

ISSUE 1; September 2016

Description

- CXOLP is an ultra-miniature, low power, fast start-up time, high shock and low ageing quartz crystal oscillator hermetically sealed in a ceramic housing.
- SM1 Gold Plated (RoHS)
- SM4 Solder Plated (RoHS)
- FEATURES:
 - Low current consumption (55µA @ 1MHz)
 - Fast start-up (1ms typical)
 - Tight tolerance
 - High shock resistance (10000G typical)
 - Low ageing
 - Hermetically sealed ceramic package
- APPLICATIONS:
 - Military, Aerospace & Avionics
 - Communications
 - Battery Operated Devices
 - Navigation
 - ICAD Devices
 - GPS
 - Industrial, Computer & Communications
 - Wireless Telemetry
 - Handheld instrumentation
 - Transponder/Animal migration
 - Medical
 - Patient monitoring
 - Infusion Pumps



Frequency Parameters

- Frequency: 1.0MHz to 8.5MHz
- Frequency Tolerance: ±25.00ppm
- Tolerance Condition: @ 25°C
- Frequency Stability: ±10.00ppm to ±100.00ppm
- Ageing: ±2ppm max in 1st year
- Note: Other Frequency Tolerances are available - please contact an IQD sales office

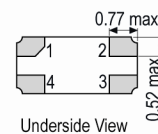
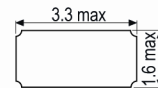
Electrical Parameters

- Supply Voltage: 2.5V ±10%
- Supply Voltage (absolute maximum rating): -0.5V to 5.0V
- Supply Current (@ 2.5V):
 - 2MHz (@ 25°C and load=5pF): 85µA typ
 - 4MHz (@ 25°C and load=5pF): 150µA typ
 - 8MHz (@ 25°C and load=5pF): 285µA typ
- Please note that all data is only valid at 25°C unless otherwise stated.

Operating Temperature Ranges

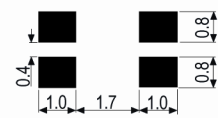
- -10 to 70°C
- -40 to 85°C
- -55 to 125°C

Outline (mm) SM1 = Gold Plated (RoHS)



Pad Connections
 1. Output
 2. GND
 3. Enable/Disable/NC
 4. +Vs

Solder Pad Layout



Sales Office Contact Details:

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 Germany: 0800 1808 443

France: 0800 901 383
 USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com
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Output Details

- Output Compatibility CMOS
- Drive Capability 5pF
- Note: Other output loads available - please contact IQD sales office.
- Output Levels:
 - Output High Voh: 90%Vs min
 - Output Low Vol: 10%Vs max
- Rise Time (@ 3.3V, 5pF//1MΩ load): 5.5ns typ
- Fall Time (@ 3.3V, 5pF//1MΩ load): 5.0ns typ

Output Control

- Start Up Time: 1ms typ

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: 10000G, 0.3ms, 1/2 sine
- Higher Shock available - please contact IQD sales office.
- Vibration: per MIL-STD-202G, Method 204D. Cond.D, 20G, 10Hz-2000Hz swept sine

Manufacturing Details

- Maximum Process Temperature: 260°C max (for 20s max)

Ordering Information

- Frequency*
- Model*
- Supply Voltage*
- Termination Variant*
- Output
- Frequency Tolerance (@ 25°C)*
- Operating Temperature Range*
- Pad 3 Function*
(minimum required*)
- Termination Variants:
 - SM1 = Gold Plated (RoHS)
 - SM4 = Solder Plated (RoHS)
- Example
 - 2MHz CXOLP 2.5V SM1
 - CMOS ±50ppm -40 to 85C NC

Compliance

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

Packaging Details

- Pack Style: Tray Supplied on a tray
- Pack Size: 1
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
- Pack Size: 1,000

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Electrical Specification - maximum limiting values 2.5V \pm 10%

Frequency Min	Frequency Max	Temperature Range	Stability	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	8.5MHz	-10 to 70	\pm 10.0	-	-	40/60%
		-40 to 85	\pm 20.0	-	-	40/60%
		-55 to 125	\pm 40.0	-	-	40/60%

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