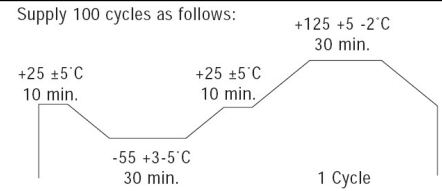


**RELIABILITY TEST PROCEDURES FOR ECS-VXO-73/VXO-75**



<u>NO.</u>	<u>TEST NAME</u>	<u>TEST PROCEDURES</u>	<u>REQUIREMENTS</u>
1	<b>SHOCK</b>	Drop 3 times from the height of 100cm onto hard wooden board.	Frequency Drift ±5 PPM Max. Resistance Drift ±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 ±5 PPM Max. Resistance Drift ±15% Max.
3	<b>STORAGE IN HIGH TEMPERATURE</b>	+85 ±2°C for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
4	<b>STORAGE IN LOW TEMPERATURE</b>	-40 ±2°C for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
5	<b>RESISTANCE TO SOLDERING HEAT</b>	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	<b>HUMIDITY</b>	+ 60 ± 2°C in humidity 95% for 500 hours.	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
7	<b>THERMAL SHOCK</b>	Supply 500 cycles as follows: Temperature shift shall be done within 30 sec. -55 ±2°C    +125 ±2°C (30 min) <-----> (30 min)	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
8	<b>TEMPERATURE CYCLE</b>	Supply 100 cycles as follows:  <p style="text-align: center;">+25 ±5°C                          +25 ±5°C                          +125 ±5 -2°C 10 min.                          10 min.                          30 min. -55 ±3-5°C                          30 min.                          1 Cycle</p>	Frequency Drift ±5 PPM Max. Resistance Drift ±15% Max.
9	<b>SEALING TIGHTNESS MIL-STD 202F METHOD 112D TEST C AND D</b>	1) Dipping in Florinert at: +125 ±5°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>	$MTBF (25°C) = \frac{E_a \times (1/T1-1/T2) / K}{\pi}$	16396600 Hours