EUROQUARTZ CXOXHT HIGH TEMPERATURE OSCILLATORS

High Temperature/High Shock 1.0MHz to 50.0MHz

FEATURES

- **High temperature operation up to 225°C**
- **Excellent stability over temperature**
- **Fast start-up**
- **High shock resistance**
- **CMOS/TTL compatible output**
- **Low EMI emission**
- **Hermetically sealed ceramic package**

DESCRIPTION

For applications with high operating temperatures such as downhole instrumentation, rotary shaft sensors and underground boring tools.

SPECIFICATION

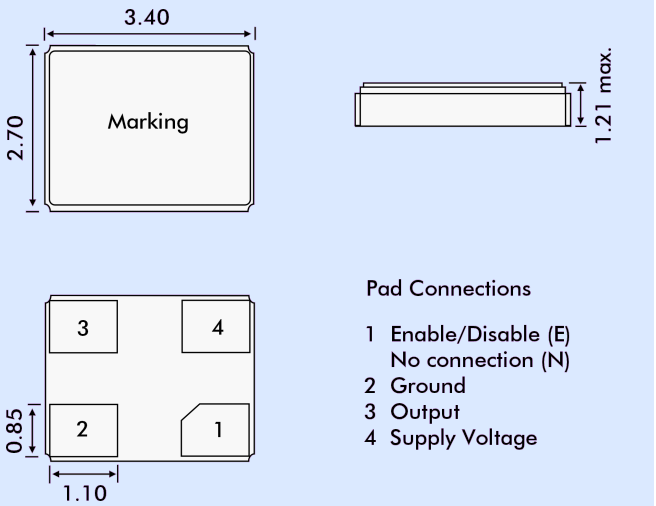
Specifications are typical at 25°C unless otherwise indicated. Tighter specifications are available, contact Euroquartz technical sales.

Supply Voltage:	+3.3 or +5.0Volts ±10%	
Calibration Tolerance:	±50ppm or tighter as reqd.	
Frequency Stability		
25° ~ +150°C:	±100ppm	
25° ~ +175°C:	±150ppm	
25° ~ +225°C:	±175ppm	
Supply Current (Typical)	3.3V	5.0V
24MHz:	3.0mA	8.0mA
32MHz:	5.0mA	10.0mA
50MHz:	6.0mA	14.0mA
Output Load (CMOS):	15pF	
Start-up Time:	5ms max.	
Rise/Fall Time:	10ns typical	
Duty Cycle:	60/40%	
Ageing first year:	±5ppm max. at 25°C	
Ageing:	±100ppm max. at 200°C	
Shock Survival		
Standard:	3,000g, 0.3ms, ½ sine	
HG version:	10,000g, 0.3ms, ½ sine	
Vibration Survival:	20g, 10~2000Hz swept sine	
Operating Temp. Range:	-55°C to 225°C	

PACKAGING OPTIONS

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

OUTLINE & DIMENSIONS



ENABLE/DISABLE OPTIONS (E/N)

CXOXHT oscillators have two enable/disable options, designated E & N. The E version has a tristate output and stops oscillating internally when the output is placed in a high Z state. The N version does not have the control pin, Pin1, connected internally so there is no enable/disable function with this option.

ENABLE/DISABLE OPTION E - FUNCTION TABLE

	Enable (Pin1 High*)	Disable (Pin 1 Low)
Output	Frequency Output	High Z state
Oscillator	Oscillates	Stops
Current	500µA @25°C	3.2µA @25°C

**When Pin 1 is allowed to float it is held by an internal pull-up resistor*

HOW TO ORDER CXOXHT OSCILLATORS

CXOXHT	4	S	HG	E	SM1	-	20.0M	– /	–	/	200	/	H
Package Type CXOMHT CXOXHT	Supply Voltage 4 = 3.3V 5 = 5.0V	Blank = standard S = special or custom	Shock Level Blank = standard HG = high shock	Enable/Disable option E or N	Terminations Blank = SM1 =Gold plated SM3 = Solder dipped SM5 = Solder dipped (lead free)		Frequency M = MHz	Calibration Tolerance at 25°C in ppm	Frequency Stability over temperature range (±ppm)		Total Frequency Tolerance (±ppm)		Temp. Range H = 25° to 200°C S = customer specified temp. range

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