Crystal Clock Oscillator Specification
CXOXHT 3.3V

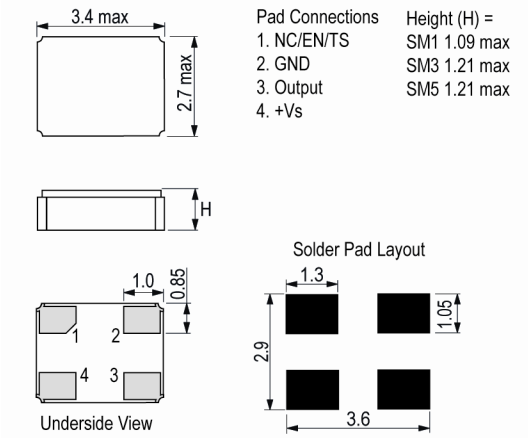
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Description

- An increasing number of applications require the use of high temperature oscillators. For these applications IQD offers Statek's CXOXHT oscillator. This oscillator is designed to operate at temperatures up to 200°C with high shock survivability.
- -HG-SM1 HG-SM1 (Gold plated, RoHS compliant, 10000G)
- -HG-SM5 HG-SM5 (Solder dipped, RoHS compliant, 10000G)
- -SM1 SM1 (Gold plated, RoHS compliant, 3000G)
- -SM5 SM5 (Solder dipped, RoHS compliant, 3000G)
- FEATURES:
  High temperature operation up to 200°C
  Excellent stability over temperature
  Fast start-up
  High shock resistance
  CMOS and TTL compatible
  Optional output enable/disable
  Low EMI emission
  Hermetically sealed ceramic package
- APPLICATIONS:
  Industrial -
  Downhole instrumentation
  Rotary shaft sensors
  Underground boring tools
- Please note that all data is only valid at 25°C unless otherwise stated.



Outline (mm) -SM1 = SM1 (Gold plated, RoHS compliant, 3000G)



Frequency Parameters

Frequency	1.0MHz to 50.0MHz
Frequency Tolerance	±50.00ppm
Tolerance Condition	@ 25°C
Frequency Stability	±100.00ppm to ±200.00ppm
Ageing	±5ppm max in 1st year @ 25°C

- Ageing: ±100pm max @ 200°C
- Operable Temperature Range: -55 to 200°C

Electrical Parameters

- Supply Voltage 3.3V ±10%
- Supply Current (typical):
  3.0mA @ 24MHz
  5.0mA @ 32MHz
  6.0mA @ 50MHz
- Supply Voltage (absolute maximum rating): -0.5V to 4.0V

Operating Temperature Ranges

- 25 to 150°C
- 25 to 175°C
- 25 to 200°C

Output Details

Output Compatability	CMOS
Drive Capability	15pF

Sales Office Contact Details:

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Email: info@iqdfrequencyproducts.com
Germany: 0800 1808 443
USA: +1.760.318.2824
Web: www.iqdfrequencyproducts.com

Output Control

- Start Up Time: 5ms max
- Enable/Disable:
  Logic 1 to pad 1, output enabled
  Logic 0 to pad 1, output disabled, output goes to high impedance state, current consumption very low. Internal oscillator stops.
- No Connection (NC): Pad 1 No Connection
- Tri State:
  Logic 1 to pad 1, output enabled
  Logic 0 to pad 1, output disabled, output goes to high impedance state, current consumption low. Internal oscillator continues to function.

Environmental Parameters

- Shock (Std): 5000G, 0.3ms, 1/2 sine
  Shock (HG): 10000G, 0.3ms 1/2 sine
- 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
- Expected life at 200°C is in excess of 1500hrs

Manufacturing Details

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

Ordering Information

- Frequency*
  Model*
  Termination Variant*
  Shock Rating*
  Output
  Frequency Tolerance (@ 25°C)
  Frequency Stability*
  Operating Temperature Range*
  Pad 1 Function*
  (*minimum required)
- Termination Variants:
  SM1 = Gold Plated
  SM5 = Solder Dipped
- Stock Ratings:
  Standard = blank
  High Stock = HG
- Pad 1 Function Options:
  EN = Enable/Disable
  TS = Tri-State
  NC = No connection
- Example
  10.0MHz CXOXHT 3.3V-SM1
  CMOS ±50ppm ±175ppm 25 to 200C TS

Compliance

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

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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

Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	50.0MHz	25 to 150	±100.0	-	10	40/60%
		25 to 175	±150.0	-	10	40/60%
		25 to 200	±175.0	-	10	40/60%

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