

AS9100 / ISO9001 Certified

Low G

The 222 Series is a rugged Oven Controlled Crystal Oscillator ideal for demanding military applications such as UAVs, rotorcraft, and tracked vehicles as well as harsh industrial environments. The primary focus of the 222 Series are those applications requiring significantly reduced acceleration sensitivity beyond the levels obtainable through conventional solutions. Operating as a stand alone product or in tandem with mechanical shock and vibration systems, the 222 Series is capable of reducing the effects of acceleration on phase noise to levels near or below the noise floor.



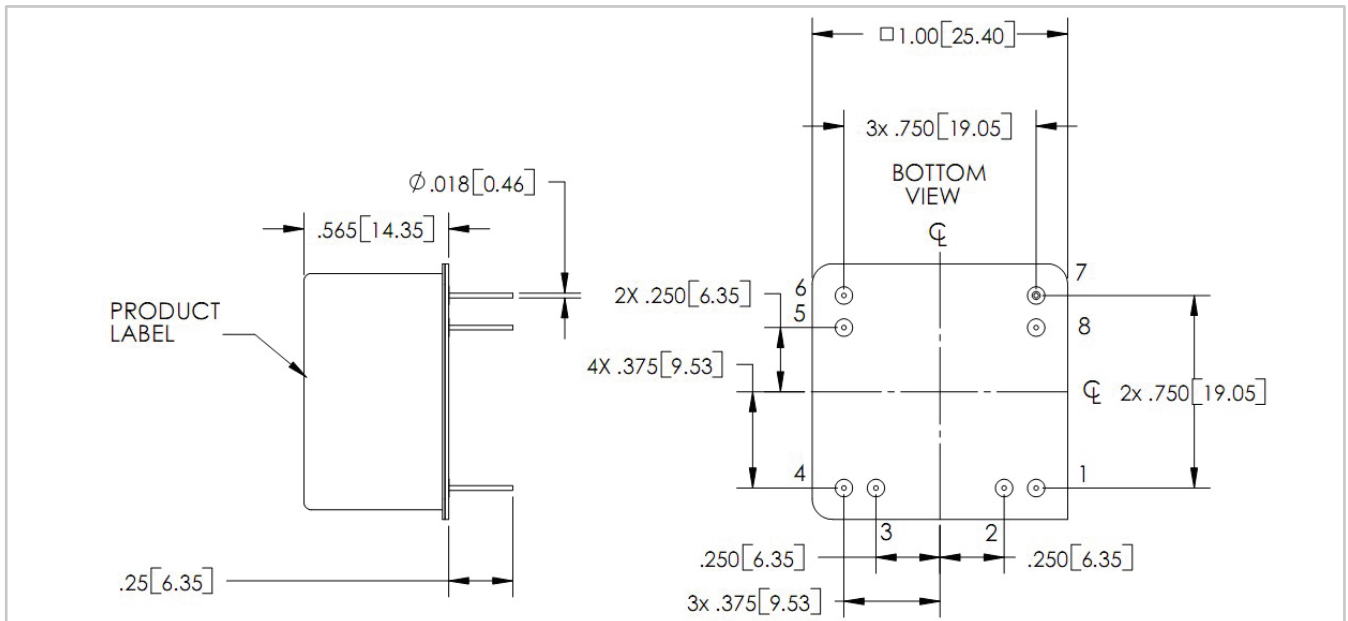
Key Features

- Low G Sensitivity $2.0E-10/g$ /axis
- Internal 24-bit D/A converter for tuning via I²C
- Factory optimized for specific application profile
- Low Static Phase Noise
- Optional Internal ROM data storage
- Optional Screening per MIL-PRF-55310
- Optional Shock and Vibration Systems

Applications

- UAVs
- Shipboard
- Tracked Vehicles
- Industrial Installations
- Manned Aircraft
- Secure Communications
- RADAR
- Mobile Equipment
- Telecommunications
- Rotorcraft
- Tactical Radio
- Precision Navigation

Interface Control Drawing

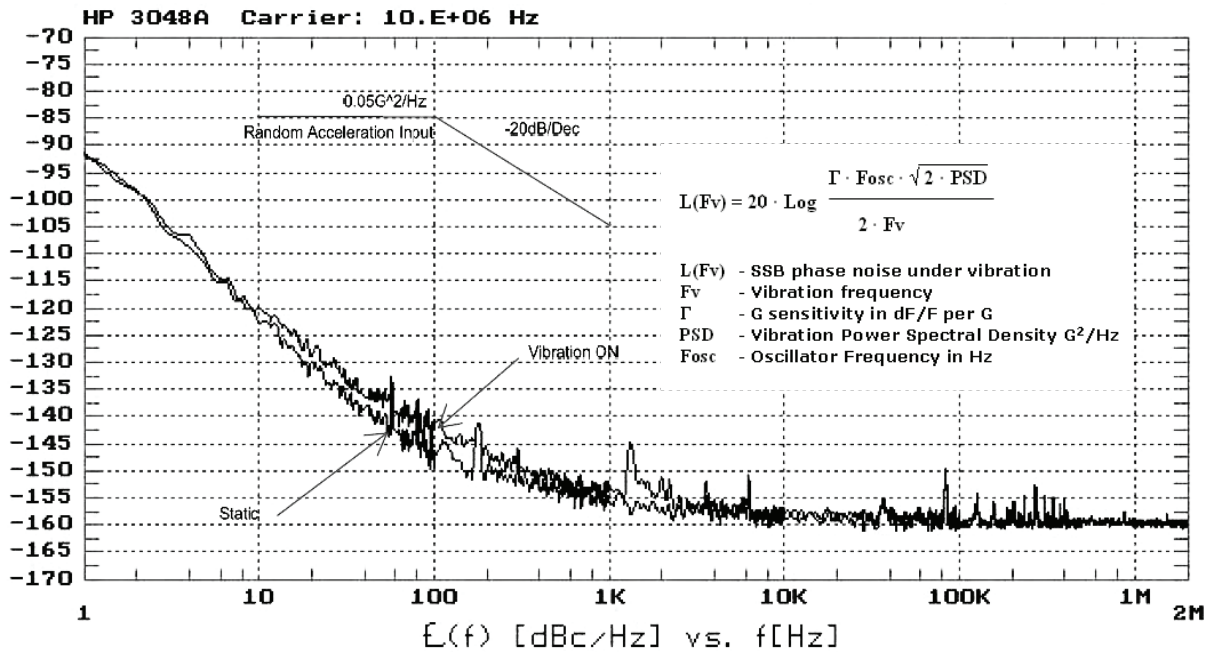


*RoHS compliant available

*Parameters can be modified to meet specific requirements

Phase Noise

Vibration effects can be a significant problem in high frequency communication, navigation and RADAR systems often causing large phase excursions and degradation in phase noise performance and short-term stability. The 222 Series is designed to operate in high acceleration and vibration environments (up to 20grms, 20Hz - 2KHz) where its exceptional g sensitivity and excellent overall stability make it the ideal choice for clean-up loops following GPS clocks, Cesium or Rubidium frequency standards and optical communications links. The 222 Series features a high resolution digital tuning interface via 24-bit DAC for precise control in critical applications. Optionally, a traditional analog tuning voltage input is also available. MTI can customize the 222 Series Oscillator for your specific application and vibration profile.



Allan Deviation $\sigma_y(\tau)$

