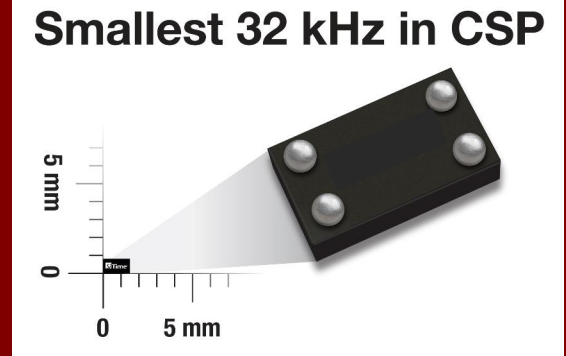


Your logo here

# SiT1532, SiT1552, SiT1630

## 32 kHz MEMS Oscillators

80% Smaller Size  
Ultra-low Power  $<1 \mu\text{A}$   
Most Accurate  $\pm 5 \text{ PPM}$   
Drives Multiple Loads



The SiT15xx family is the first MEMS-based kHz oscillators designed for mobile and wearable electronics such as handsets, tablets, activity trackers, smart watches, GPS modules and Internet of Things (IoT). Compared to legacy quartz products, SiTime's SiT15xx family in the CSP is up to 80% smaller with a  $1.2 \text{ mm}^2$  total footprint.

### Benefits

- Extend battery life
- Save board space
- Reduce BOM

### Applications

- Mobile Phones
- Tablets
- Fitness bands
- Health and medical monitoring
- Wearables
- Portable audio
- Sport video cams
- Active stylus
- IoT devices
- Environmental sensors

### Features

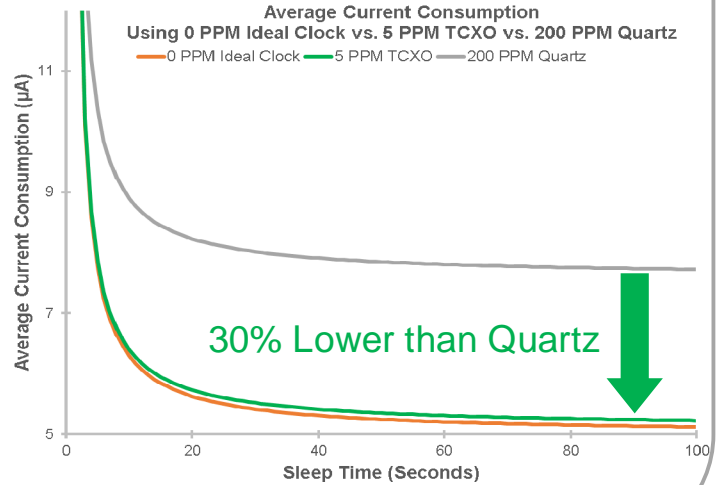
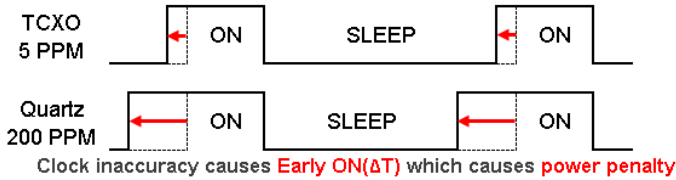
- World's smallest footprint:  $1.5 \text{ mm} \times 0.8 \text{ mm}$  CSP
  - § No load caps
  - § No Vdd bypass caps
- Ultra-low power consumption:  $< 1 \mu\text{A}$
- Best frequency stability:
  - §  $\pm 5 \text{ ppm}$  over temp (SiT1552 TXCO)
  - § 75 to 100 ppm over temp (SiT1532/SiT1630)
  - § 5 to 10 ppm initial tolerance (SiT1552/SiT1532)
- NanoDrive™ output option:
  - § Minimizes output power
  - § Directly interfaces to XTAL\_OSC input
- XTAL replacement in  $2.0 \text{ mm} \times 1.2 \text{ mm}$  SMD
- Shock and drop resistance 10 kg

Your logo here

# SiT1532, SiT1552, SiT1630

## 32 kHz MEMS Oscillators

### ±5 PPM Accurate Clock Saves 30% BLE Power



32kHz Sleep Clock Accurate Over Temp	2 second Sleep Time	20 second Sleep Time	50 second Sleep Time
	ON-Time Error Budget (ΔT)		
SiT1552 TXCO 5 ppm	0.01 ms	0.1 ms	0.25 ms
32kHz XTAL 200 ppm	0.4 ms	4.0 ms	10.0 ms

### 80% Smaller Footprint

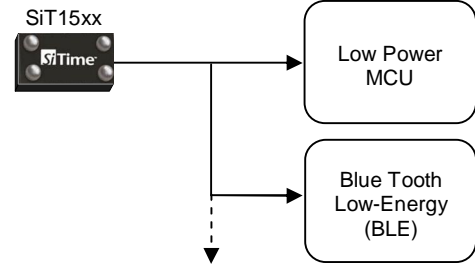
SiT1532 XO  
SiT1552 TCXO

1.5 mm x 0.8 mm  
1.2 mm<sup>2</sup> total footprint

32k Hz XTAL Resonator

2.0 x 1.2 mm + load caps  
5.5 mm total footprint

### Reduce BOM - Drives Multiple Loads



Device	Frequency	Temp. Range (°C)	Stability (PPM)	Package Size (mm)	Supply Voltage (V)
<b>32 kHz µPower Oscillators for Crystal Replacement</b>					
<b>SiT1532</b>	32.768 kHz	-10 to 70 -40 to 85	10, 20 (room) 75, 100 (over temp)	1.5 x 0.8	1.2 to 3.63
<b>SiT1552 TXCO</b>	32.768 kHz	0 to 70 -40 to 85	±5, ±10, ±20 (over temp)	1.5 x 0.8	1.5 to 3.63
<b>32 kHz µPower Oscillators</b>					
<b>SiT1630</b>	32.768 kHz	0 to 70 -40 to 85 or -40 to 105	20 (room) 100 (over temp)	2.1 x 1.2	1.5 to 3.63

Datasheet: <http://www.sitime.com/products/32-khz-oscillators>

Order samples: <http://www.sitime.com/support/request-samples>

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