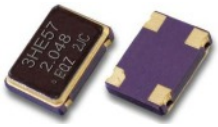
EQXO-UM Oscillators

Wide Temperature Range — 2.0MHz to 50.0MHz

FEATURES

- **Femto second integrated phase jitter 150fs typical (12kHz to 20MHz)**
- **Superior phase noise performance: -155dBc/Hz at 10kHz and -160dBc at 100kHz offset**
- **Wide operating temperature available to -40° to +125°C**
- **Military screened if required**



SPECIFICATION

Model Number		EQXO-UM Series		
Frequency Range		2.000MHz to 50.000MHz		
Output Logic		LVCMOS		
Supply Voltage V_{DD}		1.8 V_{DD} ±10%	+2.5 V_{DD} ±10%	+3.3 V_{DD} ±10%
Logic High "1" (90% of V_{DD} minimum)		1.62V	2.25V	2.97V
Logic Low "0" (10% of V_{DD} maximum)		0.18V	0.25V	0.33V
Current Consumption	1.25~19.99MHz	2.0mA (max)	3.0mA (max)	4.0mA (max)
	20~50.00MHz	4.0mA (max)	5.0mA (max)	6.0mA (max)
Rise Time (Tr) / Fall Time (Tf)		10ns (max) measured 10% ~ 90% waveform		
Load		15pF		
Start-up Time		5ms (max)		
Duty Cycle		Standard: 50%±10% ; Option 50% ±5% (Add "S" after the part number for this option)		
Tristate Function		Tristate function on Pad 1 is standard for EQXO-UM series oscillators 70% of VDD(min) Enable Output 30% of VDD(max) Disable Output		
Phase Jitter (RMS) [26MHz, 3.3V]		150 fs typical (12kHz to 20MHz integrated)		

SSB Phase Noise [25MHz, 3.3V]	Offset	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz	5MHz
	dBc/Hz (typical)	-94	-127	-142	-156	-161	-163	-163
Storage Temperature		-65° to +150°C						
Ageing at 25°C		±2ppm maximum for first year						
Solder Profile		260°C max.						

ORDERING/PART NUMBER GENERATION

Example: 20.000MHz EQXO22UM050TUKAS

Frequency

Package
- EQXO22 - 2.5x2.0mm
- EQXO32 - 3.2x2.5mm
- EQXO53 - 5.0x3.2mm
- EQXO75 - 7.0x.50mm

Stability Over Temperature Range
- 025 = ±25ppm (N/A for -55°C to +125°C)
- 050 = ±50ppm
- 100 = ±100ppm

Tristate: Leave blank if no connection on Pad 1

Output Universal (LVCMOS)

Operating Temperature Range
- C = -10° to +70°C
- I = -40° to + 85°C
- K = -40° to + 125°C

Supply Voltage
- A = 3.3 Volts
- B = 2.5 Volts
- C = 1.8 Volts

Option: Symmetry 50±5%

Optional Screening

Screening in accordance with MIL-O-55310C Class B.
All devices are 100% tesetd to the following conditions:

Stabilisation Bake:	Vacuum storage at 150°C for 24hrs
Temperature Cycling:	-55°C to +125°C for 10 cycles
Constant Acceleration:	49000m/s2 for 1 minute in Y1 plane
Seal:	Fine leak to not exceed 1x10-8 mB litres of helium leakage & Gross Leak Test
Dynamic Burn-in:	125°C for 168hrs
Electrical Test:	Frequency, output waveform, output voltage/power, input current/power

Issue 1

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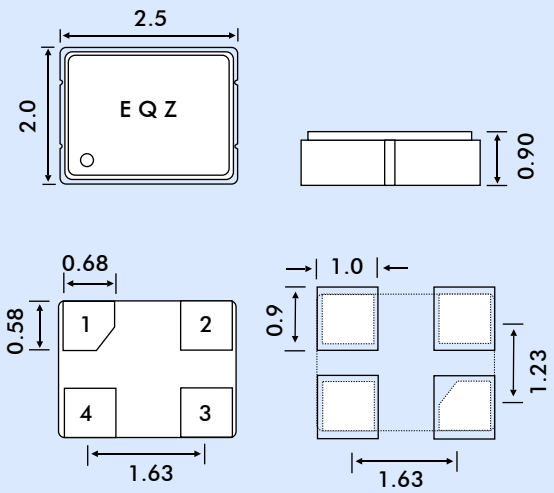
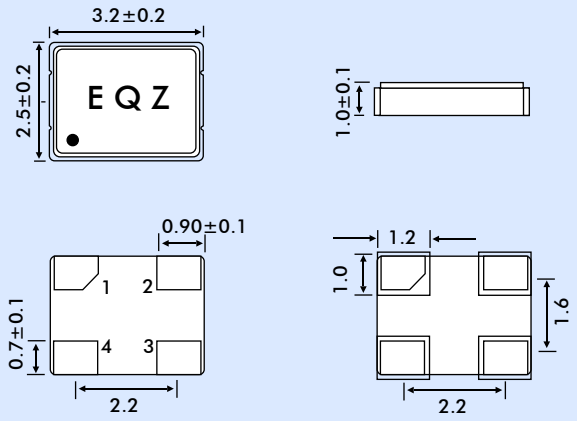
EQXO-UM Packages

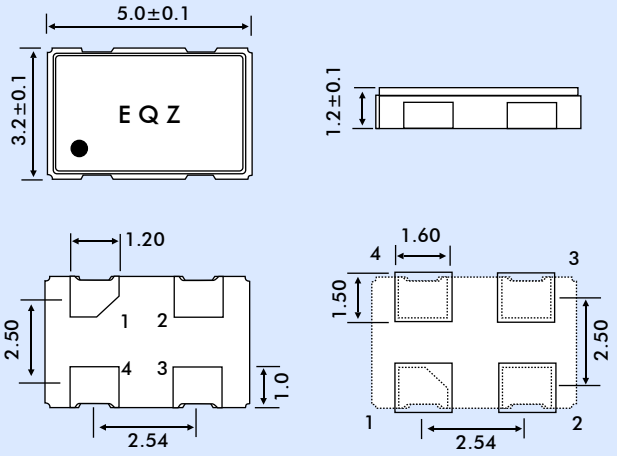
EQXO22



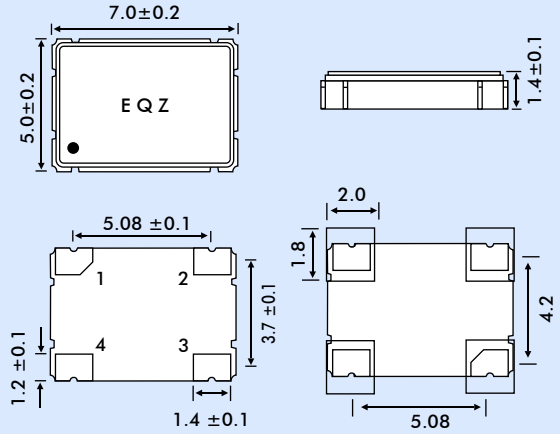
EQXO32



EQXO52



EQXO75



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