CPT

ECN 1876

QC 223

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PROCESS SPECIFICATION

EOS/AMSU-A1, SYSTEM COMPREHENSIVE AND LIMITED PERFORMANCE TESTS TEST PROCEDURE

3
1876

TABLE OF CONTENTS

TABLE OF CONTENTS (CONT)

FIGURES

SHEET 5 OF ___
ECR NO. 1876

TABLES

TEST DATA SHEETS

1. SCOPE

1.1 ***Scope.*** This process specification establishes the requirements for the Comprehensive Performance Test (CPT) and Limited Performance Test (LPT) of the Earth Observing System Advanced Microwave Sounding Unit - A1 (EOS/AMSU-A1), referred to as the unit. The unit is defined on Drawing 1356008.

1.2 ***Procedure sequence.*** The sequence of CPT/LPT testing is shown in Figure 1. At the discretion of the test engineer the order of tests may be changed.

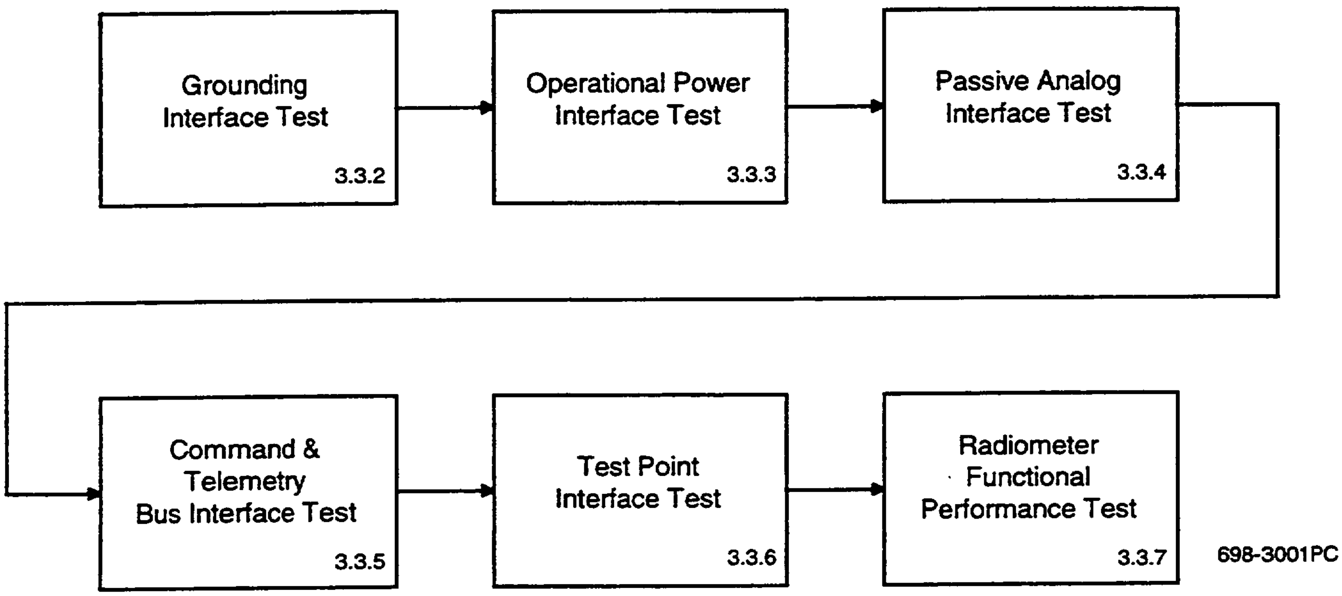

Figure 1. Sequence of EOS/AMSU-A1 CPT/LPT Testing

SHEET 7 OF
ECR NO. 1876

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2. APPLICABLE DOCUMENTS

2.1 ***Government documents.*** The following documents form a part of this specification to the extent specified herein. The latest issue is applicable.

SPECIFICATIONS

<u>NASA (Goddard Space Flight Center (GSFC))</u>

S-480-80	Performance and Operation Specification for the EOS/ METSAT Integrated Programs AMSU-A Instrument (POS)
S-480-79	Performance Assurance Requirements for the EOS/METSAT Integrated Programs AMSU-A Instrument (PAR)
422-11-12-01	General Interface Requirements Document for EOS Common Spacecraft /Instruments EOS PM Project (GIRD)
422-12-12-02	Unique Instrument Interface Document for the Advanced Microwave Sounding Unit (AMSU-A) EOS PM Project (UIID)

STANDARDS

MIL-STD-45662	Calibration Systems Requirements

(Copies of government documents should be obtained as indicated in the Department of Defense Index of Specifications and Standards).

2.2 ***Non government documents.*** The following documents form a part of this specification to the extent specified herein. The latest issue is applicable.

2.2.1 *TRW documents*

SPECIFICATIONS

D24844	Interface Control Document for Advanced Microwave Sounding Unit - A1 (ICD)
D25092	Instrument Interface Database for the AMSU-A1

(Copies of TRW documents may be obtained from TRW Inc.)

2.2.2 *Aerojet documents*

STANDARDS

STD-2454	Requirements for Electrostatic Discharge Control

SPECIFICATIONS

AE-26002/1	AMSU-A1 Antenna Drive Subsystem Test Procedure
AE-26156/7	EOS/AMSU-A1 Subsystem Integration Procedure
AE-26357	AMSU-A Transportation and Handling Procedure

SHEET 9 OF
ECR NO. 1876

AE-26600	EOS/AMSU-A Firmware Test Procedures

REPORTS

10353	EOS/AMSU-A Contamination Control Plan
10443	EOS/AMSU-A Software User's Guide (STE Software)
10458	EOS/AMSU-A Firmware Requirements
10974	EOS/AMSU-A Firmware Test Report

DRAWINGS

1338427	Cover, ESD Shielded Bag
1356008	EOS/AMSU-A1 Assembly
1356648	Cable Assembly, EOS Lab Test
1356655	Console Assembly, METSAT and EOS STE
SK1358702	9 Pin Breakout Box
SK1358704	25 Pin Breakout Box
SK1358705	37 Pin Breakout Box
SK1360106	ON/OFF Switch

(Copies of Aerojet documents may be obtained from Gencorp Aerojet, Azusa Operations, CAGE 70143, P.O. Box 296, Azusa, California, 91702-0296).

3. REQUIREMENTS

3.1 ***Equipment.*** All measurements shall be made using the test equipment or its equivalent as specified in Table I. Equivalent test equipment shall be approved by Systems Engineering and Quality Assurance. Test equipment and gauges required to perform examinations and tests shall be controlled by a calibration system as specified in MIL-STD-45662.

All inspection, measurement and test equipment used shall be currently calibrated to certified standards. The date of last calibration and calibration due date shall be displayed on each item of equipment subject to calibration and recorded at the time of test performance as specified in detailed procedures.

3.2 ***Materials.*** Not applicable.

3.3 ***Required procedures and operations.*** The unit shall be subjected to the tests shown in Figure 1 and Table II.

Table I. Required Test Equipment

Item	Qty	Equipment	Manufacturer	Model No,
1	1	9-Pin Breakout Box	Aerojet	SK1358702-1/ 2536-3743
2	1	25-Pin Breakout Box	Aerojet	SK1358704-1/ 2536-3746
3	1	37-Pin Breakout Box	Aerojet	SK1358705-1/ 2536-3745
4	1	AMSU-A Special Test Equipment (STE)	Aerojet	1356655-1
5	1	STE Interface Cable J1 (W31)	Aerojet	1356648-1
6	1	STE Interface Cable J2 (W32)	Aerojet	1356648-2
7	1	STE Interface Cable J3 (W33)	Aerojet	1356648-3
8	1	STE Interface Cable J4 (W34)	Aerojet	1356648-4
9	2	Liquid Nitrogen Container	Cole Parmer	N03726-20
10	1	Digital Multimeter	Fluke/Tektronix	77/DMM916
11	1	Spectrum Analyzer	Hewlett-Packard	8566B/8590L
12	1	Plotter	Hewlett-Packard	7475A
13	1	Digital Multimeter	Hewlett-Packard	34401A
14	1	Digital Oscilloscope	Tektronix	TDS386/2221A
15	1	Dynamic Signal Analyzer	Hewlett-Packard	3562A/3563
16	1	WR19 Harmonic Mixer (40-60 GHz)	Hewlett-Packard	HP11970V
17	1	WR19 Feedhorn	TRG	V861
18	1	Current Probe	Tektronix	AM503
19	1	Frequency Counter	Hewlett-Packard	5316A
20	1	Function Generator	Hewlett-Packard	3325A/B
21	1	Power Supply	Power Designs	3650-S
22	1	FREQUENCY SYNTHESIZER	HEWLETT-PACKARD	83623A
23	1	SOURCE MODULE/MULTIPLIER	HEWLETT-PACKARD	83557A
24	1	SOURCE MODULE / MULTIPLIER	HEWLETT-PACKARD	83558A

QC 223

R.S. 7-15-98

SHEET 11 OF
ECR NO. 1876

Item	Qty	Equipment	Manufacturer	Model No,
22	1	Oxygen Monitor	Bio Systems	3100
23	2	CRYO Protective Gloves	Lab Safety Supply	5932L
24	1	Protective Face Mask	SELLSTROM	124-390/380
25	1	Cold Target Support	Aerojet	T-1291001-2
26	1	Cold Target Support	Aerojet	T-1291001-3
27	2	Cold Target	Aerojet	T-1291000-1
28	1	ON/OFF Switch	Aerojet	SK1260106
29	1	Power Supply	Hewlett-Packard	HP 6205 B
30	1	Protective Apron	Lab Safety Supply	8A-7549-3

3.3.1 *Integration and test preliminary conditions*

3.3.1.1 *Limited performance test (LPT).* The Limited Performance Test shall consist of the test procedures in the LPT column of Table II.

3.3.1.2 *Comprehensive performance test (CPT).* Three types of Comprehensive Performance Testing are shown in Table II. The first and final CPTs are the same except for paragraph 3.3.5.1 which is performed during the first protoflight unit CPT. The first CPT is performed prior to the start of environmental testing. Sub CPTs are intermediate comprehensive performance tests performed during environmental testing. The final CPT is performed after the completion of environmental testing. Table II shows the required tests for each CPT.

3.3.1.3 *Integration and test facilities.* Unless otherwise specified, all testing and inspection of the EOS/AMSU-A1 shall be conducted at Aerojet, Azusa Operations, Azusa, California.

3.3.1.4 *Environment.* Unless otherwise specified all testing and inspection operations shall be performed under the following laboratory ambient conditions:

a. Handling in accordance with AE-26357

b. Contamination control in accordance with Report 10353

c. Temperature: $+23 \pm 10$ degrees Celsius

d. Pressure: 610 to 810 torr

e. Humidity: $50 \pm 20\%$ (no condensation)

f. The instrument shall be placed in its protective bag (1338427) when not in use.

3.3.1.5 *Integration testing/inspection.* Prior to the start of CPT/LPT testing, the unit should be in the final system configuration as determined by the successful completion of the subsystem integration procedure, AE-26156/7.

3.3.1.6 *Electrostatic discharge (ESD) certification.* Certification for handling ESD sensitive equipment in accordance with STD-2454 is required for all personnel working on the EOS/AMSU-A1 instrument.

3.3.1.7 ***CPT/LPT preparation checklist.*** Prior to starting the integration, perform the following procedures.

1. Visually inspect the instrument. Check for physical damage and cleanliness.

2. Verify proper installation of the ESD protective mat and wriststraps. Refer to STD-2454 for ESD protection instructions.

3. Verify that each connector of the spacecraft interface has a connector saver installed.

4. Obtain the required test equipment listed in Table I. Verify that the test equipment requiring calibration is currently calibrated.

5. Verify operation of the Special Test Equipment (STE) shown in Figure 2 by itself. Ensure that the current limits on the two power supplies that interface to the instrument are set correctly. The Q supply should be set to 3 amps and the N/S supply should be set to 1.5 amps. Refer to Figure 3 for the STE power supply panel layout. Figures 4 through 6 show other panels on the STE that will be referenced later in this procedure.

6. Verify that all of the required procedures and drawings listed in 2.2.2 are available for reference.

SHEET 13 OF
ECO NO. 1876

Table II. AMSU-A1 Performance Tests

Para.	Description	1st CPT	LPT	Sub CPT	Final CPT
3.3.2	Grounding Interface Test	X	X	X	X
3.3.3	Operational Power Interface Test				
3.3.3.1	Quiet Power Bus				
3.3.3.1.1	Quiet Power Bus Operational Power Test	X		X	X
3.3.3.1.2	Quiet Power Bus Operational Power Test (LPT Only)		X		
3.3.3.1.3	Quiet Power Bus Turn On Transient Test	X			X
3.3.3.2	Noisy Power Bus				
3.3.3.2.1	Noisy Power Bus Operational Power Test	X		X	X
3.3.3.2.2	Noisy Power Bus Turn On Transient Test	X			X
3.3.3.3	Survival Heater Power Bus Interface Test				X
3.3.4	Passive Analog Interface Test	X	X	X	X
3.3.5	Command & Telemetry Bus Interface Test				
3.3.5.1	FQT of the EOS/AMSU-A1 Firmware (PFM Only)	X			
3.3.5.2	Instrument Commanding Verification	X	X	X	X
3.3.5.3	Science and Engineering Data Verification	X	X	X	X
3.3.5.4	1553 Bus Interface Test	X			X
3.3.6	Test Point Interface Test				
3.3.6.1	Intentionally Left Blank				
3.3.6.2	8 Second Sync Pulse Verification	X		X	X
3.3.6.3	Integrate/Hold & Dump Signal Verification	X		X	X
3.3.6.4	Radiometer Channel Analog Output Verification	X		X	X
3.3.6.5	PLO #1 and PLO #2 Lock Signal Verification	X		X	X
3.3.6.6	GSE-1 Mode Verification	X			X
3.3.6.7	GSE-2 Mode Verification	X			X
3.3.6.8	GSE-3 Mode Verification	X			X
3.3.6.9	GSE-4 Mode Verification	X			X
3.3.6.10	GSE-5 Mode Verification	X			X
3.3.6.11	GSE-7 Mode Verification	X			X
3.3.7	Radiometer Functional Performance Test				
3.3.7.1	PLO Frequency Measurements	X			X
3.3.7.2	Relative Radiometer NEΔT Measurements	X	X	X	X
3.3.8	CHANNEL IDENTIFICATION TEST	X			

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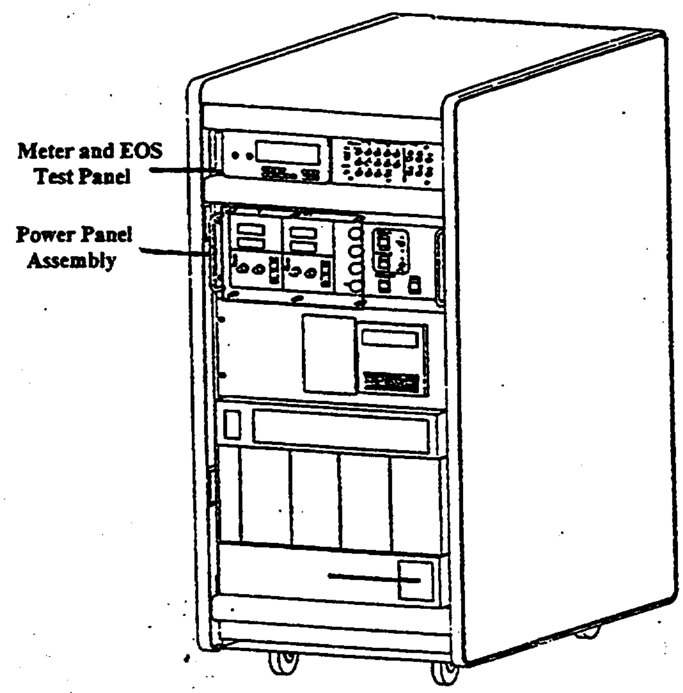

Figure 2. Special Test Equipment (STE) (1356655)

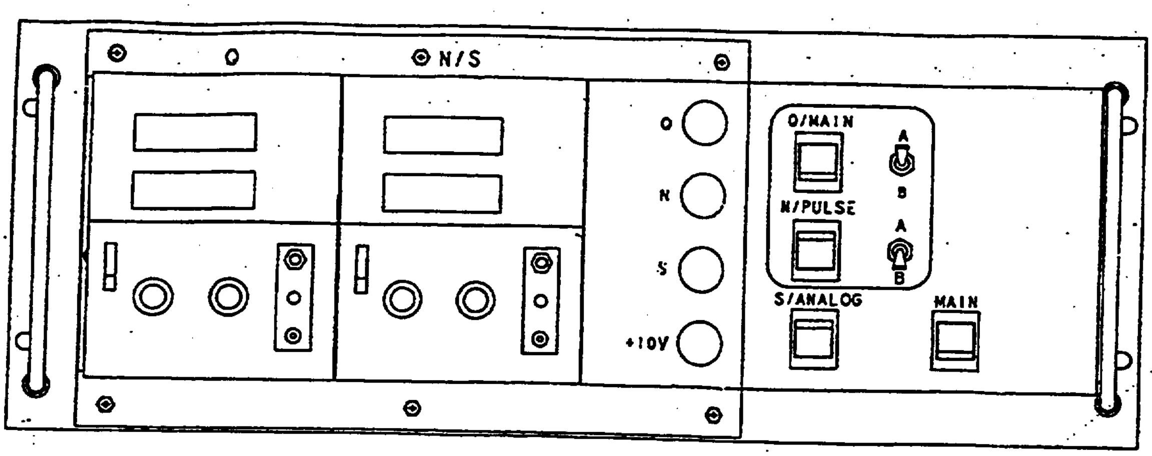

Figure 3. STE Front Power Supply Panel Layout

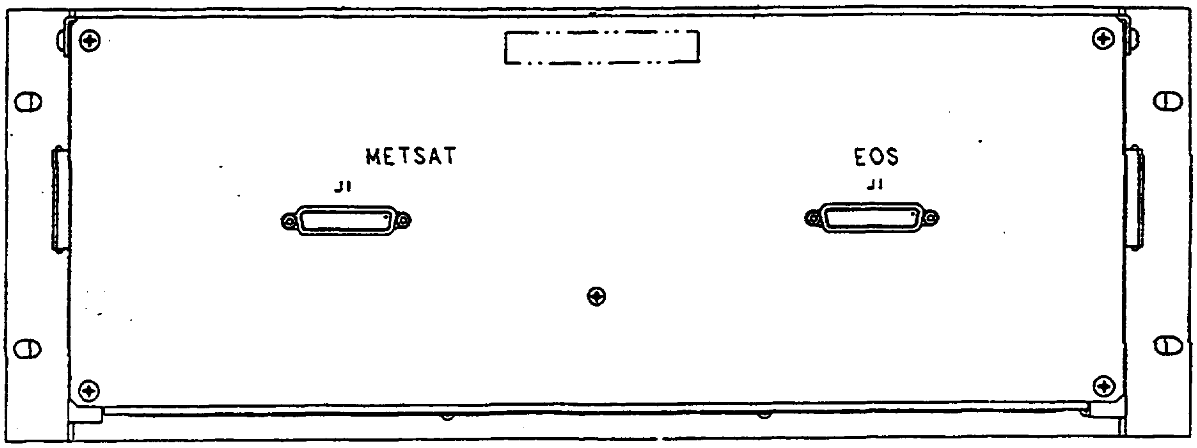

Figure 4. STE Rear Power Supply Panel Layout

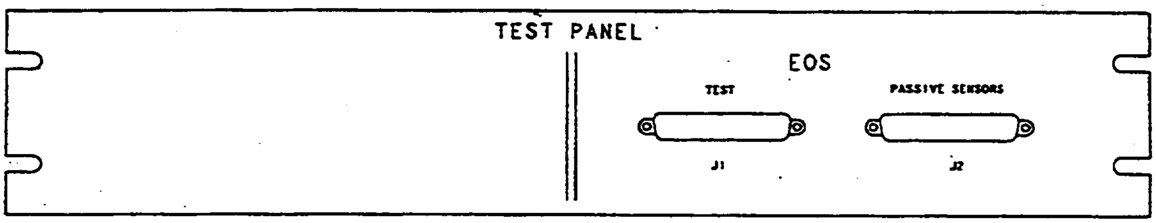

Figure 5. STE Rear Test Panel Layout

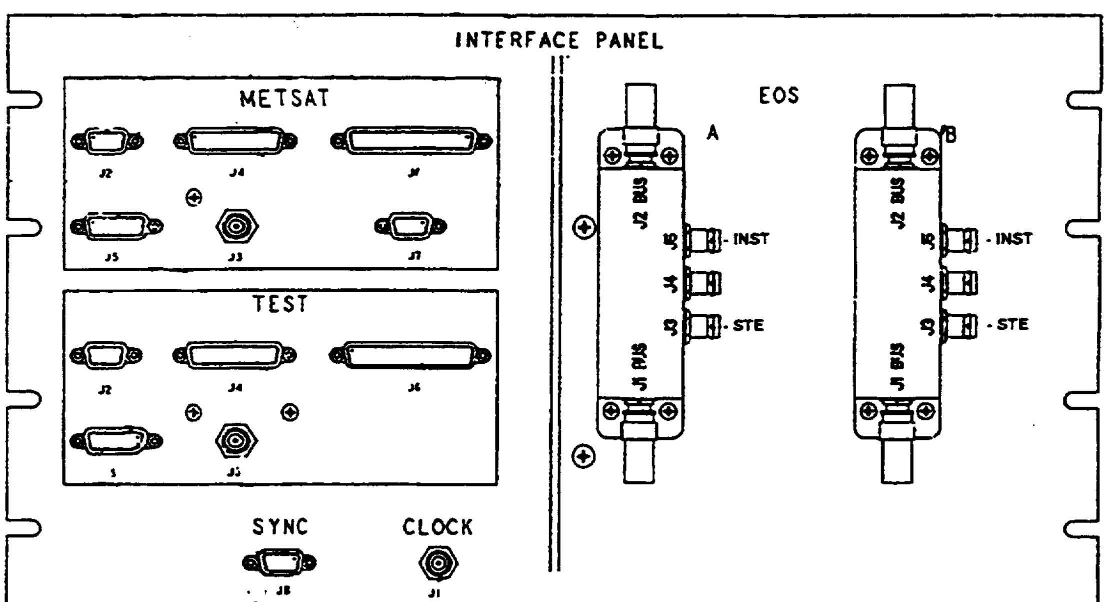

Figure 6. STE Rear Interface Panel Layout

3.3.2 ***Grounding interface test.*** This test provides the verification of the unit grounding requirements found in the following documents:

UIID	Waiver 5 (12)
GIRD	Sections 5.3 and 6.2.2 (except section 5.3.5.2)
POS	Section 4.4.1
ICD	Section 5.3

To verify these requirements, perform the following procedures.

1. Configure the unit as shown in Figure 7. Verify that connectors J1, J2, J3 and J4 have connector savers installed. Connect a 25 Pin breakout box at J1. Connect a 37 Pin breakout box at J2. Connect a 9 pin breakout box at J3. Connect a 37 pin breakout box at J4.

2. Measure and record continuity or isolation between the points as specified on Test Data Sheet (TDS) 1.

3. Remove the breakout boxes from J2 and J3 ensuring that the connector savers remain in place.

3.3.3 ***Operational power interface test.*** This test provides the verification of the operational power interface requirements found in the following documents:

UIID -	Section 3.3 and waivers 5(3), 5(7), 5(9), and 5(11)
GIRD -	Sections 5.1.2 and 5.2
POS -	None
ICD -	Sections 5.1.2 and 5.2

Operational power is delivered to the unit through spacecraft interface connector J1 as follows:

1. Quiet power bus (3.3.3.1)

2. Noisy power bus (3.3.3.2)

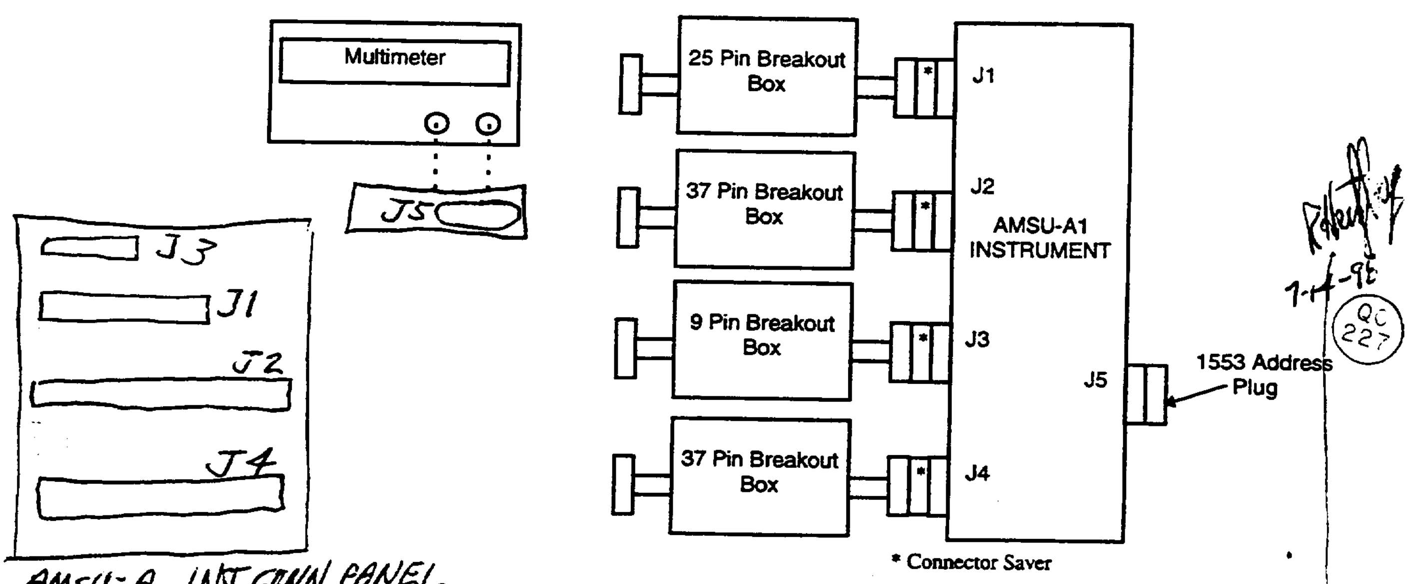

Figure 7. Setup for Grounding Interface Test

SHEET 17 OF
ECN NO. 15___

3. Survival heater power bus (3.3.3.3)

3.3.3.1 ***Quiet power bus interface tests.*** The quiet bus is active immediately upon the introduction of spacecraft power to the bus. There is no internal control within the unit. The quiet power bus shall be verified by performing the following tests:

1. Quiet power bus operational power test (3.3.3.1.1)
2. Quiet power bus operational power test (LPT only) (3.3.3.1.2)
3. Quiet power bus turn on transient test (3.3.3.1.3).

3.3.3.1.1 ***Quiet power bus operational power test.*** The Quiet Power Bus operational power shall be verified at combinations of three voltages (+27, +29, and +31 volts) and two PLO conditions (PLO #1 active and PLO #2 active). The operational power test will be conducted for the unit in full scan mode as follows:

1. With the STE main power off and the STE power panel turned off (MAIN POWER, Q/MAIN, N/PULSE, and S/ANALOG switches as shown in Figure 3 in the OFF position), connect the instrument as shown in Figure 8. This setup assumes a dc impedance from the spacecraft supplied power through fuse and cabling to the unit on the order of 0.3 ohms.

2. Ensure breakout boxes at J1 and J4 are connected to the unit as indicated in 3.3.2, testing.

3. Connect the STE to the instrument using the following STE interface cables:

   a. STE interface cable J1 (1356648-1)

   b. STE interface cable J2 (1356648-2)

   c. STE interface cable J3 (1356648-3)

4. Connect STE interface cable J1 from EOS J1 found on the STE power panel shown in Figure 4 to the 25 pin breakout box. Connect the remaining end to the 25 pin breakout box to J1 of the instrument.

5. Connect STE interface cable J2 from EOS J2 found on the STE test panel shown in Figure 5 to J2 on the unit.

6. Connect STE interface cable J3 from EOS A&B J5 found on the STE interface panel shown in Figure 6 to J3 on the unit.

7. Before turning on the power to the unit, verify that switches 1, 2, 14, and 15 of the 25 pin breakout box are in the open position.

8. Disconnect the external power supply PS1from the 25 pin breakout box. Turn on the external supply and using a multimeter, adjust its output to 27 ± 0.10 volts. Turn off the external supply and reconnect the supply as shown in Figure 8.

9. Turn the STE MAIN POWER switch ON {refer to Figures 2 and 3 (computer should be on, STE power panel should be off)}. From the A1 directory and at the "$" prompt, enter the command to the STE "RUN E1". The EOS/AMSU-A1 software program should be running as evidenced by the STE screen shown in Figure 9.

10. Turn the STE power supply panel MAIN POWER switch ON (refer to Figure 3).

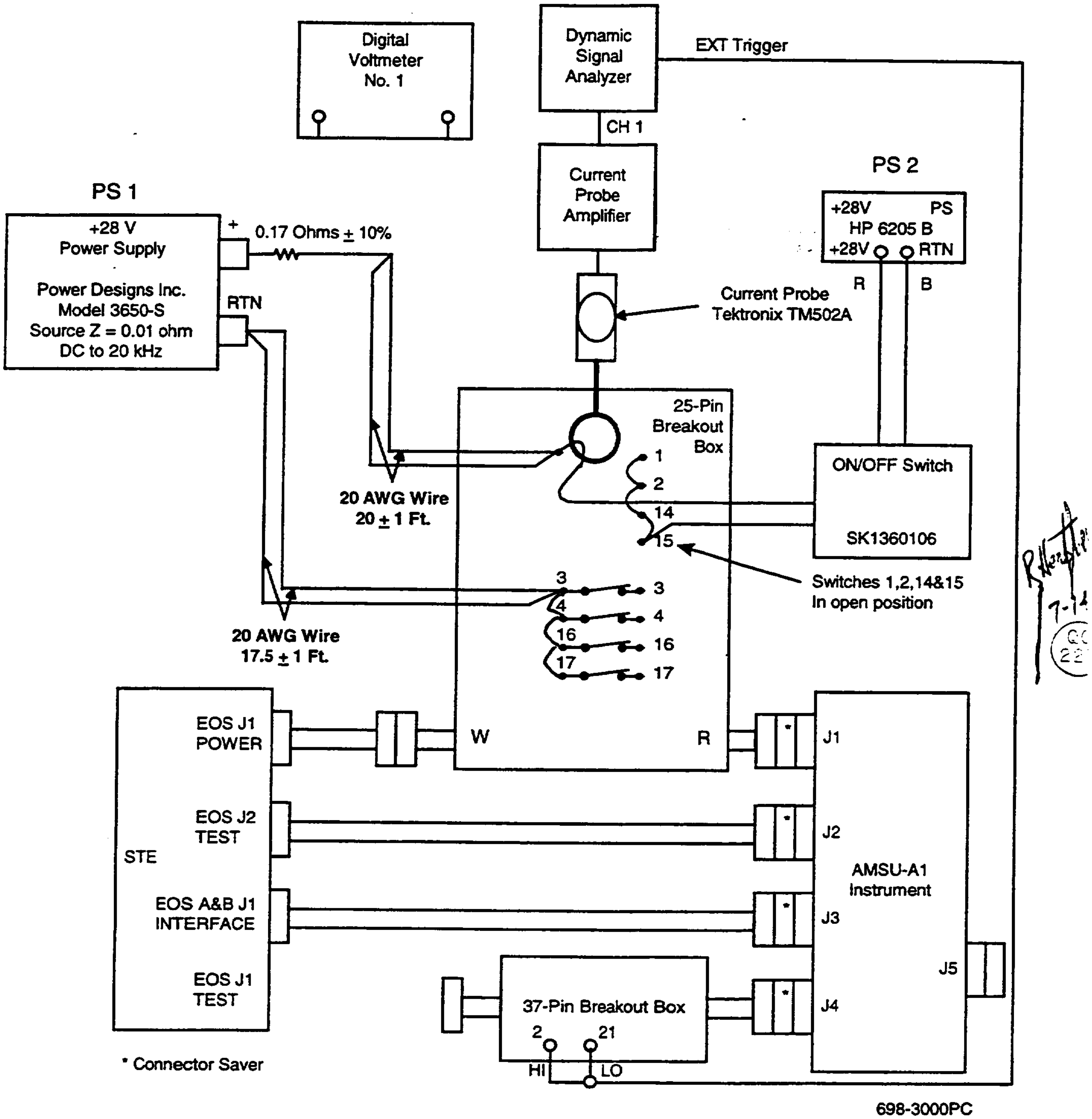

Figure 8. Setup for Quiet Bus Operational Power Tests

Fig. missing Figure missing

SHEET 19 OF
LCS NO. 18772

Figure 9. EOS/AMSU-A1 STE Main Screen

11. Turn the external power supply on. Place ON/OFF switch in the 'ON' position. With a multimeter, adjust the Quiet Bus voltage at the breakout box to 27 ± 0.10 volts (between J1-1 and J1-3).

12. Turn the STE power supply panel N/Pulse switch on (refer to Figure 3). With a multimeter, adjust the Noisy Bus voltage at the breakout box to 29 ± 0.10 volts (between J1-5 and J1-7).

13. Go to the Commands screen on the STE. From the main screen shown in Figure 9, enter the STE command "[2] MONITOR ONLY". The screen should now be as shown in Figure 10. Enter the STE command "[14] COMMANDS". The screen should now be as shown in Figure 11.

14. Enter the STE command "[11] ANTENNA FULL SCAN MODE". Wait 18 seconds before issuing the next command.

15. Enter the STE command "[9] SCANNER A1-1 POWER". Wait 18 seconds before issuing the next command.

16. Enter the STE command "[10] SCANNER A1-2 POWER". Wait 18 seconds before issuing the next command. The unit should now be scanning in full scan mode with PLO #1 active.

17. Look at the Quiet Bus voltage. If necessary, using the multimeter adjust the external supply PS1 to 27 ± 0.10 volts. Record the voltage on TDS 2.

18 Observe the Quiet Bus current waveform on the dynamic signal analyzer. Configure the dynamic signal analyzer as follows:

Select **MEAS MODE**
- Select *Time Capture*
- Select *Capture Select*
- Select *Capture Length*; Enter 1.0, Select *Record*

Select **FREQ**
- Select *Freq Span*; Enter 100.0; Select *Hz*
- Select E SMPL *Off*
- Select *Time Length*; Enter 8.0; Select *Sec*

Select **SELECT MEAS**
- Select *Power Spec*
- Select CH1 *Active*

Select **WINDOW**
- Select *Hann*

Select **SOURCE**
- Select Source *Off*

Select **AVG**
- Select Avg *Off*
- Select Tim Av *Off*

Select **RANGE**
- Select *Aut 1 up&dwn*

Select **INPUT COUPLE**
- Select CH1 *DC*
- Select CH 1 *Ground*

Select **SELECT TRIG**
    Select *Trig Level*; Enter 1.5; Select *V*
    Select Arm *AU*
    Select *Ext*
    Select *Slope +*
Select **TRIG DELAY**
    Enter 0.0; Select *Sec*
Select **COORD**
    Select *Real*
Select **VIEW INPUT**
    Select *Time Buff*
Select **SCALE**
    Select *X Fixd Scale*; Enter 0.0, 8.0; Select *Sec*
    Select *Y Fixd Scale*; Enter -10.0, 70.0; Select *mv*
Select **UNITS**
    Select *Hz (sec)*

-NOTE-

Prior to collecting any current data, the current meter and DSA have to be "zeroed out"; zero current reference has to be established on the DSA. Follow this interim procedure to zero reference the current meter and DSA.

a) Remove the current probe from the circuit and close the probe. Place the probe in a magnetic benign location.

b) Depress "Start Capture" on the DSA.

c) With the "capture in process", adjust the "output DC level" control on the current amplifier to indicate zero current on the DSA.

d) Position the current probe to its original location in accordance with Figure 8.

The instrument is now ready to capture and plot 8.0 seconds of data

19. Start the DSA signal capture by depressing "Start Capture"; Insure Relay Board is 'ON'.

20. Obtain a record of the Quiet Bus current waveform. On the Relay Board, turn the switch OFF.

21. Determine average power by the following:
Observe the current waveform on the DSA. Using the Y markers, place the lower horizontal bar on the 0.0 ma line and the upper bar on the current trace, adjusting the bar to the middle of the signal. This measures the average current over the 8.0 second span. Multiply this value by the current scale factor (20 ma/mv, which yields Average Quiet Bus Current. Record on TDS-2, Record the PS-1 measured Quiet Bus Voltage on TDS-2. Multiply the voltage times the current for the calculated average power. Record on TDS-2.

22. Determine peak power by the following:
Observe the current wave form taken above. Sweep the X marker across the current wave form stopping on each narrow spike to see which has the highest amplitude. Upon finding the largest one, leave the X marker indicating the Peak Current Amplitude. Record this on TDS-2. Make a plot of this screen and attach it to TDS-2. Record the PS-1 measured Quiet Bus Voltage on TDS-2. Multiply the voltage times the peak current to obtain the calculated Peak Power. Record this on TDS-2.

23. With the multimeter, adjust the external power supply PS1 to 29±0.10vdc as measured between J1-1 (high and J1-2 (low). Record this voltage on TDS 2.

SHEET 21 OF
ECN NO.

24. Repeat steps 19 through 22.

25. With the multimeter, adjust the external power supply PS1 to 31±0.10vdc as measured between J1-1 (high) and J1-2 (low). Record this voltage on TDS-2.

26. Repeat steps 19 through 22.

27. Repeat the above steps after changing to PLO #2.

7-19

SHEET 22 OF
ECR NO. 1671

EOS A1 - XX OB.A1] E1. 29-SEP-97 14:44:25 SCAN NUMBER
[5] SCIENCE DATA ELEMENT 0000

[6] CONTROL/STATUS ELEMENT 00

[7] ENGINEERING ELEMENT 00

98 Fig 11

COMMANDS PLLO POWER PLLO#2 [15]

[9] SCANNER A1-1 POWER = OFF COLD CAL POSITION 1 YES [16]

[10] SCANNER A1-2 POWER = OFF 2 NO [17]

[11]ANTENNA FULL SCAN MODE = NO 3 NO [18]

[12] WARM CAL = NO COLD CAL POSITION 4 NO [19]

[13] COLD CAL = NO RESET C&DH PROCESSOR [20]

[14] NADIR = NO GSE MODE [21]

ENGR OK POWER ON CHECKSUM IN CALC SA28 SA29
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON

Figure 10. EOS/AMSU-A1 STE Monitor Only Screen

EOS/AMSU-A1 WHAT TYPE OF TEST?

[2] MONITOR ONLY
[3] WARM PATH CALIBRATION
[4] CYCLE 1 CALIBRATION
[5] CYCLE 2 CALIBRATION
[6] CYCLE 3 CALIBRATION
[7] SPECIAL CYCLE CALIBRATION
[8] DISK/TAPE PLAYBACK
[9] ERROR MESSAGES

[13] FUNCTIONAL TEST
[14] S/C TARGET TEST
[15] ARCHIVE
[16] INIT AZONIX

98 Fig 9

[10] SELF TEST
[11] ID NUMBER XX

OFF [ ] POWER

[1] RETURN

SELECT BUTTON

Figure 11. EOS/AMSU-A1 STE Commands Screen

SHEET 23 OF
ECR NO. 18716

3.3.3.1.2 ***Quiet power bus operational power test (LPT only).***

1. Configure the unit as shown in Figure 12.

2. Breakout box at J1 should still be connected to the unit from the grounding interface testing of paragraph 3.3.2.

3. Connect the STE to the instrument using the following STE interface cables:

   a. STE interface cable J1 (1356648-1)

   b. STE interface cable J2 (1356648-2)

   c. STE interface cable J3 (1356648-3)

4. Connect STE interface cable J1 from EOS J1 found on the STE power panel shown in Figure 4 to the remaining end of the 25 pin breakout box connected to J1 on the unit.

5. Connect STE interface cable J2 from EOS J2 found on the STE test panel shown in Figure 5 to J2 on the unit.

6. Connect STE interface cable J3 from EOS A&B J5 found on the STE interface panel shown in Figure 6 to J3 on the unit.

7. Turn the STE main power switch on {refer to Figures 2 and 3 (computer should be on, STE power panel should be off)}. From the A1 directory and at the "$" prompt, enter the command to the STE "RUN E1". The EOS/AMSU-A1 software program should be running as evidenced by the STE screen shown in Figure 9.

8. Turn the STE power supply panel main power switch on (refer to Figure 3).

9. Turn the STE power supply panel Q/Main switch on (refer to Figure 3). With a multimeter adjust the Quiet Bus voltage at the breakout box to 29 ± 0.10 volts (between J1-1 and J1-3).

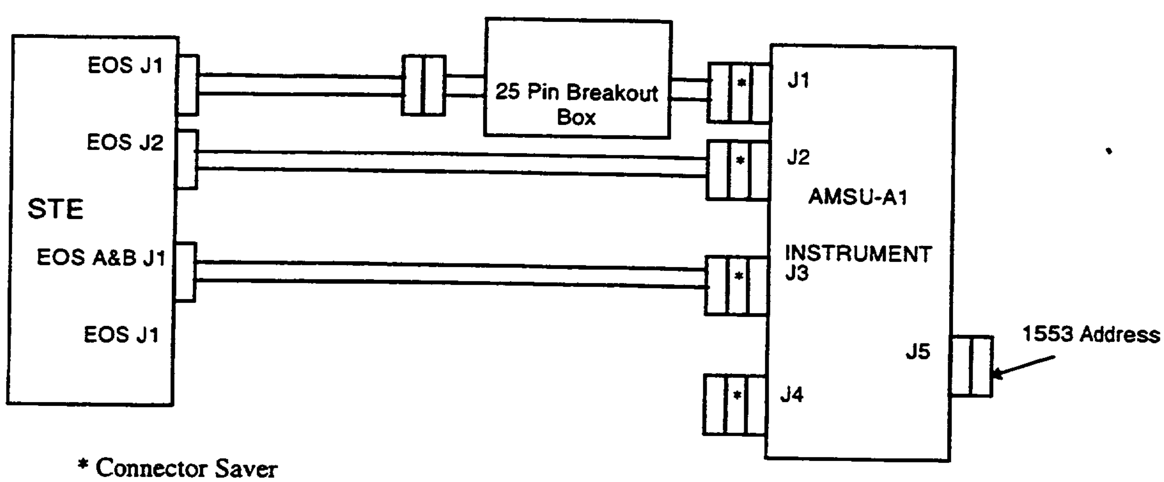

Figure 12. Test Setup of Unit Connected to STE

10. Turn the STE power supply panel N/Pulse switch on (refer to Figure 3). With a multimeter adjust the Noisy Bus voltage at the breakout box to 29 ± 0.10 volts (between J1-5 and J1-7).

11. Go to the Commands screen on the STE. From the main screen shown in Figure 9, enter the STE command "[2] MONITOR ONLY". The screen should now be as shown in Figure 10. Enter the STE command "[14] COMMANDS". The screen should now be as shown in Figure 11.

12. Enter the STE command "[11] ANTENNA FULL SCAN MODE". Wait 18 seconds before issuing the next command.

13. Enter the STE command "[9] SCANNER A1-1 POWER". Wait 18 seconds before issuing the next command.

14. Enter the STE command "[10] SCANNER A1-2 POWER". Wait 18 seconds before issuing the next command.

15. Look at the Quiet Bus voltage. If necessary, using the multimeter adjust the external supply to 29 ± 0.05 volts. Record the voltage and current on TDS 3. The current is read directly from the Q/Main power supply panel meter.

16. Compute the operating power in watts on TDS 3 using the equation provided on TDS 3.

17. Turn the STE power supply panel N/Pulse switch off (refer to Figure 3).

18. Turn the STE power supply panel Q/Main switch off (refer to Figure 3).

19. Turn the STE power supply panel main power switch off (refer to Figure 3).

20. Leave the setup intact for paragraph 3.3.4 testing.

3.3.3.1.3 *Quiet power bus turn on transient test.* The Quiet Power Bus turn on transient shall be verified at +31 volts as follows:

1. The setup should be intact from paragraph 3.3.3.1.1 testing

2. Verify the external power supply (PS1) is adjusted to 31±.1vdc, make appropriate adjustments.

3. Configure the Dynamic Signal Analyzer (DSA) as follows:

    Select **MEAS MODE**
        Select *Time Capture*
        Select *Capture Select*
        Select *Capture Length*; Enter 400.0, Select *msec*
    Select **FREQ**
        Select *Freq Span*; Enter 100.0; Select *KHz*
        Select E SMPL *Off*
        Select *Time Length*; Enter 400.0; Select *msec*
    Select **SELECT MEAS**
        Select *Power Spec*
        Select *CH1 Active*
    Select **WINDOW**
        Select *Hann*
    Select **SOURCE**
        Select Source *Off*
    Select **AVG**

SHEET 25 OF
ECP NO. 1[illegible]

Select Avg *Off*
Select Tim Av *Off*
Select **RANGE**
Select *Chan 1 Range*; Enter 1; Select *V*
Select **INPUT COUPLE**
Select CH1 *DC*
Select CH 1 *Ground*
Select **INPUT TRIG**
Select *Trig Level*; Enter 100; Select *mv*
Select Arm *AU*
Select *Chan 1 Input* ← Select 'Ext'
Select *Slope* +
Select **TRIG DELAY**
Enter 0.0; Select *Sec*
Select **COORD**
Select *Real*
Select **VIEW INPUT**
Select *Time Buff*
Select **SCALE**
Select *X Fixd Scale*; Enter 0.0, 400.0; Select *msec*
Select *Y Fixd Scale*; Enter -10.0, 320.0; Select *mv*
Select **UNITS**
Select *Hz (sec)*

-NOTE-
Prior to collecting any current data, the current meter and DSA have to be "zeroed out"; zero current reference has to be established on the DSA. Follow this interim procedure to zero reference the current meter and DSA.

a) Remove the current probe from the circuit and close the probe. Place the probe in a magnetic benign location.

b) Depress "Start Capture" on the DSA.

c) With the "capture in process", adjust the "output DC level" control on the current amplifier to indicate zero current on the DSA.

d) Position the current probe to its original location in accordance with Figure 8.

4. Adjust PS2 for +28vdc.

5. Start the DSA signal capture by depressing "Start Capture"; wait for the DSA message "waiting for trigger" before proceeding.

6. On the Relay Board, turn the switch ON and obtain a record of the Quiet Bus Turn on current waveform. On the Relay Board, turn the switch OFF. Adjust the display time base and voltage sensitivity to allow for adequate current and pulse duration measurements. Plot the obtained waveform and attach a hard copy of the scan to TDS 4. See Figure 13-A & Figure 13-B.

7. Measure the Turn On pulse width; record this value in TDS 4.

8. Compute the peak current as follows:
Multiply the maximum Ya value by the current/ div as selected on the current amplifier. As an example: if the current amplifier is set up to display 200 ma/ 10 mv per division, and the maximum Ya value = 276mv:

$$276mv \times (200ma/\ 10mv) = 5520ma = 5.52 \text{ amps}$$

Record this value on TDS 4.

9. The 1st derivative of the current waveform must be calculated. Compute the dI/dT as follows:

   The most probable location of the greatest current demand is during the first positive transition after voltage application. If this is the case, expand that segment of the display and measure the greatest voltage transition in the smallest time transition. The change in voltage times the current/ div as selected on the current amplifier produces the change in current. Next divide this change in current by the change in time (in microseconds). This value is dI/dT. Example:

   Change in voltage ....144 mv
   Change in time (microseconds) ....19.5 us
   Current/ div on current amp 200ma/ 10mv

$$144mv \times (200ma/\ 10mv)/\ 19.5\ us = 147.7ma \text{ per us}$$

10. Record the computed value on TDS 4.

11. With the multimeter, adjust the external power supply PS1 to 29±0.10vdc as measured between J1-1 (high) and J1-3 (low).

12. Repeat steps 3 through 10.

13. With the multimeter, adjust the external power supply PS1 to 27±0.10vdc as measured between J1-1 (high) and J1-3 (low).

14. Repeat steps 3 through 10.

15. Turn the STE power supply panel N/ pulse switch OFF (refer to Figure 3).

16. Turn the STE power supply panel main power switch OFF (refer to Figure 3).

SHEET 27 OF
ECR NO.

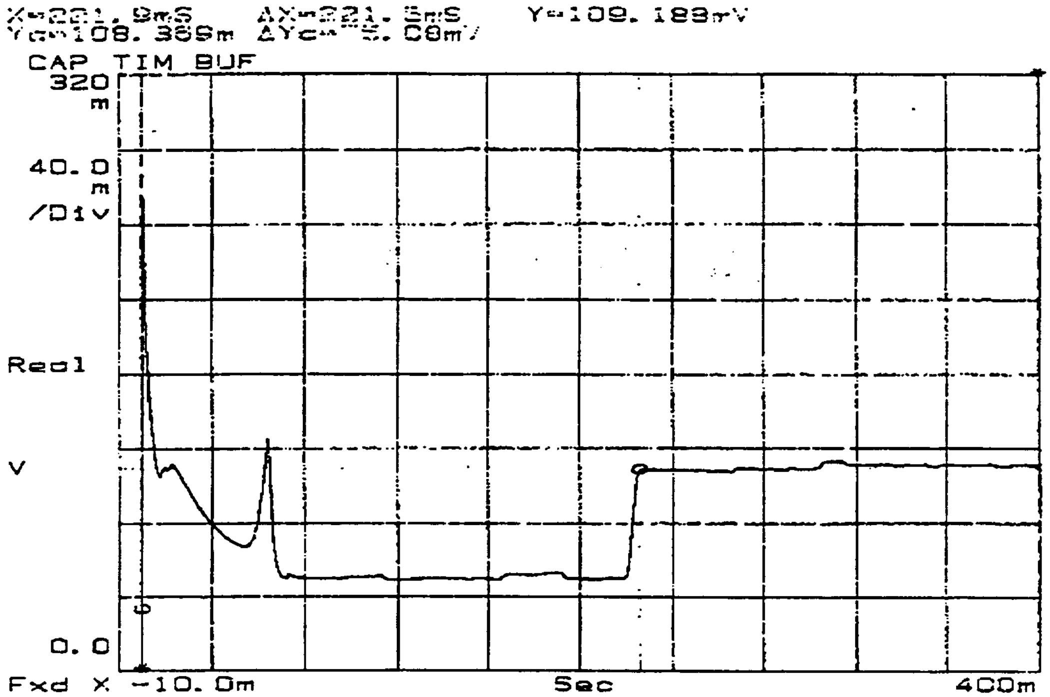

Figure 13-A. Typical Quiet Bus Turn On Transient

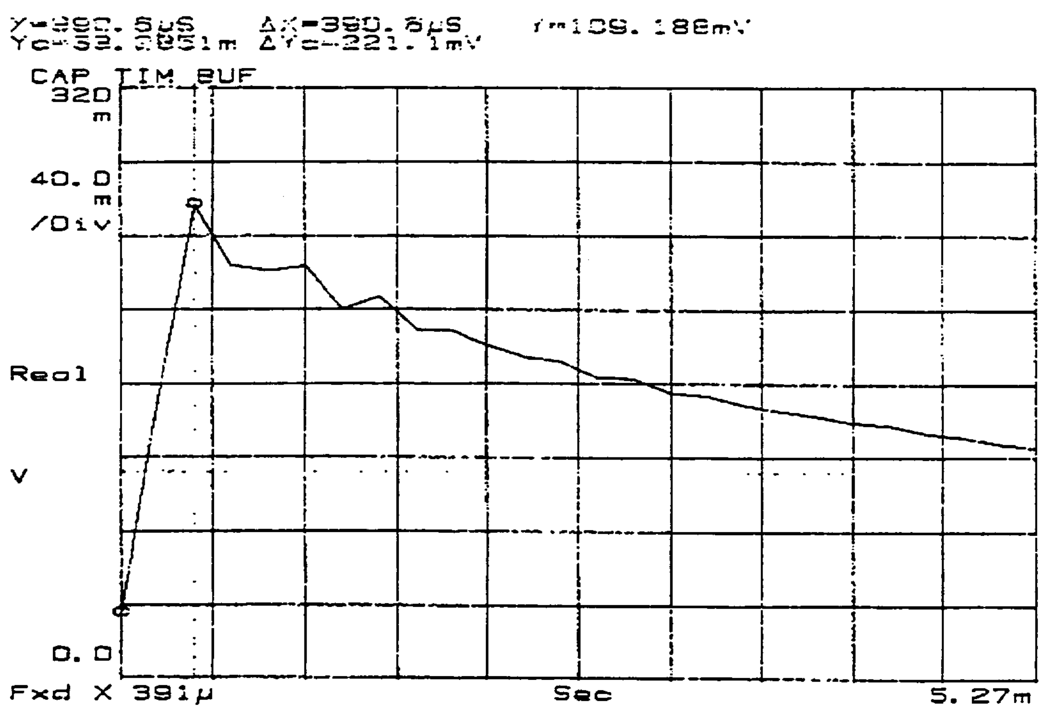

Figure 13-B. Typical Quiet Bus Turn On Expanded

3.3.3.2 ***Noisy power bus interface tests.*** The noisy bus is not active upon the introduction of spacecraft power to the bus. Two relays, one for the A1-1 scan drive and one for the A1-2 scan drive, must be turned on before the noisy bus is active within the unit. During normal turn on operation, each scan drive relay is enabled separately a minimum of eighteen seconds apart. Similarly, during normal shut down each drive system is disabled separately. The noisy bus shall be verified by performing the following tests:

1. Noisy power bus operational power test (3.3.3.2.1)

2. Noisy power bus turn-on transient test (3.3.3.2.2)

3.3.3.2.1 ***Noisy power bus operational power test.*** The Noisy Power Bus operational power shall be verified at combinations of three voltages (+27, +29, and +31 volts). The operational power test will be conducted for the unit in full scan mode as follows:

1. With the STE main power off and the STE power panel turned off (MAIN POWER, Q/MAIN, N/PULSE, and S/ANALOG switches as shown in Figure 3 in the OFF position), connect the instrument as shown in Figure 14. This setup assumes a dc impedance from the spacecraft supplied power through fuse and cabling to the unit on the order of 0.3 ohms.

SHEET 24 OF
ECR NO. 18716

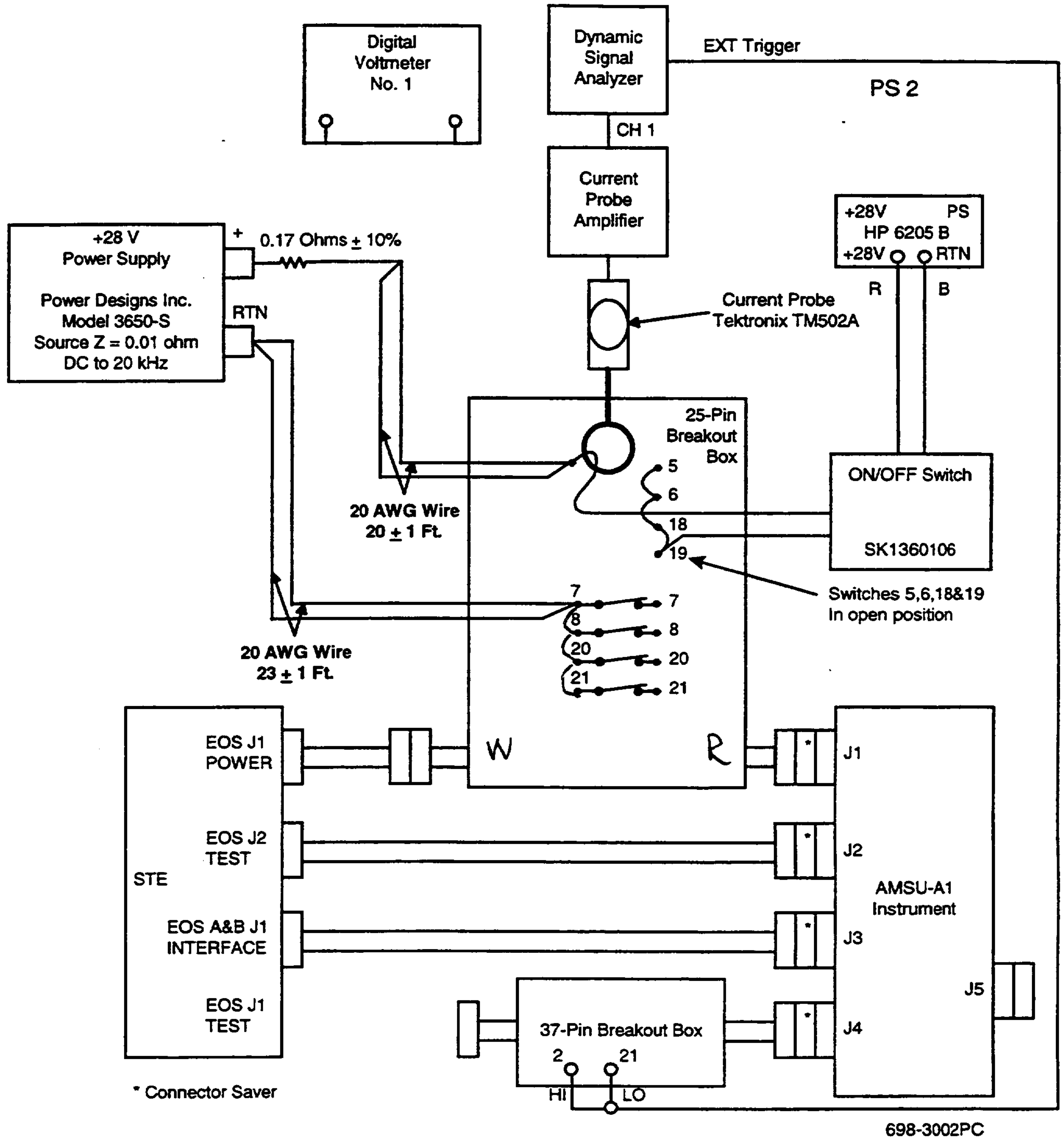

Figure 14. Setup for Noisy Bus Operational Power Tests

2. Before turning on the power to the unit, verify that switches 5, 6, 18, and 19 of the 25 pin breakout box are in the open position.

3. Disconnect the external power supply from the 25 pin breakout box. Turn on the external supply PS1 and using a multimeter, adjust its output to 27 ± 0.05 volts. Turn off the external supply and reconnect the supply as shown in Figure 14.

4. Turn the STE main power switch on {refer to Figures 2 and 3 (computer should be on, STE power panel should be off)}. From the A1 directory and at the "$" prompt, enter the command to the STE "RUN E1". The EOS/AMSU-A1 software program should be running as evidenced by the STE screen shown in Figure 9.

5. Turn the STE power supply panel main power switch on (refer to Figure 3).

6. Turn the STE power supply panel Q/MAIN switch on (refer to Figure 3). With a multimeter, adjust the Quiet Bus voltage at the breakout box to 29 ± 0.05 volts (between J1-1 and J1-3).

7. Turn the external power supply PS1 on. Place ON/OFF switch in the 'ON' position. With a multimeter, adjust the Noisy Bus voltage at the breakout box to 27 ± 0.05 volts (between J1-5 and J1-7).

8. Go to the Commands screen on the STE. From the main screen shown in Figure 9, enter the STE command "[2] MONITOR ONLY". The screen should now be as shown in Figure 10. Enter the STE command "[14] COMMANDS". The screen should now be as shown in Figure 11.

9. Enter the STE command "[11] ANTENNA FULL SCAN MODE". Wait 18 seconds before issuing the next command.

10. Enter the STE command "[9] SCANNER A1-1 POWER". Wait 18 seconds before issuing the next command.

11. Enter the STE command "[10] SCANNER A1-2 POWER". Wait 18 seconds before issuing the next command. The unit should now be scanning in full scan mode with PLO #1 active.

12. Look at the Noisy Bus voltage. If necessary, using the multimeter, adjust the external supply to 27 ± 0.10 volts. Record the voltage on TDS 5.

13. Observe the Noisy Bus current waveform on the dynamic signal analyzer. Configure the dynamic signal analyzer as follows:

    Select **MEAS MODE**
        Select *Time Capture*
        Select *Capture Select*
        Select *Capture Length*; Enter 1.0, Select *Record*
    Select **FREQ**
        Select *Freq Span*; Enter 100.0; Select *Hz*
        Select E SMPL *Off*
        Select *Time Length*; Enter 8.0; Select *Sec*
    Select **SELECT MEAS**
        Select *Power Spec*
        Select CH1 *Active*
    Select **WINDOW**
        Select *Hann*
    Select **SOURCE**
        Select Source *Off*
    Select **AVG**

SHEET 31 OF ___
ECR NO. 1816

Select Avg *Off*
Select Tim Av *Off*
Select **RANGE**
Select *Aut 1 up&dwn*
Select **INPUT COUPLE**
Select CH1 *DC*
Select CH 1 *Ground*
Select **SELECT TRIG**
Select *Trig Level*; Enter 1.5; Select *V*
Select Arm *AU*
Select *Ext*
Select *Slope +*
Select **TRIG DELAY**
Enter 0.0; Select *Sec*
Select **COORD**
Select *Real*
Select **VIEW INPUT**
Select *Time Buff*
Select **SCALE**
Select *X Fixd Scale*; Enter 0.0, 8.0; Select *Sec*
Select *Y Fixd Scale*; Enter -10.0, 70.0; Select *mv*
Select **UNITS**
Select *Hz (sec)*

-NOTE-

Prior to collecting any current data, the current meter and DSA have to be "zeroed out"; zero current reference has to be established on the DSA. Follow this interim procedure to zero reference the current meter and DSA.

a) Remove the current probe from the circuit and close the probe. Place the probe in a magnetic benign location.

b) Depress "Start Capture" on the DSA.

c) With the "capture in process", adjust the "output DC level" control on the current amplifier to indicate zero current on the DSA.

d) Position the current probe to its original location in accordance with Figure 8.

The Instrument is now ready to capture and plot 80 seconds of data.

14. Start the DSA signal capture by depressing "Start Capture."

15. Obtain a record of the Noisy Bus current waveform. On the Relay Board, turn the switch OFF. Using the Y markers, mark the maximum current amplitude as indicated in Figure 15. Plot the obtained waveform and attach a hard copy of the scan to TDS 5

16. Examine the expanded waveform to find the peak current over the entire 80 second scan. Record the peak current on TDS 5. A representative Noisy Bus Current is shown in Figs 15-A & 15-B.

17. Calculate the Average Noisy Bus Current as follows:

Select **VIEW INPUT**
Select Time Record: Note - the display shows the first 8 seconds of data and the heading changes to read "Cap Tim Rec"