

# SPIRE

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## **Glossary**

Co-I	Co-Investigator
DAPSAS	Data Analysis and Science Analysis Software
ESA	European Space Agency
FIRST	Far Infra-Red Space Telescope
FSC	FIRST Science Centre
ICC	Instrument Control Centre
MOC	Mission Operations Centre
PI	Principle Investigator
SPIRE	Spectral and Photometric Imaging REceiver

## **1. SCOPE**

This Document Tree covers the documentation necessary for those activities leading to the delivery and commissioning of the flight instrument, to the implementation of the SPIRE Instrument Control Centre and the Operations Phase activities.

## **2. DOCUMENTS**

### **2.1 Applicable Documents**

AD1      SPIRE Management Plan (SPIRE/RAL/D/0029)

### **2.2 Reference Documents**

### 3. PROJECT DOCUMENTS

#### 3.1 Management Plans

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/0029	SPIRE Management Plan
	SPIRE/RAL/D/0030	SPIRE Product Tree
	SPIRE/RAL/D/0033	SPIRE Document Tree
	SPIRE/RAL/D/0031	SPIRE Work Breakdown Structure
	SPIRE/RAL/D/00??	SPIRE Instrument Implementation Plan
	SPIRE/RAL/D/00??	SPIRE Science Implementation Plan
	SPIRE/RAL/D/00??	SPIRE Operations Management Plan
	SPIRE/RAL/D/00??	SPIRE Interfaces Control Plan

#### 3.2 Product Assurance Plans

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE Product Assurance Plan
	SPIRE/RAL/D/00??	SPIRE Cleanliness and Contamination Control Plan
	SPIRE/RAL/D/00??	SPIRE Software Quality Assurance Plan
	SPIRE/RAL/D/00??	SPIRE Qualification and Verification Plan

### 4. INSTRUMENT DEVELOPMENT

#### 4.1 Design Documents

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE Scientific Requirements Document
	SPIRE/RAL/D/00??	SPIRE Instrument System Requirements Document
	SPIRE/RAL/D/00??	SPIRE Subsystem Requirement Document(s)
	SPIRE/RAL/D/00??	SPIRE Internal Interface Control Document(s)
	SPIRE/RAL/D/00??	SPIRE System Design Document
	SPIRE/RAL/D/00??	SPIRE Subsystem Design Document
	SPIRE/RAL/D/00??	SPIRE Instrument Users' Manual

#### 4.2 AIV and Commissioning

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE Subsystem Qualification and Verification Plan
	SPIRE/RAL/D/00??	SPIRE Ground Integration and Test Plan
	SPIRE/RAL/D/00??	SPIRE In-orbit Calibration Implementation Plan
	SPIRE/RAL/D/00??	SPIRE In-orbit Commissioning Plan

#### 4.3 Calibration

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE Calibration Requirements Document
	SPIRE/RAL/D/00??	SPIRE Ground Calibration Implementation Plan



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	SPIRE/RAL/D/00??	SPIRE In-orbit Calibration Implementation Plan
	SPIRE/RAL/D/00??	SPIRE Calibration Programme

## 4.4 On Board Software Documents

### 4.4.1 DPU On Board Software

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		SPIRE DPU On-board Software User Requirements Document
SSD		SPIRE DPU On-board Software Software Specification Document
SUM		SPIRE DPU On-board Software Software Users Manual
STD		SPIRE DPU On-board Software Software Transfer Document
SPMP		SPIRE DPU On-board Software Software Project Management Plan
SCMP		SPIRE DPU On-board Software Software Configuration Managemnt Plan
SVVP		SPIRE DPU On-board Software Software Verification and Validation Plan

### 4.4.2 SPU On Board Software

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		SPIRE SPU On-board Software User Requirements Document
SSD		SPIRE SPU On-board Software Software Specification Document
SUM		SPIRE SPU On-board Software Software Users Manual
STD		SPIRE SPU On-board Software Software Transfer Document
SPMP		SPIRE SPU On-board Software Software Project Management Plan
SCMP		SPIRE SPU On-board Software Software Configuration Managemnt Plan
SVVP		SPIRE SPU On-board Software Software Verification and Validation Plan

## 5. ICC DEVELOPMENT

### 5.1 ICC Management Plans

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
		SPIRE ICC Interfaces Document
		SPIRE ICC Training Plan

### 5.2 Instrument Operations

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
		SPIRE Instrument Users Manual
		SPIRE Observations Requirements Document
		SPIRE Operating Procedures Document
		SPIRE AOT Implementation Document
		SPIRE AOT Test Plan

### 5.3 ICC Software

#### 5.3.1 Instrument Time Estimator (ITE)

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		ITE User Requirements Document
SSD		ITE Software Specification Document
SUM		ITE Software Users Manual
STD		ITE Software Transfer Document
SPMP		ITE Software Project Management Plan
SCMP		ITE Configuration Management Plan
SVVP		ITE Software Verification and Validation Plan

#### 5.3.2 Instrument Command Translator (ICT)

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		ICT User Requirements Document
SSD		ICT Software Specification Document
SUM		ICT Software Users Manual
STD		ICT Software Transfer Document
SPMP		ICT Software Project Management Plan
SCMP		ICT Configuration Management Plan
SVVP		ICT Software Verification and Validation Plan

#### 5.3.3 RTA/QLA

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		RTA/QLA User Requirements Document
SSD		RTA/QLA Software Specification Document
SUM		RTA/QLA Software Users Manual
STD		RTA/QLA Software Transfer Document
SPMP		RTA/QLA Software Project Management Plan
SCMP		RTA/QLA Configuration Management Plan
SVVP		RTA/QLA Software Verification and Validation Plan

**5.3.4 Trend Analysis (TA)**

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		TA User Requirements Document
SSD		TA Software Specification Document
SUM		TA Software Users Manual
STD		TA Software Transfer Document
SPMP		TA Software Project Management Plan
SCMP		TA Configuration Management Plan
SVVP		TA Software Verification and Validation Plan

**5.3.5 Calibration Analysis (CA)**

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		CA User Requirements Document
SSD		CA Software Specification Document
SUM		CA Software Users Manual
STD		CA Software Transfer Document
SPMP		CA Software Project Management Plan
SCMP		CA Configuration Management Plan
SVVP		CA Software Verification and Validation Plan

**5.3.6 Interactive Analysis (IA)**

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		IA User Requirements Document
SSD		IA Software Specification Document
SUM		IA Software Users Manual
STD		IA Software Transfer Document
SPMP		IA Software Project Management Plan
SCMP		IA Configuration Management Plan
SVVP		IA Software Verification and Validation Plan

**5.3.7 Science Processing System (SPS)**

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		SPS User Requirements Document
SSD		SPS Software Specification Document
SUM		SPS Software Users Manual
STD		SPS Software Transfer Document
SPMP		SPS Software Project Management Plan
SCMP		SPS Configuration Management Plan
SVVP		SPS Software Verification and Validation Plan

**5.3.8 Science Analysis System (SAS)**

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		SAS User Requirements Document
SSD		SAS Software Specification Document
SUM		SAS Software Users Manual
STD		SAS Software Transfer Document
SPMP		SAS Software Project Management Plan
SCMP		SAS Configuration Management Plan

SVVP		SAS Software Verification and Validation Plan
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### 5.3.9 Diagnostic Tools (DiT)

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		DiT User Requirements Document
SSD		DiT Software Specification Document
SUM		DiT Software Users Manual
STD		DiT Software Transfer Document
SPMP		DiT Software Project Management Plan
SCMP		DiT Configuration Management Plan
SVVP		DiT Software Verification and Validation Plan

### 5.3.10 Instrument Simulator

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
URD		Instrument Simulator User Requirements Document
SSD		Instrument Simulator Software Specification Document
SUM		Instrument Simulator Software Users Manual
STD		Instrument Simulator Software Transfer Document
SPMP		Instrument Simulator Software Project Management Plan
SCMP		Instrument Simulator Configuration Management Plan
SVVP		Instrument Simulator Software Verification and Validation Plan

## 5.4 ICC Operations Planning

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
		SPIRE PV Phase Test Plan
		SPIRE Science Validation Plan
		SPIRE Operating Procedures Document
		SPIRE AOT Implementation Document
		SPIRE AOT Test Plan

## 5.5 ICC Implementation

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
		Operations Centre Implementation Plan
		DAPSAS (UK) Implementation Plan
		DAPSAS (Fr) Implementation Plan
		Operations Centre Integration and Test Plan
		DAPSAS (UK) Integration and Test Plan
		ICC Internal Interfaces Document
		ICC Operations Test Plan
		ICC Training Plan

## 6. ICC OPERATIONS

### 6.1.1 ICC Operations Centre

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE ICC Operations Centre Operations Plan
	SPIRE/RAL/D/00??	SPIRE ICC Operations Centre Operations Procedures

### 6.1.2 ICC DAPSAS (UK) Centre

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE ICC DAPSAS (UK) Centre Operations Plan
	SPIRE/RAL/D/00??	SPIRE ICC DAPSAS (UK) Centre Operations Procedures

### 6.1.3 ICC DAPSAS (Fr) Centre

<i>Doc. Type</i>	<i>Reference Number</i>	<i>Document Title</i>
	SPIRE/RAL/D/00??	SPIRE ICC DAPSAS (Fr) Centre Operations Plan
	SPIRE/RAL/D/00??	SPIRE ICC DAPSAS (Fr) Centre Operations Procedures