



# Quartz Crystal Specification **CX9 AT**

#### ISSUE 10; April 2016

#### Description

- Designed and manufactured in the USA, Statek's CX9 AT quartz crystal is the newest device available in frequencies ranging from 14MHz to 250MHz. This device has been specifically designed for applications requiring a very small foot print and low profile.
- -C-SM1 Ceramic Lid, Gold Plated (RoHS)
- -C-SM4 Ceramic Lid, Solder Plated (RoHS)
- -C-SM5 Ceramic Lid, Solder Dipped (RoHS)
- -SM1 Gold Plated (RoHS)
- Terminations are gold plated (RoHS compliant)
- -SM4 Solder Plated (RoHS)
- Terminations are solder plated (RoHS compliant)
- -SM5 Ceramic Lid, Solder Dipped (RoHS)
- Terminations are solder dipped (RoHS compliant)
- Please note that all data is only valid at 25°C unless otherwise stated.

### **Frequency Parameters**

■ Frequency
 ■ Frequency Tolerance
 ■ Tolerance Condition
 14.0MHz to 250.0MHz
 ±100.00ppm
 © 25°C

Frequency Stability ±10.00ppm to ±100.00ppm
 Ageing ±5ppm max in 1st year (f<40MHz)</li>

#### **Electrical Parameters**

Load Capacitance (CL)
 Shunt Capacitance (C0)
 10.0pF
 1pF typ

■ Drive Level 200μW max f≤50MHz, 100μW max f>50MHz

Typical Electrical Parameters:

Frequency 155.52MHz 25MHz 49MHz ESR (Ω) 30 30 25 1.8 2.5 21 C1 (fF) 120 Q (k) 60 16 Co (pF) 1.0 1.0 1.4

## **Operating Temperature Ranges**

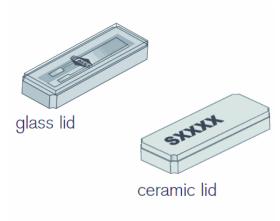
- -10 to 70°C
- -40 to 85°C
- -55 to 125°C

#### **Environmental Parameters**

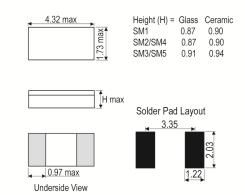
- Shock: 5000G, 0.3 ms, 1/2 sine
- Vibration: MIL-STD202G, Method 204D, Condition D: 20G, 10-2000 Hz, swept sine
- Storage Temp Range: -55 to 125°C

# **Manufacturing Details**

■ Max Process Temperature: 260°C for 20 sec.



### Outline (mm) -SM1 = Gold Plated (RoHS)



# Sales Office Contact Details:

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### **Ordering Information**

Terminations:

SM1 = Gold Plated (RoHS)

SM2 = Solder Plated (non RoHS)

SM3 = Solder Dipped (non RoHS)

SM4 = Solder Plated (RoHS)

SM5 = Solder Dipped (RoHS)

■ Example:

20.0MHz CX9 AT-C-SM1

100/100/-55 to 125C/10 FUND

Ordering Information (\*minimum required):

Frequency\*

Model\*

Lid:\* C=Ceramic, Blank=Glass

Variant:\* SM1, SM2, SM3, SM4, SM5

Frequency Tolerance @25°C\*

Frequency Stability over operating temperature range\*

Operating Temperature Range\*

Load Capacitance

Overtone

#### Compliance

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

# **Packaging Details**

Pack Style: Reel

Tape & reel in accordance with EIA-481-D

Pack Size: 1,000

■ Pack Style: Tray

Tray Pack

Pack Size: 1

# Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
14.0MHz	250.0MHz	-10 to 70	±10	Fundamental	-
		-40 to 85	±20		-
		-55 to 125	±30		-

<sup>\*</sup>Stability Maximum values ±100ppm

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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