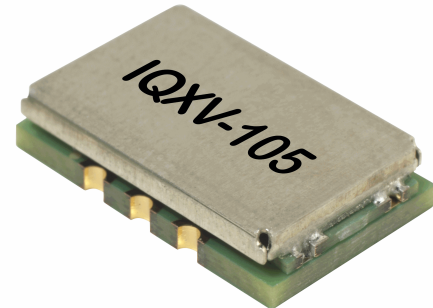


ISSUE 1; October 2017

Description

- The IQXV-105 is a very high frequency, ultra low jitter Voltage Controlled Crystal Oscillator (VCXO) suitable for Optical Coherent Networking and high speed ADC/DAC/SerDes clocking. Please contact one of IQD's sales offices to discuss your particular specification requirements.
- FEATURES:
Frequency range from 1GHz to 2.2GHz
Sinewave, Differential Sinewave or LVPECL
Ultra-low RMS phase jitter
Lower temperature sensitivity than SAW
- APPLICATIONS:
Coherent Optical Modules
Base Station Remote Radiohead Units



Frequency Parameters

- Frequency 1.0GHz to 2.2GHz
- Frequency Stability $\pm 20.00\text{ppm}$
- Frequency Stability: Over operating temperature range only.
- Overall Frequency Stability (including Frequency Tolerance @ 25°C, operating temperature range, supply voltage variation, load variation and 10yrs ageing @ 25°C): $\pm 70\text{ppm}$ max

Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$
- Supply Current:
Sine: 70 mA max
Differential Sine: 80mA max
LVPECL: 120mA max

Frequency Adjustment

- Pulling $\pm 25\text{ppm}$ min APR
- Control Voltage 1.65V $\pm 1.65\text{V}$
- Input Impedance 5M Ω min
- Total Pulling Range (frequency shift from minimum to maximum control voltage): $\pm 100\text{ppm}$ min, $\pm 200\text{ppm}$ max
- Linearity: $\pm 5\%$ typ, $\pm 10\%$ max
- Modulation Bandwidth (BW): 15kHz min

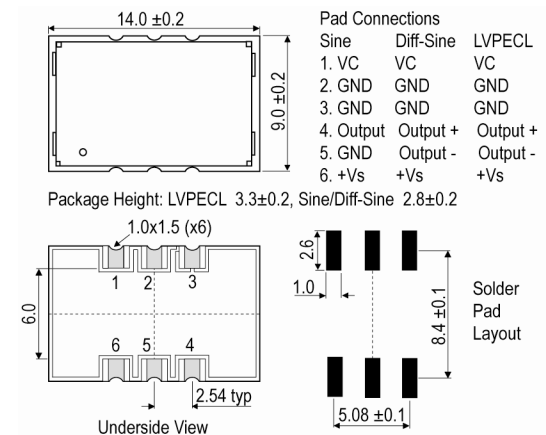
Operating Temperature Ranges

- -40 to 85°C

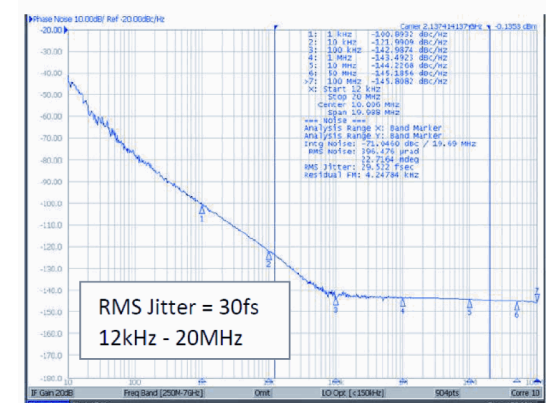
Output Details

- Output Compatibility Sine, Diff-Sine, LVPECL
- Oscillator Output (sub-harmonics): -30dBc typ
- Sine Output (50 Ω load): 2dBm min, 4dBm typ, 6dBm max
- Differential Sine Output: 0.6V min, 1.6V max
- LVPECL Output (differential swing): 1.1V min, 1.6V typ

Outline (mm)



2.137GHz LVPECL Output



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USA: +1.760.318.2824

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Electrical Specification - maximum limiting values 3.3V \pm 5%

Frequency Min	Frequency Max	Temperature Range	Stability	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0GHz	2.2GHz	-40 to 85	\pm 20.0	-	-	-

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

[Click to view latest version on our website.](#)

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