

SDS2000X Plus Super Phosphor Oscilloscopes

Main Features

- 100 MHz, 200 MHz, 350 MHz models(Upgradable to 500 MHz)
- Real-time sampling rate up to 2 GSa/s
- Record Length up to 200 Mpts
- Waveform capture rate up to 500,000 wfm/s (Sequence mode)


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Comparative Data	SDS2000X Plus	Keysight MSO/DSOX2000A	Tektronix MSO/DPO2000B	R&S RTB2000	Rigol MSO5000
Channels	2/4 + EXT	2/4 + EXT	2/4 + EXT	2/4 + EXT	2/4
Bandwidth	(500 MHz), 350 MHz, 200 MHz, 100 MHz	200 MHz, 100 MHz, 70 MHz	200 MHz, 100 MHz, 70 MHz	300 MHz, 200 MHz, 100 MHz, 70 MHz	350 MHz, 200 MHz, 100 MHz, 50 MHz Contact Us
Sampling Rate	2 GSa/s (for each channel pair)	2 GSa/s (for each channel pair)	1 GSa/s (per Channel)	2.5 GSa/s (for each channel pair)	8 GSa/s (total) Download
Resolution	8 bit; 10-bit mode (with typical 100 MHz bandwidth)	8 bit	8 bit	10 bit	8 bit
Memory Depth	200 Mpts (for each channel pair)	100 kpts (for each channel pair)	1 Mpts (per Channel)	20 Mpts (for each channel pair)	200 Mpts (for 4 channels)
Waveform Capture Rate	Normal: up to 120,000 wfm/s; Sequence mode: up to 500,000 wfm/s	Up to 50,000 wfm/s	Up to 5,000 wfm/s	Up to 50,000 wfm/s	Up to 500,000 wfm/s
Bandwidth Limit	20 MHz, 200 MHz	20 MHz	20 MHz	20 MHz	20 MHz, 100 MHz, 200 MHz
Vertical Zoom	Yes	No	No	No	No
Trigger Types	Edge, Slope, Pulse Width, Video, Window, Interval, Dropout, Runt, Pattern, Serial Protocol: I2C, SPI, UART, CAN, LIN (standard); CAN FD, FlexRay, I2S, MIL-STD-1553B (optional)	Edge, Pulse Width, Pattern, Video	Edge, Pulse Width, Runt, Logic, Setup and Hold, Rise/Fall Time, Video, Serial Protocol: I2C, SPI, UART, CAN, LIN (optional)	Edge, width, video, pattern, timeout, line, serial bus: I2C, SPI, UART, CAN, LIN (optional)	Edge trigger, Pulse trigger, Slope trigger, Video trigger, Pattern trigger, Duration trigger, Timeout trigger, Runt trigger, Window trigger, Delay trigger, Setup/Hold trigger, and Nth Edge trigger, Serial Protocol: RS232, UART, I2C, SPI, LIN, CAN, FlexRay, I2S, MIL-STD-1553 (optional)
Zone Trigger	Yes	No	No	No	Yes
Measurements	Max, Min, Pk-Pk, Top, Base, Amplitude, Mean, Cycle Mean, Sdev, Cycle Sdev, RMS, Cycle RMS, Median, Cycle Median, FOV, FPRE, ROV, RPPE, Level@Trigger, Period, Freq, Time@max, Time@min, +Width, -Width, 10-90%Rise, 90-10%Fall, 20-80%Rise, 80-20%Fall, +BWidth, -BWidth, +Duty, -Duty, Delay, T@M, CCJ, +Area, -Area, Area, AbsArea, Cycles, Rising Edges, Falling Edges, Edges, Ppulses, Npulses, Phase, FRFR, FRFF, FFFR, FFFF, FRLR, FRLF, FFLR, FFLF, Skew	Maximum, minimum, peak-to-peak, top, base, amplitude, overshoot, preshoot, average N cycles, average-full screen, DC RMS N cycles, AC RMS full screen, AC RMS N cycles, AC RMS- full screen, Period, frequency, rise time, fall time, + width, - width, duty cycle, delay A→B (rising edge), delay A→B (falling edge), phase A→B (rising edge) and phase A→B (falling edge)	Period, Frequency, Delay, Rise Time, Fall Time, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Phase, Positive Overshoot, Negative Overshoot, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS, Positive Pulse Count, Negative Pulse Count, Rising Edge Count, Falling Edge Count, Area and Cycle Area	Burst width, count positive pulses, count negative pulses, count falling edges, count rising edges, mean value, RMS cycle, RMS, mean cycle, peak peak, peak+, peak-, frequency, period, amplitude, top level, base level, positive overshoot, negative overshoot, pulse width+, pulse width-, duty cycle+, duty cycle-, rise time, fall time, delay, phase, crest factor, slew rate+, slew rate-, σ.std. deviation, σ.std. deviation cycle	Vmax, Vmin, Vpp, Vtop, Vbase, Vrms, Vupper, Vmid, Vlower, Vavg, VRMS, Per. VRMS, Overshoot, Preshoot, Area, Period Area, and Std Dev, Period, Frequency, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Positive Pulse Count, Negative Pulse Count, Rising Edge Count, Falling Edge Count, Tvmx, Tvmn, +Slew Rate, and -Slew Rate, Delay(A1-B1), Delay(A1-B1), Delay(A1-B1), Delay(A1-B1), Phase(A1-B1), Phase(A1-B1), Phase(A1-B1), and Phase(A1-B1)
Measurement Histogram and Trend Plot	Yes	No	No	Histogram	Histogram
Formula Math	Yes	No	No	Yes	Yes
FFT	Length: 2 Mpts, 1 Mpts, 512 kpts, 256 kpts, 128 kpts, 64 kpts, 32 kpts, 16 kpts, 8 kpts, 4 kpts, 2 kpts	Length: up to 64 kpts; Windows: Hanning, FlatTop, Rectangular; Blackman-Harris	Length: up to 5 kpts; Windows: Rectangular, Hamming, Hanning, or Blackman-Harris.	Length: up to 128 kpts; Window Type: Rectangular (default)	Length: up to 1 Mpts; Window Type: Rectangular (default)

	MSA2016	MSA2016	MSA2016	MSA2016	MSA2016
Sequence	90,000 frames	250 frames	No	13,107 frames	450,000 frames
History	90,000 frames	No	No	13,107 frames	450,000 frames
Navigator	Yes	Yes	Yes	Support Search	Yes
Mask Editor	Yes	No	No	No	No
Bode Plot	Yes	No	No	Yes	No
Power Analysis	Yes	No	No	No	Yes
DVM	No	Yes	No	Yes	Yes
Counter	Yes	No	No	No	Yes
Serial Protocol Decode	Standard: I2C, SPI, UART, CAN, LIN ; Optional: CAN FD, FlexRay, I2S, MIL-STD-1553B	Optional: I2C,SPI,UART,CAN,LIN	Optional: I2C, SPI, UART, CAN, LIN	Optional: I2C, SPI, UART, CAN/LIN	Optional: RS232/UART, I2C, SPI, CAN, LIN, I2S, FlexRay, MIL-STD-1553
Time Base Accuracy	±1 ppm initial	25 ppm ± 5 ppm per year (aging)	±25 ppm	±2.5 ppm	±10 ppm, ±10 ppm/year
Logic Analyzer	Optional: 16 bit, 500 MSa/s, 50 Mpts/Ch. SPL2016 probe	Optional: 8 bit, 1 GSa/s, 50 kpts/Ch. (D), 12.5 kpts/Ch. (A+D)	Optional: 16 bit, 1GSa/s (8 Ch.), 500MSa/s (16 Ch.), 1 Mpts/Ch.	Optional: 16 bit, 1.25 GSa/s, 10 Mpts/Ch. R&S@RTB-B1	Optional: 16 bit, 1 GSa/s, 25 Mpts/Ch. PLA2216 probe
AWG	50 MHz, built-in	20 MHz, built-in	No	25 MHz, built-in	25 MHz, built-in, 2 CH
Interface	USB Host x2, USB Device, LAN, Pass/Fail, Trigger Out	Standard USB 2.0 (LAN/ video optional) (GPIB optional)	USB Host, USB Device, LAN, Video out port	AUX OUT(trigger out, reference frequency, pass/fail, AWG), Pattern Source, USB2.0 Host*1, USB Device*1, LAN	USB Host*1, USB Device*1, LAN, AUX OUT(TRIG OUT, PASS/FAIL), HDMI
Display	10.1", 1024*600, capacitive touch screen	8", 800*480, color TFT screen	7",480 * 234	10.1", 1280*800, capacitive touch screen	9", 1024*600, capacitive touch screen

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Note: The above prices and parameters were collected on the official website of each brand on July 19, 2019. If there are any differences, please refer to the official website.

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Call Us

+86-0755-36887876

Address

Bldg No.4 & No.5, Antongda Industrial Zone, 3rd Liuxian Road, Bao'an District, Shenzhen, China

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sales@siglent.com

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