Spacecraft/Project	HERSCHELL/SPIRE	Document Number	SPIRE-RAL-REP- 002249	Issue	1
Sub System	JFETs SN 008, 009, 010, & 011	Date	17-20/12/2004	Model	PFM

INCOMING INSPECTION REPORT

FROM	TO
JPL Los Angeles, USA	Project Rutherford Appleton Laboratory Space Science and Technology Department Chilton DIDCOT OXON OX11 0QX

Applicable sections	
Containers	
External Visual Inspection	
External Connector	
Documentation	
Verification of Interfacess	
Extra Comments Sheets	

Drawings / Documents Attached
Electrical test

INSPECTION CONDUCTED BY

NAME	DATE
Eric Clark (PA)	20th Dec 2004

WITNESS BY

NAME	DATE
Eric Clark (PA)	20th Dec 2004

SSTD Incoming Inspection Report

Spacecraft/Project	HERSCHELL/SPIRE	Document Number	SPIRE-RAL-REP-002249	Issue		1
Sub System	JFETs SN 008, 009, 010, & 011	Date	17-20/12/2004	Model		PFM

CONTAINER INSPECTION

TRANSPORT CONTAINERS EXTERNAL CONDITION	REMARKS	Status
Mechanical damage to container fasteners, locks, clips or handling provisions		Checked
Security / Locking Fitted		Checked
Markings for destination and description		Checked
Warning labels relating to handling lifting and stacking limits		Checked
Any additional Comments	Each JFET Module is in a Metal Transit container inside a large cardbaord box surrounded by foam	See Remarks

TRANSPORT CONTAINERS INTERNAL CONDITION	REMARKS	Status
Check Mounting fixtures fitted internal packaging		Checked
Internal padding / packaging required		Checked
Mounting provisions secure		Checked
Any additional Comments	Both containers had the Shock monitors Tri[pped See table below	See Remarks

ENVIROMENTAL MONITORS

Temp Monitors

Fitted: No

Condition: N/A

Humiditiy Monitors

Fitted: No

Condition: N/A

Shock Sensors Triggerd Information

	5g	10g	15g	25g	50g
X Axis	Tripped	Tripped	N/F	Tripped	OK
Y Axis	Tripped	Tripped	N/F	Tripped	OK
Z Axis	N/F	N/F	N/F	N/F	N/F

SSTD Incoming Inspection Report

Spacecraft/Project	**HERSCHELL/SPIRE**	**Document Number**	**SPIRE-RAL-REP-002249**	**Issue**	**1**
Sub System	**JFETs SN 008, 009, 010, & 011**	**Date**	**17-20/12/2004**	**Model**	**PFM**

INSTRUMENT VISUAL INSPECTION

CHECK LIST	REMARKS	RESULTS
Contents against shipping list		**Correct**
Instrument label		**Correct**
Note status of external contamination		**Acceptable**
Degradation of paintwork or Coating?		**Acceptable**
Fasteners correctly locked?		**Correct**
Check protective covers are correctly labelled and fitted?		**Correct**
Additional Comments	Mass of each JFET recorded on Extra comments Sheet	**See Remarks**

SSTD Incoming Inspection Report

Spacecraft/Project	**HERSCHELL/SPIRE**	**Document Number**	**SPIRE-RAL-REP-002249**	**Issue**	**1**
Sub System	**JFETs SN 008, 009, 010, & 011**	**Date**	**17-20/12/2004**	**Model**	**PFM**

INSPECTION OF ALL CONNECTORS

CHECK LIST	REMARKS (LIST CONNECTOR NUMBERS)	RESULTS
Pin Alignment		**Pass**
Damaged Sockets		**None**
Internal Debris		**None**
Connector Covers fitted	Covers fitted to None Harness end not fitted to Harness conectors	**See remark**
Connector Savers Fitted	Fitted to none Harness end	**See remark**
EMC Covers Fitted		**N/A**
RED Tag Item / Green Tag Items fitted		**N/A**
Additional Comments	The Harness MDM's pins were not all concentric in connector housing, this is normal for this type of free connector	**See remark**

SSTD Incoming Inspection Report

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Sub System	JFETs SN 008, 009, 010, & 011	Date	17-20/12/2004	Model	PFM

DOCUMENTATION CHECK LIST

Check	REMARKS	RESULTS
End Item Data Pack	HRCR + CD supplied for each JFET	Yes
Transportaion Documents		Yes
Packing un- Packing instructions		Yes
Additional Comments		

Verification of Interfaces

Mechanical interface: dimensions specified in the interface control documents such as mass, flatness of surfaces, location of fixing holes and overall dimensions should be measured accurately and recorded. Record Test Report Number, or confirm that measurement result is included in delivery documentation, (EIDP).

INSPECTION / TEST REPORT NUMBER		CHECKED	To be preformed at integration

Electrical interfaces: verifying the location and types of connectors against interface control document is normally carried as part of mechanical verification, confirm this has been done. Functional testing: final functional test report number should be noted.

INSPECTION / TEST REPORT NUMBER		CHECKED	To be preformed at integration

SSTD Incoming Inspection Report

Spacecraft/Project	HERSCHELL/SPIRE	Document Number	SPIRE-RAL-REP-002249	Issue	1
Sub System	JFETs SN 008, 009, 010, & 011	Date	17-20/12/2004	Model	PFM

EXTRA COMMENT SHEET

JFET Sn	Grams	Electrical test results are Attached to this inspection report as follows.
8	341	Health Check Performed see attachment
9	342	Health Check Performed see attachment
10	340	Health Checkto be Performed when required
11	340	Health Checkto be Performed when required

SPIRE JFET Health Check Test Sheet

JFET Module S/N	SN 008
DVM S/N	47551548 [025658] Fluke 87
Calibration Date	07-Apr-04
Current Meter	Thurlby 1905a S/N F8141
Calibration date	N/A
Power Supply S/N	Farnell LT30-2 sn011589
Calibration Date	NA
Date of Test	21-Dec-04
Test Engineer	Griffin
Witness	Swinyard
Vdd at pins 9(gnd) and 14	3.00 V
Vss pins 9 (gnd) and 8	-1.50 V

		Board SN	29			Board SN	18		
		Idd	1.2111 mA	Idd		Idd	1.4854 mA	Idd	
		Iss	-1.1583 mA	Iss		Iss	-1.4021 mA	Iss	
		Delta	52.8 uA				83.3 uA		
Name	**Pin**	**JAA**	**Offset**	**JBB**	**Offset**	**JAA'**	**Offset**	**JBB'**	**Offset**
Channel 1 +	01	1.5170 V	10.0 mV	1.1840 V	0.0 mV	0.7910 V	-3.0 mV	1.6000 V	7.0 mV
Channel 1 -	14	1.5070 V		1.1840 V		0.7940 V		1.5930 V	
Channel 2 +	02	1.4510 V	4.0 mV	1.4010 V	-6.0 mV	0.6670 V	-4.0 mV	0.7840 V	-2.0 mV
Channel 2 -	15	1.4470 V		1.4070 V		0.6710 V		0.7860 V	
Channel 3 +	03	0.9640 V	-2.0 mV	1.0980 V	0.0 mV	1.4650 V	9.0 mV	0.8720 V	-1.0 mV
Channel 3 -	16	0.9660 V		1.0980 V		1.4560 V		0.8730 V	
Channel 4 +	04	1.4960 V	7.0 mV	1.2410 V	-7.0 mV	0.4600 V	9.0 mV	0.9430 V	0.0 mV
Channel 4 -	17	1.4890 V		1.2480 V		0.4510 V		0.9430 V	
Channel 5 +	05	1.0000 V	2.0 mV	0.6690 V	-7.0 mV	1.2610 V	9.0 mV	0.9590 V	1.0 mV
Channel 5 -	18	0.9980 V		0.6760 V		1.2520 V		0.9580 V	
Channel 6 +	06	0.9430 V	1.0 mV	1.0760 V	-3.0 mV	0.8270 V	-5.0 mV	0.7460 V	-2.0 mV
Channel 6 -	19	0.9420 V		1.0790 V		0.8320 V		0.7480 V	
Channel 7 +	20	1.2480 V	0.0 mV	1.0040 V	3.0 mV	1.4950 V	11.0 mV	0.7730 V	1.0 mV
Channel 7 -	07	1.2480 V		1.0010 V		1.4840 V		0.7720 V	
Channel 8 +	21	0.9760 V	-5.0 mV	0.9620 V	1.0 mV	1.4370 V	11.0 mV	0.9360 V	1.0 mV
Channel 8 -	08	0.9810 V		0.9610 V		1.4260 V		0.9350 V	
Channel 9 +	22	0.9200 V	-1.0 mV	0.9160 V	0.0 mV	0.6400 V	-6.0 mV	1.4250 V	-12.0 mV
Channel 9 -	09	0.9210 V		0.9160 V		0.6460 V		1.4370 V	
Channel 10 +	23	0.9230 V	-3.0 mV	1.1270 V	5.0 mV	0.8200 V	0.0 mV	0.7210 V	-2.0 mV
Channel 10 -	10	0.9260 V		1.1220 V		0.8200 V		0.7230 V	
Channel 11 +	24	1.2020 V	2.0 mV	1.0020 V	2.0 mV	0.7580 V	-4.0 mV	1.0460 V	-6.0 mV
Channel 11 -	11	1.2000 V		1.0000 V		0.7620 V		1.0520 V	
Channel 12 +	25	1.4460 V	-3.0 mV	1.7060 V	-9.0 mV	1.1360 V	-1.0 mV	1.1210 V	-2.0 mV
Channel 12 -	12	1.4490 V		1.7150 V		1.1370 V		1.1230 V	

Chassis to gnd impednace o/c

Chassis to gnd impedance o/c

SPIRE JFET Health Check Test Sheet

JFET Module S/N	SN 009
DVM S/N	47551548 [025658] Fluke 87
Calibration Date	07-Apr-04
Current Meter	Thurlby 1905a S/N F8141
Calibration date	N/A
Power Supply S/N	Farnell LT30-2 sn011589
Calibration Date	NA
Date of Test	21-Dec-04
Test Engineer	Griffin
Witness	Swinyard
Vdd at pins 9(gnd) and 14	3.00 V
Vss pins 9 (gnd) and 8	-1.51 V

		Board SN	24			Board SN	20		
		Idd	1.1564 mA			Idd	1.5283 mA		
		Iss	1.1084 mA			Iss	1.4393 mA		
		Delta	48.0 uA			Delta	89.0 uA		
Name	**Pin**	**JAA**	**Offset**	**JBB**	**Offset**	**JAA'**	**Offset**	**JBB'**	**Offset**
Channel 1 +	01	0.9500 V	0.0 mV	0.9960 V	-4.0 mV	0.8060 V	5.0 mV	0.8260 V	2.0 mV
Channel 1 -	14	0.9500 V		1.0000 V		0.8010 V		0.8240 V	
Channel 2 +	02	1.5970 V	-10.0 mV	1.5090 V	7.0 mV	0.9710 V	1.0 mV	0.8140 V	2.0 mV
Channel 2 -	15	1.6070 V		1.5020 V		0.9700 V		0.8120 V	
Channel 3 +	03	0.9530 V	-2.0 mV	0.9570 V	-2.0 mV	0.7570 V	-5.0 mV	0.9070 V	2.0 mV
Channel 3 -	16	0.9550 V		0.9590 V		0.7620 V		0.9050 V	
Channel 4 +	04	0.9600 V	3.0 mV	0.9490 V	-2.0 mV	0.8160 V	2.0 mV	0.8120 V	-4.0 mV
Channel 4 -	17	0.9570 V		0.9510 V		0.8140 V		0.8160 V	
Channel 5 +	05	1.5300 V	-8.0 mV	1.3190 V	-6.0 mV	0.8070 V	-4.0 mV	1.0910 V	5.0 mV
Channel 5 -	18	1.5380 V		1.3250 V		0.8110 V		1.0860 V	
Channel 6 +	06	0.9460 V	-3.0 mV	1.3570 V	-8.0 mV	1.3110 V	7.0 mV	1.5600 V	-11.0 mV
Channel 6 -	19	0.9490 V		1.3650 V		1.3040 V		1.5710 V	
Channel 7 +	20	0.8800 V	2.0 mV	0.9570 V	0.0 mV	0.5390 V	-3.0 mV	0.8940 V	-2.0 mV
Channel 7 -	07	0.8780 V		0.9570 V		0.5420 V		0.8960 V	
Channel 8 +	21	0.9480 V	2.0 mV	1.1710 V	-3.0 mV	1.7150 V	-2.0 mV	1.0610 V	3.0 mV
Channel 8 -	08	0.9460 V		1.1740 V		1.7170 V		1.0580 V	
Channel 9 +	22	1.2130 V	5.0 mV	0.9470 V	0.0 mV	0.7460 V	-3.0 mV	0.6930 V	0.0 mV
Channel 9 -	09	1.2080 V		0.9470 V		0.7490 V		0.6930 V	
Channel 10 +	23	0.9460 V	-3.0 mV	0.9510 V	4.0 mV	0.6380 V	2.0 mV	0.9490 V	2.0 mV
Channel 10 -	10	0.9490 V		0.9470 V		0.6360 V		0.9470 V	
Channel 11 +	24	0.9480 V	1.0 mV	0.9540 V	-1.0 mV	0.9520 V	0.0 mV	0.8050 V	5.0 mV
Channel 11 -	11	0.9470 V		0.9550 V		0.9520 V		0.8000 V	
Channel 12 +	25	1.2280 V	-1.0 mV	1.7290 V	-10.0 mV	1.1840 V	-8.0 mV	0.7550 V	2.0 mV
Channel 12 -	12	1.2290 V		1.7390 V		1.1920 V		0.7530 V	

Chassis to gnd impednace o/c

Chassis to gnd impedance o/c