

Customer Part:



Description

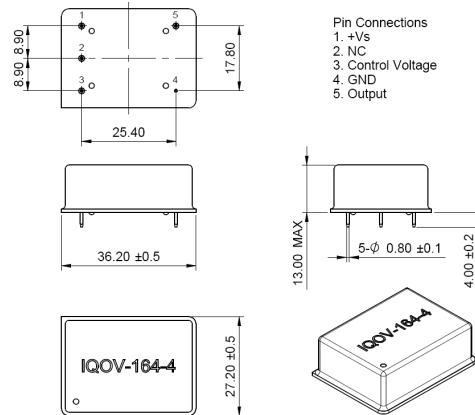
- Oven controlled crystal oscillator (OCXO) with voltage control
- Model IQOV-164-4
- Model Issue number 4

Frequency Parameters

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



Outline (mm)



Electrical Parameters

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

Frequency Adjustment

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

Output Details

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

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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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