SPIRE BSM Declared Processes

Procedure ID SPI-BSM-PRJ-708 ITEM 06

Bonding of magnets into mounts

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Version Control

Date	Index	Remarks
02/03/2003	1.0	New release
17/06/2004	1.1	Update version numbers, add mixing of adhesive

Table of Contents

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	IP	SPI-BSM-PRJ-0708	15/06/04
AD 2	SPIRE ATC PA PLAN v1.5	BCG	SPI-BSM-PRJ-0711	09/06/03
AD 3	SPIRE cleaning process v1.1	KW	SPI-BSM-NOT-0029	17/06/04
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	IP	SPI-BSM-PRJ-0710	15/06/04
RD 2				
RD 3				
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
ESA	European Space Agency	PI	Principal Investigator
FMEA	Failure Modes and Effects Analysis	QA	Quality Assurance
FMECA	Failure Modes, Effects and Criticality Analysis	RAL	Rutherford Appleton Laboratory
FPGA	Field Programmable Gate Array	RAL SSD	RAL Space Science Department
FPU	Focal Plane Unit	RD	Reference Document
FSM	Flight Spare model	SMEC	Spectrometer Mechanism
GSFC	Goddard Space Flight Center	SPIRE	Spectral and Photometric Imaging REceiver
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

1 SCOPE

The scope of the procedure is to describe the bonding of the magnets into their mounts.

2 INTRODUCTION

The magnets are set in the mounts and then bonded into position. Details on the position are shown on the drawings.

3 PROCESS

- Clean the magnets and mounts as per **AD 3**.
- Check that the adhesive and catalyst are within expiry date.
- Weigh out the correct amounts as per the manufacturers instructions.
- Thoroughly blend together and use within pot life time given in manufacturers instructions.
- Place the magnet in its mount as shown on the drawing, ensuring that the correct poles are facing out.
- Apply some adhesive round the magnet. Do not get any adhesive on the face of the magnet.