

ISSUE 4; April 2016

Description

- Low jitter 2.5V surface mount oscillator in a ceramic package, with a hermetically sealed metal lid and LVDS outputs



Frequency Parameters

- Frequency: 75.0MHz to 312.5MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$

Electrical Parameters

- Supply Voltage: 2.5V $\pm 5\%$
- Standby Current: 30 μA max
- Start-Up Time: 10ms max

Operating Temperature Ranges

- 10 to 70°C
- 0 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: LVDS
- Drive Capability: 100 Ω
- Differential Output Voltage (Vod): 0.33V typ
- Differential Output Voltage Swing (Vopp): 0.25Vpk-pk min
- Offset Voltage (Vos): 1.125V to 1.375V (1.25V typ)

Output Control

- Enable/Disable Operation:
 - Logic '1' to pad 1 (70%Vs min) enables oscillator output
 - Logic '0' to pad 1 (30%Vs max) disables oscillator output; when disabled the oscillator output goes to the high impedance state
 - No connection to pad 1 enables oscillator output

Noise Parameters

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

Environmental Parameters

- Drop: 30cm drop (3 times) onto hard wooden board
- Vibration: 20G (10Hz-55Hz), 1.52mm amplitude, 2hrs in 3 mutually perpendicular planes (total 6hrs)
- Storage Temperature Range: -55 to 125°C

Ordering Information

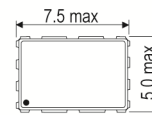
- Frequency*
- Model*
- Supply Voltage
- Output
- Frequency Stability*
- Operating Temperature Range* (*minimum required)
- Example
 - 100.0MHz CFPS-61
 - LVDS $\pm 100\text{ppm}$ -10 to 70C 2.5V

Compliance

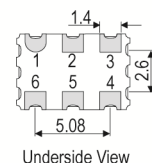
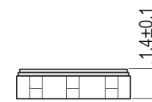
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



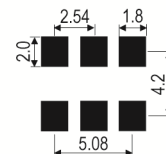
Outline (mm)



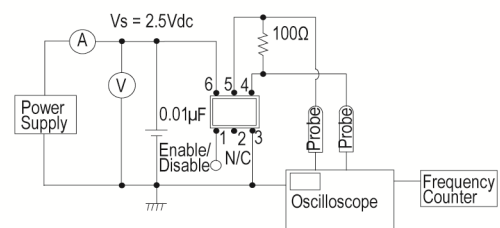
- Pad Connections
1. Enable/Disable
 2. N/C
 3. GND
 4. Output 1
 5. Output 2
 6. +Vs



Solder Pad Layout



Test Circuit



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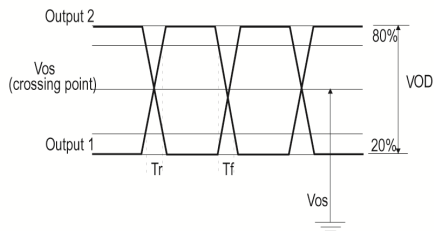
USA: +1.760.318.2824

Web: www.iqdfrequencyproducts.com

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

Wave Form



Electrical Specification - maximum limiting values 2.5V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
75.0MHz	270.0MHz	-10 to 70	±25.0	63	0.7	45/55%
		-40 to 85	±25.0	63	0.7	45/55%
300.0MHz	300.0MHz	0 to 70	±100.0	63	0.7	45/55%
312.5MHz	312.5MHz	0 to 70	±100.0	63	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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