

**FEATURES**

- CMOS output, Enable/Disable option
- Tight frequency stability and low phase noise
- Ultra-low Allan Deviation and RMS phase jitter
- Ultra-low period jitter; 1.4ps rms
- Low current consumption; 3mA max no load across temp.
- High shock survival option >20,000g
- Fundamental frequency, no PLL artifacts
- Full military testing per MIL PRF 55310 available



**DESCRIPTION**

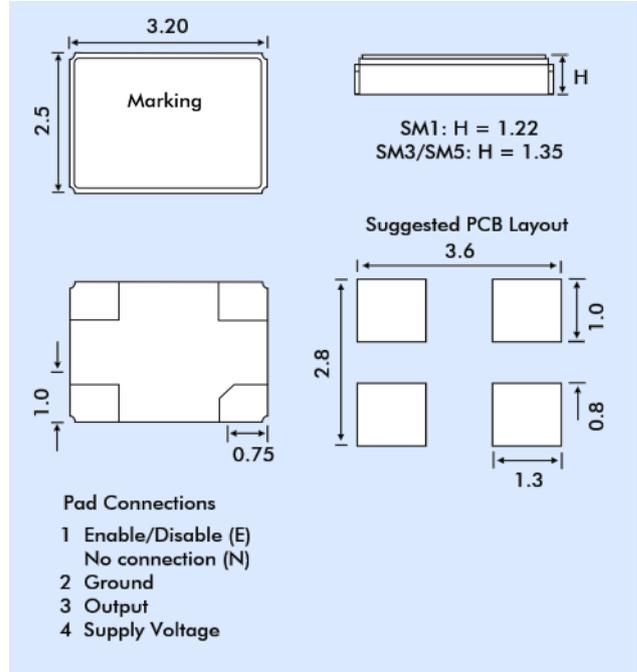
STXO oscillators are 'state of the art,' precision oscillators, packaged in a 3.2 x 2.5mm outline, SMD format. Its high performance capabilities include low RMS Jitter (typical <300fs), low phase noise (noise floor typical < -161 DBc/Hz), tight frequency stability ( $\pm 20$ ppm total over -40° to +85°C) with tighter tolerances available.

**SPECIFICATION**

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

Frequency Range:	10.0MHz to 55.0MHz
Supply Voltage:	+2.5V or +3.3 Volts $\pm 10\%$
Total Frequency Tolerance:	$\pm 10$ ppm (Industrial) $\pm 20$ ppm (Military)
Supply Current:	3mA (15pF load, 3.3V, 40MHz)
Output Levels	
V <sub>OH</sub> :	V <sub>DD</sub> -0.4V min.
V <sub>OL</sub> :	0.4V max.
Output Load:	15pF
Start-up Time:	5ms max.
Rise/Fall Time:	5ns max.
Duty Cycle:	45% min./55% max.
Ageing, first year:	$\pm 2$ ppm
Shock, Survival:	5,000g, 0.3ms, 1/2 sine HG version = 20,000g
Vibration Survival:	20g, 10~2000Hz swept sine
Operating Temperature:	-40°C to +85°C (Industrial) -55°C to +125°C (Military)
Moisture Sensitivity (MSL):	Hermetically sealed, MSL not relevant.

**OUTLINE & DIMENSIONS**



**ENABLE/DISABLE OPTIONS**

There are two Enable/Disable options available, 'E' and 'N'. The 'E' version has a Tri-State output and stops oscillating internally when the output is put into a high Z state. The 'N' version does not have PAD 1 connected internally and so has no enable/disable capability. The table below describes the Tri-State option 'E':

	Enable (Pad 1 High)	Disable (Pad 1 Low)
Output	Frequency Output	High Z state
Oscillator	Oscillates	Stops
Current	Normal	Very Low

**PACKAGING OPTIONS**

STXO oscillators are available either tray packed (<250pcs) or tape and reel (>250 pieces).  
12mm tape, 178mm or 330mm reels (EIA 418).

**HOW TO ORDER STXO SMD CRYSTAL OSCILLATORS**

