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	Calibrators and Filters - Configuration Item Data List (CIDL)	

Calibrators and Filters

Configuration Item Data List (CIDL)

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31/08/01	1.0	First issue – for DDR

List of Acronyms

Term	Meaning	Term	Meaning
AD	Applicable Document	IR	Infrared
ADC	Analogue to Digital Converter	IRD	Instrument Requirements Document
AIV	Assembly, Integration and Verification	IRTS	Infrared Telescope in Space
AME	Absolute Measurement Error	ISM	Interstellar Medium
AOCS	Attitude and Orbit Control System	JFET	Junction Field Effect Transistor
APART	Arizona's Program for the Analysis of Radiation Transfer	ISO	Infrared Space Observatory
APE	Absolute Pointing Error	LCL	Latching Current Limiter
ASAP	Advanced Systems Analysis Program	LIA	Lock-In Amplifier
ATC	Astronomy Technology Centre, Edinburgh	LVDT	Linear Variable Differential Transformer
AVM	Avionics Model	LWS	Long Wave Spectrometer (an instrument used on ISO)
BDA	Bolometer Detector Array	MAC	Multi Axis Controller
BFL	Back Focal Length	MAIV	Manufacturing, Assembly, Integration and Verification
BRO	Breault Research Organization	MCU	Mechanism Control Unit = HSMCU
BSM	Beam Steering Mirror	MGSE	Mechanical Ground Support Equipment
CBB	Cryogenic Black Body	M-P	Martin-Puplett
CDF	Cardiff, Department of Physics & Astronomy	NEP	Noise Equivalent Power
CDMS	Command and Data Management System	NTD	Neutron Transmutation Doped
CDMU	Command and Data Management Unit	OBS	On-Board Software
CDR	Critical Design Review	OGSE	Optical Ground Support Equipment
CEA	Commissariat a l'Energie Atomique	OMD	Observing Modes Document
CMOS	Complimentary Metal Oxide Silicon	OPD	Optical Path Difference
CoG	Centre of Gravity	PACS	Photodetector Array Camera and Spectrometer
CPU	Central Processing Unit	PCAL	Photometer Calibration source
CQM	Cryogenic Qualification Model	PFM	Proto-Flight Model
CVV	Cryostat Vacuum Vessel	PID	Proportional, Integral and Differential (used in the context of feedback control loop architecture)
DAC	Digital to Analogue Converter	PLW	Photometer, Long Wavelength
DAQ	Data Acquisition	PMW	Photometer, Medium Wavelength
DCU	Detector Control Unit = HSDCU	POF	Photometer Observatory Function
DDR	Detailed Design Review	PROM	Programmable Read Only Memory
DM	Development Model	PSW	Photometer, Short Wavelength
DPU	Digital Processing Unit = HSDPU	PUS	Packet Utilisation Standard
DSP	Digital Signal Processor	RAL	Rutherford Appleton Laboratory,
DQE	Detective Quantum Efficiency	RD	Reference Document
EDAC	Error Detection and Correction	RMS	Root Mean Squared
EGSE	Electrical Ground Support Equipment	SCAL	Spectrometer Calibration Source
EM	Engineering Model	SCUBA	Submillimetre Common User Bolometer Array
EMC	Electro-magnetic Compatibility	SED	Spectral Energy Distribution
EMI	Electro-magnetic Interference	SMEC	Spectrometer Mechanics
ESA	European Space Agency	SMPS	Switch Mode Power Supply
FCU	FCU Control Unit = HSFCU	SOB	SPIRE Optical Bench
FIR	Far Infrared	SOF	Spectrometer Observatory Function
FIRST	Far Infra-Red and Submillimetre Telescope	SPIRE	Spectral and Photometric Imaging Receiver
FOV	Field of View	SRAM	Static Random Access Memory
F-P	Fabry-Perot	SSSD	SubSystem Specification Document
FPGA	Field Programmable Gate Array	STP	Standard Temperature and Pressure
FPU	Focal Plane Unit	SVM	Service Module
FS	Flight Spare	TBC	To Be Confirmed
FTS	Fourier Transform Spectrometer	TBD	To Be Determined
FWHM	Full Width Half maximum	TC	Telecommand
GSFC	Goddard Space Flight Center	URD	User Requirements Document
HK	House Keeping	UV	Ultra Violet
HOB	Herschel Optical Bench	WE	Warm Electronics
HPDU	Herschel Power Distribution Unit	ZPD	Zero Path Difference
HSDCU	Herschel-SPIRE Detector Control Unit		
HSDPU	Herschel-SPIRE Digital Processing Unit		
HSFCU	Herschel-SPIRE FPU Control Unit		
HSO	Herschel Space Observatory		
I	Interface		
ID-A	Instrument Interface Document - Part A		
ID-B	Instrument Interface Document - Part B		
IMF	Initial Mass Function		

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1. Scope

This document lists all necessary documentation required for manufacturing, assembly, assembly, integration and test of all Cardiff deliverables for SPIRE. This document will be updated for each review. At CDR, it will represent the reference configuration.

2. Documents

All applicable documents are listed in the AD chapter of the CIDL (HSO-CDF-LI-029).

3. List of Applicable Documents

Type	Document Name	Reference	Date	Issue	Rev.
ESA					
AD01	Herschel/Planck Instrument Interface Document IID Part A	SCI-PT-IIDA-04624	20/12/00	1	1
AD02	Herschel/Planck Instrument Interface Document IID Part B Instrument "SPIRE"	SCI-PT-IIDB/SPIRE-02124	01/09/00	1	0
AD03	Product Assurance Requirements for Herschel/Planck Scientific Instruments	SCI-PT-RQ-04410	01/08/00	2	0
SPIRE					
AD11	Instrument Requirements Document	SPIRE-RAL-PRJ-0034	23/11/00	1	0
AD12	SPIRE Product Assurance Plan	SPIRE-RAL-PRJ-000017	11/04/01	1	0
AD13	SPIRE Scientific Requirements	SPIRE-UCF-PRJ-000064			
AD14	Operating Modes for SPIRE	SPIRE-RAL-PRJ-000320			
Cardiff					
AD21	Spectrometer Calibrator Subsystem Specification Document	HSO-CDF-SP-001			
AD22	SPIRE Filters Subsystem Specification Document	HSO-CDF-SP-002			
AD23	Photometer Calibrator Subsystem Specification Document	HSO-CDF-SP-003			
AD24	Spectrometer Calibrator Development Plan	HSO-CDF-PL-004			
AD25	SPIRE Filters Development Plan	HSO-CDF-PL-005			
AD26	Photometer Calibrator Development Plan	HSO-CDF-PL-006			
AD27	Spectrometer Calibrator Interface Control Document	HSO-CDF-ICD-011			
AD28	SPIRE Filters Interface Control Document	HSO-CDF-ICD-012			
AD29	Photometer Calibrator Interface Control Document	HSO-CDF-ICD-013			
AD30	SPIRE Calibrators & Filters PA Plan	HSO-CDF-PL-007			

4. List of Project Documents

Type	Number	Document Name	Cardiff Reference	SPIRE Reference	Date	Issue	Rev.
SP	001	Spectrometer Calibrator Subsystem Specification Document	HSO-CDF-SP-001				
SP	002	SPIRE Filters Subsystem Specification Document	HSO-CDF-SP-002				
SP	003	Photometer Calibrator Subsystem Specification Document	HSO-CDF-SP-003				
PL	004	Spectrometer Calibrator Development Plan	HSO-CDF-PL-004				
PL	005	SPIRE Filters Development Plan	HSO-CDF-PL-005				
PL	006	Photometer Calibrator Development Plan	HSO-CDF-PL-006				
PL	007	SPIRE Calibrators & Filters PA Plan	HSO-CDF-PL-007				
PL	008	Spectrometer Calibrator AIV Plan	HSO-CDF-PL-008				
PL	009	SPIRE Filters AIV Plan	HSO-CDF-PL-009				
PL	010	Photometer Calibrator AIV Plan	HSO-CDF-PL-010				
ICD	011	Spectrometer Calibrator Interface Control Document	HSO-CDF-ICD-011				
ICD	012	SPIRE Filters Interface Control Document	HSO-CDF-ICD-012				
ICD	013	Photometer Calibrator Interface Control Document	HSO-CDF-ICD-013				
FC	014	Spectrometer Calibrator Manufacturing, Assembly, Integration and Verification (MAIV) Flow Chart	HSO-CDF-FC-014				
FC	015	SPIRE Filters Manufacturing, Assembly, Integration and Verification (MAIV) Flow Chart	HSO-CDF-FC-015				
FC	016	Photometer Calibrator Manufacturing, Assembly, Integration and Verification (MAIV) Flow Chart	HSO-CDF-FC-016				
LI	017	Spectrometer Calibrator Declared Materials and Parts List	HSO-CDF-LI-017				
LI	018	SPIRE Filters Declared Materials and Parts List	HSO-CDF-LI-018				
LI	019	Photometer Calibrator Declared Materials and Parts List	HSO-CDF-LI-019				
LI	020	Spectrometer Calibrator Declared Processes List	HSO-CDF-LI-020				
LI	021	SPIRE Filters Declared Processes List	HSO-CDF-LI-021				
LI	022	Photometer Calibrator Declared Processes List	HSO-CDF-LI-022				
LI	023	Spectrometer Calibrator Critical Item List	HSO-CDF-LI-023				
LI	024	SPIRE Filters Critical Item List	HSO-CDF-LI-024				
LI	025	Photometer Calibrator Critical Item List	HSO-CDF-LI-025				

LI	026	Spectrometer Calibrator H/W tree & Drawing List	HSO-CDF-LI-026				
LI	027	SPIRE Filters H/W tree & Drawing List	HSO-CDF-LI-027				
LI	028	Photometer Calibrator H/W tree & Drawing List	HSO-CDF-LI-028				
LI	029	SPIRE Calibrators & Filters Configuration Item Data List (CIDL)	HSO-CDF-LI-029				
RP	030	Spectrometer Calibrator FMECA report	HSO-CDF-RP-30				
RP	031	SPIRE Filters FMECA report	HSO-CDF-RP-31				
RP	032	Photometer Calibrator FMECA report	HSO-CDF-RP-32				
DD	033	Spectrometer Calibrator Subsystem Design Description	HSO-CDF-DD-33				
DD	034	Photometer Calibrator Subsystem Design Description	HSO-CDF-DD-33				
DD	035	SPIRE Filters Subsystem Design Description	HSO-CDF-DD-33				

5. List of Drawings

6. List of NCRs & ECRs