

**ISSUE 1; June 2019**

**Description**

- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. When miniaturization is paramount, IQD's low profile CX16 AT Statek quartz crystal is an excellent choice. This crystal has a typical footprint of 2.0 mm x 1.2 mm, and a typical height of 0.4 mm. The resonator is manufactured using Statek's photolithographic and chemical milling processes and then sealed within a ceramic package for high stability and low ageing. Available with tight calibration tolerances and high stability over temperature and fast start-up times, this crystal is well suited for applications that have a space restraint and require a crystal with a low profile.
- -C-SM1 Ceramic Lid, Gold Plated (Lead Free)
- Please note that all data is only valid at 25°C unless otherwise stated.

**Frequency Parameters**

- Frequency 24.0MHz to 50.0MHz
- Frequency Tolerance ±100.00ppm
- Frequency Stability ±10.00ppm to ±100.00ppm
- Ageing ±3ppm max in 1st year

**Electrical Parameters**

- Load Capacitance (CL) 10.0pF
- Shunt Capacitance (C0) 0.6pF typ
- Drive Level 200µW max
- Motional Resistance R1: 100Ω typ @ 24MHz / 90Ω typ @ 26.5MHz
- Motional Capacitance C1: 1.3fF typ @ 24MHz / 1.4fF typ @ 26.5MHz
- Quality Factor Q: 30000 typ

**Operating Temperature Ranges**

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

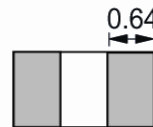
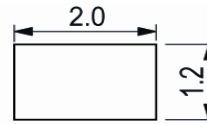
**Environmental Parameters**

- Shock: 5000G, 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**

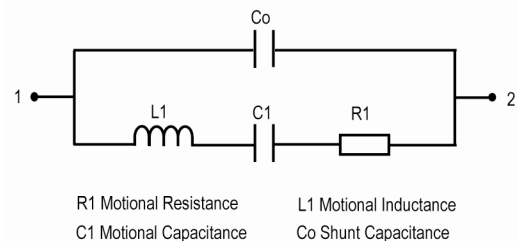
- Maximum Process Temperature: 260°C for 20s

**Outline (mm) -C-SM1 = Ceramic Lid, Gold Plated (Lead Free)**



**Underside View**

**Equivalent Circuit**



**Sales Office Contact Details:**

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**Ordering Information**

- Frequency\*
- Model\*
- Lid
- Termination
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone
- (\*minimum required)
- Example:  
30.0MHz CX16 AT-C-SM1  
100/100/-40 to 85C/10 FUND
- Other options are available for:  
Frequency Tolerance  
Frequency Stability  
Frequency Stability inclusive of Frequency Tolerance  
Operating Temperature Range  
Load Capacitance  
Ageing  
Random Vibration Testing  
Please contact our sales offices

**Compliance**

- RoHS Status (2015/863/EU)      Optional
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

**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**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
24.0MHz	50.0MHz	-10 to 70	±10	Fundamental	- 0
		-40 to 85	±20		- 0
		-55 to 125	±30		- 0

\*Stability Maximum values ±100ppm

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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