

**RELIABILITY TEST PROCEDURES FOR ECS-MPI2520 Series Inductor**

<b><u>NO.</u></b>	<b><u>TEST NAME</u></b>	<b><u>TEST PROCEDURES</u></b>	<b><u>REQUIREMENTS</u></b>
1	<b>SHOCK</b>	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	<b>VIBRATION</b>	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	<b>HIGH TEMPERATURE EXPOSURE</b>	Expose to +125°C for 1000 hours.	Inductance value shall not change by more than 20%.
4	<b>LOW TEMPERATURE EXPOSURE</b>	Expose to -55°C for 1000 hours.	Inductance value shall not change by more than 20%.
5	<b>RESISTANCE TO SOLDERING HEAT</b>	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	<b>HUMIDITY</b>	+ 85°C in 85% humidity for 1000 hours.	There are no visual abnormalities. Inductance value shall not change by more than 20%.
7	<b>OPERATIONAL LIFE</b>	Apply Irms at +85°C, 1000 hours	There are no visual abnormalities. Inductance value shall not change by more than 20%.
8	<b>TEMPERATURE CYCLE</b>	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	<b>RESISTANCE TO SOLVENT</b>	Add Aqueous wash chemical - OKEM Clean or equivalent.	There are no visual abnormalities.
10	<b>ESD (HMB)</b>	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.