MEMS Timing Solutions for Mobile and IoT

- Extensive portfolio
- Enables longer battery life
- Ultra-small footprint
- Better performance and higher stability in harsh environments
- Programmable, instant samples, shorter lead time

A small part from SiTime runs a big part of your world
SiT1532 Oscillators and SiT1566, SiT1572, SiT1576, SiT1580 TCXOs
- Smallest footprint | 1.5 x 0.8 mm chip scale package
- Drives multiple loads | Optimized BOM & smaller form factor
- High integration | Optimized BOM & smaller form factor

SiT1532 Oscillators and SiT1552, SiT1580 TCXOs
- Low power | < 1 µA, NanoDrive™ output to optimize swing
- Smallest footprint | 1.5 x 0.8 mm chip scale package
- High robustness | Immune to small molecular gases

SiT1532, SiT1534, SiT1580 Oscillators and SiT1552 TCXOs
- Low power | < 1 µA, NanoDrive™ output to optimize swing
- Smallest footprint | 1.5 x 0.8 mm chip scale package
- High robustness | Immune to small molecular gases

SiT1569, SiT8021 Oscillators and SiT1566, SiT1580 TCXOs
- 3 ppm stability | Higher accuracy enables longer sleep mode
- Smallest footprint | 1.5 x 0.8 mm chip scale package
- 1 Hz to 2.5 MHz frequency | Wide range of custom frequencies

SiT1532, SiT1579 Oscillators and SiT1576 TCXOs
- Smallest footprint | 1.5 x 0.8 mm chip scale package
- Drives multiple loads | Optimized BOM
- 1 Hz to 2.5 MHz frequency | Wide range of custom frequencies

SiT1532, SiT1579 Oscillators and SiT1576, SiT1580 TCXOs
- 1 Hz to 2.5 MHz frequency | Wide range of custom frequencies
- Package options | 1.5 x 0.8 mm CSP, QFN, SoT23
- High reliability | Low DPPM
MEMS Timing Outperforms Quartz

Lower Power

Replace a quartz resonator with MEMS oscillator to save up to 20% system power. *All values are measured.

**Active Current**
- 5.6 mA (XTAL resonator + MCU)
- 5.2 mA (SiT153x + MCU)
- 2.6 mA (XTAL resonator + MCU)
- 2.1 mA (SiT153x + MCU)

**Standby Current**
- 7% saving
- 18% saving

Smallest Size, Lower BOM

<table>
<thead>
<tr>
<th>Typical Resonator</th>
<th>SiTime MEMS Oscillator</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 mm² Total Footprint</td>
<td>1.7 mm² Total Footprint</td>
</tr>
</tbody>
</table>

Drive Multiple Loads

MEMS XO
- 32-Bit Low-Power Processor
- RTC
- BlueTooth Low-Energy (BLE) SoC
- Sleep Clock
- Audio DAC or Codec

Low Power Feature

NanoDrive™ optimizes output swing and lowers power.

VDD
- Rail-to-Rail (VCMOS)
- 400 mV

GND
- 200 mV
MEMS Timing Solutions for Mobile and IoT

All products are available in -40 to +85°C unless otherwise noted.

© September 2020 SiTime Corporation, a MegaChips Company. Subject to change without notice.

<table>
<thead>
<tr>
<th>SiTime Base Part No.</th>
<th>Output Frequency</th>
<th>Frequency Stability (ppm)</th>
<th>Supply Volt. (V)</th>
<th>Supply Current (Typical)</th>
<th>Packages (mm x mm)</th>
<th>Output Logic</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>µPOWER 32 kHz OSCILLATORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIT1532</td>
<td>32.768 kHz</td>
<td>75, 100, 250 over temp (10, 20 room temp)</td>
<td>1.2 to 3.63</td>
<td>0.90 μA</td>
<td>1508</td>
<td>NanoDrive, LVCMS</td>
<td>Smallest XO, Field Programmable</td>
</tr>
<tr>
<td>SIT1533</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIT1572</td>
<td>±50</td>
<td>1.62 to 3.63</td>
<td>4.5 μA</td>
<td>1508</td>
<td>LVCMS</td>
<td>Smallest XO, Field Programmable</td>
<td></td>
</tr>
<tr>
<td>SIT1573</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIT1630</td>
<td>32.768, 16.384 kHz</td>
<td>75, 100, 150 over temp (20 room temp)</td>
<td>1.5 to 3.63</td>
<td>1.0 μA</td>
<td>2012, SOT23-5</td>
<td>LVCMS</td>
<td>-40 to +105°C, Field Programmable</td>
</tr>
</tbody>
</table>

µPOWER 32 kHz TCXOs |

| SiT1552 TCKO  |
| 32.768 kHz | ±10, ±13, ±22, all-inclusive | 1.5 to 3.63 | 0.99 μA | 1508 | NanoDrive, LVCMS | Smallest TCXO, Field Programmable |
| SiT1566 Super-TCXO |
| SiT1568 Super-TCXO |
| SiT1580 TCKO  |

LOW POWER OSCILLATORS |

| SIT1534  | 1 Hz to 32.768 kHz | 75, 100, 250 over temp (20 room temp) | 1.2 to 3.63 | 0.90 μA | 1508, 2012 | NanoDrive, LVCMS | Smallest XO, Field Programmable |
| SIT1569  | 1 Hz to 462.5 kHz | ±50 | 1.62 to 3.63 | 3.3 μA (100 kHz) | 1508 | LVCMS | Smallest XO, 2.5 ns RMS phase jitter, Field Programmable |
| SIT1579  | 1 Hz to 2.5 MHz | ±50 | 1.62 to 3.63 | 8.0 μA (100 kHz) | 1508 | LVCMS | Smallest XO, 2.5 ns RMS phase jitter, Field Programmable |
| SIT8021  | 1 MHz to 26 MHz | ±50, ±100 | 1.8, 2.5 to 3.3 | 60 to 280 μA (0.7 μA @800) | 1508 | LVCMS | Smallest XO, Field Programmable |

LOW POWER TCXOs |

| SIT1576 Super-TCXO  | 1 Hz to 2.5 MHz | ±5, ±20 all inclusive | 1.62 to 3.63 | 8.0 μA (100 kHz) | 1508 | LVCMS | Smallest XO, 2.5 ns RMS phase jitter, Field Programmable |
| SIT1581 TCKO  | ±50 | 1.62 to 3.63 | 6.0 μA (100 kHz) | 1508 | LVCMS | Smallest XO, 2.2 ns RMS phase jitter, Immune to small-molecule gasses |

Field Programmable Oscillators – Always Available

Easy-to-use programming kit
- Don’t waste time searching & waiting for timing devices
- Optimize system performance with custom frequencies
- Instantly reduce EMI with programmable drive strength

All products are available in -40 to +85°C unless otherwise noted.

© September 2020 SiTime Corporation, a MegaChips Company. Subject to change without notice.

salesupport@sitime.com www.sit ime.com