

Customer Part:

Description

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

Frequency Parameters

- Frequency 20.0MHz
- Frequency Tolerance Max ± 50.00 ppb
- Tolerance Condition @ 25°C, 3.3V, VC=1.65V after 15mins warm-up
- Frequency Stability ± 1.00 ppb
- Operating Temperature Range -30.00 to 75.00°C
- Ageing ± 0.5 ppb max per day, ± 50 ppb 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): ± 50 ppb
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with $f_{ref} = (f_{max} + f_{min})/2$, 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): $\pm 50\%$ of frequency stability
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and load=50Ω): $\pm 50\%$ of frequency stability
- 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 @ 10MHz

Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$
- Current Consumption:
Warm up (3mins max): 5W max (6W max ≤ 10 MHz over -30+75°C, 7W max ≤ 10 MHz over 40+85°C)
Steady state (@ 25°C): 2W max

Frequency Adjustment

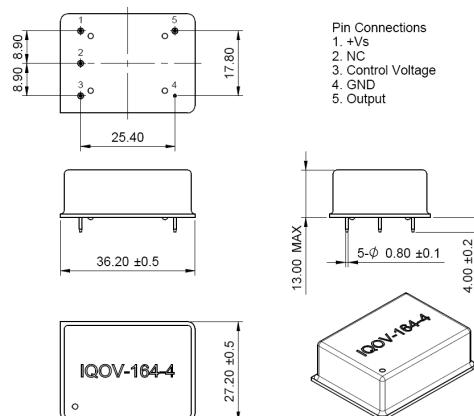
- Pulling ± 0.7 ppm to ± 1 ppm
- Control Voltage 1.65V ± 1.65 V
- Linearity: $\pm 10\%$ max
- Slope: Positive
- Input Impedance: 100kΩ min

Output Details

- Output Compatibility Sine
- Drive Capability 50Ω
- Output Amplitude: 0dBm min, 10dBm max



Outline (mm)



Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

Customer Part:

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: -40dBc max
- Spurious Suppression: -75dBc 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 (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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