

SIGLENT TECHNOLOGIES

The Best Value in Electronic Test & Measurement



SHS800X/SHS1000X Handheld Oscilloscope



■ SHS800X



■ SHS1000X

- SHS1000X

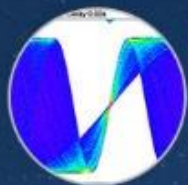
SHS1102X - 100 MHz

SHS1202X - 200 MHz

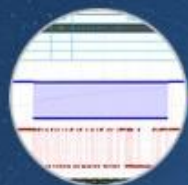
- SHS800X

SHS810X - 100 MHz

SHS820X - 200 MHz



Oscilloscope



Serial Trigger
and decode

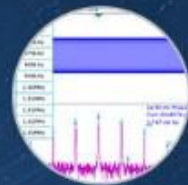


Multimeter

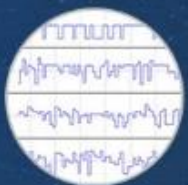
Isolation voltage : CAT III 600Vrms, CAT II 1000Vrms (SHS1000X)



Spectrum Analysis



Data Logger



SHS800X/SHS1000X Handheld Oscilloscope

Five in One

- Long battery life of **5.5** hours
- True RMS Multimeter
- **IP51** waterproof and dustproof
- Standard protocol analysis
- Waveform recording up to **22** hours

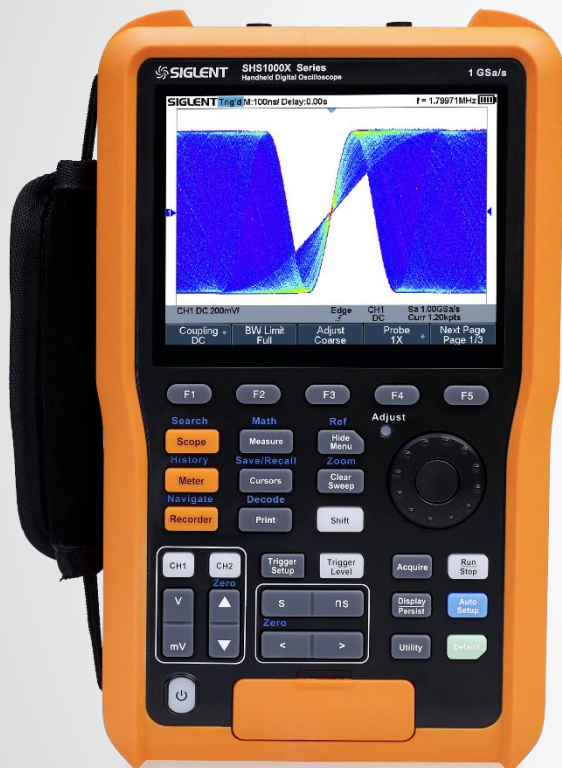
PART ONE

01

Basic **P**arameters

The Best Value In Electronic Test & Measurement

SHS800X/SHS1000X Handheld Oscilloscope



SHS800X-Parameters



		SHS810X	SHS820X
Oscilloscope	Bandwidth	100 MHz	200 MHz
	Sample Rate	1 GSa/s	
	Channels	2 CH	
	Memory Depth	12 Mpts	
	Waveform capture rate	100,000 wfm/s, 400,000 wfm/s (sequence mode)	
	Trigger type	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video	
	Serial Trigger and decoder	IIC, SPI, UART, CAN, LIN	
	Max input Voltage	CATII 300Vrms Between BNC Signal and Protecting Earth CATII 30Vrms Between BNC GND and Protecting Earth CATII 300Vrms Between BNC Signal and BNC GND	
	Probe	PP510	PP215
Recorder	Sample Logger	The Max sample rate is 25 kSa/s, the Min sample rate is 1 Sa/s	
	Measurement Logger	The Max interval is 10 minutes, the Min interval is 0.1second. The Max items of logging is 4	
Multimeter	Max input Voltage	CAT III 300Vrms, CAT II 600Vrms	
	Measurement type	DCV, ACV, DC, AC, Resistance, Capacitance, Diode, Continuity	
	Features	measurement value recorder, hardware based True RMS AC Voltage/Current measurement multimeter	

SHS1000X-Parameters

		SHS1102X	SHS1202X
Oscilloscope	Bandwidth	100 MHz	200 MHz
	Sample Rate	1 GSa/s	
	Channels	2 CH	
	Memory Depth	12 Mpts	
	Waveform capture rate	100,000 wfm/s, 400,000 wfm/s (sequence mode)	
	Trigger type	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video	
	Serial Trigger and decoder	IIC, SPI, UART, CAN, LIN	
	Max input Voltage	CAT III 600Vrms, CAT II 1000Vrms Between BNC Signal and Protecting Earth CAT III 600Vrms, CAT II 1000Vrms Between BNC GND and Protecting Earth CAT III 300Vrms Between BNC Signal and BNC GND	
	Probe	PB925	
Recorder	Sample Logger	The Max sample rate is 25 kSa/s, the Min sample rate is 1 Sa/s	
	Measurement Logger	The Max interval is 10 minutes, the Min interval is 0.1second. The Max items of logging is 4	
Multimeter	Max input Voltage	CAT III 600Vrms, CAT II 1000Vrms	
	Measurement type	DCV, ACV, DC, AC, Resistance, Capacitance, Diode, Continuity	
	Features	measurement value recorder, hardware based True RMS AC Voltage/Current measurement multimeter	



Packing List



Five in one

- 2-CH Oscilloscope
- True RMS Multimeter
- Recorder
 - Sample Logger
 - Measurement Logger
- Serial Trigger and decode
- FFT spectrum analysis



Higher protection level, **longer** battery life

- It is dust and waterproof certified to IP51, proving it is capable of testing in a variety of harsh environments.
- The rechargeable 6900 mA high-capacity lithium battery is UL certified and delivers up to 5.5 hours of work without a charge, greatly improving safety and battery life. The battery can be charged in the cabin or removed and charged with an external charger.
- The included carrying case has ample room for the instrument, probes and other accessories. Perfect for field work and carrying on business trips.



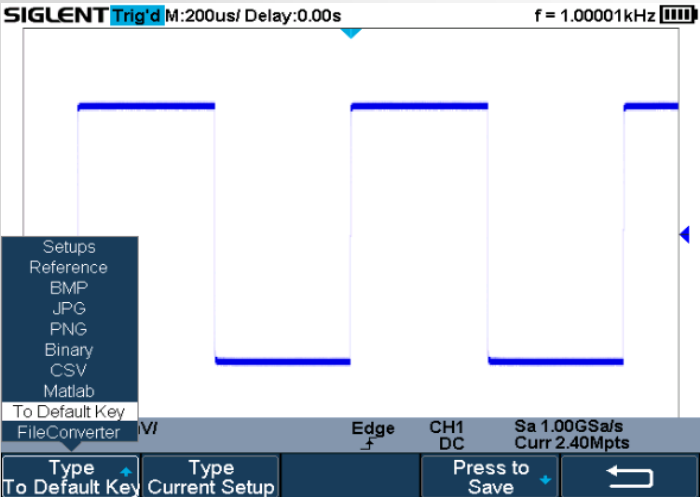
Quick data storage



Save data or waveform pictures with one click







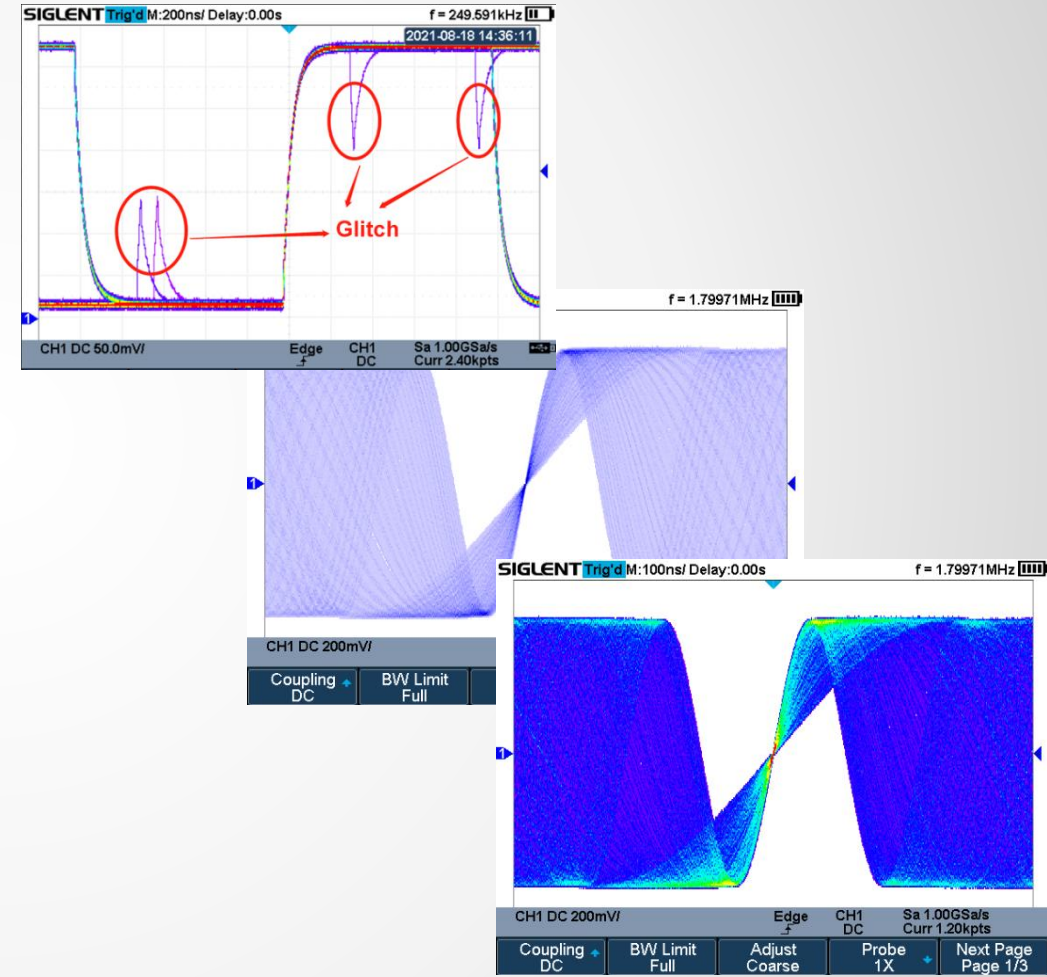
The customizable Default button saves the settings of the oscilloscope as the default settings, and you can quickly recall the settings when you press the Default button. There is no need to spend time debugging instrument every time during field testing.



New platform – based on SPO technology

SPO technology

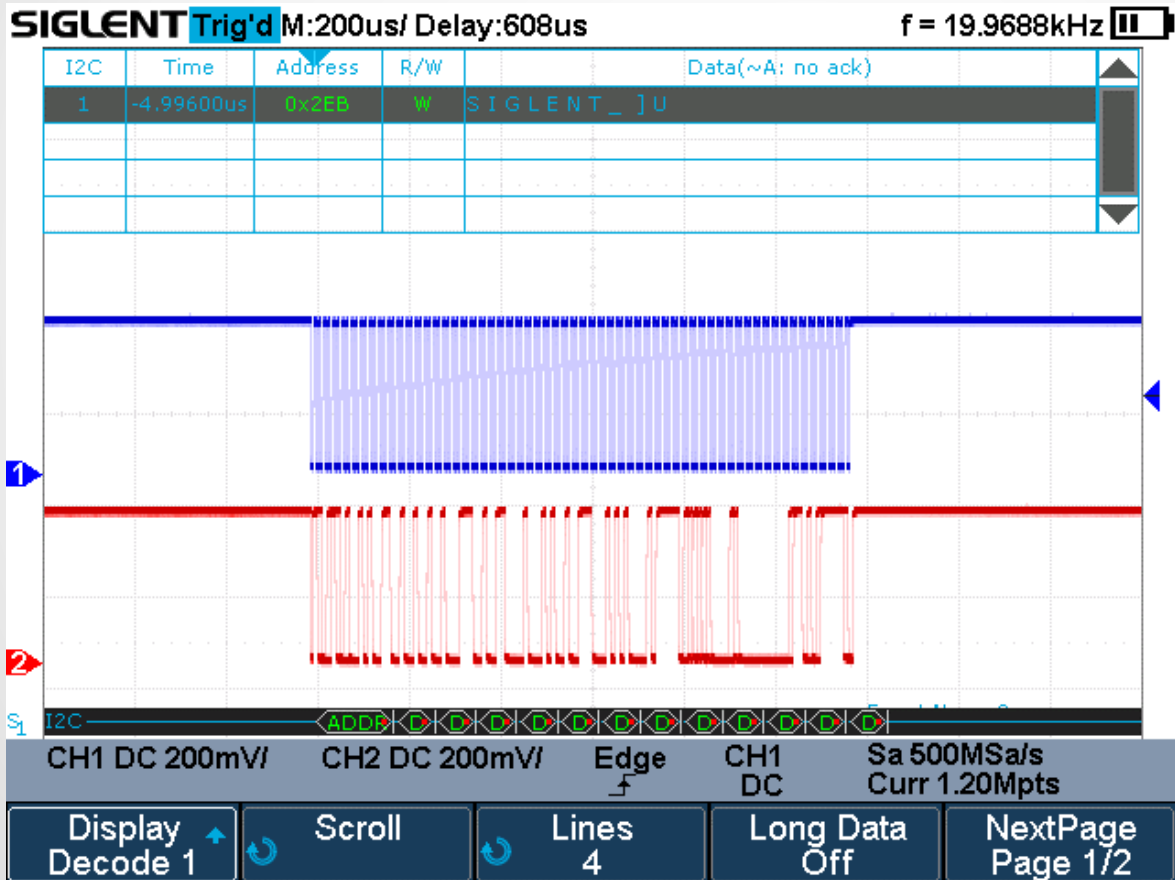
-  Waveform capture rates up to 100,000 wfm/s (normal mode) and 400,000 wfm/s (sequence mode)
-  Easily capture unusual or low-probability events.
-  Digital trigger system, more stable trigger
-  Supports 256-level intensity grading and color temperature display modes



Standard **Serial** trigger and decode



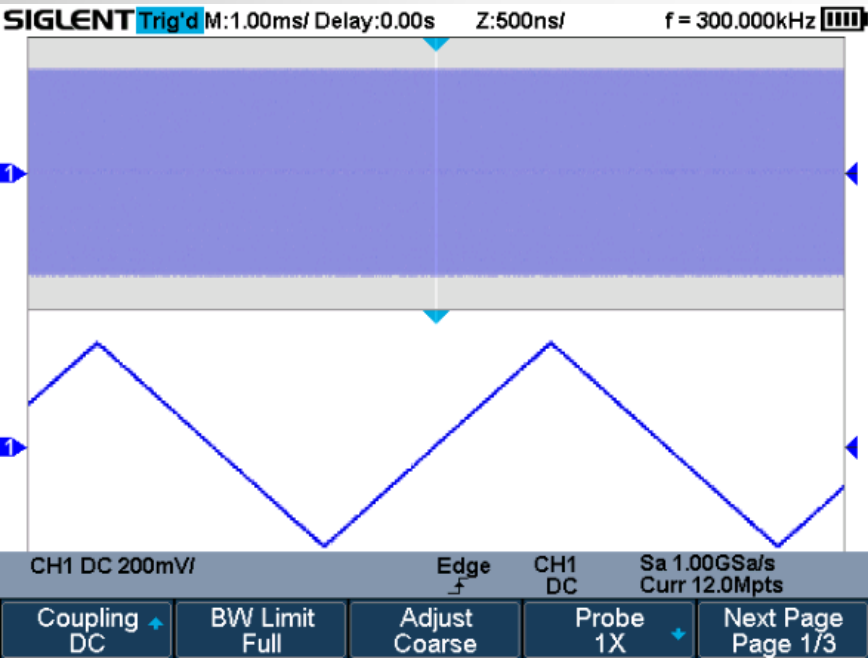
- Standard Serial trigger and decode: IIC, SPI, UART, CAN, LIN, widely used in automotive and embedded industries



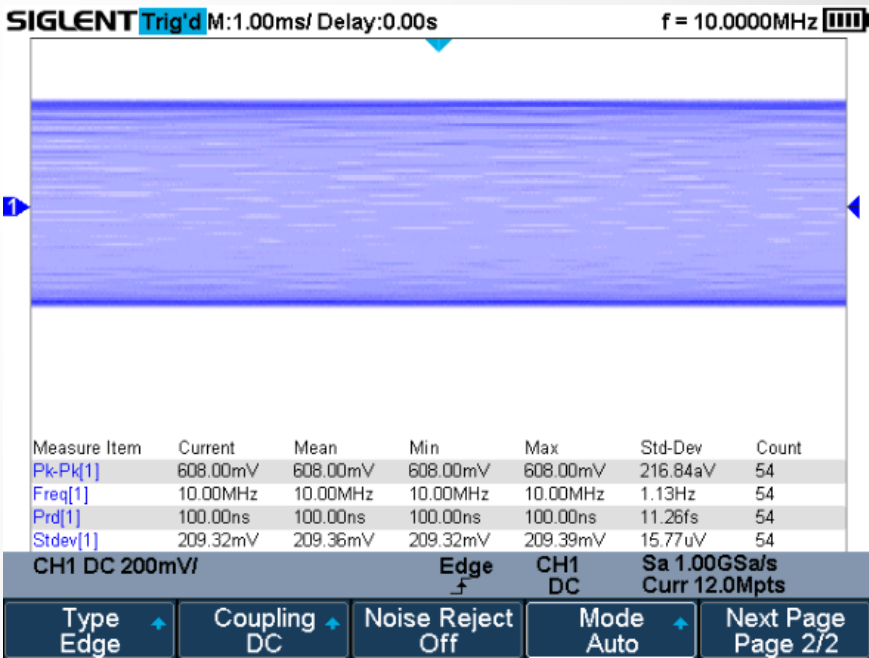
Deep Memory



- 12 Mpts storage depth enable users to oversample to capture for longer periods at higher resolution and use the zoom feature to see more details within each signal.



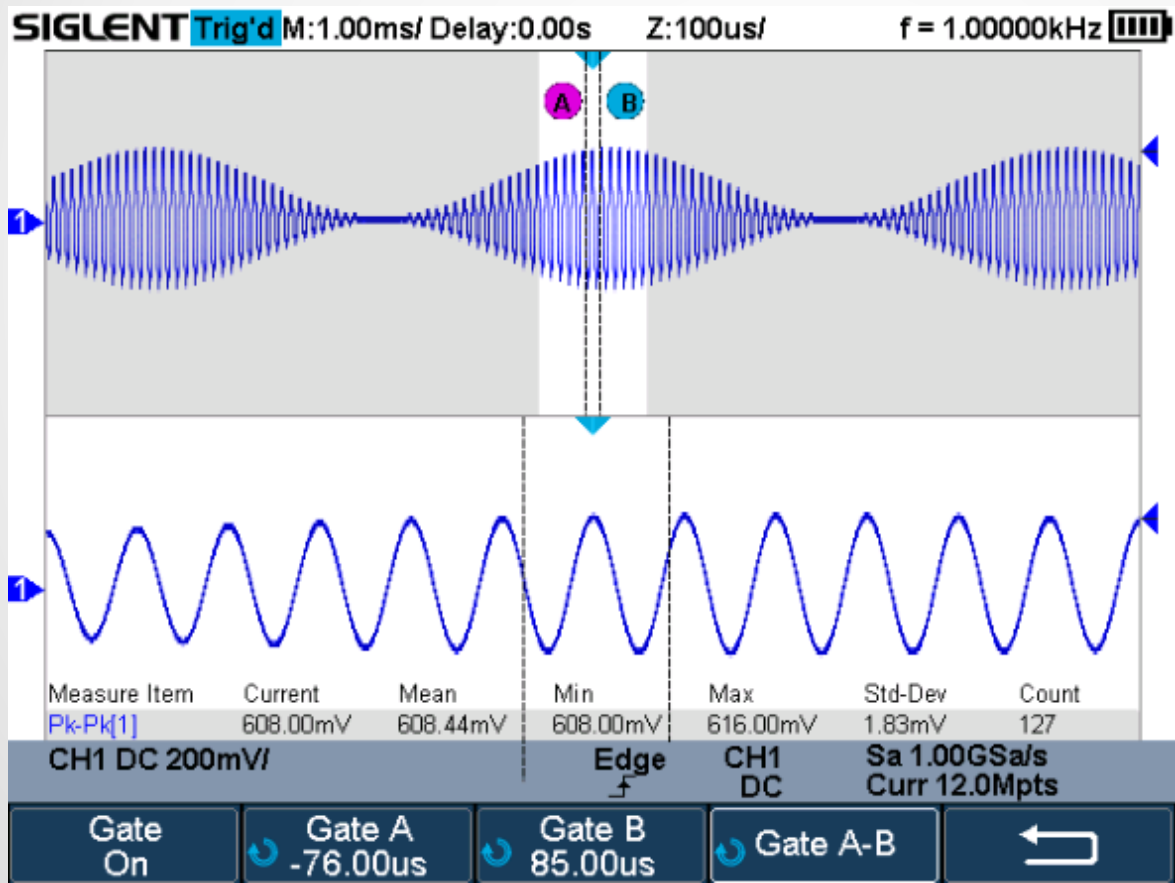
- 12 Mpts full storage point measurement to improve measurement accuracy. Math co-processor reduces measurement time and increases ease of use.



Gate and Zoom

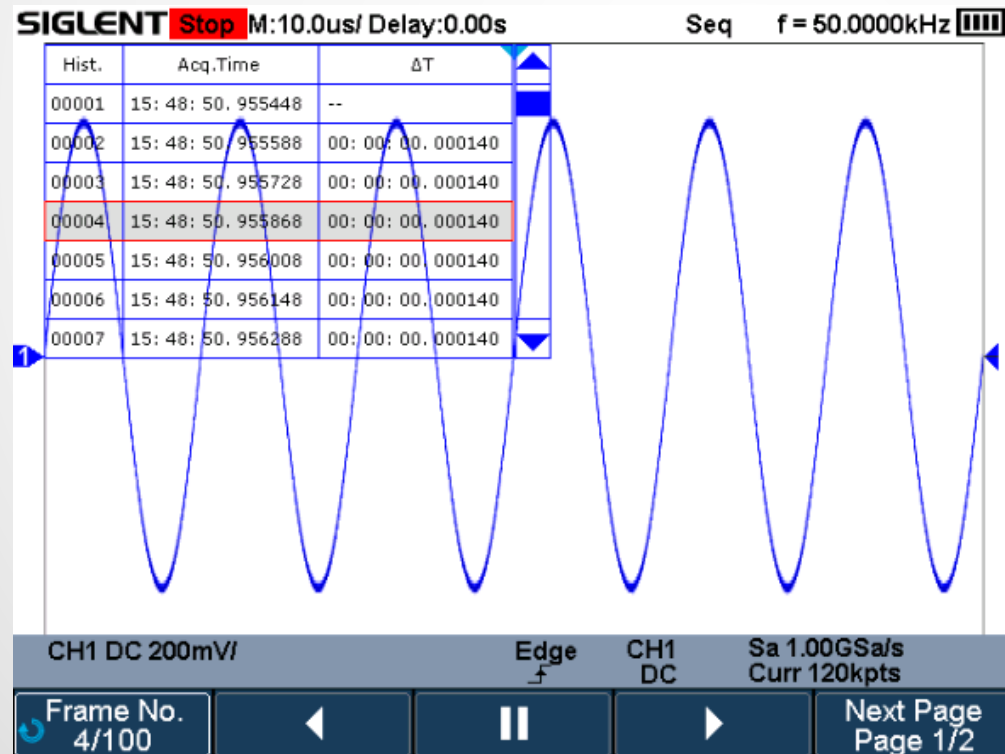


- Gate and Zoom measurements allow users to select any waveform for measurement and data statistics. It is beneficial to eliminate invalid and redundant data and ensure the validity and flexibility of measurement.



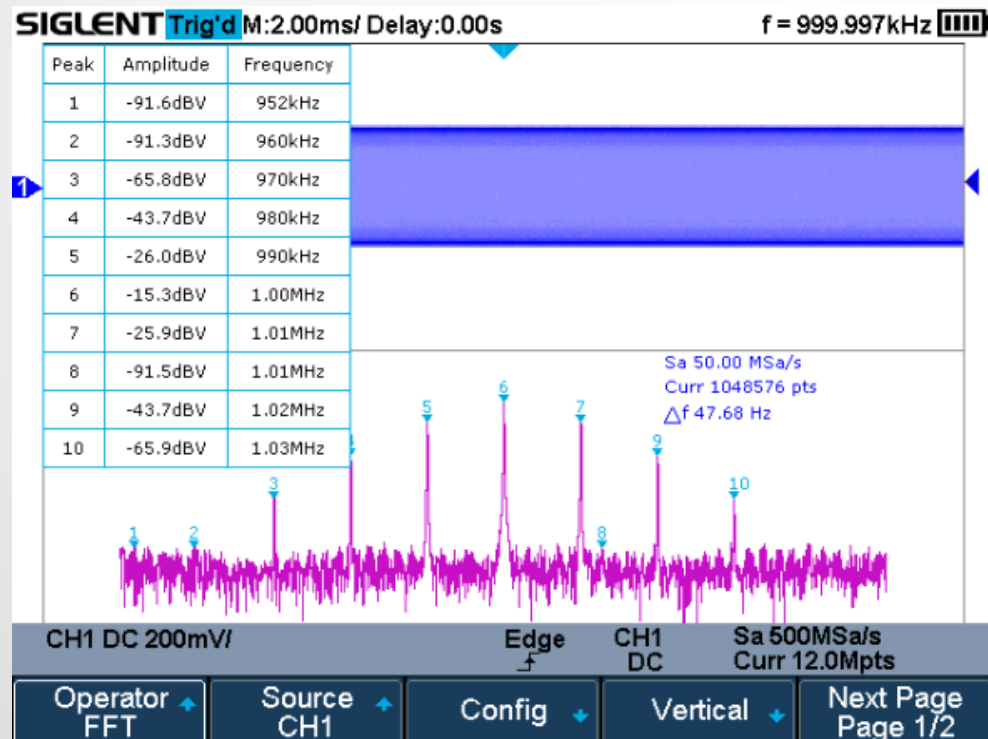
History and Sequence

- Sequential mode ignores long time intervals that are not of interest and stores only the waveform frames of interest. The dead time is greatly reduced and storage space is saved.
- With the history mode that is resident in the background, you can easily observe the time point of each captured waveform for easy analysis.



Powerful 1 Mpts FFT operation capability

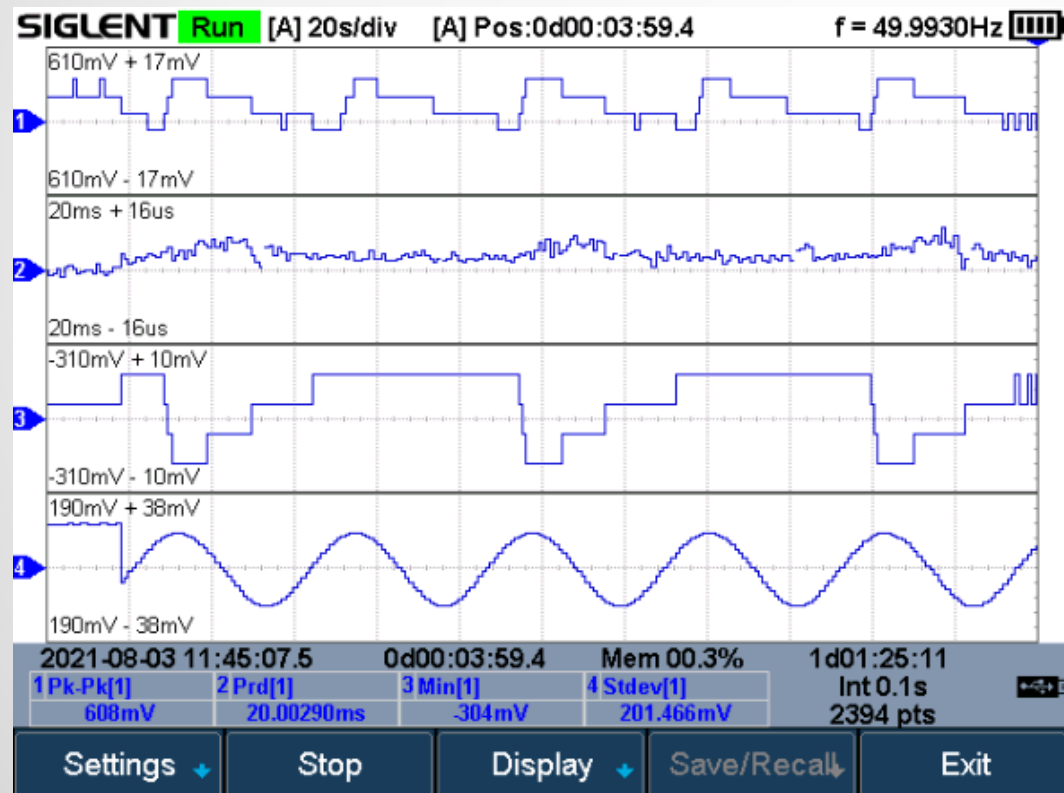
- SHS800X not only provides time domain analysis capabilities, but also provides frequency domain analysis capabilities.
- Up to 1M point FFT, greatly improving the frequency resolution. When analyzing harmonics, the unique Peaks, Markers marking function can also directly display the amplitude of the corresponding frequency point.



Hardware-based True **RMS** multimeter

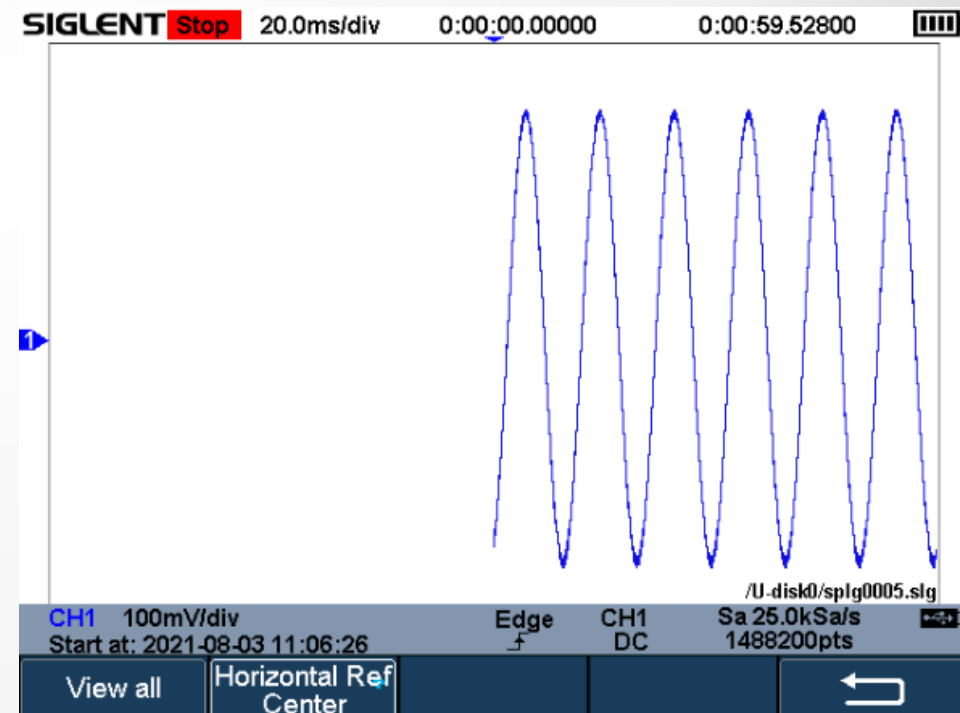
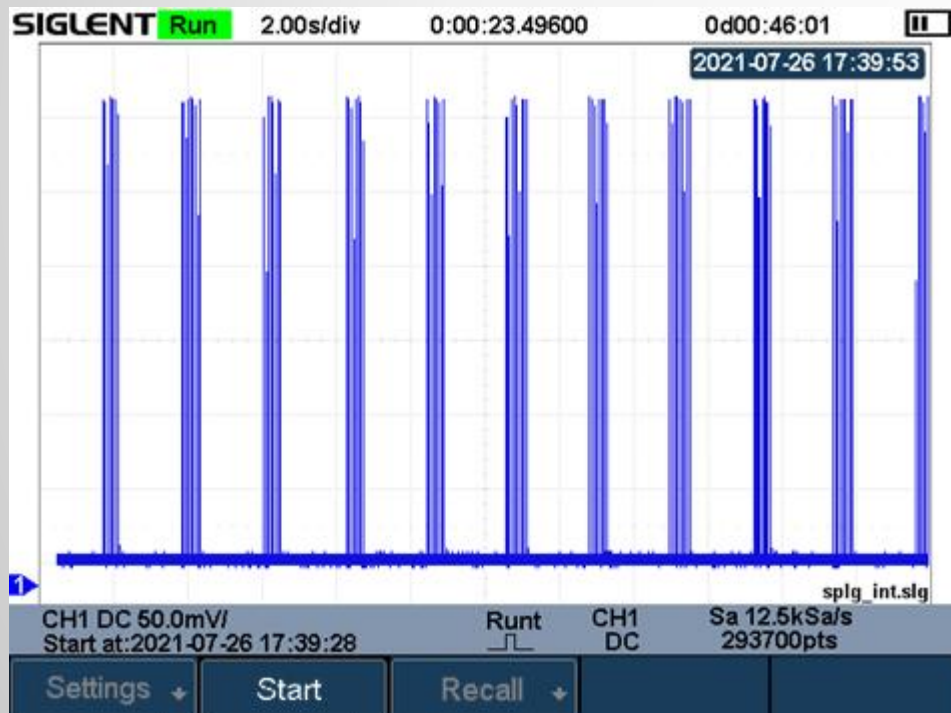


- Integrated 6000 counts (~ 3.5 digit) digital multimeter
- Hardware-Based True RMS Measurement
- Support to draw up to 4-channel measurement value trend graph, and can store 3.5M measurement points



Record waveforms for up to 22 hours

- Sampling rate 1 Sa/s ~ 25 kSa/s
- Internal storage 50 MB, external 2 GB
- Waveform recorder function continuously records waveforms for up to 22 hours at a sampling rate of 25 kSa/s.



Full Isolation- **only** SHS1000X



- The SHS1000X series features full isolation between the two oscilloscope channels, one multimeter channel, power adapter and the USB host/device port.
- The max voltage input to the analog scope inputs is CATIII 600Vrms, CATII 1000Vrms.
- The max input for the multimeter is CATIII 600Vrms, CATII 1000Vrms.



Model	Siglent SHS800X		Siglent SHS800	
Bandwidth	200/100 MHz	✓	200/150/100/60 MHz	✓
Bandwidth Limit	20 MHz	✓	20 MHz	✓
Scope Channel	2	✓	2	✓
CH to CH isolation	DC-Max BW: >40 dB	✓	>35 dB	✗
Sampling rate	1 Gsa/s	✓	1 Gsa/s; 500MSa/s	✓
Memory Depth	12 Mpts in total	✓	2 Mpts/1 Mpts/32 kpts/16 kpts	✗
Waveform Capture Rate	100,000 wfm/s (normal mode), 400,000 wfm/s (sequence mode)	✓	-	✗
ERES	Enhance bits:0.5, 1.5, 2, 2.5, 3	✓	-	✗
Vertical Scale	2mV/div-100 V/div	✓	2mV/div ~ 100V/div	✓
DC Gain Accuracy	$\leq \pm 2\%$: ≥ 10 mV/div $\leq \pm 3\%$: < 10 mV/div	✓	5mv/div-100v/div: $\leq \pm 3\%$; 2mv/div: $\leq \pm 4\%$	✗
Timebase Scale	1.0 ns/div-100 s/div	✓	2.5ns/div ~ 50s/div; 5.0ns/div ~ 50s/div	✗
Trigger Types	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video	✓	Edge, Pulse Width, Video, Slope, Alternative	✗
Serial Trigger and decoder	IIC, SPI, UART, CAN, LIN	✓	-	✗
Measurement Statistics	Current, Mean, Min, Max, Stdev, Count	✓	-	✗
DMM Counts	6,000 counts	✓	6,000 counts	✓
True RMS	Hardware implemented	✓	Support	
Sample/Waveform Recorder	Up to 22 hours at 25 kSa/s, internal 50 MB, external 2 GB	✓	800k points	✗
Measurement Logger	3.5 Mpts, 4 channels	✓	1.2 Mpts, 1 channel	✗
Data Transfer	PC	✓	PC	✓
Other functions	Sequence, Search, Intensity and color temperature display, History, 1 Mpts FFT	✓	-	✗
IP Rating	IP51	✓	-	✗
Battery	6900 mA 5.5 hours	✓	5000 mA, 7.4 VDC, 5 hours	✗
Interface	USB Host(Isolation), USB Device	✓	USB Device,USB Host	✓
Size	276*168*68 mm	✓	259.5*163.2*53.3 mm	✓
Weight	1.75 kg	✗	1.5 kg	✓
Display	5.6" 640*480 LCD Screen	✓	5.7" LCD	✓



Model	Siglent SHS1000X		Siglent SHS1000	
Bandwidth	200/100 MHz	✓	100/60 MHz	✗
Bandwidth Limit	20 MHz	✓	20 MHz	✓
Scope Channel	2	✓	2	✓
CH to CH isolation	DC-Max BW: >40 dB	✓	>35 dB	✗
Max. Floating Voltage	CATIII 600 Vrms, CATII 1000 Vrms	✓	CATIII 600 Vrms, CATII 1000 Vrms	✓
Sampling rate	1 Gsa/s	✓	1 Gsa/s	✓
Memory Depth	12 Mpts in total	✓	2 Mpts	✗
Waveform Capture Rate	100,000 wfm/s (normal mode), 400,000 wfm/s (sequence mode)	✓	-	✗
ERES	Enhance bits:0.5, 1.5, 2, 2.5, 3	✓	-	✗
Vertical Scale	5 mV/div-100 V/div	✓	5 mV/div – 100 V/div	✓
DC Gain Accuracy	≤±2%: ≥10 mV/div ≤±3%: <10 mV/div	✓	5 mv/div-100 v/div: ≤ ±3%	✗
Timebase Scale	1.0 ns/div-100 s/div	✓	2.5ns/div ~ 50s/div	✗
Trigger Types	Edge, Slope, Pulse Width, Window, Runt, Interval, Dropout, Pattern, Video	✓	Edge, Pulse Width, Video, Slope, Alternative	✗
Serial Trigger and decoder	IIC, SPI, UART, CAN, LIN	✓	-	✗
Measurement Statistics	Current, Mean, Min, Max, Stdev, Count	✓	-	✗
DMM Counts	6,000 counts	✓	6,000 counts	✓
True RMS	Hardware implemented	✓	Support	✓
Sample/Waveform Recorder	Up to 22 hours at 25 kSa/s, internal 50 MB, external 2 GB	✓	800k points	✗
Measurement Logger	3.5 Mpts, 4 channels	✓	1.2 Mpts, 1 channel	✗
Data Transfer	PC	✓	PC	✓
Other functions	Sequence, Search, Intensity and color temperature diaplay, History, 1 Mpts FFT	✓	-	✗
IP Rating	IP51	✓	-	✗
Battery	6900mA , 4 hours	✓	5000 mAh, 4 hours	✓
Interface	USB Host(Isolation), USB Device	✓	USB Device,USB Host	✓
Size	276*168*68 mm	✓	259.5*163.2*53.3 mm	✓
Weight	1.75 kg	✗	1.5 kg	✓
Display	5.6" 640*480 LCD Screen	✗	5.7" LCD	✓

Thank You



<https://thelabeshop.com/collections/oscilloscopes-portable>

The Best Value in Electronic Test & Measurement

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