



Description

- Oven controlled crystal oscillator (OCXO) with voltage control in a resistance welded metal can.
- Model IQOV-164-51
- Model Issue number 2

Frequency Parameters

- Frequency 26.0MHz
- Frequency Tolerance $\pm 50.00\text{ppb}$
- Frequency Stability $\pm 1.00\text{ppb}$
- Operating Temperature Range -30.00 to 75.00°C
- Ageing $\pm 0.5\text{ppb max/day}$, $\pm 0.05\text{ppm max/year}$
- Frequency Tolerance: Measurement referenced to frequency observed with $T=25^\circ\text{C}$, $V_s=3.3\text{V}$, $V_C=1.65\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
- Frequency Stability: Temp varied from -30°C to 75°C , measurement referenced to frequency observed with $f_{\text{ref}} = (f_{\text{max}} + f_{\text{min}})/2$, $V_s=3.3\text{V}$, $V_C=1.65\text{V}$, load= 50Ω and temperature variable speed less than 2°C per minute.
- Ageing: V_s , V_C and temp constant, measurement referenced to frequency observed with $T=25^\circ\text{C}$, $V_s=3.3\text{V}$, $V_C=1.65\text{V}$, load= 50Ω and after 30 days of operation.
- Supply Voltage Variation (measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, V_s varied from 3.13V to 3.47V , $V_C=1.65\text{V}$ and load= 50Ω): $\pm 0.5\text{ppb max}$
- Load Variation (measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_s=3.3\text{V}$, $V_C=1.65\text{V}$ and load change= $50\Omega \pm 5\%$): $\pm 0.5\text{ppb max}$
- Short Term Stability (temperature stable, no EMI/EMC or other interference, test after power for 1hr ref. to 25°C ; 1s): 0.01ppb max

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 5\%$
- Current Draw 500.000mA
- Current Consumption:
Warm up: 1400mA max
Steady state (@ 25°C): 500mA max

Frequency Adjustment

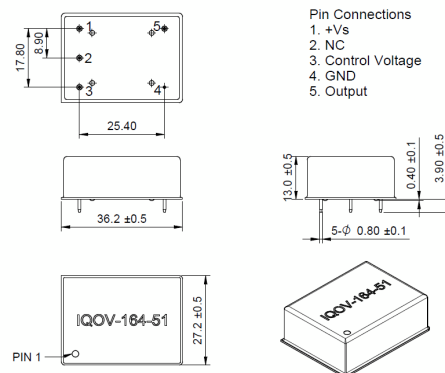
- Pulling $\pm 0.7\text{ppm min}$, $\pm 1.0\text{ppm max}$
- Control Voltage $1.65\text{V} \pm 1.65\text{V}$
- Input Impedance $100\text{k}\Omega \text{ min}$
- Linearity: $\pm 10\% \text{ max}$
- Slope: Positive

Output Details

- Output Compatibility Sine
- Drive Capability 50Ω
- Output Levels: 6dBm min , 10dBm max



Outline (mm)



Tolerance $\pm 0.2\text{mm}$ unless otherwise stated.

Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

Noise Parameters

- Harmonics Suppression: -30dBc max
Spurious Suppression: -60dBc max
- Phase Noise (typ @ 25°C):
 - 120dBc/Hz @ 10Hz
 - 140dBc/Hz @ 100Hz
 - 145dBc/Hz @ 1kHz
 - 150dBc/Hz @ 10kHz
 - 150dBc/Hz @ 100kHz
 - 155dBc/Hz @ 1MHz
- Phase Noise (max @ 25°C):
 - 110dBc/Hz @ 10Hz
 - 130dBc/Hz @ 100Hz
 - 140dBc/Hz @ 1kHz
 - 145dBc/Hz @ 10kHz
 - 145dBc/Hz @ 100kHz
 - 150dBc/Hz @ 1MHz

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
- Vibration: IEC 60068-2-06, Test Fc: Test Condition: 0.75mm; acceleration: 10g; 10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X, Y, Z)
- Shock: 50g; 11ms~half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A.
- RoHS Terminations
- RoHS Reflow Temp 260°C 30sec max

Compliance

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

Packaging Details

- Bulk pack

Standard Pack Quantity: 1

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