

Handheld Oscilloscope

SHS1000 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
- Floating signal measurements

Key Features

- Combines the functions of oscilloscope, multimeter and recorder in one
- Isolated oscilloscope channels, isolation level: CAT II 1000 V and CAT III 600 V
- 60 MHz/100 MHz bandwidth, 1 G sampling rate, 2 M memory depth, 7 M recording length
- Built-in lithium battery
- 5.7 inch color TFT-LCD

Specification

| Model | SHS1102 | SHS1062 |
|------------------------------|--|-----------------|
| Bandwidth | 100 MHz | 60 MHz |
| Rise time | ≤3.5 ns | ≤5.8 ns |
| Real time sampling rate | 1 GSa/s | |
| Equivalent sampling rate | 50 GSa/s | |
| Vertical sensitivity | 5 mV – 100 V/div | |
| Time base range | 2.5 ns – 50 ns/div Scan:100 ms – 50 s/div | 5 ns – 50 s/div |
| Memory depth | 2 Mpts | |
| Triggering | Edge, Pulse, Video, Slope, Alternative | |
| Vertical resolution | 8 bit | |
| Triggering frequency counter | 6 digits | |
| Data recorder | 7 M points | |
| Trend plot | 800 K/CH | |
| Interface | USB Device, USB Host | |
| Math operation | +, -, *, /, FFT | |

Multimeter Specification

| Maximum resolution | 6000 Counts | |
|--------------------|---------------------|---------------|
| Item | Range | Accuracy |
| DC voltage | 60 mV | ±1%±15 digit |
| | 600 mV – 1000 V | ±1%±5 digit |
| AC voltage | 60 mV | ±1%±15 digit |
| | 600 mV – 750 V | ±1%±5 digit |
| DC current | 60 mA – 600 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| AC current | 60 mA – 600 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| Capacitance | 40 nF | ±3%±10 digit |
| | 400 nF – 400 uF | ±4%±5 digit |
| Resistance | 600 Ω-60 MΩ | ±1%±5 digit |
| Continuity | <50 Ω Buzzer sounds | |
| Diode | 0 V – 2 V | |
| Trend plot | 1.2 M points | |
| Measuring mode | Manual/Auto | |

Handheld Oscilloscope

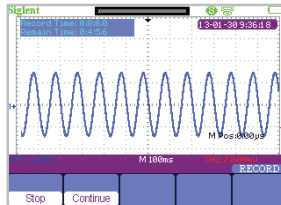
Isolation Level

| Max input Voltage | |
|---|-----------------------------|
| Input by input port directly | CATII 300 V |
| Input by 10: 1 probe | CATII 1000 V, CAT III 600 V |
| The Max input voltage of Multimeter | DC 1000 V, AC 750 V |
| Max floating voltage | |
| Float voltage between BNC reference and earth ground | CATII 1000 V, CAT III 600 V |
| Float voltage between BNC reference | CATII 1000 V, CAT III 600 V |
| Float voltage between multimeter reference and earth ground | CATII 600 V, CAT III 300 V |

Security: Isolated Handheld Digital Oscilloscope should be designed according to the standard of level II and pollution degree level II which apply to measure 1000 V. Or according to the standard of level III and pollution degree level III which apply to measure 600 V.

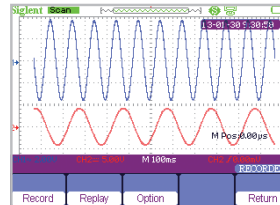
Multimeter Specification

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



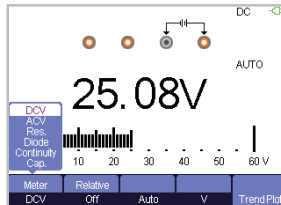
High-performance oscilloscope

- Bandwidth: 100 MHz, 60 MHz
- Real-time sampling rate: 1 GSa/s
- Memory depth: 2 Mpts.



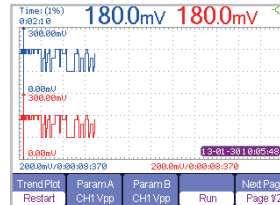
Data recorder function

- 7 M internal storage, up to 18 hours recording time
- USB port, up to 3000 hours recording time
- Record, replay function supported



High precision multimeter

- 6000 counts display
- Accurate measurement of DCV, ACV, DCI, ACI
- Accurate measurement of Resistance, Diode, Capacitance, Continuity



Trend Plot

- 32 measurement trend plot analyzer
- Scope: 800 k/CH points capacity, more than 24 hours recording
- Meter: 1.2 M points capacity 6000 hours recording time at 0.05 Sa/s

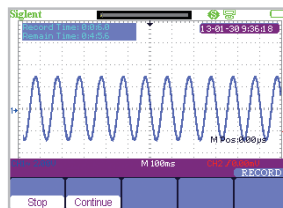


SHS800 Handheld Digital Oscilloscope



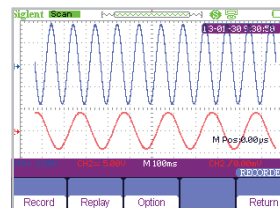
Application

- Automotive electronics, electric automobile test
- Power system strong electricity test
- Plant automation control system



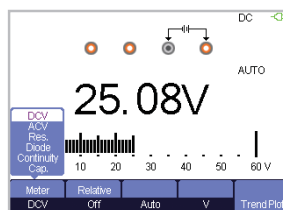
High-performance oscilloscope

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- Memory depth:2 Mpts.



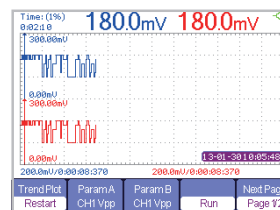
Data recorder function

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High precision multimeter

- 6000 counts display
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Trend Plot

- 32 measurement trend plot analyzer
- Scope: 800 k/CH points capacity, more than 24 hours recording
- Meter: 1.2 M points capacity 6000 hours recording time at 0.05 Sa/s

Handheld Oscilloscope

Oscilloscope Specification

| Model | SHS820 | SHS810 | SHS806 |
|------------------------------|--|---------|-----------------|
| Bandwidth | 200 MHz | 100 MHz | 60 MHz |
| Rise time | ≤1.75 ns | ≤3.5 ns | ≤5.8 ns |
| Real time sampling rate | 500 MSa/s | 1 GSa/s | |
| Equivalent sampling rate | 50 GSa/s | | |
| Vertical sensitivity | 2 mV – 100 V/div | | |
| Time base range | 2.5 ns – 50 ns/div Scan:100 ms – 50 s/div | | 5 ns – 50 s/div |
| Memory depth | 32 Kpts | 2 Mpts | |
| Triggering | Edge, Pulse, Video, Slope, Alternative | | |
| Vertical resolution | 8 bit | | |
| Triggering frequency counter | 6 digits | | |
| Data Recorder | 7 M points | | |
| Trend plot | 800 K/CH | | |
| Interface | USB Device, USB Host | | |
| Math operation | +, -, *, /, FFT | | |

Multimeter Specification

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|--------------------|---------------------|---------------|
| Maximum resolution | 6000 Counts | |
| Item | Range | Accuracy |
| DC Voltage | 60 mv | ±1%±15 digit |
| | 60 mv – 1000 v | ±1%±5 digit |
| AC Voltage | 60 mv | ±1%±15 digit |
| | 600 mV – 750 V | ±1%±5 digit |
| DC Current | 60 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| AC Current | 60 mA | ±1%±5 digit |
| | 6 A – 10 A | ±1.5%±5 digit |
| Capacitance | 40 nF | ±3%±10 digit |
| | 400 nF – 400 μF | ±4%±5 digit |
| Resistance | 600 Ω – 60 MΩ | ±1%±5 digit |
| Continuity | <50 Ω Buzzer sounds | |
| Diode | 0 V – 2 V | |
| Trend plot | 1.2 M points | |
| Measuring mode | Manual/Auto | |

General Feature

| | |
|--------------|--|
| Display | 5.7 inch color TFT-LCD, 320*234 |
| Power supply | Charging/Battery |
| Power mode | Lithium battery: 7.4 V 5000 mAh, Battery lasts >5 hours; DC adapter, 100-240 V 50/60 Hz input, 9 V 4 A output |
| Net weight | 1.5 Kg |
| Dimension | 259.5 mm*163.2 mm*53.3 mm |
| Accessories | Two passive probes, multimeter pen, USB data cable, DC adapter, manual, CD. |