Instant Oscillators

Complete easy-to-use programming kit for SiTime’s field programmable devices

- Any frequency
- Any voltage
- Any stability

Don't waste time searching and waiting for oscillators. The Time Machine II™ allows you to easily configure SiTime always-in-stock field programmable devices to your exact specification and create drop in replacements for legacy quartz oscillators within seconds.

Benefits
- Optimize system performance with custom frequencies
- Reduce EMI with programmable drive strength
- Quickly develop prototypes and reduce design time with instant oscillators

Features

Easy to Use
- USB powered programmer
- Add-on cards with directional connectors and indicators
- Anti-slip bumps hold programmer in place
- One-click programming software
- Built-in part number generator
- Programming history
- Auto software update
- Compatible with all PCs and Microsoft Windows

Complete Solution
- Small carrying case holds programmer and all accessories
- Add-on cards (socket cards) support 6 oscillator packages
- Sample field programmable device packs
- Complete documentation

Future Proof
- Software and hardware upgradable for future products
- Durable socket card connectors rated at 5000 insertions

Applications
- Ultra-Performance Oscillators: SIT8208, SIT8209
- Differential Oscillators: SIT9120, SIT9121, SIT9122
- AEC-Q100 Automotive Oscillators/Clocks: SIT8924, SIT8925, SIT2024, SIT2025
- VCXOs: SIT3807, SIT3808, SIT3809
- Spread Spectrum Oscillators: SIT9003, SIT9005
- Ruggedized: SIT5146, SIT5147, SIT5346, SIT5347, SIT5348, SIT5349, SIT9346, SIT9347
- μPower: SIT1581
Program Oscillators in 3 Simple Steps

1. Mount the field programmable device
2. Specify desired configuration
3. Program

See how easy it is to program SiTime devices using the Time Machine at:
sitime.com/time-machine-video

Configure Devices to Your Exact Specification

<table>
<thead>
<tr>
<th>Customizable Frequency</th>
<th>Frequency Stability</th>
<th>Supply Voltage</th>
<th>Pull Range</th>
<th>Drive Strength Control</th>
<th>Spread Spectrum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential: 1 to 725 MHz</td>
<td>±0.05 to ±50 PPM</td>
<td>1.8V, 2.5 to 3.3V</td>
<td>Programmable from ±50 to ±1600 ppm in VCXO and up to ±3200 ppm in DCXO</td>
<td>0.25 to 40 ns rise/fall time for low to high output drive and load</td>
<td>±0.25 to ±2.0% center spread and -0.5 to -4.0% down spread</td>
</tr>
<tr>
<td>Single-ended: 1 to 220 MHz</td>
<td></td>
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</tbody>
</table>

6 decimals of accuracy

Additional Options

<table>
<thead>
<tr>
<th>Package Options</th>
<th>Temperature Range</th>
<th>Output Signaling</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSP: 1508; QFN: 2016, 2520, 3225, 5032, 7050; SOT23-5: 2928; SMD: 3225, 5032, 7050</td>
<td>0 to +70°C, -20 to +70°C, -40 to +125°C, -40 to +125°C, -55 to +125°C</td>
<td>Differential: LVPECL, LVDS, or HCSL Single-ended: LVCMOS, Clipped Sine</td>
</tr>
</tbody>
</table>

Kit Contents (SiT6100DK)

- Programmer
- Adapter board(s)
- USB Cable
- Tweezers
- Field Programmable Oscillators

Download Time Machine II Software: sitime.com/tm-sw

Field programmable oscillators: sitime.com/fp-devices
Programmer and adapter cards: sitime.com/time-machine
User Manual: sitime.com/tm-um

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