

CX1H TF CRYSTALS

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Description

The CX1H quartz crystal is a high quality tuning fork resonator for use in Series (two cascaded inverters) oscillators. The CX1HSM is hermetically sealed in a rugged, miniature ceramic package. The CX1H crystal is manufactured using the Statek-developed photolithographic process, and was designed utilizing the experience acquired by producing millions of crystals for industrial, commercial, military and medical applications. Maximum process temperature should not exceed 260°C

Features

- Miniature tuning fork design
- High shock resistance
- Designed for low power applications
- Compatible with hybrid or PC board packaging
- Low ageing
- Full military testing available

General Specifications

- Load Capacitance (C_L): Series Resonance only
- Drive Level: 1.5µW max 10-24.9kHz, 3µW max 25-600kHz
- Ageing: ±5ppm max in 1st year
- Shunt Capacitance (C_0): 2pF max
- Motional Capacitance (C_1): 5fF max
- Quality Factor (Q): 3000 min

Terminations

- SM1 = Gold Plated (RoHS Compliant)
- SM2 = Solder Plated (non RoHS Compliant)
- SM3 = Solder Dipped (non RoHS Compliant)
- SM4 = Solder Plated (RoHS Compliant)
- SM5 = Solder Dipped (RoHS Compliant)

Standard Frequency Tolerances

- ±30ppm, ±50ppm, ±100ppm, ±200ppm, ±500ppm, ±1000ppm, ±2000ppm, ±5000ppm

Operating Temperature Ranges

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

Storage Temperature Range

- -55 to 125°C

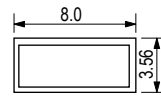
Environmental

- Shock: 1000G, 1ms, 1/2 sine wave
- Vibration: 20G (10Hz-2000Hz)

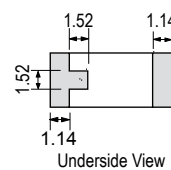
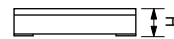
Packaging

- Tray pack
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

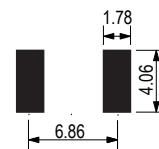
Outline (mm) typ



	Height (H) =	
	Glass Lid	Ceramic Lid
SM1	1.65	1.78
SM2	1.70	1.83
SM3	1.78	1.90
SM4	1.70	1.83
SM5	1.78	1.90



Solder Pad Layout



Ordering Information (*minimum required)

- Frequency*
- Model*
- Termination Variant*
- Frequency Tolerance (@25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance
- Overtone

Example

- 40.0kHz CX1H TF SM1
100/-/+10 to 70C/SR FUND



Electrical Specifications - maximum limiting values

Frequency Range	Frequency Tolerance @25°C	Operating Temperature Range	Typical Frequency Stability Coefficient	ESR Typical
10.0kHz to 74.9kHz	±30ppm ±100ppm ±1000ppm	-10 to 70°C -40 to 85°C -55 to 125°C	-0.035/°C ²	1MΩ to 50kΩ
75.0kHz to 169.9kHz	±50ppm ±100ppm ±1000ppm			50kΩ to 20kΩ
170.0kHz to 249.9kHz	±100ppm ±200ppm ±2000ppm			20kΩ
250.0kHz to 600.0kHz	±200ppm ±500ppm ±5000ppm			20kΩ to 15kΩ
Note: For other frequency / specifications combinations please contact our sales offices				

