

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

# **Product Selection Guide**

The Best Value in Electronic Test & Measurement





# Super Phosphor Oscilloscope



## SDS2000X Series

SDS2072X/SDS2074X (70 MHz) SDS2102X/SDS2104X (100 MHz) SDS2202X/SDS2204X (200 MHz) SDS2302X/SDS2304X (300 MHz)

#### **Features and Benefits:**

- 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



# SDS1000X / SDS1000X+ Series

# SDS1102X/SDS1102X+ (100 MHz) SDS1202X/SDS1202X+ (200 MHz)

#### **Features and Benefits:**

- 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 Width, Window, Runt, Interval, Time out (Dropout), Pattern
- Serial bus triggering and decode, supports protocols IIC, SPI, UART, RS232, CAN, LIN
- Video trigger, supports HDTV
- Low background noise, supports 500  $\mu$ V / div to 10 V / 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 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 (Option for SDS1000X+ models)
- 25 MHz DDS arbitrary waveform generator, built-in 10 kinds of waveforms (Standard for SDS1000X+ models)
- Large 8 inch TFT-LCD display with 800 \* 480 resolution
- Abundant interfaces: 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

# **Digital Storage Oscilloscope**



# SDS1000CFL Series

SDS1074CFL (70 MHz) SDS1104CFL (100 MHz) SDS1202CFL/SDS1204CFL (200 MHz) SDS1302CFL/SDS1304CFL (300 MHz)

#### **Features and Benefits:**

- Provide 2/4 analog channels, 24 Kpts memory depth
- 2 GSa/s real time sampling rate, 50 GSa/s equivalent sampling rate
- 7 inch (8\*18 div) color TFT-LCD
- Trigger types: Edge, Pulse, Video, Slope and Alternative
- Interface: Dual USB Host, USB Device, LAN, Pass/Fail
- 32 kinds of automatic waveform measurements and unique digital filter function
- 6 digits hardware frequency counter, real time counting display
- Support USB-TMC, VXI-11 protocol and SCPI programming command control



# SDS1000DL+/SDS1000CML+ Series

SDS1052DL+ (50 MHz) SDS1072CML+ (70 MHz) SDS1102CML+ (100 MHz) SDS1152CML+ (150 MHz)

#### **Features and Benefits**

- 50 MHz, 70 MHz, 100 MHz, 150 MHz bandwidth models
- Real-time sampling rate up to 1 GSa/s, Equivalent-time sampling rate up to 50 GSa/s
- Memory Depth up to 2 Mpts
- Trigger types: Edge, Pulse, Video, Slope, Alternate
- Waveform math functions:+, -, \*, /, FFT
- 6 digits frequency counter
- Supports Multi-language display and embedded online help
- Screensaver from 1 minute to 5 hours
- Digital filter and waveform recorder function
- Shortcut storage function key
- 7 inch TFT-LCD display with 800 \* 480 resolution
- Multiple interfaces: USB Host, USB Device (USBTMC), LAN (VXI-11), Pass / Fail



# Function/Arbitrary Waveform Generator



# SDG5000 Series

## SDG5162 (160 MHz)

#### **Features and Benefits**

- 4.3 inch color TFT-LCD, DDS technology ,dual channels output, phase adjustable
- 500 MSa/s sampling rate,14 bit vertical resolution,512 Kpts max wave length
- 2 ppm high frequency stability, -116 dBm/Hz low phase noise
- Output signal and the rack earth is isolated to ensure the purity of testing system
- Excellent high frequency-high amplitude characteristic ,amplitude can reach 20 Vpp(high impedance ) with a 40 MHz output frequency
- Output pulse signal with low jitter ,fast rising ad falling edge (independent from frequency)
- Duty adjustability: 0.0001%~99.9999%,edge and pulse width can be a wide range
- Support USB-TMC protocol and SCPI programming command control
- Abundant modulation functions, sweep-frequency output, burst output



# SDG2000X Series

## SDG2042X (40 MHz) SDG2082X (80 MHz) SDG2122X (120 MHz)

#### **Features and Benefits**

- 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 your 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 μSa/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 time adjustments
- Plenty of analog and digital modulation types: AM, DSB-AM, FM, PM, FSK, ASK PSK and PWM
- Sweep and Burst function; Harmonics mode supported
- High precision Frequency Counter
- Standard interfaces: USB Device, USB Host, LAN (VXI-11), support U Disk storage and software, upgrading GPIB port is optional

# SDG1000X Series

## SDG1032X (30 MHz) SDG1062X (60 MHz)

#### **Features and Benefits**

- 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



# SDG800 Series

SDG805 (5 MHz) SDG810 (10 MHz) SDG830 (30 MHz)

#### **Features and Benefits**

- Advanced DDS technology, 3.5 inch color TFT-LCD
- 125 MSa/s sampling rate,14 bit vertical resolution,16 Kpts max wave length
- 5 types of standard waveforms, built-in 46 types of arbitrary waveforms, sync signal output, 1 µHz frequency resolution
- 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
- Support USB-TMC protocol and SCPI programming command control
- Arbitrary waveform edit software, provides lots of painting method, capable of edit complicate waveform quickly and precisely

• 4.3" touch screen display for easier operation

# Programming Linear DC Power Supply



# SPD3303X Series

## SPD3303X (1 mv, 1 mA) SPD3303X-E (10 mv, 10 mA)

#### **Features and Benefits**

- 3 independent controlled and isolated outputs, 32 V/3.2 A×2, 2.5 V/3.3 V/5 V/3.2 A×1, total 220 W
- 5 digits Voltage, 4 digits Current Display, Minimum Resolution: 1 mV/1 mA (SPD3303X)
- Supports front 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



# SPD3303C Series

## SPD3303C (10 mv,10 mA)

#### **Features and Benefits**

Adquisición

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PLCs

- 3 independent high precision output: 30 V/3 A\*2, 2.5 V/3.3 V/5 V/3 A\*1, total 195 W power
- 4 digits voltage and 3 digits current display, min resolution: 10 mV, 10 mA
- Support timing programming and timing output
- Three output modes: independent, series and parallel connect, enhance output power range
- 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
- provide EasyPower software to meet the control and communication needs

Instrumentos Registradores

Potencia

HMIS

¡Tu sitio de automatización!

Support USB-TMC protocol and SCPI remote command, LabView driver

# **Digital Multimeter**



# SDM3055 Series

#### SDM3055 SDM3055A

## **Features and Benefits**

- 4.3 inch (480\*272) true color TFT-LCD large display
- True RMS 5 1/2- digital multimeter
- 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- based measurements
- Standard interfaces: USB Device, USB Host, LAN, GPIB (Only for SDM3055A)
- Support remote control via commands and compatible with commands of main stream multimeters
- Support dual-display
- Support EasySDM computer software



# SDM3045X Series

#### SDM3045X

#### **Features and Benefits**

- 4.3 inch (480\*272) true color TFT-LCD large display
- 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

Switches Movimiento Sensores Convertidores Teclados

- With easy, convenient and flexible PC software: EasySDM
- Standard interface: USB Device, USB Host, LAN
- Supports remote control via commands and compatible with commands of main stream multimeters

SCADA

www.logicbus.com.mx

Telemetría

# Spectrum Analyzer



# SSA3000X Series

SDS3032X (9 KHz~3.2 GHz) SDS3021X (9 KHz~2.1 GHz)

#### **Features and Benefits:**

- 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

# Handheld Oscilloscope



# SHS1000 Series

SHS1062 (60 MHz) SHS1102 (100 MHz)

#### **Features and Benefits**

- Completely isolated oscilloscope channels, isolated between oscilloscope and multimeter channels
- Oscilloscope isolation level : CAT I 1000 V and CAT II 600 V
- Combines the functions of oscilloscope, multimeter and recorder in one instrument
- Support waveform print and USB storage
- 60/100 MHz bandwidth , 2 input channels, 2 Mpts memory depth
- 1 GSa/s real time sampling rate,50 GSa/s equivalent sampling rate
- Equipped with high precision multimeter and many usual testing functions
- 3 kinds of cursor mode, 32 kinds of automatic waveform measurements
- 5.7 inch color TFT-LCD
- Support trend plot and long time data recorder function



# SHS800 Series

SHS806 (60 MHz) SHS810 (100 MHz) SHS820 (200 MHz)

## **Features and Benefits**

- Combines the functions of oscilloscope, multimeter and recorder in one instrument
- Support waveform print and USB storage
- 60/100/200 MHz bandwidth ,2 input channels,2 Mpts memory depth
- 1 GSa/s real time sampling rate, 50 GSa/s equivalent sampling rate
- Equipped with high precision multimeter and many usual testing functions
- 3 kinds of cursor mode, 32 kinds of automatic waveform measurements
- 5.7 inch color TFT-LCD
- Support trend plot and long time data recorder function

# Probes and Accessories

Туре	Model	Picture	Specifications
Passive Probe	PB470 PP510 PP215 PP430	6	PB470,70 M 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	90	Bandwidth 250 MHz, fixed 10X decay, the rise time of about 1.2 ns, input capacitance: 16 pF, compensation range: 10 pF-35 pF, input impedance 10 M $\Omega$ , length 120 cm, safe voltage levels: CAT II 1000 V, CAT III 600 V
	PB830	LOJ.	Bandwidth 300 MHz, fixed 10 X decay, the rise time of about 1ns, input capacitance: 16 pF, compensation range: 10 pF-20 pF, input impedance 10 M $\Omega$ , 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; 9V 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 DC 12 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 DC 12 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

Туре	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: ±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: ±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: ±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: ±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: ±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 ratio1:1000; Accuracy: ≤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	20	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
Preamplifier	EM5020	Address (process takes)	Maximum linear output power 10 dBm; Frequency range: 9 KHz $\sim$ 3 GHz; typical gain of about 20 dB $\sim$ 30 dB; Maximum input power 13 dBm $\sim$ 15 dBm
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 $\pm$ 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 Test Board		Output signals include square waves, sine, random, pulse, BURST, fast edge signal and amplitude modulation signal, 10 kinds of signals

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
<b>Reflection</b> Bridge	RBSSA3X20	VSWR Bridge Kit for SSA3000X Series: including Refl-SSA3000X (Software), VSWR Bridge(1 MHz~2 GHz), N(M)-N(M) adaptor (2 pcs)
SSA3000X Utility Kit	UKIISSA3X	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;

