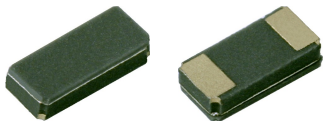
CX11 AT-CUT CRYSTAL

14.7456 MHz to 250 MHz

Surface Mount Quartz Crystal

DESCRIPTION

High performance AT-Cut quartz crystal resonator designed and manufactured for high-reliability applications.



FEATURES

- 3.2 x 1.5 mm hermetically sealed ceramic package with ceramic lid
- Helium impermeable housing
- Excellent long term aging characteristics
- Broad operating temperature ranges
- Designed and manufactured in the USA

APPLICATIONS

Medical

- Medical Telemetry (MICS, BLE)
- Cardiac Rhythm Management
- Cochlear Implants
- Infusion Pumps

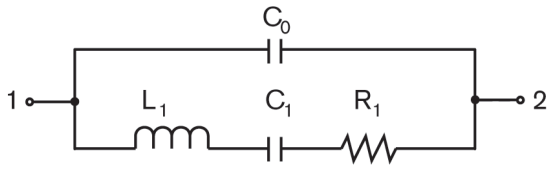
Military & Aerospace

- Avionic Indicators and Instruments
- Cockpit Instrumentation Displays
- Data Communications
- Telemetry

Industrial, Computer & Communications

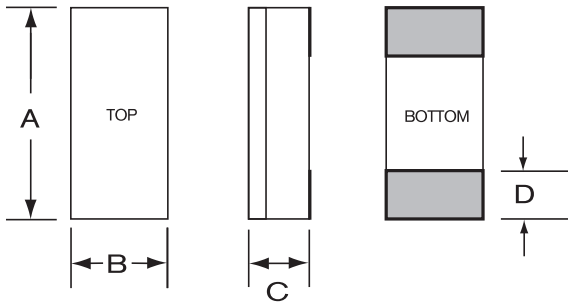
- Communications
- Transmitters
- Pulse Generators
- Tracking Beacons
- Wildlife Telemetry

EQUIVALENT CIRCUIT



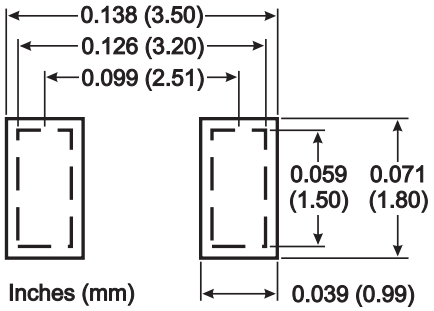
R_1 Motional Resistance L_1 Motional Inductance
C_1 Motional Capacitance C_0 Shunt Capacitance

PACKAGE DIMENSIONS



DIM	Termination	MINIMUM	TYPICAL	MAXIMUM
		mm	mm	mm
A		3.10	3.20	3.30
B		1.40	1.50	1.60
C	SM1 SM3/SM5	0.73 0.77	0.77 0.79	0.81 0.83
D		0.60	0.70	0.80

SUGGESTED LAND PATTERN



PACKAGING OPTIONS

- Tray Pack
- Tape and Reel (per EIA 481). See Tape and Reel datasheet 10109.

STATEK CORPORATION 512 N. MAIN ST., ORANGE, CA 92868 714-639-7810 FAX: 714-997-1256 www.statek.com

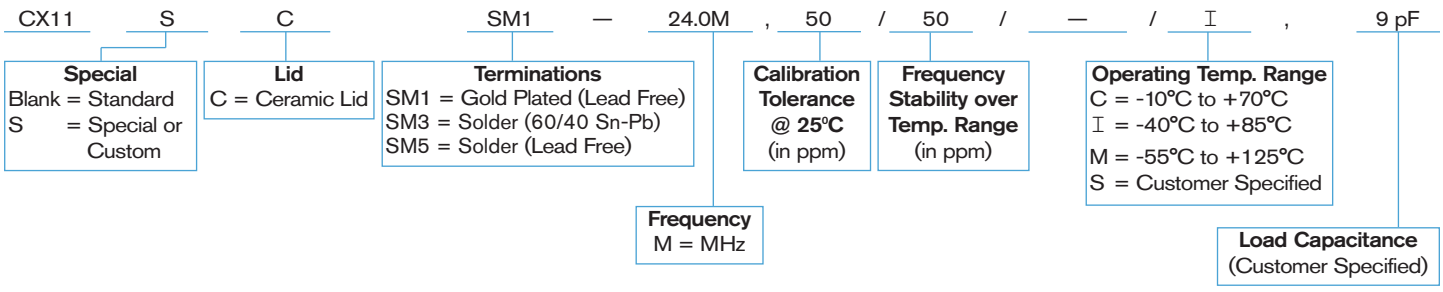
SPECIFICATIONS

Specifications are typical at 25°C unless otherwise noted. Specifications are subject to change without notice. Tighter specifications available.

Fundamental Frequency	14.7456 MHz	24.0 MHz	155.52 MHz
Motional Resistance R_1 (Ω)	60	30	25
Motional Capacitance C_1 (fF)	1.6	1.6	2.8
Quality Factor Q	110,000	140,000	15,000
Shunt Capacitance C_0 (pF)	0.8	0.7	1.4
Calibration Tolerance[1]	±50 ppm to ±10 ppm		
Load Capacitance	Customer specified (9 pF standard)		
Drive Level	200 µW MAX		
Frequency-Temperature Stability[1,2,3]	±50 ppm to ±10 ppm (Commercial) ±50 ppm to ±20 ppm (Industrial) ±50 ppm to ±30 ppm (Military)		
Aging, First Year[4]	1 ppm MAX		
Shock Survival	5,000 g, 0.3 ms, ½ sine		
Vibration Survival[5]	20 g, 10-2,000 Hz swept sine		
Operating Temperature Range[3]	-10°C to +70°C (Commercial) -40°C to +85°C (Industrial) -55°C to +125°C (Military)		
Storage Temperature Range[3]	-55°C to +125°C		
Max Process Temperature	260°C for 20 seconds		
Moisture Sensitivity Level (MSL)	This component is hermetically sealed and is not moisture sensitive.		

1. Tighter tolerances available.
2. Does not include calibration tolerance. The characteristics of the frequency stability over temperature follow that of the AT thickness-shear mode.
3. Broader temperature ranges available. Contact factory.
4. For frequencies 50 MHz and below.
5. Per MIL-STD-202G, Method 204D, Condition D. Random vibration testing also available.

HOW TO ORDER STATEK CX11 AT-CUT CRYSTALS



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