

## 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 | 14       | For 3 models plus spares<br><b>SOLDER BUCKET TYPE PREFERRED – BUT NOT LISTED IN 3401/029</b> |
| 3401029 02 B 37S FR116 | Micro-miniature rectangular connector (MDM type) with uninsulated solid wire terminations | 14       | For 3 models plus spares<br><b>SOLDER BUCKET TYPE PREFERRED – BUT NOT LISTED IN 3401/029</b> |
| 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       |  |
|                        |   |          |  |

## 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.  |