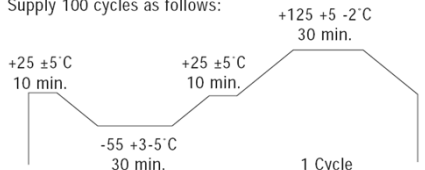


## RELIABILITY TEST PROCEDURES FOR ECX-1637 Series



NO.	TEST NAME	TEST PROCEDURES	REQUIREMENTS
1	<b>SHOCK</b>	Drop 3 times from the height of 100cm onto hard wooden board.	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
2	<b>VIBRATION</b>	Vibration Frequency: 10 to 55Hz, 1.5mm, full wave Cycle: 2 min. Direction: X.Y.Z. Time: 2 hours in each direction	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
3	<b>STORAGE IN HIGH TEMPERATURE</b>	+85 $\pm 2^\circ\text{C}$ for 500 hours.	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
4	<b>STORAGE IN LOW TEMPERATURE</b>	-40 $\pm 2^\circ\text{C}$ for 500 hours.	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
5	<b>RESISTANCE TO SOLDERING HEAT</b>	Pass through reflow for 10s (Max.) which is pre-heated at a temperature of 160 $^\circ\text{C} \pm 10^\circ\text{C}$ and 240 $^\circ\text{C} \pm 5^\circ\text{C}$	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
6	<b>HUMIDITY</b>	+ 60 $\pm 2^\circ\text{C}$ in humidity 95% for 500 hours.	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
7	<b>THERMAL SHOCK</b>	Supply 500 cycles as follows: Temperature shift shall be done within 30 sec. -55 $\pm 2^\circ\text{C}$ <span style="margin-left: 200px;">+125 <math>\pm 2^\circ\text{C}</math></span> (30 min) <span style="margin-left: 100px;">&lt;-----&gt;</span> (30 min)	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
8	<b>TEMPERATURE CYCLE</b>	Supply 100 cycles as follows:  1 Cycle	Frequency Drift $\pm 5$ PPM Max. Resistance Drift $\pm 15\%$ Max.
9	<b>SEALING TIGHTNESS MIL-STD 202F METHOD 112D TEST C AND D</b>	1) Dipping in Florinert at: +125 $\pm 5^\circ\text{C}$ for 5 min. (Gross Leak)	There are no visual abnormalities.
		2) Leak rate shall be measured by using: Helium leak Detector (Fine Leak)	There are no visual abnormalities.
10	<b>Mean Time Between Failures (MTBF)</b>	$\text{MTBF (25}^\circ\text{C)} = \frac{E_a \times (1/T_1 - 1/T_2) / K}{\pi}$	16396600 Hours