

ISSUE 1; April 2016

Description

- LVDS output Voltage Controlled Crystal Oscillator
- Wide pulling range of $\pm 100\text{ppm}$ min
- Ceramic package with a sealed metal lid, hermetically sealed

Frequency Parameters

- Frequency: 9.5MHz to 79.999999MHz
- 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

Frequency Adjustment

- Pulling: $\pm 100\text{ppm}$ min
- Control Voltage: 1.25V $\pm 1.25\text{V}$
- Input Impedence: 60k Ω typ
- Linearity: $\pm 10\%$ max

Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: LVDS
- Drive Capability: 100 Ω
- Output Voltage Logic Low 1.1V max
- Output Voltage Logic High 1.4V min
- Differential Output Voltage: 247 to 454mV, 350mV typ
- Offset Voltage: 1.125 to 1.375V, 1.2V typ

Output Control

- Tri-State:
 - Logic '1' to pad 2 (70%Vs min) enables oscillator output
 - Logic '0' to pad 2 (30%Vs max) disables oscillator output, oscillator goes to the high impedance state
 - No connection to pad 2, enables oscillator output

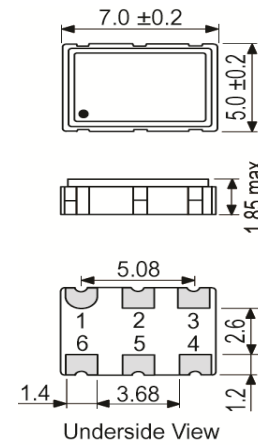
Noise Parameters


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

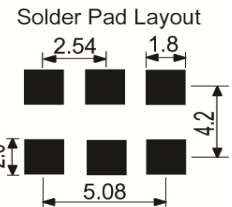
Environmental Parameters

- 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, 2min per cycle, 3 mutually perpendicular planes, 2hrs duration in each plane

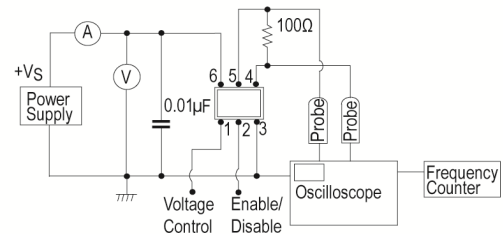
Outline (mm)



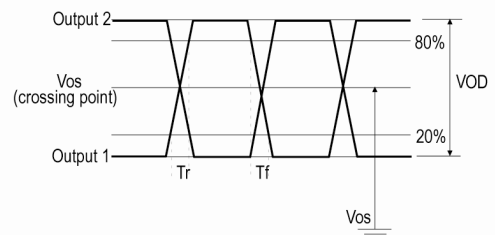
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- Pad Connections
- Voltage Control
 - Tri-State
 - GND
 - Output 1
 - Output 2
 - +Vs



Test Circuit



Wave Form



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Ordering Information

- Frequency*
Model*
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
Pullability
(*minimum required)
- Example:
50.0MHz IQXV-31
LVDS ± 50 ppm 0 to 70C 2.5V ± 100 ppm

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: 100
- 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	%
9.5MHz	79.999999MHz	0 to 70	± 20.0	80	1	45/55%
		-40 to 85	± 50.0	80	1	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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