

Electronics Parts Lists

1 Warm Electronics

Parts Lists for electronic components will be issued by LAM when the detailed design is finalised.

2 Beam Steering Mechanism

2.1 SPIRE Beam Steering Mirror Assembly Standard Parts List

This list defines the space-qualified parts used in the BSM mechanism that are covered in the ESA/SCC EEE Components Specifications.

NOTES:

The 37-way MDM connector types specified below are selected from the ESA/SCC EEE Components Specifications Lists. However, this is a compromise, as the desired solder-bucket type is not included in the lists, so a solid-wire termination type has been selected. This will require multiple solder joints and heat-shrink coverings before potting. If a space-qualified solder-bucket MDM connector is used by anyone else, it would be better to use the appropriate part number for that type, but for a 37-way pin connector.

Quantity count is total for BSM project (all models) not per model.

| Part number | Description | Quantity | Notes |
|------------------------|---|----------|--|
| 3401029 02 B 37P FR116 | Micro-miniature rectangular connector (MDM type) with uninsulated solid wire terminations | 10 | For 3 models plus spares SOLDER BUCKET TYPE PREFERRED – BUT NOT LISTED IN 3401/029 |
| 3401029 02 B 37S FR116 | Micro-miniature rectangular connector (MDM type) with uninsulated solid wire terminations | 10 | For 3 models plus spares SOLDER BUCKET TYPE PREFERRED – BUT NOT LISTED IN 3401/029 |
| TBD (by RAL) | EMI Back-shells for above connectors | 8 | |
| 3401 041 06 B 37 PS | Connector saver, 37-way MDM type | 10 | |
| 3401 032 05 B | Srew lock assembly for connector saver | 20 | |
| 3401 032 01 B | Screw lock assembly for connector | 20 | |
| 3901 013 41 B 050m | PTFE insulated Screened Twisted Pair wire, 28 AWG | 1 | |
| 3901 013 46 B 050m | PTFE insulated Screened Twisted Triple wire, 28 AWG | 1 | |
| | | | (MICROSWITCH DELETED) |
| CX-1030-CU | Cernox Thermometers (CX1030) | 10 | |
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2.2 SPIRE Beam Steering Mirror Assembly Non-Standard Parts List

The following are also provided by the UK ATC

| Part number | Description | Quantity | Notes |
|----------------------------|--|----------|---|
| TBC | Motor coils, common to PACS. Supplier is Zeiss. | 40 | Parts will be supplied with QA documents per Zeiss/PACS |
| FP212 | Infineon sensors | 20 | Same sensor as used on ISOPhot. ATC to supply PAD sheet. ATC incorporate in mounting (BSM-020-007) and qualify along with BSM |
| SPI-STM-81-DO-01-1 (draft) | Launch Latch | 3 | Parts will be supplied with QA documents per LAM/SMEC |
| TBD | Chop sensor flexible harness (Jiggle frame to BSM structure) Flexitape, manufactured by TAYCO. | 10 | Exact spec TBD. Type will be space proven and cryogenically suitable. ATC to supply PAD sheet. |
| RayChem RNF 100 | Heat Shrink 2.4mm bore. (motor harness terminals, etc) | 1 | MIL-DTL-25053/5 class 2 (clear) or space rated equivalent. |