

SBS-700 Multi-Function Oscilloscope/Multimeter

Oscilloscope and Digital Multimeter Including Data-Logging PC Software

The SBS-700 scope/meter helps minimize your project risk by providing reliable, accurate data or waveform capture and the complete view of Logic Tools. This comprehensive unit offers a highly accurate multimeter measurement function and additional function on Sig-Out (Generator), Digital Debug (Logic, Serial Bus Protocol with Digital Pattern Generator). This unit includes a case and USB PC Integration software so that you can download your readings into your PC. You can also recall readings and graphs directly from the unit.



Oscilloscope

- 10 MHz bandwidth with max. 50 MS/s real sampling rate
- AC/DC coupling
- Wide direct input voltage – up to 100V/div in 1,2,5 steps
- Multiple advanced programmable trigger modes
- Advanced auto-set functions automatically catch and display waveform

Graphical Digital Multimeter

- 50,000 count True RMS 3.5" high resolution display DC V, True RMS AC V, AC+ DC V, DC A, True RMS AC A
- Volts, currents, frequency, resistors, capacitance, diode, continuity, frequency – duty cycle – pulse width, signal out generation, dBm
- Temp., humidity, hi-current, pressure measurement through AUX (external adapters not included)
- Min/max, autorange, (manual) hold, auto hold, peak hold, bar graph display, REL, warning mode, simultaneous multiple display: present measurement, min/max/avg/dBm in real-time stamping

Logic Analyzer

Achieve the fastest logic analyzer control and analysis to maximize your analyzer's usage. Sets up measurements quickly and easily.

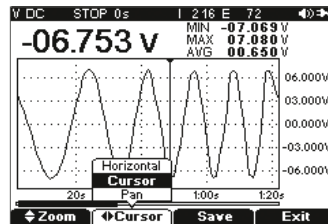
- 8 input channels supported
- Sample rate: maximum 50 MHz per channel
- Peak detection and time measurements supported
- Trigger mode: pattern and duration supported

Protocol Analyzer

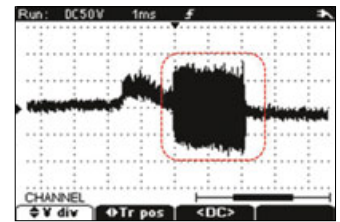
- Sample Rate: maximum 50 MHz per channel
- Peak detection and time measurements supported
- Trigger Mode: CAN, LIN, I2C, UART, USB (low/full speed), I2S, SMBus, SPI, DMX512, 1-Wire supported
- Supports trigger condition setup and speed selection if needed

Benefits

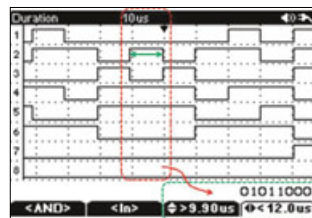
- 600 V CAT III & 1000 V CAT IV DMM / 300 V CAT III O-Scope
- Large 50,000 count, 3.5" high resolution LCD, displays DC Voltage, True RMS AC V
- Efficiency measurement and ripple noise measurement
- Includes real-time PC connection/logging
- Multiple logging sessions possible without download



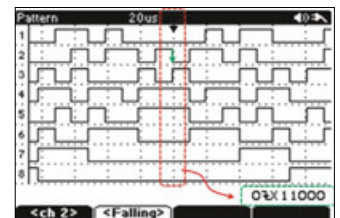
Multimeter Data Logging



Oscilloscope – Peak Detection Mode



Logic Analyzer – Duration Trigger



Logic Analyzer – Pattern Trigger

Digital Pattern Generator

An essential feature for digital system development. Digital pattern is automatically displayed on protocol analyzer screen without connecting with the oscilloscope.

- 2 channels (TX, RX) supported
- Baud rate: up to 1 Mbps
- Pattern format: UART, CAN, and user defined
- Supports making and storage of up to 8 patterns including information like interval, repetition and idle condition
- Monitoring mode supported for watching pattern waveform or data transaction

Technical Data

DC/AC Voltage Ranges	50.000mV 500.00mV 5.0000V 50.000V 500.00V 1000.0V
Accuracy	50mV ($\pm 0.05\%$ +50) 500mV–50V ($\pm 0.025\%$ +10) 500V–1000V ($\pm 0.030\%$ +10)
DC/AC Current Ranges	500.00 μ A 5.0000mA 50.000mA 500.00mA 10.000A
Accuracy	500 μ A–5.0000mA ($\pm 0.05\%$ +10) 50mA–500mA ($\pm 0.15\%$ +10) 10A ($\pm 0.30\%$ +10)
Temperature (excluding probe)	(–20.0° ~ 500.0° C, –20.0° ~ 1370.0° C) or (–4.0° ~ 500.0° F, –4.0° ~ 2498.0° F)
Accuracy	Dependent on optional temperature probe
Resistance	50.000 Ω 500.00 Ω 5.0000k Ω 50.000k Ω 500.00k Ω 5.0000M Ω 50.000M Ω
Accuracy	50 Ω –500k Ω ($\pm 0.05\%$ +10) 5M Ω ($\pm 0.15\%$ +10) 50M Ω ($\pm 1.00\%$ +10)
Capacitance	5.0000nF 50.00nF 500.0nF 5.000uF 50.00uF 500.0uF 5.000mF
Accuracy	($\pm 1\%$ +10) > 50.00uF ($\pm 2\%$ +10)
Frequency	10.00Hz 100.0Hz 1kHz 10kHz 100kHz 1000kHz
Accuracy	0.005%

	SBS-700	Fluke® 123*
Display	9.5 cm 50,000 count 240 x 160 pixel FSTN	10.2 cm monochrome LCD
Bandwidth	10 MHz	20 MHz
Number of Inputs	1	2
True-RMS Multimeter	5000 counts DDM	Dual fully featured 5000 counts DDM
Dual Input Trend Plot	Single Input Trend Plot	Yes
Safety Certified EN6101-1	600 V CAT III DMM 300V CAT III O-Scope	600 V CAT III
Battery (Installed)	8 hours (7.2V NiMH)	7 hours NiMH
PC and Printer Interface	USB	Optional USB or RS-232
Input True RMS Meter	VDC, VAC, VAC+VDC, OHMS, Amps AC, Amps DC, Hz, Continuity, Diode, Capacitance, F/C, dBV, dBm, 8 Channel Logic, 8 Channel Protocol, Pattern	VDC, VAC, VAC+VDC, Ohms, Continuity, Diode test, C, F, Capacitance, dBV, dBm, Crest Factor, Touch Hold and Zero Set
Trend Plot Recording	Automatic; Displays Pk–Pk, Mean, +Width and Hz	Automatic Vertical Scaling and time compression Displays the actual Min, Max, Avg Readings
Real Time Sample	50 MS/s	25 MS/s
Time Base Range	100 ns – 50 sec/Division	10 ns – 1 min/Division
Input Sensitivity	20 mV to 100 V/Division	5 mV to 500 V/Division
Trigger Types	Auto/Normal / Single, Edge / Pulse, Rising / Falling / Alternate	Connect & View, Free Run, Single Shot, Edge, Video, External
Scope Measurements	Automatic	Automatic measurements: On top



SBS-700 Package Includes

- Main body/display
- Carrying case
- Pinpoint probes
- Software/USB cable
- Quick start guide
- AC adaptor



Specifications

Maximum Voltage Terminal to Earth Ground	1000 Vac
Battery Type	7.2V rechargeable NiMH battery pack
Battery Life	80 hours continuous without backlight
Operating Temperature	32° F to 122° F
Storage Temperature	32° F to 158° F
Humidity	80% RH or less (non condensing)
Dimensions	3.9" W x 8.6" H x 2.1" D
Weight	20 oz. / 1.2 lbs. (meter only)

*SBS is not related to, or affiliated with, Fluke® or the Fluke® 123 unit. Fluke® is a registered trademark and Fluke® 123 is a trademark of Fluke® or its subsidiaries.

Ordering Information

Part No.	Description
SBS-700	Multi-function oscilloscope meter

Accessory Ordering Information

Part No.	Description
600/700-TEST-LEAD-KT	Test lead accessory kit