

### Screening Test Matrix For LEOS HMC DC-DC Converters

SI. NO	TEST	REQUIREMENT	MIL-STD-883/ Test Method	CLASS
				S
1.	External visual examination	30X	2009	100%
2.	Initial electrical	SRC	As per IISU test procedure	100%
3.	Thermal storage	125°C, 72 hrs	1008	100%
4.	Thermal cycling	+125°C to -55°C, 10 cycles 10 min dwell at each temperature extreme	1010	100%
5.	Constant Acceleration/ Mechanical Shock	<b>700g, half sine, 5 pulses, 0.5msec for Type-1 variants</b> <b>1000g, SRS, 5 pulses for Type-2 variants</b>	As per ISRO-PAS 206 & IISU DRCS-M recommendation	100%
6.	PIND	20g, 60 Hz, 1000g shock	2020	100%
7.	Pre-burn in Electrical test		As per IISU test procedure	100%
8.	Burn-in	+110°C powered Class 'L' 260 Hrs Class 'S' 520 Hrs	As per IISU PRB recommendation	100%
9.	Post Burn-in Electrical test	To be performed within 72 hours of completion of burn-in	As per IISU test procedure	100%
10.	Active Thermal Cycling (ATC)	-40°C turn -ON, -30°C to +65°C, 2 short cycles -2 hrs, 1 long cycle, 48 hrs cold 24 hrs hot 2 short cycles -2 hrs	As per ISRO procedure	100%
11.	Post ATC Electrical Test		As per IISU test procedure	100%
12.	Leak test 1. Fine leak 2. Gross leak	45psia, 10 Hrs Leak Rate < 5.0 x 10 <sup>-8</sup> atm cc/sec 45psia, 8 Hrs free from stream of bubbles	1014	100%
13.	Final electrical		As per IISU test procedure	100%
14.	External visual examination	30X	2009	100%