

ISSUE 1; April 2016

### Description

- Intended for applications requiring shock survivability to 10,000G (and higher), the surface-mount CXOXHG oscillator is a high-shock version of the CXOX oscillator. This oscillator consist of a CMOS compatible hybrid circuit and a state-of-the-art fundamental-mode crystal.
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)
- Please note that all data is only valid at 25°C unless otherwise stated.

### Frequency Parameters

- Frequency 1.0MHz to 160.0MHz
- Frequency Tolerance  $\pm 100.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 50.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max in 1st year

### Electrical Parameters

- Supply Voltage 3.0V  $\pm 10\%$
- Supply Current Typical (figures given are for the 3.3V version):  
 3mA @ 24MHz  
 5mA @ 32MHz  
 6mA @ 50MHz  
 23mA @ 130MHz
- Supply Voltage (absolute maximum rating): -0.5V to 7V

### Operating Temperature Ranges

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

### Output Details

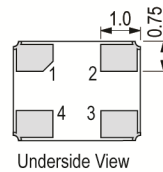
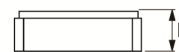
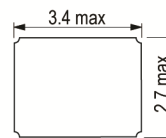
- Output Compatability CMOS
- Drive Capability 15pF
- Start Up Time: 5ms max

### Environmental Parameters

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

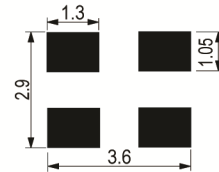


Outline (mm) SM1 = Gold Plated (RoHS)



Pad Connections	Height (H) =
1. NC/EN	SM1 1.09 max
2. GND	SM3 1.21 max
3. Output	SM5 1.21 max
4. +Vs	

Solder Pad Layout



### Sales Office Contact Details:

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### Manufacturing Details

- Features:
  - High shock resistance
  - Low acceleration sensitivity
  - Low power consumption
  - Low EMI emission
  - Optional Output Enable/Disable with Tri-State
  - Full military testing available
- Applications:
  - Military & Aerospace -
    - Smart munitions
    - Communications
    - Navigation
    - GPS
  - Industrial, Computer & Communications -
    - Miniature clock oscillator
    - Handheld instrumentation
    - PDA
    - Transponder/Animal migration
  - Medical -
    - Test & Diagnostic equipment
    - Handheld devices
- Solder Process Temperature: 260°C max for 20sec max

### 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
  - 40.0MHz CXOXHG 3.0V SM1
  - CMOS ±100ppm ±100ppm -40 to 85C NC

### Compliance

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

### Packaging Details

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

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Electrical Specification - maximum limiting values 3.0V  $\pm$ 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	160.0MHz	-10 to 70	$\pm$ 50.0	-	6	40/60%
		-40 to 85	$\pm$ 100.0	-	6	40/60%
		-55 to 125	$\pm$ 100.0	-	6	40/60%

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