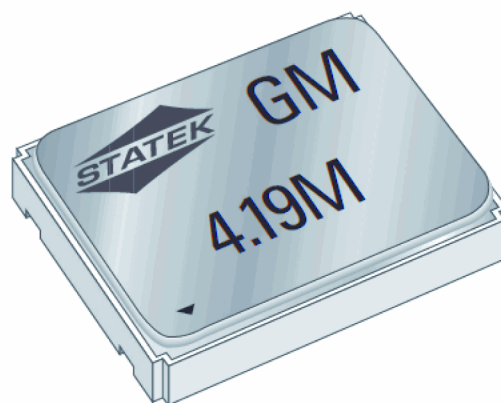


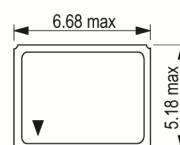
ISSUE 9; January 2016

### Description

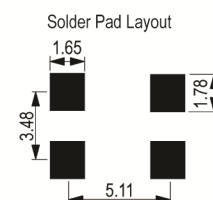
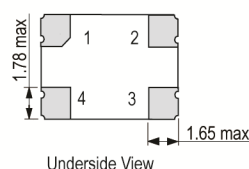
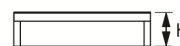
- The surface-mount CXOM oscillator consist of a miniature quartz crystal and a CMOS/TTL compatible hybrid circuit in a low-profile ceramic package with a small footprint.
- -SM1 SM1 (Gold Plated, RoHS compliant)
- -SM5 SM5 (Solder Dipped, RoHS compliant)
- FEATURES:
  - Designed for surface mount applications 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
  - 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)



Pad Connections	Height (H) =
1. EN/TS/NC	SM1 1.4max
2. GND	SM3 1.6max
3. Output	SM5 1.6max
5. +Vs	



### Frequency Parameters

- Frequency 200.0kHz to 160.0MHz
- Frequency Tolerance  $\pm 100.00\text{ppm}$  to  $\pm 10,000.00\text{ppm}$  @ 25°C
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 50.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 10\text{ppm}$  max in 1st year @ 25°C
- 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 5.0V  $\pm 10\%$
- Note: Other Supply Voltages are available - please contact an IQD Sales Office
- Supply Current (typical):
  - 10MHz - 4mA
  - 24MHz - 8mA
  - 30MHz - 10mA
  - 40MHz - 12mA
  - 50MHz - 14mA
- Absolute Maximum Supply Voltage: -0.5V to 7.0V

### Operating Temperature Ranges

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

### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1 408.273.4530

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Output Details**

- Output Compatibility CMOS
- Drive Capability 15pF
- Note: Higher CMOS loads and TTL loads are available - please contact an IQD Sales Office

**Output Control**

- Start-Up Time: 5ms max

**Environmental Parameters**

- Shock: 3000G, 0.3ms, 1/2 sine wave
- Note: A higher Shock version is available - please contact an IQD Sales Office about the CXOMHG product range
- Vibration: MIL-STD-202G, Method 204D, Condition D: 20G, 10Hz-2000Hz, swept sine wave
- Note: Random vibration testing 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\*
- Supply Voltage
- Pad 1 Function\*
- (\*minimum required)
- 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
  - TS = Tri-State
  - NC = No connection
- Example
  - 40.0MHz CXOM SM1
  - CMOS ±100ppm ±100ppm -10 to 70C 5V 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: Cutt      In tape, cut from a reel  
Pack Size: 1
- 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
- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 1

#### Electrical Specification - maximum limiting values 5.0V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
200.0kHz	160.0MHz	-10 to 70	±50.0	-	6	40/60
		-40 to 85	±100.0	-	6	40/60
		-55 to 125	±100.0	-	6	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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