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**Herschel**

An/To: +44 1235 44 6667  
**RAL, Oxfordshire, UK**  
 E. Saywer, K. King, J.  
 Delderfield  
  
 +44 (1483) 278312  
**UCL/MSSL, UK**  
 B. Winter

Kopie an/  
 Copy to: +33 4 92 92 30 10  
**Alcatel Space, Cannes, F**  
 G. Lund, B. Collaudin  
  
 +31 71 565 32 44  
**ESTEC, Noordwijk, NL**  
 J. Bruston  
  
**Astrium GmbH**  
 E. Hölzle, W. Rühle, J. Kroeker,  
 H.W. Peltz, H. Raupp, H. Faas

Abs./Sender: Horst Faas  
 Abt./Dep.: ED 37/Herschel  
 Tel./Phone: +49 75 45 8-3990  
 Fax/Fax: +49 75 45 8-42 43  
 E-Mail: [Horst.Faas@astrium-space.com](mailto:Horst.Faas@astrium-space.com)  
 Ref.: HP-ASED-0270/01

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Betreff/Subj.: Reduced 3-D SPIRE model: Comments

Dear Sirs,

Thank you for the delivery of the reduced 3-D SPIRE model in STEP format. We have integrated the model in the overall Herschel extended PLM model and have the following comments:

1. The position of the current SPIRE **Instrument** co-ordinate system (x=0) should be at the position of the focus. In the SPIRE model the focus is 201mm above the OB I/F plane. In the Astrium EPLM Model the focus is 202mm above the Optical Bench I/F plane. Please comment the discrepancy of the 1mm.
2. The SPIRE **Instrument** co-ordinate system is located at the focus and aligned to the S/C co-ordinate system. Additionally ASTRIUM requests a SPIRE **interface** co-ordinate system, located in an I/F reference hole in the Optical Bench I/F plane, as close as possible to the S/C x-axis. The two co-ordinate systems are illustrated in the attached figure. Please update your CAD model accordingly.
3. Astrium appreciates the inclusion of the new Thermal Strap support structure envelope. But we would prefer to receive a updated CAD model including a more detailed support structure, in order to allow the inclusion of the thermal straps and the OB feed through. Please update.

Astrium GmbH - Earth Observation & Science Division - 88039 Friedrichshafen - Deutschland/Germany  
 Telefon +49 (0)7545 8-01 - Telefax +49 (0)7545 8-4411  
 Amtsgericht München, HRB-Nr. 107 847 - Ust. Ident. Nr. / VAT rég. no DE 167015358  
 Bayerische Hypo- und Vereinsbank AG Lindau - BLZ 800 202 90 - Konto-Nr. 1 285 599  
 Deutsche Bank AG, Friedrichshafen - BLZ 650 700 84 - Konto-Nr. 3 550 100

4. In the IID-B Section 5.7 (Thermal Interfaces) one Level-1 thermal I/F from the FPU Spire Optical Bench is identified. Have you identified a position on the SPIRE FPU, where and how the Level-1 thermal strap will be connected?
5. In order to include the harness in the 3-D models, all sockets need to be included in the 3-D model. Please provide the missing JFET sockets and the shutter socket on top of the FPU.

Astrium would appreciate to receive your response and an updated, reduced 3-D model by 15 January 2002 to allow the inclusion of the updated SPIRE model in the baseline for the next major Herschel review.

Seasonal greetings and kind regards

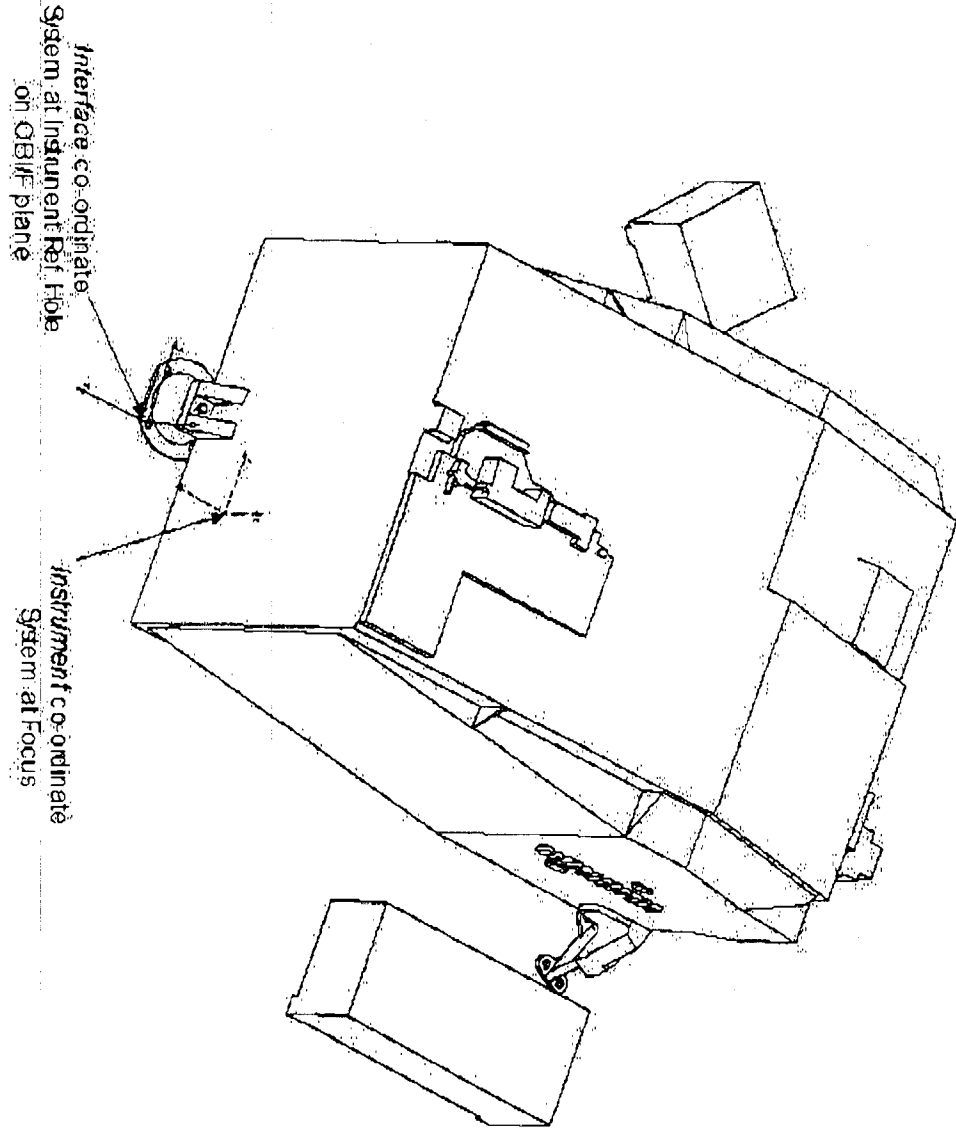
**Astrium GmbH**

Handwritten signature of K. Moritz in black ink.

i. V. Dr. K. Moritz

Handwritten signature of A. E. Hölzle in black ink.

i. A. E. Hölzle



Astrium GmbH - Earth Observation & Science Division - 88039 Friedrichshafen - Deutschland/Germany  
Telefon +49 (0)7545 8-01 - Telefax +49 (0)7545 8-4411  
Amtsgericht München, HRB-Nr. 107 647 - Ust. Ident. Nr. / VAT reg. no DE 167015356  
Bayerische Hypo- und Vereinsbank AG Lindau - BLZ 600 202 90 - Konto-Nr. 1 285 599  
Deutsche Bank AG, Friedrichshafen - BLZ 650 700 84 - Konto-Nr. 3 550 100