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>Differential: 1 to 725 MHz</th>
<th>Single-ended: 1 to 220 MHz</th>
<th>6 decimals of accuracy</th>
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</thead>
<tbody>
<tr>
<td>Frequency Stability</td>
<td>±0.05 to ±50 ppm</td>
<td></td>
<td></td>
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<tr>
<td>Supply Voltage</td>
<td>1.8 V, 2.5 to 3.3 V</td>
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<tr>
<td>Pull Range</td>
<td>Programmable from ±50 to ±1600 ppm in VCXO and up to ±3200 ppm in DCXO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive Strength Control</td>
<td>0.25 to 40 ns rise/fall time for low to high output drive and load</td>
<td></td>
<td></td>
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<tr>
<td>Spread Spectrum</td>
<td>±0.25 to ±2.0% center spread and -0.5 to -4.0% down spread</td>
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</tr>
</tbody>
</table>

Additional Options

- Package Options: CSP: 1508; QFN: 2016, 2520, 3225, 5032, 7050; SOT23-5: 2928; SMD: 3225, 5032, 7050
- Temperature Range: 0 to +70°C, -20 to +70°C, -40 to +85°C, -40 to +95°C, -40 to +105°C, -40 to +125°C, -55 to +125°C
- Output Signaling: Differential: LVPECL, LVDS, or HCSL Single-ended: LVCMOS, Clipped Sine

Kit Contents (SiT6100DK)

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

Download:
Time Machine II Software | Field programmable oscillators
Programmer and adapter cards | User Manual

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