ISSUE 1; July 2016

Description

- Standard 2.5 x 2.0mm oscillator in a ceramic package with a hermetically sealed metal lid.

Frequency Parameters

Frequency	1.0MHz to 66.0MHz
Frequency Stability	±20.00ppm to ±100.00ppm
Ageing	±3ppm max per year @ 25°C

Electrical Parameters

Supply Voltage	3.3V ±10%

Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

Output Details

Output Compatability	HCMOS
Drive Capability	15pF

- Output Voltage Levels:
  Output Low (VoL): 10%Vs max
  Output High (VoH): 90%Vs min
- Start Up Time: 10ms max

Output Control

- Stand-by Operation:
  Logic '1' (≥70% Vs) to pad 1 enables oscillator output.
  Logic '0' (≤30% Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state.
  No connection to pad 1 enables oscillator output.
- Stand-by Current: 10µA max

Noise Parameters

- Period Jitter (pk-pk): ±80ps typ
- Period Jitter (1σ): ±10ps typ
- Phase Jitter (12kHz to 20MHz): 1ps rms max

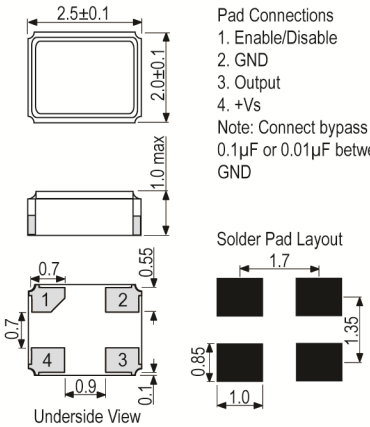
Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202, Method 213. Or comparable.
- Vibration: MIL-STD-883, Method 2007, Condition A. Or comparable.

Manufacturing Details

- Maximum Process Temperature: 260°C (10secs max)
- Note: Do not connect inductor or bead between pad 2 and GND as it can make the output unstable.

Outline (mm)



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Ordering Information

- Frequency*
  Model*
  Output
  Frequency Stability (over operating temperature range)*
  Operating Temperature Range*
  Supply Voltage
  (*minimum required)
- Example
  20.0MHz IQXO-791
  HCMOS ±50ppm 0 to 70C 3.3V

Compliance

- RoHS Status (2011/65/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481D
  Pack Size: 3,000
- Pack Style: Bulk Loose in bulk pack
  Pack Size: 100
- Pack Style: Cutt Cut tape
  Pack Size: 1

Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	50.0MHz	0 to 70	±20.0	10	10	40/60
		-40 to 85	±50.0	10	10	40/60
50.000001MHz	66.0MHz	0 to 70	±20.0	12	10	40/60
		-40 to 85	±50.0	12	10	40/60

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