

# 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

### Applications

- LVCMOS Oscillators: SiT8208, SiT8209
- Differential Oscillators: SiT9120, SiT9121, SiT9122
- Low Power Oscillators: SiT8008, SiT8009, SiT1602
- Low Power SOT23 Oscillators: SiT2001, SiT2002
- High Temp Oscillators: SiT8918, SiT8919, SiT8920, SiT8921, SiT1618
- High Temp SOT23 Oscillators: SiT2018, SiT2019, SiT2020, SiT2021
- Automotive Oscillators: SiT8924, SiT8925, SiT2024, SiT2025
- VCXOs: SiT3807, SiT3808, SiT3809
- Differential VCXOs: SiT3821, SiT3822
- Digitally Controlled Oscillators (DCXOs): SiT3907
- Differential DCXOs: SiT3921, SiT3922
- Spread Spectrum Oscillators: SiT9003, SiT9005
- Spread Spectrum Differential Oscillators: SiT9002

### 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

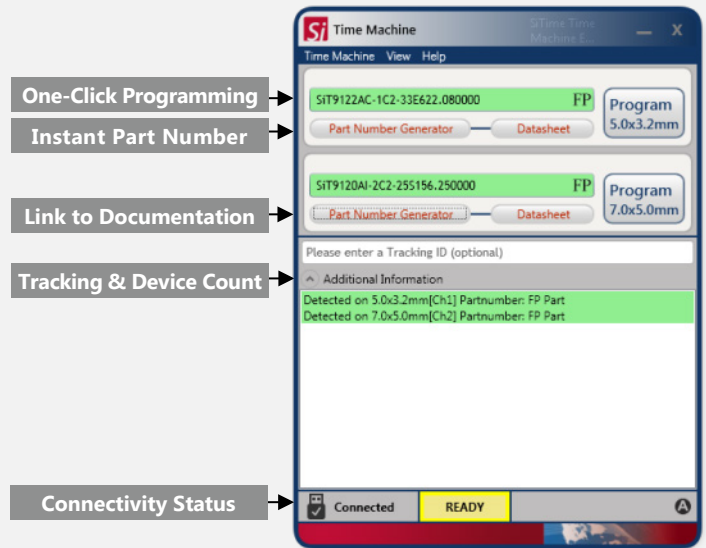
#### Future Proof

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

### 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 II at:  
[sitime.com/time-machine-video](http://sitime.com/time-machine-video)



### Configure Devices to Your Exact Specification

<b>Customizable Frequency</b>	Differential: 1 to 625 MHz Single-ended: 1 to 220 MHz	6 decimals of accuracy
<b>Frequency Stability</b>	±20 to ±50 PPM	
<b>Supply Voltage</b>	1.8V, 2.5 to 3.3V	
<b>Pull Range</b>	Programmable from ±25 to ±1600 ppm in VCXO & DCXO	
<b>Drive Strength Control</b>	0.25 to 40 ns rise/fall time for low to high output drive and load	
<b>Spread Spectrum</b>	±0.25 to ±2.0% center spread and -0.5 to -4.0% down spread	

### Additional Options

<b>Package Options</b>	QFN: 2016, 2520, 3225, 5032, 7050; SOT23-5: 2928
<b>Temperature Range</b>	-20 to +70°C, -40 to +85°C, -40 to +105°C, -40 to +125°C, -55 to +125°C
<b>Output Signaling</b>	Differential: LVPECL, LVDS, or HCSL; Single-ended: LVCMOS

### Kit Contents (SiT6100DK)

- Programmer
- Adapter board(s)
- USB cable
- Tweezers
- Field programmable oscillators

Download Time Machine II Software: [sitime.com/tm-sw](http://sitime.com/tm-sw)

Field programmable oscillators: [sitime.com/fp-devices](http://sitime.com/fp-devices)

User Manual: [sitime.com/tm-um](http://sitime.com/tm-um)

More info: [sitime.com/time-machine](http://sitime.com/time-machine)

