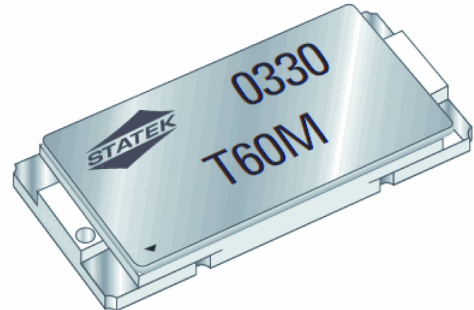


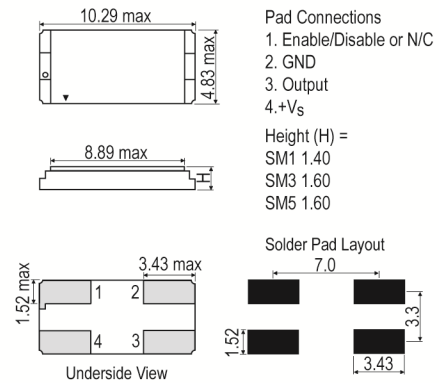
ISSUE 1; January 2016

Description

- The surface-mount CXO oscillator consist of a miniature quartz crystal and a CMOS/TTL compatible hybrid circuit in a low-profile ceramic package with a small footprint. In addition to the conventional solder or epoxy electrical connection techniques, bond pads on the topside of the CXO allow it to be connected electrically in a hybrid assembly using wire bonds.
- -SM1 SM1 (Gold Plated, RoHS compliant)
- -SM5 SM5 (Solder Dipped, RoHS compliant)
- FEATURES:
 - Designed for surface mount applications using infrared, vapour phase or epoxy mount techniques
 - CMOS and TTL compatible
 - Low power consumption
 - Optional output Enable/Disable with Tri-State
 - Low EMI emission
 - High shock resistance
 - Hermetically sealed ceramic package
 - Wire bond pads for hybrids
 - Full military testing available
- APPLICATIONS:
 - Military & Aerospace -
 - Smart munitions
 - Cockpit systems
 - Navigation
 - Industrial, Computer & Communications -
 - Industrial controls
 - Instrumentation
 - Microprocessor clocks
 - Medical -
 - Infusion pumps
- Please note that all data is only valid at 25°C unless otherwise stated.



Outline (mm) -SM1 = SM1 (Gold Plated, RoHS compliant)



Frequency Parameters

- Frequency 300.0kHz to 170.0MHz
- Frequency Tolerance ±100.00ppm to ±10,000.00ppm
- Tolerance Condition @ 25°C
- Frequency Stability ±50.00ppm to ±100.00ppm
- Ageing ±10ppm max in 1st year
- Frequency Stability does not include Frequency Tolerance @ 25°C
- Note: Other Frequency Tolerances and Stabilities are available - please contact an IQD Sales Office

Electrical Parameters

- Supply Voltage 3.3V ±10%
- Supply Current (typical):
 - 10MHz - 2mA
 - 24MHz - 4mA
 - 30MHz - 6mA
 - 40MHz - 8mA
 - 50MHz - 10mA
- Start-Up Time: 5ms max
- Absolute Maximum Supply Voltage: -0.5V to 7.0V
- Note: Higher CMOS loads and TTL loads are available - please contact an IQD Sales Office

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

Operating Temperature Ranges

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

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

Environmental Parameters

- Shock: 3000G, 0.3ms, 1/2 sine
- Note: Higher Shock versions are available - please contact an IQD Sales Office
- Vibration: MIL-STD-202G, Method 204D, Condition D: 20G, 10-2000Hz, swept sine
- Note: Random Vibration test is also available - please contact an IQD Sales Office
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

- Maximum Process Temperature: 260°C for 20sec max

Ordering Information

- Frequency*
- Model*
- Termination Variant*
- Output
- Frequency Tolerance (@ 25°C)
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Pad 1 Function*
- (*minimum required)
- Termination Variants:
 - SM1 = Gold Plated
 - SM5 = Solder DippedNote: non-RoHS compliant terminations are available - please contact an IQD Sales Office
- Pad 1 Function Options:
 - EN = Enable/Disable
 - TS = Tri-State
 - NC = No connection
- Example
 - 100.0MHz CXO 3.3V-SM1
 - CMOS ±100ppm ±100ppm -40 to 85C EN

Compliance

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

Packaging Details

- Pack Style: Tray Tray pack
 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 3.3V \pm 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
300.0kHz	170.0MHz	-10 to 70	\pm 50.0	-	6	40/60%
		-40 to 85	\pm 100.0	-	6	40/60%
		-55 to 125	\pm 100.0	-	6	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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