TCXO Specification

Part No. + Packaging: ***LFTCXO075792Reel***

Description

- Temperature compensated crystal oscillator (TCXO) in a hermetically sealed 3.2x2.5mm SMD package.
- Model IQXT-220-1
- Model Issue number 1

Frequency Parameters

- Frequency 10.0MHz
- Frequency Tolerance ±1.00ppm
- Frequency Stability ±0.28ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing ±0.02ppm max/day, ±1ppm max/year
- Frequency Tolerance: Measurement referenced to frequency observed with TA=25°C, Vs=3.3V and load=10kΩ//10pF, within 30 days after ex-works.
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with fref=(fmax+fmin)/2, Vs=3.3V. load=10kΩ//10pF and temperature variable speed less than 2°C/min.
- Ageing: Vs, TA and load constant, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, load=10kΩ//10pF and after 1hr of operation.
- Supply Voltage Variation (measurement referenced to frequency observed TA=25°C, Vs varied from 3.13V to 3.47V and load=10kΩ//10pF): ±0.1ppm max
- Load Variation (measurement referenced to frequency observed with TA=25°C, Vs=3.3V and load change=10kΩ//10pF ±5%): ±0.1ppm max

Electrical Parameters

- Supply Voltage 3.3V ±5%
- Current Draw 5.000mA
- Current Consumption (@ TA=25°C, Vs=3.3V and load=10kΩ//10pF): 5mA max

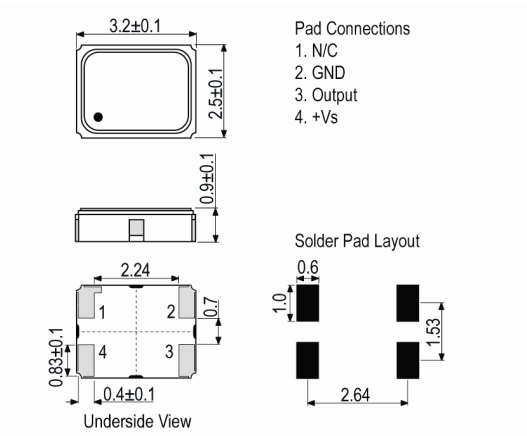
Output Details

- Output Compatability Clipped Sine
- Drive Capability 10kΩ//10pF
- Output Voltage Level: 0.8V pk-pk min

Noise Parameters

- Phase Noise @ 25°C (F=10.0MHz, typ):
  -90dBc/Hz @ 10Hz
  -120dBc/Hz @ 100Hz
  -140dBc/Hz @ 1kHz
  -145dBc/Hz @ 10kHz
  -148dBc/Hz @ 100kHz

Outline (mm)



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Environmental Parameters

- Operable Temperature Range: -40 to 85°C
- Storage Temperature Range: -55 to 105°C
- ESD Levels: ANSI/ESDA/JEDEC JS-001-2010:
  Human Body Model, Class 2: 2000V to 4000V
  Machine Model, Class B: 200V to 400V
- Shock: IEC 60068-2-27, Test Ea, Severity 50A: 100G acceleration for 6ms, half sine wave, 3 times in 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-06, Test Fc: 10Hz-2000Hz, 0.75mm amplitude, 10G acceleration, 30mins per cycle, 3 times in 3 mutually perpendicular planes, test duration 2hrs.

Manufacturing Details

- Storage Conditions:
  Temperature: -10 to 35°C
  Humidity: 20 to 70% RH
- Maximum Process Temperature: 260°C (30secs max)

Compliance

- RoHS Status (2011/65/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
  Pack Size: 1,400
- *Alternative packing option available*

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