RELIABILITY TEST PROCEDURES FOR ECS-3250SS Series



NO. TEST NAME TEST PROCEDURES REQUIREMENTS

	CHOCK	Drop 3 times from the height of 100cm onto hard	Frequency Drift ±5 PPM Max.
1	SHOCK	wooden board.	Resistance Drift ±15% Max.
2	VIBRATION	Vibration Frequency: 10 to 55Hz, 1.5mm, full wave Cycle: 2 min. Direction: X.Y.Z. Time: 2 hours in each direction	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
3	STORAGE IN HIGH TEMPERATURE	+85 ±2°C for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
4	STORAGE IN LOW TEMPERATURE	-40 ±2°C for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
5		Pass through reflow for 10s (Max.) which is pre-heated at a temperature of 160°C ± 10°C and 240°C ± 5°C	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
6	HUMIDITY	$+$ 60 \pm 2°C in humidity 95% for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
7	THERMAL SHOCK	Supply 500 cycles as follows: Temperature shift shall be done within 30 sec55 ±2°C +125 ±2°C (30 min) <> (30 min)	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
8	TEMPERATURE CYCLE	Supply 100 cycles as follows: +125 +5 -2 °C 30 min. +25 ±5 °C +25 ±5 °C 10 min. 10 min. -55 +3-5 °C 30 min. 1 Cycle	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
9	TEST C AND D	1) Dipping in Florinert at: +125 ±5°C for 5 min. (Gross Leak)	There are no visual abnormalities.
		Leak rate shall be measured by using: Helium leak Detector (Fine Leak)	There are no visual abnormalities.
10	Mean Time Between Failures (MTBF)	$Ea \times (1/T1-1/T2) / K$ MTBF (25°C) = $\frac{\text{HsXe}^{\circ}\text{Ce}}{\pi}$	16396600 Hours