

### **Oscillator Specification**

Part No. + Packaging: LFTVXO063785BULK

# A.

#### Description

 Temperature compensated voltage controlled crystal oscillator (TCVCXO)

■ Model IQXT-210-3

■ Model Issue number 2

#### **Frequency Parameters**

■ Frequency 10.0MHz
 ■ 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=15pF): ±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=15pF): ±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=15pF 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
 Current: TA=25°C, Vs=3.3V, VC=1.5V and load=15pF

#### **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
 Output Load
 Rise and Fall time (10% - 90%)
 Buty Cycle
 Output Low (@ Vs=3.3V, load=15pF): 0.4V max
 Output High (@ Vs=3.3V, load=15pF): 2.4V min

#### **Noise Parameters**

■ Phase Noise (@ 10MHz typ):

-90dBc/Hz @ 10Hz

-115dBc/Hz @ 100Hz

-135dBc/Hz @ 1kHz

-145dBc/Hz @ 10kHz

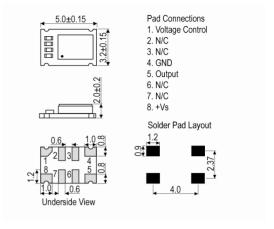
-148dBc/Hz @ 100kHz

-150dBc/Hz @ 1MHz

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

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# Outline (mm)



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## **Oscillator Specification**

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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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