

<b>SPIRE</b>	<b>Project Document</b>	<b>Ref</b>	<b>SPIRE-RAL-PRJ-0001080</b>
		<b>Issue</b>	<b>3.0</b>
	<b>Engineering Change Request Status Reports</b>	<b>Date</b>	<b>12<sup>th</sup> July 2004</b>
			<b>Page 1 of 1</b>

# SPIRE

**SUBJECT:** **Engineering Change Request Status Reports**

**PREPARED BY:** **E A Clark**

**DOCUMENT No:** **SPIRE-RAL-PRJ-0001080**

**ISSUE:** **Issue 3** **Date:** **12<sup>th</sup> July 2004**

**APPROVED BY:** **Name** **Date:** **Signature**  
**Project Manager** **K.J. King**

**Instrument Development Manager** **E. Sawyer**

**Product Assurance Manager** **Eric Clark**

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# List of Change Proposals

PRODUCT ASSURANCE  
SPACE SCIENCE DEPARTMENT  
Rutherford Appleton Laboratory

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
h-p-aspi-cr- 244			Naming convention Specification	23-Oct-02	For information. Actions Complete Date:		Yes	06-Nov-02
HR-SP-ATC-ECR-1	BSM		BSM connector orientation changed	20-Feb-02	Actions Complete Date: 28/11/2002		Yes	28-Nov-02
HR-SP-ATC-ECR-2	ATC BSM		Definition of requirements on deployable end stop	04-Mar-02	Became obsolete when 004 actioned Actions Complete Date: 05/07/2003		No	05-Jul-03
HR-SP-ATC-ECR-3	BSM		Absolute Position of BSM.	08-Mar-02	Actions Complete Date: 05/12/2002		Yes	05-Dec-02
HR-SP-ATC-ECR-4	ATC BSM		Removal of Deployable end stop on BSM	25-Apr-03	ref: SPI-BSM-REP-005 for justification to close. Actions Complete Date:		Yes	05-Jul-03
HR-SP-ATC-ECR-5	ATC BSM		Increase in BSM maximum motor current	02-May-03	Ref attached Emails. Actions Complete Date: 22/08/2003		Yes	22-Aug-03
HR-SP-CDF-ECR-1	Internal FPU (PCAL & SCAL)	All	Changes to the callibrator specifications in the SPIRE instrument Requirements Document	25-Jul-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR Actions Complete Date: 05/12/2002		Yes	05-Dec-02

Spacecraft/Project: HERSCHAL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-CDF-ECR-2	Spectrometer FPU		Changes to the SCAL FPU harness definition	08-Jan-02			No	
					Actions Complete Date:			
HR-SP-CDF-ECR-3	Internal SCAL		Changes to the SCAL number of operations requirement	11-Mar-02			No	
					Actions Complete Date:			
HR-SP-CSA-ECR-1	Shutter		Rewrite of IRD	18-Sep-01	USK-NOT-000830 Attached gives details of changes.	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-1	DPU		Data compression and integration	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-2	DPU		Telemetry packets buffering / Data buffering	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-3	DPU		Housekeeping Packets	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-4	DPU		Eternal Stress	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-5	DPU		S/C safety	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-IFSI-ECR-6	DPU		Instrument safety	30-Aug-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-JPL-ECR-1	JPL Detectors		Changes to the BDA Subsystem Specification Document	11-Oct-01		SPIRE-JPL-PRJ-000456	Yes	29-Jan-02
					Actions Complete Date: 29/01/2002			
HR-SP-JPL-ECR-2	Detectors		Herscel-Spire Business Agreement revision	13-Dec-02			No	07-Oct-03
					Actions Complete Date:			
HR-SP-LAM-ECR-1	LAM SMEC		SMECm maximum speed	04-Feb-03		SPIRE_ECR_SME Cm_Max_SPEED_20030204.DOC	No	
					Actions Complete Date:			
HR-SP-MSSL-ECR-3							No	
					Actions Complete Date:			
HR-SP-MSSL-ECR-1	MSSL SM8_a Mirror M		SM8_a Mirror Orientation	30-Sep-03	Raised but Not Implemented MSSL referenced NCR and modified drawing (issue 3) accordingly	LAM.QUA.SPI.NCR .030047 Iss 1 rev 0	No	07-Oct-03
					Actions Complete Date: 07/10/2003			
HR-SP-MSSL-ECR-2	MSSL SM7 Mirror Mou		SM7 Mirror Orientation	30-Sep-03	Raised but Not Implemented MSSL referenced NCR and modified drawing (issue 3) accordingly	LAM.QUA.SPI.NCR .030048 Iss 1 rev 0	No	
					Actions Complete Date: 07/10/2003			
HR-SP-RAL-ECR-1	DCU		LIA output low pass filter type	10-Sep-01	CEA were asked to furnish component values for a Bessel response in May/June but the above mentioned simulations have used "generic"	DRCU Spec Issue 0.8	Yes	25-Nov-02
					Actions Complete Date: 26/11/2002			
HR-SP-RAL-ECR-2	OPTICAL		Herschel-SIRE Business Agreement Revision	14-Sep-01			Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
HR-SP-RAL-ECR-3	CEA-SBT Cooler		Electrical isolation Active Cooler parts to mounting frame.	29-Oct-01			Yes	25-Nov-02
					Actions Complete Date: 26/11/2002			

Spacecraft/Project: HERSCHAL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
4	HSDCU		Bring connectors into line with System Design.	15-Nov-01		CEA final HSDCU packaging	Yes	25-Nov-02
					Actions Complete Date: 26/11/2002			
5	IID-B		SPIRE IID-B UPDATE, #1 and #7 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	Yes	25-Jul-02
					Actions Complete Date: 25/07/2002			
6	IID-B		SPIRE IID-B UPDATE, #2 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	No	25-Jul-02
					Actions Complete Date: 25/07/2002			
7	IID-B		SPIRE IID-B UPDATE, #3 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	Yes	25-Jul-02
					Actions Complete Date: 25/07/2002			
8	IID-B		SPIRE IID-B UPDATE, #4 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	WITH DRAWN Actions Now included in HR-SP-RAL-ECR-009	SCI-PT-IIDB/SPIRE-02124	No	25-Nov-02
					Actions Complete Date: 26/11/2002			
8.2	IID-B		hermal Background section ECR	25-Jun-03	Amalgamated into ECR 009	SCI-PT-IIDB/SPIRE-02124	No	15-Aug-03
					Actions Complete Date: 15/08/2003			
9	IID-B		SPIRE IID-B UPDATE, #5 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Amalgamated into ECR 009	SCI-PT-IIDB/SPIRE-02124	No	26-Sep-03
					Actions Complete Date:			
9.1	IID-B		SPIRE IID-B UPDATE, #5 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	01-Sep-03	Close ref IIDB 3.0		No	26-Sep-03
					Actions Complete Date: 26/09/2003			
9.5	IID-B		SPIRE IID-B Thermal IID-B section 5.7.2	25-Jun-03	Close ref IIDB 3.0	SCI-PT-IIDB/SPIRE-02124	No	26-Sep-03
					Actions Complete Date: 26/09/2003			

Spacecraft/Project: HERSCHAL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
9.6	IID-B		SPIRE IID-B Thermal section 5.7	26-Jun-03	Close ref IIDB 3.0	SCI-PT-IIDB/SPIRE-02124	No	26-Sep-03
					Actions Complete Date: 26/09/2003			
9.7	IID-B		SPIRE IID-B Thermal section 5.7	26-Jun-03	Close ref IIDB 3.0	SCI-PT-IIDB/SPIRE-02124	No	26-Sep-03
					Actions Complete Date: 26/09/2003			
9.8	IID-B		SPIRE IID-B Thermal section 5.7	26-Jun-03	Close ref IIDB 3.0	SCI-PT-IIDB/SPIRE-02124	No	26-Sep-03
					Actions Complete Date: 26/09/2003			
10	IID-B		SPIRE IID-B UPDATE, #6 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	Yes	25-Jul-02
					Actions Complete Date: 25/07/2002			
11	IID-B		SPIRE IID-B UPDATE, #8 based on Jean Bruston's list. Largely a re-submission of information collated on 26th September under pointsJD1-31,	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	Yes	25-Jul-02
					Actions Complete Date: 25/07/2002			
12	IID-B		SPIRE IID-B UPDATE, based on pointsJD7, from even earlier information	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	No	25-Jul-02
					Actions Complete Date: 25/07/2002			
13	IID-B		Further SPIRE IID-B UPDATES, based on pointsJD25, 29,30 and 31, from even earlier information	19-Nov-01	As of 25/02/03 points B, C, & D Still need to be sorted. Leave ECR OPEN. Point A is closed, The Suggested Change was NOT chosen but	SCI-PT-IIDB/SPIRE-02124	No	
					Actions Complete Date:			
14	IID-B		SPIRE AIV Details	19-Nov-01	Ref HP ASPI-MN-1725 Annex 2	SCI-PT-IIDB/SPIRE-02124	Yes	25-Jul-02
					Actions Complete Date: 25/07/2002			
15	Cryostat		Addition of port for vacuum pressure gauge head	23-Nov-01	Ref HP ASPI-MN-1725 Annex 2	KG0710-001	No	
					Actions Complete Date:			

Spacecraft/Project: HERSCHAL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
16	BSM		Required Chop Throw on BSM	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
17	BDA		Microphonic Susceptibility	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
18	BDA		EMI Susceptibility	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
19	BDA		Ionising Radiation	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
20	FPU RF Filters		Envelope	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
21	RF Filter		Electrical Interface	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
22	Instrument		Instrument Level EMC Requirements	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
23	Thermometers		Required Chop Throw on BSM	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR Ecrue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
24	SMEC		Required velocity range for SMEC in IRD	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			

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Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
25	SMEC		Velocity Stability	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
26	SMEC		Envelope	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
27	Structure		Global Alignment Requirement	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
28	Structure		Attenuation of RF by Instrument Covers	23-Nov-01	Issue of V1.1 of Spire-RAL-PRJ-000034 closes ECR	PRJ-000034	Yes	11-Jan-02
					Actions Complete Date: 11/01/2002			
29	Instrument level		SPIRE IID-B UPDATE, #16 implementing information transfer for Harness section as required by meeting actions.	10-May-02	Replaced by 029v2	SCI-PT-IIDB/SPIRE-02124	Yes	18-Jul-02
					Actions Complete Date: 18/07/2002			
29.2	Instrument level		SPIRE IID-B UPDATE, #16 implementing information transfer for Harness section as required by meeting actions.	18-Jul-02	Replaced by 029v3	SCI-PT-IIDB/SPIRE-02124	Yes	25-Feb-03
					Actions Complete Date: 25/02/2003			
29.3	Instrument level		SPIRE IID-B UPDATE, #16 implementing information transfer for Harness section as required by meeting actions.	10-Mar-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03	SCI-PT-IIDB/SPIRE-02124	Yes	24-Sep-03
					Actions Complete Date: 24/09/2003			
30	Instrument level		Tidy up Spire Temperature descriptions, etc..	20-Jun-02		SCI-PT-IIDB/SPIRE-02124	No	10-Sep-02
					Actions Complete Date: 10/09/2002			
30.2	Instrument level		Tidy up Spire Temperature descriptions, etc..	10-Sep-02	Issue 2.3 Draft closes ECR	SCI-PT-IIDB/SPIRE-02124	Yes	26-Nov-02
					Actions Complete Date: 26/11/2002			



Spacecraft/Project: HERSCHAL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-RAL-ECR-30.3	Instrument level		Tidy up Spire Temperature descriptions, etc..	10-Sep-02	Issue 3 closes ECR Actions Complete Date: 25/09/2003	SCI-PT-IIDB/SPIRE-02124	Yes	25-Sep-03
HR-SP-RAL-ECR-31	IIDB		Changes to get to SPIRE IID-B 2.2	20-Jun-02	Withdrawn Not used to Track changes in the DCN Actions Complete Date: 26/11/2002	SCI-PT-IIDB/SPIRE-02124	No	26-Nov-02
HR-SP-RAL-ECR-32	IIDB		SPIRE Shutter	19-Jul-02	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	SCI-PT-IIDB/SPIRE-02124	Yes	23-Sep-03
HR-SP-RAL-ECR-33	IIDB		Updated Illustrations for IID-B	20-Jul-02	Issue 3 Draft Incorporates this information ECR Closed. Actions Complete Date: 25/02/2003	SCI-PT-IIDB/SPIRE-02124	Yes	25-Feb-03
HR-SP-RAL-ECR-34	HSFPU 300mk Straps		Implementation of Grounding review 1ECR of 3.	07-Oct-02	Actions Complete Date:		No	
HR-SP-RAL-ECR-35	HSFPU 1.8K box moutin		Implementation of Grounding review 2ECR of 3.1.8K box mountings	07-Oct-02	Actions Complete Date:		No	
HR-SP-RAL-ECR-36	GSE Spire test Harne	RAL Test Cryostat as built	Implementation of Grounding review 3ECR of 3.1.8K box mountings	07-Oct-02	Mod's Agreed Ref TNXXXXXX Actions Complete Date:		No	25-Feb-03
HR-SP-RAL-ECR-37	MGSE HOB Simulator		HOB Plate material change	10-Oct-02	Actions Complete Date:		Yes	14-Nov-02
HR-SP-RAL-ECR-38	MGSE Trolley		MGSE Trolley madifications	10-Oct-02	Actions Complete Date:		No	

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Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-RAL-ECR-39	GSE Spire Test Harn	test harness	Implementation of grounding review, flight cryoharness	28-Oct-02	Replaced by 039v1 Actions Complete Date: 12/11/2002	See ECR 039v1	No	12-Nov-02
HR-SP-RAL-ECR-39.1	GSE Spire Test Harn		Implementation of grounding review, flight cryoharness	12-Nov-02	Actions Complete Date:		No	
HR-SP-RAL-ECR-40	All		IID-B Spire Unit ICD Annex Reissue Doc.SPIRE-RAL-DWG-001409	01-Nov-02	Issue 3 IID-B incorporates Changes. Actions Complete Date: 26/11/2002		Yes	25-Feb-03
HR-SP-RAL-ECR-40.2	GSE Spire Test Harn		IID-B Spire Unit ICD Annex Reissue Doc.SPIRE-RAL-DWG-001409	21-May-03	Issue 3 IID-B incorporates Changes. Actions Complete Date: 23/09/2003		Yes	23-Sep-03
HR-SP-RAL-ECR-41	Cooler		Clarification of IID-B w.r.t. orientation for cryocooler recycling on ground.	11-Nov-02	ESA Used Alternative Text see IIDA iss 2.3 Draft Actions Complete Date: 26/11/2002		No	25-Feb-03
HR-SP-RAL-ECR-42	Detectors		Changes to BDA-SSSD Issue 3.1	06-Dec-02	Herschel SPIRE Subsystem Specification Document SPIRE-JPL-PRJ-000456 Issue 3.1 dated 19 Feb. 2002 Actions Complete Date: 07/01/2003	Herschel SPIRE Subsystem Specification Document SPIRE-	Yes	07-Jan-03
HR-SP-RAL-ECR-43	Detectors		Impact of white noise in de-modulated signals	08-Sep-02	Actions Complete Date: 07/01/2003	See ECR	Yes	07-Jan-03
HR-SP-RAL-ECR-44	CW HOB		JFET rack foot mounting details on Herschel Optical Bench.	11-Feb-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003		Yes	24-Sep-03
HR-SP-RAL-ECR-45	DRCU		Closed REF ECR 040	14-Jan-03	Closed REF ECR 040 Actions Complete Date: 11/02/2003		No	11-Feb-03

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
46	HSDPU		Include HSDPU interface circuit	11-Feb-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	SCI-PT-IIDB/SPIRE-02124	Yes	24-Sep-03
47	System Doc's	System Doc's	IID-B Spire Unit ICD Annex Reissue....Doc. # SPIRE-RAL-DWG-001409 to version 4	24-Feb-03	Closed included in ECR40v2 Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	Spire IID-B ICD pack	No	24-Sep-03
48	System Doc's	System Doc's	Update table in section 5.5	24-Feb-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	Spire IID-B Issue 2.3	Yes	24-Sep-03
49	System Doc's	System Doc's	Update JFET 3D views to match ICDs	25-Feb-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	Spire IID-B Issue 2.3	Yes	24-Sep-03
50	System Doc's	System Doc's	Update SPIRE input beam illustration	18-Mar-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	Spire IID-B Issue 2.3	Yes	24-Sep-03
51	SBT Sorption Cooler		Increase strap interface boltsize.	11-Apr-03	Closed ref Page 7 HSO-SBT-ICD-012 Iss 1.4 Actions Complete Date: 24/09/2003	HSO-SBT-ICD-012	Yes	24-Sep-03
52	System Doc's	System Doc's	Spire Herschel DPU 28V Power I/F pin-out error	28-Apr-03	HR-SP-RAL-NCR-034 Actions Complete Date: 24/09/2003	SPIRE HDD 1.1	Yes	24-Sep-03
53	System Doc's		Include table of SPIRE ground isolation details	05-May-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003	SCI-PT-IIDB/SPIRE-02124	Yes	24-Sep-03
54	Mechanical mon		Improved Mounting Thermal Insulations	13-May-03	Actions Complete Date:		No	

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Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-RAL-ECR-55			SPIRE SOB Modifications for SMEC Preamp card	24-Jul-03	Issued blank to CBB awaiting return of completed form Actions Complete Date:		No	
HR-SP-RAL-ECR-56	PA Plan	System Doc's	Recom mended up-dates to SPIRE PA Plan	14-May-03	Covers Changes recommended by Pierre Actions Complete Date: 19/05/2003		Yes	19-May-03
HR-SP-RAL-ECR-57	JFET L3 I/Fs		To record details negotiated about the configuration	15-Jul-03	Superseded by 57V2 Actions Complete Date: 21/07/2003		No	21-Jul-03
HR-SP-RAL-ECR-57.2	JFET L3 I/Fs		To record details negotiated about the configuration	15-Jul-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003		Yes	24-Sep-03
HR-SP-RAL-ECR-58	FPU		Moving of Spire's L1 I/F insulation from one end of straps to the other	15-Jul-03	Superseded by 58V2 Actions Complete Date: 21/07/2003		No	21-Jul-03
HR-SP-RAL-ECR-58.2	FPU		Moving of Spire's L1 I/F insulation from one end of straps to the other	15-Jul-03	Closed ref H-P-ASP-MN-3513 SPIRE Progress & Interface meeting 04-05/09/03 Actions Complete Date: 24/09/2003		Yes	24-Sep-03
HR-SP-RAL-ECR-59			SPIRE HDD Update from 1.1 to 1.2"	24-Jul-03	Allocated to DG Actions Complete Date:		No	
HR-SP-RAL-ECR-60	MGSE HOB Simulator		Additional Holes for HOB Simulator	14-Aug-03		KG0710-301 iss D	No	
HR-SP-RAL-ECR-61	FPU Spectrometer de L0 strap interfac			06-Aug-03			No	

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-RAL-ECR-62	300mk plumbing 300mk cooler		Delete 300mK cooler to photometer detector ground isolation	14-Aug-03			No	
					Actions Complete Date:			
HR-SP-RAL-ECR-63	FPU		Update values in table to those in the latest SPIRE TMM	03-Sep-03	Issue 3 IID-B incorporates Changes.	SCI-PT-IIDB/	No	
					Actions Complete Date:			
HR-SP-RAL-ECR-64	HS_FCU		Change of position of connectors and bonding stud on HS_FCU	14-Jan-04		CEA ref : SAp-SPIRE-JF-0151-04	No	
					Actions Complete Date:			
HR-SP-RAL-ECR-65	IID-B Drawing		ECR to track update.	28-Jan-04	Superseded by HR-SP-ECR-065v2	SPIRE-RAL-DWG-001409	No	24-Mar-04
					Actions Complete Date: 24/03/2004			
HR-SP-RAL-ECR-65.2	IID-B Drawing		ECR to track update.	24-Mar-04	IID-B Drawing pack updates. Issue 8 to issue 9 and then 10.	SPIRE-RAL-DWG-001409	No	
					Actions Complete Date:			
HR-SP-RAL-ECR-66	MCU BSM Motor Driv	PFM	BSM Motor Drive max current increase from 50mA to 60mA	29-Mar-04			No	
					Actions Complete Date:			
HR-SP-RAL-ECR-67	DRCU DCU and SCU	QM2	Changes to DCU Specification in BDA-SSSD	22-Mar-04		SPIRE-JPL-PRJ-000456	No	
					Actions Complete Date:			
HR-SP-RAL-ECR-68	IID-B		ECR to Track update	21-Apr-04		SPIRE-RAL-DWG-001409	No	
					Actions Complete Date:			
HR-SP-RAL-ECR-69	FPU Detector Boxes Thermal Interfac		Level 0 and 2K thermal interfaces	04-May-04			No	
					Actions Complete Date:			

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

ECR Serial No.	Subsystem / Assembly	Model	ECR Title	Issue Date	Remarks	References	Approved?	Approval Date
HR-SP-RAL-ECR-70	All DML / DPL		Changes to format of Declared Lists	07-May-04	ESA requirement Actions Complete Date:		No	
HR-SP-RAL-ECR-71	IID-B Iss 3.2 to 3.3		Remedying unintentional deletion	13-May-04	See ECR for affected items Actions Complete Date:		No	
HR-SP-RAL-ECR-72	IID-B Issue 3.2 to 3.3		Updating Spire S/C Clock change documentation.	13-May-04	Superseded by HR-SP-RAL-ECR-072v2 Actions Complete Date: 25/05/2004		No	
HR-SP-RAL-ECR-72.2	IID-B Issue 3.2 to 3.3		Updating Spire S/C Clock change documentation.	24-May-04	Actions Complete Date:		No	
HR-SP-RAL-ECR-73	FPU L1 Thermal Inter		Level 1 thermal interface	19-May-04	Actions Complete Date:		No	
HR-SP-RAL-ECR-74	IID-B Issue 3.2 to 3.3		Include HSFCU Power Input Interface Circuit	07-Jun-04	See ECR Actions Complete Date:		No	
HR-SP-RAL-ECR-75	300-mK Busbar Cooler-Spect. St	CQM	Clearance between 300-mK Busbar collet and Stray-Light Baffle	18-Jun-04	Closed as HR-SP-RAL-NCR 079 raised. Actions Complete Date: 01/07/2004		No	01-Jul-04
LAM-QUA-SPL-ECR-200101	LAM.QUA SMEC & BSM H		Current and resistance for launch Latch(es) Harness	12-Jul-01	See Email from Gerard Rousset Actions Complete Date: 26/11/2003		Yes	26-Nov-03
LAM-QUA-SPL-ECR-200102	LAM.QUA SMEC & BSM H		Addition of second latch for SMECm	12-Jul-01	See Email from Gerard Rousset Actions Complete Date: 26/11/2003		Yes	26-Nov-03

Spacecraft/Project: HERSCHEL	Originator: RAL/SSTD/PA
Instrument: SPIRE Model: All	Document No.: PIRE-RAL-PRJ-0001080 Issue: 3
Subsystems:	Date: 12-Jul-04

<i>ECR Serial No.</i>	<i>Subsystem / Assembly</i>	<i>Model</i>	<i>ECR Title</i>	<i>Issue Date</i>	<i>Remarks</i>	<i>References</i>	<i>Approved?</i>	<i>Approval Date</i>
SBT-ECR-1	CEA SBT Sorption Cooler 2000-14 B400	PFM	Modification of Structure to accommodate angle iron	22-Aug-03	agreed at the design review held in Grenoble Actions Complete Date: 08/12/2003		Yes	08-Dec-03
SBT-ECR-2	CEA SBT Sorption Cooler 2000-14 B400	PFM	Modification of Connector housing on Structure	22-Aug-03	agreed at the design review held in Grenoble Actions Complete Date: 08/12/2003		Yes	08-Dec-03
SBT-ECR-3	CEA SBT Sorption Cooler 2000-14 B403	PFM	Modification of evaporator internal copper sphere	22-Aug-03	agreed at the design review held in Grenoble Actions Complete Date: 08/12/2003		Yes	08-Dec-03

**END OF LIST**