

### PRODUCT FEATURES

- Industry-standard 8 pin DIL package for compatibility
- Highly reliable industrial CMOS oscillator
- -55°C to +125°C Wide operating temperature
- Supply voltage 1.8V, 2.5V, 3.3V or 5.0 Volts DC
- Femto second integrated phase jitter 150fs typical
- Superior phase noise performance
- ITAR FREE



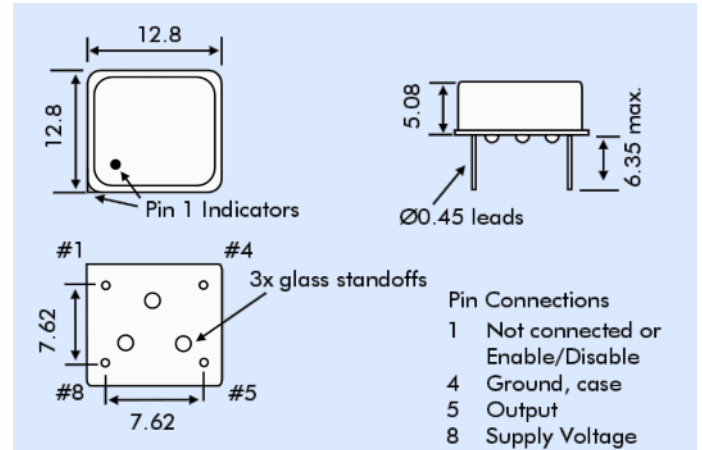
### DESCRIPTION

The Euroquartz EQXO-2000XN series of 8 pin dual-in-line CMOS oscillators consist of a universal, hi-temp quartz crystal oscillator in a hermetically-sealed package. The oscillators provide a reliable source of clock signals with superior phase noise and jitter performance at low unit cost. The EQXO-2000XN series is ITAR free and manufactured in the UK.

### SPECIFICATION

Series Number:	EQXO-2000XN	
Frequency Range:	1.75MHz to 60MHz	
Frequency Stability*:	±50ppm across -55°C +125°C ±100ppm across -55°C +125°C	
Supply Voltage:	+1.8 Volts ±10%: +2.5 Volts ±10%: +3.3 Volts ±10%: +5.0 Volts ±10%	
Output Load HCMOS:	15pF (50pF is available. Add 50p to end of part number)	
Rise/Fall Time	1.8 - 2.5V <sub>DD</sub> : 7ns (max.) 3.3 - 5.0V <sub>DD</sub> : 10ns (max.)	
Duty Cycle:	Measured between 10% to 90% waveform (CL=15pF) Standard: 50% ±10%; Option 50%±5% is available, add 'S' to part number.	
Operating Temperature Range:	-55° to +125°C	
Storage Temperature Range:	-55° to +125°C	
Start-up Time:	5ms (max.)	
Current Consumption:	1.75 - 20MHz	20 - 60MHz
1.8V <sub>DD</sub>	2mA	4mA
2.5V <sub>DD</sub>	3mA	5mA
3.3V <sub>DD</sub>	4mA	6mA
5.0V <sub>DD</sub>	5mA	8mA
Tristate Option:	Output is high impedance when '0' (<0.8 Volts) is applied to Pin 1, (internal pull-up). Disable time = 150ns max.	
SSB Phase Noise (26MHz, 3.3V)		
Offset:	10Hz	100Hz 1kHz 10kHz 100kHz 1MHz 5MHz
dBc:	-94	-127 -142 -156 -161 -163 -163
Phase Jitter(RMS) [26MHz, 3.3V]:	150fs(typ)[12kHz to 20MHz integ]	
Ageing at Ta=+25°C	±2ppm max. For first year	

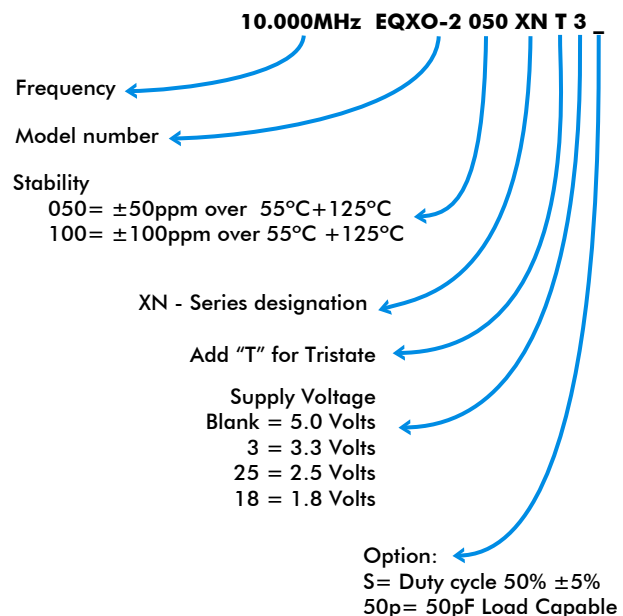
### OUTLINE & DIMENSIONS



Out Voltage Level	Supply Voltage			
	+1.8 V	+2.5 V	+3.3 V	+5.0 V
Logic Hi '1' (90% V <sub>DD</sub> max.)	1.62V	2.25V	2.97V	4.5V
Logic Lo '0' (10% V <sub>DD</sub> max.)	0.18V	0.25V	0.33V	0.5V

### PART NUMBER GENERATION

EQXO-2000XN series oscillator part numbers derived as follows:  
Example: **10.000MHz EQXO-2050XNT3**:



\* The frequency stability parameter is inclusive of frequency adjustment at 25°C and any variations due to load change, ageing,