SPIRE CONFIGURABLE DOCUMENTS' TREE SPIRE-RAL-PRJ-000033 Issue3.5 J.D. 21/08/01

ESA MIRROR / SPACECRAFT INTERFACE

HERSCHEL/Planck Instrument Interface Document (IID) Part A
- HERSCHEL/Planck Packet Structure Interface Control Document
- Instrument I/F Study Final Report
- HERSCHEL Alignment Plan
- HERSCHEL Pointing Modes
- HERSCHEL Telescope Specification
- Packet Utilisation Standard.

HERSCHEL/Planck Instrument Interface Document (IID) Part B for Spire

ESA MIRROR / GROUND SEGMENT

HERSCHEL Science Management Plan (SMP)

HERSCHEL Operations Scenario Document
HERSCHEL/Planck Ground Segment I/F Doc.(GSID)

HERSCHEL Science Operations Implementation Requirements(SIRD)

HERSCHEL Ground Segment Design Desc.

HERSCHEL Ground Segment Interface Requirements Doc.

ESA MIRROR /PRODUCT ASSURANCE

PA Requirements for HERSCHEL/PLANCK Scientific Instruments

HERSCHEL L-2 Radiation Environment

ESA MIRROR / PROGRESS REPORTS

SPIRE PROJECT PROGRESS REPORTS

SPIRE/INSTRUMENT INTERFACE

- SPIRE Systems Budgets
- SPIRE Harness Definition
- SPIRE Optics Config. Control
- SPIRE Interface Thermal Mathematical Model (ITMM)

SPIRE Scientific Requirements (SRD)

Note: this PA Plan, agreed at proposal, is applicable to all the SPIRE project but some equipments have chosen to evolve their own additional requirements.

SPIRE/PA

SPIRE PA Plan
JPL PA Compliance Matrix
Sorption Cooler PAP

SPIRE/MANAGEMENT/MOU

SPIRE Letters of Agreement, etc.
JPL Business Agreement

SPIRE/INSTRUMENT REQUIREMENTS

SPIRE Instrument Requirements (IRD)
- Operating Modes for SPIRE
- On-Board Software (URD)
- TMM Specification
- Thermal Config. Control Doc.

SPIRE Qualification Requirements
SPIRE Calibration Requirements
SPIRE Optics Alignment Requirements
SPIRE Optical Error Budgets

SPIRE/ICC

SPIRE Science Implementation Plan (SIP)
SPIRE ICC Consortium URD

SPIRE/MANAGEMENT/PLANS

SPIRE Management Plan
SPIRE Development Plan and Model Phil.
SPIRE Major Milestone List

SPIRE/MANAGEMENT/PLANS/ MODEL DEFINITIONS

SPIRE STM Requirements
SPIRE CQM Requirements
SPIRE AVM Definition

SPIRE/INSTRUMENT REQUIREMENTS/ SUBSYSTEM REQUIREMENTS

SPIRE SUB-SYSTEM REQUIREMENTS SPECS
- Digital Processing Unit (DPU)(incl S/W)
- Detector Readout and Control Unit (DRCU=FCU+DPU) +Power Supply Section of FCU
- Structure incl. baffles, straps, thermometry & harness routing.
- Mirrors and Optical Stops
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms
- Photometer & Spectrometer Stim.
- Filters and Beam-splitters
- Helium3 Sorption Cooler
- BDA SSSD

SPIRE/ DESIGN DESCRIPTION

- SPIRE Design Description
- SPIRE Block Diagram.
- SPIRE Grounding Phil.
- SPIRE Optical System
  - SPIRE Diffraction Analysis
- Digital Processing Unit (DPU)
- FPU ControlUnit (FCU)
- Detector Control Unit (DCU)
- Structure incl. baffles, straps, thermometry , etc.
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms
- Photometer & Spectrometer Stim.
- Helium3 Sorption Cooler
- Detector Subsystems+ JFET modules

Design Requ. Compliance Matrix.

SPIRE/GSE

IGSE Specifications
- -EGSE URD
- -EGSE ILT URD
- -EGSE Router Spec.
- -Alignment Tools Spec.
- -MGSE
- -Analogue FPU Simulator
- -DRCU Simulator
- -SPIRE Sim. S/W Module

SPIRE/AIV

SPIRE AIV Plan
SPIRE Alignment Sequence
SPIRE Calibration Plan
including COMMISSIONINGand PRODUCTVALIDATIONin mission

SPIRE Ground Test Facility Specifications

SPIRE/ICC/URDs

SPIRE ICC URDs
- HERSCHEL Common Science System (FCSS) URD
- PACS/HIFI ICC Interaction URD
- Realtime Aquisition (RLA) Monitoring URD
- On-Board S/W Maintainance(OBSM) URD
- MIB Editor URD
- Astronical. Observ. Prep.URD
- Instrument Simulator URD
- Public Outreach URD

SPIRE/MANAGEMENT/PLANS/ CONSORTIUM

SPIRE Work Breakdown Structure
SPIRE Sub-system Development Plans
- Cooler Development Plan

SPIRE/GSE/BUILD

SPIRE IGSE Equipment Tree

SPIRE/AIT/PLANS & PROCEDURES

SPIRE Optical Alignment Verification Plan
SPIRE Structure Integration Plan
JPL Test Plan & Compliance Matrix

Test Facility Checkout Integration, I/F checks, Vibration, EMC Thermal Balance/cycle. Calibration

SPIRE/ICC/USE-CASES

SPIRE ICC SummaryLevel Use Cases

SPIRE/MANAGEMENT/PLANS/ DELIVERABLES

SPIRE Product Tree
SPIRE Sub-system Product Trees
- Cooler Hardware Tree

SPIRE/MANAGEMENT/MINUTES

SPIRE/MANAGEMENT/DOCUMENTS

SPIRE PROJECT SCHEDULE

SPIRE SUBSYSTEM SCHEDULES

SPIRE SUBSYSTEM REPORTS

SPIRE/INSTRUMENT REQUIREMENTS/ SUBSYSTEM ICDs

SPIRE SUB-SYSTEM ICDs
- Digital Processing Unit (DPU)
- Detector Readout and Control Unit (DRCU=FCU+DPU)
- Structure incl. baffles, straps, thermometry & harness routing
- Mirrors and optical stops
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms
- Photometer & Spectrometer Stim.
- Filters, and Beam splitters
- Helium3 Sorption Cooler
- Detector Subsystem

SPIRE /INSTRUMENT BUILD

SPIRE Flight Equipment Tree

Config. Status list by model

SPIRE/INSTRUMENT OPS

SPIRE Flight Ops. Requirements

SPIRE Flight Operations' Manual (FOM/P)

SPIRE Packet Formats for Commands & Telemetry (Hsk, Science, etc.)

SPIRE/AIT/REPORTS

TEST REPORTS
- DCU Breadboard Test

Test/Cal. Requirements Compliance Matrix

SPIRE Calibration Coefficients

SPIRE/PA/DOCUMENTS

SPIRE Document and Drawing Management Plan
SPIRE Configurable Documents' Tree..this doc!
SPIRE Configurable Drawings' Tree

DCRs

NCRs and MRBs

Cleanliness

Handling

Reliability/FMECA
- DRCU FMECA

Iss3.2: Move IIDB Part-B into ESA Document area...are not formally issued by RAL.
Iss 3.3 Add ITMM and Change word for MOU.
Iss3.4 Include Minutes.
Iss 3.5 Update Document names as per BSM E-mail of 9/8/01,+Cooler Docs.

Notes:
a. The IID and ICDs are listed in priority so that an I/F between two systems is only detailed in the document listed the higher.
b. Most ICDs have associated I/F drawings kept elsewhere in the Spire LiveLink system.