

ISSUE 2; January 2016

Description

- An increasing number of applications require the use of high temperature oscillators. For these applications IQD offers Statek's CXOMHT oscillator. This oscillator is designed to operate at temperatures up to 225°C with high shock survivability.
- -HG-SM1 SM1 high shock (Gold plated, RoHS compliant)
- -HG-SM5 SM5 high shock (Solder dipped, RoHS compliant)
- -SM1 SM1 std shock (Gold plated, RoHS compliant)
- -SM5 SM5 std shock (Solder dipped, RoHS compliant)
- FEATURES:
 - High temperature operation up to 225°C
 - Excellent 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.

Frequency Parameters

- | | |
|-------------------------------|-------------------------------|
| ■ Frequency | 320.0kHz to 50.0MHz |
| ■ Frequency Tolerance | ±50.00ppm |
| ■ Tolerance Condition | @ 25°C |
| ■ Frequency Stability | ±100.00ppm to ±250.00ppm |
| ■ Ageing | ±5ppm max in 1st year at 25°C |
| ■ Ageing: ±100pm max @ 200°C | |
| ■ Operable Temperature Range: | -55 to 225°C |

Electrical Parameters

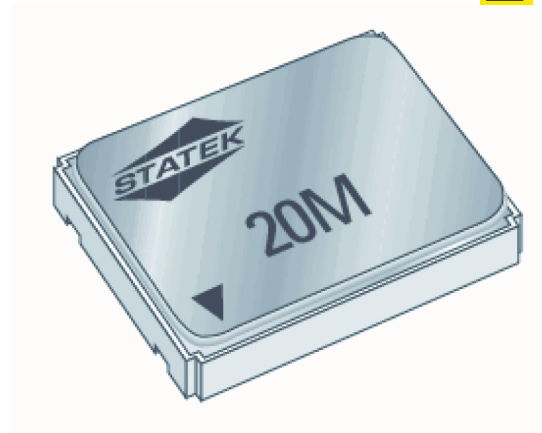
- | | |
|------------------------------------|---------------|
| ■ Supply Voltage | 3.3V ±10% |
| ■ Absolute Maximum Supply Voltage: | -0.5V to 7.0V |

Operating Temperature Ranges

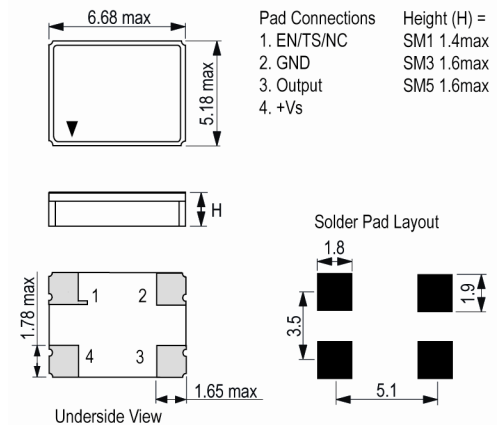
- 25 to 150°C
- 25 to 175°C
- 25 to 200°C
- 25 to 225°C

Output Details

- | | |
|------------------------|------|
| ■ Output Compatability | CMOS |
| ■ Drive Capability | 15pF |



Outline (mm) -SM1 = SM1 std shock (Gold plated, RoHS compliant)



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
 Web: www.iqdfrequencyproducts.com

Output Control

- Enable/Disable (EN):
Logic 1 to pad 1, output enabled
Logic 0 to pad 1, output disabled, output goes to high impedance state, internal oscillator stops, therefore current consumption is very low but output recovery is delayed.
- No Connection (NC): Pad 1 No Connection
- Tri State (TS):
Logic 1 to pad 1, output enabled
Logic 0 to pad 1, output disabled, output goes to high impedance state, internal oscillator continues to function, therefore current consumption is lower than normal but output recovery is immediate.
- Start Up Time: 5ms max

Environmental Parameters

- Shock:
Standard version: 3000G, 0.3ms, 1/2 sine
High Shock version (HG): 10000G, 0.3ms, 1/2 sine
- Vibration MIL-STD-202G, Method 204D, Condition D: 20G, 10-2000Hz swept sine
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

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

Ordering Information

- Frequency*
Model*
Shock Option*
Termination Variant*
Output
Frequency Tolerance (@ 25°C)*
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Supply Voltage
Pad 1 function*
(*minimum required)
- Shock Options:
Blank = Standard Shock
-HG = High Shock
- Termination Variants:
SM1 = Gold Plated
SM5 = Solder Dipped
Note: non-RoHS compliant terminations are available - please contact an IQD Sales Office
- Pad 1 Function Options:
EN = Enable/Disable
NC = No Connection
TS = Tri State
- Example:
10.0MHz CXOMHT 3.3V SM1
CMOS ±50ppm ±175ppm 25 to 200C 3.3V 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: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Tray Supplied on a tray
Pack Size: 1

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	%
320.00kHz	50.0MHz	25 to 225	-	6	10	40/60%
		25 to 150	-	6	10	40/60%
		25 to 175	-	6	10	40/60%
		25 to 200	-	6	10	40/60%

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