

# SiT1811 | 32 kHz Oscillators

Mobile, IoT, and Industrial Applications

±20 ppm stability from -10 to +85°C Low integrated phase jitter (IPJ): 3 ns<sub>RMS</sub> Ultra-low power: <510 nA typical



SiT1811, SiTime's next generation 32.768 kHz oscillator delivers higher performance, reliability, at the lowest power profile. SiT1811 is ideal for replacing legacy quartz oscillators in a variety of applications from such as battery-operated tags, wireless headphones, to industrial motors, and medical applications such as continuous glucose monitors. SiTime has incorporated over a decade of expertise into a single device to offer low power and small size in the most reliable 32.768 kHz XO. Impervious to small molecule gasses, SiT1811 is engineered to deliver better frequency stability, lower jitter, and excellent power supply noise rejection.

### Benefits

- Lowest power XO
- Low integrated phase jitter for audio applications
- Maintain performance in harsh and noisy environments
- Small size in an easy-to-use 1211 QFN package

## Architecture



## Features

- Ultra-low power XO with <510 nA typical no load current</li>
- Low integrated phase jitter (IPJ): 3 ns<sub>RMS</sub>
- ±20 ppm frequency stability from -20°C to +85°C
- Tiny 1.2 X 1.1 mm QFN package, no external load caps needed
- LVCMOS output
- Impervious to small molecule gases
- Highest reliability at over 2 billion hours MTBF (0.5 FIT)
- Best-in-class shock resistance at 20,000 g
- Best-in-class vibration resistance at 70 g
- RoHS and REACH compliant, Pb-free, Halogen-free and Antimony-free

### Applications

- Smart wearables
- Hearables
- Gaming and remote controllers
- Smart phones
- Smart tags
- Industrial
- Continuous glucose monitors
- AR/VR headsets

SiTime is a leader in MEMS timing solutions. We combine innovative MEMS and programmable analog technologies with our systems expertise to industry-best products that overcome the limitations of legacy quartz products. Our configurable products provide ultra-stable timing that enables customers to differentiate their systems with higher performance, small size, and better reliability.