TCVCXO Specification

Part No. + Packaging: ***LFTVXO085765Reel***

Description

- Voltage Controlled Temperature Compensated Crystal Oscillator (TVXO)
- Model: IQXT-200-47
- Model Issue number: 1

Frequency Parameters

- Frequency: 20.0MHz
- Frequency Tolerance: ±1.00ppm
- Frequency Stability: ±0.28ppm
- Operating Temperature Range: -40.00 to 105.00°C
- Ageing: ±0.01ppm max per day, ±1ppm 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): ±0.05ppm max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and load= 15pF): ±0.05ppm max

Electrical Parameters

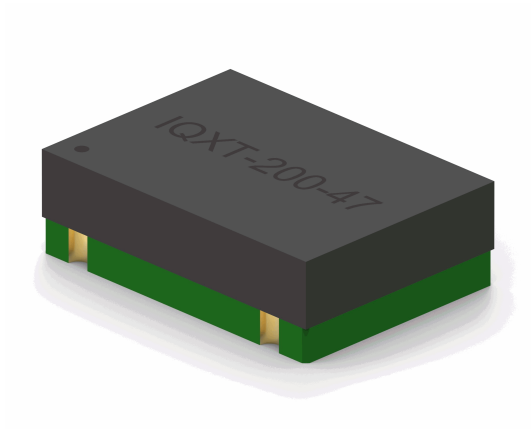
- Supply Voltage: 3.3V ±5%
- Current Draw: 10.000mA max
- Current: @ TA=25°C, Vs=3.3V, VC=1.65V and load=15pF

Frequency Adjustment

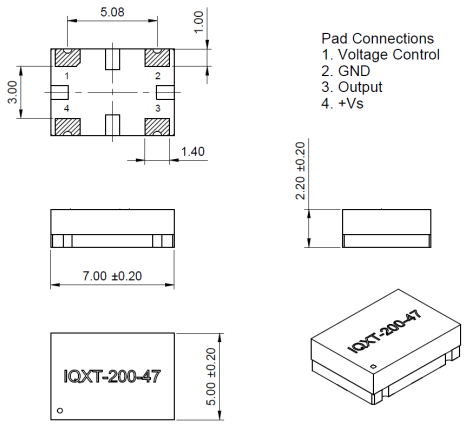
- Pulling: ±8ppm min
- Control Voltage: 1.65V ±1.65V
- Input Impedance: 100kΩ min
- Linearity: ±10% max
- Slope: Positive

Output Details

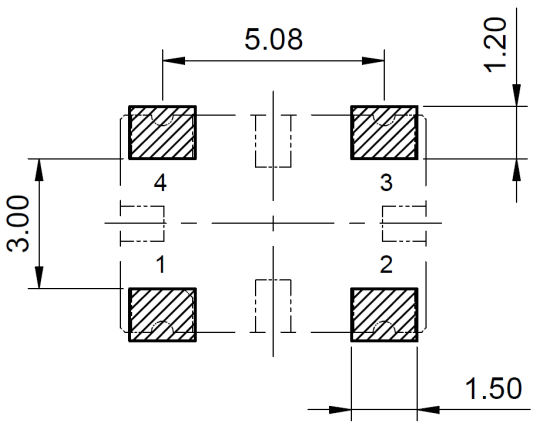
- Output Compatibility: HCMOS
- Drive Capability: 15pF
- Rise and Fall Time: 5.0ns max
- Duty Cycle: 45/55% max
- Output Voltage Levels (@ Vs=3.3V and load=15pF):
  Output Low (VoL): 0.4V max
  Output High (VoH): 2.4V min



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

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*

Sales Office Contact Details:
UK: +44 (0)1460 270200
USA: +1.760.318.2824
Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com

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