



Description

- Temperature compensated crystal oscillator (TCXO) in a hermetically sealed 3.2x2.5mm SMD package.
- Model IQXT-220-1
- Model Issue number 3

Frequency Parameters

- Frequency 12.80MHz
- Frequency Tolerance $\pm 1.00\text{ppm}$
- Frequency Stability $\pm 0.28\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing $\pm 0.02\text{ppm max/day, } \pm 1\text{ppm max/year}$
- Frequency Tolerance: Measurement referenced to frequency observed with TA=25°C, Vs=3.3V and load=10kΩ//10pF, within 30 days after ex-works.
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, Vs=3.3V. load=10kΩ//10pF and temperature variable speed less than 2°C/min.
- Ageing: Vs, TA and load constant, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, load=10kΩ//10pF and after 1hr of operation.
- Supply Voltage Variation (measurement referenced to frequency observed TA=25°C, Vs varied from 3.13V to 3.47V and load=10kΩ//10pF): $\pm 0.1\text{ppm max}$
- Load Variation (measurement referenced to frequency observed with TA=25°C, Vs=3.3V and load change=10kΩ//10pF $\pm 5\%$): $\pm 0.1\text{ppm max}$

Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$
- Current Draw 5.000mA
- Current Consumption (@ TA=25°C, Vs=3.3V and load=10kΩ//10pF): 5mA max

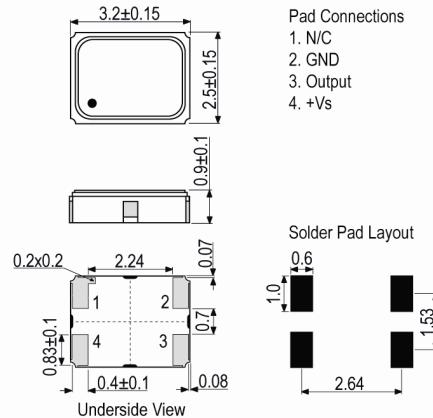
Output Details

- Output Compatibility Clipped Sine
- Drive Capability 10kΩ//10pF
- Output Voltage Level: 0.8V pk-pk min

Noise Parameters

- Phase Noise @ 25°C (F=10.0MHz, typ):
-90dBc/Hz @ 10Hz
-120dBc/Hz @ 100Hz
-140dBc/Hz @ 1kHz
-145dBc/Hz @ 10kHz
-148dBc/Hz @ 100kHz

Outline (mm)



Sales Office Contact Details:

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Environmental Parameters

- Operable Temperature Range: -40 to 85°C
- Storage Temperature Range: -55 to 105°C
- ESD Levels:
 - ESD Human Body Model (JEDEC JS-001-2010): Class 2: 2000V to 4000V
 - ESD Machine Model (JEDEC JESD22-A115C): Class B: 200V to 400V
- Shock: IEC 60068-2-27, Test Ea, Severity 50A: 100G acceleration for 6ms, half sine wave, 3 times in 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-06, Test Fc: 10Hz-2000Hz, 0.75mm amplitude, 10G acceleration, 30mins per cycle, 3 times in 3 mutually perpendicular planes. test duration 2hrs.

Manufacturing Details

Compliance

■ RoHS Status (2015/863/EU)	Compliant
■ REACH Status	Compliant
■ MSL Rating (JDEC-STD-033):	1

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on cut tape

Standard Pack Quantity: 3.000

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