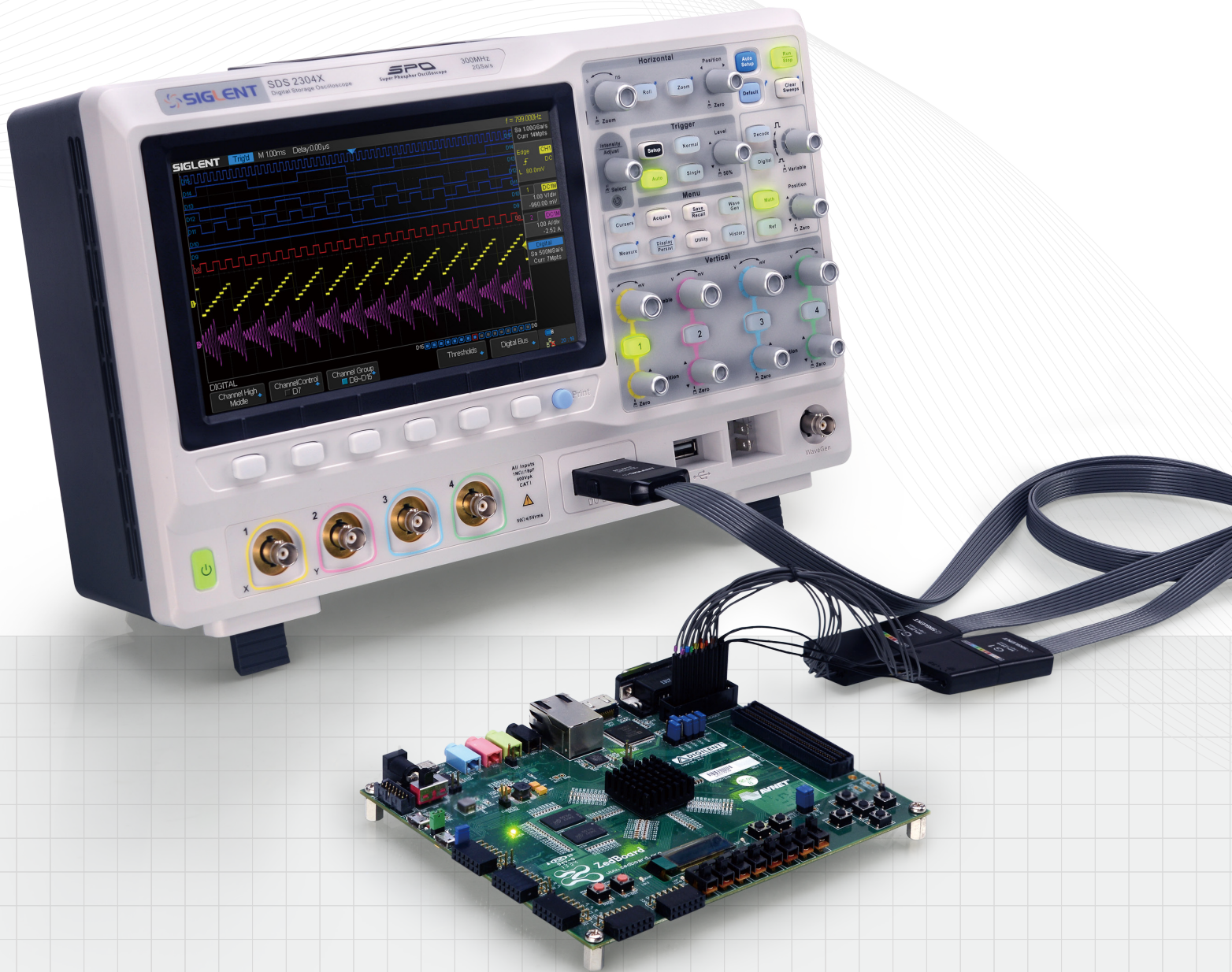








# DataSheet SIGLENT Series Probe





## 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>	1 X: DC-6 MHz 10 X: DC-70 MHz	1 X: DC-6 MHz 10 X: DC-100 MHz	1 X: DC-6 MHz 10 X: DC-200 MHz	1 X: DC-6 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 pF-22 pF	1 X: 85 pF-120 pF 10 X: 18 pF-22 pF	1 X: 85 pF-120 pF 10 X: 16 pF-20 pF	1 X: 46 pF 10 X: 12 pF
<b>Compensation Range</b>	15 pF-45 pF	10 pF-30 pF	10 pF-35 pF	10 pF-35 pF
<b>Input Voltage</b>	1 X: <300 Vpp 10 X: <600 Vpp	1 X: <300 Vpp 10 X: <600 Vpp	1 X: <300 Vpp 10 X: <600 Vpp	1 X: <300 Vpp 10 X: <600 Vpp
<b>Operation Temp</b>	-15 $^{\circ}$ C -75 $^{\circ}$ C	-15 $^{\circ}$ C -75 $^{\circ}$ C	-15 $^{\circ}$ C -75 $^{\circ}$ C	-15 $^{\circ}$ C -40 $^{\circ}$ C
<b>Cable Length</b>	120 cm	120 cm	120 cm	120 cm
<b>Weight</b>	50 g	50 g	50 g	50 g






Parameter	PB925	SP2030A
		
<b>Attenuation Rate</b>	10 X	10 X
<b>Bandwidth</b>	DC-250 MHz	DC-300 MHz
<b>Input Impedance</b>	10 M $\Omega$	10 M $\Omega$ $\pm$ 2%
<b>Input Capacitance</b>	16 pF	12 pF
<b>Compensation Range</b>	10 pF-35 pF	9 pF-25 pF
<b>Input Voltage</b>	< 600 V CAT III <1000 V CAT II	< 600 V DC+Peak AC
<b>Operation Temp</b>	0 $^{\circ}$ C -50 $^{\circ}$ C	0 $^{\circ}$ C -50 $^{\circ}$ C
<b>Cable Length</b>	120 cm	130 cm
<b>Weight</b>	55 g	55 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

## High Voltage Differential Probe

Parameter	Model	DPB5150	DPB5150A	DPB5700	DPB5700A	DPB4080
						
<b>Bandwidth</b>		DC-70 MHz	DC-100 MHz	DC-70 MHz	DC-100 MHz	DC-50 MHz
<b>Rise time</b>		≤5 ns	≤3.5 ns	≤5 ns	≤3.5 ns	≤7 ns
<b>DC Accuracy</b>		±2%	±2%	±2%	±2%	±1%
<b>Attenuation Ratio</b>		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		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		800 Vrms
<b>Input Impedance</b>	<b>Single-ended to ground</b>	5 MΩ	5 MΩ	20 MΩ	20 MΩ	27 MΩ
	<b>Two inputs</b>	10 MΩ	10 MΩ	40 MΩ	40 MΩ	54 MΩ
<b>Input Capacitance</b>	<b>Single-ended to ground</b>	< 4 pF	< 4 pF	<5 pF	<5 pF	<2.3 pF
	<b>Two inputs</b>	< 2 pF	< 2 pF	< 2.5 pF	< 2.5 pF	< 1.2 pF
<b>CMRR</b>	<b>DC</b>	> 80 dB	> 80 dB	> 80 dB	> 80 dB	> 80 dB
	<b>100kHz</b>	> 60 dB	> 60 dB	> 60 dB	> 60 dB	> 60 dB
	<b>1MHz</b>	> 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		Null
<b>Propagation Delay</b>		18 ns±1 ns				
<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		Null
<b>Overload indicator(red light)</b>		Yes				Null
<b>Overload Alarm</b>		Yes (Can shut up manually)				Null
<b>Automatic Save</b>		Yes				Null
<b>Offset Setting function</b>		Yes (Set in test mode)				Null
<b>Terminate Load</b>		1 MΩ				Null
<b>Power Supply</b>		USB 5 V/1 A Adapter				9 V DC Power
<b>Probe body dimensions</b>		195*65*28 mm				165*69*26 mm
<b>Probe body weight</b>		Approx 188 g		Approx 190 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	SPL3016	SPL2016	SPL1016	SPL1008
					
<b>Input Channels</b>		16	16	16	8
<b>Input Impedance</b>		100kΩ  5pF	100kΩ  18pF	100kΩ  8pF	100kΩ  18pF
<b>Maximum Input Voltage</b>		±30V Peak	±50V Peak	±20V Peak	±40V Peak
<b>Input Dynamic Range</b>		±20V	±20V	±10V	±20V
<b>User defined threshold range</b>		-10V~10V (20mV steps)	-10V~10V (10mV steps)	-8V~8V (10mV steps)	-3V~3V (10mV steps)
<b>Threshold Selections</b>		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)
<b>Threshold Accurac</b>		±(3% of threshold setting +100mV)	±(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	Group 2: D15-D8 Group 1: D7-D0	D7-D0
<b>Minimum Input Voltage Swing</b>		800mVpp	800mVpp	800mVpp	800mVpp
<b>Maximum Input Data Rate</b>		250Mbps	300 Mbps	120 Mbps	120Mbps
<b>Minimum Detectable Pulse Width</b>		4ns	3.3ns	8.3ns	8.3ns
<b>Channel-to-Channel Skew</b>		± (1 digital sample interval)	± (1 digital sample interval)	± (1 digital sample interval)	± (1 digital sample interval)

Parameter	Model	SPL1008
		
<b>Channels</b>		8
<b>Input Impedance</b>		100 KΩ  18 PF
<b>Working Voltage</b>		±5 Vpp
<b>Non-destructive Voltage</b>		±40 Vpp
<b>User defined threshold range</b>		-3 V~3 V
<b>Threshold Selections</b>		TTL (1.5 V), COMS (1.65 V), 3.3 V_LVCOMS (1.65 V), 2.5 V_LVCOS (1.25 V)
<b>Threshold Accuracy</b>		±400 mV
<b>Delay Window</b>		600 mVpp
<b>Min. Input Voltage Swing</b>		800 mVpp
<b>Input level Limit</b>		TTL (0 V≤VL≤0.8 V;2.4 V≤VH≤5 V) CMOS (0 V≤VL≤1.5 V;3.5 V≤VH≤5 V) 3.3 V_LVCOMS (0 V≤VL≤0.7 V;2 V≤VH≤3.3 V) 2.5 V_LVCOMS (0 V≤VL≤0.7 V;1.7 V≤VH≤2.5 V)
<b>Cable length</b>		80 CM±2 CM
<b>Max. Data rate</b>		120 Mbps
<b>Timing sampling rate</b>		500 Mbps
<b>Status sampling rate</b>		60 Mbps
<b>Minimum input slew rate</b>		75 mV/μS
<b>Plus Width Resolution</b>		TTL: 15 nS CMOS: 15 nS LVCMOS 3.3V: 15 nS

## Near Field Probe

Parameter \ Model	SRF5030-1	SRF5030-2	SRF5030-3	SRF5030-4
				
<b>Frequency Range</b>	30 MHz to 3 GHz	30 MHz to 3 GHz	30 MHz to 2 GHz	30 MHz to 3 GHz
<b>Resolution</b>	25 mm	10 mm	5 mm	2 mm
<b>Application</b>	<p>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.</p> <p>Frequency range: 30 MHz to 3 GHz</p>	<p>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.</p> <p>Frequency range: 30 MHz to 3 GHz</p>	<p>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.</p> <p>Frequency range: 30 MHz to 3 GHz</p>	<p>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).</p> <p>Frequency range: 30 MHz to 3 GHz</p>

# 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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