

ISSUE 5; December 2015

Description

- LVPECL output oscillator using a high frequency fundamental crystal to give very low jitter, hermetically sealed in a ceramic package with a seam sealed metal lid
For higher frequencies please see our IQXO-690 product range
For a 2.5V version please see our IQXO-621 product range
- -B Standby on pad 2, pad 1 N/C



Frequency Parameters

- Frequency 40.0MHz to 270.0MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 2\text{ppm}$ max per year

Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility LVPECL
- Drive Capability 50Ω terminated to Vs-2.0V

Output Control

- Logic '1' (>70% Vs) to pad 1 enables oscillator output
Logic '0' (<30% Vs) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state
No connection to pad 1 enables oscillator output
- Stand-by Current: 30μA max
- Start Up Time: 10ms max

Output Levels

- '0' Level VoL: +1.7V max
'1' Level VoH: +2.2V min

Noise Parameters

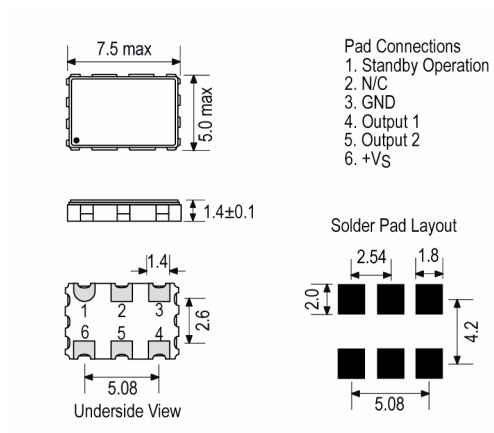
- Phase Jitter (12kHz to 20MHz): 1ps rms max

Environmental Parameters

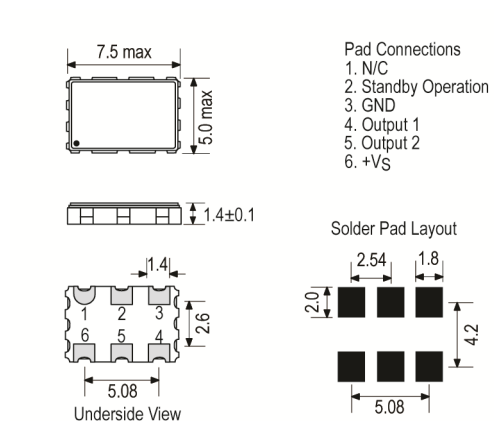
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)



Outline (mm) Standby on pad 1, pad 2 N/C



Outline (mm) -B = Standby on pad 2, pad 1 N/C



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Ordering Information

- Frequency*
- Model*
- Standby Operation Pad*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- (*minimum required)
- Example
- 100.0MHz CFPS-34
- LVPECL ± 50 ppm -10 to 70C 3.3V

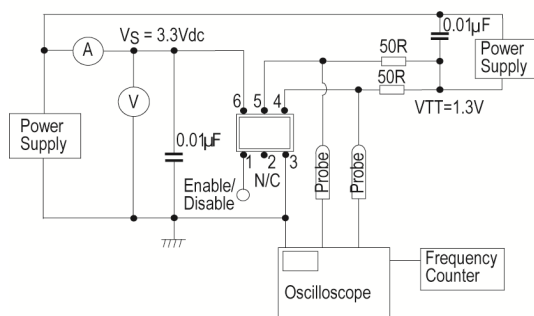
Compliance

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

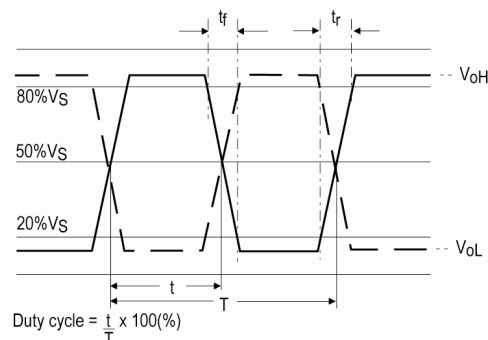
Packaging Details

- 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
- Pack Style: Cutt In tape, cut from a reel
- Pack Size: 1

Test Circuit



Wave Form



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

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
40.0MHz	170.0MHz	-10 to 70	± 25.0	60	1	40/60
		-40 to 85	± 50.0	60	1	40/60
170.000001MHz	270.0MHz	-10 to 70	± 25.0	88	1	40/60
		-40 to 85	± 50.0	88	1	40/60

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

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