

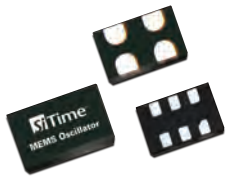
# Instant Oscillators

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

## Field Programmable SiTime MEMS devices

Ultra Performance Oscillators: **SiT8208, SiT8209**

Differential Oscillators: **SiT9120, SiT9121, SiT9122**

Low Power Oscillators: **SiT8008, SiT8009, SiT1602**

Low Power Clocks: **SiT2001, SiT2002**

High Temp Oscillators: **SiT8918, SiT8919, SiT8920, SiT8921, SiT1618**

High Temp Clocks: **SiT2018, SiT2019, SiT2020, SiT2021**

AEC-Q100 Automotive Oscillators/Clocks: **SiT8924, SiT8925, SiT2024, SiT2025**

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**

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

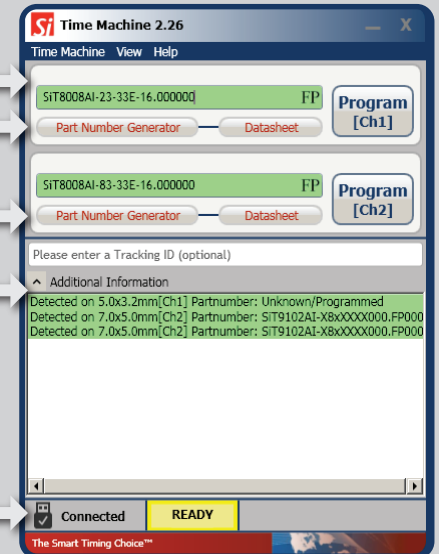
One-Click Programming

Instant Part Number

Link to Documentation

Tracking & Device Count

Connectivity Status



## Configure Devices to Your Exact Specification

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

## Additional Options

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



INSTANT  
SAMPLES



QUARTZ  
FREE



GREEN  
SOLUTIONS

## Kit Contents (SiT6100DK)

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



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

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

Programmer and adapter cards: [www.sitime.com/time-machine](http://www.sitime.com/time-machine)

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