



**Minutes of Meeting**

Date: 24.05.06

**Herschel**

Doc.-No.: HP-2-ASED-MN-1228

Meeting place: FN

Chairman: Stritter

Date/Time:

Secretary

Agenda dated: IRR Std. Agenda on pg. 2

Close of Meeting:

Subject: **IRR for SPIRE CQM into PLM STM2**

Participants: S. Idler, ASED  
R. Stritter, ASED  
E. Lamprecht, ASED, pt.

Additional ESA  
Distribution: AAS-f

J. Rautakoski, ESA

*E. Sawyer, DAL*

Page: 1 of Page(s)

Brief-Minutes (except following sheets)

Summary of Results of Sheets 2 till

Summary and Conclusion :



Reference	Results	Remarks
	<p><b>IRR Agenda :</b></p> <ol style="list-style-type: none"> <li><b>1. H/W Identification (Model, SN#, Ci#, CIL)</b></li> <li><b>2. Qualification / Acceptance Reference / Status of H/W to be integrated</b></li> <li><b>3. H/W ABCL Reference / Status</b></li> <li><b>4. H/W ADP Reference / Status</b></li> <li><b>5. Integration Procedure / Status</b></li> <li><b>6. DRB MoM</b></li> <li><b>7. NCRs potentially affecting integration (H/W side, PLM side)</b></li> <li><b>8. Open Work Status</b></li> <li><b>9. Cleanliness / Inspection Report / Reference</b></li> <li><b>10. Safety and ESD Constraints</b></li> <li><b>11. AOB</b></li> <li><b>12. Release for Integration</b></li> </ol>	



Reference	Results	Remarks
	<p><b>1. H/W Identification (Model, SN#, CI#, CIL)</b></p> <p>H/W to be integrated is the SPIRE CQM Instrument :</p> <p>FPU CQM with</p> <ul style="list-style-type: none"> <li>• Aperture cover (red tag item)</li> <li>• <del>Alignment cube</del></li> <li>• Spectrometer JFET assembly</li> <li>• Photometer JFET assembly</li> <li>• Harness between FPU and JFETs</li> <li>• JFET fixation hardware</li> <li>• Isolation washers, special screws and studs.</li> <li>• Photo detector</li> </ul> <p><b>2. Qualification / Acceptance Reference / Status of H/W to be integrated</b></p> <p>FPU CQM hardware is built to flight standard and will be used as FS.</p> <ul style="list-style-type: none"> <li>• All interface connectors of SPIRE FPU/JFETs are of flight quality standard and can be connected directly to the flight cryoharness</li> </ul> <p>Changes to the previously tested CQM :</p> <ul style="list-style-type: none"> <li>• Black absorbing surface in the baffle</li> <li>• Rewiring of the BSM thermal mass dummy</li> <li>• The feet of the FPU are now flight standard</li> <li>• Addition of one extra straylight detector</li> <li>• All changes are described in the delta ABCL</li> </ul>	

Doc.-No.: HP-2-ASED-MN-1228  
 Date: 24.05.06  
 Page: 4



Reference	Results	Remarks
	<p><b>3. H/W ABCL Reference / Status</b></p> <p>SPIRE-RAL-DOC-001971, issue 5, 08.05.2006</p> <p>Herschel ISL HP-2-ASED-LI-0032, Iss. 2</p> <p><b>4. H/W ADP Reference / Status</b></p> <p>SPIRE-RAL-PRJ-001898, issue 4, 10.05.2006</p> <p><b>5. Integration Procedure / Status</b></p> <p>HP-2-ASED-PR-0061_1 which based on</p> <p>SPIRE-RAL-PRC-002642, issue 1, 28.04.2006</p> <p><b>6. DRB MoM</b></p> <p>Handover meeting: SCI-PT/ 42316, dated 17.05.2006.</p> <p><b>7. NCRs potentially affecting integration (H/W side, EPLM side)</b></p> <p>Updated NCR and RFW lists are included in the delta EIDP,</p> <p>NCRs potentially affecting the integration: ASED NCR-1340 on the jack-posts.            NC needs to be checked during electrical integration.</p>	



Reference	Results	Remarks
	<p><b>8. Open Work Status</b></p> <p>AI's from Handover Meeting:</p> <p>AI 1: The original and the delta DMLs/DPLs to be checked before integration of SPIRE into the cryostat. Is ok.  <b>AI closed.</b></p> <p>AI 2: The configuration of the flex links is similar to the flight links, but the detector box level 0 strap has an extra electrical isolation joint. This has the effect of moving the position of the S/C temperature sensor. ASED to assess the impact of this. <b>AI open.</b> To be checked during integration.</p> <p>Other open work :</p> <p>SPIRE shall provide an assessment on the thermal characteristics of the photoconductor and its associated harness (dissipation and conductance). Note: photoconductor is mounted on L0 with harness connection to L1.  <b>AI on SPIRE.</b> Not blocking the integration.</p> <p><b>9. Cleanliness / Inspection Report / Reference</b></p> <p>See incoming inspection report HP-2-ASED-II-0171, UV inspection performed-no findings, refer to Annex 1.</p> <p>Additionally a tape-lift and a wipe test were performed by ASED, results will be reported.</p> <p><b>10. Safety and ESD Constraints</b></p> <p>ESD precautions to be respected (see SPIRE-RAL-NOT-002028, issue 2, Making SPIRE ESD Safe).</p> <p>Herschel ESD rules for PLM and S/C integration activities, HP-2-ASED-PR-0062, shall be considered.</p>	<p>SPIRE AI</p>



Reference	Results	Remarks
	<p data-bbox="398 395 526 432"><b>11. AOB</b></p> <p data-bbox="398 464 465 491">None</p> <p data-bbox="398 555 801 592"><b>12. Release for Integration</b></p> <p data-bbox="398 624 1422 660">Release for the integration of the SPIRE CQM into the Herschel PLM is with this given !</p>	

Meeting: ASED-MN-1228

### Action Item List

Herschel

Title:

Date: 24.05.06

No.:	Description:	Due Date	Originator Comm /Pers.	Actionee Comp./Pers.	Source	Completion
			ASED	RAL Sawyer		
A	SPIRE shall provide an assessment on the thermal characteristics of the photoconductor and its associated harness	31.05.06	Idler	SPIRE		

*61-045*

**Meeting:** ASED-MN-1228  
**Title:**  
**Date:** 24.05.06

## Action Item List

Herschel



*Annex 1*

<b>EADS Astrium GmbH</b>		<b>Incoming Inspection</b>		Doc.-No.: HP-2-ASED-II-0171	
Item:		<b>SPIRE FPU</b>		Issue: Date: <b>23.05.06</b>	
Supplier: <b>RAL</b>		Model: <b>CQ</b>		Sheet: 1 of 1	
Drwg.-No.: <b>See EIDP</b>		Serial-No.: <b>CQ</b>		Received Date: <b>23.05.06</b>	
				Project: <b>Herschel</b>	
				Subsystem: <b>SPIRE</b>	
No.	Item	Yes	No	Remarks	
<b>1</b>	Transportation Container, Outer Packing				
a	Packing undamaged ?	x			
b	Seals and straps intact ?	x			
c	Correct Labelling ?	x			
<b>2</b>	Transportation Container, Inner Packing				
a	Correct Identification (see heading) ?	x			
b	Equipment correctly and safely packed ?	x			
c	Equipment hermetically sealed ?	x		Inner transport bag on one area destroyed but second inner bag mounted undamaged	
d	Packed with desiccants ?		x		
e	Packed with humidity-indicators ?	x			
f	Packed with shock-indicators ?	x		-5 g shock indicator released in - X-direction	
g	Packed with temperature-indicators?		x		
h	Container reusable and stackable ?	x			
<b>3</b>	Equipment				
a	Identification correct ?	x		CQ	
b	Screw sealings not broken ?	x			
c	Surface finish undamaged and clean ?	x			
d	Connector identification correct ?	x			
e	Connector with protective caps ?	x			
f	Connector pins clean and undamaged ?	x			
g	Mounting area clean and undamaged ?	x			
h	Accessories ? Bonding points ? Covers ?	x			
<b>4</b>	Documentation				
a	Shipping documentation ?	x		See EIDP: shipping list, etc.	
b	Log Sheets / Historical Records ?	x		updated	
c	Handling, Packing, Transport. Procedures ?	x		see SPIRE RAL-PRC-001923	
d	End Item Data Package (ICD) ?	x		Delta SPIRE-RAL-PRJ-001898 issue 4/0	
e	Other Documentation		x		
<b>5</b>	Other notable defects ?		x		
<b>6</b>	Released for : Use on STM2				
<b>Remarks / Actions :</b>					
-UV light inspection performed successfully					
-Detector for straylight tests also delivered with the CQM (JF3 319) and interated to the unit					
-wipe test tbd planned for 24.05.06					
<b>Distribution :</b> See distribution list attached			<b>Inspector :</b> E. Lamprecht		<b>Date :</b> 23.05.06
			<b>Department :</b> ASQ 21		

**EADS Astrium  
GmbH**

### Incoming Inspection

(Checklist for hi-rel space-application HW)

Doc.-No.: HP-2-ASED-II-0171

Issue: \_\_\_\_\_ Date: \_\_\_\_\_

Sheet: 2 of 2

Received Date: \_\_\_\_\_

Item:

**SPIRE FPU**

Supplier:

**RAL**

Model:

**CQM**

Project:

**Herschel**

Drwg.-No.:

Serial-No.:

Subsystem:

Continuation-Sheet :

Status: The instrument is ready for integration in terms of technical delivery status and NCR status as verified during handover meeting successfully performed, see SCI-PT/42316, dated 17.05.2006

related AI:

AI1: Check of delta DML/DPL- OK



AI2: Impact of flex links configuration on S/C temp sensor position: Open

Status: The incoming inspection has been performed as mentioned in this report, requested benchtest Activities have been performed successful by SPIRE the results are acceptable.

The starlight detector has been integrated by SPIRE and has been verified by SPIRE .  
The Instrument is ready for integration to the PLM STM.

Open work is the performance and evaluation of wipetest samples and assessment on thermal characteristics of photoconductor

SPIRE

ASED



ESA

AAS- FF

	Name	Dep./Comp.		Name	Dep./Comp.
X	Alberti von Mathias Dr.	ASG22		Schweickert Gunn	ASG22
X	Barlage Bernhard	AED13		Steininger Eric	AED32
	Bayer Thomas	ASA42	X	Stritter Rene	AED11
	Brune Holger	ASA45		Suess Rudi	OTN/ASA44
	Edelhoff Dirk	AED2		Thörner Klaus-Horst Dr.	OTN/AED65
	Fehringer Alexander	ASG13		Wagner Klaus	ASG22
X	Fricke Wolfgang Dr.	AED 65	X	Wietbrock Walter	AET12
	Geiger Hermann	ASA42		Wöhler Hans	ASG22
	Grasl Andreas	OTN/ASA44			
	Grasshoff Brigitte	AET12			
	Hartmann Hans	AED32	X	Alcatel Alenia Space Cannes	ASP
	Hauser Armin	ASG22	X	ESA/ESTEC	ESA
X	Hendry David	Terma			
	Hengstler Reinhold	ASA42		<b>Instruments:</b>	
	Hinger Jürgen	ASG22		MPE (PACS)	MPE
X	Hohn Rüdiger	AED65	X	RAL (SPIRE)	RAL
	Hölzle Edgar Dr.	AED32		SRON (HIFI)	SRON
	Huber Johann	ASA42		<b>Subcontractors:</b>	
	Hund Walter	ASE252		Air Liquide, Space Department	AIR
X	Idler Siegmund	AED312		Air Liquide, Space Department	AIRS
	Ilse Stijn	Terma		Air Liquide, Orbital System	AIRT
	Ivány von András	FAE 12		Alcatel Alenia Space Antwerp	ABSP
X	Jahn Gerd Dr.	ASG22		Austrian Aerospace	AAE
	Kalde Clemens	ASM2		Austrian Aerospace	AAEM
	Kameter Rudolf	OTN/ASA42		APCO Technologies S. A.	APCO
	Kettner Bernhard	AET42		Bieri Engineering B. V.	BIER
	Knoblauch August	AET32		BOC Edwards	BOCE
	Koelle Markus	ASA43		Dutch Space Solar Arrays	DSSA
	Koppe Axel	AED312		EADS Astrium Sub-Subsyst. & Equipment	ASSE
X	Kroeker Jürgen	AED65		EADS CASA Espacio	CASA
	La Gioia Valentina	Terma		EADS CASA Espacio	ECAS
X	Lamprecht Ernst	OTN/ASQ22		EADS Space Transportation	ASIP
X	Lang Jürgen	ASE252		Eurocopter	ECD
X	Langenstein Rolf	AED15		European Test Services	ETS
X	Langfermann Michael	ASA41		HTS AG Zürich	HTSZ
	Much Christoph	ASA43		Linde	LIND
	Müller Jörg	ASA42		Patria New Technologies Oy	PANT
	Müller Martin	ASA43		Phoenix, Volkarsen	PHOE
	Peltz Heinz-Willi	ASG13		Prototech AS	PROT
	Pietroboni Karin	AED65		QMC Instruments Ltd.	QMC
	Platzer Wilhelm	AED2		Rambe, Brilon	REMB
	Reichle Konrad	ASA42		Rosemount Aerospace GmbH	ROSE
	Runge Axel	OTN/ASA44		RYMSA, Radiación y Microondas S.A.	RYM
	Schink Dietmar	AED32		SENER Ingeniería SA	SEN
X	Schlosser Christian	OTN/ASA44		Stöhr, Königsbrunn	STOE
	Schmidt Rudolf	FAE12		Terma A/S, Herlev	TER

