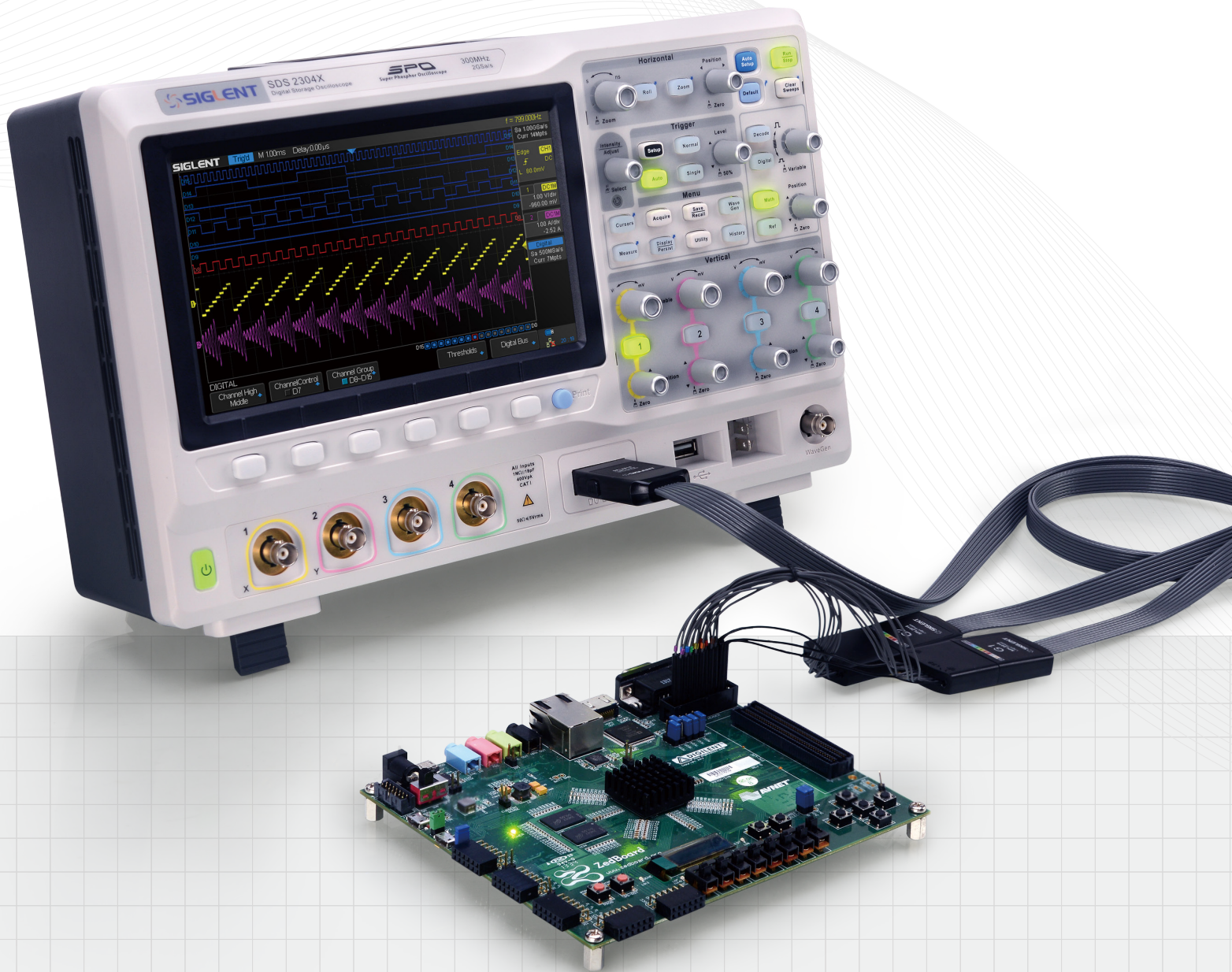








DataSheet SIGLENT Series Probe



Passive Probe


Parameter \ Model	PB470	PP510	PP215	PP430
				
Attenuation Rate	1 X/10 X	1 X/10 X	1 X/10 X	1 X/10 X
Bandwidth	10 X: DC-70 MHz	10 X: DC-100 MHz	10 X: DC-200 MHz	10 X: DC-300 MHz
Input Impedance	1 M Ω /10 M Ω	1 M Ω /10 M Ω	1 M Ω /10 M Ω	1 M Ω /10 M Ω
Input Capacitance	1 X: 85 pF-120 pF 10 X: 18.5 pF-22.5 pF	1 X: 85 pF-120 pF 10 X: 18.5 pF-22.5 pF	1 X: 85 pF-120 pF 10 X: 18.5 pF-22.5 pF	1 X: 85 pF-120 pF 10 X: 18.5 pF-22.5 pF
Compensation Range	10 pF-35 pF	10 pF-35 pF	10 pF-35 pF	10 pF-35 pF
Input Voltage	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II
Operation Temp	-10 $^{\circ}$ C -55 $^{\circ}$ C	-10 $^{\circ}$ C -55 $^{\circ}$ C	-10 $^{\circ}$ C -55 $^{\circ}$ C	-10 $^{\circ}$ C -55 $^{\circ}$ C
Cable Length	130 cm	130 cm	130 cm	130 cm
Weight	55 g	55 g	55 g	55 g

Parameter	PB925	SP2030A
		
Attenuation Rate	10 X	10 X
Bandwidth	DC-250 MHz	DC-300 MHz
Input Impedance	10 M Ω	10 M Ω
Input Capacitance	16 pF	12 pF
Compensation Range	10 pF-35 pF	9 pF-25 pF
Input Voltage	< 600 V CAT III <1000 V CAT II	10 X: 300 V RMS
Operation Temp	0 $^{\circ}$ C -50 $^{\circ}$ C	-10 $^{\circ}$ C -55 $^{\circ}$ C
Cable Length	120 cm	130 cm
Weight	55 g	55 g






Current Probe

Parameter	Model	CP4020	CP4050	CP4070	CP4070A
					
Bandwidth		DC-100 kHz	DC-1 MHz	DC-150 kHz	DC-300 kHz
Rise time		≤3.5 μS	≤0.35 μS	≤2.3 μS	≤1.2 μS
Max.effective value of AC		20 Arms	50 Arms	70 Arms	70 Arms
Peak-Peak Value		60 A	140 A	200 A	200 A
Range Switch		50 mV/A; 5 mV/A	500 mV/A; 50 mV/A	50 mV/A; 5 mV/A	100 mV/A; 10 mV/A
DC Accuracy		±2% (0.4 A-10 ApK) at 50 mV/A ±2% (1 A-60 ApK) at 5 mV/A	±3%±20 mA (20 mA-14 ApK) at 500 mV/A; ±4%±200 mA (200 mA-100 ApK) at 50 mV/A; ±15% max (100 A-140 ApK) at 50 mV/A	±2% (0.4 A-10 ApK) at 50 mV/A ±2% (1 A-200 ApK) at 5 mV/A	±3%±50 mA (50 mA-10 ApK) at 100 mV/A; ±4%±50 mA (500 mA-40 ApK) at 10 mV/A; ±15% max (40 A-200 ApK) at 10 mV/A
Power Supply		9 V battery			
Max. rated voltage to earth		300 V CAT III 600 V CAT II			
Conductor Size		10.3 mm	10.3 mm	10.3 mm	11 mm
Cable Length		200 cm	100 cm	100 cm	100 cm
Weight		310 g	310 g	310 g	260 g


Parameter	Model	CP5030	CP5030A	CP5150	CP5500
					
Bandwidth		DC-50 MHz	DC-100 MHz	DC-12 MHz	DC-5MHz
Rise time		≤7 ns	≤3.5 ns	≤29 ns	≤70ns
Max.effective value of AC		30 Arms	30 Arms	150 Arms	500 Arms
Peak-Peak Value		50 A	50 A	300 A	750 A
Range		5 A (1 X)/ 30 A (10 X)	5 A (1 X) / 30 A (10 X)	30 A (1X)/150 A(10 X)	75 A (1 X)/500 A(10 X)
Overload Value		5 A (≥5 A) 30 A (≥50 A)	5 A (≥5 A) 30 A (≥50 A)	30 A(≥30 A) 150 A (≥300 A)	75 A (≥50 A) 500 A (≥500 A)
Current Transfer Ratio		5 A (1 V/A) 30 A (0.1 V/A)	5 A (1 V/A) 30 A (0.1 V/A)	30 A (0.1 V/A) 150 A (0.01 V/A)	75 A (0.1 V/A) 500 A (0.01 V/A)
Measurement Resolution		5 A (1 mA) 30 A (10 mA)	5 A (1 mA) 30 A (10 mA)	30 A (5 mA) 150 A (50 mA)	75 A (5 mA) 500 A (50 mA)
DC Accuracy		5 A (±1%±1 mA) 30 A (±1%±10 mA)	5 A (±1%±1 mA) 30 A (±1%±10 mA)	30 A (±1%±10 mA) 150 A (±1%±100 mA)	75 A (±1%±10 mA) 500 A (±1%±100 mA)
Power Supply		DC 12 V/1.2 A			
Max. rated voltage to earth		300 V CAT III		300 V CAT III 600 V CAT II	
Conductor Diameter Max.		5 mm		20 mm	
Cable Length		1 m		1.5 m	
BNC Length		100 cm			
Weight		240 g		500 g	510 g

Parameter	CPL5100	
		
Range level	23°C , 60%RH, cable under test get through the test center, load resistance 1MΩ	
Current range	L	H
Attenuation accuracy	50 mA~10 A Peak	1 A~100 A Peak
Typical DC precision	0.1 V/A	0.01 V/A
Band width (-3dB)	3%±50 mA	500 mA~40 A Peak: 4%±50 mA; 40 A~100 A Peak: ±15% Maximum
Phase shift	DC~65 Hz: <1.5°	DC~65 Hz: <1°
Typical DC linearity	The typical DC linearity at H level (0.01 V/A), Figure 4	
Rise time	≤583 ns	
Max operation current	10 A	100 A
Max operation voltage	600 V	
Max floating voltage	600 V	
Operating voltage RMS	CATI 600 V CATII 600 V CATIII 300 V	
Common mode voltage RMS	CATI 600 V CATII 600 V CATIII 300 V	
Typical battery type and life	9 V alkaline layer-built battery/ 15 H	
Low power indication	When battery voltage is lower than 6.5 V, battery indicator will turned red and alert	
Overload indication	When the current under test surpasses the range, the buzzer will buzz	
Length of the cable connecting current clamp and output box	1 m	
Length of double terminal BNC cable	1 m	
Weight	About 223 g (without battery)	





High Voltage Differential Probe

Parameter	Model	DPB5150	DPB5150A	DPB5700	DPB5700A	DPB1300
						
Bandwidth		DC-70 MHz	DC-100 MHz	DC-70 MHz	DC-100 MHz	DC-50 MHz
Rise time		≤5 ns	≤3.5 ns	≤5 ns	≤3.5 ns	≤7 ns
DC Accuracy		±2%	±2%	±2%	±2%	±2%
Attenuation Ratio		50 X/500 X		100 X/1000 X		50 X/500 X
Max Differential Test Voltage (DC + Peak AC)		50 X: 150 V 500 X: 1500 V		100 X: 700 V 1000 X: 7000 V		50 X: ±130 V 500 X: ±1300 V
Max input common Mode voltage (voltage-to-earth Vrms)		600 V CATIII 1000 V CATII		1000 V CATIII 2300 V CATII		600 V CATIII 1000 V CATII
Input Impedance	Single-ended to ground	5 MΩ	5 MΩ	20 MΩ	20 MΩ	5 MΩ
	Two inputs	10 MΩ	10 MΩ	40 MΩ	40 MΩ	10 MΩ
Input Capacitance	Single-ended to ground	< 4 pF	< 4 pF	<5 pF	<5 pF	<4 pF
	Two inputs	< 2 pF	< 2 pF	< 2.5 pF	< 2.5 pF	< 2 pF
CMRR	DC	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB
	100kHz	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB
	1MHz	> 50 dB	>50 dB	> 50 dB	> 50 dB	> 50 dB
Noise (Vrms)		50 X: <50 mV 500 X: <300 mV		100 X: < 200 mV 1000 X: < 1.2 V		50 X: < 50 mV 500 X: < 300 mV
Propagation Delay		18 ns±1 ns				Probe: ≈10 ns BNC Line (1m): ≈5 ns
Bandwidth limit		≥-3 dB@5 MHz				
Differential overvoltage Detection level		50 X: ≥150 V 500 X: ≥1500 V		100 X: ≥700 V 1000 X: ≥7000 V		50 X: ≥140 V 500 X: ≥1400 V
Overload indicator(red light)		Yes				
Overload Alarm		Yes (Can shut up manually)				
Automatic Save		Yes				Null
Offset Setting function		Yes (Set in test mode)				
Terminate Load		1 MΩ				≥100 kΩ
Power Supply		USB 5 V/1 A Adapter				DC 12 V/1.2 A Power
Probe body dimensions		195*65*28 mm				145*58*24 mm
Probe body weight		Approx 188 g		Approx 190 g		Approx 165 g


High Voltage Probe

Parameter	Model	HPB4010
		
Bandwidth		DC-40 MHz
Rise time		≤7 ns
Max. Measurement Voltage		DC: 0~10 kV DC AC: pulse ≤ 20 kV peak to peak; sine wave ≤ 7 kV rms
Single / Noise		DC≥60 dB(1 kHz),≥50 dB(1 MHz)
Attenuation Ratio		1:1000
Input Impedance		100 MΩ±1%
Input Capacitance		3.0 pF±0.5 pF
Compensation Range		5 pF~50 pF
Cable length		2.0 meter (±0.2 M)
Temperature Coefficient		≤200 ppm/°C
Accuracy	DC	±2% (DC to 10 kV) ±3% (Above 10 kV)
	AC	±3% (1 KHz/1 KV) -3 dB 50 MHz
Operating Temperature		0~50 °C
Storage Temperature		-20~+70 °C
Weight / Volume		250 g/Φ75×340 mm

Logic Probe

parameter	Model	SPL3016	SPL2016	SPL1016	SPL1008
					
Input Channels		16	16	16	8
Input Impedance		100kΩ 5pF	100kΩ 18pF	100kΩ 8pF	100kΩ 18pF
Maximum Input Voltage		±30V Peak	±50V Peak	±20V Peak	±40V Peak
Input Dynamic Range		±20V	±20V	±10V	±20V
User defined threshold range		-10V~10V (20mV steps)	-10V~10V (10mV steps)	-8V~8V (10mV steps)	-3V~3V (10mV steps)
Threshold Selections		TTL(1.4V), 5V_CMOS(2.5V), ECL(-1.3V)	TTL(1.5V), CMOS(2.5V), 3.3V_LVCMOS(1.65V), 2.5V_LVCMOS(1.25V)	TTL(1.5V), CMOS(2.5V), 3.3V_LVCMOS(1.65V), 2.5V_LVCMOS(1.25V)	TTL(1.5V), CMOS(2.5V), 3.3V_LVCMOS(1.65V), 2.5V_LVCMOS(1.25V)
Threshold Accurac		±(3% of threshold setting +100mV)	±(3% of threshold setting +200mV)	±(3% of threshold setting +150mV)	±(3% of threshold setting +400mV)
Threshold Groupings		Group 2: D15-D8 Group 1: D7-D0	Group 2: D15-D8 Group 1: D7-D0	Group 2: D15-D8 Group 1: D7-D0	D7-D0
Minimum Input Voltage Swing		800mVpp	800mVpp	800mVpp	800mVpp
Maximum Input Data Rate		250Mbps	300 Mbps	120 Mbps	120Mbps
Minimum Detectable Pulse Width		4ns	3.3ns	8.3ns	8.3ns
Channel-to-Channel Skew		± (1 digital sample interval)	± (1 digital sample interval)	± (1 digital sample interval)	± (1 digital sample interval)

Near Field Probe

Parameter	Model	SRF5030-1	SRF5030-2	SRF5030-3	SRF5030-4
					
Frequency Range		30 MHz to 3 GHz	30 MHz to 3 GHz	30 MHz to 2 GHz	30 MHz to 3 GHz
Resolution		25 mm	10 mm	5 mm	2 mm
Application		It can be used at a distance of up to 10 cm from the units. The probe detects the spatial distribution of HF magnetic fields in devices and assemblies and allows the user to draw conclusions with regard to disturbance emissions. Frequency range:30 MHz to 3 GHz	It is suitable for measurements up to 3 cm. Interference sources can be localized by detecting the distribution and orientation of the field, therefore enabling a more exact use of higher resolution probes. Frequency range: 30 MHz to 3 GHz	It is suitable for measurements up to 3 cm. Interference sources can be localized by detecting the distribution and orientation of the field, therefore enabling a more exact use of higher resolution probes. Frequency range: 30 MHz to 3 GHz	It is designed for the detection of magnetic fields which are emitted vertically from the surface of PCBs and is thus ideal for investigating current loops. The probe allows the measurement in confined board areas (between large controller components, for example - resolution approx. 2 mm). Frequency range: 30 MHz to 3 GHz

DataSheet SIGLENT Series Probe



About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of electronic test & measurement instruments.

SIGLENT first began developing digital oscilloscopes independently in 2002. After more than a decade of continuous development, SIGLENT has extended its product line to include digital oscilloscopes, function/arbitrary waveform generators, digital multimeters, DC power supplies, spectrum analyzers, isolated handheld oscilloscopes and other general purpose test instrumentation. Since its first oscilloscope, the ADS7000 series, was launched in 2005, SIGLENT has become the fastest growing manufacturer of digital oscilloscopes. We firmly believe that today SIGLENT is the best value in electronic test & measurement.

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