



SPIRE Technical Note

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Continuity check on background detector harness

B. Swinyard

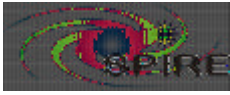
The background detector used for the ISOLWS cryostat has been fitted to the MTD to assess the FIR background in the SPIRE cryostat. The Spectrometer bias tail has been used to connect the existing JF4 amplifier through to the outside of the cryostat – see attached figures.

The table below is a record of the checks carried out when the detector was installed and connected to the cryoharness C1 P10 on 9 September 2003.

Connection Name	Pin on Detector Connector	Pin on MDM on detector lead	Pin on D-Type (after cryoharness installed)	Checked end to end on cryostat (S1 J32)
Reset	1	17	17	140 Ω
Gnd	2	26	26	7 Ω
VB	3	15	15	146 Ω
VSS	4	35	35	144 Ω
Thermometer	5	1	1	140 Ω
SigOut	6	13	13	141 Ω
Heater	7	22	22	141 Ω
VDD	8	32	32	144 Ω
Thermometer	9	20	20	148 Ω
Compensation	10	10	10	144 Ω
Screen	N/C	12	12	7 Ω

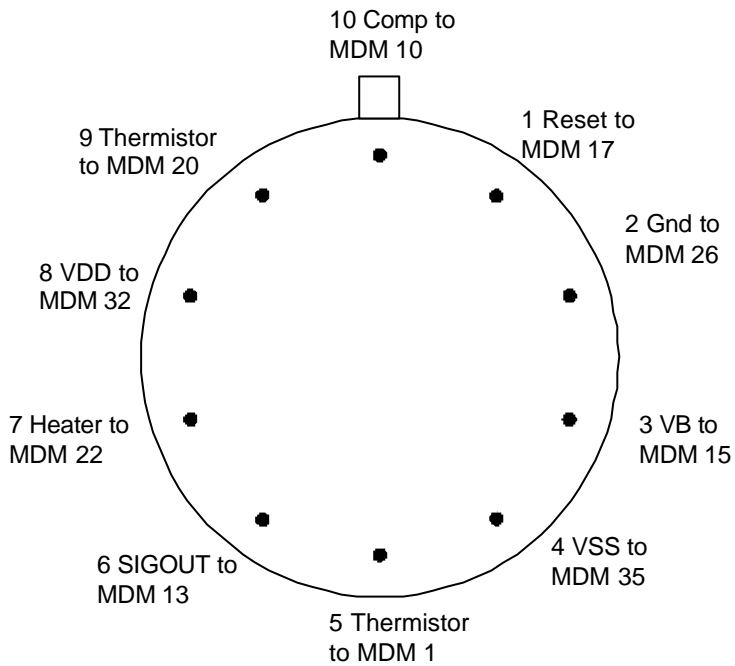
Pin to pin checks

Description	Pins	Measured Resistance One way round	The other way round
Heater to VDD	22 – 32	6.28 k Ω	Same
Sigout-VDD	13 - 32	50.4 k Ω	Same
Sigout - VSS	13 - 35	50.3 k Ω	Same
Reset-Gnd	26-17	850 Ω	O/C



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Rear view of free socket fitted to back of photo-detector block. MDM referred to is the spectrometer bias tail on C1 P10 (see Harness definition documents SPIRE-RAL-PRJ-000608 v1.1 section 4.4.1)