

ISSUE 1; November 2022

### Description

- LVDS output crystal oscillator using PLL technology to give a very wide frequency range. Ceramic package with a seam sealed metal lid, hermetically sealed.



### Frequency Parameters

- Frequency 160.0MHz to 800.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 3\text{ppm}$  max per year @ 25°C
- Frequency stability: inclusive of tolerance @ 25°C  $\pm 3^\circ\text{C}$  & operating temperature range.

### Electrical Parameters

- Supply Voltage 2.5V  $\pm 5\%$

### Operating Temperature Ranges

- -20 to 70°C
- -40 to 85°C

### Output Details

- Output Compatibility LVDS
- Drive Capability 100 $\Omega$
- Output Voltage High (Voh): 1.6V max  
Output Voltage Low (Vol): 0.9V min
- Differential Output Voltage (VOD) 0.247V min, 0.33V typ, 0.454V max
- Offset Voltage (VOS) 1.125V min, 1.25V typ, 1.375V max

### Output Control

- Logic '1' to pad 1 ( $\geq 70\%V_s$ ) disables oscillator outputs; oscillator outputs go to the high impedance state.  
Logic '0' to pad 1 ( $\leq 30\%V_s$ ) enables oscillator outputs  
No connection to pad 1 enables oscillator output..

### Noise Parameters

- Phase Jitter (12kHz to 20MHz): 2ps RMS max.

### Environmental Parameters

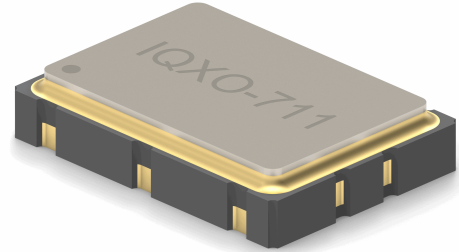
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A

### Manufacturing Details

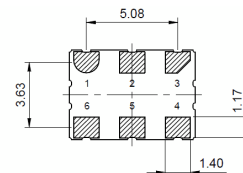
- RoHS Terminations NiAu
- RoHS Reflow 260°C max, 255°C for 30s max

### Ordering Information

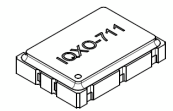
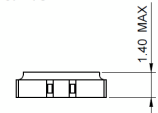
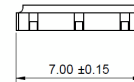
- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage
- Example:  
200.0MHz IQXO-711  
LVDS  $\pm 50\text{ppm}$  -40 to 85C 2.5V



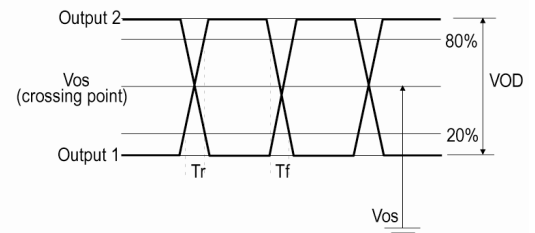
### Outline (mm)



- Pad Connections
1. Standby
  2. N/C
  3. GND
  4. Output +
  5. Output -
  6. +Vs



### Wave Form



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### Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 1

### Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Electrical Specification - maximum limiting values 2.5V $\pm$ 5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
160.0MHz	800.0MHz	-20 to 70 -40 to 85	$\pm$ 25.0 $\pm$ 25.0	50 50	0.5 0.5	45/55% 45/55%

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