

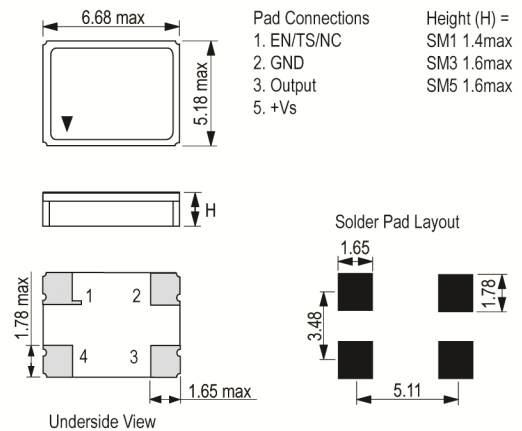
ISSUE 2; June 2019

Description

- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. 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



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 |

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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 (2015/863/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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