

SHS 1000 Series Isolated 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
- Education and research

Features and Benefits

- Isolated oscilloscope channels, CAT II 1000V and CAT III 600V
- 60MHz/100MHz bandwidth, 1G sampling rate, 2M memory depth, 7M recording length
- Combines the functions of oscilloscope, multimeter and recorder
- 32 types auto-measurements
- Support trend analysis, waveform recorder function
- Built-in lithium battery
- 5.7 inches color TFT-LCD

Specifications

Model	SHS1102	SHS1062
Bandwidth	100MHz	60MHz
Rise time	≤3.5ns	≤5.8ns
Real time sampling rate	1GSa/s	
Equivalent sampling rate	50GSa/s	
Vertical sensitivity	5mV-100V/div	
Time base range	2.5ns-50s/div Scan: 100ms-50s/div	5ns-50s/div
Depth memory	2Mpts	
Triggering	Edge, Pulse, Video, Slope, Alternative	
Vertical resolution	8bit	
Hardware counter	6 digit triggering frequency counter	
Interface	USB Device, USB Host	
Math operation	+, -, *, /, FFT	

SHS 1000 Series Isolated Handheld Digital Oscilloscope

Multimeter Specification

Maximum resolution	6000 Counts	
Item	Range	Accuracy
DC voltage	60mV 60mV—1000V	$\pm 1\% \pm 15$ digit $\pm 1\% \pm 5$ digit
AC voltage	60mV 60mV—750V	$\pm 1\% \pm 15$ digit $\pm 1\% \pm 5$ digit
DC current	60mA 6A—10A	$\pm 1\% \pm 5$ digit $\pm 1.5\% \pm 5$ digit
AC current	60mA 6A—10A	$\pm 1\% \pm 5$ digit $\pm 1.5\% \pm 5$ digit
Capacitance	40nF 400nF—400 μ F	$\pm 3\% \pm 10$ digit $\pm 4\% \pm 5$ digit
Resistance	600 Ω – 60M Ω	$\pm 1\% \pm 5$ digit
Continuity	< 50 Ω Buzzer sounds	
Diode	0V–2V	
Trend plot	1.6M points	
Recorder	7M points	
Measuring mode	Manual/Auto	

Isolation Level

Max input voltage	
Input by input port directly	CAT II 300V
Input by 10: 1 probe	CAT II 1000V, CAT III 600V
The max input voltage of multimeter	DC 1000V, AC 750V
Max floating voltage	
Float voltage between BNC reference and earth ground	CAT II 1000V, CAT III 600V
Float voltage between BNC reference	CAT II 1000V, CAT III 600V
Float voltage between multimeter reference and earth ground	CAT II 600V, CAT III 300V
Security: Isolated scopemeter should be designed according to the standard of level II and pollution degree level II, which applies to measure 1000V. Or according to the standard of level III and pollution degree level II, which apply to measure 600V.	

General Feature

Display	5.7 inches color TFT–LCD, 320 * 234
Power supply	With battery or DC adapter to get power from outside
Power mode	Lithium battery: 7.4V 4500mAh, Battery lasts 3 hours; DC adapter: 100–240V 50/60Hz input 9V 4A output.
Net weight	1.5kg
Dimension	259.5mm*163.2mm*53.3mm
Accessories	Two Passive Probes, Multimeter pen, USB data cable, DC adapter, Manual, CD, Toolbox.

Standard Accessories



SHS 800 Series Handheld Digital Oscilloscope

Specifications

Model	SHS810	SHS806
Bandwidth	100MHz	60MHz
Rise time	≤3.5ns	≤5.8ns
Real time sampling rate	1GSa/s	
Equivalent sampling rate	50GSa/s	
Vertical sensitivity	2mV–100V/div	
Time base range	2.5ns–50s/div Scan: 100ms–50s/div	5ns–50s/div
Memory depth	2Mpts	
Triggering	Edge, Pulse, Video, Slope, Alternative	
Vertical resolution	bit 8	
Triggering frequency counter	6 digit	
Interface	USB Device , USB Host	
Math operation	+, -, *, /, FFT	
Display	s 5.7 inch color TFT–LCD, 320 * 234	

Multimeter Specification

Display	6000 Counts	
Item	Range	Accuracy
DC voltage	60mV 60mV—1000V	± 1% ± 15digit ± 1% ± 5digit
AC voltage	60mV 60mV—750V	± 1% ± 15digit ± 1% ± 5digit
DC current	60mA 6A—10A	± 1% ± 5digit ± 1.5% ± 5digit
AC current	60mA 6A—10A	± 1% ± 5digit ± 1.5% ± 5digit
Capacitance	40nF 400nF—400 μ F	± 3% ± 10digit ± 4% ± 5digit
Resistance	600Ω – 60MΩ	± 1% ± 5digit
Continuity	< 50Ω Buzzer sounds	
Diode	0V–2V	
Trend plot	1.6M points	
Recorder	7M points	
Measuring mode	Manual/Auto	

General Feature

Power supply	Charging/Battery
Power mode	Lithium battery: 7.4V 5000mAh, Battery lasts 5 hours; DC adapter: 100–240V 50/60Hz input, 9V 4A output.
Net weight	1.5kg
Dimension	259.5mm*163.2mm*53.3mm
Accessories	Two passive probes, multimeter pen, USB data cable, DC adapter, manual, CD.

Ordinary Passive Voltage Probe

Model	PB 460	PP 510	PP 215	PP 430
Attenuation	1X/10X	1X/10X	1X/10X	1X/10X
Input capacitance	1M Ω /10M Ω	1M Ω /10M Ω	1M Ω /10M Ω	1M Ω /10M Ω
Input resistance	1 x :85pF–120pF	1 x :85pF–120pF	1 x :85pF–120pF	1 x :46pF
	10 x :18.5pF–22.5pF	10 x :18.5pF–22.5pF	10 x :16pF–20pF	10 x :12pF
Compensation scope	15pF–45pF	10pF–30pF	10pF–35pF	10pF–35pF
System bandwidth	1X: DC–6MHz	1X: DC–6MHz	1X: DC–6MHz	1X: DC–10MHz
	10X:DC–60MHz	10X:DC–100MHz	10X:DC–150MHz	10X:DC–300MHz
Input voltage	1X: < 300V DC +Peak AC	1X: < 300V DC +Peak AC	1X: < 300V DC +Peak AC	1X: < 300V DC +Peak AC
	10X: < 600V DC +Peak AC	10X: < 600V DC +Peak AC	10X: < 600V DC +Peak AC	10X: < 600V DC +Peak AC
Operating temperature range	-15 $^{\circ}$ C—+75 $^{\circ}$ C	-15 $^{\circ}$ C—+75 $^{\circ}$ C	-15 $^{\circ}$ C—+75 $^{\circ}$ C	+5 $^{\circ}$ C—+40 $^{\circ}$ C
Net weight	50g	50g	50g	50g
Cable length	120cm	120cm	120cm	120cm



Isolated Front End
(ISFE)



Specifications

Input voltage range	-600Vpk ~ +600Vpk
Attenuation ratio	200:1
Bandwidth	\leq 1MHz
Output voltage range	-3Vpk ~ +3Vpk
Working voltage	5V \pm 5%, USB power
Working current	<200mA
Float voltage between channel and ground	1000Vrms
Float voltage between each channel	2000Vrms
Input Resistance	9 M Ω