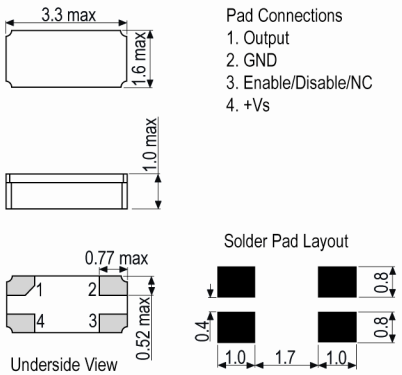
ISSUE 1; September 2016

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

Outline (mm) SM1 = Gold Plated (RoHS)



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 3.0V ±10%
- Supply Voltage (absolute maximum rating): -0.5V to 5.0V
- Supply Current (@ 3.3V):
  2MHz (@ 25°C and load=5pF): 110µA typ
  4MHz (@ 25°C and load=5pF): 175µA typ
  8MHz (@ 25°C and load=5pF): 365µA 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

Sales Office Contact Details:
UK: +44 (0)1460 270200
France: 0800 901 383
Email: info@iqdfrequencyproducts.com
Germany: 0800 1808 443
USA: +1.760.318.2824
Web: www.iqdfrequencyproducts.com

Output Details

- Output Compatability 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 3.0V 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: Reel Tape & reel in accordance with EIA-481-D
  Pack Size: 1,000
- Pack Style: Tray Supplied on a tray
  Pack Size: 1

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Electrical Specification - maximum limiting values 3.0V ±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	±10.0	-	-	40/60%
		-40 to 85	±20.0	-	-	40/60%
		-55 to 125	±40.0	-	-	40/60%

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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