



Minutes of Meeting

SPIRE-AST-MOM-003058

Date:	12.09.07	Herschel	
Doc.-No.:	HP-2-ASED-MN-1399		
Meeting place:	ASED FN	Chairman:	A.Koppe/D.Hendry
Date/Time:		Secretary	D.Hendry
Agenda dated:		Close of Meeting:	

Subject: IRR for SPIRE FM Electrical mating (PLM to SVM)

Participants:	U.Gageur ESA. pt K.Goodey ESA — <i>[Signature]</i> F.Pedersen ESA pt C.Scharmberg ESA by tel D.Hendry, ASED <i>[Signature]</i> S.Idler ASED <i>[Signature]</i> A.Koppe ASED <i>[Signature]</i> B.Swinyard RAL by tel D.Griffin RAL by tel B.Collaudin TASF by tel G.Doubrovik TASF by tel	Additional ESA Distribution: AAS-F
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<input type="checkbox"/> Brief-Minutes (except following sheets)	<input type="checkbox"/> Summary of Results of Sheets 2 till
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Release for Integration

SPIRE Electrical mating and verification IAW with Test Procedure HP-2-ASED-TP-0166 Issue 1 can proceed as planned on 14.09.10



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Reference	Results	Remarks
	<p>IRR Agenda :</p> <p>1. H/W Identification (Model, SN#, CI#, CIL) 1.1 SVM 1.2 PLM 1.3 SPIRE Instrument</p> <p>2. DRB MoM/ EIDP Ref 2.1 SVM 2.2 PLM 2.3 SPIRE Instrument</p> <p>3. Qualification / Acceptance Reference / Status of H/W to be integrated 3.1 Instruments 3.2 Acceptance reference 3.3 Status of H/W to be Integrated 3.4 I/F verification EICD , ICD 3.5 Red/Green Tag status</p> <p>4. H/W ABCL /EICD /ICD Reference / Status 4.1 SVM (IST list) 4.2 PLM (IST list) 4.3 potential changes to ABCL/EICD/ICD</p> <p>5. Integration Procedure / Status 5.1 Instrument related Procedures 5.2 EGSE / MGSE Status</p> <p>6. NCRs /RFWs potentially affecting integration</p> <p>7. Open Work Status</p> <p>8. Cleanliness / Inspection Report / Reference 8.1 SVM Cleanliness report 8.2 PLM Cleanliness report</p> <p>9. Safety and ESD Constraints</p>	



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Reference	Results	Remarks
	<p>10. Problem areas still blocking</p> <p>11. AOB 11.1 Planning for mating 11.2 Personnel and responsibilities</p> <p>12. Release for Integration</p>	



Reference	Results	Remarks
	<p>Introduction: The Electrical mating of the SPIRE WU with FPU planned Friday 14.09.07. in accordance with the ASED test procedure HP-2-ASED-TP-0166</p> <p>1. H/W Identification (Model, SN#, CI#, CIL) 1.1 SVM :-PFM , CI 130000 1.2 PLM :- PFM , CI 121000 1.3 SPIRE CI 125200</p> <p>2. DRB MoM/ EIDP Ref 2.1 SVM:- EIDP H-P-ED-AI-0033 Issue 01 31/10/2006 SVM HandOver DRB HP-ASP-MN-8662 dated 20.12.06</p> <p>2.2 PLM:- EIDP HP-2-ASED-DP-0070 Issue 1 06.09.07 No PLM level DRB has been held todate , Unit and Subsystem DRBs have been held and ADP/EIDP have been distributed and reviewed.</p> <p>2.3 Instruments</p> <p>SPIRE:- EIDP Ref SPIRE-RAL-PRJ-002017 Issue 1 Inst pre-DRB : ESA-SCI-PT-46497 dated 14.03.07 Inst DRB : ESA-SCI-PT-46562 dated 15.03.07</p>	



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Reference	Results	Remarks
	<p>Note 1 : The Instrument EIDP have been distributed and reviewed, the EIDP is subject to update, DRB close out meeting is still to be held, date TBD by ESA.</p> <p>3. Qualification / Acceptance Reference / Status of H/W to be integrated</p> <p>3.1 Qualification SPIRE Instrument:-</p> <p>See attached table for Instrument milestones and Test Reviews.</p> <p>3.2 Acceptance Reference:-</p> <p>SPIRE UFT PTR HP-ASP-MN-9006 dated 13.04.07</p> <p>3.3 Status of H/W to integrated</p> <p>3.3.1 Instrument WU and FPU are integrated SIH is electrically integrated with FPU down to the SVM CB WIH is Connected , and SVM SIH LPU harness modification is not yet completed on the SPIRE panel</p> <p>3.3.2 SVM SVM Panels only temporarily closed. It is understood that all connections mated during the electrical check IAW HP-2-ASED-TP-0166 will have to be unmated for further panel opening and LPU modifications, before final closure.</p>	



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Reference	Results	Remarks
	<p>Final mating is already covered in the procedure.</p> <p>3.3.3 PLM Cryostat is only temporarily closed. All SPIRE FPU connections are mated.</p> <p>3.4 I/F verification EICD , ICD. SVM MICD is at Issue 7 HP-IC-AI-0001 PLM MICD HP-2-ASED-IC-0002 Issue 3 and I/F HP-2-ECAS- IC-0001 for PLM struts I/F.</p> <p>SPIRE HDD has been updated to include the LPU but harness is not yet modified. SPIRE-RAL-PRJ-000608 iss 1.4</p> <p>3.5 Red/Green Tag status SC (PLM and SVM)HP-2-ASED-LI-0027 SPIRE Specific:-</p> <p>4. H/W ABCL /EICD /ICD Reference / Status 4.1 SVM (IST list) HP-2-ASED-LI-0033, iss 1; represents the delta between the SVM ABCL as delivered by TASI and the H/W integrated under ASED activities.</p> <p>4.2 PLM (IST list) HP-2-ASED-LI-0032_3.8</p>	



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Reference	Results	Remarks
	<p>4.3 Spire HDD The LPU modification is included in the HDD.</p> <p>5. Integration Procedure / Status</p> <p>5.1 Instrument related Procedures ASED Electrical integration CCH+SIH+WIH HP-2-ASED-PR-0073 Iss 1 dated 24.01.07</p> <p>HP-2-ASED-TP-0166 iss 1 dated 10.09.07 SPIRE PFM Final electrical integration procedure, RD . PFM Final SIH Electrical Integration/Checkout Procedure, SPIRE-RAL-PRC-002951, issue 2.1.</p> <p>Comments:- In the case that the FPU grounding strap is connected (redtag item) RAL will establish separate procedure for measuring the in flight grounding configuration , it is noted that SPIRE does not need to be powered for these measurements. (multi meter).</p> <p>All steps of TP 0166 will be performed independent of whether the gnd strap is connected or not, different OOS values may be recorded.</p> <p>During the meeting ASED confirmed with the evidence of photos prior to CVV UBH closure that the FPU grounding strap is removed.</p> <p>Section 4. 1 of the procedure was reviewed step by step and the TP amended accordingly.</p>	



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Reference	Results	Remarks
	<p>RAL advise that some of the steps are already completed as the SIH is connected at the CVV FTTHR.</p> <p>RAL advise that the IEGSE is not needed for the Electrical integration but preferred to be available.</p> <p>Sections 8 and 9 will not be performed during this electrical integration and verification. They will be performed in a separate slot once the LPU is completely integrated. A separate IRR will be held at that time.</p> <p>The TP will be updated with the provided comments and officially distributed</p> <p>5.2 EGSE/MGSE Status:</p> <p>Configuration of EGSE and instrument SW SPIRE MIB:-tdb by Spire</p> <p>HPsDB :-tdb by Spire</p> <p>TCL Scripts:-tdb by Spire</p> <p>6. NCRs /RFWs potentially affecting integration.</p> <p>The following NCR reviews have been held.</p> <p>Step 1:-HP-2-ASED-MN-1392 dated 29.08.07 SVM H/W related</p>	

Reference	Results	Remarks
	<p>Step 2:-HP-2-ASED-MN-1393 dated 03.09.07 PLM H/W related Step 3:-HP-2-ASED-MN-1394 dated 05.09.07 TASI H/W related Step 4:-H-P-TASF-MN-9517 dated 06.09.07 RMS Functional</p> <p>SPIRE NCR Review HP-2-ASED-MN-1398 dated 10.09.07</p> <p>ASED-NC-1347 Ground Loop RAL confirm this NCR will not affect this electrical integration.</p> <p>None of the Open SPIRE related NCRs are blocking or affect the electrical integration.</p> <p>7. Open Work Status</p> <p>Procedure update and release.</p> <p>Confirmation of TCL scripts</p> <p>Confirmation of SPIRE MIB and Related HPSDB version.</p> <p>8. Cleanliness / Inspection Report / Reference 8.1 SVM Cleanliness report There is no specific report for SVM. We have exposed a PFO on top of SVM on 23.12.06. A read out on 21.8.07 showed 1920 ppm, which is in 240 days very good for a CR 100 000.</p>	



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Reference	Results	Remarks
	<p>For the temporary SVM panel closure prior to mating a visual inspection was performed , local cleaning will be performed as necessary,</p> <p>Status on inspections at the time of the IRR , all panels will be inspected prior to temporary closure and reports processed.</p> <p>8.2 PLM Cleanliness report Cleanliness status report for PLM is HP-2-ASED-RP-0133. Current issue is 4 (12.6.07), but will be updated before mating.</p> <p>9. Safety and ESD Constraints See Procedure sec 5.3</p> <p>10. Problem areas None</p> <p>11. AOB 11.1 Planning for mating Start 07-00 hrs 14.09.07 RAL advise activities with their support should finish at 17-30 hrs</p>	

Reference	Results	Remarks																																	
	<p>PTR on 14.09.07 if time available</p> <p>11.2 Personnel and responsibilities</p> <table border="1" data-bbox="409 614 1800 1034"> <thead> <tr> <th>Responsibility</th> <th>Name</th> <th>Company</th> </tr> </thead> <tbody> <tr> <td>Test Director</td> <td>S.Idler</td> <td>ASED</td> </tr> <tr> <td>Test Conductor</td> <td>A.Koppe</td> <td>ASED</td> </tr> <tr> <td>PA</td> <td>D.Hendry</td> <td>ASED</td> </tr> <tr> <td>PA/QA</td> <td>T.Schmidt/A.Zumstein</td> <td>ASED</td> </tr> <tr> <td>Mechanical AIT</td> <td>R.Hengstler/H.Geiger</td> <td>ASED</td> </tr> <tr> <td>Electrical AIT</td> <td>J.Lang/A.Grasl</td> <td>ASED</td> </tr> <tr> <td>Prime AIT</td> <td>B.Gobillot</td> <td>TASF</td> </tr> <tr> <td>Prime PA</td> <td>A.Knight</td> <td>TASF</td> </tr> <tr> <td>SPIRE Instrument Resp</td> <td>B.Swinyard</td> <td>RAL</td> </tr> <tr> <td>SPIRE Electrical</td> <td>D.Griffin</td> <td>RAL</td> </tr> </tbody> </table> <p>12. Release for Integration</p> <p>SPIRE Electrical mating and verification IAW with Test Procedure HP-2-ASED-TP-0166 Issue 1 can proceed as planned on 14.09.10</p>	Responsibility	Name	Company	Test Director	S.Idler	ASED	Test Conductor	A.Koppe	ASED	PA	D.Hendry	ASED	PA/QA	T.Schmidt/A.Zumstein	ASED	Mechanical AIT	R.Hengstler/H.Geiger	ASED	Electrical AIT	J.Lang/A.Grasl	ASED	Prime AIT	B.Gobillot	TASF	Prime PA	A.Knight	TASF	SPIRE Instrument Resp	B.Swinyard	RAL	SPIRE Electrical	D.Griffin	RAL	
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SPIRE Instrument Resp	B.Swinyard	RAL																																	
SPIRE Electrical	D.Griffin	RAL																																	

SPIRE Instrument PFM Review Summary table

Document Title	MoM Ref	Date	Test Procedure	RAL Test Report	ASED Test Report
Inst Pre-DRB	ESA-SCI-PT-46497	14.03.07			
Inst FM DRB	ESA-SCI-PT/46562	15.03.07			
II WUs DCU, FCU, DPU	HP-2-ASED-II-0194	26.03.2007			
IRR FM WUs	HP-ASP-MN-8945	28.03.07			
II FPU PFM	HP-2-ASED-II-0195	05.04.2007			
TRR WUs FM UFT	HP-ASP-MN-9005	05.04.07			
PTR WUs UFT	HP-ASP-MN-9006	13.04.07			
IRR FPU PFM	HP-2-ASED-MN-1332	17.04.07			
Spire NCR Washup	HP-2-ASED-MN-1379	27.07.07			
Spire at Astrium Sys Level#1	ESA-SCI-PT-48625	30.08.07			
Spire NCR Review # 2	HP-2-ASED-MN-1398	10.09.07			
IRR Electrical mating	HP-2-ASED-MN-1399	12.09.07			

Name	Dep./Comp.		Name	Dep./Comp.
Alberti von Mathias Dr.	ASG23	X	Schmidt Thomas	AED15
Baldock Richard	FAE12		Schuler Günter	ASA42
X Barlage Bernhard	AED13		Schweickert Gunn	ASG23
Bayer Thomas	ASA42		Sonn Nico	ASG51
Brune Holger	ASA45		Steininger Eric	AED32
Edelhoff Dirk	AED2	X	Stritter Rene	AED11
Fehringer Alexander	ASG13		Suess Rudi	OTN/ASA44
X Fricke Wolfgang Dr.	AED 65		Theunissen Martijn	DSSA
X Geiger Hermann	ASA42	X	Vascotto Riccardo	AED11
X Grasl Andreas	OTN/ASA44		Wagner Klaus	ASG23
Grasshoff Brigitte	AET12	X	Wietbrock Walter	AET12
Hamer Simon	Terma		Wöhler Hans	ASG23
Hendrikse Jeffrey	HE Space		Wössner Ulrich	ASE252
X Hendry David	Terma	X	Zumstein Armin	ASQ42
X Hengstler Reinhold	ASA42			
Hinger Jürgen	ASG23			
X Hohn Rüdiger	AED65			
Hölzle Edgar Dr.	AED32			
X Hopfgarten Michael	AED32			
Huber Johann	ASA42			
Hund Walter	ASE252			
X Idler Siegmund	AED312			
Ivány von Andras	FAE12			
X Jahn Gerd Dr.	ASG23			
Kalde Clemens	ASM2			
Kameter Rudolf	OTN/ASA42	X	ESA/ESTEC	ESA
X Kettner Bernhard	AET42	X	Thales Alenia Space Cannes	TAS-F
Knoblauch August	AET32		Thales Alenia Space Torino	TAS-I
X Koelle Markus	ASA43			
X Koppe Axel	AED312		Instruments:	
X Kroeker Jürgen	AED65		MPE (PACS)	MPE
La Gioia Valentina	Terma	X	RAL (SPIRE)	RAL
X Lang Jürgen	ASE252		SRON (HIFI)	SRON
X Langenstein Rolf	AED15			
X Langfermann Michael	ASA41			
Martin Olivier	ASA43		Subcontractors:	
Maukisch Jan	ASA43		Austrian Aerospace	AAE
Much Christoph	ASA43		Austrian Aerospace	AAEM
Müller Jörg	ASA42		BOC Edwards	BOCE
X Müller Martin	ASA43		Dutch Space Solar Arrays	DSSA
Peltz Heinz-Willi	ASG13		EADS Astrium Sub-Subsyst. & Equipment	ASSE
Pietroboni Karin	AED65		EADS CASA Espacio	CASA
Platzer Wilhelm	AED2		EADS CASA Espacio	ECAS
Reichte Konrad	ASA42		European Test Services	ETS
Runge Axel	OTN/ASA44		Patria New Technologies Oy	PANT
Sauer Maximilian Dr.	AED65		SENER Ingenieria SA	SEN
Schink Dietmar	AED32		Thales Alenia Space, Antwerp	TAS-ETCA