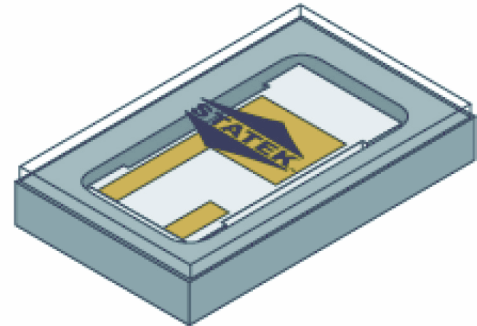


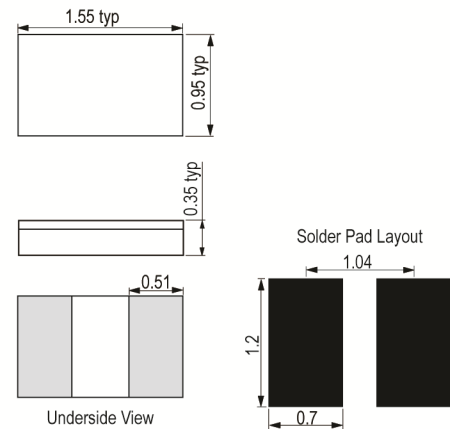
**ISSUE 1; January 2022**

**Description**

- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. When miniaturization is paramount IQD's extremely small CX18 AT Statek quartz crystal is the most ideal choice. This crystal is available in frequencies from 30MHz to 50MHz and has typical overall dimensions of 1.55 mm x 0.95 mm x 0.35 mm. This surface mount crystal is hermetically sealed within an ultra-miniature ceramic package to ensure high stability and low ageing. The extremely small size of this crystal makes the CX18 AT ideally suited for many high frequency applications.
- -C-SM1 Gold Plated (RoHS Compliant) with ceramic lid
- SM1 Gold Plated (Lead Free), ceramic lid
- -SM1 Gold Plated (RoHS Compliant)
- SM1 Gold Plated (Lead Free), glass lid
- FEATURES:
  - Ultra-miniature package
  - Ultra-low profile
  - Ultra-low weight
  - Hermetically sealed package
  - Excellent ageing characteristics
- APPLICATIONS:
  - Medical -
    - Medical Telemetry
    - Cardiac Rhythm Management
    - Defibrillators
    - Neurostimulators
  - Aerospace -
    - Ruggedised Communications
    - Aircraft Electronics
  - Industrial & Communications -
    - Bio-Tracking
    - Process Control
    - Portable Instrumentation
- Please note that all data is only valid at 25°C unless otherwise stated.



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



**Frequency Parameters**

- Frequency 30.0MHz to 50.0MHz
- Frequency Tolerance  $\pm 30.00\text{ppm}$  to  $\pm 50.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 10.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max in 1st year @ 25°C
- Frequency Stability does not include Frequency Tolerance @ 25°C
- Note: Other Frequency Stabilities, Frequency Tolerances and lower Ageing are available - please contact an IQD Sales Office

**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)

**Electrical Parameters**

- Load Capacitance (CL) 9.0pF
- Shunt Capacitance (C0) 0.6pF typ
- Drive Level 100µW max
- Fundamental Frequency 32.0MHz 49.0MHz
- Motional Resistance R1 (Ω) 150 50
- Motional Capacitance C1 (fF) 0.9 1.1
- Quality Factor Q (k) 60 54
- Shunt Capacitance C0 (pF) 0.6 0.5
- Note: Other Load Capacitances (CL), apart from the standard 9pF, are available - please contact an IQD Sales Office

**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  
Note: Random vibration testing also available - please contact an IQD Sales Office
- Storage Temperature Range: -55 to +125°C

**Manufacturing Details**

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

**Ordering Information**

- Frequency\*
- Model\*
- Lid Variant\*
- Termination
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- (\*minimum requirement)
- Lid Variants:
  - Blank = Glass
  - C = Ceramic
- Example
  - 30.0MHz CX18 AT-C-SM1
  - 50/50/-40 to 85C/9 FUND

**Compliance**

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

**Packaging Details**

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

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**Electrical Specification - maximum limiting values**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
30.0MHz	50.0MHz	-10 to 70	±10	Fundamental	- 0
		-40 to 85	±20		- 0
		-55 to 125	±30		- 0

\*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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