

Digital Oscilloscope
Waveform Generator
DC Power Supply
Digital Multimeter
Spectrum Analyzer
Handheld Oscilloscope
Probes & Accessories

SIGLENT TECHNOLOGIES

PRODUCT CATALOG



SIGLENT TECHNOLOGIES Co., Ltd.

-The Best Value in Electronic Test & Measurement.

SIGLENT has been providing test & measurement solutions for almost 15 years from its headquarter in Shenzhen, China. There are more than 300 employees, one third of whom are high-educated R&D engineers.

SIGLENT has many patent technologies. We are dedicated to develop sophisticated and high quality digital oscilloscopes, waveform generators, handheld digital oscilloscopes, spectrum analyzers and DC power supplies, digital multimeters. We strive to deliver the highest quality of customer service and satisfaction to our customers.

SIGLENT provides the following instruments:

- Super Phosphor Oscilloscope
- Digital Oscilloscope
- Waveform Generator
- DC Power Supply
- Digital Multimeter
- Spectrum Analyzer
- Handheld Oscilloscope
- Probes & Accessories



SIGLENT sincerely invite you to join

Please email : sales@siglent.com



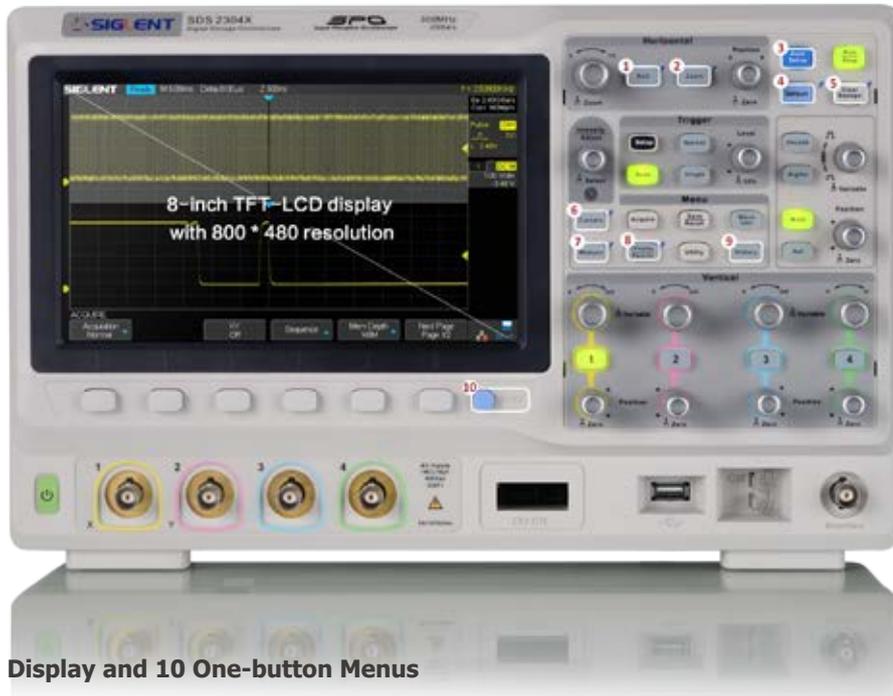


SDS2000X Super Phosphor Oscilloscope

Key Features

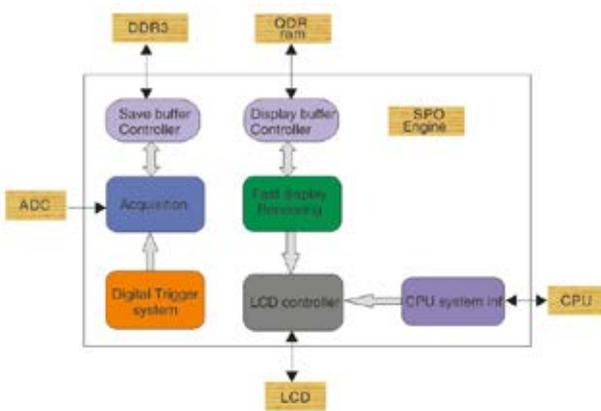
- 70 MHz, 100 MHz, 200 MHz, 300 MHz models
- Real-time sampling rate up to 2 GSa/s
- New generation of SPO technology
 - Waveform capture rate up to 140,000 wfm/s (normal mode), and 500,000 wfm/s (sequence mode)
 - Supports 256-level intensity grading and color temperature display
 - Record length up to 140 Mpts
 - Digital trigger system
- Intelligent trigger: Edge, Slope, Pulse, Window, Runt, Interval, Dropout, Pattern and Video (HDTV supported)
- Serial bus triggering and decoder, supports protocols IIC, SPI, UART, RS232, CAN and LIN
- Low background noise, supports 1 mV/div to 10 V/div voltage scales
- 10 types of one-button shortcuts, including Auto Setup, Default, Cursors, Measure, Roll, History, Display/Persist, Clear Sweeps, Zoom and Print
- Segmented acquisition (Sequence) mode, dividing the maximum record length into multiple segments (up to 80,000), according to trigger conditions set by the user, with a very small dead time segment to capture the qualifying event
- History waveform record (History) function, the maximum recorded waveform length is 80,000 frames
- Automatic measurement function on 37 parameters, supports statistics, Gating measurement, Math measurement, History measurement and Ref measurement
- Math function (FFT, addition, subtraction, multiplication, division, integration, differential, 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 140 Mpt/CH
- 25 MHz function/arbitrary waveform generator, built-in 10 types of waveforms
- 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

- 8-inch TFT-LCD display with 800 * 480 resolution
- Most commonly used functions are accessible using 10 different one-button operation keys: Auto Setup, Default, Cursors, Measure, Roll, History, Display/Persist, Clear Sweeps, Zoom and Print.
- Supports auto detection of 10X probe with read-out port (200 MHz and 300 MHz versions only)



SPO Super Phosphor Oscilloscope

- Waveform capture rate up to 140,000 wfms/s (normal mode), and 500,000 wfms/s (sequence mode)
- Supports 256-level intensity grading and color temperature display
- Record length up to 140 Mpts
- Digital trigger system

• Waveform Capture Rate up to 500,000 wfms/s



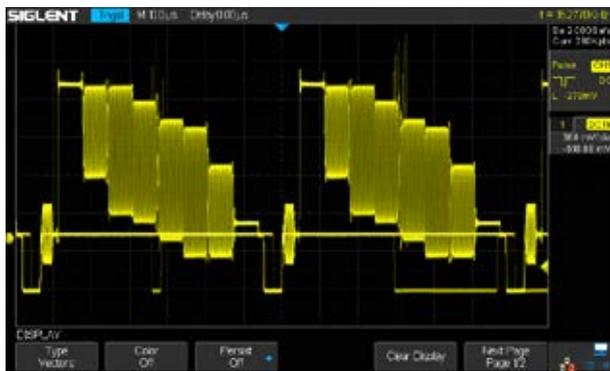
With a waveform capture rate of up to 500,000 wfms/s (sequence mode), the oscilloscope can easily capture the unusual or low-probability events

• Record Length of up to 140 Mpts

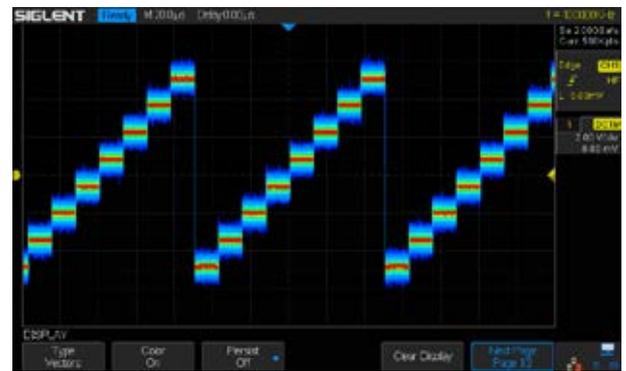


Using hardware-based Zoom technique and record length of up to 140 Mpts, users are able to use a higher sampling rate to capture more of the signal, and then quickly zoom in to focus on the area of interest

• 256-level Intensity Grading and Color Temperature Display

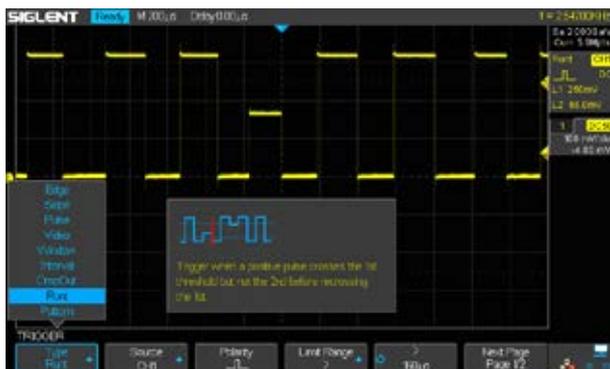


256-level intensity grading display on waveform



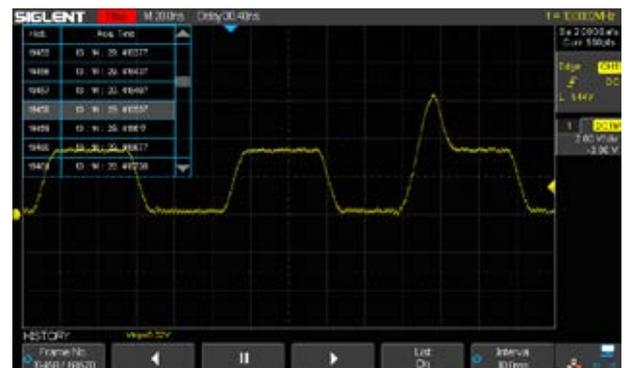
Color temperature display

• Abundant Trigger Functions



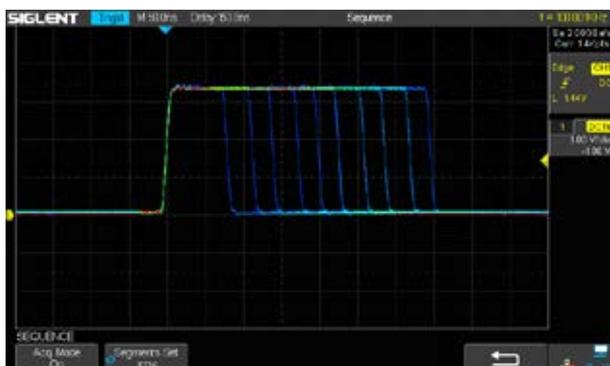
Edge, Slope, Pulse, Video, Windows, Runt, Interval, Dropout, Pattern, IIC, SPI, UART/RS232, LIN and CAN

• History Mode



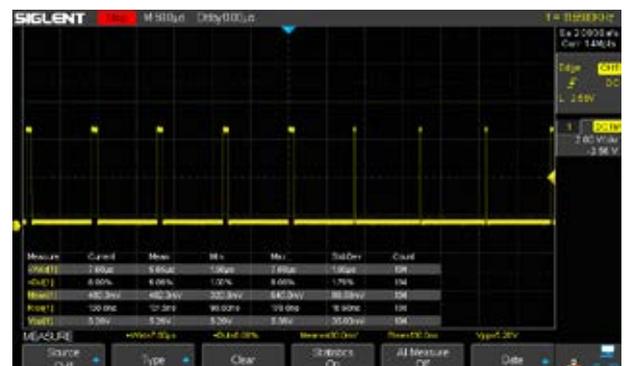
History function can record up to 80,000 frames of waveforms. The recording is executed automatically, so that the customer can play back the history waveforms at any time to observe unusual events, and locate the source quickly through the cursors or measurements. Located on the keyboard Panel, this function is easily accessible

• Sequence Mode



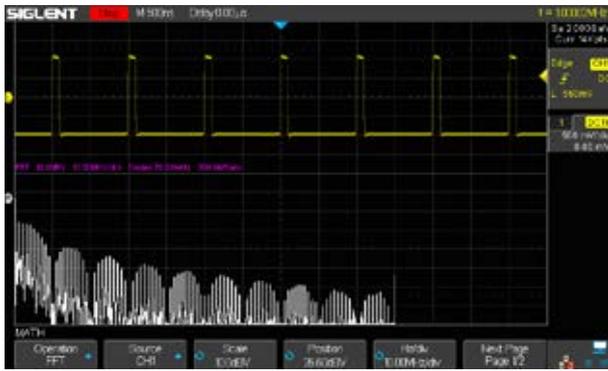
Segmented memory collection will store the waveform into multiple (up to 80,000) memory segments and each segment will store a triggered waveform, as well the dead time information. The dead time between segments could be as small as 2 μ s. All the segments can be play back using History function.

• Comprehensive Statistical Functions



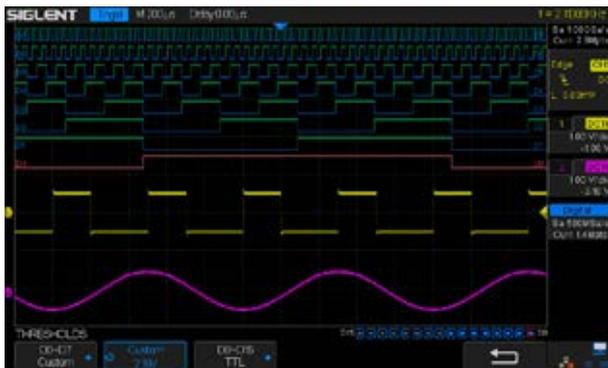
Parametric statistical functions to display 5 parameters of any measurements: current, mean, minimum value, maximum value, and standard deviation. The measurement count is also displayed. The maximum number of measurements that can be run and simultaneously analyzed statistically is five. Supports Gating measurements, Math measurement, History measurement and Ref measurement

• Advanced Math Function



In addition to the traditional (+, -, X, /) operations, FFT, integration, differential, and square root operations are supported. The integration operation supports gating, which uses cursors to define the domain of integration

• 16 Digital Channels / MSO (Optional)



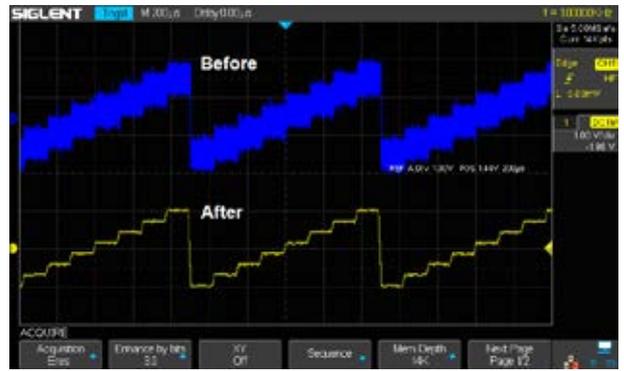
4 analog channels plus 16 digital channels enables users to acquire and trigger on the waveforms then analyze the pattern, simultaneously with one instrument.

• Built-in 25 MHz Function/Arbitrary Waveform Generator (Optional)



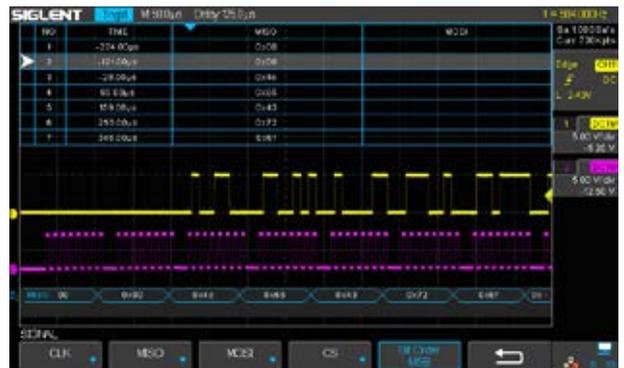
10 built-in waveforms plus 4 ARBs. The arbitrary waveforms can be accessed and edited by the EasyWave PC software

• Eres Mode



Eres mode can improve the SNR effectively, without the dependence on the periodicity of signal and stable triggering

• Serial Bus Decoding Function (Optional)



Displays the decoding through the events list. Bus protocol information can be quickly and intuitively displayed in table form

• Complete Connectivity



USB Host, USB Device (USBTMC), LAN(VXI-11), Pass/Fail and Trigger Out

Specifications

| Model | SDS2072X (2CH) SDS2074X (4CH) | SDS2102X (2CH) SDS2104X (4CH) | SDS2202X (2CH) SDS2204X (4CH) | SDS2302X (2CH) SDS2304X (4CH) |
|----------------------------------|---|---|---|---|
| Bandwidth | 70 MHz | 100 MHz | 200 MHz | 300 MHz |
| Sampling Rate (Max.) | 2 GSa/s | | | |
| Channels | 2 + EXT 4 + EXT | | | |
| Memory Depth (Max.) | 140 Mpts (Single-Channel), 70 Mpts (Dual-Channel) | | | |
| Waveform Capture Rate (Max.) | 140,000 wfm/s (normal mode), 500,000 wfm/s (sequence mode) | | | |
| Trigger Type | Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video | | | |
| Serial Trigger | IIC, SPI, UART/RS232, CAN, LIN | | | |
| Decoder Type (Optional) | IIC, SPI, UART/RS232, CAN, LIN | | | |
| 16 Digital Channels (MSO Option) | Maximum waveform capture rate up to 500 MSa/s, Record length up to 140 Mpts/CH | | | |
| Waveform Generator (Optional) | Single channel, Max. frequency up to 25 MHz, 125 MSa/s sampling rate, 16 Kpts wave length | | | |
| I/O | USB Host, USB Device, LAN, Pass/Fail, Trigger Out | | | |
| Probe (Std) | PB470 70 MHz 1 pcs for each channel | PP510 100 MHz 1 pcs for each channel | SP2030A 300 MHz 1 pcs for each channel | SP2030A 300 MHz 1 pcs for each channel |
| Display | 8 inch TFT LCD (800x480) | | | |

Ordering Information

| Description | Model |
|---|--|
| 70 MHz, 2 CH, 2 GSa/s (Max.), 140 Mpts | SDS2072X |
| 70 MHz, 4 CH, 2 GSa/s (Max.), 140 Mpts | SDS2074X |
| 100 MHz, 2 CH, 2 GSa/s (Max.), 140 Mpts | SDS2102X |
| 100 MHz, 4 CH, 2 GSa/s (Max.), 140 Mpts | SDS2104X |
| 200 MHz, 2 CH, 2 GSa/s (Max.), 140 Mpts | SDS2202X |
| 200 MHz, 4 CH, 2 GSa/s (Max.), 140 Mpts | SDS2204X |
| 300 MHz, 2 CH, 2 GSa/s (Max.), 140 Mpts | SDS2302X |
| 300 MHz, 4 CH, 2 GSa/s (Max.), 140 Mpts | SDS2304X |
| Standard Accessories | |
| USB Cable -1 | |
| Passive Probe -4 | |
| Power Cord -1 | |
| CD (Including User Manual and EasyScopeX software) -1 | |
| Quick Start -1 | |
| Certification -1 | |
| Certificate of Calibration -1 | |
| Optional Accessories | |
| SDS-2000X-DC | IIC, SPI, UART/RS232, CAN, LIN Decoder |
| SDS-2000X-FG | 25 MHz Function/Arbitrary Waveform Generator |
| SDS-2000X-PA | Power Analyze Software |
| SDS-2000X-16LA | 16 Digital Channels (Software) |
| SPL2016 | 16 Channel Logic Probe |
| ISFE | Isolated Front End |
| STB-3 | STB Demo Source |
| DF2001A | Power analysis Deskew Fixture |
| HPB4010 | High Voltage Probe |
| CP4020/CP4050/CP4070/ CP4070A/CP5030/ CP5030A/CP5150/CP5500 | Current Probe |
| DPB4080/DPB5150/ DPB5150A/DPB5700/ DPB5700A | High Voltage Differential Probe |



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 Mpt/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



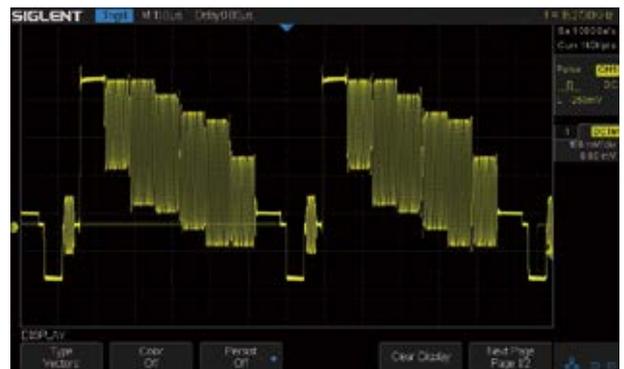
Using hardware-based Zoom technologies and record length of up to 14 Mpts, users are able to use a higher sampling rate to capture more of the signal, and then quickly zoom in to focus on the area of interest

- 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.

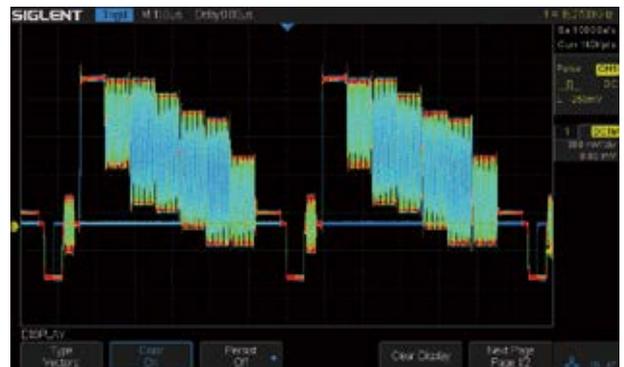
- 256-level intensity grading and color temperature display



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



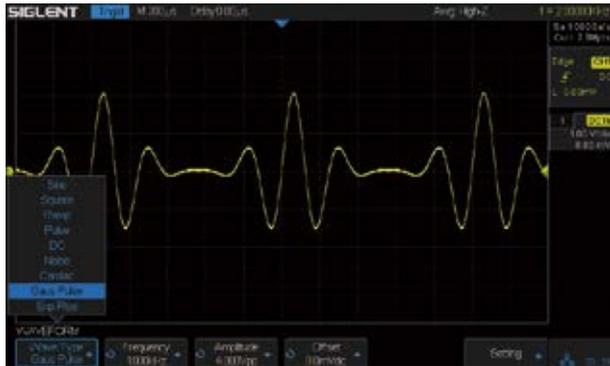
The color temperature display is similar to the intensity-graded trace except that the trace occurrence is represented by different colors (color "temperature") as opposed to changes in the intensity of one color. Red represents the most common occurrences or probabilities while blue are the least common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



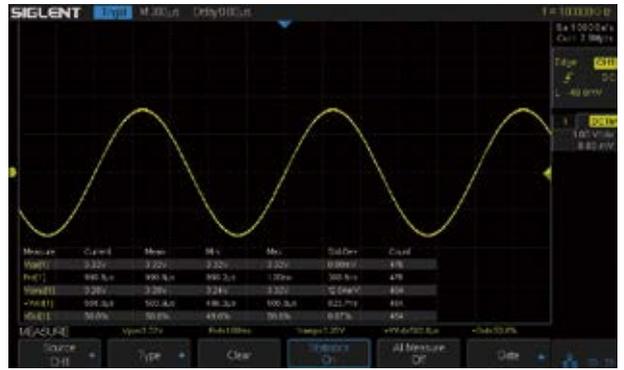
The SDS1000X+ has a built-in 25 MHz function / arbitrary waveform generator (standard), including 10 built-in waveforms plus 4 ARBs. The arbitrary waveforms can be accessed and edited by the EasyWave PC software

- Advanced Math Function



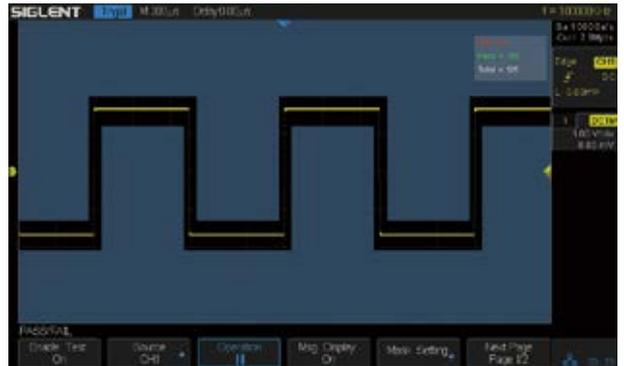
In addition to the traditional (+, -, X, /) operation, SDS1000X/SDS1000X+ oscilloscopes supports FFT, integration, differentiation, and square root operations.

- 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 (Optional) | 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 | |
| CD (Included User Manual and EasyScopeX software) -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 |



SDS1000X-E Super Phosphor Oscilloscope

Key Features

- 200 MHz bandwidth model
- Real-time sampling rate up to 1 GSa/s
- The newest generation of SPO technology
 - Waveform capture rate up to 100,000 wfm/s (normal mode), and 400,000 wfm/s (sequence mode)
 - Supports 256-level intensity grading and color display modes
 - Record length up to 14 Mpts
 - Digital trigger system
- Intelligent triggers: Edge, Slope, Pulse Width, Window, Runt, Interval, Time out (Dropout), Pattern, Video trigger, (supports HDTV)
- Serial bus triggering and decoding (Standard), supports IIC, SPI, UART, RS232, CAN, and LIN
- Low noise, supports 500 μ V / div to 10V / div voltage scales
- 10 types of one-button shortcuts, supports Auto Setup, Default, Cursors, Measure, Roll, History, Display/Persist, Clear Sweep, Zoom and Print
- Segmented acquisition (Sequence) mode, dividing the maximum record length into multiple segments (up to 80,000), according to trigger conditions set by the user, with a very small dead time segment to capture the qualifying event
- History waveform record (History) function, the maximum recorded waveform length is 80,000 frames
- Automatic measurement function on 38 parameters, supports Statistics, Zoom measurement, Gating measurement, Math measurement, History measurement and Ref measurement
- 1M points FFT
- True measurement and math to all of sample 14M points
- Math functions (FFT, addition, subtraction, multiplication, division, integration, differential, square root)
- Preset key can be customized for user settings or factory "defaults"
- Security Erase mode
- High Speed hardware based Pass/Fail function
- Large 7 inch TFT-LCD display with 800 * 480 resolution
- Multiple interface types: USB Host, USB Device (USB-TMC), LAN (VXI-11), Pass/Fail, Trigger Out
- Supports SCPI remote control commands
- Supports Multi-language display and embedded online help

Function & Characteristics

Record length of up to 14 Mpts



Using hardware-based Zoom technologies and a 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.

Waveform capture rate up to 400,000 wfms/s

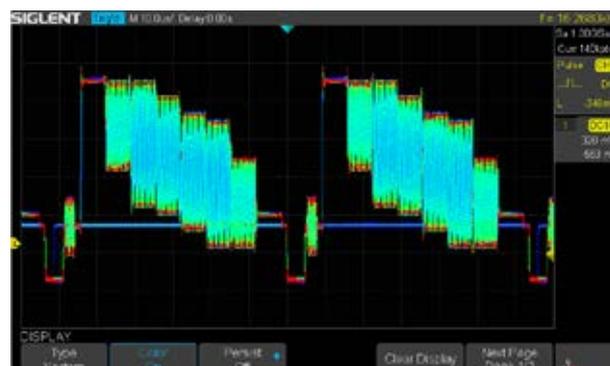


With a waveform capture rate of up to 400,000 wfms/s (sequence mode), the oscilloscope can easily capture the unusual or low-probability events.

256-intensity grading and color temperature display



SPO display technology delivers fast refresh rates. The resulting intensity-graded traces are brighter where events occur more frequently and less bright where they occur less often.



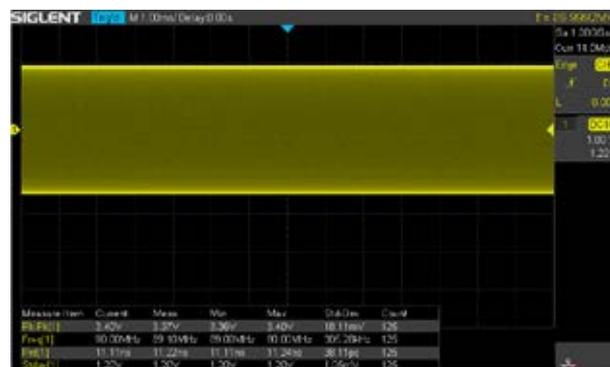
The color temperature display is similar to the intensity-graded trace in function, except that the trace occurrence is represented by different colors (color "temperature") as opposed to changes in the intensity of one color. Red represents the most common occurrences or probabilities, while blue is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

Serial bus decoding function (Standard)



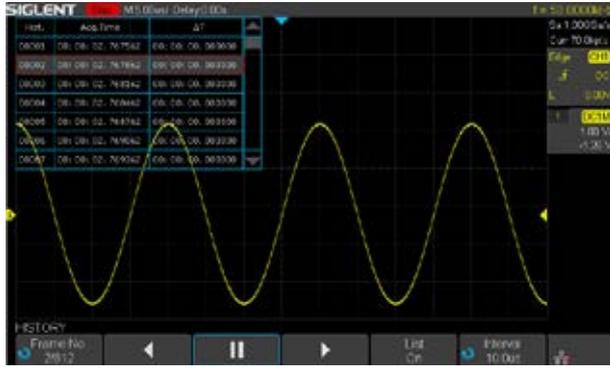
SDS1000X-E displays the decoding through the events list. Bus protocol information can be quickly and intuitively displayed in table form.

True measurement to 14M points



At any one timebase, SDS1000X-E can measure using all 14M sample points. This ensures the accuracy of measurements while the math co-processor decreases measurement time and increases ease-of-use.

History Waveforms (History) mode and segmented acquisition (Sequence)



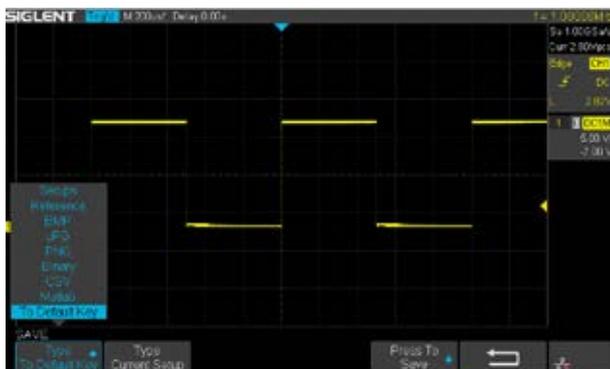
Playback the latest triggered events using the history function. Segmented memory collection will store the waveform into multiple (Up to 80,000) memory segments, each segment will store triggered waveforms and timestamp each frame.

1M Points FFT



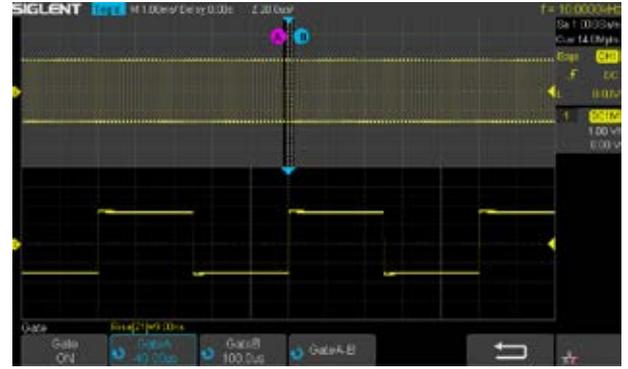
The new math co-processor enables FFT analysis of incoming signals using up to 1M samples per waveform. This provides high frequency resolution with a fast refresh rate. The FFT function also supports a variety of window functions so that it can adapt to different spectrum measurement needs.

Customized Presetting to Default Key



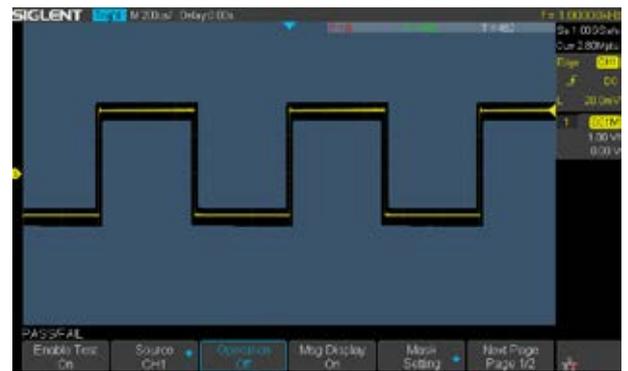
The current parameters of oscilloscope can be preset to Default Key through the Save menu.

Gate and Zoom Measurement



Through Gate and Zoom measurement, you can specify arbitrary waveform interval of data analysis and statistics to avoid measurement errors caused by invalid data.

Hardware-Based High-Speed Pass/Fail function



The SDS1000X-E utilizes a hardware-based Pass/Fail function, performing up to 40,000 Pass / Fail decisions each second. Easily generate user-defined test templates provide trace mask comparison making it suitable for long-term signal monitoring or automated production line testing.

Complete connectivity



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

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



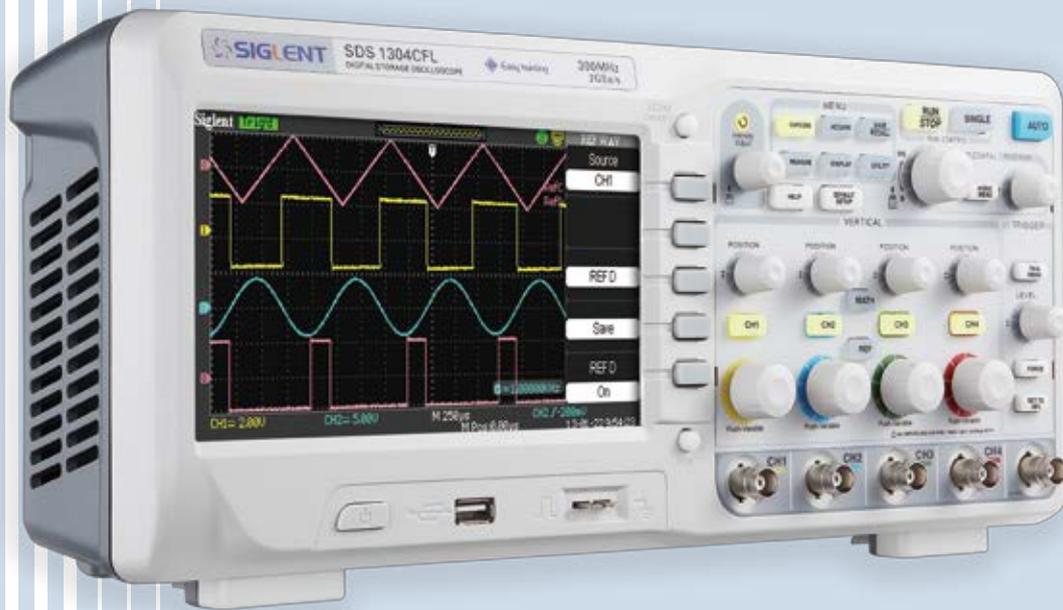
- 7-inch TFT-LCD display with 800 * 480 resolution
- Most commonly used functions are accessible using 10 different one-button operation keys: Auto Setup, Default, Cursor, Measure, Roll, History, Persist, Clear Sweep, Zoom, Print

Models and key Specification

| Model | SDS1202X-E |
|------------------------------|---|
| Bandwidth | 200 MHz |
| Sampling Rate (Max.) | 1 GSa/s |
| Channels | 2+EXT |
| Memory Depth (Max.) | 7 Mpts/CH (Dual-Channel); 14 Mpts/CH (Single-Channel) |
| Waveform Capture Rate (Max.) | 100,000 wfm/s (normal mode), 400,000 wfm/s (sequence mode) |
| Trigger Type | Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video |
| Serial Trigger (Standard) | IIC, SPI, UART/RS232, CAN, LIN |
| Decode Type (Standard) | IIC, SPI, UART/RS232, CAN, LIN |
| I/O | USB Host, USB Device, LAN, Pass/Fail, Trigger Out |
| Probe (Std) | 2 pcs passive probe PP215 |
| Display | 7 inch TFT-LCD (800x480) |
| Weight | Without package 2.5 Kg; With package 3.5Kg |

Ordering Information

| Product Description | Product Name |
|--|---|
| 200 MHz Two Channels | SDS1202X-E |
| Standard Accessories | |
| USB Cable -1 | |
| Quick Start -1 | |
| Certificate -1 | |
| Passive Probe -2 | |
| Power Cord -1 | |
| CD (Included User Manual and EasyScopeX software) -1 | |
| Optional Accessories | |
| 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 |



SDS1000CFL Digital Storage Oscilloscope

Application

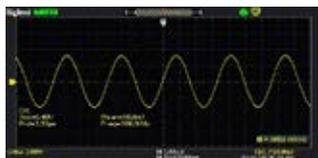
- Embedded electronic circuit design and test
- Mechanical and electrical products design and analysis
- Education and research
- Product quality control
- Real-time signal display
- Product test, circuit function test

Key Features

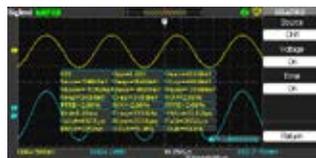
- Up to 300 MHz bandwidth, 2 GSa/s real time sampling rate
- Channels: 2/4 CH + 1 EXT
- 7 inch (8*18 div) color TFT-LCD
- 6 digits hardware frequency counter, real time counting display
- Waveform record and play back function
- Unique digital filter and data recorder function
- Embedded 12 languages, online help, one key storing and one key printing
- Interface: Double USB Host, USB Device, LAN, Pass/Fail
- Support USB-TMC and VXI-11 protocol, support SCPI programming command control

Specifications

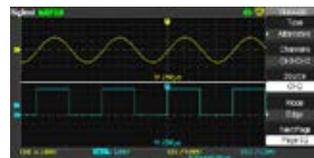
| Model | SDS1074CFL (4 CH) | SDS1104CFL (4 CH) | SDS1202CFL (2 CH) SDS1204CFL (4 CH) | SDS1302CFL (2 CH) SDS1304CFL (4 CH) |
|---------------------------------|---|---------------------|--|--|
| Bandwidth | 70 MHz | 100 MHz | 200 MHz | 300 MHz |
| Channels | 4 CH+1 EXT | | 4 CH +1 EXT/2 CH +1 EXT | |
| Real time sampling rate | 2 GSa/s (half channel),1 GSa/s (each channel) | | | |
| Equivalent sampling rate | 50 GSa/s | | | |
| Memory depth | 24 Kpts (half channel),12 Kpts (each channel) | | | |
| Rise time | <5.0 ns | <3.5 ns | <1.7 ns | <1.2 ns |
| Input impedance | 1 M Ω 13 pF | | 1 M Ω 13 pF, 50 Ω | |
| Time base range | 5 ns/div-50 s/div Scan:100 ms-50 s/div | 2.5 ns/div-50 s/div | 2.5 ns/div-50 s/div | 1.0 ns/div-50 s/div |
| Vertical sensitivity | 2 mv-5 v/div(1-2-5 order) | | | |
| Vertical resolution | 8 bit | | | |
| Trigger source | CH1, CH2, CH3, CH4, Ext, Ext/5, AC Line | | | |
| Trigger types | Edge, Pulse, Video, Slope, Alternative | | | |
| Math operation | +, -, *, /, FFT | | | |
| Digital filter | High pass, Low pass, Band pass, Band stop | | | |
| Max input voltage | \pm 400 V (DC+AC Pk-Pk) CATI CAT II | | | |
| Internal storage | 2/4 groups of reference waveform, 20 groups of settings,20 groups of waveforms | | | |
| External storage | Bitmap save, CSV save, Waveform save, Setting save | | | |
| Language | English, French, German, Russian, Spanish, Simplified Chinese, Traditional Chinese, Portuguese, Japanese, Korean, Italian, Arabic | | | |
| Interface | Double USB Host, USB Device, LAN, Pass/Fail | | | |
| Display | 7 inch color TFT- LCD | | | |



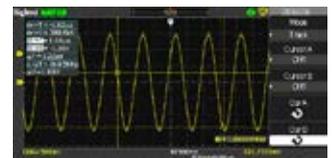
8x18 div widescreen



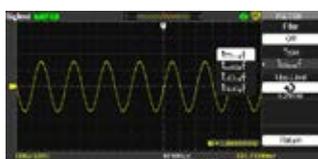
32 types of auto measurements



Alternative-trigger



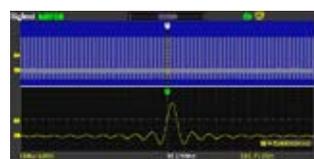
Cursor-measurement



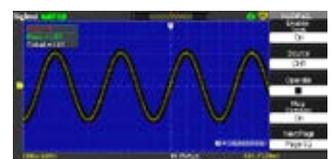
Digital-filter



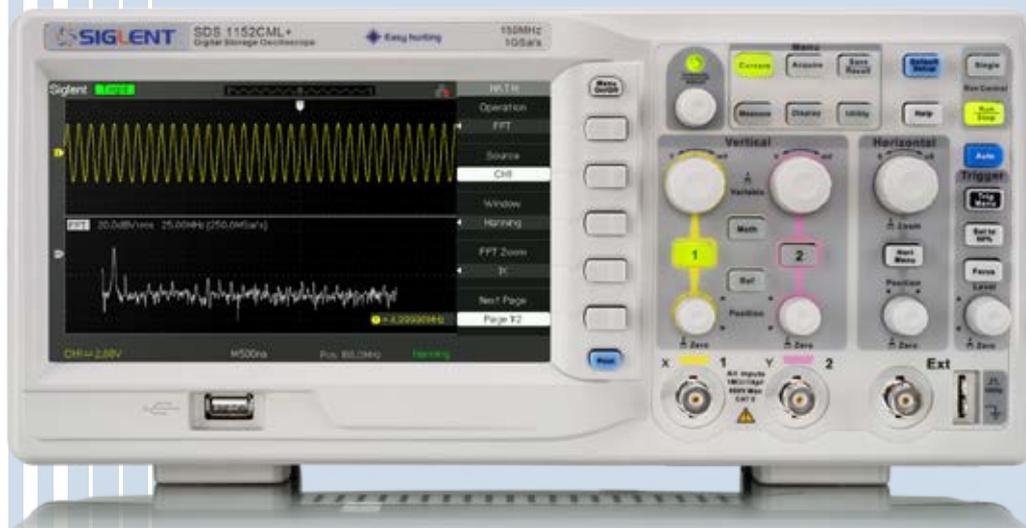
Onekey Zoom-1



Onekey Zoom-2



Pass-fail



SDS1000DL+ /CML+ Series Digital Oscilloscope

Application

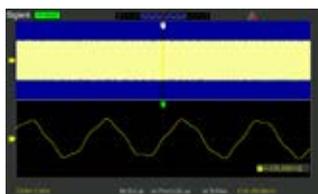
- Electronic circuit design and debugging
- Electrical circuit function test
- Inspect instantaneous signal
- Industrial control and measuring
- Products quality control
- Education and training

Key Features

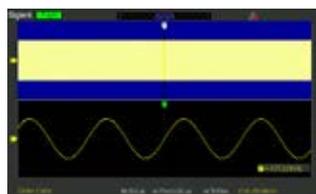
- 50 MHz to 150 MHz Bandwidth
- 500 MSa/s~1 GSa/s sampling rate, 32 Kpts~2 Mpts memory depth
- 7 inch (8*18 div) color TFT-LCD display
- 6 digits hardware frequency counter, real time counting display
- Waveform record and play back function
- Unique digital filter and data recorder function
- Embedded 12 languages, online help, one key storing and one key printing
- Interface: USB Device, USB Host, LAN, Pass/Fail
- Supports USB-TMC protocol and SCPI programming command control

Specifications

| Model | SDS1052DL+ | SDS1072CML+ | SDS1102CML+ | SDS1152CML+ |
|---------------------------------|---|----------------------|----------------------|----------------------|
| Bandwidth | 50 MHz | 70 MHz | 100 MHz | 150 MHz |
| Channels | 2 CH +1 EXT | | | |
| Real time sampling rate | 500 MSa/s | 1 GSa/s | 1 GSa/s | 1 GSa/s |
| Equivalent sampling rate | 50 GSa/s | | | |
| Memory depth | 32 Kpts | 2 Mpts | 2 Mpts | 2 Mpts |
| Input impedance | 1 M Ω 17 pF | 1 M Ω 17 pF | 1 M Ω 17 pF | 1 M Ω 17 pF |
| Vertical sensitivity | 2 mv~10 v/div | 2 mv~10 v/div | 2 mv~10 v/div | 2 mv~10 v/div |
| Vertical resolution | 8 bit | | | |
| Trigger source | CH1, CH2, Ext, Ext/5, AC Line | | | |
| Trigger types | Edge, Pulse, Video, Slope, Alternative | | | |
| Math operation | +, -, *, /, FFT | | | |
| Digital filter | High pass, Low pass, Band pass, Band stop | | | |
| Data recorder function | √ | √ | √ | √ |
| Max input voltage | ± 400 V (DC+AC Pk-Pk) | | | |
| Internal storage | 2 groups of reference waveform, 20 groups of setting, 10 groups of waveform | | | |
| External storage | Bitmap save, CSV save, Waveform save, Setting save | | | |
| Lasting | Turn off, 1 s, 2 s, 5 s, infinite | | | |
| Language | English, French, German, Russian, Spanish, SimplifiedChinese, TraditionalChinese, Portuguese, Japanese, Korean, Italian, Arabic | | | |
| Interface | USB Host, USB Device, LAN, Pass/Fail | | | |
| Display | 7 inch color TFT-LCD | | | |
| Power | AC 100-240 V, 45 Hz-440 Hz, 50 VA Max | | | |



Normal Memory (40 Kpts)



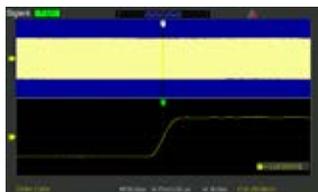
Long Memory (2 Mpts)



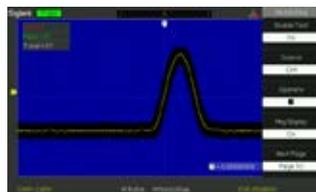
32 types of auto measurements



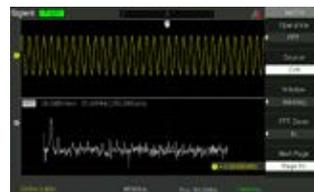
5 parameters display



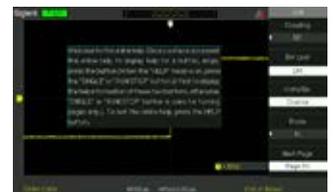
Zoom Function



Pass/Fail Function



Math Function



Embedded Online Help

Standard Accessories



SDG5000 Function/Arbitrary Waveform Generator



Application

- IC test
- Simulate sensor
- Simulate environment signals
- Electrical circuit function test
- Education and training

Key Features

- DDS technology, double channels output, phase adjustable
- Output frequency up to 160 MHz, 500 MSa/s sampling rate, 14 bit vertical resolution, 512 Kpts max wave length
- 2 ppm high frequency stability, -116 dBc/Hz low phase noise
- Abundant modulation functions, sweep-frequency output, burst output
- Built-in high precision frequency counter, frequency range: 100 mHz - 200 MHz
- Unique EasyPulse technology, can output the pulse signal which have low jitter, fast rising and falling edge, very small duty cycle. Edge and pulse width can be a wide range of adjustment.
- Seamless work with siglent Digital Storage Oscilloscope
- Supports USB-TMC protocol and SCPI programming command control

Specifications

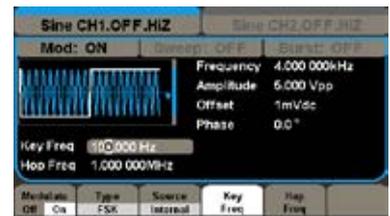
| Model | SDG5162 | SDG5122 | SDG5082 |
|--------------------------|---|---------|---------|
| Maximum output frequency | 160 MHz | 120 MHz | 80 MHz |
| Output channels | 2 | | |
| Sampling rate | 500 MSa/s | | |
| Wave length | CH1:16 Kpts,CH2:512 Kpts | | |
| Frequency resolution | 1 μ Hz | | |
| Vertical resolution | 14 bit | | |
| Waveform | Sine, Square, Ramp, Pulse, Gaussian white noise, Arb | | |
| Modulation function | AM, DSB-AM, FM, PM, FSK, ASK, PWM, Sweep, Burst | | |
| Amplitude | CH1/CH2 \leq 40 MHz: 1 mVpp~10 Vpp (50 Ω), 2 mVpp~20 Vpp (high impedance) 40 MHz~100 MHz: 1 mVpp~5 Vpp (50 Ω), 2 mVpp~10 Vpp (high impedance) 100 MHz~160 MHz: 1 mVpp~1.5 Vpp (50 Ω), 2 mVpp~3 Vpp (high impedance) | | |
| Frequency counter | Frequency range: 100 mHz ~ 200 MHz | | |
| Interface | USB Host, USB Device | | |
| Optional interface | USB-GPIB Adapter | | |
| Dimension | 261 mm*104.85 mm*343.8 mm | | |



Burst



DSB-AM



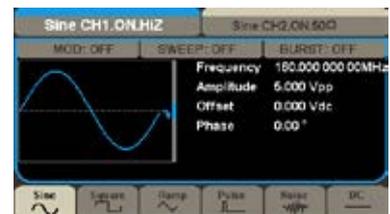
FSK



PWM



Sweep



Up to 160 MHz

SDG2000X Series Function/Arbitrary Waveform Generator

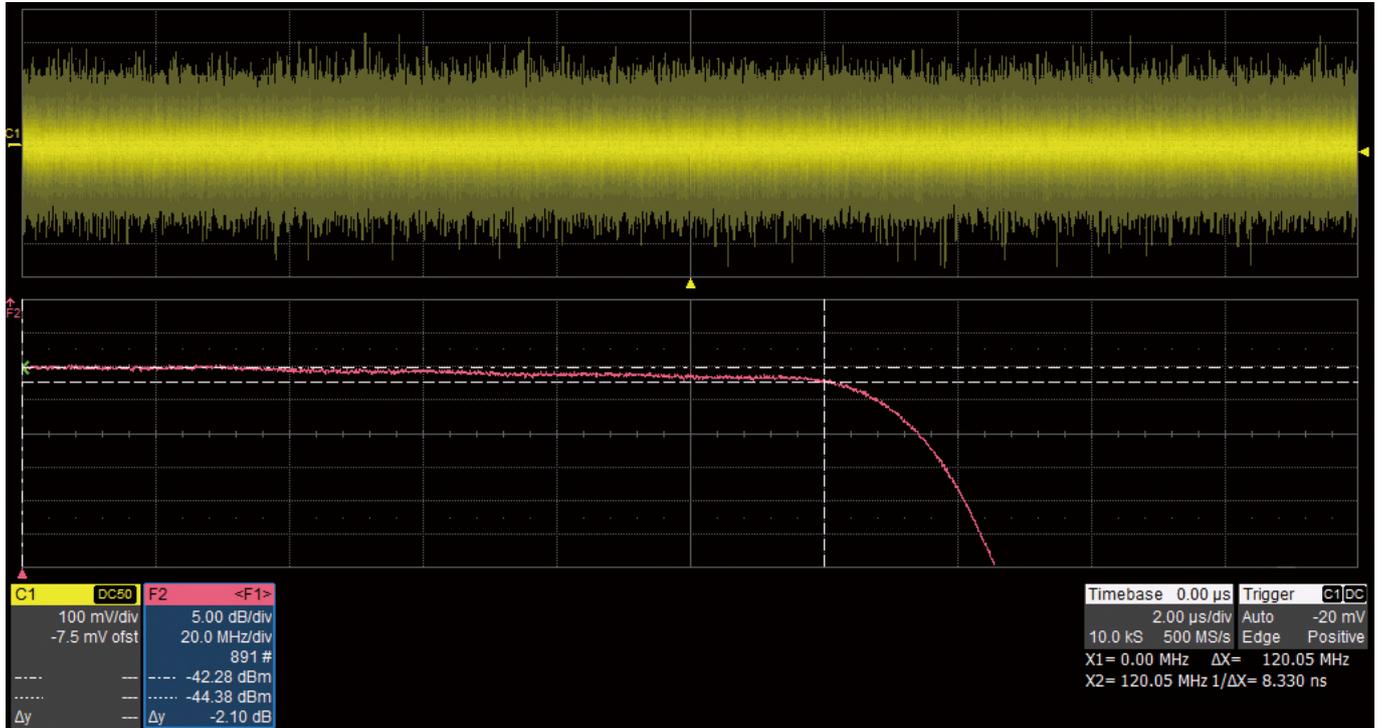


Key Features

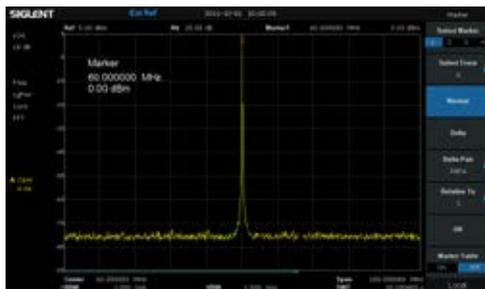
- Dual-channel, 120 MHz maximum bandwidth, 20 Vpp maximum output amplitude, high fidelity output with 80 dB dynamic range
- High-performance sampling system with 1.2 GSa/s sampling rate and 16-bit vertical resolution. No detail in the waveforms will be lost
- Innovative TrueArb technology, based on a point-by-point architecture, supports any 8 pts~8 Mpts Arb waveform with a sampling rate in range of 1 μ Sa/s~75 MSa/s
- Innovative EasyPulse technology, capable of generating lower jitter Square or Pulse waveforms, brings a wide range and extremely high precision in pulse width and rise/fall times adjustment
- Plenty of analog and digital modulation types: AM、DSB-AM、FM、PM、PSK、FSK、ASK and PWM
- Practical functions: Channel Copy, Channel Coupling, Channel Track, harmonic generator, overvoltage protection function
- Sweep and Burst function, Harmonics mode supported
- High precision Frequency Counter
- Standard interfaces: USB Host, USB Device (USBTMC) , LAN (VXI-11)
- Optional interface: USB-GPIB
- 4.3" touch screen display for easier operation

Characteristics

• Excellent Analog Channel Performance

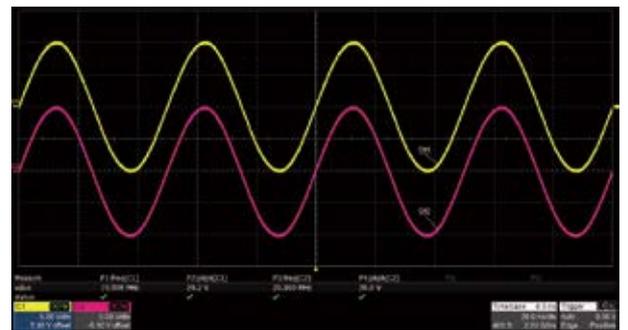


▲ The bandwidth of analog channels proves to be greater than 120 MHz, via doing a frequency response test with white noise.

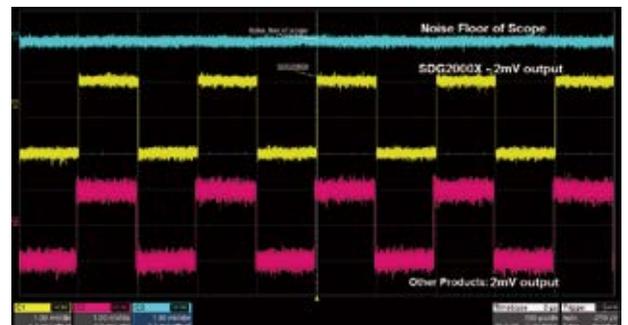


◀ High fidelity sine output. Almost no spurious observed @60 MHz, 0 dBm.

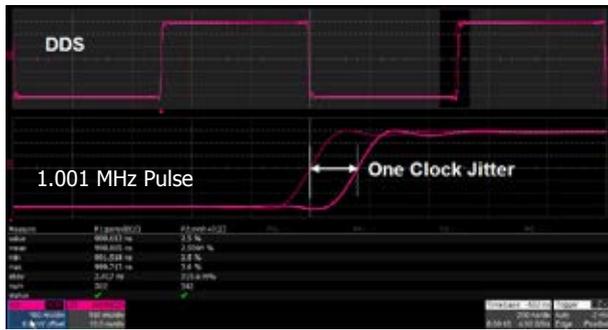
▶ Capacity of outputting large signal at high frequency. Dual-channel, 20 Vpp amplitude can be guaranteed even @20 MHz.



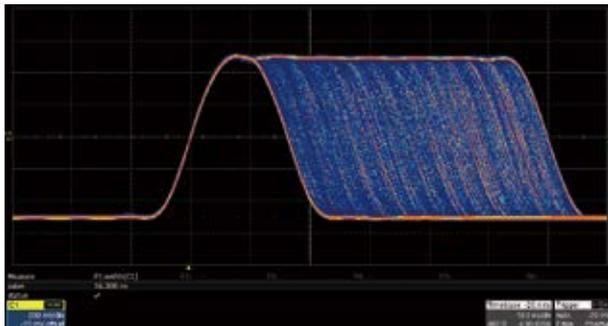
▶ Low noise floor, improves signal-noise ratio.



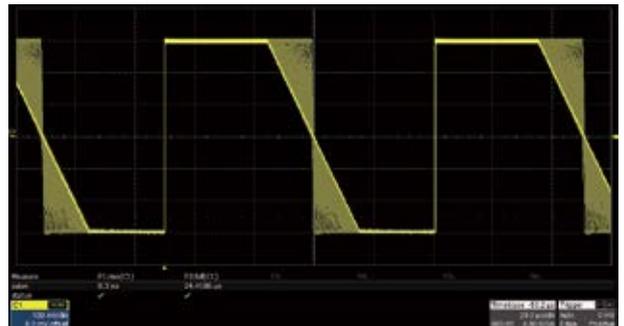
• Innovative EasyPulse Technology



When a Square/Pulse waveform is generated by DDS, there will be a one-clock-jitter if the sampling rate is not an integer-related multiple of the output frequency. SDG2000X EasyPulse technology successfully overcomes this weakness in DDS designs and helps to produce low jitter Square/Pulse waveforms.



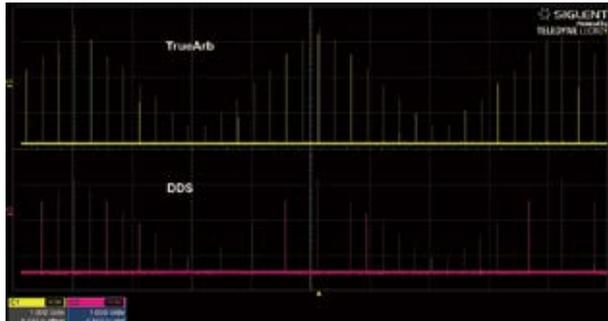
The Pulse width can be fine-tuned to the minimum of 16.3 ns with the adjustment step as small as 100 ps.



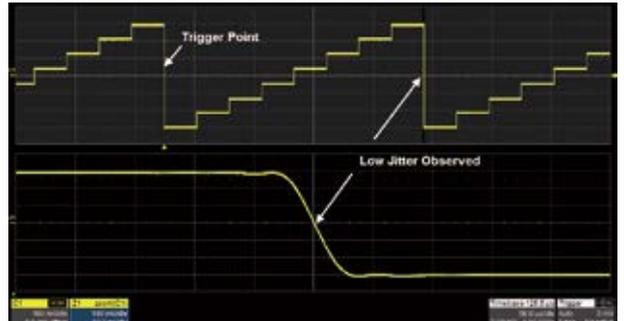
The rise/fall times can be set independently to the minimum of 8.4 ns at any frequency and to the maximum of 22.4 s. The adjustment step is as small as 100 ps.

• Innovative TrueArb Technology

For arbitrary waveforms, TrueArb not only has all the advantages of traditional DDS, but also eliminates the probability that DDS may cause serious jitter and distortion.

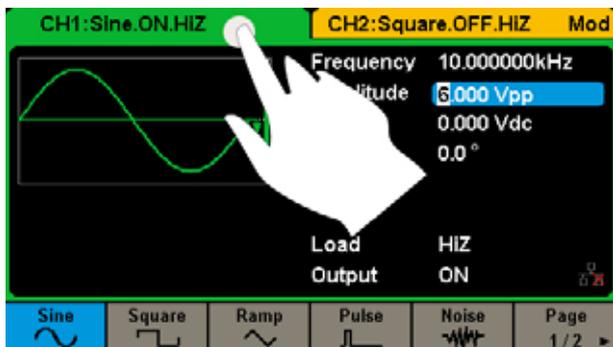


TrueArb generates arbitrary waveforms point by point, never skips any point so that it can reconstruct all the details of the waveform as defined.



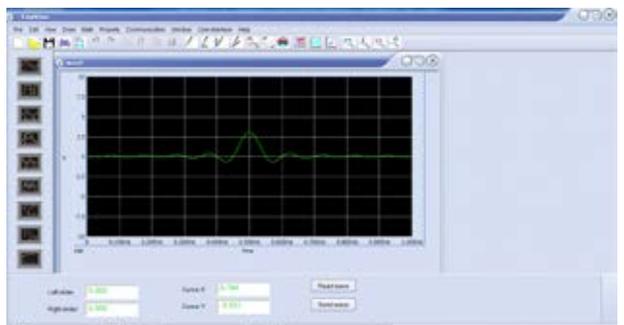
As with EasyPulse, TrueArb effectively overcomes the defect that DDS may cause the one-clock-jitter in arbitrary waveforms.

• 4.3" Touch Screen Display



4.3" touch screen display, makes operation much more convenient.

• Arbitrary Waveform Software EasyWave

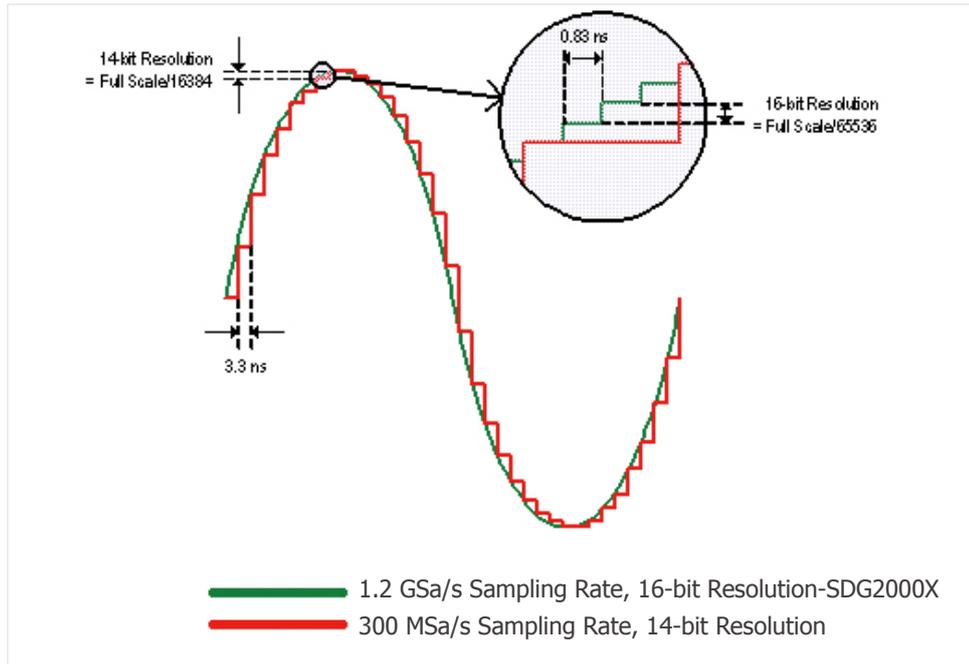


EasyWave is a powerful arbitrary waveform editing software that supports several ways to generate arbitrary waveform such as manual drawing, line-drawing, equation-drawing, coordinate-drawing, etc. It is quite convenient for users to edit their own arbitrary waveforms through EasyWave.

Characteristics

• High-performance Sampling System

Benefiting from a 1.2 GSa/s and 16-bit sampling system, SDG2000X achieves extremely high accuracy performance in both time domain and amplitude, which results in more accurately reconstructed waveforms and lower distortion.



Specifications

| Product Model | SDG2042X | SDG2082X | SDG2122X |
|---------------------|--|----------|----------|
| Bandwidth | 40 MHz | 80 MHz | 120 MHz |
| Sampling rate | 1.2 GSa/s (4 X Interpolation) | | |
| Vertical resolution | 16 bit | | |
| Num. of channels | 2 | | |
| Max. amplitude | ±10 V | | |
| Display | 4.3" touch screen display, 480 x 272 x RGB | | |
| Interface | Standard: USB Host, USB Device, LAN Optional: GPIB (USB-GPIB adaptor) | | |

Frequency Characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|-----------------------------|------|------|---------|------|-----------|
| Resolution | | | 1 μ | Hz | |
| Initial accuracy | -1 | | +1 | ppm | 25°C |
| | -2 | | +2 | ppm | 0~40°C |
| 1 st -year aging | -1 | | +1 | ppm | 25°C |
| 10-year aging | -3.5 | | +3.5 | ppm | 25°C |

Sine Characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|---------------------------|---------|------|-------|------|-------------------------------|
| Frequency | 1 μ | | 120 M | Hz | |
| Harmonic distortion | | | -65 | dBc | 0 dBm, 0~10 MHz (Included) |
| | | | -60 | dBc | 0 dBm, 10~20 MHz (Included) |
| | | | -55 | dBc | 0 dBm, 20~40 MHz (Included) |
| | | | -50 | dBc | 0 dBm, 40~60 MHz (Included) |
| | | | -45 | dBc | 0 dBm, 60~80 MHz (Included) |
| | | | -40 | dBc | 0 dBm, 80~100 MHz (Included) |
| | | | -38 | dBc | 0 dBm, 100~120 MHz (Included) |
| Total Harmonic Distortion | | | 0.075 | % | 0 dBm, 10 Hz ~ 20 kHz |
| Non-harmonic spurious | | | -70 | dBc | ≤50 MHz |
| | | | -65 | dBc | >50 MHz |

Waveform Generator

Square Characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|---------|------|--------|------|------------------------------------|
| Frequency | 1 μ | | 25 M | Hz | |
| Rise/fall times | | | 9 | ns | 10% ~ 90%, 1 Vpp, 50 Ω Load |
| Overshoot | | | 3 | % | 100 kHz, 1 Vpp, 50 Ω Load |
| Duty cycle | 0.001 | | 99.999 | % | Limited by frequency setting |
| Jitter (rms), Cycle to cycle | | | 150 | ps | 1 Vpp, 50 Ω Load |

Pulse Characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|-----------------------------|---------|------|------------------------------|------|---|
| Frequency | 1 μ | | 25 M | Hz | |
| Pulse width | 16.3 | | | ns | |
| Pulse width accuracy | | | $\pm(0.01\%+0.3 \text{ ns})$ | | |
| Rise/fall times | 8.4 n | | 22.4 | s | 10% ~ 90%, 1 Vpp, 50 Ω Load, Subject to pulse width limits |
| Overshoot | | | 3 | % | 100 kHz, 1 Vpp |
| Duty cycle | 0.001 | | 99.999 | % | Limited by frequency setting |
| Duty cycle resolution | 0.001 | | | % | |
| Jitter (rms) cycle to cycle | | | 150 | ps | 1 Vpp, 50 Ω Load |

Arbitrary Wave characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|---------------------|---------|------|------|-------|---------------------------------------|
| Frequency | 1 μ | | 20 M | Hz | |
| Waveform length | 8 | | 8 M | pts | |
| Sampling rate | 1 μ | | 75 M | Sa/s | TrueArb mode |
| | 300 | | | MSa/s | DDS mode |
| Vertical resolution | 16 | | | bit | |
| jitter (rms) | | | 150 | ps | 1 Vpp, 50 Ω Load, TrueArb mode |

Output Characteristics

| Parameter | Min. | Typ. | Max. | Unit | Condition |
|--------------------|----------------------------|------|------|----------|---|
| Range | 2 m | | 20 | Vpp | ≤ 20 MHz, HiZ load |
| (Note 1) | 2 m | | 10 | Vpp | > 20 MHz, HiZ load |
| | 1 m | | 10 | vpp | ≤ 20 MHz, 50 Ω load |
| | 1 m | | 5 | vpp | > 20 MHz, 50 Ω load |
| Accuracy | $\pm (1\%+1 \text{ mVpp})$ | | | | 10 kHz sine, 0 V offset |
| Amplitude flatness | -0.3 | | +0.3 | dB | 0~100 MHz (Included), 50 Ω load, 2.5 Vpp, compare to 10 kHz Sine |
| | -0.4 | | +0.4 | dB | 100~120 MHz (Included), 50 Ω load, 2.5 Vpp, compare to 10 kHz Sine |
| Output impedance | 49.5 | 50 | 50.5 | Ω | 10 kHz sine |
| Output current | -200 | | 200 | mA | |
| Crosstalk | | | -60 | dBc | CH1 - CH2/CH2 - CH1 |

Note 1: The specification will be divided by 2 while applied to a 50 Ω load.

Ordering Information

| Product Description | SDG2000X Series Function/Arbitrary Waveform Generator |
|-------------------------|---|
| Product code | SDG2042X 40 MHz SDG2082X 80 MHz SDG2122X 120 MHz |
| Standard configurations | A Quick Start, A Power Cord, A USB Cable, A CD (Including Quick Start, Datasheet, and Application Software Package), A Calibration Certificate, A BNC Coaxial Cable |
| Optional configurations | USB-GPIB adapter |

SDG1000X Function/Arbitrary Waveform Generator



Application

- IC test
- Simulate sensor
- Simulate environment signals
- Electrical circuit function test
- Education and training

Key Features

- Dual-channel, with bandwidth up to 60 MHz, and amplitude up to 20 Vpp
- 150 MSa/s sampling rate, 14-bit vertical resolution, and 16 kpts waveform length
- Innovative EasyPulse technology, capable of generating lower jitter Pulse waveforms, brings a wide range and extremely high precision in pulse width and rise/fall times adjustment
- Special circuit for Square wave function, can generate Square waves up to 60 MHz with jitter less than 300 ps+0.05 ppm of period
- Plenty of analog and digital modulation types: AM, DSB-AM, FM, PM, FSK, ASK, PSK and PWM
- Sweep and Burst functions
- Harmonics Generator function
- Waveform Combining function
- High precision Frequency Counter
- Standard interfaces: USB Host, USB Device (USBTMC), LAN (VXI-11)
- Optional interface: GPIB
- 4.3" TFT-LCD display

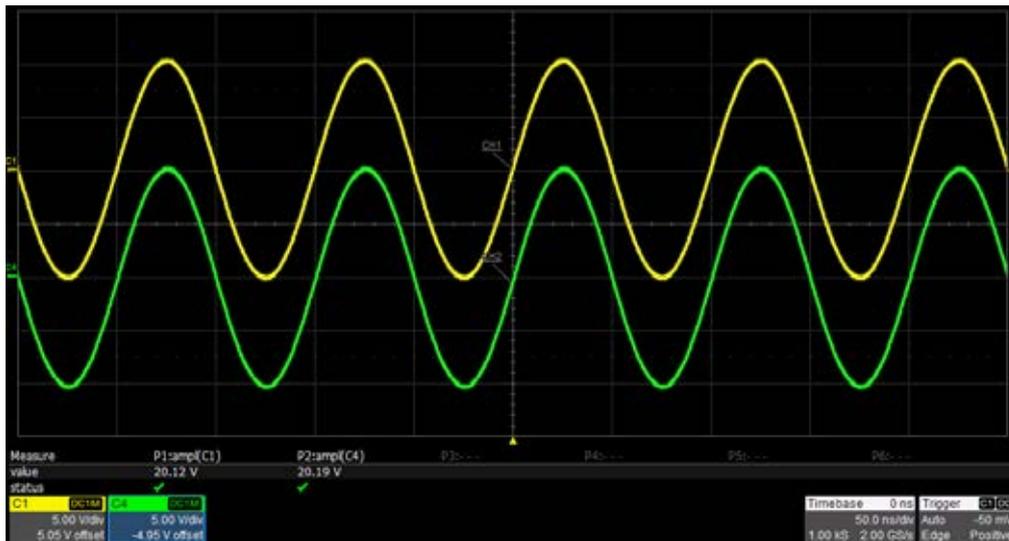
Models and Key Specifications

| Product Model | SDG1032X | SDG1062X |
|---------------------|--|----------|
| Bandwidth | 30 MHz | 60 MHz |
| Sampling rate | 150 MSa/s | |
| Vertical resolution | 14-bit | |
| Waveform Length | 16 kpts | |
| Num. of channels | 2 | |
| Max. amplitude | ±10 V | |
| Display | 4.3" display, 480 x 272 x RGB | |
| Interface | Standard: USB Host, USB Device, LAN Optional: GPIB (USB-GPIB adaptor) | |

Characteristics

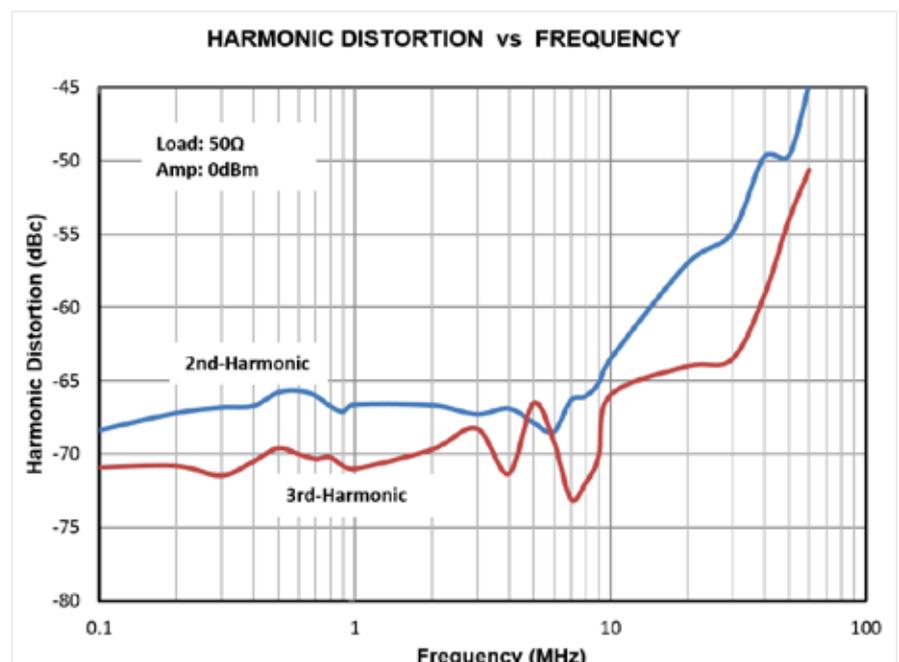
• Identical dual output-channels with high performance

Capable of outputting large signals at high frequencies. dual-channels, 20 Vpp amplitude can be guaranteed at up to 10 MHz.

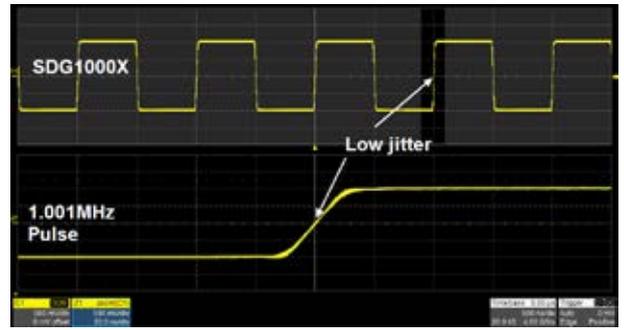
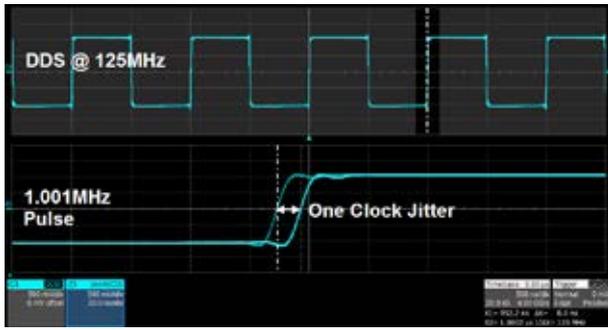


• Low Distortion Output

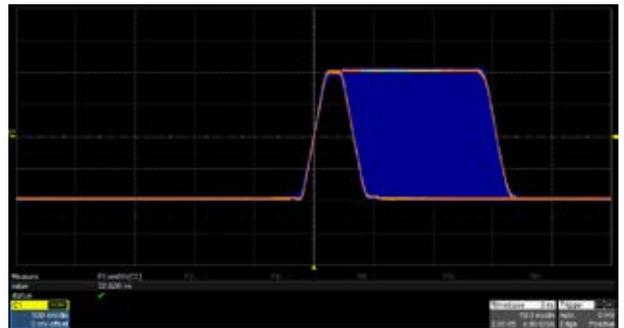
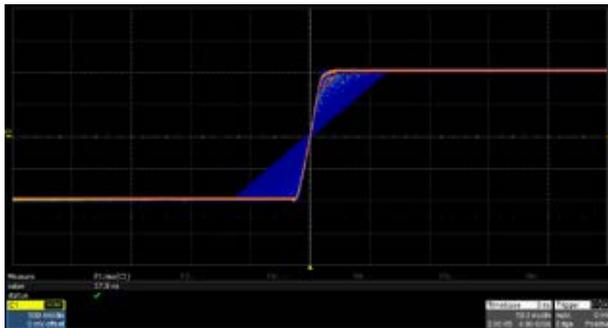
With 0 dBm output, the THD (Total Harmonic Distortion) is less than 0.075%. Harmonics and spurs are less than -40 dBc throughout the entire bandwidth.



● **Innovative EasyPulse Technology**

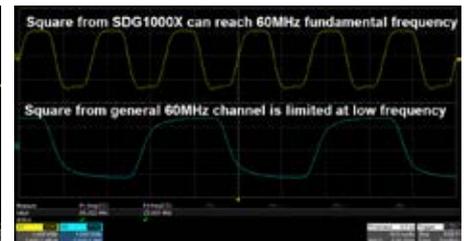
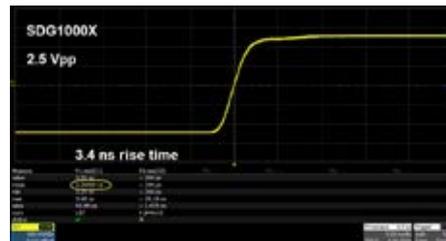


When a Pulse waveform is generated by a common DDS generator, there will be a one-clock-jitter if the sampling rate is not an integer-related multiple of the output frequency. SDG1000X EasyPulse technology successfully overcomes this weakness in DDS designs and helps to produce low jitter Pulse waveforms.



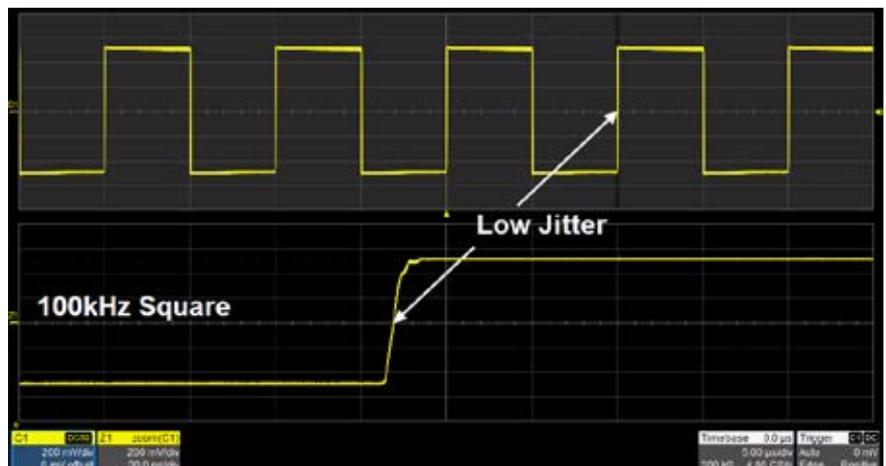
The rise/fall times can be set independently to the minimum of 16.8 ns at any frequency and to the maximum of 22.4 s. The adjustment step is as small as 100 ps. The Pulse width can be fine-tuned to the minimum of 32.6 ns with the adjustment step as small as 100 ps.

● **High performance Square Waves**



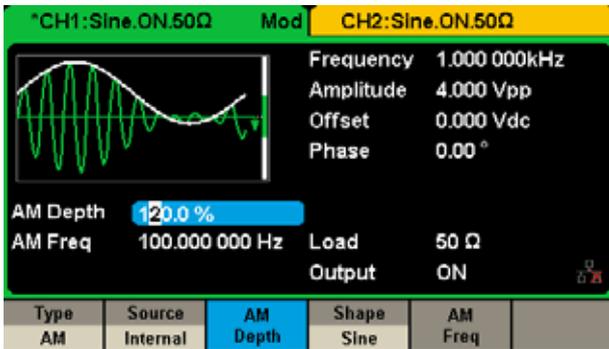
Benefiting from a special square-wave generating circuitry, the Square from the SDG1000X breaks the 60 MHz bandwidth barrier, reaching rise/fall times of less than 4.2 ns, and frequencies up to 60 MHz.

▶ The Square wave exhibits the same excellent jitter performance as the Pulse waveform.



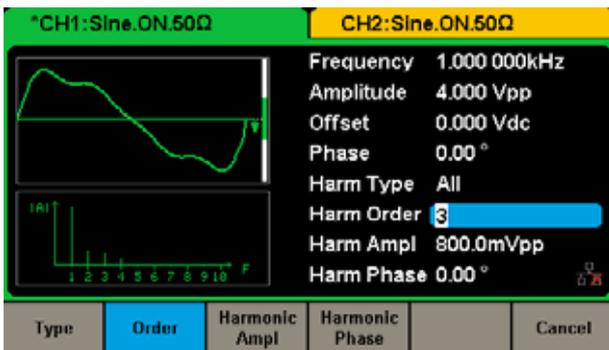
Characteristics

• Modulation



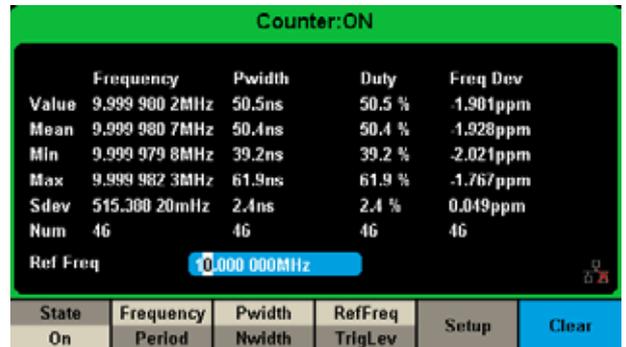
Multiple modulation types: AM, DSB-AM, FM, PM, FSK, ASK, PSK and PWM. The modulation source can be configured as "Internal" or "External".

• Harmonics Function



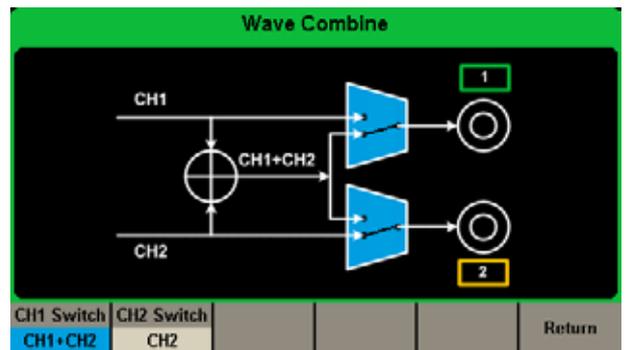
Up to 10 harmonics may be generated. Amplitude and phase of each harmonic can be set independently

• Frequency Counter



High precision Frequency Counter with an input frequency range of 0.1 Hz~200 MHz.

• Waveform Combining



Capable of combining the waveforms of 2 channels from internal, providing more flexible tools to generate complex waveforms.

Ordering Information

| Product Description | |
|---|----------|
| 30 MHz, 2 CH, 150 MSa/s, 14 bit | SDG1032X |
| 60 MHz, 2 CH, 150 MSa/s, 14 bit | SDG1062X |
| Standard configurations | |
| Quick Start -1 | |
| Power Cord-1 | |
| Calibration Certificate -1 | |
| USB Cable -1 | |
| CD (Includes Quick Start Guide, Datasheet, and Application Software Package) -1 | |
| Optional configurations | |
| BNC Coaxial Cable | SDG-BNC |
| 20 dB Attenuator | ATT-20dB |
| USB-GPIB Adapter | USB-GPIB |

SDG1000

Function/Arbitrary Waveform Generator



Application

- IC test
- Simulate sensor
- Simulate environment signals
- Electrical circuit function test
- Education and training

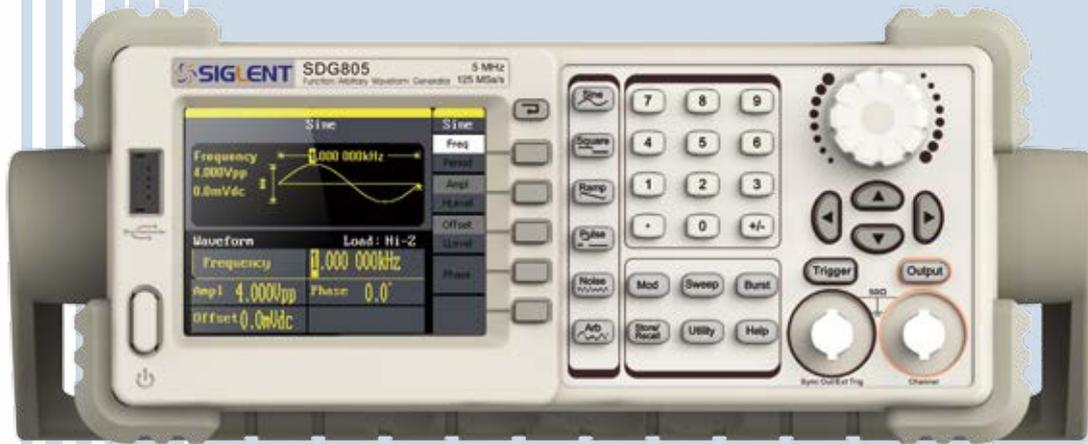
Features and Benefits

- Apply DDS technology, double channels output, phase adjustable
- Output frequency up to 50 MHz, 125 MSa/s sampling rate, 14 bit vertical resolution, 16 Kpts wave length
- 5 types of standard waveforms, built-in 46 types of arbitrary waveforms
- Abundant modulation functions, sweep-frequency output, burst output
- Built-in high precision frequency counter, frequency up to 200 MHz
- Interfaces: USB Device, USB Host, USB-GPIB Adapter (optional)
- Seamlessly work with siglent Digital Storage Oscilloscope
- Support USB-TMC protocol and SCPI programming command control

Specifications

| Model | SDG1050 | SDG1025 |
|--------------------------|--|---------|
| Maximum output frequency | 50 MHz | 25 MHz |
| Output channels | 2 | |
| Sampling rate | 125 MSa/s | |
| Wave length | 16 Kpts | |
| Frequency resolution | 1 μ Hz | |
| Vertical resolution | 14 bit | |
| Waveform | Sine, Square, Ramp, Pulse, Gaussian white noise, 48 types of built-in function waveforms, Arb | |
| Modulation function | AM, DSB-AM, FM, PM, FSK, ASK, PWM, Sweep, Burst | |
| Amplitude | CH1: 2 mVpp~10 Vpp (50 Ω), 4 mVpp~20 Vpp (high impedance) \leq 10 MHz 2 mVpp~5 Vpp (50 Ω), 4 mVpp~10 Vpp (high impedance) $>$ 10 MHz CH2: 2 mVpp~3 Vpp (50 Ω), 4 mVpp~6 Vpp (high impedance) | |
| Frequency counter | Frequency range: 100 mHz ~ 200 MHz | |
| Interface | USB Host, USB Device | |
| Optional interface | USB-GPIB adapter | |
| Dimension | 229 mm*105 mm*281 mm | |





SDG800 Function/Arbitrary Waveform Generator

Application

- Simulate sensor
- Simulate environmental signal
- Circuit function test
- IC chip test
- Research and education

Key Features

- Advanced DDS technology, 125 MSa/s sampling rate, 14 bit vertical resolution
- Single channel output, 5 kinds of standard waveforms, built-in 46 kinds of arbitrary waveforms (including DC)
- Complete modulation functions: AM, DSB-AM, FM, PM, FSK, ASK, PWM, linear/logarithmic sweep and burst
- Innovative EasyPulse technology, can output pulse of low jitter, quick rising/falling edge
- Standard interfaces: USB Device, USB Host, support U-Disk storage and software update
- Provide 10 nonvolatile storage spaces for user's arbitrary waveforms
- Be capable of seamlessly connected to SIGLENT Digital Storage Oscilloscope
- Configurable with powerful arbitrary waveform editing software EasyWave

Specifications

| Model | SDG805 | SDG810 | SDG830 |
|----------------------------|---|---------------------------|---------------------------|
| Maximum output frequency | 5 MHz | 10 MHz | 30 MHz |
| Output channels | 1 | | |
| Sampling rate | 125 MSa/s | | |
| Wave length | 16 kpts | | |
| Frequency resolution | 1 μ Hz | | |
| Vertical resolution | 14 bit | | |
| Waveform | Sine, Square, Ramp, Pulse, Gaussian white noise, Arbitrary waveform, 46 types of built-in arbitrary waveforms | | |
| Sine wave | 1 μ Hz ~ 5 MHz | 1 μ Hz ~ 10 MHz | 1 μ Hz ~30 MHz |
| Square wave | 1 μ Hz ~ 5 MHz | 1 μ Hz ~ 10 MHz | 1 μ Hz ~10 MHz |
| Pulse | 500 μ Hz ~ 5 MHz | 500 μ Hz ~ 5 MHz | 500 μ Hz ~5 MHz |
| Ramp/Triangular | 1 μ Hz ~ 300 KHz | 1 μ Hz ~ 300 KHz | 1 μ Hz ~ 300 KHz |
| Gaussian white noise | >5 MHz bandwidth (-3 dB) | >10 MHz bandwidth (-3 dB) | >30 MHz bandwidth (-3 dB) |
| Arbitrary waveform | 1 μ Hz ~ 5 MHz | 1 μ Hz ~ 5 MHz | 1 μ Hz ~ 5 MHz |
| Modulation function | AM, FM, PM, DSB-AM, FSK, ASK, PWM, Sweep, Burst | | |
| Standard configuration | USB Host & USB Device | | |
| Amplitude (high impedance) | 4 mVpp~20 Vpp (\leq 10 MHz) 4 mVpp~10 Vpp ($>$ 10 MHz) | | |

SPD3303

Programmable Linear DC Power Supply



Application

- R&D lab general purpose testing
- Teaching lab experiment
- Automotive electronic test
- Production testing and quality assessment inspection

Key Features (SPD3303X/SPD3303X-E)

- 3 independent controlled and isolated output, 32 V/3.2 A×2, 2.5 V/3.3 V/5 V/3.2 A×1, total 220 W
- Max 5 digits Voltage, 4 digits Current Display, Minimum Resolution: 1 mV/1 mA
- Supports panel timing output functions
- 4.3 inch true color TFT- LCD 480x272 display
- 3 types of output modes: independent, series, parallel
- 100 V/120 V/220 V/230 V compatible design to meet the needs of different power grids.
- Intelligent temperature-controlled fan , effectively reducing noise
- Clear graphical interface, with the waveform display function
- Internal 5 groups of system parameter save/recall, supports data storage space expansion
- Provides PC software: Easypower , supports SCPI , LabView driver

Key Features (SPD3303C)

- 3 independent high precision output: 32 V/3.2 A×2, 2.5 V/3.3 V/5 V/3.2 A×1, total 220 W
- 4 digits voltage and 3 digits current display, min resolution: 10 mV, 10 mA
- Three output modes: independent, series and parallel
- 100 V/120 V/220 V/230 V compatible design, to meet the need of different power grids
- Smart temperature controlled fan, effectively reduce the noise
- Save/Recall 5 group system specifications, support data storage expansion
- Connected to PC via USB Device, support SCPI command, to meet the control and communication needs

Specifications

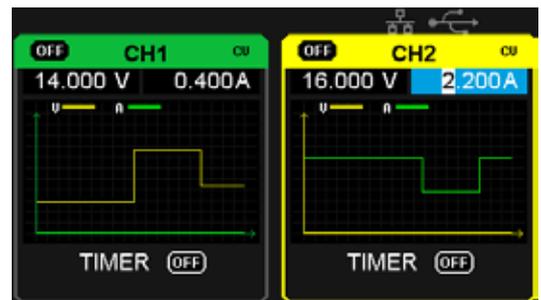
| Model | SPD3303C | SPD3303X-E | SPD3303X |
|---------------------------|---|--|--|
| Channels | CH1: DC voltage range: 0-32 V, DC current range: 0-3.2 A CH2: DC voltage range: 0-32 V, DC current range: 0-3.2 A CH3: DC voltage range: 2.5/3.3/5.0 V, DC current range: 0-3.2 A | | |
| Max output power | 220 W | | |
| Resolution | 10 mV / 10 mA | | 1 mV / 1 mA |
| Display digits | LED display 4 digits voltage 3 digits current | 4.3 inch TFT-LCD display 4 digits voltage 3 digits current | 4.3 inch TFT-LCD display 5 digits voltage 4 digits current |
| Ripple noise | CV/CH3: ≤ 1 mVrms (5 Hz~1 MHz) CC: ≤ 3 mArms | | |
| Standard interface | USB Device | USB Device, LAN | |
| Dimension | 225 mm (W)×136 mm (H)×275 mm (D) | | |
| Weight | 7.5 kg (SPD3303C) 8 kg (SPD3303X/E) | | |

● Panel displays the timing output

Through front panel operation, 5 groups of timing settings and output control can be displayed, which provides users a simple power programming function. Also a connection can be made with Siglent's EasyPower PC software providing a full range of communication and control requirements.



Panel timing output



Real time wave display

● Save/Recall setting parameters

SPD3000X series programmable power supply can save or recall 5 groups of setting parameter in internal storage, also supports external storage expansion. You can easily obtain the settings you needed.



Internal Storage



PC Timer



SDM3065X Digital Multimeter

Application

- Research Laboratory
- Development Laboratory
- Detection and Maintenance
- Calibration Laboratory
- Automatic Production Test

Main Feature

- 4.3" TFT-LCD, 480*272
- Real 6½ digits readings resolution (2,200,000 counts)
- 1 Gb Nand flash size, Mass storage configuration files and data files
- True-RMS AC Voltage and AC Current measuring
- Support double display, Chinese and English Menu
- File management (support for U-disc and local storage)
- Built-in cold terminal compensation for thermocouple
- With easy, convenient and flexible any sensor measurement control software: EasyDMM
- Standard interface: USB Device, USB Host, LAN (Optional Accessories: GPIB and Scanner Card)
- Built-in help system makes information acquisition more easier
- Support remote control via commands and compatible with commands of main stream multimeters

Measuring Method and other Characteristics

| DC Voltage | |
|------------------------------------|--|
| Input Resistance | 200 mV, 2 V, 20 V ranges: Selectable 10 M Ω or > 10 G Ω (For these ranges, input beyond $\pm 26V$ are clamped through 106 k Ω (typical)) |
| | 200 V and 1000 V ranges; 10 M Ω \pm 1% |
| Input Offset Current | 50 pA, 25°C, typical |
| Input Protection | 1000 V |
| CMRR (common mode rejection ratio) | 140 dB for 1 k Ω unbalance in LO lead, \pm 500 VDC peak maximum |
| Resistance | |
| Measurement Method | Selectable 4-wire or 2-wire resistance Current source referenced to LO input |
| Open-circuit Voltage | Limited to <10 V |
| Max. Lead Resistance (4-wire) | 10% of range per lead for 200 Ω , 2 k Ω ranges, 1 k Ω per lead on all other ranges |
| Offset Compensation | Available on 200 Ω , 2k Ω and 20 k Ω ranges |
| Input Protection | 1000 V on all ranges |
| DC Current | |
| Shunt Resistor | 100 Ω for 200 μ A, 2 mA 1 Ω for 20 mA, 200 mA 0.01 Ω for 2 A, 10 A |
| Input Protection | Rear panel : accessible 10 A, 250 V fast-melt fuse Internal 10 A, 250 V slow blow fuse for 2 A and 10 A ranges |
| Continuity / Diode Test | |
| Measurement Method | 1 mA \pm 5% constant-current source or open-circuit voltage |
| Response Time | 300 samples/sec, with audible tone |
| Beeper | Yes |
| Diode Threshold | Adjustable from 0 to 4 V |
| Continuity Threshold | Adjustable from 1 Ω to 2 K Ω |
| Input Protection | 1000 V |
| True RMS AC Voltage | |
| Measurement Method | AC-coupled True-RMS measurement with up to 400 V DC of bias at on any range. |
| Crest Factor | \leq 5 at full range |
| Input Impedance | 1 M Ω \pm 2% in parallel with <150 pF capacitance on any range |
| Input Protection | 750V rms on all ranges |
| CMRR (common mode rejection ratio) | 70 dB, for the 1 k Ω unbalance in LO lead, < 60 Hz, \pm 500 VDC peak maximum |

Ordering Information

| Product Name | SIGLENT SDM3065X Digital Multimeter |
|----------------------|---|
| Models | SDM3065X |
| Standard Accessories | A Power Cord that fits the standard of destination country Two Test Leads, Two Alligator Clips A USB Cable A Quick Start A guaranty Card A CD (including EasyDmm computer software system) |
| Optional Accessories | GPIB Scanner Card |



SDM3055 Digital Multimeter

Application

- Research & Development Laboratory
- Detection and Maintenance
- Calibration Laboratory
- Automatic Production Test

Key Features

- Real 5½ digits readings resolution
- Up to 150 rdgs/s measurement speed
- True-RMS AC Voltage and AC Current measuring
- 1 Gb Nand flash size, Mass storage configuration files and data files
- Built-in cold terminal compensation for thermocouple
- Standard interface: USB Device, USB Host, LAN, GPIB (only for SDM3055A)
- Support remote control via commands and compatible with commands of main stream multimeters

Specifications

DC Characteristic

Accuracy± (% of Reading +% of Range) ^[1]

| Function | Range ^[2] | Test current or Load voltage | 1 Year 23°C±5°C | Temperature coefficient 0°C~18°C 28°C~ 50°C |
|---------------------------|-----------------------|------------------------------|-----------------|---|
| DC Voltage | 200 mV | | 0.015+0.004 | 0.0015+0.0005 |
| | 2 V | | 0.015+0.003 | 0.0010+0.0005 |
| | 20 V | | 0.015+0.004 | 0.0020+0.0005 |
| | 200 V | | 0.015+0.003 | 0.0015+0.0005 |
| | 1000 V ^[4] | | 0.015+0.003 | 0.0015+0.0005 |
| DC Current | 200 µA | <8 mV | 0.055+0.005 | 0.003+0.001 |
| | 2 mA | <80 mV | 0.055+0.005 | 0.002+0.001 |
| | 20 mA | <0.05 V | 0.095+0.020 | 0.008+0.001 |
| | 200 mA | <0.5 V | 0.070+0.008 | 0.005+0.001 |
| | 2A | <0.1 V | 0.170+0.020 | 0.013+0.001 |
| Resistance ^[3] | 10 A ^[5] | <0.3 V | 0.250+0.010 | 0.008+0.001 |
| | 200 Ω | 1 mA | 0.030+0.005 | 0.0030+0.0006 |
| | 2 KΩ | 1 mA | 0.020+0.003 | 0.0030+0.0005 |
| | 20 KΩ | 100 µA | 0.020+0.003 | 0.0030+0.0005 |
| | 200 KΩ | 10 µA | 0.020+0.010 | 0.0030+0.0005 |
| | 2 MΩ | 1 µA | 0.040+0.004 | 0.0040+0.0005 |
| Diode Test | 10 MΩ | 200 nA | 0.250+0.003 | 0.0100+0.0005 |
| | 100 MΩ | 200 nA 10 MΩ | 1.75+0.004 | 0.2000+0.0005 |
| Continuity Test | 2.0 V ^[6] | 1 mA | 0.05+0.01 | 0.0050+0.0005 |
| | 2000 Ω | 1 mA | 0.05+0.01 | 0.0050+0.0005 |

Remarks:

[1]Specifications are for 0.5 hour warm-up, "Slow" measurement rate and calibration temperature 18 °C ~28°C.

[2]20% over range on all ranges except for DCV 1000 V, ACV 750 V, DCI 10 A and ACI 10 A.

[3]Specifications are for 4-wire measure or 2-wire measure under "REF" operation. ±0.2 Ω of extra errors will be generated if perform 2-wire measure without "REF" operation.

[4]Plus 0.02 mV of error per 1 V after the first ±500 VDC.

[5]30 seconds OFF after 30 seconds ON is recommend for the continuous current that higher than DC 7 A or AC RMS 7 A.

[6]Accuracy specifications are only for voltage measuring at input terminal. The typical value of current under measure is 1 mA. Voltage drop at diode junction may vary with current supply.

Features



Histogram



Trend Chart



Bar Chart



Interface

Standard Accessories





SDM3045X Digital Multimeter

Application

- Research Laboratory
- Development Laboratory
- Detection and Maintenance
- Calibration Laboratory
- Automatic Production Test

Key Features

- Real 4½ digits readings resolution
- Up to 150 rdgs/s measurement speed
- True-RMS AC Voltage and AC Current measuring
- 1 Gb Nand flash size, Mass storage configuration files and data files
- Built-in cold terminal compensation for thermocouple
- With easy, convenient and flexible PC software: EasyDMM
- Standard interface: USB Device, USB Host, LAN
- Supports remote control via commands and compatible with commands of main stream multimeters

Measuring Method and other Characteristics

| DC Voltage | |
|-----------------------|---|
| Input Resistance | 600 mV 10 MΩ or 10 GΩ selectable 6 V, 60 V, 600 V and 1000 V Range 10 MΩ ± 2% |
| Input Bias Current | <90 pA, 25°C |
| Input Protection | 1000 V on all ranges |
| CMRR | 120 dB (For the 1 KΩ unbalanced resistance in LO lead, max ±500 VDC) |
| NMRR | 60 dB at "slow" measurement rate |
| Resistance | |
| Testing Method | 4-wire resistance or 2-wire resistance selectable |
| Input Protection | 1000 V on all ranges |
| DC Current | |
| Shunt Resistor | 600 μA sampling voltage < 33 mV |
| | 6 mA sampling voltage < 0.33 V |
| | 1Ω for 60 mA, 600 mA 1 Ω |
| | 0.01 Ω for 6 A, 10 A |
| Input Protection | Rear panel : accessible 10 A, 250 V fast-melt fuse |
| | Internal : 12 A, 250 V slow-melt fuse |
| Continuity/Diode Test | |
| Measurement Method | 1 mA ±5% constant-current source or open-circuit voltage |
| Beeper | yes |
| Continuity Threshold | Adjustable |
| Input Protection | 1000 V |
| True-RMS AC Voltage | |
| Measurement Method | AC Coupled true RMS measure – up to 1000 V DC bias are permitted on every range. |
| Wave Crest Factor | ≤3 at full scale |
| Input Impedance | 1 MΩ ± 2% in parallel with <100 pF on all ranges |
| AC Filter Bandwidth | 20 Hz ~ 100 KHz |
| CMRR | 60 dB (For the 1 KΩ imbalance resistance among Lo lead and <60 Hz, Max ±500 VDC) |
| True-RMS AC Current | |
| Measurement Method | DC Coupled to the fuse and shunt; AC Coupled the True-RMS measurement (measures the AC components only) |
| Wave Crest Factor | ≤3 at full scale |
| Max Input | <10 A (include DC component) |
| Shunt Resistor | 1 Ω for 60 mA, 600 mA 1 Ω; 0.01 Ω for 6 A, 10 A |
| Input Protection | Rear panel : accessible 10 A, 250 V fast-melt fuse |
| | Internal : 12 A, 250 V slow-melt fuse |
| Frequency/Period | |
| Measurement Method | Reciprocal-counting technique, AC Coupled input, AC voltage or AC current measurement function |
| Measure Attentions | Error are leaded into all frequency counters when measuring low voltage or low frequency signal. |
| Capacitance Measuring | |
| Measurement Method | Measure the rate of change of voltage generated during the current flowing the capacitance |
| Connection Type | 2-wire |
| Input Protection | 1000 V on all ranges |

Order Information

| Product name | SIGLENT SDM3045X Digital Multimeter |
|----------------------|--|
| Models | SDM3045X |
| Standard Accessories | A power Cord that fits the standard of destination country |
| | Two Test Leads, Two Alligator Clips |
| | A USB Cable |
| | A Quick Start |
| | A Guaranty Card |
| | A CD (Including EasyDMM computer software system) |



SSA3000X Spectrum Analyzer

Key Features

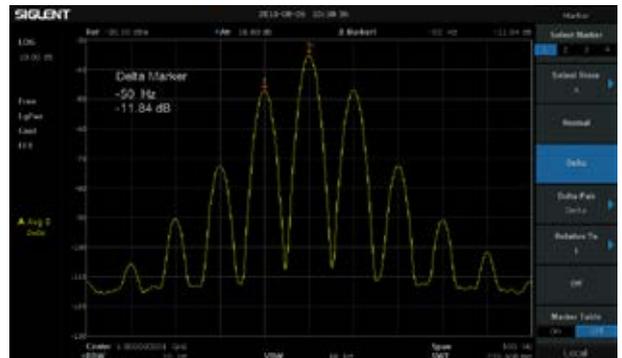
- All-Digital IF Technology
- Frequency Range from 9 kHz up to 3.2 GHz
- -161 dBm/Hz Displayed Average Noise Level (Typ.)
- -98 dBc/Hz @10 kHz Offset Phase Noise (1 GHz, Typ.)
- Total Amplitude Accuracy < 0.7 dB
- 10 Hz Minimum Resolution Bandwidth (RBW)
- Standard Preamplifier
- Up to 3.2 GHz Tracking Generator Kit (Opt.)
- Reflection Measurement Kit (Opt.)
- Advanced Measurement Kit (Opt.)
- EMI Pre-compliance Measurements Kit (Opt.)
- 10.1 Inch WVGA (1024x600) Display

Characteristics

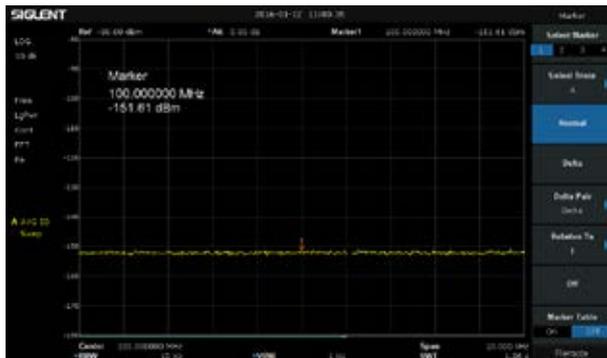
- Support four traces and cursors independently



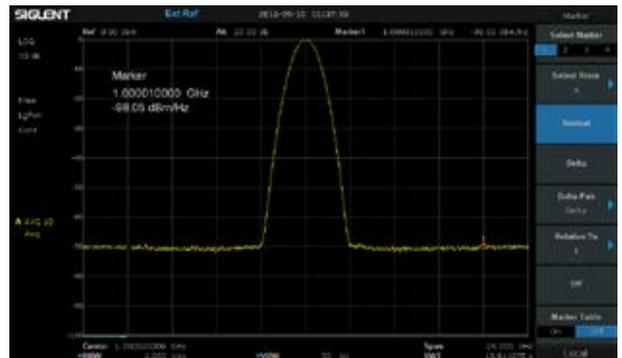
- 10 Hz Minimum Resolution Bandwidth (RBW)



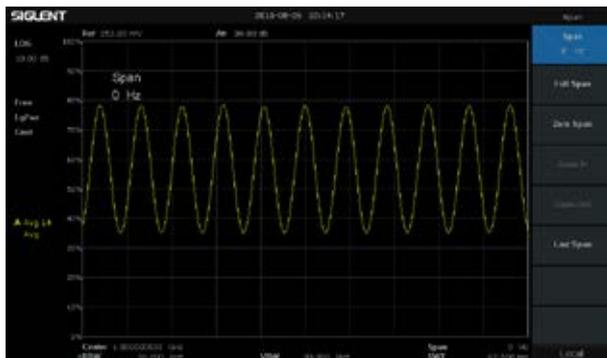
- 151 dBm Displayed Average Noise Level (RBW=10 Hz)



- Phase noise -98 dBc/Hz@1 GHz, offset 10 kHz



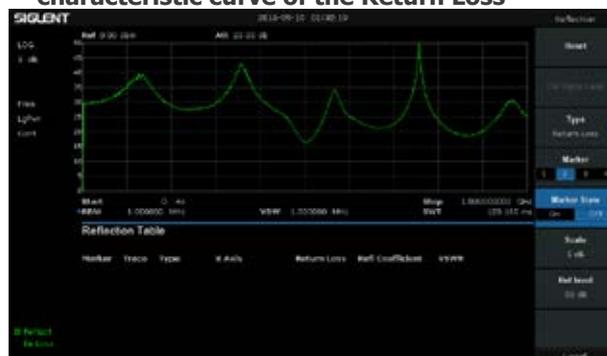
- Demodulation at the zero span



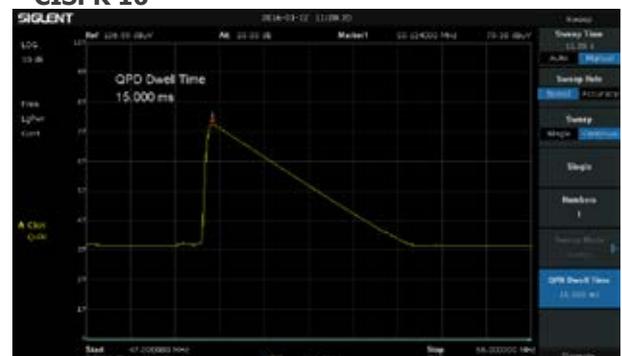
- Advanced power measurement, calculate the ACPR parameters



- Reflection measurement, acquire characteristic curve of the Return Loss



- EMI filter, Quasi-Peak detector following CISPR 16



Specifications

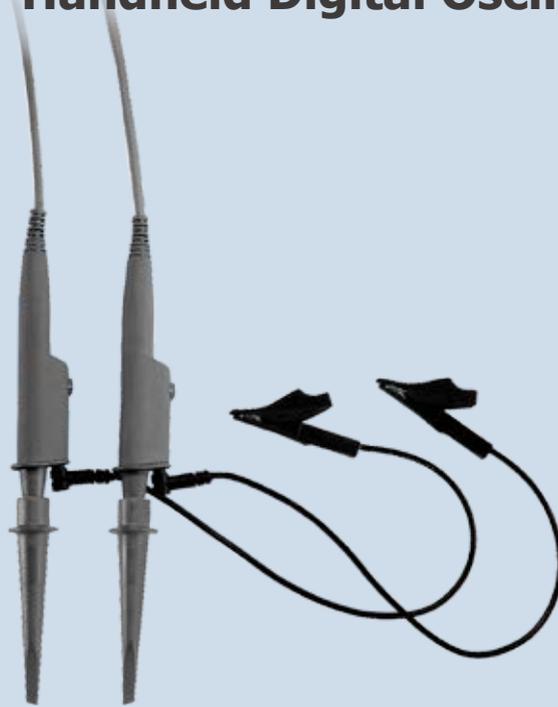
| Model | SSA3032X | SSA3021X |
|-------------------------------|---------------------------------------|---------------------------------------|
| Frequency Range | 9 kHz~3.2 GHz | 9 kHz~2.1 GHz |
| Resolution Bandwidth | 10 Hz~1 MHz, in 1-3-10 sequence | 10 Hz~1 MHz, in 1-3-10 sequence |
| Displayed Average Noise Level | -161 dBm/Hz, Normalize to 1 Hz (typ.) | -161 dBm/Hz, Normalize to 1 Hz (typ.) |
| Phase Noise | <-98 dBc/Hz@1 GHz, 10 kHz offset | <-98 dBc/Hz@1 GHz, 10 kHz offset |
| Amplitude Precision | < 0.7 dB | < 0.7 dB |

Ordering Information

| Product Description | SSA3000X Spectrum Analyzer | Order Number | |
|-----------------------------|--|---|--------------|
| Product code | Spectrum Analyzer, 9 kHz~3.2 GHz | SSA3032X | |
| | Spectrum Analyzer, 9 kHz~2.1 GHz | SSA3021X | |
| Standard configurations | A Quick Start, A Product Certification, A USB Cable, A CD (Including Quick Start, Data Sheet and Application Software) , A Calibration Certificate | QG-SSA3000X | |
| Utility Options | Tracking Generator Kit (Software) | TG-SSA3000X | |
| | Advanced Measurement Kit (Software) | AMK-SSA3000X | |
| | Utility Kit: N (M)-SMA (M) cable N (M)-N (M) cable N (M)-BNC (F) adaptor (2 pcs) N (M)-SMA (F) adaptor (2 pcs) 10 dB attenuator | UKitSSA3X | |
| | N (M)-SMA (M) cable | N-SMA-6L | |
| | N (M)-N (M) cable | N-N-6L | |
| | N (M)-BNC (M) cable | N-BNC-2L | |
| | Soft carrying bag | BAG-SCC | |
| | EMI Options | EMI Measurement Kit: EMI Filter and Quasi Peak Detector, EMI test option in EasySpectrum Software | EMI-SSA3000X |
| | | Near Field Probe: H field probe sets, 30 MHz~3.0 GHz | SRF5030 |
| Reflect Measurement Options | Tracking Generator Kit (Software) | TG-SSA3000X | |
| | Reflect Measurement Kit (Software) | Refl-SSA3000X | |
| | VSWR Bridge Kit: including Refl-SSA3000X VSWR Bridge(1 MHz~2 GHz) N(M)-N(M) adaptor(2 pcs) | RBSSA3X20 | |



SHS1000 Handheld Digital Oscilloscope



Application

- Embedded electronic circuit design and test
- Mechanical and electrical products design and analysis
- Manufacturing and circuit function test
- Differential signal analysis
- Floating signal measurements

Key Features

- Combines the functions of oscilloscope, multimeter and recorder in one
- Isolated oscilloscope channels, isolation level: CAT II 1000 V and CAT III 600 V
- 60 MHz/100 MHz bandwidth, 1 G sampling rate, 2 M memory depth, 7 M recording length
- Built-in lithium battery
- 5.7 inch color TFT-LCD

Specification

| Model | SHS1102 | SHS1062 |
|------------------------------|---|-----------------|
| Bandwidth | 100 MHz | 60 MHz |
| Rise time | ≤3.5 ns | ≤5.8 ns |
| Real time sampling rate | 1 GSa/s | |
| Equivalent sampling rate | 50 GSa/s | |
| Vertical sensitivity | 5 mV – 100 V/div | |
| Time base range | 2.5 ns – 50 ns/div Scan: 100 ms – 50 s/div | 5 ns – 50 s/div |
| Memory depth | 2 Mpts | |
| Triggering | Edge, Pulse, Video, Slope, Alternative | |
| Vertical resolution | 8 bit | |
| Triggering frequency counter | 6 digits | |
| Data recorder | 7 M points | |
| Trend plot | 800 K/CH | |
| Interface | USB Device, USB Host | |
| Math operation | +, -, *, /, FFT | |

Multimeter Specification

| Maximum resolution | 6000 Counts | |
|--------------------|---------------------|---------------|
| Item | Range | Accuracy |
| DC voltage | 60 mV | ±1%±15 digit |
| | 600 mV – 1000 V | ±1%±5 digit |
| AC voltage | 60 mV | ±1%±15 digit |
| | 600 mV – 750 V | ±1%±5 digit |
| DC current | 60 mA – 600 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| AC current | 60 mA – 600 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| Capacitance | 40 nF | ±3%±10 digit |
| | 400 nF – 400 uF | ±4%±5 digit |
| Resistance | 600 Ω-60 MΩ | ±1%±5 digit |
| Continuity | <50 Ω Buzzer sounds | |
| Diode | 0 V – 2 V | |
| Trend plot | 1.2 M points | |
| Measuring mode | Manual/Auto | |

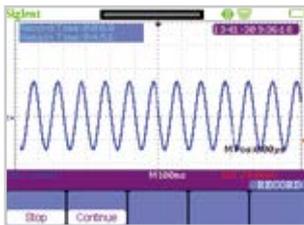
Isolation Level

| Max input Voltage | |
|---|-----------------------------|
| Input by input port directly | CATII 300 V |
| Input by 10: 1 probe | CATII 1000 V, CAT III 600 V |
| The Max input voltage of Multimeter | DC 1000 V, AC 750 V |
| Max floating voltage | |
| Float voltage between BNC reference and earth ground | CATII 1000 V, CAT III 600 V |
| Float voltage between BNC reference | CATII 1000 V, CAT III 600 V |
| Float voltage between multimeter reference and earth ground | CATII 600 V, CAT III 300 V |

Security: Isolated Handheld Digital Oscilloscope should be designed according to the standard of level II and pollution degree level II which apply to measure 1000 V. Or according to the standard of level III and pollution degree level III which apply to measure 600 V.

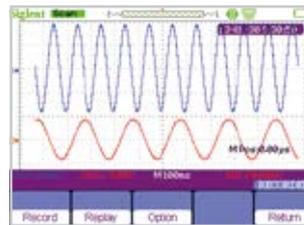
Multimeter Specification

| | |
|---------------------|---|
| Display | 5.7 inch color TFT-LCD, 320*234 |
| Power supply | With battery or apply DC adapter to get power from outside |
| Power mode | Lithium battery: 7.4 V 4500 mAh, Battery persisting > 4 hours DC adapter: 100-240 V 50/60 Hz input 9 V 4 A output. |
| Net Weight | 1.5 Kg |
| Dimension | 259.5 mm*163.2 mm*53.3 mm |
| Accessories | Two Passive Probes, Multimeter pen, USB data cable, DC adapter, Manual, CD, Toolbox. |



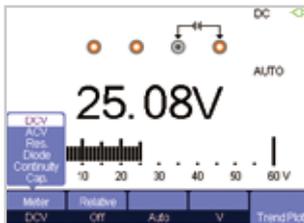
High-performance oscilloscope

- Bandwidth: 100 MHz, 60 MHz
- Real-time sampling rate: 1 GSa/s
- Memory depth: 2 Mpts.



Data recorder function

- 7 M internal storage, up to 18 hours recording time
- USB port, up to 3000 hours recording time
- Record, replay function supported



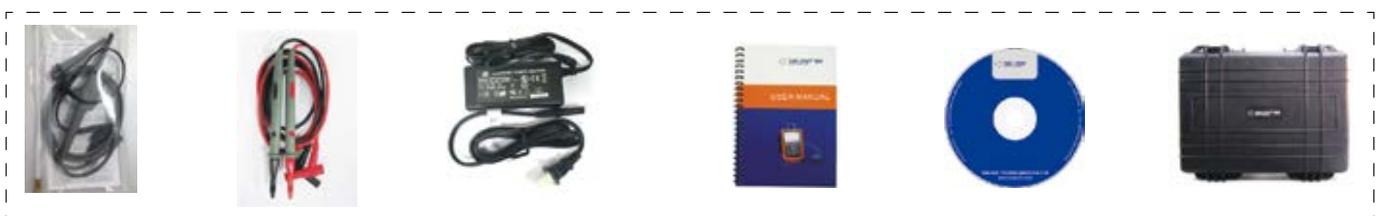
High precision multimeter

- 6000 counts display
- Accurate measurement of DCV, ACV, DCI, ACI
- Accurate measurement of Resistance, Diode, Capacitance, Continuity



Trend Plot

- 32 measurement trend plot analyzer
- Scope: 800 k/CH points capacity, more than 24 hours recording
- Meter: 1.2 M points capacity 6000 hours recording time at 0.05 Sa/s

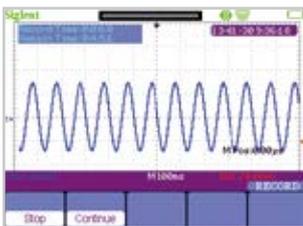


SHS800 Handheld Digital Oscilloscope



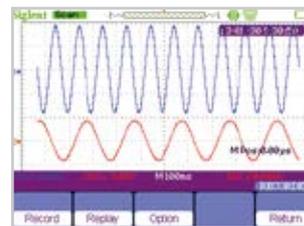
Application

- Automotive electronics, electric automobile test
- Power system strong electricity test
- Plant automation control system



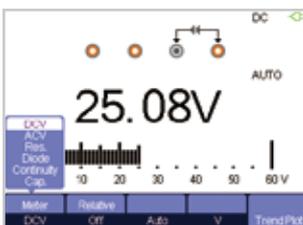
High-performance oscilloscope

- Bandwidth:100 MHz,60 MHz
- Real-time sampling rate:1 GSa/s
- Memory depth:2 Mpts.



Data recorder function

- 7 M internal storage, up to 18 hours recording time
- USB port, up to 3000 hours recording time
- Record, replay function supported



High precision multimeter

- 6000 counts display
- Accurate measurement of DCV, ACV, DCI, ACI
- Accurate measurement of Resistance, Diode, Capacitance, Continuity



Trend Plot

- 32 measurement trend plot analyzer
- Scope: 800 k/CH points capacity, more than 24 hours recording
- Meter: 1.2 M points capacity 6000 hours recording time at 0.05 Sa/s

Oscilloscope Specification

| Model | SHS820 | SHS810 | SHS806 |
|------------------------------|--|---------|-----------------|
| Bandwidth | 200 MHz | 100 MHz | 60 MHz |
| Rise time | ≤1.75 ns | ≤3.5 ns | ≤5.8 ns |
| Real time sampling rate | 500 MSa/s | 1 GSa/s | |
| Equivalent sampling rate | 50 GSa/s | | |
| Vertical sensitivity | 2 mV – 100 V/div | | |
| Time base range | 2.5 ns – 50 ns/div Scan:100 ms – 50 s/div | | 5 ns – 50 s/div |
| Memory depth | 32 Kpts | 2 Mpts | |
| Triggering | Edge, Pulse, Video, Slope, Alternative | | |
| Vertical resolution | 8 bit | | |
| Triggering frequency counter | 6 digits | | |
| Data Recorder | 7 M points | | |
| Trend plot | 800 K/CH | | |
| Interface | USB Device, USB Host | | |
| Math operation | +, -, *, /, FFT | | |

Multimeter Specification

| | | |
|--------------------|---------------------|---------------|
| Maximum resolution | 6000 Counts | |
| Item | Range | Accuracy |
| DC Voltage | 60 mv | ±1%±15 digit |
| | 60 mv – 1000 v | ±1%±5 digit |
| AC Voltage | 60 mv | ±1%±15 digit |
| | 600 mV – 750 V | ±1%±5 digit |
| DC Current | 60 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| AC Current | 60 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| Capacitance | 40 nF | ±3%±10 digit |
| | 400 nF – 400 μF | ±4%±5 digit |
| Resistance | 600 Ω – 60 MΩ | ±1%±5 digit |
| Continuity | <50 Ω Buzzer sounds | |
| Diode | 0 V – 2 V | |
| Trend plot | 1.2 M points | |
| Measuring mode | Manual/Auto | |

General Feature

| | |
|--------------|--|
| Display | 5.7 inch color TFT-LCD, 320*234 |
| Power supply | Charging/Battery |
| Power mode | Lithium battery: 7.4 V 5000 mAh, Battery lasts >5 hours; DC adapter, 100-240 V 50/60 Hz input, 9 V 4 A output |
| Net weight | 1.5 Kg |
| Dimension | 259.5 mm*163.2 mm*53.3 mm |
| Accessories | Two passive probes, multimeter pen, USB data cable, DC adapter, manual, CD. |

| Type | Model | Picture | Specifications |
|---------------|----------------------------------|---|--|
| Passive Probe | PB470 PP510 PP215 PP430 |  | PB470,70 MHz bandwidth PP510,100 MHz bandwidth PP215,200 MHz bandwidth PP430,300 MHz bandwidth 1 X/10 X decay, 1 M/10 Mohm, 300 V/600 V |
| | PB925 |  | Bandwidth 250 MHz, fixed 10 X decay, the rise time of about 1.2 ns, input capacitance: 16 pF, compensation range: 10 pF-35 pF, input impedance 10 MΩ, length 120 cm, safe voltage levels: CAT II 1000 V, CAT III 600 V |
| | PB830 |  | Bandwidth 300 MHz, fixed 10 X decay, the rise time of about 1 ns, input capacitance: 16 pF, compensation range: 10 pF-20 pF, input impedance 10 MΩ, length 140 cm, safe voltage levels: CAT II 1000 V, CAT III 600 V |
| Current Probe | CP4020 |  | Bandwidth: 100 KHz; Maximum continuous current 20 Arms; Peak current 60 A; Switching ratio: 50 mV/A; 5 mV/A; DC measurement accuracy: 50 mV/A (0.4 A-10 ApK) ± 2%; 5 mV/A (1 A-60 ApK)±2%; 9 V battery-powered |
| | CP4050 |  | Bandwidth: 1 MHz; Maximum continuous current 50 Arms; Peak current 140 A; Switching ratio: 500 mV/A; 50 mV/A; DC measurement accuracy: 500 mV/A (20 mA-14 ApK) ±3%±20 mA; 50 mV/A (200 mA-100 ApK)±4%± 200 mA; 50 mV/A (100 A-140 ApK)±15% max; 9 V battery-powered |
| | CP4070 |  | Bandwidth: 150 KHz; Maximum continuous current 70 Arms;Peak current 200 A; Switching ratio: 50 mV/A; 5 mV/A; DC measurement accuracy: 50 mV/A (0.4 A-10 ApK) ±2%, 5 mV/A (1 A-200 ApK)±2%;9 V battery-powered |
| | CP4070A |  | Bandwidth: 300 KHz; Maximum continuous current 70 Arms; Peak current 200 A;Switching ratio: 100 mV/A;10 mV/A; DC measurement accuracy: 100 mV/A(50 mA-10 ApK) ±3%±50 mA; 10 mV/A (500 mA-40 ApK) ±4%±50 mA; 10 mV/A (40 A-200 ApK) ±15%max; 9 V battery-powered |
| | CP5030 |  | Bandwidth: 50 MHz; Maximum continuous current 30 Arms; Peak current 50 A;Switching ratio: 100 mV/A; 1 V/A; AC/DC measurement accuracy: 1 A(±1%±1 mA); 100 mV/A(±1%±10 mA); Standard DC12 V/1.2 A power adapter |
| | CP5030A |  | Bandwidth: 100 MHz; Maximum continuous current 30 Arms; Peak current 50 A;Switching ratio: 100 mV/A; 1 V/A; AC/DC measurement accuracy: 1 A (±1%±1 mA); 100 mV/A (±1%±10 mA); Standard DC12 V/1.2 A power adapter |
| | CP5150 |  | Bandwidth: 12 MHz; Maximum continuous current 150 Arms; Peak current 300 A; Switching ratio: 100 mV/A; 1 V/A; AC/DC measurement accuracy: 100 mV/A (±1%±1 mA); 10 mV/A (±1%±10 mA); Standard DC 12 V/1.2 A power adapter |
| | CP5500 |  | Bandwidth: 5 MHz; Maximum continuous current 500 Arms; Peak current 750 A; Switching ratio: 100 mV/A; 10 mV/A; AC/DC measurement accuracy: 100 mV/A (±1%±1 mA); 10 mV/A (±1%±10 mA); Standard DC 12 V/1.2 A power adapter |

| Type | Model | Picture | Specifications |
|--|------------------|---|---|
| High Voltage Differential Probe | DPB4080 |  | Bandwidth: 50 MHz; Maximum input differential voltage 800 V (DC + Peak AC); Range selection (attenuation ratio):10 X/100 X; Accuracy: $\pm 1\%$; Standard DC 9 V/1 A power adapter |
| | DPB5150 |  | Bandwidth: 70 MHz; Maximum input differential voltage 1500 V (DC + Peak AC); Range selection (attenuation ratio): 50 X/500 X; Accuracy: $\pm 2\%$; Standard 5 V/1 A USB power adapter |
| | DPB5150A |  | Bandwidth: 100 MHz; Maximum input differential voltage 1500 V (DC + Peak AC); Range selection (attenuation ratio): 50 X/500 X; Accuracy: $\pm 2\%$; Standard 5 V/1 A USB power adapter |
| | DPB5700 |  | Bandwidth: 70 MHz; Maximum input differential voltage 7000 V (DC + Peak AC); Range selection (attenuation ratio): 100 X/1000 X; Accuracy: $\pm 2\%$; Standard 5 V/1 A USB power adapter |
| | DPB5700A |  | Bandwidth: 100 MHz; Maximum input differential voltage 7000 V (DC + Peak AC); Range selection (attenuation ratio): 100 X/1000 X; Accuracy: $\pm 2\%$; Standard 5 V/1 A USB power adapter |
| High Voltage Probe | HPB4010 |  | Bandwidth: 40 MHz; Maximum measurement voltage DC: 10 KV; AC(rms): 7 KV (sine); AC (Vpp): 20 KV (Pulse); attenuation ratio:1:1000; Accuracy: $\leq 3\%$ |
| Logic Probe | SPL1016 |  | Logic Probe for SDS1000X+ series, 16-channel, 500 MSa/s |
| | SPL2016 |  | Logic Probe for SDS2000X series, 16-channel, 500 MSa/s |
| Near-field probe | SRF5030 |  | Four near-field probes; Frequency range: 30 MHz ~ 3 GHz; resolution 25 mm; distinguished within 10 cm range of the magnetic field; for EMI radiation interference and the intensity detector |
| Isolated front end | ISFE |  | Realize isolation among ordinary oscilloscope channels, isolation between the measured signal and ground, use USB 5 V power supply, plug and play, the maximum input voltage of up to ± 600 Vpk |
| GPIB | USB-GPIB |  | The USB Device interface extends into the GPIB interface, USB-GPIB adapter can more easily complete the task of the operation command through the GPIB, USB follow the USB2.0 specification, GPIB follow the IEEE488.2 standard |
| Demo board | STB-3 Test Board |  | Output signals include square waves, sine, AM, pulse, PWM, fast edge, I2C, CAN, LIN signal etc. |

| | | | |
|-----------------------------|-----------|--|---|
| Deskew fixture | DF2001A |  | Supporting power analysis software for calibration phase voltage and current probes generated during transmission |
| Cable | N-BNC-2L |  | N-BNC cable for SSA3000X Series; 2 GHz bandwidth |
| | N-N-6L |  | N-N cable for SSA3000X Series; 6 GHz bandwidth |
| | N-SMA-6L |  | N-SMA cable for SSA3000X Series; 6 GHz bandwidth |
| Reflection Bridge | RBSSA3X20 |  | VSWR Bridge Kit for SSA3000X Series: Including Refl-SSA3000X (Software) VSWR Bridge (1 MHz ~ 2 GHz) N(M)-N(M) adapter (2 pcs) |
| SSA3000X Utility Kit | UKitSSA3X |  | Utility Kit for SSA3000X Series: N (M) -SMA (M) cable, N (M) -N (M) cable, N (M) -BNC (F) adaptor (2 pcs), N (M) -SMA (F) adaptor (2 pcs), 10 dB attenuator; |
| Scanner Card | SDM-SC |  | A multiplexer that provides multi-point measurement capabilities to the SDM3000 series of digital multimeters. The scanner features 12 multi-purpose + 4 current channels and supports the following measurement functions: DCV, ACV, DCI, ACI, 2WR, 4WR, CAP, FREQ, DIODE, CONT and TEMP (RTD and Thermocouple). |

Service Promise:

Since the date of purchase, we offer three year's warranty for the main unit:

- During the warranty period, if the products cause any hardware or software failure because of the quality, Siglent's after-sales service center or Siglent's designated maintenance points will offer the maintenance of the fault products for the user.
- Because of improper use or any other artificial reason, the damage won't be included in the free maintenance.

1. Extension after-sales service

Extension service is based on the main unit (not including accessories) as an object. During the extension service, Siglent still offer free maintenance after the standard warranty period.

1.1 Three advantages:

- Guarantee investment. To extend the life cycle of the products
- Save money. To prevent the high cost of maintenance after the warranty period.
- Avoid the repeated investment. To prevent buying new equipments because it can't be repaired after the warranty period.

1.2 The content of the extension service

You can buy the following extension service according to your demand:

| Solution | Viability | Instruction |
|----------|-------------------------------------|--|
| ES4 | One year after the warranty period | According to the service terms, Siglent will offer another one year for the after-sales maintenance service |
| ES5 | Two years after the warranty period | According to the service terms, Siglent will offer another two years for the after-sales maintenance service |

2. Calibration services

After long-term use, oscilloscope will cause the deviation of measured value and waveform display, because of its work temperature and humidity. Siglent will restore the original performance and accuracy of factory setting to calibrate the deviation.

- Eliminate the error of measurement
- Restore the original performance and accuracy of the factory setting to the "new" state
- The upgrade of the firmware and the software
- Make the instruments comply with the standard of the ISO9001 quality management process
- Traceable calibration certificates



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, function/arbitrary waveform generators, digital multimeters, DC power supplies, spectrum analyzers, isolated handheld oscilloscopes and other general purpose test instrumentation. Since its first oscilloscope, the ADS7000 series, 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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