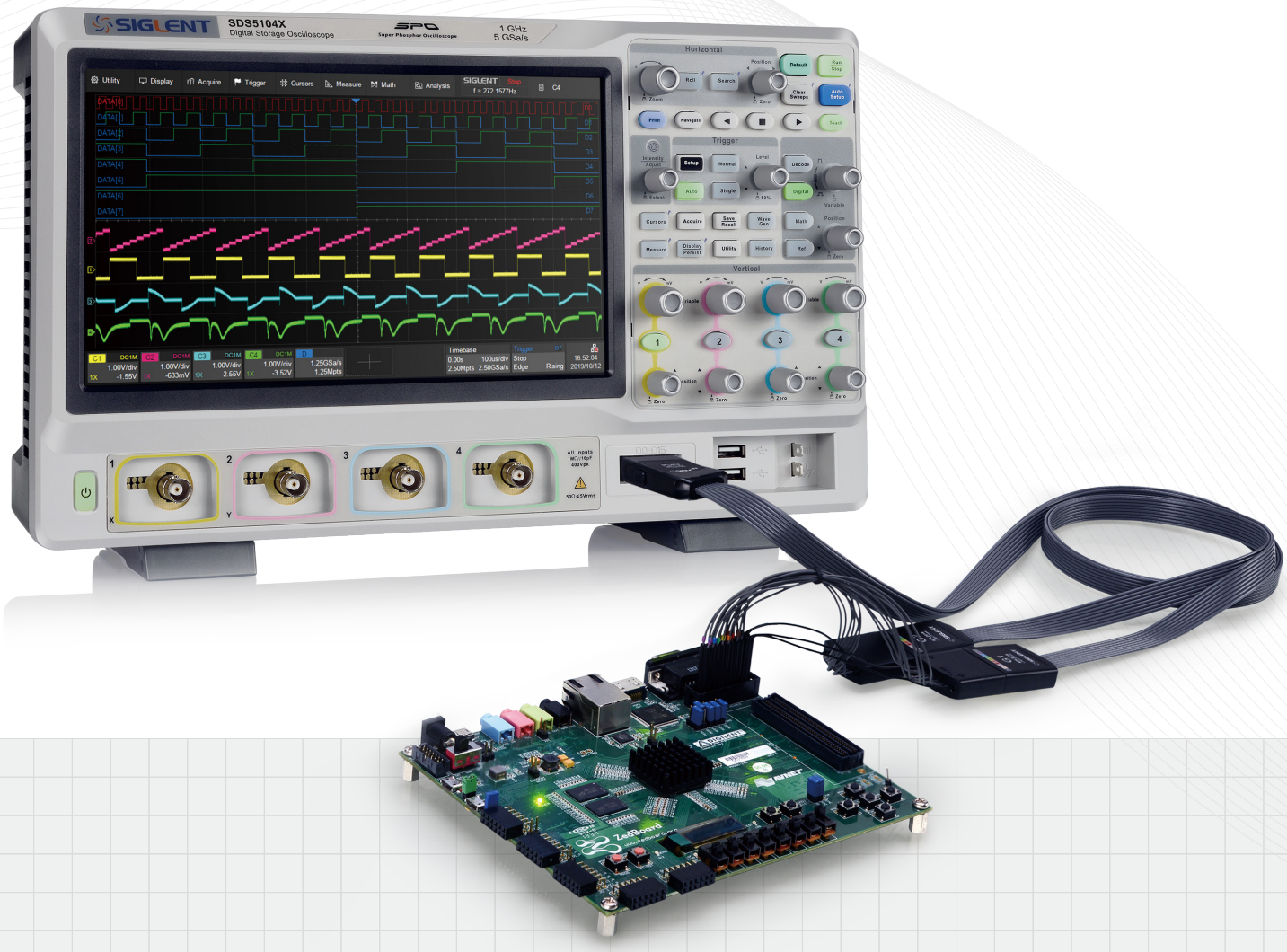
SIGLENT Probe Datasheet



SIGLENT TECHNOLOGIES CO.,LTD

Passive Probe

Parameter / Model	PB470	PP510	PP215
			
Attenuation Rate	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
Input Impedance	1 MΩ/10 MΩ	1 MΩ/10 MΩ	1 MΩ/10 MΩ
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
Compensation Range	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
Operation Temp	-10 ℃ - 55 ℃	-10 ℃ - 55 ℃	-10 ℃ - 55 ℃
Cable Length	130 cm	130 cm	130 cm
Weight	55 g	55 g	55 g

Parameter	PB925	SP2035	SP2035A	SP3050A
				
Attenuation Rate	10 X	1 X/10 X	10 X	10 X
Bandwidth	DC-250 MHz	DC-350 MHz	DC-350 MHz	DC-500 MHz
Input Impedance	10 MΩ	1 MΩ/10 MΩ	10 MΩ	10 MΩ
Input Capacitance	16 pF	1 X: 85 pF-120 pF 10 X: 17 pF-20 pF	12 pF	11 pF
Compensation Range	10 pF-35 pF	10 pF-35 pF	9 pF-25 pF	8 pF-20 pF
Input Voltage	600 V CAT III 1000 V CAT II	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II	10 X: 300 V RMS CAT II	400V rms CAT II
Operation Temp	0 ℃ - 50 ℃	-10 ℃ - 55 ℃	-10 ℃ - 55 ℃	0 ℃ - 50 ℃
Cable Length	120 cm	130 cm	130 cm	120 cm
Weight	55 g	55 g	55 g	55 g

Active Probe

Parameter / Model	SAP1000
	
Bandwidth	1 GHz
Input Impedance	1 MΩ
Input Capacitance	1.2 pF
Input Dynamic Range	±8 V
Offset Range	±12 V
Non-Destruct Voltage	20 V
Interface	SAPBus
Cable Length	130 cm
Weight	83 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)	5 A (≥5 A)	30 A(≥30 A)	75 A (≥50 A)
	30 A (≥50 A)	30 A (≥50 A)	150 A (≥300 A)	500 A (≥500 A)
Current Transfer Ratio	5 A (1 V/A)	5 A (1 V/A)	30 A (0.1 V/A)	75 A (0.1 V/A)
	30 A (0.1 V/A)	30 A (0.1 V/A)	150 A (0.01 V/A)	500 A (0.01 V/A)
Measurement Resolution	5 A (1 mA)	5 A (1 mA)	30 A (5 mA)	75 A (5 mA)
	30 A (10 mA)	30 A (10 mA)	150 A (50 mA)	500 A (50 mA)
DC Accuracy	5 A (±1%±1 mA)	5 A (±1%±1 mA)	30 A (±1%±10 mA)	75 A (±1%±10 mA)
	30 A (±1%±10 mA)	30 A (±1%±10 mA)	150 A (±1%±100 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℃ , 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)	DC-600 kHz	
DC Accuracy	3%±50 mA	1500 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	DPB4080
							
Bandwidth		DC-70 MHz	DC-100 MHz	DC-70 MHz	DC-100 MHz	DC-50 MHz	DC-50 MHz
Rise time		≤5 ns	≤3.5 ns	≤5 ns	≤3.5 ns	≤7 ns	≤7 ns
DC Accuracy		±2%	±2%	±2%	±2%	±2%	±1%
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	10 X: 80 V 100 X: 800 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	800 Vrms
Input Impedance	**Single-ended to ground**	5 MΩ	5 MΩ	20 MΩ	20 MΩ	5 MΩ	27 MΩ
	Two inputs	10 MΩ	10 MΩ	40 MΩ	40 MΩ	10 MΩ	54 MΩ
Input Capacitance	**Single-ended to ground**	< 4 pF	< 4 pF	<5 pF	<5 pF	<4 pF	< 2.3 pF
	Two inputs	< 2 pF	< 2 pF	< 2.5 pF	< 2.5 pF	< 2 pF	< 1.2 pF
CMRR	**DC**	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB
	100kHz	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB
	1MHz	> 50 dB	>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	Null
Propagation Delay		18 ns±1 ns				Probe: ≈10 ns BNC Line (1m): ≈ 5 ns	Null
Bandwidth limit		≥-3 dB@5 MHz					Null
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	Null
Overload indicator(red light)		Yes					Null
Overload Alarm		Yes (Can shut up manually)				Null	Null
Automatic Save		Yes					
Offset Setting function		Yes (Set in test mode)					
Terminate Load		1 MΩ				≥100 kΩ	Null
Power Supply		USB 5 V/1 A Adapter				DC 12 V/1.2 A Power	6 V DC Power
Probe body dimensions		195*65*28 mm				145*58*24 mm	165*69*26 mm
Probe body weight		Approx 188 g		Approx 190 g		Approx 165 g	Approx 500 g

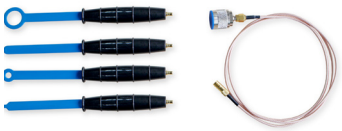
High Voltage Probe

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/℃
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 ℃
Storage Temperature		-20~+70 ℃
Weight / Volume		250 g/Φ75×340 mm

Logic Probe

parameter / Model	SPL2016	SPL1016
		
Input Channels	16	16
Input Impedance	100kΩ||18pF	100kΩ||8pF
Maximum Input Voltage	±50V Peak	±20V Peak
Input Dynamic Range	±20V	±10V
User defined threshold range	-10V~10V (10mV steps)	-8V~8V (10mV steps)
Threshold Selections	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 +200mV)	±(3% of threshold setting +150mV)
Threshold Groupings	Group 2: D15-D8 Group 1: D7-D0	Group 2: D15-D8 Group 1: D7-D0
Minimum Input Voltage Swing	800mVpp	800mVpp
Maximum Input Data Rate	300 Mbps	120 Mbps
Minimum Detectable Pulse Width	3.3ns	8.3ns
Channel-to-Channel Skew	± (1 digital sample interval)	± (1 digital sample interval)

Near Field Probe

Parameter / Model	SRF5030T-H20	SRF5030T-H10	SRF5030T-H5	SRF5030T-E5
				
Frequency Range	300kHz to 3GHz	300kHz to 3GHz	300kHz to 3GHz	300kHz to 3GHz
Resolution	20 mm	10 mm	5 mm	5 mm
Application	Radiated EMC measurement RF immunity testing Contactless (load free) relative measurement of RF signal chains Contactless (load free) relative measurement of oscillators, modulators, etc.			

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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, isolated handheld oscilloscopes, function/arbitrary waveform generators, RF/MW signal generators, spectrum analyzers, vector network analyzers, digital multimeters, DC power supplies, electronic loads and other general purpose test instrumentation. Since its first oscilloscope 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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