

## SPIRE acceptance test matrix

19/11/2008

## SPIRE-RAL-DOC-002826 issue 5

Unit	IID-A requirement	Test performed/ Expected Date	Achieved levels	Test method	Test Report	Test status	NCR status
<b>SPIRE FPU</b>							
Vibration	Acceptance Level of IID-A 3.3 table 9.5.3-5	yes	As IID-A plus notches	shaker	SPIRE-MSS-REP-002596	Tested-OK, this test included the DM SMEC, a non functioning but dynamically representative model, this was fully instrumented with accelerometers	SPIRE-RAL-NC-136. Closed
Workmanship vibration	Acceptance Level of IID-A 3.3 table 9.5.3-5	yes	As IID-A plus notches	shaker	SPIRE-MSS-REP-002824	This test was the full PFM including SMEC. During the test the SMEC unlatched	SPIRE-RAL-NC-159. This has been closed following the spacecraft level testing
Thermal		Several combined thermal and performance test have been carried out.		Dedicated cryo facility	SPIRE-RAL-REP-002784	Tested-OK,	
Functional		Several functional and performance test have been carried out.		Dedicated cryo facility	report available after PFM5 test campaign	Tested-OK,	
<b>SPIRE DCU</b>							
Vibration	9.5.3.3	Yes	Acceptance Level of IID-A 3.3 table 9.5.3-5	shaker	S060725_SAp-SPIRE-HT-393-06_	Tested-OK,	
TV	9.5.4	Yes	Accept. Level of IID-A 3.3 (table 5.7.3-1)	thermal vacuum chamber	S060725_SAp-SPIRE-HT-395-06_I1-0_	Tested-OK,	
Bonding, Isolation, Grounding							
Isolation	5.10.3.4 5.10.3.5 5.10.3.9 5.10.4.4	not applicable to DCU (no 28V)				N/A	
Bonding /grounding	5.10.3.1, to 5.10.3.3, 5.10.3.6 5.10.3.7 5.10.4.9	Yes	As IID-A		S060530_SAp-SPIRE-CH-408-06_I1-0_DCU_cont_test_report.	Tested-OK,	
Functional	9.3.2		n/a	ILT	Sap-SPIRE-HT-0425-06	Tested-OK,	
<b>SPIRE FCU</b>							
Vibration	9.5.3.3	Yes	Accept. Level of IID-A 3.3 table 9.5.3-5	shaker	S060725_SAp-SPIRE-HT-394-06_I1-0_	Tested-OK,	
TV	9.5.4	Yes	Accept. Level of IID-A 3.3	thermal vacuum chamber	S060725_SAp-SPIRE-HT-396-06_I1-0_	Tested-OK,	
Bonding, Isolation, Grounding							
grounding & isolation misc.	5.10.3.1 to 5.10.3.3, 5.10.3.6 to 5.10.3.8, 5.10.4.9	Yes	As IID-A		S060721_SAp-SPIRE-CH-412-06_FCU continuity test report	Tested-OK,	
Isolation prim/chassis & prim/sec, sec/chassis	5.10.3.4 5.10.3.5 5.10.3.9 5.10.4.12	Yes	As IID-A	--	S060721_SAp-SPIRE-CH-412-06_FCU continuity test report	Tested-OK,	
Functional	9.3.2		n/a	ILT	TBD	Tested-OK,	
<b>SPIRE DPU</b>							
Vibration	9.5.3.3	Yes	9.5.3.3		HERS-SPIRE-RP-CGS-013	Tested-OK,	
TV	9.5.4	Yes	Max NOP 70 Max OP 55 Min OP -25 Min NOP -45		HERS-SPIRE-RP-CGS-021 lss1	Tested-OK,	
EMC-CE	9.5.6.12	Yes	As IID-A		HERS-SPIRE-RP-CGS-009 issue 1	Tested-OK,	
EMC-CS	9.5.6.13	Yes	As IID-A			Tested-OK,	
EMC-RE	9.5.6.14	Yes	As IID-A			Tested-OK,	
EMC-RS	5.14.3.10 5.14.3.12	Yes	As IID-A			Tested-OK,	
Bonding, Isolation, Grounding	5.10.3.1 to 5.10.3.3, 5.10.3.6 to 5.10.3.8, 5.10.4.9	Yes	As IID-A		HERS-SPIRE-RP-CGS-009 issue 1	Tested-OK,	
Isolation prim/chassis & prim/sec, sec/chassis	5.10.3.4 5.10.3.5 5.10.3.9 5.10.4.12	Yes	As IID-A	--	HERS-SPIRE-RP-CGS-009 issue 1	Tested-OK,	
Functional	9.3.2	several ILT's	n/a	ILT	HERS-SPIRE-RP-CGS-008	Tested-OK,	
<b>SPIRE at system level</b>							
EMC-CE	9.5.6.12				ASED Test report HP-2-ASED-TR-0224	Tested at satellite level-test OK	HR-SP-RAL-RFW-013
EMC-CS	9.5.6.13				SPIRE-RAL-REP-003164	Tested at satellite level-test OK	HR-SP-RAL-RFW-013
EMC-RE	9.5.6.14				ASED Test report HP-2-ASED-TR-0254	Tested at satellite level-test OK	HR-SP-RAL-RFW-013
EMC-RS	5.14.3.10				SPIRE-RAL-REP-003164	Tested at satellite level-test OK	HR-SP-RAL-RFW-013