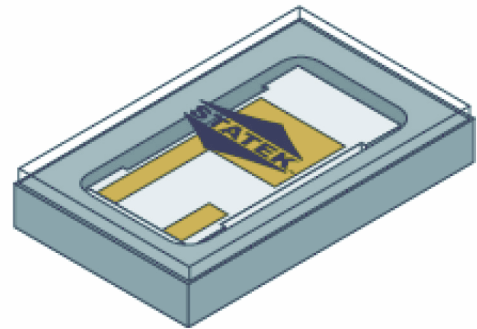


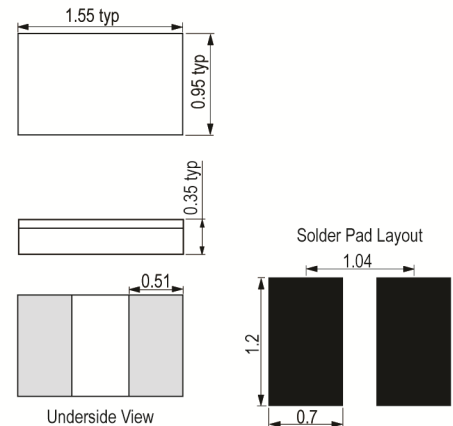
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**Description**

- 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
  - Full military testing available
- APPLICATIONS:
  - Medical -
    - Medical Telemetry
    - Cardiac Rhythm Management
    - Pacemakers
    - Defibrillators
    - Neurostimulators
  - Military & Aerospace -
    - Missile Telemetry
    - Ruggedised Communications
    - Aircraft Electronics
    - Smart Munitions
  - 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 ±30.00ppm to ±50.00ppm
- Tolerance Condition @ 25°C
- Frequency Stability ±10.00ppm to ±100.00ppm
- Ageing ±5ppm 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  
Germany: 0800 1808 443

France: 0800 901 383  
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 (2011/65/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  
Pack Size: 1

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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	-
		-40 to 85	±20		-
		-55 to 125	±30		-

\*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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