

EQLXO-2000 SERIES 8 pin Dual-in-Line MIL SPECIFICATION OSCILLATORS

DESCRIPTION

Euroquartz EQLXO-2000 series 8 pin DIL oscillators are designed for military, aerospace and similar applications requiring high reliability components. Material specification consists of a hybrid circuit substrate with all-ceramic components coupled with a ruggedized crystal mounting system. This design specification ensures that EQLXO-2000 series oscillators provide a highly reliable and accurate source of clock signals, in a package able to withstand severe environmental conditions.

FEATURES

- Ceramic substrate and ruggedized mounts for high reliability
- Industry-standard 8 pin DIL package for ease of design
- 5.0 Volt and 3.3 Volt operation
- Option of Tristate or Output Enable
- Full Screening in accordance with MIL-O-55310C, Class B

GENERAL SPECIFICATION

Frequency Range:	500kHz to 120MHz	
Supply Voltage:	+5.0 V \pm 10% or +3.3V \pm 10%	
Calibration Tolerance (+5V, 25°C)*		
Code A:	\pm 0.01% (\pm 100ppm)	
Code B:	\pm 0.03%	
Code C:	\pm 0.10%	
Temperature Stability**		
0° to +50°C:	from \pm 5ppm to \pm 30ppm	
-10° to +70°C:	from \pm 10ppm to \pm 50ppm	
-40° to +85°C:	from \pm 20ppm to \pm 100ppm	
-55° to +125°C:	from \pm 30ppm to \pm 100ppm	
Supply Current:	4mA to 60mA (Frequency dependent)	
Output Levels (5 Volt supply)	VOL	VOH
TTL:	0.4V max.	2.4V min.
CMOS:	0.5V max.	4.5V min.
Start-up Time:	5ms max.	
Rise/Fall Time:	6ns typical, 10ns max. (Frequency dependent)	
Symmetry*:	40%/60%	
Ageing:	5ppm max., first year	
Shock, Survival:	1000g peak 1ms, 1/2 sine	
Vibration, Survival:	10g rms 10–2000Hz random	
Operating Temperature		
Commercial:	-10° to +70°C	
Industrial:	-40° to +85°C	
Military:	-55° to +125°C	
Storage Temperature:	-55° to +125°C	

* Tighter tolerances are available for calibration, stability and duty cycle.

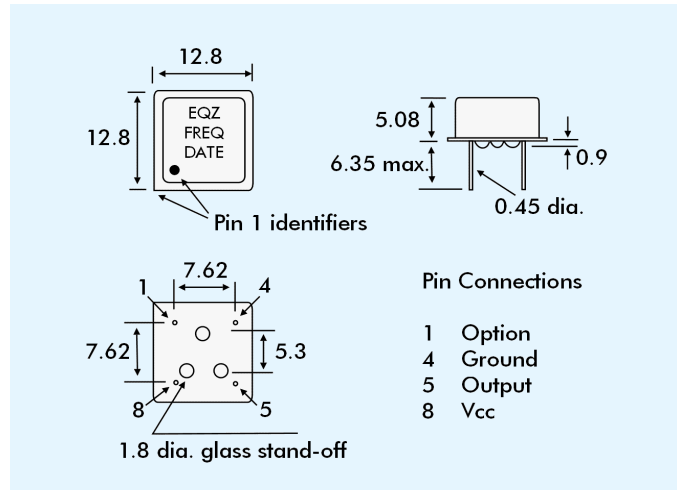
** Does not include calibration tolerance.

Note: All parameters measured at ambient temperature with a 10MW and 10pF load at 5.0 Volts.

ABSOLUTE MAXIMUM RATINGS

Supply Voltage Vcc:	-0.V to +7V
Storage Temperature:	-55° to +125°C

OUTLINES AND DIMENSIONS



TRUTH TABLE (PIN 1 OPTION)

Option	Pin 1* (Option)	Pin 5 (Output)
Power Down	Low (0) High (1)	High (1) Freq. Output
Tristate	Low (0) High (1)	High (Z) Freq. Output

* Normally High (internal pull-up resistor)

POWER DOWN vs TRISTATE

- Power Down:** When Pin 1 is low (0) the oscillator stops oscillation.
- Tristate:** When Pin 1 is low the oscillator is running. However, the output buffer amplifier stops functioning and the Pin 5 output is in high impedance state.

PART NUMBERS & ORDERING INFORMATION

Example:	10.000MHz	EQLXO-2100UM-A-SCREENED
Frequency	10.000MHz	EQLXO-2100UM-A-SCREENED
Series	EQLXO-2100UM-A-SCREENED	EQLXO-2100UM-A-SCREENED
Stability	100 = \pm 100ppm 050 = \pm 50ppm 030 = \pm 30ppm	EQLXO-2100UM-A-SCREENED
Output	U = CMOS T = TTL	EQLXO-2100UM-A-SCREENED
Operating Temperature Range	M = Military I = Industrial C = Commercial	EQLXO-2100UM-A-SCREENED
Calibration Tolerance Code	A, B or C (see gen. spec.)	EQLXO-2100UM-A-SCREENED
Testing Status	'Screened' for MIL-O-55310C, Class B Blank - Unscreened	EQLXO-2100UM-A-SCREENED

(Check with Euroquartz sales office for details of Screening)