

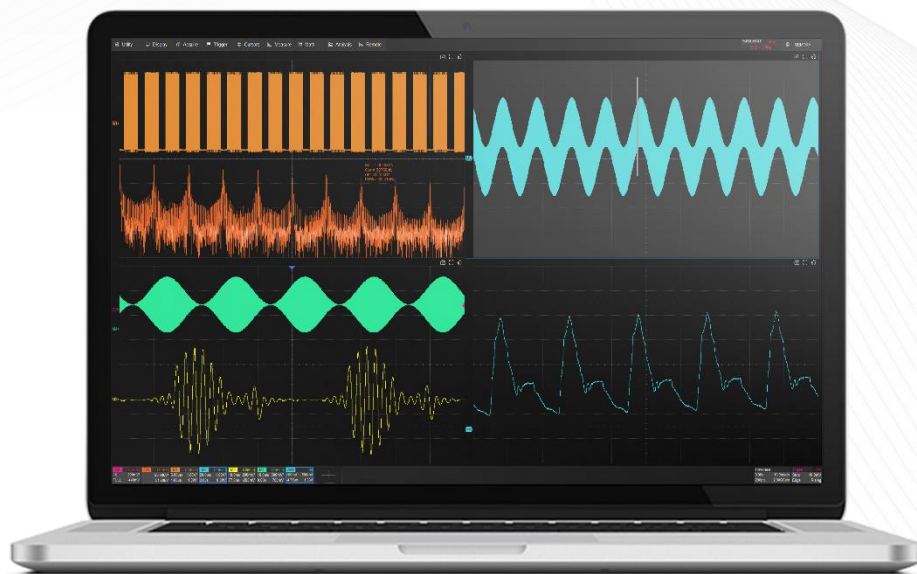


# SigScopeLab

## Oscilloscope on PC

Datasheet

EN03A



# SigScopeLab

## Product Overview

SigScopeLab is a professional time-domain signal analysis and oscilloscope control software running on the Windows operating system.

- Consistent operating experience. The same user interface as the newest SDS series oscilloscopes provides efficiency and ease of use.
- Comprehensive local analysis function. Supports offline analysis of original waveform files for all SDS models, including handheld oscilloscopes.

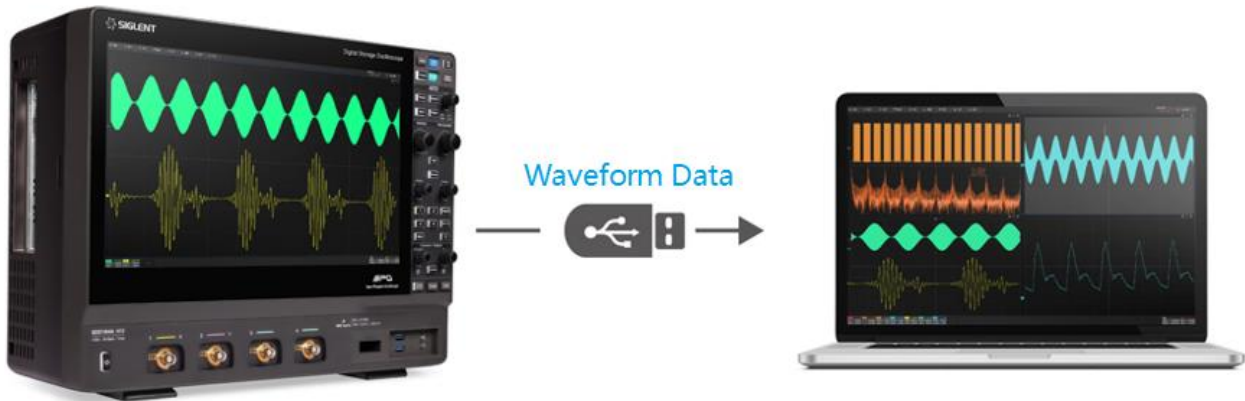
\* SigScopeLab features data online acquisition and offline analysis, while Webserver specializes in real-time control of oscilloscope and waveform observation.

## Features and Advantages

- Offline waveform data analysis on PC
  - Maximum 8 channels for offline waveform data analysis.
  - Offline waveform data volume up to 500Mpts per channel.
  - Support waveform data with 12 bit vertical resolution.
- Import measurement project on PC, fully restore channel, data, and measurement parameters, effortlessly resuming previous measurement scenarios..
- Control remote SDS acquisition, and fetch waveform data to PC online for local analysis.
- Control multiple oscilloscopes simultaneously online to form a multi-oscilloscope acquisition system:
  - Supports a maximum connection of 8 devices of the same model.
  - Capable of concurrently analyzing data from up to 64 channels simultaneously
- Familiar SDS platform enables measurement functions from the oscilloscope on the PC as post data analysis. Typical use cases include:
  - Dozens of automatic measurement functions. Support measurement statistics, Gating measurements, and Math measurements. Support histogram and trend chart statistics for measurement parameters.
  - 4 independent waveform operations. Support maximum 32Mpts FFT. Support digital filtering. More than 20 commonly used time-domain operations. Support custom expressions for complex nested operations
  - 2-way serial bus decoding. Support various protocols, including I2C, SPI, UART, CAN, LIN..
  - Multiple advanced data analysis and processing functions: Signalscan, Navigation, Mask test, etc
- Multi window display for more flexible observation
- Consistent operation interface with the SDS traditional operation interface, making it easy to get started.

## Design Features

### Waveform Data Offline Analysis



To begin, export binary waveform files from the oscilloscope. You can transfer these files to your computer's hard drive using a USB flash drive or by accessing a network server. After transferring the files, use the Memory function in SigScopeLab to import the waveform data for detailed analysis.

Supports analysis of up to 500Mpts of waveform data per channel.

### Measurement Project Offline Analysis



One-click save of measurement projects that encapsulate the complete measurement environment. Upon importing these projects into SigScopeLab, channels, data, and measurement parameters are fully restored, enabling you to easily revisit previous measurement scenarios.

Typical Scenario: Users export measurement projects from oscilloscope devices, transfer them to their computer hard drives via USB flash drives or network servers, then utilize SigScopeLab's project import function to restore configurations and channel waveforms, and finally proceed with waveform analysis.

Users can also export the current project content while analyzing waveforms using SigScopeLab, and re-import it for further analysis at a suitable time.

## Acquire Waveform Data to PC Online for Analysis



In this scenario, SigScopeLab only controls remote acquisition and does not control remote analysis and measurement.

SigScopeLab fetches waveform data from the remote device online after controlling the acquisition, and then performs local data analysis without relying on the analysis function of the oscilloscope.

### Online Multi-Oscilloscope Acquisition System



A multi-oscilloscope acquisition system can be formed by connecting multiple oscilloscopes of the same model. SigScopeLab uniformly maps and numbers the channels of these oscilloscopes, making the operation of multiple oscilloscopes as convenient as operating a single one.

On the same user interface, you can control the acquisition settings of multiple oscilloscopes and display and analyze waveform data from them.

This solution facilitates cross-oscilloscope measurements, mathematical operations, zooming, cursor manipulation, and more on waveform data, catering to your measurement and analysis needs in various scenarios.

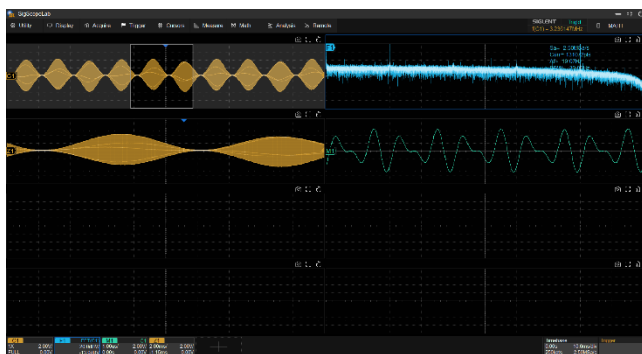
It supports the connection of up to 8 devices and the simultaneous analysis of up to 64 channels of data.

## Same Platform as SDS Software



For the supported measurement and analysis functions, SigScopeLab and SDS devices have identical interaction and multi window display. Multi window mode provided, where users can measure and observe waveforms and analysis in different windows according to their needs, making it more flexible.

## Multiple Window Display Modes



Seven window display modes to meet different observation needs.

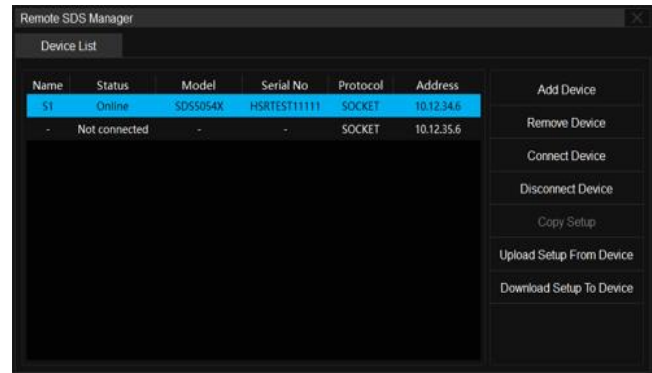


In multi window mode, also possible to maximize or restore a certain display window.



## Remote Management and Setup Synchronization Function

A remote device list is provided for convenient switching between oscilloscopes; It can be configured synchronously from the SDS device to SigScopeLab or from SigScopeLab to the SDS device, meeting different application scenarios.



## Parameters and Specifications

### Key Parameters

	Free Version	Advanced Version
Number of Memory Functions	2	4
Data Points of Memory Function	2Mpts per channel	Maximum
Number of Math Functions	2	4
Number of Measurements	5	Maximum
Maximum Mem Depth for Online Control	2Mpts per channel	Maximum
Maximum Number of Oscilloscopes	2	8
Maximum Number of Channels	16	64
Measurement Project	√	√
Math on Measurements	√	√

After installation, SigScopeLab defaults to the free version. To upgrade to the advanced version, simply install the corresponding advanced license on the free version.

### Analysis Function Features

Features	
Decode	Decoder module
Measurement	Measurement function module
Display	Configure persistence,color grade, intensity, etc
Horizontal	Horizontal parameter settings
Vertical	Vertical parameter settings

Math	Mathematical operation function
SignalScan	Search and locate waveform events
Navigate	Play control for timebase and SignalScan
Pass/Fail	Mask test function
Cursors	Cursor measurement analysis
Gate	Analysis gating setting
Save/Recall	Save and restore product configurations, binary waveforms, etc
Project	Quick save and recall configurations and channel waveforms
Help	Help document

## Online Acquisition, Configurable SDS Parameters

Mainly related to waveform acquisition parameters

Configurable Parameters	
Channel	Channel related parameters
Trigger	Trigger related parameters
Acquire	Acquisition related parameters
Horizontal	Horizontal related parameters

## Remote SDS Device Management

Management Features
Add or remove SDS devices
List of SDS devices
Upload setup from SDS device to SigScopeLab
Download setup from SigScopeLab to SDS device
Multiple oscilloscope acquisition system

## Models List for Remote SDS Device Management

SDS7000A	SDS5000X
SDS6000A	SDS2000X Plus
SDS6000L	
SDS3000X HD	
SDS2000X HD	

SDS1000X HD	
SDS800X HD	

## PC Requirements

Unless otherwise specified, all specifications must meet the following conditions:

Minimum Requirements	
Operating System	Windows 10 or later 64-bit operating system
Processor	Intel® Core™ i5 Processor or better
Memory	8 GB RAM or better
Hard Disk	600MB or more available free space
Display Resolution	Minimum 1280x720, recommended 1920x1080
Virtual Memory	4GB(Advanced version 25GB) or more of available virtual memory





## About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of electronic test & measurement instruments.

SIGLENT first began developing digital oscilloscopes independently in 2002. After more than a decade of continuous development, SIGLENT has extended its product line to include digital oscilloscopes, isolated handheld oscilloscopes, function/arbitrary waveform generators, RF/MW signal generators, spectrum analyzers, vector network analyzers, digital multimeters, DC power supplies, electronic loads and other general purpose test instrumentation. Since its first oscilloscope was launched in 2005, SIGLENT has become the fastest growing manufacturer of digital oscilloscopes. We firmly believe that today SIGLENT is the best value in electronic test & measurement.

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