

**FEATURES**

- CMOS/TTL Compatible
- High shock resistance
- Optional Enable/Disable with Tri-State
- Low EMI emission
- Full military testing available
- Hermetically sealed package

**DESCRIPTION**

CXOMK/CXOMKHG oscillators are miniature, surface mount units packaged in a 6.5 x 5.0 x 1.5mm package. Utilizing the latest advancements in production technology, the oscillators are capable of achieving close tolerance frequency calibration and high stability over a wide temperature range. A high shock version is resistance. The part is available with full 'MIL' testing if required. Designed and manufactured in USA by Statek Inc.

**APPLICATIONS**

**Military & Aerospace**

- Smart munitions
- Cockpit systems
- Navigation

**Industrial, Computer & Communications**

- Industrial controls
- Instrumentation
- Microprocessor clocks

**Medical**

- Infusion pumps

**SPECIFICATION**

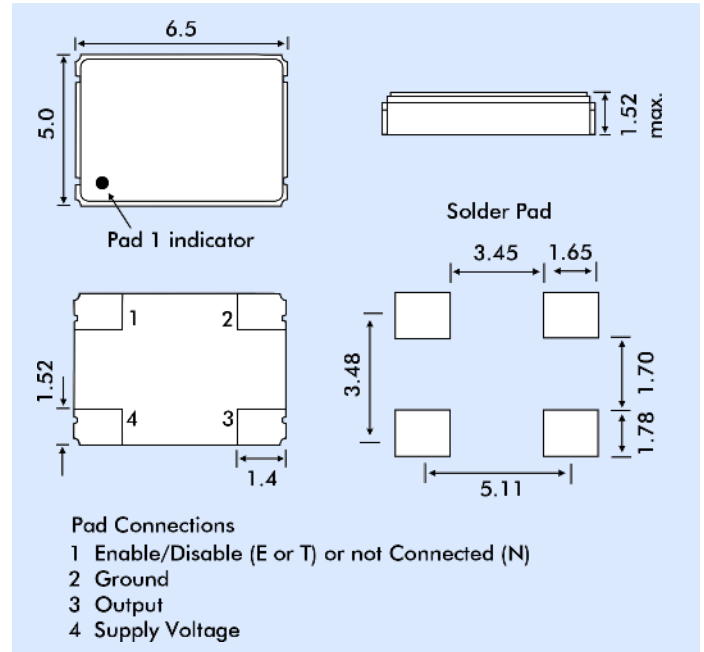
Specifications are typical at 25°C unless otherwise indicated. Tighter specifications are available, contact Euroquartz technical sales.

Frequency Range:	200.0kHz to 200.0MHz
Supply Voltage <sup>1</sup> :	+0.9 to 5.0Volts ±10%
Calibration Tolerance <sup>2</sup> :	±30ppm
Frequency Stability	
over Operating Temperature Range <sup>3</sup>	
Commercial (0° ~ +70°C):	±15 to ±50ppm
Industrial(-40° ~ +85°C):	±30 to ±100ppm
Military (-55° ~ +125°C):	±40 to ±100ppm
Supply Current:	See table
Output Load (CMOS) <sup>4</sup> :	15pF
Start-up Time:	5ms maximum
Rise/Fall Time:	6ns maximum
Duty Cycle:	40% min., 60% max.
Ageing First Year:	±10ppm
Shock, Survival <sup>5</sup> :	Std: 5,000g, 0.3ms, ½ sine HG: 10,000g, 0.3ms, ½ sine
Vibration Survival <sup>6</sup> :	20g, 10~2000Hz swept sine
Operating Temperature Ranges	
Commercial:	-10° to +60°C
Industrial:	-40° to +85°C
Military:	-55° to +125°C

1. Voltages available: 0.9, 1.8, 2.5, 3.0, 3.3 and 5.0V  
Not all voltages are available for all frequencies. Contact factory.
2. Tighter tolerances available.
3. Doesn't include calibration tolerance. Tighter tol. may be available.
4. Higher CMOS and TTL loads available. Contact factory.
5. Higher shock version available. Contact factory.
6. Per MIL-STD-202G Method 204D, Condition D.  
Random vibration testing also available.



**OUTLINE & DIMENSIONS**



**PACKAGING OPTIONS**

CXOMK oscillators are available either tray packed (<250pcs) or tape and reel (>250 pieces).  
16mm tape, 178mm or 330mm reels (EIA 418).

**SUPPLY CURRENT**

Frequency	Supply Current Vdd = 3.3V	Supply Current Vdd = 5.0V
10MHz	2mA	4mA
24MHz	4mA	8mA
30MHz	6mA	10mA
40MHz	8mA	12mA
50MHz	10mA	14mA

**ABSOLUTE MAXIMUM RATINGS**

Supply Voltage:	-0.5V to +7.0V*
Maximum Process Temperature:	260°C for 20 seconds
Storage Temperature:	-55° to +125°C

\* The supply voltage range is -0.5V to +4.0Volts for some products. Contact factory.

**COMPARISON OF ENABLE/DISABLE OPTIONS**

There are three Enable/Disable options available, E, T and N. Both the E and T versions have Tri-state outputs. In the E version the oscillator stops, in the T version the oscillator continues to run. The N version (no tristate function) does not have pin 1 connected internally.

	<b>E</b>	<b>T</b>
<b>Enable (Pin 1 High)</b>		
Output:	Frequency Output	Frequency Output
Oscillator:	Oscillates	Oscillates
Current:	Normal	Normal
<b>Disable (Pin 1 Low)</b>		
Output:	High Z state	High Z state
Oscillator:	Stops	Oscillates
Current:	Very low	Lower than normal

When Pad 1 is allowed to float it is held high by an internal pull-up resistor.

**HOW TO ORDER CXOMK SMD CRYSTAL OSCILLATORS**

