OCXO Specification

Part No. + Packaging: ***LFOCXO063815Bulk***

Description

- Oven controlled crystal oscillator (OCXO) with voltage control
- Model IQOV-164-4
- Model Issue number 2

Frequency Parameters

- Frequency 10.0MHz
- Frequency Tolerance ±50.00ppb
- Tolerance Condition @ 25°C, 3.3V, VC=1.65V after 15mins warm-up
- Frequency Stability ±1.00ppb
- Operating Temperature Range -30.00 to 75.00°C
- Ageing ±0.5ppb max per day, ±50ppb max per year
- Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and after 15 minutes of operation, within 30 days after ex-works): ±50ppb
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with fref=(fmax+fmin)/2, Vs=3.3V, VC=1.65V, load=50Ω and temperature variable speed less than 2°C per minute.
- Ageing: Vs, VC, TA constant measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V, load=50Ω and after 30 days of operation.
- Supply Voltage Variation (measurement referenced to frequency observed with TA=25°C, Vs varied from 3.13V to 3.47V, VC=1.65V and load=50Ω): ±0.5ppb max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and load=50Ω): ±0.5ppb max
- Short Term Stability - Allan Variance (temperature stability, no EMI\EMC or other interference test after power for 1hr ref. to 25°C; 1s, using PN9000 equipment): 0.01ppb max / 1sec

Electrical Parameters

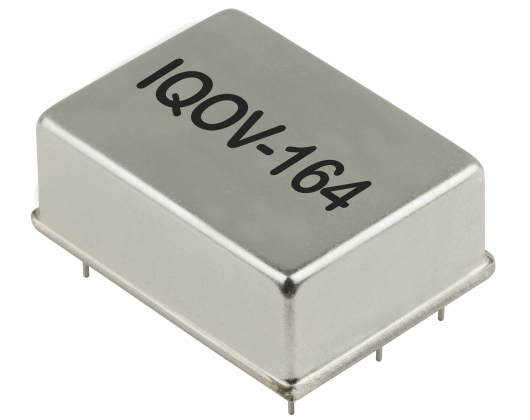
- Supply Voltage 3.3V ±5%
- Current Consumption:
  Warm up: 1400mA max
  Steady state (@ 25°C): 500mA max

Frequency Adjustment

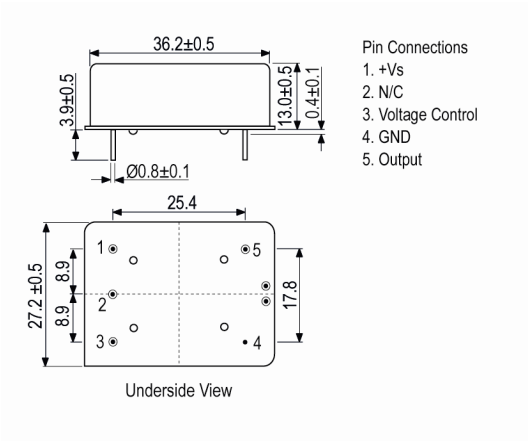
- Pulling ±0.7ppm to ±1ppm
- Control Voltage 1.65V ±1.65V
- Linearity: ±10% max
- Slope: Positive
- Input Impedance: 100kΩ min

Output Details

- Output Compatability Sine
- Drive Capability 50Ω
- Output Amplitude: 6dBm min, 10dBm max



Outline (mm)



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Noise Parameters

- Phase Noise (@ 10MHz typ):
  -125dBc/Hz @ 10Hz
  -145dBc/Hz @ 100Hz
  -150dBc/Hz @ 1kHz
  -155dBc/Hz @ 10kHz
  -155dBc/Hz @ 100kHz
  -155dBc/Hz @ 1MHz
- Harmonic Suppression: -30dBc max
  Spurious Suppression: -60dBc max

Environmental Parameters

- Operable Temperature Range: -40 to 85°C
- 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: 50G, 11ms duration, 1/2 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, one cycle per 30mins, 3 times in each of 3 mutually perpendicular planes, test 2hrs

Manufacturing Details

- Maximum Reflow 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: Bulk Loose in bulk pack
  Pack Size: 1
- *Alternative packing option available*