



Description

- Temperature compensated voltage controlled crystal oscillator (TCVCXO)
- Model: IQXT-210-4
- Model Issue number: 2

Frequency Parameters

- Frequency: 20.0MHz
- Frequency Tolerance @ 25°C: ±0.50ppm
- Frequency Stability: ±0.14ppm
- Operating Temperature Range: -40.00 to 85.00°C
- Ageing: ±0.02ppm max per day, ±1ppm max per year
- Supply Voltage Variation (measurement referenced to frequency observed with TA=25°C, Vs varied from 3.13V to 3.47V, VC=1.5V and load=10kΩ//10pF): ±0.1ppm max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and load=10kΩ//10pF): ±0.2ppm max
- Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and within 30 days after ex-works): ±0.5ppm
- Short Term Stability (@ 25°C after 10mins power on): 5E-10/s typ @ 10MHz
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V, load=10kΩ//10pF and temperature variable speed less than 2°C per minute.
- Ageing: TA=25°C, Vs=3.3V, VC=1.5V and after 1hr of operation.

Electrical Parameters

- Supply Voltage: 3.3V
- Supply Voltage Tolerance: ±5%
- Current Draw: 10.00mA max
- Current: TA=25°C, Vs=3.3V, VC=1.5V and load=10kΩ//10pF

Frequency Adjustment

- Pulling: ±10ppm to ±15ppm
- Control Voltage Details: 1.5V ±1.5V
- Linearity: ±10% max
- Input Impedance: 100kΩ min
- Slope: Positive

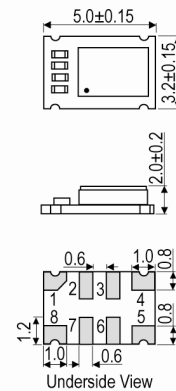
Output Details

- Output Compatibility: Clipped Sine
- Output Load: 10kΩ//10pF
- Output Levels: 0.8V pk-pk min

Noise Parameters

- Phase Noise (@ 10MHz typ):
 - 90dBc/Hz @ 10Hz
 - 115dBc/Hz @ 100Hz
 - 135dBc/Hz @ 1kHz
 - 145dBc/Hz @ 10kHz
 - 148dBc/Hz @ 100kHz
 - 150dBc/Hz @ 1MHz

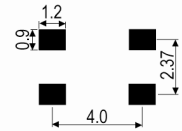
Outline (mm)



Pad Connections

- Voltage Control
- N/C
- N/C
- GND
- Output
- N/C
- N/C
- +Vs

Solder Pad Layout



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