

ISSUE 1; May 2016

### Description

- Not recommended for new designs, please see model CXOMK 3.3V  
Intended for applications requiring shock survivability to 10,000G (and higher), the surface-mount CXO3MHG oscillator is a high-shock version of the CXO3M oscillator. These oscillators consist of a miniature quartz crystal and a hybrid circuit in a low-profile ceramic package with an extremely small footprint.
- SM1 SM1 (Gold Plated, RoHS compliant)
- SM5 SM5 (Solder Dipped, RoHS compliant)
- Please note that all data is only valid at 25°C unless otherwise stated.

### Frequency Parameters

- Frequency 200.0kHz to 220.0MHz
- Frequency Tolerance  $\pm 100.00\text{ppm}$  to  $\pm 10,000.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 50.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 10\text{ppm}$  max in 1st year

### Electrical Parameters

- Supply Voltage 3.3V  $\pm 10\%$
- Supply Voltage (absolute maximum rating): -0.5V to 7.0V

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C
- 55 to 125°C

### Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

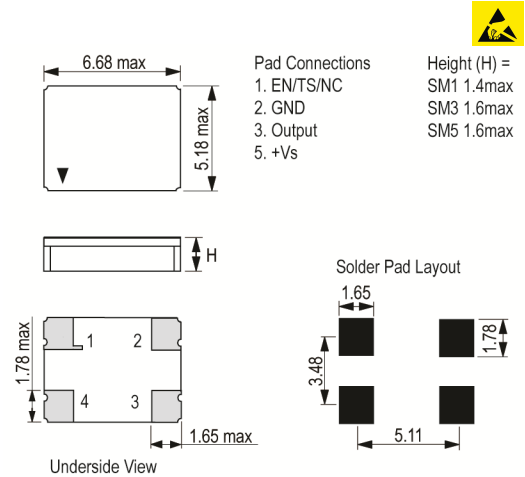
### Output Control

- Start Up Tme: 5ms max
- Enable/Disable (EN):  
Logic 1 to pad 1, output enabled  
Logic 0 to pad 1, output disabled, output goes to high impedance state, current consumption very low. Internal oscillator stops.  
Output recovery is delayed.
- No Connection (NC): Pad 1 No Connection
- Tri State (TS):  
Logic 1 to pad 1, output enabled  
Logic 0 to pad 1, output disabled, output goes to high impedance state, current consumption low. Internal oscillator continues to function.  
Output recovery is immediate.

### Environmental Parameters

- Shock: 10000G, 0.3ms, 1/2 sine
- Vibration: MIL-STD-202G, Method 204D, Condition D: 20G, 10Hz-2000Hz swept sine
- Storage Temperature Range: -55 to 125°C

### Outline (mm) -SM1 = SM1 (Gold Plated, RoHS compliant)



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### Manufacturing Details

- Features:
  - High shock resistance
  - Designed for surface mount applications using infrared, vapour phase or epoxy mount techniques
  - CMOS and TTL compatible
  - Low power consumption
  - Optional Output Enable/Disable with Tri-State
  - Low EMI emission
  - Full military testing available
- Applications:
  - Military & Aerospace -
  - Smart munitions
  - Projectile electronics
  - Industrial -
  - Engine control
  - Down-hole drilling
- Maximum Process Temperature: 260°C, 20 seconds

### Ordering Information

- Frequency\*
  - Model\*
  - Termination Variant\*
  - Output
  - Frequency Tolerance (@ 25°C)\*
  - Frequency Stability\*
  - Operating Temperature Range\*
  - Pad 1 Function\*
  - (\*minimum required)
- Termination Variants:
  - SM1 = Gold Plated / SM5 = Solder Dipped
  - (Note: Non-RoHS compliant terminations also available - SM3 = Solder Dipped)
- Example
  - 10.0MHz CXO3MHG SM1
  - CMOS ±100ppm ±100ppm -40 to 85 TS

### Compliance

- RoHS Status (2011/65/EU)      Compliant
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

### Packaging Details

- Pack Style: Tray      Tray  
Pack Size: 1
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
200.0kHz	220.0MHz	-10 to 70	±50.0	-	6	40/60%
		-40 to 85	±100.0	-	6	40/60%
		-55 to 125	±100.0	-	6	40/60%

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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