

ISSUE 1; June 2019

### Description

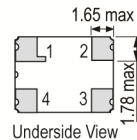
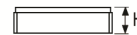
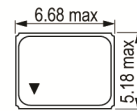
- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. Statek's 32.768kHz surface mount LFXO oscillators, designed especially for applications requiring a fast start-up and high precision, consist of a Statek miniature AT quartz crystal and a CMOS/TTL compatible hybrid circuit in a ceramic package. Each crystal is pre-qualified before assembly into the oscillator through electrical tests and characterization over temperature.

For harsh environments, a high shock version of the LFXO is also available.

- HG-SM1 Gold Plated (RoHS) 20000G
- HG-SM5 Solder Dipped (RoHS) 20000G
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)
- Please note that all data is only valid at 25°C unless otherwise stated.

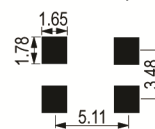


### Outline (mm) SM1 = Gold Plated (RoHS)



Pad Connections	Height (H) =
1. EN/NC	SM1 1.65mm max
2. GND	SM3 1.85mm max
3. Output	SM5 1.85mm max
4. +Vs	

### Solder Pad Layout



### Frequency Parameters

- |                     |                         |
|---------------------|-------------------------|
| Frequency           | 32.768kHz               |
| Frequency Tolerance | ±10.00ppm to ±100.00ppm |
| Tolerance Condition | @ 25°C                  |
| Frequency Stability | ±10.00ppm to ±100.00ppm |
| Ageing              | ±3ppm max in 1st year   |

### Electrical Parameters

- |   |           |
|---|-----------|
| Supply Voltage  | 3.3V ±10% |
| Start-Up Time: 0.8ms typ                                      |           |
| Current: 500µA typ when operating, 3.2µA typ when in EN mode. |           |
| 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 |

### Output Levels

- Output High: 90%Vs min
- Output Low: 10%Vs max

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock (std): 5000G, 0.3ms, 1/2 sine
- Shock (HG): 20000G, 0.3ms, 1/2 sine
- Vibration: MIL-STD-202G, Method 204D, Test Condition D 20G, 10Hz-2000Hz, swept sine

### Manufacturing Details

- Maximum Process Temperature: 260°C for 20sec

### 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\*
- Termination Variant\*
- Output Compatibility
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- Pad 1 Function\*
- Example
- 32.768kHz LFXO-AT 3.3V HG-SM1
- CMOS ±10ppm ±50ppm -10 to 70C NC

#### 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      Supplied on a tray
- Pack Size: 1

#### Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
32.768kHz	32.768kHz	-10 to 70	±10.0	-	1,000	45/55%
		-40 to 85	±20.0	-	1,000	45/55%
		-55 to 125	±30.0	-	1,000	45/55%

*This document was correct at the time of printing; please contact your local sales office for the latest version.*  
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