

	SPIRE BSM Declared Process List Procedure ID SPI-BSM-PRJ-708 ITEM #14 Version no 1.1	Ref: SPI-BSM-NOT0723 Page : Page 1 of 6 Date : 17 June 2004 Author: BCG
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SPIRE BSM Declared Processes
Procedure ID SPI-BSM-PRJ-708 ITEM 14
Soldering

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Version Control

Date	Index	Remarks
08/01/03	1.0	New release
17/06/04	1.1	Update version numbers of AD/RDs

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Applicable documents

Applicable documents are project specific and may be assumed to apply fully to the BSM, unless stated otherwise

Ref	Title	Author	Reference	Date
AD 1	SPIRE BSM Declared Process List v 1.6	JP	SPI-BSM-PRJ-0708	15/06/04
AD 2	SPIRE ATC PA PLAN v1.2	BCG	SPI-BSM-PRJ-0711	09/06/03
AD 3				
AD 4				
AD 5				

Reference documents

Reference documents are generic and may only apply in part to the project, or may be for information or reference only.

Ref	Title	Author	Reference	Date
RD 1	SPIRE BSM Declared Materials List v1.5	JP	SPI-BSM-PRJ-0710	15/06/04
RD 2	The manual soldering of high-reliability electrical connections	ECSS	ECSS-Q-70-08A	06/08/99
RD 3	Quality Assurance	ECSS	ECSS-Q-20B	08/03/02
RD 4				
RD 5				
RD 6				
RD 7				

Glossary

Abbr	Definition	Abbr	Definition
AD	Applicable Document	LAM	Laboratoire d'Astrophysique de Marseille
ADP	Acceptance Data Package	LAT	Lot Acceptance Tests
ARB	The Acceptance Review Board	MAPTIS	Materials and Processes Technical Information Service
BSM	Beam Steering Mirror	MSFC	Marshall Space Flight Center
BSMe	Beam Steering Mirror electronics	MCU	Mechanism Control Unit
CAE	Computer Aided Engineering	MIP	Mandatory Inspection Point
CDR	Critical Design Review	MGSE	Mechanical Ground Support Equipment
CoG	Centre of Gravity	MPIA	Max Planck Institute for Astronomy

Abbr	Definition	Abbr	Definition
CIL	Critical Items List	MSSL	Mullard Space Science Laboratory
CQM	Cryogenic Qualification Model	NASA	National Aeronautical Space Agency
CTD	Change to Drawing/Document	NA	Not Applicable
DCL	Declared Components List	NCR	Non Conformance Report
DDR	Detailed Design Review	NCRP	Non Conformance Review Panel
DM	Development Model	OGSE	Optical Ground Support Equipment
DML	Declared Materials List	PA	Product Assurance
DPA	Destructive Physical Analysis	PAD	Part Approval Document
ECSS	European Cooperation for Space Standardisation	PFM	Proto Flight Model
EGSE	Electrical Ground Support Equipment	PPARC	Particle Physics and Astronomy Research Council
EEE	Electrical, Electronic, Electromechanical	PI	Principal Investigator
ESA	European Space Agency	QA	Quality Assurance
FMEA	Failure Modes and Effects Analysis	RAL	Rutherford Appleton Laboratory
FMECA	Failure Modes, Effects and Criticality Analysis	RAL SSD	RAL Space Science Department
FPGA	Field Programmable Gate Array	RD	Reference Document
FPU		SMEC	Spectrometer Mechanism
FSM		SPIRE	Spectral and Photometric Imaging REceiver
GSFC	Focal Plane Unit	STP	Screened twisted Pair
	Flight Spare model	STQ	Screened twisted quad
GSE	Ground Support Equipment	TBC	To Be Confirmed
HoS	Head of Specialism	TBD	To Be Defined
Herschel	ESA Mission name (formerly FIRST)	TBW	To Be Written
IBDR	Instrument Baseline Design Review	UK ATC	United Kingdom Astronomy Technology Centre
KIP	Key Inspection Point	UK SPO	UK SPIRE Project Office
		WE	Warm Electronics

 <p>UK Astronomy Technology Centre</p>	<p>SPIRE BSM Declared Process List Procedure ID SPI-BSM-PRJ-708 ITEM #14 Version no 1.1</p>	<p>Ref: SPI-BSM-NOT0723 Page : Page 6 of 6 Date : 17 June 2004 Author: BCG</p>
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1 SCOPE

This document will detail the requirements for soldering the SPIRE BSM cryogenic mechanism.

2 MATERIALS

Solder – 60/40 tin/lead solder, DML callout.

3 PROCESS

All soldering shall be performed in accordance with ESA specification ECSS-Q-70-08A, manual soldering of high-reliability electrical connections. This work shall only be performed by ESA qualified personnel, who have a valid certificate.