

# **Oscillator Specification**

Part No. + Packaging: LFTVXO063789BULK

#### Description

■ Temperature compensated voltage controlled crystal oscillator (TCVCXO)

Model IQXT-210-4

■ Model Issue number 2

## **Frequency Parameters**

■ Frequency 10.0MHz ■ Frequency Tolerance @ 25°C ±0.50ppm ±0.14ppm Frequency Stability

-40.00 to 85.00°C Operating Temperature Range

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= $10k\Omega//10pF$ ):  $\pm 0.1ppm$  max

■ Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and load= $10k\Omega//10pF$ ):  $\pm 0.2ppm$  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 @

■ 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= $10k\Omega//10pF$  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 Compatability 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

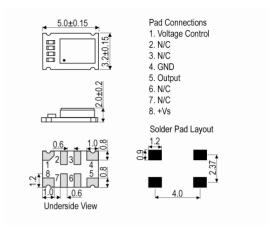
-135dBc/Hz @ 1kHz

-145dBc/Hz @ 10kHz

-148dBc/Hz @ 100kHz

-150dBc/Hz @ 1MHz

#### Outline (mm)



### **Sales Office Contact Details:**

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# **Environmental Parameters**

- Shock: IEC 60068-2-27, Test Ea: 100G acceleration for 6ms, half sinewave, in 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc: 10Hz-2000Hz, 0.75mm amplitude, 10G acceleration, 30mins per cycle, in 3 mutually perpendicular planes, test duration 2hrs
- Storage Temperature Range: -55 to 105°C
  Operable Temperature Range: -40 to 85°C
- ESD Level:

HBM, Class 2: 2000V to 4000V, JEDEC JS-001-2010 Machine Model, Class B: 200V to 400V, JEDEC JS-001-2010

#### **Manufacturing Details**

- Moisture Sensitivity Level: 2
- Maximum Reflow Temperature: 260°C (30secs max)

#### Compliance

RoHS Status CompliantREACh Status Compliant

#### **Packaging**

■ Pack Type: Bulk Loose in bulk pack

Pack Size 1

Alternative packing option available

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