# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### TCXO Specification

Part No. + Packaging: LFTCX0063780Bulk

#### Description

- Temperature compensated crystal oscillator (TCXO)
- Model

IQXT-210-1 2

Model Issue number

#### **Frequency Parameters**

- Frequency
- Frequency Tolerance
- Frequency Stability ±0.14ppm
- Operating Temperature Range -40
- Ageing

-40.00 to 85.00°C ±0.02ppm max per day, ±1ppm max per year

20.0MHz

±0.50ppm

- Frequency Tolerance: Measurement referenced to frequency observed with TA=25°C, Vs=3.3V 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, load=15pF and temperature variable speed less than 2°C per minute.
- Ageing: TA=25°C, Vs=3.3V 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 and load=15pF): ±0.1ppm max
- Load Variation (measurement referenced to frequency observed with TA=25°C, Vs=3.3V and load change=15pF ±5%): ±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	10.00mA

Current: TA=25°C, Vs=3.3V and load=15pF

#### **Output Details**

Output Compatability	HCMOS
Drive Capability	15pF
Rise and Fall Time	8.0ns max

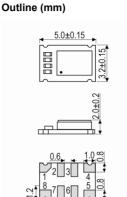
- Duty Cycle
  45/55%
  Output Low (@ )(c=2 2)( lood=15pE) 0.4)(m
- Output Low (@ Vs=3.3V, load=15pF): 0.4V max Output High (@ Vs=3.3V, load=15pF): 2.4V min

#### **Noise Parameters**

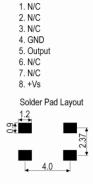
- Phase Noise (@ 10MHz typ):
  - -90dBc/Hz @ 10Hz
  - -115dBc/Hz @ 100Hz
  - -135dBc/Hz @ 1kHz
  - -145dBc/Hz @ 10kHz
  - -148dBc/Hz @ 100kHz
  - -150dBc/Hz @ 1MHz

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Underside View



Pad Connections





#### **Environmental Parameters**

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

Compliant

#### Manufacturing Details

Maximum Process Temperature: 260°C (30secs max)

#### Compliance

- RoHS Status (2011/65/EU)
  Compliant
- REACh Status
- MSL Rating (JDEC-STD-033): 2

#### Packaging Details

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

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