




SPIRE-AST-MOM-002491

**Minutes of Meeting**

Date:	15.07.2005	<b>Herschel</b>	
Doc.-No.:	HP-2-ASED-MN-1012		
Meeting place:	EADS Astrium OTN	Chairman:	D. Hendry
Date/Time:	15.07.2005 / 10:00	Secretary	S. Idler
Agenda dated:	TRR Standard Agenda	Close of Meeting:	15.07.2005

Subject: SPIRE WU Electrical Integration PTR / SPIRE SIH Electrical Integration TRR

Participants <i>E. Sawyer</i> <i>12/7/05</i>  <i>C. Schlosser</i>  	W. Pinter-Krainer	ESA (by ☎)	Additional Distribution: ESA ASP  ? <i>E. Sawyer</i>
	E. Sawyer	SPIRE (by ☎)	
	A. Aramburu	SPIRE (by ☎)	
	S. Sidher	SPIRE (by ☎)	
	D. Hendry	ASED	
	S. Ilse	ASED	
	C. Schlosser	ASED	
	S. Idler	ASED	

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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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**Summary and Conclusion:**

Hardware and EGSE is ready for testing. No open NCR or open action has been identified which blocks the SIH mating and the functional test after mating.



Reference	Results	Remarks
	<p><b><u>SPIRE WU Electrical Integration PTR</u></b></p> <p><u>SPIRE WU EI Integration with IDAS:</u></p> <p>The test results are reported in HP-2-ASED-TR-0067.            The following NCR's have been raised:</p> <p>ASED-NC-1083: MIL bus measurement.</p> <p><u>SPIRE WU 2nd Functional Test:</u></p> <p>Test report see HP-2-ASED-TR-0058.            Related NCR's:</p> <p>ASED-NC-1042: Event packet not forwarded to IEGSE.</p> <p>The problem with the wrong bus profile has been identified and corrected. See EGSE configuration procedure, HP-2-ASED-PR-0035, issue 3.</p> <p>SPIRE has not produced separate reports for these tests.</p> <p>The tests have been successfully performed pending the closure of o. m. NCR's.</p>	



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



Reference	Results	Remarks
	<p><b>1. As Built / As Designed Configuration Status / S/W Staus</b></p> <p>The H/W configuration is as per SPIRE WU CQM DRB (see SCI-PT-35045).            The primary power to the DPU (28 V) is supplied by the PLM SCOE.            FCU/DCU is powered by the SPIRE Power Bench.</p> <p>The S/W configuration is as per Annex 1.</p> <p>The test configuration is as per HP-2-ASED-PR-0051, issue 1.1.</p> <p>The polling sequence table is called SPIRE _Prime_Inst.pst (will be called up by HP-2-ASED-PR-0035, issue 3).</p> <p>There has been no change of the hardware/on-board software since the SPIRE WU 2nd functional test.</p> <p><b>2. Inspection / Integration Status</b></p> <p>The electrical I/F verification has been performed. Test report see HP-2-ASED-TR-0067. 1 NCR (ASED-NC-1083) has been raised.</p> <p>SPIRE WU functional test has been performed. Test report see HP-2-ASED-TR-0058. 1 NCR (ASED-NC-1042) has been raised. See NCR section below.</p> <p>The SIH has been integrated and verified by IDAS. Test report see HP-2-ASED-TR-0073. 1 NCR (ASED-NC-1248) has been raised. See NCR section below.</p>	



Reference	Results	Remarks
	<p>SIH is not yet mated to SPIRE units. During SIH isolation/grounding tests on 11.07.2005 a further error has been detected, see ASED-NC-1246.</p> <p>All NCR's see below.</p> <p><b>3. NCR / RFW Status</b></p> <p>The following open NCR's have been identified:</p> <p><u>ASED-NC-1042 SPIRE Event Packet (5,2) could not be forwarded to IEGSE</u>        MIB has been accordingly changed. Validation will be done during forthcoming test.        NCR open.</p> <p><u>ASED-NC-1096 SPIRE warm electronics: mounted protection cups are not ESD approved</u>        "Use as is" for EQM. No impact on EMC is envisaged.        Open for PFM (AI on SPIRE).</p> <p><u>ASED-NC-1083 SPIRE MIL bus functional behaviour out of requirement detect. w. IDAS</u>        ASED will repeat the MIL bus measurement as soon as proper equipment is available.        NCR is open for PFM, "use as is" for EQM (no impact on testing).</p> <p><u>ASED-NCR-251 (First command has to be sent twice)</u>        The problem has to be investigated by Alcatel /Satellite Services. There is already an existing AI for Alcatel from the last PACS Progress Meeting (SCI-PT-35527, AI 1, due date 20.05.05). Requires manual intervention during automatic power on.        NCR is open.</p>	



Reference	Results	Remarks
	<p><u>ASED-NC-0703 SPIRE Cryo harness line impedance out of spec</u>            Use as is for EQM and PFM confirmed by SPIRE. RfW has been raised (ASED-RD-0031).            NCR closed.</p> <p><u>ASED-NC-1246 Cryoharness FPU Faraday Shield isolation inconsistencies</u>            SIH has been repaired and successfully verified.            NCR will be closed.</p> <p><u>ASED-NC-1248 SPIRE SIH PSW JFETV Open circuit</u>            Open connection is not used for EQM, i. e. "use as is" for EQM.            Cause for open circuit and situation for PFM to be investigated.            NCR open.</p> <p>SPIRE confirms that there are no open SPIRE NCR's affecting the forthcoming SFT warm.</p> <p>No RfWs existing with the exception of RD-0031.</p> <p><b>4. Open Work / Open Actions</b></p> <p>Open work:</p> <p>Mating of SIH as per SPIRE-RAL-PRC-001923, issue 3.</p> <p>Identified open actions:</p> <p>SPIRE state that the SCOS bridge files which are produced by Alcatel (and delivered to ASED/SPIRE) are not consistent with the MIB files sent by SPIRE to Alcatel (different names, fields, etc.). This imposes an interference and risk to the test. ASED usually checks the bridge files together</p>	



Reference	Results	Remarks
	<p>with the TCL scripts prior to test, but this allows only a limited validation. Problem to be resolved by Alcatel.</p> <p>SPIRE to provide procedure for the SFT warm which will take place end of Aug prior to cool down.</p> <p>PM #15 SCI-PT-35157 AI 6 SPIRE to rework the SFT tcl's in the way that no interaction between CCS and I-EGSE is needed. Due 29/07/06. Open.</p> <p>PM#17 SCI-PT-36695 AI#4 SPIRE to provide a detailed scenario for 24 hour operation at ASED-OTN without human attendance during the nights. Due 15/07/2005. Open. Not relevant for forthcoming test but for EMC test.</p> <p>The open AI's do not block the forthcoming functional test after SIH mating.</p> <p><b>5. Test Procedure / Test Reports</b></p> <p>The following approved procedures shall be used to perform the SPIRE SIH electrical integration test:</p> <ul style="list-style-type: none"> <li>• Instrument PLM EQM Level Test Procedure HP-2-ASED-PR-0051, issue 1.1 (Top level procedure for instrument testing).</li> <li>• EGSE Set-Up Procedure HP-2-ASED-PR-0035, issue 3.</li> <li>• SPIRE-RAL-PRC-001923, issue 4 (includes procedure for SPIRE SIH mating).</li> <li>• SPIRE-RAL-PRC-002422, issue 1.3, Warm Functional Test after Electrical Integration.</li> </ul>	



Reference	Results	Remarks
	<p>The following test reports are planned:</p> <ul style="list-style-type: none"> <li>• Overall test report summary after completion of test campaign. It will be produced by ASED and will contain the actual test flow and all references to TRR/PTR and test reports.</li> <li>• ASED report for SIH verification by IDAS: HP-2-ASED-TR-0074.</li> <li>• Report for the SIH mating to be written by SPIRE.</li> <li>• Report for the SPIRE functional test after mating: HP-2-ASED-TR-00xx.</li> <li>• Report covering the scientific data evaluation (as far as possible for FPU warm conditions) to be established by SPIRE.</li> </ul> <p><b>6. Safety Hazards and Hazardous Operations</b></p> <p>During mating ESD protection have to be strictly ensured!!</p> <p>HK values are monitored by the CCS. An alarm will be issued automatically by the CCS if a limit is exceeded. In case of serious out of limit the instrument will be shut down under the responsibility of SPIRE. I. e. during entire test SPIRE personnel must be available.        Decision how to proceed in case of failure will be taken on the spot in conjunction with SPIRE team and test conductor.</p> <p><b>7. Test Equipment / Facility and Calibration Status</b></p> <p>The test equipment and configuration is as per test procedure (section 5 above).        External power supplies operation is covered therein.</p>	





Reference	Results	Remarks
	<p><b>8. Cleanliness</b></p> <p>The test will be performed in clean room class 100000 conditions.</p> <p><b>9. Test Personnel and Responsibilities</b></p> <p>Test director: C. Schlosser/S. Idler            CCS operator: S. Ilsen            SPIRE SIH mating responsible: D. Griffin            SPIRE IEGSE operator: A. Aramburu            SPIRE Engineering: A. Aramburu / D. Griffin            PA: D. Hendry            ESA / Alcatel representative: W. Pinter-Krainer / Alcatel (TBD) for MIB problems</p> <p><b>10. Problem Areas</b></p> <p>.</p> <p>The following problem areas have been identified:</p> <ul style="list-style-type: none"> <li>- <i>1st command to be sent twice (see NCR above)</i></li> <li>- <i>MIB inconsistencies</i></li> </ul>	



Reference	Results	Remarks
	<p><b>11. AOB</b></p> <p>Planning:</p> <p>SIH mating completion: 18.07.2005, 09:00.            Functional test warm: 18.07.2005 - 19.07.2005.            Decision whether cryostat can be closed: 19.07.2005, evening.            PTR: 25.07.2005, 14:00</p> <p><b>12. Conclusion</b></p> <p>Hardware and EGSE is ready for testing. No open NCR or open action has been identified which blocks the SIH mating and the functional test after mating.</p>	



## ANNEX 1

## Instrument Test S/W Data Sheet

Date: 15.07.05 Instrument: SPIRE Test configuration: INSTRUMENT  
 Instrument Procedure: SPIRE-RAL-PRC-002422 Issue 1.3 dated 12.07.05  
 ASED Procedure: HP-2-ASED-PR-0051 Issue 1.1

SW Ident	Issue /Version	Responsible	Comment
Inst OBS	2.0.AVM 1	Inst	
Inst OBS	Boot SW June 2003	Inst	
CDMS Sim	Not Used	Inst	
SPIRE MIB on I-EGSE	2.0A1	Inst	
HCSS Build Version	664	Inst	
SPIRE Build	159	Inst	
TCL Scripts bridge files	SPIRE_EQM_WFT_TCLScripts_CVSV1.3.tar.gz	ASP	13.07.2005
CCS MIB Bridge files	Herchel_PLM_1_1.zip	ASP	Received: 11.07.2005 (PACS 7.18 SPIRE 20050705 HIFI 9.0)
CCS SW Release	2.0.577	Terma	
CDMU DFE CMS	2.3.0.0	SSBV	Part of CDMU DFE Workstation
CDMU DFE Pipe I/F (IPC Handler P7001)	2.3.0.0	SSBV	Part of CDMU DFE Workstation
CDMU DFE Pipe I/F (IPC Handler Pipe P 7002)	1.2.1.0	SSBV	Part of CDMU DFE Workstation
CDMU archive Browser	2.2.2.72	SSBV	Part of CDMU DFE Workstation
Mil-STD-1553b BusMonitor	1.11.1.87	SSBV	Part of CDMU DFE Workstation
CDMU DFE IPC Handler object implementation	2.4.0.18	SSBV	Part of CDMU DFE Workstation
SimFE	1.5.0.0	SSBV	Part of CDMU DFE Platform
HLBC	1.06.00	SSBV	Part of CDMU DFE Platform
PLM SCOE CMS	1.5.0.0	SSBV	Part of PLM SCOE Workstation
PLM SCOE archive browser	2.2.1.70	SSBV	Part of PLM SCOE Workstation
PLM SCOE pipe I/F	1.3.0.0	SSBV	Part of PLM SCOE Workstation
PLM SCOE IPC Handler object implementation	2.1.0.7	SSBV	Part of PLM SCOE Workstation
PDU Controller	1.5.0.0	SSBV	Part of PLM SCOE Platform