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

**Benefits**
- Reduce design time with instant samples
- Optimize system performance with custom frequencies
- Enable fast prototyping with always-in-stock field programmable devices

**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

**Supports popular SiTime MEMS oscillators**

- Ultra Performance Oscillators: SiT8208, SiT8209
- Differential Oscillators: SiT9120, SiT9121, SiT9122
- Low Power Oscillators: SiT8008, SiT8009, SiT1602
- High Temp Oscillators: SiT8918, SiT8919, SiT8920, SiT8921, SiT1618
- VCXOs: SiT3807, SiT3808, SiT3809
- Differential VCXOs: SiT3821, SiT3822
- Digitally Controlled Oscillators (DCXOs): SiT3907
- Differential DCXOs: SiT3921, SiT3922
- Spread Spectrum Oscillators: SiT9001, SiT9003
- Spread Spectrum Differential Oscillators: SiT9002
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 oscillators using the Time Machine at: www.sitime.com/time-machine-video

Configure Devices to Your Exact Specification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customizable Frequency</td>
<td>Differential: 1 to 625 MHz (6 decimals of accuracy)</td>
</tr>
<tr>
<td></td>
<td>Single-ended: 1 to 220 MHz</td>
</tr>
<tr>
<td>Frequency Stability</td>
<td>±20 to ±50 PPM</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>1.8V, 2.5 to 3.3V</td>
</tr>
<tr>
<td>Pull Range</td>
<td>±25 to ±1600 ppm in VCXO and DCXO</td>
</tr>
<tr>
<td>Drive Strength Control</td>
<td>1 to 11 ns rise/fall time for low to high output drive</td>
</tr>
<tr>
<td>Spread Spectrum</td>
<td>±0.25 to ±2.0% center spread and -0.5 to -4.0% down spread</td>
</tr>
</tbody>
</table>

Additional Options

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Options</td>
<td>2016, 2520, 3225, 5032, 7050 plastic packages</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-20 to +70°C, -40 to +85°C, -40 to +105°C, -40 to +125°C or -55 to +125°C</td>
</tr>
<tr>
<td>Output Signaling</td>
<td>Differential: LVPECL, LVDS or HCSL, Single-ended: LVCMOS</td>
</tr>
</tbody>
</table>

Kit Contents (SiT6100DK)

- Programmer
- Socket cards
- USB Cable
- Tweezers
- Installation Software (USB Drive)
- Field Programmable Oscillators

More Info

Field programmable oscillators: www.sitime.com/fp-devices
Programmer and adapter cards: www.sitime.com/time-machine

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990 Almanor Avenue • Sunnyvale, CA 94085 • USA • +1-408-328-4400 • salessupport@sitime.com • www.sitime.com