

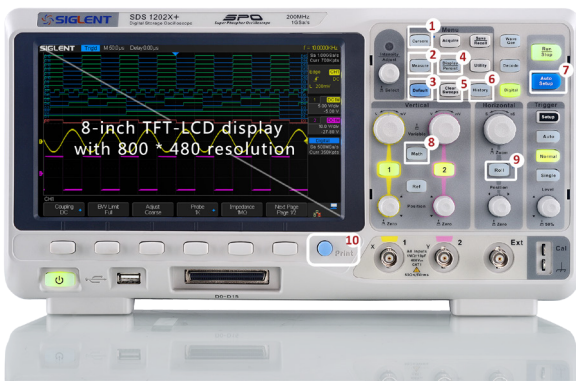
SDS1000X / SDS1000X+ Super Phosphor Oscilloscope

Key Features

- 100 MHz, 200 MHz bandwidth models
- Real-time sampling rate up to 1 GSa/s
- New generation of SPO technology
 - Waveform capture rate up to 60,000 wfm/s (normal mode), and 400,000 wfm/s (sequence mode)
 - Supports 256-level intensity grading and color temperature display
 - Record length up to 14 Mpts
 - Digital trigger system
- Intelligent trigger: Edge, Slope, Pulse, Window, Runt, Interval, Time out (Dropout), Pattern
- Serial bus triggering and decode, supports protocols I²C, SPI, UART/RS232, CAN, LIN
- Video trigger, supports HDTV
- Low background noise, supports 500 μ V / div to 10 V / div voltage scales
- 10 types of one-button shortcuts, supports Auto Setup, Default Setup, Cursor, Measure, Roll, History, Persistence, Clear Sweep, Zoom and Print
- Segmented acquisition (Sequence) mode, the maximum record length can be divided into 80,000 segments, according to trigger conditions set by the user, with a very small dead time segment to capture qualifying event
- History waveform record (History) function, the maximum recorded waveform length is 80,000 frames
- Automatic measurement function on 37 parameters, supports statistics calculations, Gating measurement, Math measurement, History measuring, Ref measurement
- Waveform math function (FFT, addition, subtraction, multiplication, division, integration, differentiation, square root)
- High Speed hardware based Pass/ Fail function
- 16 Digital channels (MSO), Maximum waveform capture rate up to 500 MSa/s, Record length up to 14 Mpts/CH (Optional for SDS1000X+ models)
- 25 MHz DDS arbitrary waveform generator, built-in 10 kinds of waveforms (Standard for SDS1000X+ Series)
- Large 8 inch TFT-LCD display with 800 * 480 resolution, Abundant interfaces: USB Host, USB Device (USBTMC), LAN (VXI-11), Pass / Fail, Trigger Out
- Supports SCPI remote control commands
- Supports Multi-language display and embedded online help

Characteristics

- 8 inch TFT-LCD display and 10 one-button menus



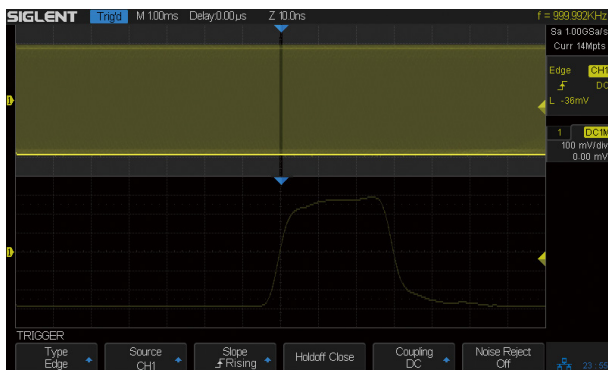
Equipped with 8" TFT-LCD display with a resolution of 800 * 480. Most commonly used functions are accessible using 10 different one-button operation keys: Auto Setup, Default Setup, Cursor, Measure, Roll, History, Persist, Clear Sweep, Zoom, Print.

- Waveform capture rate up to 60,000 wfm/s



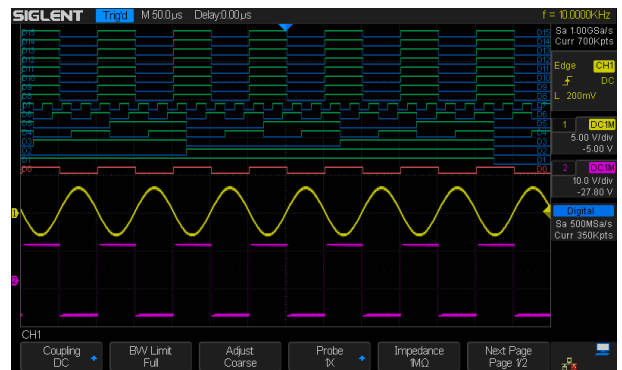
Up to 60,000 frames / second waveform capture rate, the oscilloscope can easily capture the transient events or low-probability events.

- Record length of up to 14 Mpts



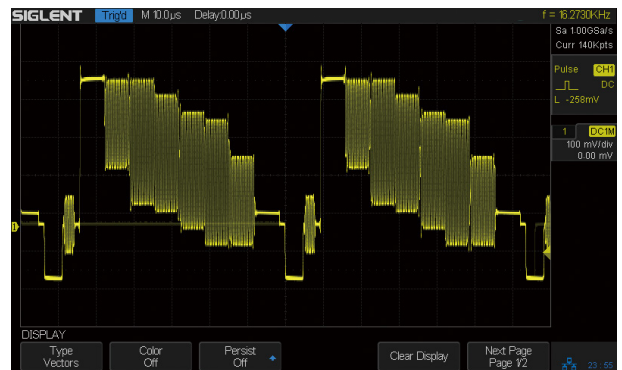
Using hardware-based Zoom technologies and record length of up to 14 Mpts, users are able to use a higher sampling rate to capture more of the signal, and then quickly zoom in to focus on the area of interest.

- 16 Digital Channels/MSO (Optional for SDS1000X+)



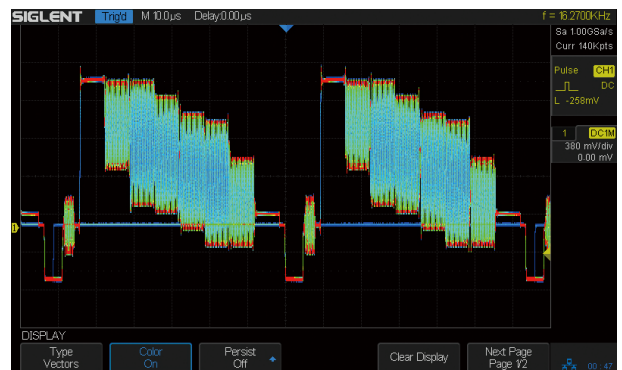
2 analog channels plus 16 digital channels enables users to acquire and trigger on the waveforms then analyze the pattern, simultaneously with one instrument.

- 256-level intensity grading and color temperature display



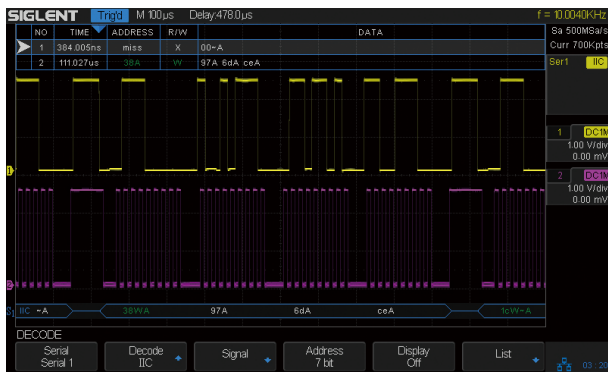
SPO display technology provides for fast refresh rates. The resulting intensity-graded trace is brighter for more often-occurring display points and dimmer in less-often-occurring points.

↓ Color Temperature Display



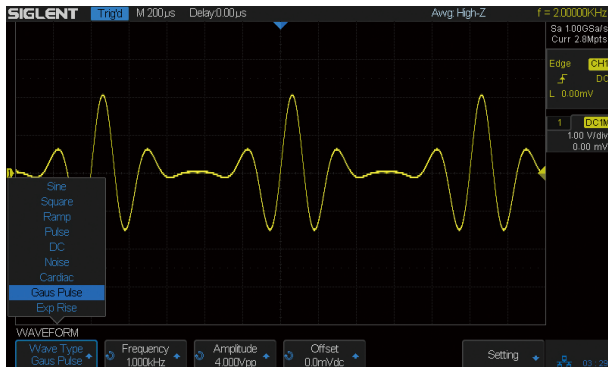
The color temperature display is similar to the intensity-graded trace except that the trace occurrence is represented by different colors (color "temperature") as opposed to changes in the intensity of one color. Red represents the most common occurrences or probabilities while blue are the least common points.

Serial bus decoding Function (optional)



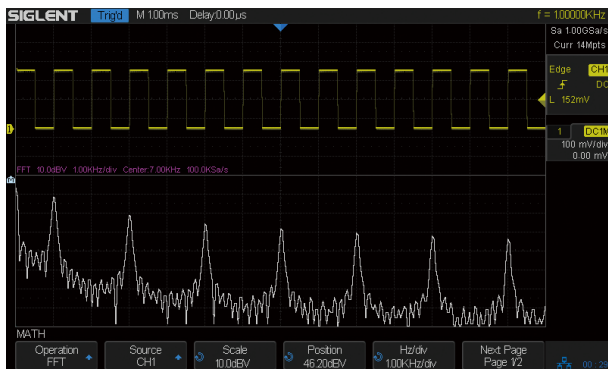
SDS1000X/SDS1000X+ displays the decoding through the events list. Bus protocol information can be quickly and intuitively displayed in table form.

Built-in 25 MHz function/arbitrary waveform Generator (Standard for SDS1000X+ Models)



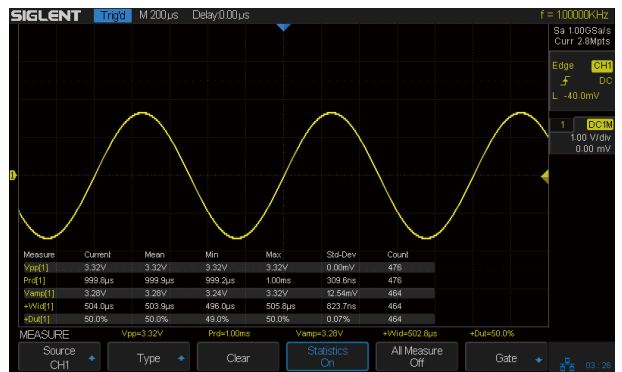
The SDS1000X+ has a built-in 25 MHz function / arbitrary waveform generator (standard), including 10 built-in waveforms plus 4 ARBs. The arbitrary waveforms can be accessed and edited by the EasyWave PC software.

Advanced Math Function



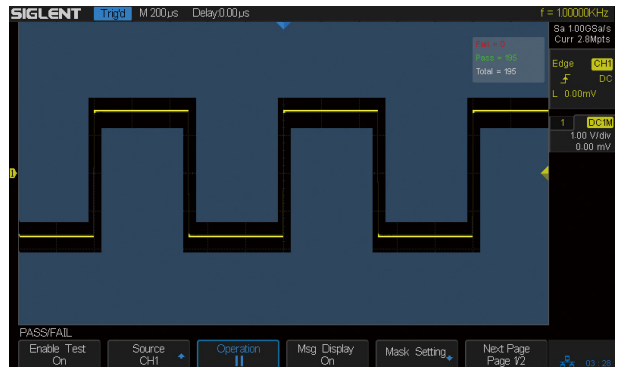
In addition to the traditional (+, -, X, /) operation, SDS1000X/SDS1000X+ oscilloscopes supports FFT, integration, differentiation, and square root operations.

Comprehensive statistical functions



Parametric statistical functions to display any parameters of the five measurements: current, average, Minimum value, Maximum value, and the standard deviation. The measurement count is also displayed. The maximum number of parameters that can be measured and simultaneously analyzed statistically is five. Support Gating measurements, Math measurement, History measurement, Ref measurement.

Hardware-Based High Speed Pass/Fail Function



The SDS1000X/SDS1000X+ utilizes a hardware-based Pass / Fail function, performing up to 40,000 Pass / Fail decisions each second. With easy to generate user-defined test templates, the SDS1000X/SDS1000X+ compares the current measured trace to the template mask trace making it suitable for long-term signal monitoring or automated production line testing.

Complete connectivity



SDS1000X/SDS1000X+ supports USB Host, USB Device (USB-TMC), LAN (VXI-11), Pass/Fail and Trigger Out.

Specifications

Model	SDS1102X	SDS1102X+	SDS1202X	SDS1202X+
Bandwidth	100 MHz		200 MHz	
Sample Rate (Max)	1 GSa/s			
Channels	2+EXT			
Memory Depth (Max)	7 Mpts/CH (Dual-Channel); 14 Mpts/CH (Single-Channel)			
Waveform Capture Rate	60,000 wfm/s (normal mode), 400,000 wfm/s (sequence mode)			
Trigger Type	Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video			
Serial Trigger	I ² C, SPI, UART/RS232, CAN, LIN			
Decode Type (Optional)	I ² C, SPI, UART/RS232, CAN, LIN			
DDS Waveform Generator	No	Yes	No	Yes
	Single Channel, Max. Frequency up to 25 MHz, 125 MSa/s sampling rate, 16 Kpts wave length SDS1000X+ Supported (Standard); SDS1000X Not supported			
16 Digital Channels (MSO Option)	Maximum waveform capture rate up to 500 MSa/s, Record length up to 14 Mpts/CH SDS1000X+ Supported (Optional); SDS1000X Not supported			
Logic Probe	SPL1016 (Optional)			
I/O	USB Host, USB Device, LAN, Pass/Fail, Trigger Out, 1 KHz Cal			
Probe (Std)	2 pcs passive probe PP510		2 pcs passive probe PP215	
Display	8 inch TFT LCD (800x480)			
Weight	Net weight 3.26 Kg, Gross weight 4.25 Kg			

Ordering Information

Product Description	Product Name
100 MHz Two Channels	SDS1102X
200 MHz Two Channels	SDS1202X
100 MHz Two Channels, Built-In Waveform Generator (Standard), 16 Digital Channels (Option, *Requires SPL1016 & SDS-1000X-16LA)	SDS1102X+
200 MHz Two Channels, Built-In Waveform Generator (Standard), 16 Digital Channels (Option, *Requires SPL1016 & SDS-1000X-16LA)	SDS1202X+
Standard Accessories	
USB Cable -1	
Quick Start -1	
Certificate -1	
Passive Probe -2	
Power Cord -1	
Optional Accessories	
I2C,SPI,UART/RS232,CAN,LIN Decode key	SDS-1000X-DC
16 Channels MSO (Software)	SDS-1000X-16LA
16 Digital Channels Logic Probe	SPL1016
Isolated Front End	ISFE
STB Demo Source	STB-3
High Voltage Probe	HPB4010
Current Probe	CP4020/CP4050/CP4070/ CP4070A/CP5030/CP5030A/ CP5150/CP5500
Differential Probe	DPB4080/ DPB5150/ DPB5150A/ DPB5700/ DPB5700A