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

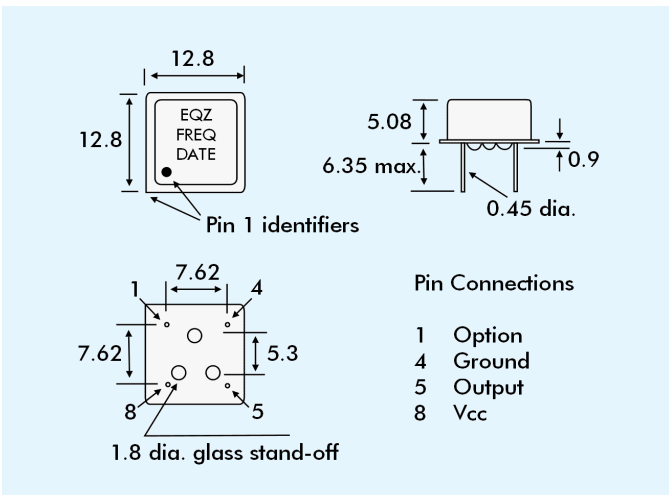
Frequency Range:	500kHz to 120MHz	
Supply Voltage:	+5.0 V±10% or +3.3V±10%	
Calibration Tolerance (+5V, 25°C)*		
Code A:	±0.01% (±100ppm)	
Code B:	±0.03%	
Code C:	±0.10%	
Temperature Stability**		
0° to +50°C:	from ±5ppm to ±30ppm	
-10° to +70°C:	from ±10ppm to ±50ppm	
-40° to +85°C:	from ±20ppm to ±100ppm	
-55° to +125°C:	from ±30ppm to ±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, ½ 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 1is 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
Series
Stability 100 = ±100ppm
050 = ±50ppm
030 = ±30ppm
Output
U = CMOS
T = TTL
Operating Temperature Range
M = Military
I = Industrial
C = Commercial
Calibration Tolerance Code
A, B or C (see gen. spec.)
Testing Status
'Screened' for MIL-O-55310C, Class B
Blank - Unscreened
(Check with Euroquartz sales office for details of Screening)

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