



Information Note

HRS Division – Product Marketing
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This document intends to describe the typical content of LAT tests on Space products.

Specific LAT Tests content of future tests can be confirmed upfront.

Details of tests performed and test results are provided in the LAT reports.

LAT1 – Mechanical Tests:

Test description	Test method
Pre-electrical measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500
Mechanical shocks	MIL-STD-883 method 202B
Vibrations	MIL-STD-883 method 2007A
Constant acceleration	(Axis Y1) MIL-STD-883 method 2001D
Fine & gross leaks	MIL-STD-883 method 1014
Post-electrical measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500

LAT1 – Environmental Tests:

Test description	Test method
Pre-electrical measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500
Thermal shocks MIL-STD-883	MIL-STD-883 method 1011C
Moisture resistance MIL-STD-883	MIL-STD-883 method 1014
Fine & gross leaks MIL-STD-883	MIL-STD-883 method 1014
Post-electrical measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500

LAT2 – Operating Life Tests:

Test description	Test method
Pre-electrical measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500
Operating life test	0H to 500H - 500hours @ Tj=125°C
500H – Ambient electrical measurements	e2v test programme on production test equipment.
500H – Drift calculation	
External visual inspection	ESA/SCC 20500
Operating life test	500H to 1000H - 500hours @ Tj=125°C 4 + 2 0
1000H – Ambient electrical measurements	e2v test programme on production test equipment.
1000H – Drift calculation (see appendix 7)	
External visual inspection	ESA/SCC 20500

LAT3 – Electrical Measurements:

Test description	Test method
Room temperature measurements	e2v test programme on production test equipment.
High & Low temperature measurements	e2v test programme on production test equipment.
External visual inspection	ESA/SCC 20500

LAT 3 – Assembly Capabilities Tests:

Test description	Test method
Permanence of marking	MIL-STD-883 meth.2015 4 0
Solderability	MIL-STD-883 meth.2003 2 0
Terminal strength	MIL-STD-883 meth.2004

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