

RELIABILITY TEST PROCEDURES FOR ECS-MPLI0530 Series Inductor

<u>NO.</u>	<u>TEST NAME</u>	<u>TEST PROCEDURES</u>	<u>REQUIREMENTS</u>
1	SHOCK	6ms half-sine pulses at 100 g's in each direction of each of the three (3) mutually perpendicular axes for a total of 18 shocks.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
2	VIBRATION	5 g's for 20 minutes, 12 cycles each of 3 orientations. Test from 10-2000 Hz.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
3	HIGH TEMPERATURE EXPOSURE	Expose to +125°C for 1000 hours.	Inductance value shall not change by more than 20%.
4	LOW TEMPERATURE EXPOSURE	Expose to -55°C for 1000 hours.	Inductance value shall not change by more than 20%.
5	RESISTANCE TO SOLDERING HEAT	To be composed of Fluxing the terminations with RMA flux, then immerse terminals into a 260°C (±5°C) solder pot for 10 seconds.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
6	HUMIDITY	+ 85°C in 85% humidity for 1000 hours.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
7	OPERATIONAL LIFE	Apply Irms at +85°C, 1000 hours	There are no visual abnormalities. Inductance value shall not change by more than 20%.
8	TEMPERATURE CYCLE	1000 cycles (-55 ~ +125°C). 30 minute max dwell time at each temperature extreme, 1 minute max transition time.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
9	RESISTANCE TO SOLVENT	Add Aqueous wash chemical - OKEM Clean or equivalent.	There are no visual abnormalities.
10	ESD (HMB)	ESD (HMB) generator 100pF + 1500Ω, 2 discharges apply to each DUT, 1 positive polarity, 1 negative polarity.	Electrical testing is required pre- and post- ESD, no physical and electrical defects.