

ISSUE 1; January 2016

Description

- 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

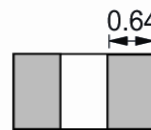
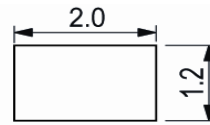
Environmental Parameters

- 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

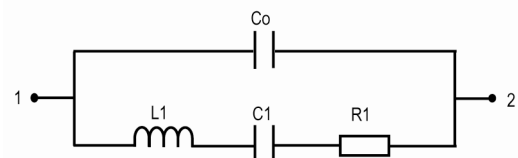
Manufacturing Details

- Maximum Process Temperature: 260°C for 20s

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



Underside View
Equivalent Circuit



R1 Motional Resistance L1 Motional Inductance
C1 Motional Capacitance Co Shunt Capacitance

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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 (2011/65/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	-
		-40 to 85	±20		-
		-55 to 125	±30		-

*Stability Maximum values ±100ppm

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