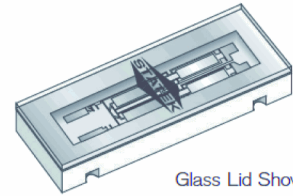


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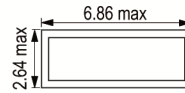
**Description**

- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. The CX3H quartz crystals are leadless devices designed for surface mounting on printed circuit boards or hybrid substrates. These miniature crystals are intended to be used in Series oscillators. They are hermetically sealed in a rugged, miniature ceramic package. They are manufactured using the Statek developed photolithographic process and were designed utilising the experience acquired by producing millions of crystals for industrial, commercial and medical applications.
- -C SM1 SM1 (Gold Plated, RoHS Compliant, Ceramic Lid)
- -C SM4 SM4 (Solder Plated, RoHS Compliant, Ceramic Lid)
- -C SM5 SM5 (Solder Dipped, RoHS Compliant, Ceramic Lid)
- -SM1 SM1 (Gold Plated, RoHS Compliant, Glass Lid)
- -SM4 SM4 (Solder Plated, RoHS Compliant, Glass Lid)
- -SM5 SM5 (Solder Dipped, RoHS Compliant, Glass Lid)
- FEATURES:
  - Miniature tuning fork design
  - High shock resistance
  - Low ageing
  - Designed for low power applications
  - Compatible with hybrid or PC board packaging
- Please note that all data is only valid at 25°C unless otherwise stated.

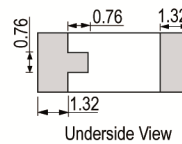
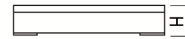


Glass Lid Shown

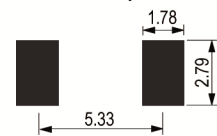
**Outline (mm) -SM1 = SM1 (Gold Plated, RoHS Compliant, Glass Lid)**



|     | Height (H) = |             |
|-----|--------------|-------------|
|     | Glass Lid    | Ceramic Lid |
| SM1 | 1.35         | 1.70        |
| SM2 | 1.40         | 1.75        |
| SM3 | 1.47         | 1.83        |
| SM4 | 1.40         | 1.75        |
| SM5 | 1.47         | 1.83        |



**Solder Pad Layout**



**Frequency Parameters**

- Frequency 18.0kHz to 600.0kHz
- Frequency Tolerance ±30.00ppm to ±5,000.00ppm
- Tolerance Condition @ 25°C
- Ageing ±5ppm max in the 1st year @ 25°C
- Temperature Coefficient (k): -0.035ppm/°C<sup>2</sup>
- Note: Frequency f at temperature T is related to frequency fo at turning point temperature To by: (f-fo)/fo = k(T-To)<sup>2</sup>

**Electrical Parameters**

- Shunt Capacitance (C0) 1.8pF max
- Drive Level: 18-24.9kHz 0.5µW max, 25-600kHz 1.0µW max

**Operating Temperature Ranges**

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

**Environmental Parameters**

- Shock: 1500G, 0.3ms, 1/2 sine
- Vibration: 10G rms, 20-2000Hz random
- Storage Temperature Range: -55 to 125°C

**Manufacturing Details**

- Maximum Process Temperature: 260°C for 20sec max

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Ordering Information**

- Frequency\*
- Model\*
- Lid Variant\*
- Termination Variant\*
- Frequency Tolerance (@ 25°C)\*
- Operating Temperature Range\*
- Load Capacitance (\*minimum required)
- Lid Variants:
  - Blank = Glass
  - C = Ceramic
- Termination Variants:
  - SM1 = Gold Plated
  - SM4 = Solder Plated
  - SM5 = Solder Dipped

Note: non-RoHS compliant terminations are available - please contact an IQD Sales Office
- Example
  - 100.0kHz CX3H-C SM1
  - 100/-/+40 to 85C/SR FUND

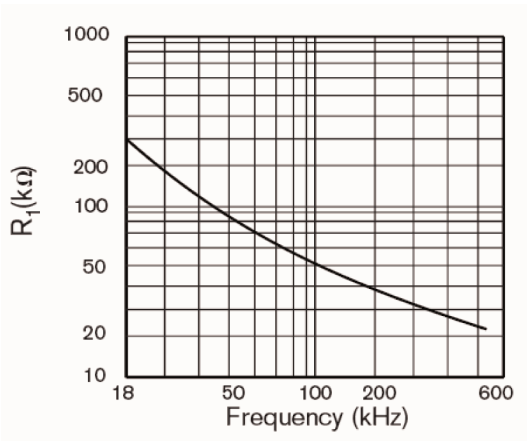
**Compliance**

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

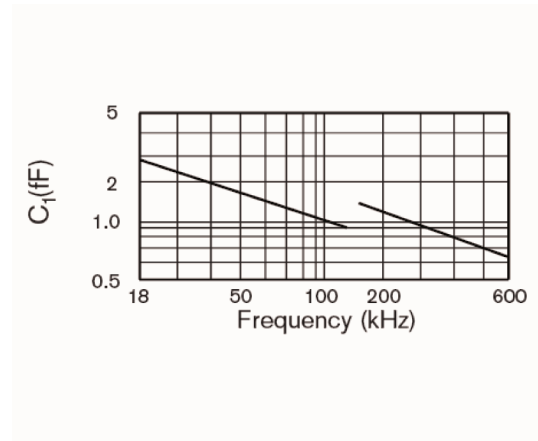
**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Tray      Tray  
Pack Size: 1

**CX3H typical Motional Resistance**



**CX3H typical Motional Capacitance**



**Sales Office Contact Details:**

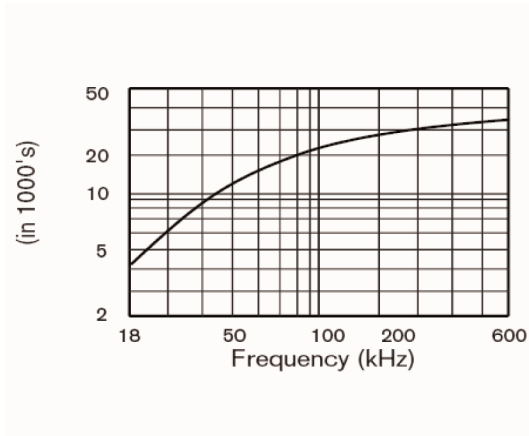
UK: +44 (0)1460 270200

USA: +1 760 318 2824

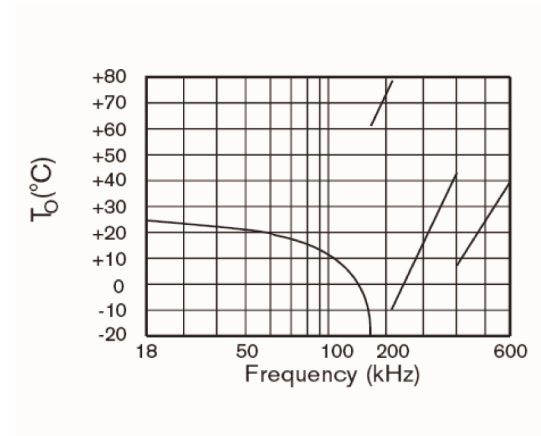
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

CX3H typical Quality Factor



CX3H typical Turning Point Temperature



**Electrical Specification - maximum limiting values**

| Frequency Min | Frequency Max | Temperature Range | Stability (Min) | Over Tone Order | ESR |
|---------------|---------------|-------------------|-----------------|-----------------|-----|
|               |               | °C                | ppm             |                 | Ω   |
| 18.000kHz     | 600.0kHz      | -10 to 70         |                 | Fundamental     | - 0 |
|               |               | -40 to 85         |                 |                 | - 0 |
|               |               | -55 to 125        |                 |                 | - 0 |

\*Stability Maximum values ±0ppm

*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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