

Customer Part:

Description

- Voltage Controlled Temperature Compensated Crystal Oscillator (TVXO)
- Model IQXT-200-45
- Model Issue number 1

Frequency Parameters

- Frequency 10.0MHz
- Frequency Tolerance ± 1.00 ppm
- Frequency Stability ± 0.10 ppm
- Operating Temperature Range -40.00 to 105.00°C
- Ageing ± 0.01 ppm max per day, ± 1 ppm max/year
- Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V within 30 days after ex-works)
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V, load=15pF and temperature variable speed less than 2°C per minute.
- Ageing: TA=25°C, Vs= 3.3V, VC=1.65V and after 1hr of operation.
- Supply Voltage Variation (measurement referenced to frequency observed with TA=25°C, Vs varied from 3.13V to 3.47V, VC=1.65V and load=15pF): ± 0.05 ppm max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and load=15pF): ± 0.05 ppm max

Electrical Parameters

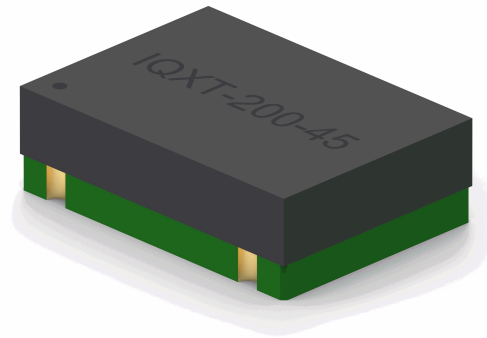
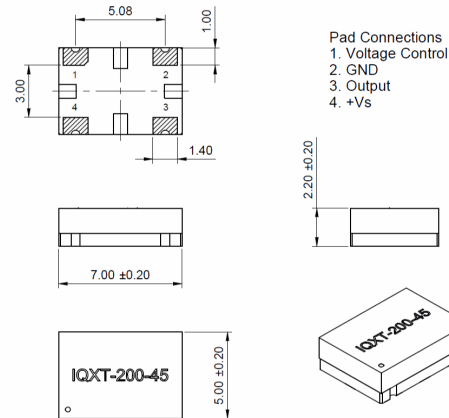
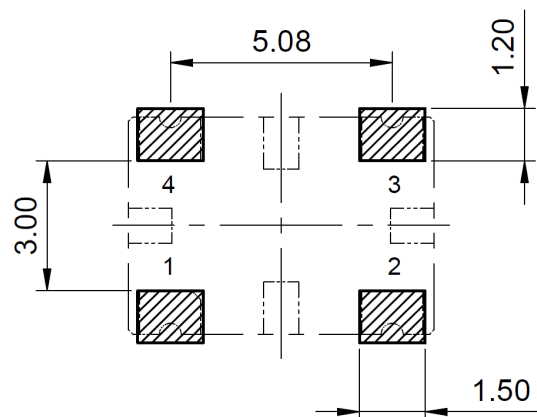
- Supply Voltage 3.3V $\pm 5\%$
- Current Draw 10.000mA max
- Current: @ TA=25°C, Vs=3.3V, VC=1.65V and load=15pF

Frequency Adjustment

- Pulling ± 8 ppm min
- Control Voltage 1.65V ± 1.65 V
- Input Impedance 100k Ω min
- Linearity: $\pm 10\%$ max
- Slope: Positive

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF
- Rise and Fall Time 5.0ns max
- Duty Cycle 45/55% max
- Output Voltage Levels (@ Vs=3.3V and load=15pF):
Output Low (VoL): 0.4V max
Output High (VoH): 2.4V min


Outline (mm)

Recommended Solder Pad Layout

Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1.760.318.2824

 Email: info@iqdfrequencyproducts.com

 Web: www.iqdfrequencyproducts.com

Customer Part:**Noise Parameters**

- Phase Noise (typ @ 25°C):
 - 85dBc/Hz @ 10Hz
 - 115dBc/Hz @ 100Hz
 - 140dBc/Hz @ 1kHz
 - 150dBc/Hz @ 10kHz
 - 152dBc/Hz @ 100kHz
 - 155dBc/Hz @ 1MHz
- Phase Noise (max @ 25°C):
 - 80dBc/Hz @ 10Hz
 - 110dBc/Hz @ 100Hz
 - 135dBc/Hz @ 1kHz
 - 145dBc/Hz @ 10kHz
 - 148dBc/Hz @ 100kHz
 - 150dBc/Hz @ 1MHz

Environmental Parameters

- Storage Temperature Range: -55 to 105°C
- ESD Level:
 - Human Body Model: Class 2: 2000V to 4000V, JEDEC JS-001-2010
 - Machine Model: Class B: 200V to 400V, JEDEC JESD22-A115C
- Shock: 100g, 6ms, half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A
- Vibration: Test Condition: 0.75mm, acceleration 10g, 10Hz~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X, Y, Z). IEC 68-2-06 Test Fc
- RoHS Terminations
- RoHS Reflow Temp 260°C for 30s max

Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 3

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 600
- *Alternative packing option available*

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