



ISSUE 1; September 2014 - RoHS 2011/65/EU

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 $2.5\text{V} \pm 5\%$
- Start up time: 10ms max

Frequency Adjustment

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

Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility LVDS
- Drive Capability 100Ω
- Output Voltage Logic Low 1.1V 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 ($70\%V_s$ min) enables oscillator output
Logic '0' to pad 2 ($30\%V_s$ max) disables oscillator output,
oscillator goes to the high impedance state
No connection to pad 2, enables oscillator output

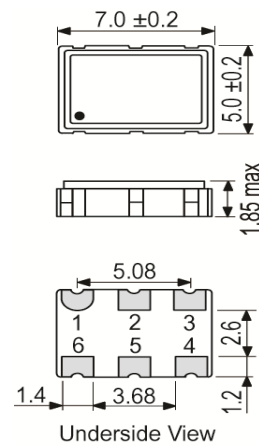
Noise Parameters

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

Environmental Parameters

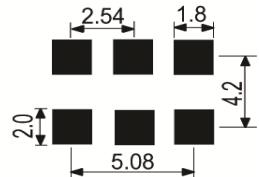
- Storage Temperature Range: -55 to 125°C
- Drop: 120cm drop (3 times) onto hard wooden board
- Vibration: MIL-STD-883, Method 2007, Test Condition A:
 10Hz - 55Hz - 10Hz , 1.5mm amplitude, full sine, 2min per cycle,
3 mutually perpendicular planes, 2hrs duration in each plane

Outline (mm)

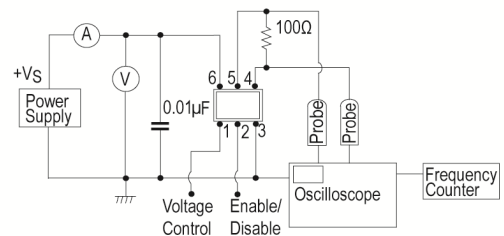


Pad Connections
1. Voltage Control
2. Tri-State
3. GND
4. Output 1
5. Output 2
6. $+V_s$

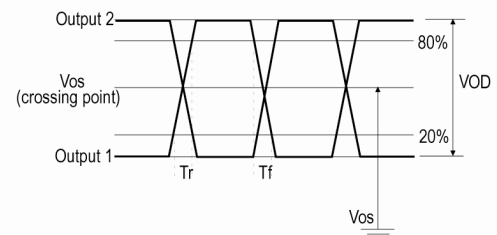
Solder Pad Layout



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 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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