



SIGLENT SDS800X HD



SIGLENT SDS1000X-E



Key Specifications

Channels	2/4	✓	2/4	✓
Model	SDS802X HD(70MHz、2CH) SDS812X HD(100MHz、2CH) SDS822X HD(200MHz、2CH) SDS804X HD(70MHz、4CH) SDS814X HD(100MHz、4CH) SDS824X HD(200MHz、4CH) (no EXT)	✓	SDS1202X-E(200MHz、2CH) SDS1104X-E(100MHz、4CH) SDS1204X-E(200MHz、4CH) (2CH-EXT)	✓
Bandwidth	70/100/200 MHz	✓	100/200 MHz	✓
Vertical resolution	12-bit	✓	8-bit	✗
Sample rate (Max.)	One channel mode: 2 GSa/s, Two channel mode: 1 GSa/s, Four channel mode: 500 MSa/s	✓	One channel mode: 1 GSa/s Full channel mode: 500 MSa/s	✗
Memory depth (Max.)	SDS802/804/812/814X HD: One channel mode: 50 Mpts/ch Two channel mode: 25 Mpts/ch Four channel mode: 10 Mpts/ch SDS822/824X HD: One channel mode: 100 Mpts/ch Two channel mode: 50 Mpts/ch Four channel mode: 25 Mpts/ch	✓	7 Mpts/ch (not interleave mode) 14 Mpts/ch (interleave mode)	✗

Waveform capture rate (Max.)	SDS802/804/812/814X HD: 80,000 wfms/s (Normal) SDS822/824X HD: 120,000 wfms/s (Normal) All: 500,000 wfms/s (Sequence)	✓	100,000 wfms/s (Normal) 400,000 wfms/s (Sequence)	✗
Noise floor	70 μ Vrms(200MHz)	✓	N/A	
Other Specifications				
timebase Scale	1 ns/div~1 ks/div	✓	1 ns/div~100 s/div	✗
Vertical scale	1 M Ω : 0.5 mV/div – 10 V/div	✓	500 μ V - 10V/div	✓
Rise time	SDS804X HD、SDS802X HD: Typical 5ns SDS814X HD、SDS812X HD: Typical 3.5ns SDS824X HD、SDS822X HD: Typical 1.8ns	✓	SDS1104X-E: Typical 3.5ns SDS1204X-E、SDS1202X-E: Typical 1.8ns	✓
Peak detect	2 ns	✓	2/4ns	✓
Time base Accuracy	\pm 25ppm	✓	\pm 25ppm	✓
DC gain accuracy(typical)	\pm 1.5 % (0.5 mV/div ~ 4.95 mV/div) \pm 0.5 % (5 mV/div ~ 10 V/div)	✓	\pm 3% (5mV/div ~10V/div) \pm 4% (10V/div ~ 2mV/div)	✗
I/O	USB 2.0 Host x2, USB 2.0 Device, 10 M / 100 M LAN, 100 M / 1000 M Ethernet (RJ45), 100 M / 1000 M Ethernet (RJ45)	✓	USB Host, USB Device, LAN, Pass/Fail, Trigger Out、SBUS	✓
Display	7" TFT-LCD with capacitive touch screen (1024*600)	✓	7" TFT LCD, 800*480	✗
Dimensions	132.6 mm (W) x 151 mm (H) x 312 mm (D)	✓	132.6 mm (W) x 151 mm (H) x 312 mm (D)	✓
Weight	N.W:2.6 kg; G.W: 3.8 kg	✓	N.W:2.5 kg; G.W: 3.5 kg	✓
Common Specifications				
Search Mode	Edge, Slope, Pulse, Interval, Runt	✓	Edge, Slope, Pulse, Interval, Runt	✓
Navigate Mode	support	✓	support(4CH)	✓
History Mode	80,000 frames/s	✓	80,000 frames/s	✓
Digital Voltmeter	unsupport	✗	unsupport	✗
Counter	support	✓	support	✓

Trend and Track		support	✓	unsupport	✗
Formula Editor		support	✓	unsupport	✗
Zoom (vertical&horizontal)		support	✓	support	✓
Web		support	✓	support	✓
Important specifications					
Trigger type		Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video, Qualified, Nth edge, Delay, Setup/Hold time, IIC, SPI, RS232/UART, CAN, LIN	✓	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video, IIC, SPI, UART, CAN, LIN	✗
Serial Decoder	Decoders	2	✓	2	✓
	Decoder type	standard: I2C, SPI, RS232/UART, CAN, LIN	✓	standard: I2C, SPI, UART, CAN, LIN	✓
Measurement	Measure ment Parameters (Vertical+ Horizontal+other)	66 (19+17+30)	✓	38 (17+11+10)	✗
	Statistics	Current, Mean, Min, Max, Sdev, Count, Histogram, Trend, Track	✓	Current, Mean, Min, Max, Stdev, Count	✗
Math	Trace	F1,F2,F3,F4	✓	N/A	✗
	Operation	FFT, Filter, +, -, x, ÷, ∫dt, d/dt, √, Identity, Negation, x , Sign, ex, 10x, ln, lg, Interpolation, Max hold, Min hold, ERES, Average, Formula Editor	✓	‘+, -, x, ÷, ∫dt, d/dt, √	✗

	FFT	2 Mpts	✓	1 Mpts	✗
Mask Test		support	✓	support	✓
Bode Plot		support	✓	support(4CH)	✓
Power Analysis(optional)		support	✓	unsupport	✗
Digital channel(optional)		16 digital channels	✓	16 digital channels	✓
Waveform		support	✓	support	✓

				
	SIGLENT SDS800X HD		SIGLENT SDS1000X HD	
Key Specifications				
Channels	2/4	✓	2/4	✓
Model	SDS802X HD(70MHz、2CH) SDS812X HD(100MHz、2CH) SDS822X HD(200MHz、2CH) SDS804X HD(70MHz、4CH) SDS814X HD(100MHz、4CH) SDS824X HD(200MHz、4CH) (no EXT)	✓	SDS1102X HD(100MHz、2CH) SDS1202X HD(200MHz、2CH) SDS1104X HD(100MHz、4CH) SDS1204X HD(200MHz、4CH) (All-EXT)	✓
Bandwidth	70/100/200 MHz	✓	100/200 MHz	✓
Vertical resolution	12-bit	✓	12-bit	✓
Sample rate (Max.)	One channel mode: 2 GSa/s, Two channel mode: 1 GSa/s, Four channel mode: 500 MSa/s	✓	One channel mode: 2 GSa/s, Two channel mode: 1 GSa/s, Four channel mode: 500 MSa/s	✓

Memory depth (Max.)	SDS802/804/812/814X HD: One channel mode: 50 Mpts/ch Two channel mode: 25 Mpts/ch Four channel mode: 10 Mpts/ch SDS822/824X HD: One channel mode: 100 Mpts/ch Two channel mode: 50 Mpts/ch Four channel mode: 25 Mpts/ch	✓	One channel mode: 100 Mpts/ch, Two channel mode: 50 Mpts/ch, Four channel mode: 25 Mpts/ch	✓
Waveform capture rate (Max.)	SDS802/804/812/814X HD: 80,000 wfms/s (Normal) SDS822/824X HD: 120,000 wfms/s (Normal)	✓	120,000 wfms/s (Normal) 500,000 wfms/s (Sequence)	✓
Noise floor	70 μ Vrms(200MHz)	✓	70 μ Vrms(200MHz)	✓
Other Specifications				
timebase Scale	1 ns/div~1 ks/div	✓	1 ns/div~1 ks/div	✓
Vertical scale	1 M Ω : 0.5 mV/div – 10 V/div	✓	1 M Ω : 0.5 mV/div – 10 V/div	✓
Rise time	SDS804X HD、SDS802X HD: Typical 5ns SDS814X HD、SDS812X HD: Typical 3.5ns	✓	SDS1104X HD、SDS1102X HD: 3.5ns SDS1204X HD、SDS1202X HD: 1.8ns	✓
Peak detect	2 ns	✓	2 ns	✓
Time base Accuracy	\pm 25ppm	✓	\pm 25ppm	✓
DC gain accuracy(typical)	\pm 1.5 % (0.5 mV/div ~ 4.95 mV/div) \pm 0.5 % (5 mV/div ~ 10 V/div)	✓	\pm 1.5 % (0.5 mV/div ~ 4.95 mV/div) \pm 0.5 % (5 mV/div ~ 10 V/div)	✓
I/O	USB 2.0 Host x2, USB 2.0 Device, 10 M / 100 M LAN,	✓	USB2.0 Host、USB2.0 Device、LAN、TRIG OUT、PASS/FAIL OUT、	✓
Display	7" TFT-LCD with capacitive touch screen (1024*600)	✗	10.1" TFT-LCD with capacitive touch screen (1024*600)	✓
Dimensions	132.6 mm (W) x 151 mm (H) x 312 mm (D)	✓	149 mm (W) x 236 mm (H) x 317.2 mm (D)	✓
Weight	N.W:2.6 kg; G.W: 3.8 kg	✓	N.W:4.1 kg; G.W: 5.6 kg	✗

Common Specifications					
Search Mode		Edge, Slope, Pulse, Interval, Runt	✓	Edge, Slope, Pulse, Interval, Runt	✓
Navigate Mode		support	✓	support	✓
History Mode		80,000 frames/s	✓	80,000 frames/s	✓
Digital Voltmeter		unsupport	✗	unsupport	✗
Counter		support	✓	support	✓
Trend and Track		support	✓	support	✓
Formula Editor		support	✓	support	✓
Zoom (vertical&horizontal)		support	✓	support	✓
Web		support	✓	support	✓
Important specifications					
Trigger type		Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video, Qualified, Nth edge, Delay, Setup/Hold time, IIC, SPI, RS232/UART, CAN, LIN	✓	Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video, Qualified, Nth edge, Delay, Setup/Hold time, IIC, SPI, RS232/UART, CAN, LIN	✓
Serial Decoder	Decoders	2	✓	2	✓
	Decoder type	standard: I2C, SPI, RS232/UART, CAN, LIN	✗	standard: I2C, SPI, RS232/UART, CAN, LIN, CAN FD(decode only)、	✓
Measurement	Measurement Parameters (Vertical+Horizontal+other)	66 (19+17+30)	✓	66 (19+17+30)	✓
	Statistics	Current, Mean, Min, Max, Sdev, Count, Histogram, Trend, Track	✓	Current, Mean, Min, Max, Sdev, Count, Histogram, Trend, Track	✓
	Trace	F1,F2,F3,F4	✓	F1,F2,F3,F4	✓

Math	Operation	FFT, Filter, +, -, x, ÷, ∫dt, d/dt, √, Identity, Negation, x , Sign, ex, 10x, ln, lg, Interpolation, Max hold, Min hold, ERES, Average, Formula Editor	✓	FFT, Filter, +, -, x, ÷, ∫dt, d/dt, √, Identity, Negation, x , Sign, ex, 10x, ln, lg, Interpolation, Max hold, Min hold, ERES, Average, Formula Editor	✓
	FFT	2 Mpts	✓	2 Mpts	✓
Mask Test		support	✓	support	✓
Bode Plot		support	✓	support	✓
Power Analysis(optional)		support	✓	support	✓
Digital channel(optional)		16 digital channels	✓	16 digital channels	✓
Waveform generator(optional)		support	✓	support	✓



SIGLENT SDS800X HD



Rigol DHO800

Key Specifications

Channels	2/4	✓	2/4	✓
Model	SDS802X HD(70MHz、2CH) SDS812X HD(100MHz、2CH) SDS822X HD(200MHz、2CH) SDS804X HD(70MHz、4CH) SDS814X HD(100MHz、4CH) SDS824X HD(200MHz、4CH) (no EXT)	✓	DHO802(70MHz、2CH) DHO812(100MHz、2CH) DHO804(70MHz、4CH) DHO814(100MHz、4CH) (2CH-EXT)	✗
Bandwidth	70/100/200 MHz	✓	70/100 MHz	✗
Vertical resolution	12-bit	✓	12-bit	✓
Sample rate (Max.)	One channel mode: 2 GSa/s, Two channel mode: 1 GSa/s, Four channel mode: 500 MSa/s	✓	Two-channel model: 1.25 GSa/s (single-channel) 625 MSa/s (full-channel) four-channel model: 1.25 GSa/s (single-channel) 625 MSa/s (dual-channel) 312.5 MSa/s (full-channel)	✗

Memory depth (Max.)	SDS802/804/812/814X HD: One channel mode: 50 Mpts/ch Two channel mode: 25 Mpts/ch Four channel mode: 10 Mpts/ch SDS822/824X HD: One channel mode: 100 Mpts/ch Two channel mode: 50 Mpts/ch Four channel mode: 25 Mpts/ch	✓	Two-channel model: 25 Mpts (single-channel), 10 Mpts (full-channel) four-channel model: 25 Mpts (single-channel[1]), 10 Mpts (dual-channel), 1 Mpts (fullchannel)	✗
Waveform capture rate (Max.)	SDS802/804/812/814X HD: 80,000 wfms/s (Normal) SDS822/824X HD: 120,000 wfms/s (Normal)	○	30,000 wfms/s (Vector Mode) 1,000,000 wfms/s (UltraAcquire Mode)	○
Noise floor	70 μ Vrms(200MHz)	✓	N/A	
Other Specifications				
timebase Scale	1 ns/div~1 ks/div	✓	5 ns/div~500 s/div	✗
Vertical scale	1 M Ω : 0.5 mV/div – 10 V/div	✓	500 μ V - 10V/div (500 μ V/div is a digital amplification of 1 mV/div)	✓
Rise time	SDS804X HD、SDS802X HD: Typical 5ns SDS814X HD、SDS812X HD:	✓	DHO802、DHO804: \leq 5 ns DHO812、DHO814: \leq 3.5 ns	✓
Peak detect	2 ns	✗	Capture 1.6 ns glitches	✓
Time base Accuracy	\pm 25ppm	✓	\pm 25 ppm \pm 5 ppm/year	✓
DC gain accuracy(typical)	\pm 1.5 % (0.5 mV/div ~ 4.95 mV/div) \pm 0.5 % (5 mV/div ~ 10 V/div)	✓	\pm 1% (>5mV/div, FullScale) \pm 2% (\leq 5mV/div, FullScale)	✗
I/O	USB 2.0 Host x2, USB 2.0 Device, 10 M / 100 M LAN, Auxiliary output (TRIG OUT, PASS/	✗	USB2.0 Host, USB2.0 Device, LAN , AUX OUT, EXT , HDMI, Type-C	✓
Display	7" TFT-LCD with capacitive touch screen (1024*600)	✓	7" capacitive multi-touch screen	✓

Dimensions		132.6 mm (W) x 151 mm (H) x 312 mm (D)	✗	265.35 mm (W) x 161.75 mm (H) x 77.38 mm (D)	✓
Weight		N.W:2.6 kg; G.W: 3.8 kg	✗	N.W: 1.78 kg; G.W: 2.78 kg	✓
Common Specifications					
Search Mode		Edge, Slope, Pulse, Interval, Runt	✓	Edge, Pulse	✗
Navigate Mode		support	✓	support	✓
History Mode		80,000 frames/s	✗	500,000 frames/s	✓
Digital Voltmeter		unsupport	✗	3 digits	✓
Counter		support	✓	support	✓
Trend and Track		support	✓	unsupport	✗
Formula Editor		support	✓	unsupport	✗
Zoom (vertical&horizontal)		support	✓	unsupport	✗
Web		support	✓	support	✓
Important specifications					
Trigger type		Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video, Qualified, Nth edge, Delay, Setup/Hold time, IIC, SPI, RS232/	✓	Edge, Pulse, Slope, Video, Pattern,Duration, Timeout, Runtr, Window, Delay,Setup/Hold, Nth Edge, RS232/UART, I2C, SPI	✗
Serial Decoder	Decoders	2	✗	4	✓
	Decoder type	standard: I2C, SPI, RS232/UART, CAN LIN	✓	Standard: Parallel, RS232/UART, I2C, SPI	✓
Measurement	Measurement Parameters (Vertical+Horizontal+other)	66 (19+17+30)	✓	41 (17+16+8)	✗
	Statistics	Current, Mean, Min, Max, Sdev, Count, Histogram, Trend, Track	✓	N/A	✗
Trace		F1,F2,F3,F4	✓	Math1 to Math4	✓

Math	Operation	FFT, Filter, +, -, x, ÷, $\int dt$, d/dt , $\sqrt{\quad}$, Identity, Negation, $ x $, Sign, e^x , 10^x , \ln , \lg , Interpolation, Max hold, Min hold, ERES, Average, Formula Editor	✓	A+B, A-B, A×B, A/B, FFT, A&&B, A B, A^B, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, AX+B, LowPass, HighPass, BandPass, BandStop	✓
	FFT	2 Mpts	✓	1 Mpts	✗
Mask Test		support	✓	support	✓
Bode Plot		support	✓	unsupport	✗
Power Analysis(optional)		support	✓	unsupport	✗
Digital channel(optional)		16 digital channels	✓	unsupport	✗
Waveform generator(optional)		support	✓	unsupport	✗



SIGLENT SDS800X HD



Rigol DHO900

Key Specifications

Channels	2/4	✓	4	✓
Model	SDS802X HD(70MHz、2CH) SDS812X HD(100MHz、2CH) SDS822X HD(200MHz、2CH) SDS804X HD(70MHz、4CH) SDS814X HD(100MHz、4CH) SDS824X HD(200MHz、4CH) (no EXT)	✗	DHO914 (125MHz、4CH) DHO914S(125MHz、4CH) DHO924 (250MHz、4CH) DHO924S(250MHz、4CH) (no EXT)	✓
Bandwidth	70/100/200 MHz	✗	125/250 MHz	✓
Vertical resolution	12-bit	✓	12-bit	✓
Sample rate (Max.)	One channel mode: 2 GSa/s, Two channel mode: 1 GSa/s, Four channel mode: 500 MSa/s	✓	1.25 GSa/s (single-channel) 625 MSa/s (dual-channel) 312.5 MSa/s(full-channel)	✗

Memory depth (Max.)	SDS802/804/812/814X HD: One channel mode: 50 Mpts/ch Two channel mode: 25 Mpts/ch Four channel mode: 10 Mpts/ch SDS822/824X HD: One channel mode: 100 Mpts/ch Two channel mode: 50 Mpts/ch Four channel mode: 25 Mpts/ch	✓	50 Mpts (single-channel) 25 Mpts (dual-channel) 10 Mpts (fullchannel)	✗
Waveform capture rate (Max.)	SDS802/804/812/814X HD: 80,000 wfms/s (Normal) SDS822/824X HD: 120,000 wfms/s (Normal)	○	30,000 wfms/s (Vector Mode) 1,000,000 wfms/s (UltraAcquire Mode)	○
Noise floor	70 μ Vrms(200MHz)	✓	N/A	
Other Specifications				
timebase Scale	1 ns/div~1 ks/div	✓	2 ns/div~500 s/div	✗
Vertical scale	1 M Ω : 0.5 mV/div – 10 V/div	✓	200 μ V - 10V/div (200 μ V/div is a digital amplification of 1 mV/div)	✓
Rise time	SDS804X HD、SDS802X HD: Typical 5ns SDS814X HD、SDS812X HD:	✗	DHO914、DHO915: \leq 2.8 ns DHO924、DHO924S: \leq 1.4 ns	✓
Peak detect	2 ns	✗	Capture 1.6 ns glitches	✓
Time base Accuracy	\pm 25ppm	✓	\pm 25 ppm \pm 5 ppm/year	✓
DC gain accuracy(typical)	\pm 1.5 % (0.5 mV/div ~ 4.95 mV/div) \pm 0.5 % (5 mV/div ~ 10 V/div)	✓	\pm 1% (>5mV/div, FullScale) \pm 2% (\leq 5mV/div, FullScale)	✗
I/O	USB 2.0 Host x2, USB 2.0 Device, 10 M / 100 M LAN,	✗	USB2.0 Host, USB2.0 Device, LAN , AUX OUT, AFG OUT, HDMI, Type-C	✓
Display	7" TFT-LCD with capacitive touch screen (1024*600)	✓	7" capacitive multi-touch screen	✓
Dimensions	132.6 mm (W) x 151 mm (H) x 312 mm (D)	✗	265.35 mm (W) x 161.75 mm (H) x 77.28 mm (D)	✓

Weight		N.W:2.6 kg; G.W: 3.8 kg	✗	N.W: 1.78 kg; G.W: 2.78 kg	✓
Common Specifications					
Search Mode		Edge, Slope, Pulse, Interval, Runt	✓	Edge, Pulse	✗
Navigate Mode		support	✓	support	✓
History Mode		80,000 frames/s	✗	500,000 frames/s	✓
Digital Voltmeter		unsupport	✗	3 digits	✓
Counter		support	✓	support	✓
Trend and Track		support	✓	unsupport	✗
Formula Editor		support	✓	unsupport	✗
Zoom (vertical&horizontal)		support	✓	unsupport	✗
Web		support	✓	support	✓
Important specifications					
Trigger type		Edge, Slope, Pulse width, Window, Runt, Interval, Dropout, Pattern, Video, Qualified, Nth edge, Delay, Setup/Hold time, IIC, SPI, RS232/UART, CAN, LIN	✓	Edge, Pulse, Slope, Video, Pattern, Duration, Timeout, Runtr, Window, Delay, Setup/Hold, Nth Edge, RS232/UART, I2C, SPI, CAN, LIN	✓
Serial Decoder	Decoders	2	✗	4	✓
	Decoder type	standard: I2C, SPI, RS232/UART, CAN, LIN	✗	Standard: Parallel, RS232/UART, I2C, SPI, CAN, LIN	✓
Measurement	Measurement Parameters (Vertical+Horizontal+ other)	66 (19+17+30)	✓	41 (17+16+8)	✗
	Statistics	Current, Mean, Min, Max, Sdev, Count, Histogram, Trend, Track	✓	N/A	
	Trace	F1,F2,F3,F4	✓	Math1 to Math4	✓

Math	Operation	FFT, Filter, +, -, x, ÷, ∫dt, d/dt, √, Identity, Negation, x , Sign, ex, 10x, ln, lg, Interpolation, Max hold, Min hold, FBFS, Average, Formula Editor	✓	A+B, A-B, A×B, A/B, FFT, A&&B, A B, A^B, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, AX+B, LowPass, HighPass, BandPass, BandStop	✓
	FFT	2 Mpts	✓	1 Mpts	✗
Mask Test		support	✓	support	✓
Bode Plot		support	✓	only available for the S model	✗
Power Analysis(optional)		support	✓	unsupport	✗
Digital channel(optional)		16 digital channels	✓	support	✓
Waveform generator(optional)		support	✓	support (only available for the S model)	✓