

ISSUE 1; April 2016

### Description

- 5 x 3.2mm ceramic SMD oscillator

### Frequency Parameters

- Frequency: 80.0MHz to 160.0MHz
- Frequency Tolerance:  $\pm 20.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- 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: 2.5V  $\pm 5\%$
- Start up time: 10ms max

### Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility: LVDS
- Drive Capability: 100Ω
- Output Voltage Logic Low: 1.43V typical, 1.6V max
- Output Voltage Logic High: 1.1V typical, 0.9V min
- Output Differential Voltage: 247mV to 454mV max, 350mV typical
- Output Offset Voltage: 1.125V to 1.375V max, 1.2V typical

### Output Control

- Logic '1' to pad 1 (70%Vs min) enables oscillator outputs
- Logic '0' to pad 1 (30%Vs max) disables oscillator outputs, oscillator outputs go to the high impedance state
- No connection to pad 1 enables oscillator outputs

### Noise Parameters

- Phase Jitter (12kHz to 20MHz): 1ps rms max

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 120cm drop (3 times) onto hard wooden board
- Vibration: MIL-STD-883, Method 2007, Test Condition A: 10Hz-55Hz-10Hz, 1.5mm amplitude, full sine, 2mins per cycle, 3 mutually perpendicular planes, 2hrs duration in each plane

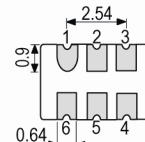
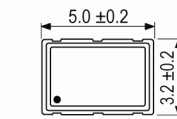
### Ordering Information

- Frequency\*
- Model\*
- Output
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- (\*minimum required)
- Example
- 100.0MHz IQXO-741
- LVDS  $\pm 50\text{ppm}$  0 to 70C 2.5V

### Compliance

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

### Outline (mm)

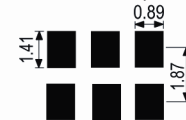


Underside View

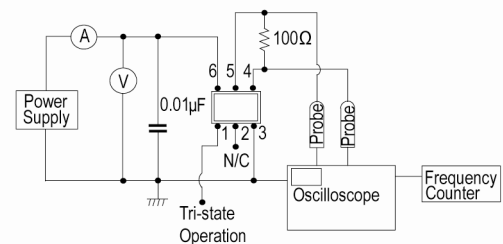
#### Pad Connections

- Tri-State
- N/C
- GND
- Output 1
- Output 2
- +Vs

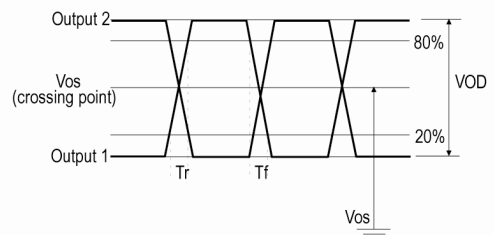
#### Solder Pad Layout



### Test Circuit



### Wave Form



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#### Packaging Details

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

#### 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	%
80.0MHz	160.0MHz	0 to 70	$\pm$ 20.0	66	0.7	45/55%
		-40 to 85	$\pm$ 20.0	66	0.7	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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