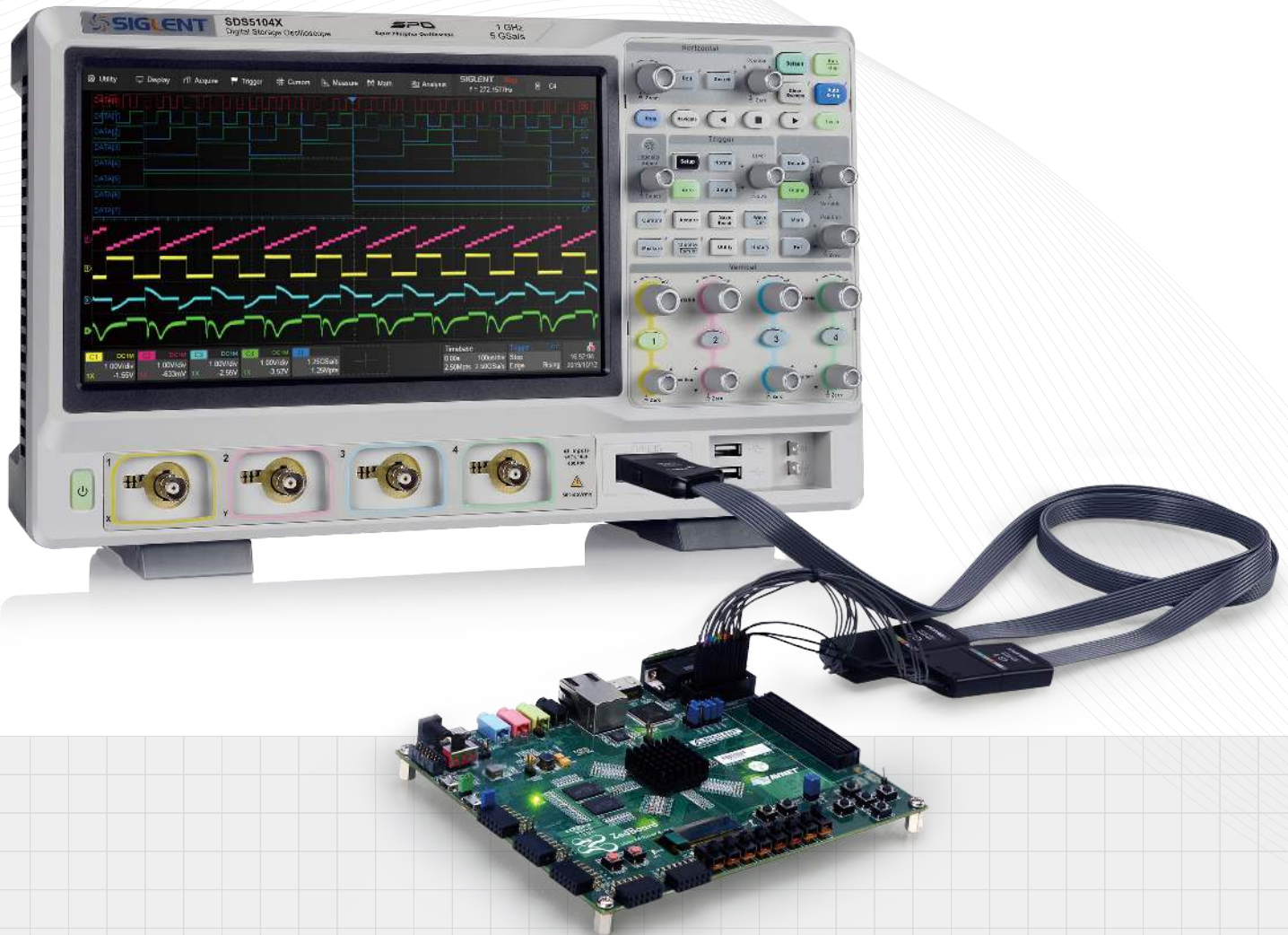










# DataSheet SIGLENT Series Probe




## Passive Probe

Parameter \ Model	PB470	PP510	PP215	PP430
				
<b>Attenuation Rate</b>	1 X/10 X	1 X/10 X	1 X/10 X	1 X/10 X
<b>Bandwidth</b>	10 X: DC-70 MHz	10 X: DC-100 MHz	10 X: DC-200 MHz	10 X: DC-300 MHz
<b>Input Impedance</b>	1 M $\Omega$ /10 M $\Omega$	1 M $\Omega$ /10 M $\Omega$	1 M $\Omega$ /10 M $\Omega$	1 M $\Omega$ /10 M $\Omega$
<b>Input Capacitance</b>	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
<b>Compensation Range</b>	10 pF-35 pF	10 pF-35 pF	10 pF-35 pF	10 pF-35 pF
<b>Input Voltage</b>	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
<b>Operation Temp</b>	-10 °C - 55 °C	-10 °C - 55 °C	-10 °C - 55 °C	-10 °C - 55 °C
<b>Cable Length</b>	130 cm	130 cm	130 cm	130 cm
<b>Weight</b>	55 g	55 g	55 g	55 g





Parameter	PB925	SP2030A	SP2035	SP3050A
				
<b>Attenuation Rate</b>	10 X	10 X	1 X/10 X	10 X
<b>Bandwidth</b>	DC-250 MHz	DC-300 MHz	DC-350 MHz	DC-500 MHz
<b>Input Impedance</b>	10 M $\Omega$	10 M $\Omega$	1 M $\Omega$ /10 M $\Omega$	10 M $\Omega$
<b>Input Capacitance</b>	16 pF	12 pF	1 X: 85 pF-120 pF 10 X: 17 pF-20 pF	11 pF
<b>Compensation Range</b>	10 pF-35 pF	9 pF-25 pF	10 pF-35 pF	8 pF-20 pF
<b>Input Voltage</b>	600 V CAT III 1000 V CAT II	10 X: 300 V RMS CAT II	1 X: 150V RMS CAT II 10 X: 300V RMS CAT II	400V rms CAT II
<b>Operation Temp</b>	0 °C - 50 °C	-10 °C - 55 °C	-10 °C - 55 °C	0 °C - 50 °C
<b>Cable Length</b>	120 cm	130 cm	130 cm	120 cm
<b>Weight</b>	55 g	55 g	55 g	55 g


## Active Probe

Parameter	Model	SAP1000
		
<b>Bandwidth</b>		1 GHz
<b>Input Impedance</b>		1 MΩ
<b>Input Capacitance</b>		1.2 pF
<b>Input Dynamic Range</b>		±8 V
<b>Offset Range</b>		±12 V
<b>Non-Destruct Voltage</b>		20 V
<b>Interface</b>		SAPBus
<b>Cable Length</b>		130 cm
<b>Weight</b>		83 g







## Current Probe

Parameter	Model	CP4020	CP4050	CP4070	CP4070A
					
<b>Bandwidth</b>		DC-100 kHz	DC-1 MHz	DC-150 kHz	DC-300 kHz
<b>Rise time</b>		≤3.5 μs	≤0.35 μs	≤2.3 μs	≤1.2 μs
<b>Max.effective value of AC</b>		20 Arms	50 Arms	70 Arms	70 Arms
<b>Peak-Peak Value</b>		60 A	140 A	200 A	200 A
<b>Range Switch</b>		50 mV/A; 5 mV/A	500 mV/A; 50 mV/A	50 mV/A; 5 mV/A	100 mV/A; 10 mV/A
<b>DC Accuracy</b>		±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
<b>Power Supply</b>		9 V battery			
<b>Max. rated voltage to earth</b>		300 V CAT III 600 V CAT II			
<b>Conductor Size</b>		10.3 mm	10.3 mm	10.3 mm	11 mm
<b>Cable Length</b>		200 cm	100 cm	100 cm	100 cm
<b>Weight</b>		310 g	310 g	310 g	260 g

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

Parameter	CPL5100
	
<b>Range level</b>	23°C , 60%RH, cable under test get through the test center, load resistance 1MΩ
<b>Current range</b>	L H
<b>Attenuation accuracy</b>	50 mA~10 A Peak 1 A~100 A Peak
<b>Typical DC precision</b>	0.1 V/A 0.01 V/A
<b>Band Width (-3dB)</b>	DC-600 kHz
<b>DC Accuracy</b>	3%±50 mA 1500 mA~40 A Peak: 4%±50 mA; 40 A~100 A Peak: ±15% Maximum
<b>Phase shift</b>	DC~65 Hz: <1.5° DC~65 Hz: <1°
<b>Typical DC linearity</b>	The typical DC linearity at H level (0.01 V/A), Figure 4
<b>Rise time</b>	≤583 ns
<b>Max operation current</b>	10 A 100 A
<b>Max operation voltage</b>	600 V
<b>Max floating voltage</b>	600 V
<b>Operating voltage RMS</b>	CATI 600 V CATII 600 V CATIII 300 V
<b>Common mode voltage RMS</b>	CATI 600 V CATII 600 V CATIII 300 V
<b>Typical battery type and life</b>	9 V alkaline layer-built battery/ 15 H
<b>Low power indication</b>	When battery voltage is lower than 6.5 V, battery indicator will turned red and alert
<b>Overload indication</b>	When the current under test surpasses the range, the buzzer will buzz
<b>Length of the cable connecting current clamp and output box</b>	1 m
<b>Length of double terminal BNC cable</b>	1 m
<b>Weight</b>	About 223 g (without battery)




## High Voltage Differential Probe

Parameter	Model	DPB5150	DPB5150A	DPB5700	DPB5700A	DPB1300	DPB4080
							
<b>Bandwidth</b>		DC-70 MHz	DC-100 MHz	DC-70 MHz	DC-100 MHz	DC-50 MHz	DC-50 MHz
<b>Rise time</b>		≤5 ns	≤3.5 ns	≤5 ns	≤3.5 ns	≤7 ns	≤7 ns
<b>DC Accuracy</b>		±2%	±2%	±2%	±2%	±2%	±1%
<b>Attenuation Ratio</b>		50 X/500 X		100 X/1000 X		50 X/500 X	
<b>Max Differential Test Voltage (DC + Peak AC)</b>		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
<b>Max input common Mode voltage (voltage-to-earth Vrms)</b>		600 V CATIII 1000 V CATII		1000 V CATIII 2300 V CATII		600 V CATIII 1000 V CATII	800 Vrms
<b>Input Impedance</b>	<b>Single-ended to ground</b>	5 MΩ	5 MΩ	20 MΩ	20 MΩ	5 MΩ	27 MΩ
	<b>Two inputs</b>	10 MΩ	10 MΩ	40 MΩ	40 MΩ	10 MΩ	54 MΩ
<b>Input Capacitance</b>	<b>Single-ended to ground</b>	< 4 pF	< 4 pF	<5 pF	<5 pF	<4 pF	< 2.3 pF
	<b>Two inputs</b>	< 2 pF	< 2 pF	< 2.5 pF	< 2.5 pF	< 2 pF	< 1.2 pF
<b>CMRR</b>	<b>DC</b>	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB
	<b>100kHz</b>	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB
	<b>1MHz</b>	> 50 dB	>50 dB	> 50 dB	> 50 dB	> 50 dB	> 50 dB
<b>Noise (Vrms)</b>		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
<b>Propagation Delay</b>		18 ns±1 ns				Probe: ≈10 ns BNC Line (1m): ≈ 5 ns	Null
<b>Bandwidth limit</b>		≥-3 dB@5 MHz					Null
<b>Differential overvoltage Detection level</b>		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
<b>Overload indicator(red light)</b>		Yes					Null
<b>Overload Alarm</b>		Yes (Can shut up manually)					
<b>Automatic Save</b>		Yes				Null	Null
<b>Offset Setting function</b>		Yes (Set in test mode)					
<b>Terminate Load</b>		1 MΩ				≥100 kΩ	Null
<b>Power Supply</b>		USB 5 V/1 A Adapter				DC 12 V/1.2 A Power	6 V DC Power
<b>Probe body dimensions</b>		195*65*28 mm				145*58*24 mm	165*69*26 mm
<b>Probe body weight</b>		Approx 188 g		Approx 190 g		Approx 165 g	Approx 500 g

## High Voltage Probe

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

## Logic Probe

parameter \ Model	SPL2016	SPL1016	SPL1008
			
<b>Input Channels</b>	16	16	8
<b>Input Impedance</b>	100kΩ  18pF	100kΩ  8pF	100kΩ  18pF
<b>Maximum Input Voltage</b>	±50V Peak	±20V Peak	±40V Peak
<b>Input Dynamic Range</b>	±20V	±10V	±20V
<b>User defined threshold range</b>	-10V~10V (10mV steps)	-8V~8V (10mV steps)	-3V~3V (10mV steps)
<b>Threshold Selections</b>	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)
<b>Threshold Accurac</b>	±(3% of threshold setting +200mV)	±(3% of threshold setting +150mV)	±(3% of threshold setting +400mV)
<b>Threshold Groupings</b>	Group 2: D15-D8 Group 1: D7-D0	Group 2: D15-D8 Group 1: D7-D0	D7-D0
<b>Minimum Input Voltage Swing</b>	800mVpp	800mVpp	800mVpp
<b>Maximum Input Data Rate</b>	300 Mbps	120 Mbps	120Mbps
<b>Minimum Detectable Pulse Width</b>	3.3ns	8.3ns	8.3ns
<b>Channel-to-Channel Skew</b>	± (1 digital sample interval)	± (1 digital sample interval)	± (1 digital sample interval)

## Near Field Probe

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



# 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, RF generators, digital multimeters, DC power supplies, spectrum analyzers, vector network analyzers, isolated handheld oscilloscopes, electronic load 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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