Description

- Microcomputer Compensated Crystal Oscillator with voltage control (MCXO)
- Model: IQMT-100-4-B
- Model Issue number: 1

Frequency Parameters

- Frequency: 12.80MHz
- Frequency Tolerance @ 25°C: ±0.50ppm
- Frequency Stability: ±0.05ppm
- Operating Temperature Range: -40.00 to 85.00°C
- Ageing: ±0.02ppm max per day, ±0.5ppm max per year
- 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=10kΩ//10pF): ±0.1ppm max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and load=10kΩ//10pF): ±0.1ppm max
- Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V and within 30 days after ex-works)
- Short Term Stability (@ 25°C after 10mins power on): 2E-10/s typ @ 10MHz
- Frequency Stability: TA varied from -40°C to 85°C, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.65V, load=10kΩ//10pF and temperature variable speed less than 2°C per minute.
- Ageing: TA=25°C, Vs=3.3V, VC=1.65V and after 1hr of operation.

Electrical Parameters

- Supply Voltage: 3.3V
- Supply Voltage Tolerance: ±5%
- Current Draw: 10.00mA max
- Current: TA=25°C, Vs=3.3V, VC=1.65V and load=10kΩ//10pF

Frequency Adjustment

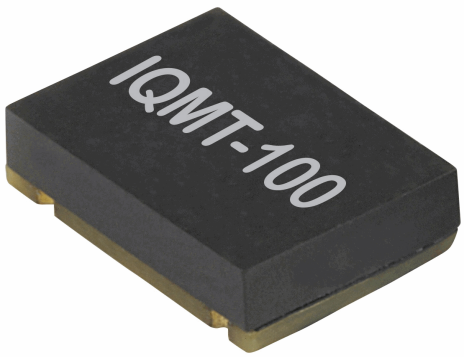
- Pulling: ±10ppm to ±15ppm
- Control Voltage Details: 1.65V ±1.65V
- Linearity: ±10% max
- Input Impedance: 100kΩ min
- Slope: Positive

Output Details

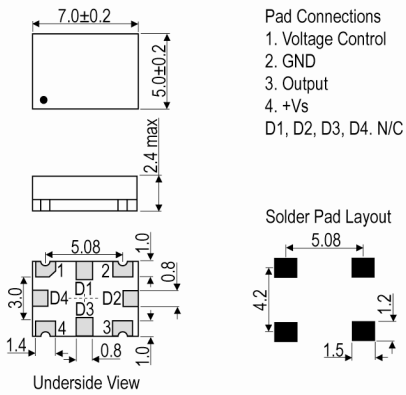
- Output Compatability: Clipped Sine
- Output Load: 10kΩ//10pF
- Output Level: 0.8V pk-pk min

Noise Parameters

- Phase Noise (@ 10MHz typ):
  -90dBc/Hz @ 10Hz
  -115dBc/Hz @ 100Hz
  -135dBc/Hz @ 1kHz
  -145dBc/Hz @ 10kHz
  -148dBc/Hz @ 100kHz
  -150dBc/Hz @ 1MHz



Outline (mm)



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Environmental Parameters

- Shock: IEC 60068-2-27, Test Ea: 100G acceleration for 6ms, half sinewave, in 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc: 10Hz-2000Hz, 0.75mm amplitude, 10G acceleration, 30mins per cycle, in 3 mutually perpendicular planes, test duration 2hrs
- Storage Temperature Range: -55 to 105°C
- Operable Temperature Range: -40 to 85°C
- ESD Level:
  HBM, Class 2: 2000V to 4000V, JEDEC JS-001-2010
  Machine Model, Class B: 200V to 400V, JEDEC JS-001-2010

Manufacturing Details

- Moisture Sensitivity Level: 2
- Maximum Reflow Temperature: 260°C (30secs max)

Compliance

RoHS Status	Compliant
REACh Status	Compliant

Packaging

Pack Type: Bulk	Loose in bulk pack
Pack Size	1

- Alternative packing option available

This document is correct at the time of printing; please contact your local office for the latest version.

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