



Minutes of Meeting

Date: 17.06.08

Herschel

Doc.-No.: HP-2-ASED-MN-1564

Meeting place: ESTEC NL

Chairman: D.Hendry

Date/Time: 17.06.08/14-00 hrs

Secretary: D.Hendry

Agenda dated: Standard agenda

Close of Meeting: 17.06.08 / hrs

Subject: TRR for SPIRE Detector Test He1 Post acoustic

Participants: S.Sidher RAL
 M.Cesa ESA *M.Cesa*
 B.Collaudin TASF *BC*
 A.Koppe ASED
 D.Hendry ASED *D.Hendry*
 O.Martin ASED
 E.Polehampton RAL

Additional: ESA
 Distribution: AAS-F

Page: 1 of 12 Page(s)

Brief-Minutes (except following sheets)

Summary of Results of Sheets 2 till

Conclusion:-

Testing can start after removal of SMEC GSE harness and installing of shorting plugs.

Reference	Results	Remarks
	<p><u>AGENDA</u></p> <ul style="list-style-type: none"> 0. Introduction 1. As Built / As Designed Configuration Status / S/W Status 2. Inspection / Integration Status 3. NCR / RFW Status 4. Open Work / Open Actions 5. Test Procedures / Test Reports 6. Safety Hazards and Hazardous Operations 7. Test Equipment / Facility and Calibration Status 8. Cleanliness 9. Test Personnel and Responsibilities 10. Problem Areas 11. AOB 12. Conclusion 	



Reference	Results	Remarks
	<p>0. Introduction</p> <p>This TRR covers the SPIRE Detector Test post acoustic which is a subset /reduced CFT of the Spire to procedure ACS HP-2-ASED-SD-0370 calls up HP-2-ASED-TP-0217 Issue 1.1</p> <p>Main Points from SPIRE CFT Ref HP-2-ASED-MN-1507 dated 07.03.08</p> <p>Problem with photometer ASED_NC_3999 Closed also 3725 and 3734 PSWD15 is reversed has a negative slope this was one of the swapped lines</p> <p>Spectrometer (ASED_NC_3996) SSW JFET 1 and 2 failed to start using nominal procedures PVS was raised JFETs started during VSS test with a higher voltage, NCR to be raised. Due to this problem a modification to the SVT procedure is required. RAL will contact ESOC directly to inform them about this change.</p> <p>The IEGSE DB has been updated on line during the test and the retest successfully performed. A further update may be necessary after off line analysis at RAL</p> <p>Bias temperature Soft limit was observed.</p> <p>1.As Built / As Designed Configuration Status / S/W Status</p> <p>1.1 HW Status HW status SC is mounted vertical on Quad shaker in vibration facility</p>	



Doc.-No.: HP-2-ASED-MN-1564
 Date: 17.06.08
 Page: 4

Reference	Results	Remarks
	<p>SC configuration is flight configuration see ISL and Vibration TRR mom</p> <p>1.2 SW Status :</p> <p>HP SDB:HP-ASP-LI-1441_10 SPIRE MIB loaded in HP SDB is version 2.2.H1 PR</p> <p>Merged MIB H-P-ASP-LI-1424_04</p> <p>OBSW: Version DPU 2.2.H Partition 1 ; main and redundant Version DPU 2.2.H partition 2 ; main and redundant</p> <p>CDMS: Version 3.4.0.9</p> <p>TCL Scripts: Relevant script files: SPIRE_IST_COLDFT_Scripts_28Feb2008.zip SPIRE_IST_COLDFT_28Feb2008_Release_Note.txt</p> <p>Power on/off are included in TP-217_1.1</p>	

Reference	Results	Remarks
	<p>2. Inspection / Integration Status</p> <p>2.1 Inspection Status Detailed visual inspection was performed post acoustic testing.</p> <p>2.2 Integration Status SPIRE is in the flight configuration</p> <p>SMEC EGSE harness is connected but EGSE box is not attached, shorting plugs not fitted Connectors covered with ESD caps.</p> <p>SMEC harness to be removed including opening of MLI to allow access and shorting plugs to be fitted</p> <p>Cryo conditions: He1 - <i>Top up on going during the test (not known before TRR!!)</i> <i>OK for this SFT (check continuity)</i></p> <p>Present condition is 5.3K on L3 T246 and T247</p> <p>SC Configuration: SC is switched on in launch configuration CCU is switched on and operational.</p> <p>2.3 Red/Green Tag status Shorting plugs to be fitted (see open work section)</p>	<p>OW ASED AIT</p>

Reference	Results	Remarks
	<p>2.4 Parallel operations being performed He filling is being performed during the test</p> <p>Preparation for vibration can proceed</p> <p>MLI integration finalisation can proceed.</p> <p>2.5 Constraints: Present condition is 5.3K on L3 T246 and T247 RAL agree to start at this temperature (JPL advise JFET switch on is not adversely affected by temperature) and will monitor the switch on in the case of no switch on jump from step 11 to 14 (photometer) Step 15 to 18 in case of Spectrometer</p> <p>The following switch on levels will be used</p> <p>Switch on levels photometer -1.5V Spectrometer : SLW -1.5V SSW -2.4 and -2.6V</p>	

Reference	Results	Remarks
	<p>2.6 Warm Unit temperature Limits</p> <p>Yellow limit is 4 degrees C - should be 40°C (but T will be <25°C)</p> <p>3. NCR / RFW Status:</p> <p>New NCRs to be raised from Instrument SFT post acoustic</p> <p>1) Pcalv expected was 0.026, actual value was 0.0206 on nom. side (Procedure § 7.2.3.5, step 1), on red. actual value was 0.019 (Procedure § 7.2.7.5, step 1) - Not affected by this test (NCR-ASED-NC-4288)</p> <p>2) SCALTEMP on red. side not compatible to prim. side (procedure 7.2.7.2 step 5) Not affected by this test. (NCR-ASED-NC-4289)</p> <p>NC-3996 JFET switch on voltage To be monitored during test</p> <p>RFW none identified</p>	

Reference	Results				Remarks																				
	<p>4. Open Work / Open Actions</p> <table border="1" data-bbox="383 611 1789 914"> <thead> <tr> <th data-bbox="383 611 499 651">Item</th> <th data-bbox="499 611 943 651">Description</th> <th data-bbox="943 611 1227 651">Actionee</th> <th data-bbox="1227 611 1507 651">Status</th> <th data-bbox="1507 611 1789 651">Comment</th> </tr> </thead> <tbody> <tr> <td data-bbox="383 651 499 837">1</td> <td data-bbox="499 651 943 837">SMEC harness to be removed including opening of MLI to allow access and shorting plugs to be fitted</td> <td data-bbox="943 651 1227 837">ASED</td> <td data-bbox="1227 651 1507 837"></td> <td data-bbox="1507 651 1789 837"></td> </tr> <tr> <td data-bbox="383 837 499 874">.2</td> <td data-bbox="499 837 943 874">Set up and Connect IEGSE</td> <td data-bbox="943 837 1227 874">RAL/ASED</td> <td data-bbox="1227 837 1507 874"></td> <td data-bbox="1507 837 1789 874"></td> </tr> <tr> <td data-bbox="383 874 499 914">3</td> <td data-bbox="499 874 943 914">Time sync CCS and IEGSE</td> <td data-bbox="943 874 1227 914">RAL/ASED</td> <td data-bbox="1227 874 1507 914"></td> <td data-bbox="1507 874 1789 914"></td> </tr> </tbody> </table> <p>5. Test Procedures / Test Reports</p> <p>ACS HP-2-ASED-SD-0370 calls up the relevant sections of HP-2-ASED-TP-0217 Issue 1.1</p> <p>Prime and redundant sides will be tested, agreed with B.Swinyard during the meeting ACS will be modified accordingly.</p> <p>SPIRE CFT SPIRE_RAL_PRC_2398 iss 2.4</p> <p>SPIREIEGSE Setup SPIRE_RAL_DOC_002841 iss 2.2</p>				Item	Description	Actionee	Status	Comment	1	SMEC harness to be removed including opening of MLI to allow access and shorting plugs to be fitted	ASED			.2	Set up and Connect IEGSE	RAL/ASED			3	Time sync CCS and IEGSE	RAL/ASED			
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	<p>6. Hazards and Hazardous operations No other safety issues related to test</p> <p>7. Test Equipment / Facility and Calibration Status IEGSE is to be connected to CCS</p> <p>8. Cleanliness CL 100000 ETS facility see FRR Ref ETS/MOM/MECH/2253</p> <p>9. Test Personnel and Responsibilities</p> <table border="1" data-bbox="378 1091 1787 1442"> <thead> <tr> <th>Responsibility</th> <th>Name</th> <th>Company</th> <th>Contact Number</th> </tr> </thead> <tbody> <tr> <td>Test Director</td> <td>B.Collaudin</td> <td>TASF</td> <td></td> </tr> <tr> <td>Test Conductor</td> <td>A.Koppe</td> <td>ASED</td> <td></td> </tr> <tr> <td>SPIRE engineering</td> <td>S.Sidher</td> <td>RAL</td> <td></td> </tr> <tr> <td>SPIRE</td> <td>E.Polehampton.</td> <td>RAL</td> <td></td> </tr> <tr> <td>QA</td> <td>T.Schmidt B Hogg</td> <td>ASED TASF</td> <td></td> </tr> <tr> <td>CCS</td> <td>O.Martin</td> <td>ASED</td> <td></td> </tr> <tr> <td>PA</td> <td>D.Hendry</td> <td>ASED</td> <td></td> </tr> <tr> <td>Instrument coordinator</td> <td>M.Cesa</td> <td>ESA</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Responsibility	Name	Company	Contact Number	Test Director	B.Collaudin	TASF		Test Conductor	A.Koppe	ASED		SPIRE engineering	S.Sidher	RAL		SPIRE	E.Polehampton.	RAL		QA	T.Schmidt B Hogg	ASED TASF		CCS	O.Martin	ASED		PA	D.Hendry	ASED		Instrument coordinator	M.Cesa	ESA						
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Doc.-No.: HP-2-ASED-MN-1564
 Date: 17.06.08
 Page: 10

Reference	Results	Remarks
	<p>10. Problem Areas</p> <p>None identified</p> <p>11. AOB</p> <p>Planning: Test is scheduled to start at 16-30 duration 4 hrs nominal and redundant Spire will be available 07 00 hrs to assist in configuration.</p> <p>12. Conclusion</p> <p>Testing can start after removal of SMEC GSE harness and installing of shorting plugs.</p>	

Meeting: HP-2-ASED-MN-1564

Open Work List

Herschel

Title:

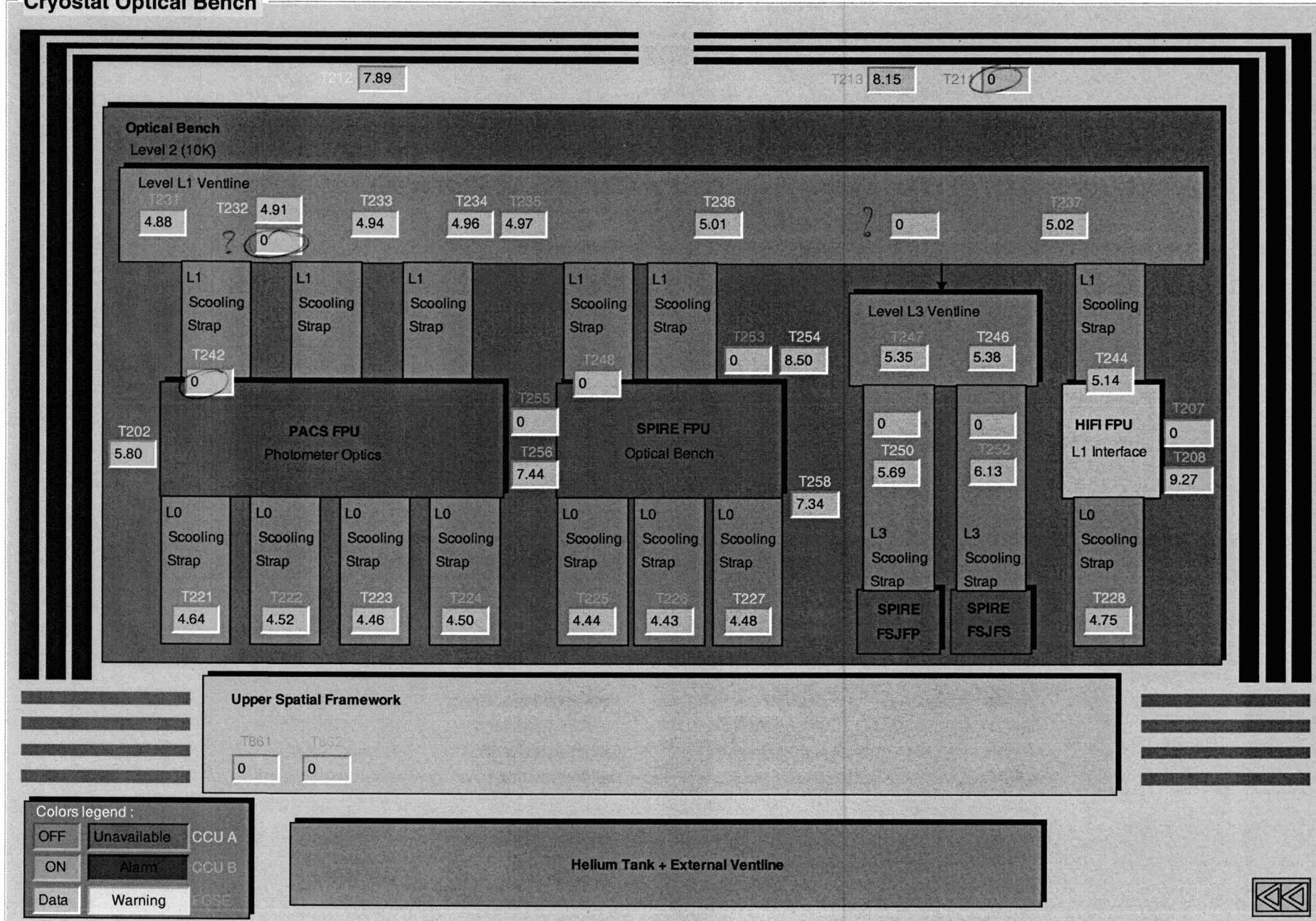
Date: 17.06.08

Item	Description	Actionee	Status	Comment
1.	SMEC harness to be removed including opening of MLI to allow access and shorting plugs to be fitted	ASED		
2	Set up and Connect IEGSE	RAL/ASED		
3	Time sync CCS and IEGSE	RAL/ASED		
4				

Test Conductor Approved	PA	TASF	Instrument

Note: To be completed and Signed off prior to start of the Test

Cryostat Optical Bench



Colors legend :

OFF	Unavailable	CCU A
ON	Alarm	CCU B
Data	Warning	EGSE



	A	B	C	D
1	NCR Nr	NCR Title	Model	
2				
3	HP-130000-ASED-NC-4278	Instrument Warm Units temperature limits	PFM	
4	H-P-2-112000-ASED-NC-4223	SPIRE SMEC Launch Lock EGSE not properly functioning	NA(GSE)	
5	H-P-2-112000-ASED-NC-4222	SMEC mechanism friction behaviour in startregion	FM	
6	H-P-ASED-112000-NC-4221	SPIRE Launch Lock does not open during SMEC test on nominal side	FM	
7	H-P-000001-ESOC-629-4200	SPIRE: Checksum of first (patched) memory area not as expected	FM	
8	H-P-000001-ESOC-628-4199	SPIRE: Invalid OOL checks	FM	
9	H-P-000001-ESOC-626-4198	SPIRE - CALL_BOOT TC validation error	FM	
10	H-P-000001-ESOC-625-4197	SPIRE: LS overflow error	FM	
11	H-P-000001-ESOC-561-4195	TM DPUM15V OOL for SPIRE	FM	
12	HP-130000-ASED-NC-4128	SPIRE goes to an improper status with jamming	FM	
13	H-P-000001-ESOC-560-4105	Missing textual calibration for SPIRE	FM	
14	HP-130000-ASED-NC-4086	IST Nominal Mode Robustness - SPIRE DPU BSW boot problem	FM	
15	HP-130000-ASED-NC-4070	AVM WU integration - SPIRE DPU BSW boot problem	AVM	
16	HP-112000-ASED-NC-3996	SPIRE CFT JFET Switch on voltage level	PFM	
17	HP-112000-ASED-NC-3957	SPIRE SFT: Missing current parameter for LCL 25 & 26 (SPIRE LPU)	FM	
18	HP-130000-ASED-NC-3954	IST Spire DRCU current WM408565 reports higher than expected	FM	
19	HP-112000-ASED-NC-3725	SPIRE FM Detector Channel Anomalies during WFT	PFM	
20	HP-111000-ASED-NC-3698	HIFI warm SFT1 - command completion failure	FM	
21	HP-112000-ASED-NC-3616	SPIRE DPU Set Table TC acceptance not reported as acknowledged by CCS	FM	
22	HP-130000-ASED-NC-3572	SPIRE Unknown type (5,x) packet during SPIRE cooler recycle, RMS 48hrs	PFM	