COVER SHEET

Program: GLAST

Procedure Number: LAT-TD-05671

Procedure Title: TEM/TPS EMI Acceptance Test Proc.

Controlling Document Number: _____

Controlling Document Step Number: _____

Unit S/N: GLAT 1752

Descriptive Comment: _____

TEST READINESS REVIEW COMPLETED AND APPROVED BY THE FOLLOWING:

Test Director: _____ Date: 2-14-05

Quality Assurance: _____ Date: 2-14-05

Test Conductor: _____ Date: 2-14-05

POST TEST REVIEW COMPLETED AND APPROVED BY THE FOLLOWING:

Test Director: _____ Date: 2-14-05

Quality Assurance: _____ Date: 2-14-05

Test Conductor: _____ Date: 2-14-05

TEST DATA SHEET	Unit S/N: GLAT 1752	Date/Temperature: 2-11-05 23
Title: 4.2 Test Equipment	Operator:	QA: AFC

Para./ Step	Test Equipment Description, Manufacturer	Model/LAT Number	Serial/Rev. Number	*Cal./Val. Date
4.2.1 - 1	**Record Model/LAT number, Serial/Revision number, Calibration due dates and Validation date for all equipment used in this procedure:**			
	** Digital Multi Meter, Fluke/Meterman	87-III/38XR	GLAT1002	5/4/05
	VME Crate, Dawn VME Products	11-1011777-2119	GLAT0404	1-20-06
	Oscilloscope	TDS-2024	GLAT1003	6-21-05
	Spectrum Analyzer	4395A	NA	NA
	Audio Isolation Transformer	6020-1A	NA	NA
	Audio Amplifier	6550-1	NA	NA
	Large Scale Capacitor (#1)	6512-106R	NA	NA
	Large Scale Capacitor (#2)	6512-106R	NA	NA
	VME, TST-STP Trans card	LAT-DS-00999	GLAT0221	1-20-06
	VME SBC MVME2304 card, Motorola	PN MVME2304-0123	GLAT0311	↓
	VME LCB Mezzanine card	LAT-TD-00860	GLAT0126	↓
	Software for the local PC	TEMPROD V00-00-00	V01-00-04	NA
	DC Power supply #1, BK Precision	BK 1786 1697	S2405002997	8-14-05
	DC Power supply #2, BK Precision	BK 1786 1647	S2405002967	8-14-05
	28 Volt supply cable (#1)	LAT-DS-03246	NA	1-20-06
	28 Volt supply cable (#2)	LAT-DS-03246	NA	1-20-06
	PS Control cable	LAT-DS-04831	NA	NA
	TEM to GASU cable	LAT-DS-05541	GLAT1954	2-8-06
	Power cable VME to TPS	LAT-DS-05540	GLAT1955	2-8-06
	LCB Transition board cable	LAT-DS-03247	GLAT0233	1-20-06
	TEM Test Board Assembly	LAT-DS-04465	GLAT1707	↓
	TEM Test board cooling fan assembly	LAT-DS-03567	NA	↓
	CAT5 Ethernet cable	TRD855PL-50	NA	↓
	RS-232 Cable	TDC003-7 (RECO98M conn)	NA	↓
	Ground jumper, Banana, Pomona	B-12-0	NA	NA
	PS extension cable	LAT-DS-04629	NA	NA
	TEM/TPS Assembly	LAT-DS-01643	GLAT1752	NA

* This column is for recording the calibration due date for a given piece of equipment or the date that EGSE was validated.

** Do not substitute other DMM's CAUTION: Fluke 87-III and Fluke 87-V are not the same, Fluke 87-V is not allowed.

TEST DATA SHEET		Unit S/N: GLAT 1752	Date/Temperature: 2/11/05
Title: 4.2 Test Equipment		Operator:	QA: JFC
Para./ Step	Title	Print Name	Signature
4.1.3 - 1	**Record names of all personnel that take part in the test/operation:**		
		Jeffrey Ludvik	
		David Weeden	
		Joe Cullinan	JCullinan JFC

TEST DATA SHEET		Unit S/N: GLAT 1752		Date: 2/11/05
Title: 4.1.4 Pre Operation Verifications		Operator:		QA: AFC
Para./ Step	Description	Limits	Unit	Data
4.1.4	**Pre-Operation Verifications**			
-1	Notify QAE.	OK	OK/NG	✓
-2	Test Readiness Review is done.	OK	OK/NG	✓
-3	Record the EUT equipment:			
	TEM/TPS Assembly Part number	NA	NA	LAT-DS-01643
	TEM/TPS Assembly Serial number	NA	NA	GLAT 1752
-4	EGSE power is OFF.	OFF	ON/OFF	✓
-5	Set DMM to autoranging for resistance.	OK	OK/NG	~~OK~~ ✓
-6	Measure DMM lead resistance.	< 2.0	Ω	0,5Ω
-7	Measure EUT to ground.	< 2.0	Ω	0,7Ω
-8	Measure test equipment to ground.	< 2.0	Ω	0,5Ω
-9	All connector savers are installed on the flight connections.	OK	OK/NG	✓
-10	The test equipment and participant lists have been completed.	OK	OK/NG	✓

TEST DATA SHEET	Unit S/N: GLAT 1752	Date: 2/11/05
Title: 4.3 CE102 Conducted Emissions, 10 kHz to 150 kHz	Operator:	QA: AFC

Para./ Step	Description	Limits	Unit	Data
4.3.1	**Initial Test Set-Up and Calibration Check**			
-2	Verify that the setup is complete.	OK	OK/NG	✓
-6	Record data in the Table below:	OK	OK/NG	OK
-7	Verify calibration data is good.	OK	OK/NG	OK

Freq (MHz)	dBm out	Expected pk-pk voltage (V)	Measured pk-pk voltage (V)	Expected dBm on Analyzer	Actual dBm on Analyzer
10	1	0.71	.688 V	-19.4	-17.940B
2	15	3.55	3.60 V	-6.9	-4.73
.01	-13	0.141	.152	-70.3	-70.60

4.3.2	**Conducted Emissions Test**			
-2	Verify that the setup is complete.	OK	OK/NG	OK
-7	Record data in the Table below:	OK	OK/NG	OK
-10	Verify that all data is good for all six setups.	OK	OK/NG	OK

Frequency Range (MHz)	Current Probe on	Setup to Recall	Pass/fail	Saved data filename
0.15 - 2	+28 V	CE102A	✓	A
2-6	+28 V	CE102B	✓	B
6-10	+28 V	CE102C	✓	C
0.15 - 2	+28 V return	CE102A	✓	A2
2-6	+28 V return	CE102B	✓	B2
6-10	+28 V return	CE102C	✓	C2

TEST DATA SHEET		Unit S/N: GLAT 1752		Date/Temperature: 2-11-05
Title: CS 102 Conducted Susceptibility 10KHz to 150KHz		Operator:		QA: AFC
Para./ Step	Description	Limits	Unit	Data
4.4.1	**Initial Test Set-up and Calibration Check**			
-2	Verify setup	OK	OK/NG	OK
-8	Verify all calibration data is good	OK	OK/NG	OK
	Save analyzer data to floppy and record file name	D1.TXT		

TEST DATA SHEET		Unit S/N: GLAT 1752		Date/Temperature: 2-11-05
Title: CS 102 Conducted Susceptibility 10KHz to 150KHz		Operator:		QA:
Para./ Step	Description	Limits	Unit	Data
4.4.2	**Conducted Emissions Basic Test**			
-2	Verify setup	OK	OK/NG	OK
-6	Initial to show the sweep time was set	OK	OK/NG	OK
-7	Verify that the test passed	OK	OK/NG	OK
~~-10~~	~~Record TEM/TPS run number~~	~~OK~~	~~OK/NG~~	
-11	Record pass fail	OK	OK/NG	OK
-12	Save analyzer data to floppy and record file name	D1.TXT		

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TEST DATA SHEET		Unit S/N: GLAT 1752		Date/Temperature: 2/11/05
Title: CS 102 Conducted Susceptibility 10KHz to 150KHz		Operator:		QA: [illegible]
Para./ Step	Description	Limits	Unit	Data
4.4.3	**Conducted Susceptibility Noise Test**			
-2	Record largest noise voltage CAL Bias (HV) (red connection)	<500µ	Volts	106µV
-4	Record largest noise voltage CAL 3.3 analog (yellow connection)	<150µ	Volts	54µV
-6	Record largest noise voltage CAL 3.3 digital (green connection)	<200µ	Volts	30µV
-8	Record largest noise voltage TKR bias (HV) (blue connection)	<500µ	Volts	84µV
-10	Record largest noise voltage TKR 2.5 analog (green connection)	<150µ	Volts	50µV
-12	Record largest noise voltage TKR 1.5 analog (red connection)	<150µ	Volts	60µV
-14	Record largest noise voltage TKR 2.5 digital (yellow connection)	<150µ	Volts	50µV

TEST DATA SHEET		Unit S/N: GLAT 1752		Date/Temperature: 2/11/05
Title: CS 102 Conducted Susceptibility 150KHz to 10MHz		Operator:		QA: AFC
Para./ Step	Description	Limits	Unit	Data
4.4.4	**Initial Test Set-up and Calibration Check**			✓
-2	Verify setup	OK	OK/NG	✓
-6	Verify all calibration data is good	OK	OK/NG	✓
-7	Record the changes and file name			B,TXT

TEST DATA SHEET		Unit S/N: GLAT 1752		Date/Temperature: 2/11/05
Title: CS 102 Conducted Susceptibility 150Hz to 10MHz		Operator:		QA: AFC
Para./ Step	Description	Limits	Unit	Data
4.4.5	**Conducted Emissions Register Test**			
-2	Verify setup	OK	OK/NG	OK
-6	Initial to show the sweep time was set	OK	OK/NG	OK
-7	Verify that the data is within limits	OK	OK/NG	OK
~~-10~~	~~Record TEM/TPS run number~~	~~OK~~	~~OK/NG~~	
-11	Record Pass/Fail	OK	OK/NG	OK
-12	Save analyzer data and record file name	E1.TXT		

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TEST DATA SHEET	Unit S/N: GLAT 1752	Date/Temperature: 2/11/05
Title: CS 102 Conducted Susceptibility 150Hz to 10MHz	Operator:	QA: JFC

Para./ Step	Description	Limits	Unit	Data
4.4.6	**Conducted Emissions Noise Test**			
-2	Record largest noise voltage CAL Bias (HV) RED	<500µ	Volts	90µV
-4	Record largest noise voltage CAL 3.3 analog YELLOW	<150µ	Volts	30µV
-6	Record largest noise voltage CAL 3.3 digital GREEN	<200µ	Volts	20µV
-8	Record largest noise voltage TKR bias (HV) BLUE	<500µ	Volts	80µV
-10	Record largest noise voltage TKR 2.5 analog GREEN	<150µ	Volts	30µV
-12	Record largest noise voltage TKR 1.5 analog RED	<150µ	Volts	30µV
-14	Record largest noise voltage TKR 2.5 digital YELLOW	<150µ	Volts	20µV

Appendix G (Connector Mate/Demate Log)

The Excel Mate/Demate log form that is below is the actual Excel file imported into this word document. You can copy and paste it into a folder and then open it as an Excel worksheet.

CONNECTOR MATE / DEMATE

UNIT DESCRIPTION: _____

Connector(s)	Authorized by	Date	Mate or De-mate	Flight or Test	Verify Power Off	Pre-mate Inspect		ESD Bleed and Connector Mate		Final Inspect Fasteners Torqued, Witness Stripe applied	
Connector Reference Designator	Procedure & para or NCR	M/D/Y	M or D	F or T	Emp. ID#	*Emp. ID#	QA	* Emp ID#	QA	* Emp. ID#	QA

*Personnel that is Mate/Demate certified.

no mates/demates connector savers used FC 2-1405

N/A

Connector /Bracket R/D: