



N

(SPIRE-ESA-N-0048.10)



FIRST/Planck Project

Telefax

Fax No : (31) 71 565 5244

Tel. No : (31) 71 565 5962

Ref. : PT-05884

Date : 29 September, 1998

From : T. Passvogel (SCI-PT)

Page : 1 of 2

To : M. Griffin (QMWC/London)
K. King (RAL/Oxfordshire)
B. Swinyard (RAL/Oxfordshire)

Fax No: 44 181 980 0986
44 1235 44 6667

Cc : F. Felici, M. Anderegg, H. Schaap, B. Collaudin

Subject: **FIRST/Planck - SPIRE Instrument Interfaces**

Ref. : **MoM of technical meeting with SPIRE, held on 29.07.98 at ESTEC**

(SEE SPIRE-ESA-MOM-000047.10)

Please find below the close of the Action Item SPIRE-5 of the ref. Meeting:

"ESA to supply figures for the possible length of the cryo-harness".

The different harness lengths are based on the last system definition study between the focal plane unit and the SVM and can be taken as a first input. They are broken down into the different elements inside the cryostat and given as an approximate total length for the harness outside the cryostat.

1. Inside the Cryostat

Harness Part	Length [m]
FPU - Optical Bench interface	Tbd
Optical Bench interface - Innermost shield	1.25
Innermost shield - Centre shield	0.2
Centre shield - Outer shield	0.1
Outer shield - Vacuum Vessel *	0.1 + 0.75

* The additional 0.75 m take into account a certain average distance between the tank suspension system and the vacuum feedthrough connector.

The length between the FPU and the optical bench interface connector depends on the location of the connector at the FPU.

ESTEC

Postbus 299 - NL 2200 AG Noordwijk - Keplerlaan 1 - NL 2201 AZ Noordwijk ZH
<http://sci.esa.int/first>

Ref.: PT-05884

Date: 29/09/1998

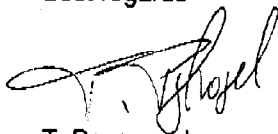
Page: 2 / 2

2. Outside the Cryostat

Harness Part	Length [m]
Vacuum Vessel – SVM interface*	1.5 +2.0
SVM interface – SPIRE	1.5

* The additional 1.5 m take into account a certain average distance between the vacuum feedthrough connector and a common routing of Instrument harness down the cryostat.

Best regards

T. Passvogel
