

#### **Customer Part:**

#### Description

 Temperature compensated voltage controlled crystal oscillator (VCTCXO)

■ Model IQXT-210-4

Model Issue number 3

# **Frequency Parameters**

FrequencyFrequency Tolerance±0.50ppm

■ Tolerance Condition @ 25°C, 3.3V & VC=1.5V

Frequency Stability ±0.14ppm
 Operating Temperature Range -40.00 to 85.00°C

Ageing ±0.02ppm max per day, ±1ppm

max per year

 Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and 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=1.5V, 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.

 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): ±0.1ppm max

 Short Term Stability (@ 25°C after 10mins power on): 5E-10/s typ @ 10MHz

# **Electrical Parameters**

■ Supply Voltage 3.3V ±5%
■ Current Draw 10.000mA

Current: TA=25°C, Vs=3.3V, VC=1.5V and load=10kΩ//10pF

# **Frequency Adjustment**

Pulling ±10ppm to ±15ppmControl Voltage 1.5V ±1.5V

Linearity: ±10% maxSlope: Positive

Input Impedance: 100kΩ min

# **Output Details**

Output Compatibility Clipped SineDrive Capability 10kΩ//10pF

Output Levels: 0.8V pk-pk min

#### **Noise Parameters**

Phase Noise (@ 10MHz typ):

-90dBc/Hz @ 10Hz

-115dBc/Hz @ 100Hz

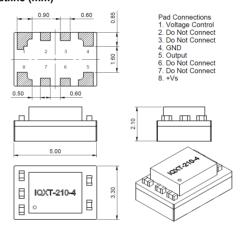
-135dBc/Hz @ 1kHz

-145dBc/Hz @ 10kHz -148dBc/Hz @ 100kHz

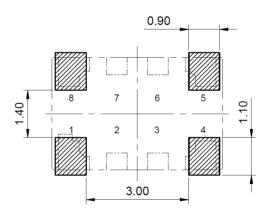
-150dBc/Hz @ 1MHz



# Outline (mm)



#### **Recommended Solder Pad Layout**



#### Sales Office Contact Details:

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Part No. + Packaging: LFTVXO063791Bulk

# **Customer Part:**

#### **Environmental Parameters**

- Storage Temperature Range: -55 to 105°C
- ESD Level:
  - HBM, Class 2: 2000V to 4000V, JEDEC JS-001-2010 Machine Model, Class B: 200V to 400V, JEDEC JS-001-2010
- 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

# **Manufacturing Details**

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

# Compliance

RoHS Status (2015/863/EU)
 REACh Status
 MSL Rating (JDEC-STD-033):
 2

#### **Packaging Details**

- Pack Style: Bulk Loose in bulk pack Standard Pack Quantity: 1
- Alternative packing option available

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