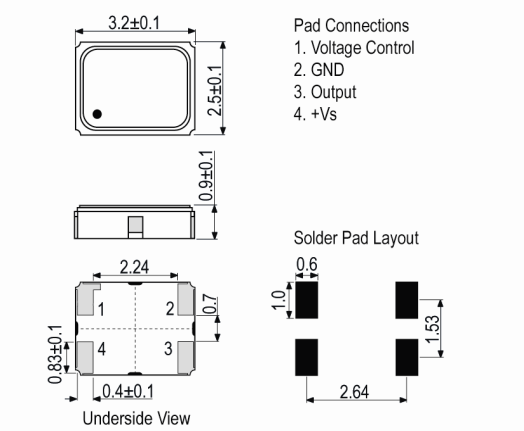
TCVCXO Specification

Part No. + Packaging: ***LFTVXO075809Reel***

Description

- Temperature compensated voltage controlled crystal oscillator (TCVCXO) in a hermetically sealed 3.2x2.5mm SMD package.
- Model: IQXT-220-2
- Model Issue number: 1

Outline (mm)



Frequency Parameters

- Frequency: 32.7680MHz
- 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, VC=1.5V 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, VC=1.5V, load=10kΩ//10pF and temperature variable speed less than 2°C/min.
- Ageing: Vs, VC, TA and load constant, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V, 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, VC=1.5V and load=10kΩ//10pF): ±0.1ppm max
- Load Variation (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and load change=10kΩ//10pF ±5%): ±0.1ppm max
- Developed Frequencies:
  10.0MHz, 12.80MHz, 16.320MHz, 16.3840MHz, 19.20MHz, 20.0MHz, 30.720MHz, 32.7680MHz, 38.880MHz, 40.0MHz.

Electrical Parameters

- Supply Voltage: 3.3V ±5%
- Current Draw: 5.000mA
- Current Consumption (@ TA=25°C, Vs=3.3V, VC=1.5V and load=10kΩ//10pF): 5mA max

Frequency Adjustment

- Pulling: ±10ppm min to ±15ppm max
- Control Voltage: 1.5V ±1.0V
- Input Impedence: 100kΩ min
- Linearity: 10% max
  Slope: Positive

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

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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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