



SPIRE Project Document

Ref: SPIRE-RAL-PRJ-001860

Issue: 1.0

Date: 21/11/03

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SPIRE Structure Model Verification Matrix

B. Swinyard

Requirement Name	Description	Test ID1	Procedure ID1	Test Report ID1	NCRs	Compliance
IRD-INST-R15	The instrument units are required to undergo an environmental test programme that demonstrates the design and build standard of the flight model is compatible with the launch and operational environment of the Herschel satellite.	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL- technote- SPIRE-21		OK
IRD-VER-01	The SM verification testing shall demonstrate that the proposed structure design is capable of meeting the mechanical environmental conditions specified for the Herschel launch. The SM vibration shall be used to verify the stiffness and strength of the structure and verify the mechanical and thermal transfer functions between the various parts of the cold focal plane units and the Herschel satellite.	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL- technote- SPIRE-21		OK
IRD-STRC-R09	First natural frequency of the instrument assembly	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL- technote- SPIRE-21		OK
IRD-STRP-R07	First natural frequency	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL- technote- SPIRE-21		OK
IRD-STRS-R07	First natural frequency	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL- technote- SPIRE-21		OK
IRD-COOL-R10	Mechanical interface	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK
IRD-COOL-R15	Maximum envelope	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK
IRD-DETP-R12	Volume envelope	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK
IRD-DETP-R14	Mechanical interface	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK
IRD-DETS-R13	Volume envelope	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK
IRD-DETS-R15	Mechanical interface	ILT_INTG	SPIRE-MSS-PRJ- 001650 iss 3	Log Book		OK



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Requirement Name	Description	Test ID1	Procedure ID1	Test Report ID1	NCRs	Compliance
IRD-BSMP-R09	Volume envelope	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK
IRD-SMEC-R12	Maximum envelope	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK
IRD-CALP-R09	Volume envelope	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK
IRD-CALS-R11	Envelope	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK
VRD-01	Mechanical frequency response	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL-technote-SPIRE-21		OK
VRD-02	Ability to withstand launch environment	ILT_VIB	MSSL/SPIRE/SP007.1 iss 2	MSSL-technote-SPIRE-21		OK
VRD-03	Mechanical interface with Herschel system	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK
VRD-04	Instrument level integration	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book	HR-SP-RAL-NCR-038.2 HR-SP-RAL-NCR-031	NOK
VRD-05	Sub-system mechanical interfaces	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book	HR-SP-RAL-NCR-027 HR-SP-RAL-NCR-028v2 HR-SP-RAL-NCR-029 LAM.QUA.SPI.NCR.030038. 2HR-SP-RAL-NCR-030 HR-SP-RAL-NCR-035 HR-SP-RAL-NCR-036 HR-SP-RAL-NCR-040	NOK
VRD-50	Instrument to ground facility interfaces	ILT_INTG	SPIRE-MSS-PRJ-001650 iss 3	Log Book		OK