

ISSUE 1; July 2015

### 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:  $\pm 20.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Supply Voltage: 3.3V  $\pm 10\%$

### Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility: HCMOS
- Drive Capability: 15pF
- Output Voltage High: 90% of  $V_s$  min  
Output Voltage Low: 10% of  $V_s$  max

### Output Control

- Standby Operation:  
Logic '1' ( $\geq 70\%$   $V_s$ ) to pad 1 enables oscillator output  
Logic '0' ( $\leq 30\%$   $V_s$ ) 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
- Start Up Time: 10ms max

### Noise Parameters

- Period Jitter (pk-pk):  $\pm 100\text{ps}$  max
- Period Jitter ( $1\sigma$ ):  $\pm 25\text{ps}$  max
- Phase Jitter (12kHz to 20MHz): 1ps rms max

### Environmental Parameters

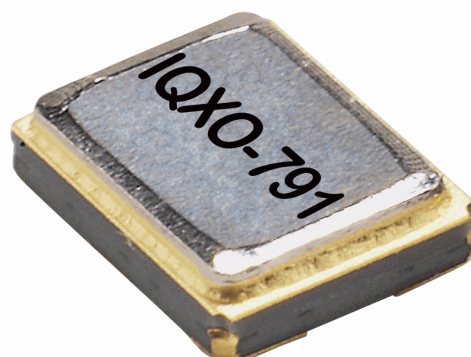
- Shock: MIL-STD-202, Method 213
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range: -55 to 125°C

### Manufacturing Details

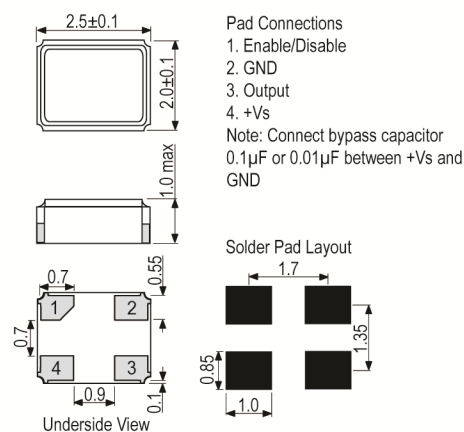
- Do not connect inductor or bead between pad 2 and GND as it can make the output unstable

### Ordering Information

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



### Outline (mm)



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### Compliance

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

### Packaging Details

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

### 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	66.0MHz	0 to 70	±20.0	10	10	40/60
		-40 to 85	±50.0	10	10	40/60

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

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