



Military and Space > Vibration Environment > Vibration Isolated Crystal Oscillator

Features:

- 30 to 128 MHz
- Internal Vibration Isolation
- Lord Miniature MAA Series Isolators

Applications:

- Airborne
- Radar
- Tactical Radio
- Vehicular Communication

The 100 MHz Vibration Isolated Crystal Oscillator is a VHF oscillator, which is based on Wenzel's Ultra Low Noise Crystal Oscillator. The OCXO is vibration isolated via four shock absorbers (vibration isolators) which have a resonate frequency of ~30-40 Hz. By incorporating the shock absorbers we can very efficiently improve the phase noise performance of the oscillator in high vibration induced environments. This system is ideal for rugged land use as well as airborne applications.



Typical Specifications:			
Frequency (Fixed)	30 - 128 MHz		
Output Level	+13 dBm ±2 dB into 50 ohms		
STABILITY			
Aging	±1 x 10 ⁻⁶ per year, after 30 days operating, typical		
Phase Noise (100 MHz)	Static	Dyanamic	
	10 Hz	-100	-80 dBc/Hz
	100 Hz	-125	-103 dBc/Hz
	1 kHz	-156	-123 dBc/Hz
	10 kHz	-167	-140 dBc/Hz
kHz	-170	-147 dBc/Hz	
Harmonics	-30		dBc
Spurious, Sub-Harmonics	-85		dBc
Acceleration Sensitivity	To 2 x 10 ⁻¹⁰ /g per axis, 10 Hz to 2 kHz		
Resonate Frequency	30-40 Hz		
Temperature Stability	±5e-7, 0 to +60°C (Ref +25°C)		
MECHANICAL			
Dimensions	3 x 4 x 2"		
Connectors	SMA and feedthru capacitors		
Packaging	Machined aluminum enclosure case Nickel plated per MIL-c-26074		
POWER REQUIREMENTS			
Warm-Up Power	5 Watts for 10 minutes		
Total Power @ 25 °C	3 Watts, 10 miunutes after turn on		
Supply Voltage	+15 VDC +/- 1 VDC		
ADJUSTMENT			
Electrical Tuning	±3 x 10 ⁻⁶ min., 0 to +10 VDC		
Crystal	100 MHz SC-Cut		
OTHER			
Weight	1.5 lbs., max		

