

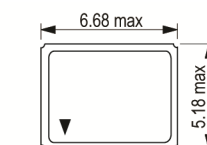
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Description

- Not recommended for new designs.
For those applications requiring a 32.768kHz oscillator with high frequency stability over temperature or fast start-up, Statek offers the AT-crystal based 32.768kHz CXO3M oscillator. A frequency stability of $\pm 20\text{ppm}$ over $-40+85^\circ\text{C}$ is possible, compared to hundreds of parts-per-million for tuning-fork based 32.768kHz oscillators. Whereas tuning-fork based oscillators start in hundreds of milliseconds, Statek's 32.768kHz CXO3M oscillators start in 0.8 ms (typically).
- -SM1 Gold Plated
- -SM5 Solder Dipped (RoSH Compliant)
- FEATURES:
High frequency stability over temperature
Fast start-up
High shock resistance
Surface mount
CMOS and TTL compatible
Optional Output Enable/Disable with Tri-State
Low EMI emission
Hermetically sealed ceramic package
Full military testing available
- APPLICATIONS:
Military / Avionics
Aircraft landing gear
Avionics
Smart Munitions
- Please note that all data is only valid at 25°C unless otherwise stated.



Outline (mm) -SM1 = Gold Plated

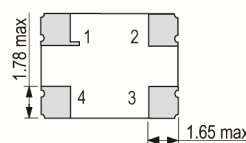


Pad Connections

1. EN/TS/NC
2. GND
3. Output
5. +Vs

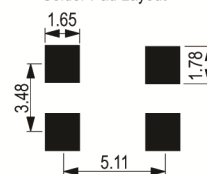
Height (H) =

- SM1 1.4max
- SM3 1.6max
- SM5 1.6max



Underside View

Solder Pad Layout



Frequency Parameters

- Frequency 32.768kHz
- Frequency Tolerance $\pm 100.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 10\text{ppm}$ max in 1st year @ 25°C

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 10\%$
- Start-Up Time: 0.8ms typ
- Output Voltage High: 90%Vs min
Output Voltage Low: 10%Vs max
- Absolute Maximum Supply Voltage: -0.3V to 5.0V

Operating Temperature Ranges

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

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

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
Web: www.iqdfrequencyproducts.com

Environmental Parameters

- Shock: 3000G, 0.3ms, 1/2 sine wave
- Vibration: 20G, 10Hz-2000Hz, swept sine, MIL-STD-202G, Method 204D, Cond.D
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

- Maximum Process Temperature: 260°C for 20 sec

Ordering Information

- Minimum Required*
Frequency*
Model*
Termination Variant*
Frequency Tolerance (@25°C)*
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Supply Voltage
Pad 1 Function*
- Terminations:
SM1= Gold Plated (Pb Free)
SM3 = Solder Dipped
SM5 = Solder Dipped (Pb free)
- Example
32.768kHz CXO3M W-SM1
CMOS ±100ppm ±50ppm -10 to 70 3.3V NC

Compliance

- RoHS Status (2011/65/EU) Optional
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

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

Electrical Specification - maximum limiting values 3.30V ±10%

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
32.768kHz	-55 to 125	±30.00	0.5	1	45/55%
	-40 to 85	±20.00	0.5	1	45/55%
	-10 to 70	±10.00	0.5	1	45/55%

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