



Description

- Oven Controlled Crystal Oscillator (OCXO) in a miniature 7.5x5.5mm package.
- Model IQOV-116-1
- Model Issue number 1

Frequency Parameters

- Frequency 10.0MHz
- Frequency Tolerance $\pm 1.50\text{ppm}$
- Frequency Stability $\pm 0.02\text{ppm}$
- Operating Temperature Range -40.00 to 95.00°C
- Ageing $\pm 5\text{ppb}$ max per day, $\pm 0.5\text{ppm}$ max per year
- Develop frequencies: 10.0MHz, 19.2MHz, 20MHz
- Frequency Tolerance: measurement referenced to frequency observed with $\text{TA}=25^\circ\text{C}$, $\text{Vs}=3.3\text{V}$ within 30 days after ex-works.
- Frequency Stability: temperature varied across the operating temperature range, measurement referenced to the frequency observed with $\text{Fref}=(\text{Fmax}+\text{Fmin})/2$, $\text{Vs}=3.3\text{V}$, load=15pF, temperature variable speed less than 2°C per minute.
- Supply Voltage Variation (measurement referenced to frequency observed with $\text{TA}=25^\circ\text{C}$, Vs varied from 3.135V to 3.465V, load=15pF): $\pm 5\text{ppb}$ max
- Load Variation (measurement referenced to frequency observed with $\text{TA}=25^\circ\text{C}$, $\text{Vs}=3.3\text{V}$, load change=5%, load=15pF): $\pm 5\text{ppb}$ max
- Ageing: Measurement referenced to frequency observed with $\text{TA}=25^\circ\text{C}$, $\text{Vs}=3.3\text{V}$ and after 30 days of operation.
- Short Term Stability (temperature stability, no EMI/EMC or other interference, test after powered for 1 hour ref to 25°C; 1s): 0.05ppb max
- g-sensitivity: 1ppb/g max

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 5\%$
- Current Consumption:
 - Warm Up: 600mA max
 - Steady State: 230mA max @ 25°C
- Warm Up Time (time until the output is within $\pm 0.1\text{ppm}$, with reference to the last frequency reading taken 1hr after start-up @ 25°C): 5min max

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF
- Rise and Fall Time 6.0ns max
- Duty Cycle 45/55
- Output Low VoL (@ $\text{Vs}=3.3\text{V}$, load=15pF): 0.4V max
- Output High VoH (@ $\text{Vs}=3.3\text{V}$, load=15pF): 2.4V min

Noise Parameters

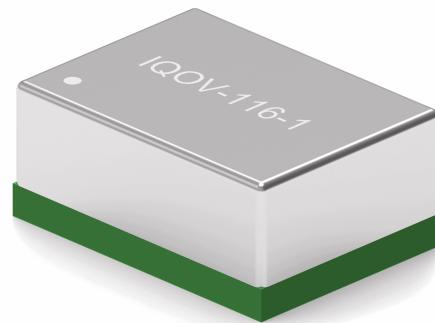
- Phase Noise (max @ 25°C):
 - 65dBc/Hz @ 1Hz
 - 100dBc/Hz @ 10Hz
 - 130dBc/Hz @ 100Hz
 - 150dBc/Hz @ 1kHz
 - 155dBc/Hz @ 10kHz
 - 155dBc/Hz @ 100kHz
 - 155dBc/Hz @ 1MHz

Sales Office Contact Details:

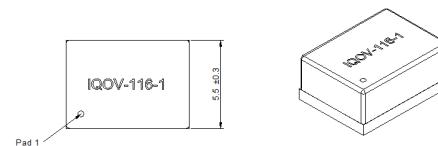
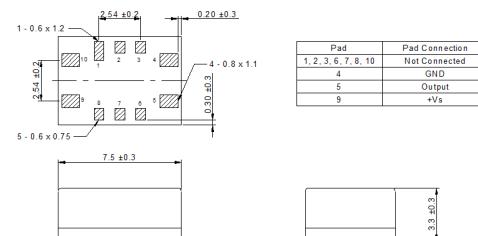
UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

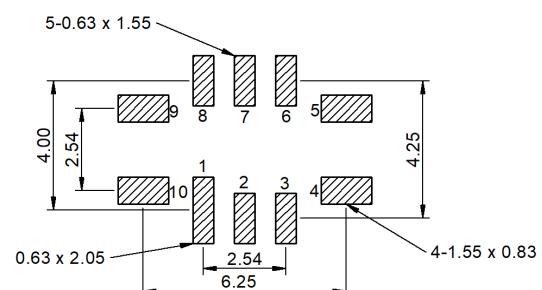
Web: www.iqdfrequencyproducts.com



Outline (mm)



Recommended Solder Pad Layout



Environmental Parameters

- Storage Temperature Range: -55 to 105°C
- ESD Levels:
 - Human Body Model (HBM), ANSI/ESDA/JEDEC JS-001-2010:
class 2: 2000V to 4000V
 - Machine Model (MM), JEDEC JESD22-A115C: class B: 200V to 400V
- Shock (IEC 68-2-27, Test Ea, Severity 50A): 100g, 6ms, half sine wave, 3 times in each of the 3 mutually perpendicular planes.
- Vibration (IEC 68-2-06, Test Fc): 10Hz-2000Hz, 0.75mm displacement, 10g acceleration, 30mins per cycle, 3 times in each of the 3 mutually perpendicular planes, test 2hrs.

Manufacturing Details

Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 3

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on
cut tape

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Mouser Electronics

Authorized Distributor

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