OCXO Specification

Part No. + Packaging: ***LFOCXO072538Bulk***

Customer Part:

Description

- Oven Controlled Crystal Oscillator (OCXO) with voltage control.
- Model IQOV-164-26
- Model Issue number 1

Frequency Parameters

- Frequency 10.0MHz
- Frequency Tolerance ±200.00ppb
- Frequency Stability ±10.00ppb
- Operating Temperature Range -40.00 to 85.00°C
- Ageing ±1ppb max per day, ±100ppb max per year
- Frequency Tolerance: Measurement referenced to frequency observed with TA=25°C, Vs=12.0V, VC=2.5V and after 15mins of operation, within 30 days after ex-works.
- Frequency Stability: TA varied over operating temperature range, measurement referenced to frequency observed with fref=(fmax+fmin)/2, Vs=12.0V, VC=2.5V, load=50Ω and temperature variable speed less than 2°C/min.
- Supply Voltage Variation (measurement referenced to frequency observed with TA=25°C, Vs varied from 11.4V to 12.6V, VC=2.5V and load=50Ω): ±5ppb max
- Load Variation (measurement referenced to frequency observed with TA=25°C, Vs=12.0V, VC=2.5V and load change=50Ω ±10%): ±1ppb max
- Short Term Stability (temperature stable, no EMI/EMC or other interference, tested after power for 1hr, ref to 25°C):
  0.1E-9 max @ 0.1s
  0.01E-9 max @ 1s
- Ageing: Vs, VC, TA constant, measurement referenced to frequency observed with TA=25°C, Vs=12.0V, VC=2.5V, load=50Ω and after 30 days of operation.

Electrical Parameters

- Supply Voltage 12.0V ±5%
- Current Consumption:
  Warm Up: 350mA max
  Steady State (@ 25°C): 150mA max
- Warm-Up Time (@ 25□ within ±50ppb of final frequency with reference after 30 min on): 4 minutes max

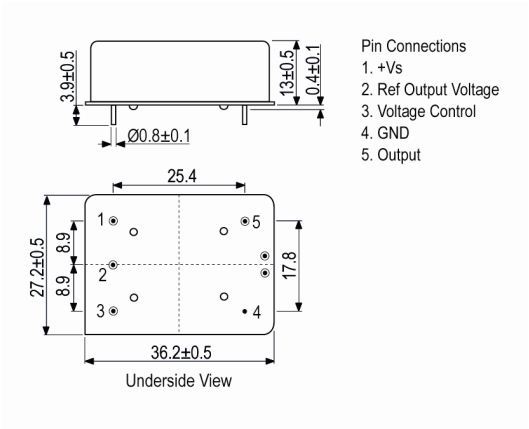
Frequency Adjustment

- Pulling ±0.7ppm min
- Control Voltage 2.5V ±2.5V
- Input Impedance 100kΩ min
- Voltage Reference (Vref out): 4.85V min, 5.0V typ, 5.15V max
- Linearity: 10% max
- Slope: Positive

Output Details

- Output Compatibility Sine
- Drive Capability 50Ω
- Output Level: 2dBm min, 5dBm typ, 8dBm max

Outline (mm)



Sales Office Contact Details:

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Customer Part:

Noise Parameters

- Harmonics Suppression: -25dBc max
- Spurious Suppression: -60dBc max
- Phase Noise (typ @ 25°C):
  -90dBc/Hz @ 1Hz
  -125dBc/Hz @ 10Hz
  -140dBc/Hz @ 100Hz
  -150dBc/Hz @ 1kHz
  -155dBc/Hz @ 10kHz
- Phase Noise (max @ 25°C):
  -80dBc/Hz @ 1Hz
  -115dBc/Hz @ 10Hz
  -135dBc/Hz @ 100Hz
  -145dBc/Hz @ 1kHz
  -150dBc/Hz @ 10kHz

Environmental Parameters

- 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: 50G, 11ms duration, half sine wave, 3 times in each of 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-06, Test Fc: 10Hz-500Hz, 0.75mm displacement, 10G acceleration, 30mins per cycle, 3 times in each of 3 mutually perpendicular planes, test 2hrs.
- RoHS Terminations
- RoHS Reflow Temp 260°C max for 30sec max

Compliance

- RoHS Status (2015/863/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Bulk Bulk pack
  Pack Size: 20
- *Alternative packing option available*

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