

Tablet Oscilloscope

Automotive Oscilloscope

Optical-fiber Isolated Probe

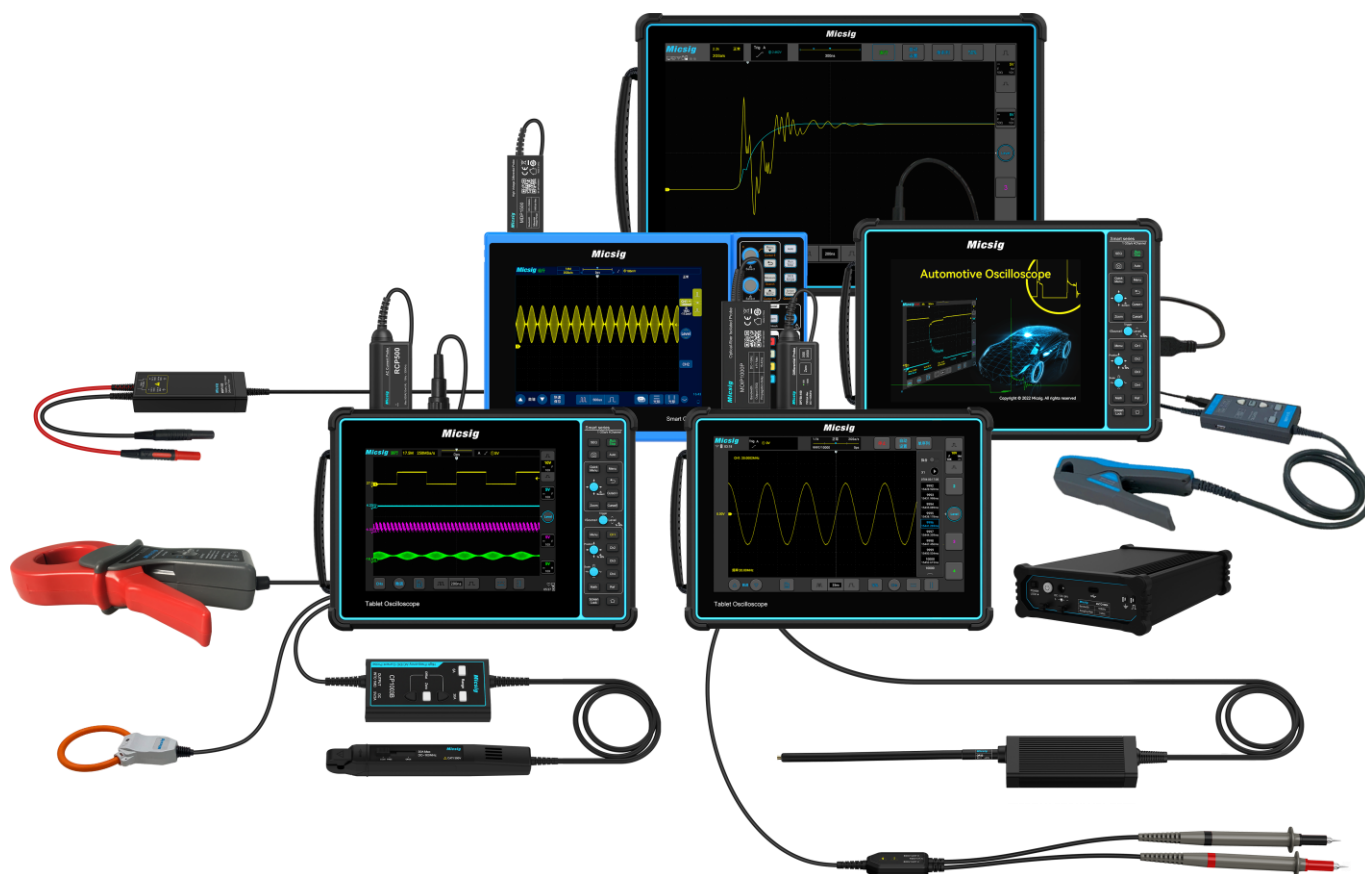
High Voltage Differential Probe

High Frequency AC/DC Current Probe

Low Frequency AC/DC Current Probe

AC Current Probe

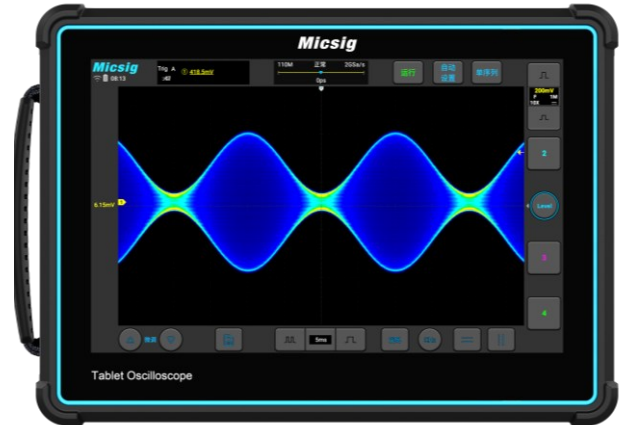
# PRODUCT CATALOG



# Tablet Oscilloscope

## TO Series

- ▶ Micsig dedicated SigtestUI™ multitasking system
- ▶ 10.1" integrated touchscreen with 1280\*800 resolution
- ▶ Intuitive UI & Android OS make sure to use at ease
- ▶ Standard bus protocols: UART, CAN, LIN, SPI, I<sup>2</sup>C
- ▶ Built-in battery, works on the bench or in the field
- ▶ Statistics function and adjustable vertical scale fining
- ▶ Support Wi-Fi, HDMI, USB 3.0/2.0, USB Type-C
- ▶ Segmented Memory support to capture 10000 events



Model	TO3004	TO3002	TO2004	TO2002	TO1004
Analog Channels	4	2	4	2	4
Bandwidth	300MHz	300MHz	200MHz	200MHz	100MHz
Rise Time	≤1.16ns	≤1.16ns	≤1.75ns	≤1.75ns	≤3.5ns
Sampling Rate (Max.)	2GSa/s	2GSa/s	2GSa/s	1GSa/s	1GSa/s
Memory Depth (Max.)	220Mpts			110Mpts	
Waveform Capture Rate	300,000 wfms/s			78,000 wfms/s	
Input Sensitivity Range	1mV/div~10V/div (1MΩ); 1mV/div~1V/div (50Ω)			1mV/div ~ 10V/div (1MΩ)	
Bandwidth limit	20MHz, High pass, Low pass (to 30Hz)			20MHz, High pass, Low pass (to 30KHz)	
Segmented Storage	Support (up to 10,000 Events)			Not support	
Input impedance	1MΩ / 50Ω			1MΩ	
Battery / Duration (typical)	7.4V, 7500mAh / 3H			7.4V, 7500mAh / 5H	
Interfaces	Wi-Fi, USB 3.0/2.0 Host, USB Type-C, Grounding, HDMI, Trigger out				
Vertical Resolution	8-bit				
Display	10.1-Inch TFT-LCD capacitive screen, 1280*800 resolution, 11*10 /divs				
Serial Bus Decoder	RS-232/422/485/UART, CAN, CAN FD, LIN, SPI, I <sup>2</sup> C				
Trigger Types	Edge, Pulse Width, Logic, Video, Time Out, Slope, Runt, N Edge				
Math	+, -, *, /, FFT, AX+B, Advanced Math				
Remote Control	PC Software, Smartphone App (iOS & Android), SCPI				
Dimension / Weight	265*192*50 mm / 1.9kg (with battery)				

# Tablet Oscilloscope

## Smart Series

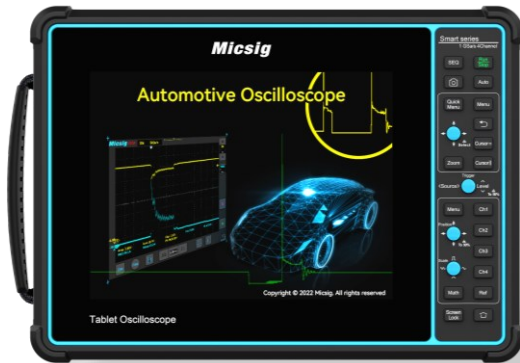


- ▶ Robust hardware, intuitive Android operation system
- ▶ 32GB storage to save large data / videos
- ▶ Support Wi-Fi, HDMI, USB 3.0/2.0 Host/Type-C
- ▶ Various protocol decoding: UART, CAN, LIN, SPI, I<sup>2</sup>C
- ▶ 8" touchscreen + compact button panel operation
- ▶ Innovative PC & Smartphone App remote control
- ▶ Battery enabled & portable size for easy field work
- ▶ Power-off switch lock, safe to travel and store

Model / Ordering Number	STO1004	STO2002
Analog Channels	4	2
Bandwidth	100MHz	200MHz
Rise Time	≤3.5ns	≤1.75ns
Sampling Rate (Max.)	1GSa/s	
Memory Depth (Max.)	70Mpts	
Waveform Capture Rate (Max.)	130,000 wfms/s	
Input Sensitivity Range	1mV/div~10V/div (1MΩ)	
Internal Storage	32GB	
Vertical Resolution	8-bit	
I/O Ports	Wi-Fi, USB 3.0/2.0 Host, USB type-C, Grounding, HDMI, Trigger out	
Display	8" TFT-LCD capacitive touch screen (800*600), 14 x 10 divisions	
Trigger Types	Edge, Pulse Width, Logic, Video, Time Out, Slope, Runt, N Edge	
Serial Bus Decoding	Std: UART, LIN, CAN, SPI, I <sup>2</sup> C, CAN FD; Opt: MIL-STD-1553B, ARINC-429	
Bandwidth Filter	20MHz, High Pass, Low Pass (to 30KHz)	
Auto Measurements	31 types	
Remote Control	PC, Smartphone App (iOS & Android), SCPI	
Dimension / Weight	265*192*50 mm / 1.9kg (with battery)	
Battery (built-in) / Duration	7.4V, 7500 mAh Li-ion battery / 5H	

# Automotive Oscilloscope

## SATO & ATO Series



SATO Series



ATO Series



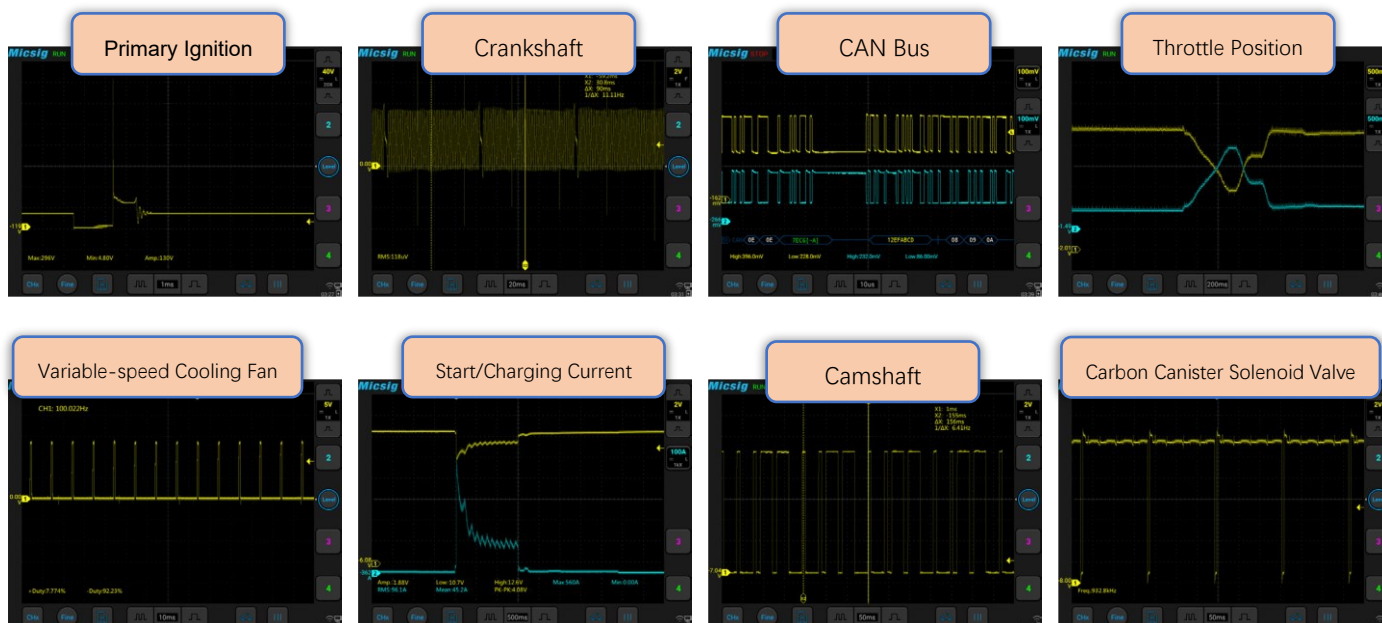
Series	SATO Series		ATO Series				
Model	SATO1004	SATO2002	ATO1004	ATO2002	ATO2004	ATO3002	ATO3004
Analog Channels	4	2	4	2	4	2	4
Bandwidth	100MHz	200MHz	100MHz	200MHz	200MHz	300MHz	300MHz
Sampling Rate (Max.)	1GSa/s	1GSa/s	1GSa/s	1GSa/s	2GSa	2GSa/s	2GSa
Memory Depth (Max.)	70Mpts	70Mpts	110Mpts	110Mpts	220Mpts	220Mpts	220Mpts
Waveform Capture Rate (Max.)	130,000 wfms/s		78,000 wfms/s		300,000 wfms/s		
Display	8" TFT-LCD, 800*600 pixel		10.1" TFT-LCD, 1280*800 pixel				
Auto-Diagnostic Tests	Charging Circuits, Starter Circuits, Sensors, Actuators, Ignition, Networks (CAN, CAN FD, LIN, Flexray, K line), Combination Test						
Bandwidth Filter	20MHz, Low Pass (to 30KHz)				20MHz, Low Pass (to 30Hz)		
Bus Decoding	RS-232/422/485/UART, CAN, CAN FD, LIN, SPI, I <sup>2</sup> C						
I/O Ports	Wi-Fi, USB 3.0/2.0 Host, USB type-C, Grounding, HDMI, Trigger out						
Battery	7.4V, 7500mAh						
Dimension / Weight	265*192*50mm / 1.9kg (with battery)						

### Features

- ✧ Comprehensive auto diagnostic presets
- ✧ Powerful signal capture and analysis capability
- ✧ Support PC & Smartphone remote control
- ✧ Portable design with all-in-one functions
- ✧ HDMI function for training & education
- ✧ Life-long free software online update



### References



### SATO / ATO Standard Kit

	 2 x Passive probe	 2 pair x Test needle	 Power Cable
	 4 x BNC banana lines	 2 pair x Alligator clips	 Adapter

### SATO / ATO Master Kit

	 2 x Passive probe	 2 pair x Test needle	 Power Cable
	 4 x BNC banana lines	 2 pair x Alligator clips	 Adapter
	 Secondary Ignition Pickup	 Multimeter Probe	 Hardshell Suitcase

# Optical-fiber Isolated Probe

## SigOFIT

With Micsig's exclusive SigOFIT™ optical isolation technology, the SigOFIT probe has extremely high CMRR and isolation voltage, unveils true signal within its full bandwidth range.

**Unveil  
Real Signal  
You've  
Never Seen**



**Common Mode Rejection Ratio (CMRR)**

Probe Tip	DC	1MHz	100MHz	200MHz	350MHz	500MHz	800MHz	1GHz
SMA	160dB	152dB	112dB	106dB	102dB	100dB	94dB	92dB
OP10	160dB	120dB	96dB	92dB	90dB	86dB	84dB	82dB
OP20	160dB	120dB	92dB	90dB	86dB	84dB	82dB	80dB
OP50	160dB	115dB	86dB	82dB	80dB	78dB	75dB	74dB
OP500	160dB	96dB	56dB	48dB	40dB	32dB	28dB	26dB
OP1000	160dB	90dB	50dB	42dB	34dB	26dB	22dB	20dB
OP2000	160dB	90dB	50dB	42dB	34dB	26dB	22dB	20dB

## SigOFIT



- CMRR up to 112dB at 100MHz, over 100dB at 500MHz
- DC gain accuracy up to 1%
- Safe to Test Gallium Nitride (GaN)

Differential Probe
  SigOFIT Probe

- Laser-powered, ensures long-time stable test
- Differential mode signals from  $\pm 1.25V$  to  $\pm 2500V$
- Compact design, simple to use

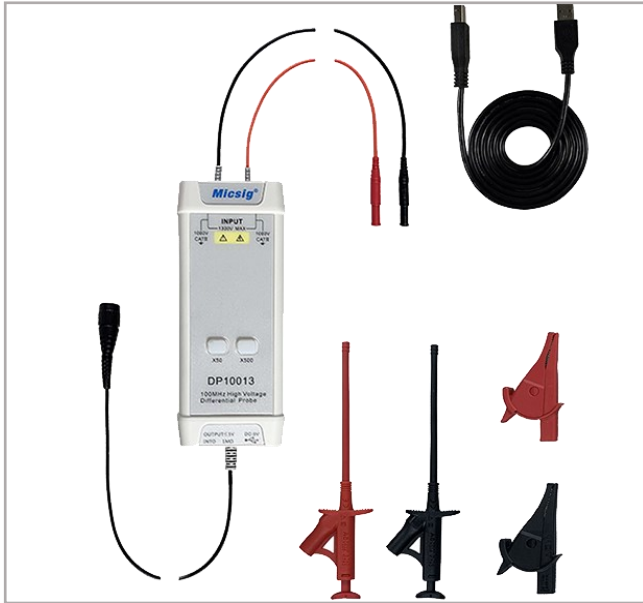


### Specifications

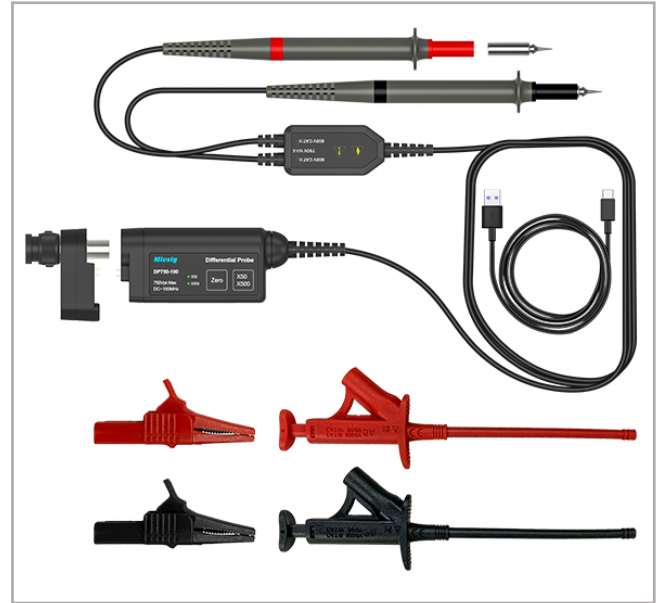
Model	MOIP01P	MOIP02P	MOIP03P	MOIP05P	MOIP08P	MOIP10P
Bandwidth	100MHz	200MHz	350MHz	500MHz	800MHz	1GHz
Rise Time	$\leq 3.5ns$	$\leq 1.75ns$	$\leq 1ns$	$\leq 700ps$	$\leq 438ps$	$\leq 350ps$
SMA input impedance	$1M\Omega \parallel 10pF$					
Output Voltage	$\pm 2.5V$			$\pm 1.25V$		
Differential Voltage Range	1X: $\pm 2.5V$ 10X: $\pm 25V$ 20X: $\pm 50V$ 500X: $\pm 1250V$ 1000X: $\pm 2500V$			1X: $\pm 1.25V$ 20X: $\pm 25V$ 50X: $\pm 62.5V$ 1000X: $\pm 1250V$ 2000X: $\pm 2500V$		
Noise	$< 1.41mVrms$					
Power Supply	USB Type-C; DC: 5V					
DC Gain Accuracy	1%					
Common Mode Voltage Range	$60kVpk$					
Cable Length	2 m (customizable)					

# High Voltage Differential Probe

## DP Series



▲ DP10007 / DP10013 / DP20003



▲ DP750-100

- ✧ High accuracy, low noise, measuring voltage up to 5600V
- ✧ Most compact design with professional performances
- ✧ One-press Zero calibration & Automatic overrange alarm
- ✧ Powered by oscilloscope USB output, no adapter needed
- ✧ DP750-100 can be powered directly by Micsig UPI oscilloscope
- ✧ DP750-100 automatically matches attenuation with Micsig UPI oscilloscope





## Specifications

Model / Ordering Number	DP10007	DP10013	DP20003	DP750-100
Bandwidth	100MHz	100MHz	100MHz	100MHz
Rise Time	≤ 3.5ns	≤ 3.5ns	≤ 3.5ns	≤ 3.5ns
Attenuation Range	10X, 100X	50X, 500X	200X, 2000X	50X, 500X
Gain Accuracy	±2%	±2%	±2%	±2%
Max. Differential Test Voltage (DC+AC PK)	70V (10X) 700V (100X)	130V (50X) 1300V (500X)	560V (200X) 5600V (2000X)	75V (50X) 750V (500X)
Max. Input Common Mode Voltage	CAT II 600V CAT I 1000V	CAT II 1000V	CAT III 1000V	CAT II 1000V
Input Referred Noise	≤ 15mVrms (10X) ≤ 60mVrms (100X)	≤ 40mVrms (50X) ≤ 230mVrms (500X)	≤ 160mVrms (200X) ≤ 920mVrms (2000X)	≤ 240μVrms (50X, 500X)
Common Mode Rejection Ratio (CMRR)	> 80dB (50Hz / DC) > 60dB (20KHz) > 45dB (1MHz)	> 80dB (DC) > 60dB (100KHz) > 50dB (1MHz)	> 80dB (DC) > 60dB (100KHz) > 50dB (1MHz)	> 80dB (DC) > 60dB (100KHz) > 50dB (1MHz)
Input Impedance	8MΩ/1.25pF (differential) 4MΩ/2.5pF (each input to ground)	10MΩ/1pF (differential) 5MΩ/2pF (each input to ground)	50MΩ/1.25pF (differential) 25MΩ/2.5pF (each input to ground)	8MΩ/1.25pF (differential) 4MΩ/2.5pF (each input to ground)
Output Voltage	≤ 7V	≤ 3V	≤ 3V	≤ 1.5V
Power	1.25W	0.85W	0.85W	1W
Power Supply	DC 5V, USB	DC 5V, USB	DC 5V, USB	DC 5V, USB; UPI
Overrange Alarm	Flashing Light			
Input cable length	45cm			15cm
Output cable length	90cm			100cm
Operating temperature	0°C-45°C			
Operating humidity	10%-85%			

# High Voltage Differential Probe

## MDP Series



Originated from Micsig's cutting-edge SigOFIT™ technology, the MDP series probe has excellent amplitude-frequency characteristics and common mode rejection capability, allow users to test high-frequency, high-voltage signal with ease.

- 5MHz bandwidth limit
- High accuracy & CMRR
- Low noise, better bandwidth flatness
- Dual range selection
- Standard BNC interface
- USB-C power supply
- Over-range alarm
- Compact & Exquisite design

Model	MDP700	MDP701	MDP1500	MDP1501	MDP3000	MDP3001
Bandwidth	100MHz	150MHz	100MHz	150MHz	100MHz	150MHz
Rise time	≤3.5ns	≤2.33ns	≤3.5ns	≤2.33ns	≤3.5ns	≤2.33ns
Attenuation	20X / 200X		50X / 500X		100X / 1000X	
Accuracy	±2%		±2%		±2%	
Max. Differential Voltage (DC+AC PK)	70V (20X) 700V (200X)		150V (50X) 1500V (500X)		300V (100X) 3000V (1000X)	
Max. Common Mode Input Voltage	CAT I 600V CAT II 450V		CAT II 1000V CAT III 600V		CAT III 1000V	
Noise	<b>Full Bandwidth:</b> 20X/50X/100X: ≤ 0.9mVrms 200X/500X/1000X: ≤ 0.4mVrms				<b>5MHz Limit:</b> 20X/50X/100X: ≤ 0.4mVrms 200X/500X/1000X: ≤ 0.35mVrms	
CMRR	DC: >-80dB 100kHz: >-60dB 10MHz: >-30dB 100MHz: >-26dB					
Delay	11.99ns at 20X 12.27ns at 200X		11.99ns at 50X 12.27ns at 500X		11.99ns at 100X 12.27ns at 1000X	
Input impedance	16MΩ / 1.5pF(differential) 8MΩ / 3pF(each input to ground)		16MΩ / 1.5pF(differential) 8MΩ / 3pF(each input to ground)		20MΩ / 1.5pF(differential) 10MΩ / 3pF(each input to ground)	
Output voltage	≤3V					
Power supply	2W, USB Type-C					
Overrange	LED flashes, Buzzer beeps					

# High Frequency AC/DC Current Probe

## CP Series



- ▶ AC/DC measuring capabilities
- ▶ Degaussing / Auto Zero setting
- ▶ Superior 1% DC accuracy (typical)
- ▶ Overload flashing light indicator

Model / Ordering Number	CP503B	CP1003B
Bandwidth	50MHz	100MHz
Rise Time	≤ 7ns	≤ 3.5ns
Interface	Standard BNC	
Range	6A (2X) / 30A (10X)	
Output Sensitivity	1V/2A (6A) 1V/10A (30A)	
DC Accuracy (typical)	±1%±10mA (6A) ±1%±50mA (30A)	
Delay	< 30ns (6A) < 30ns (30A)	
Input Current Range	20mA~6Apk (6A) 50mA~30Apk (30A)	
Max. Current Input	30Apk, 60Apk-pk, 21.21Arms	
Noise	≤ 1.4 mA RMS (@ 20 MHz; Range 30A, 10X)	
Max. Working Voltage	CAT I 300V	
Max. Conductor Diameter	5mm	
Overload Indicator	Flashing light	
Power Supply	DC 5V 3A	

# Low Frequency AC/DC Current Probe

## CP2100 Series

- Bandwidth up to 2.5MHz
- Switchable Current Range: 10A / 100A
- Compact design with reliable performance
- USB power supply, no need extra adapter
- Compatible with any BNC-type oscilloscope

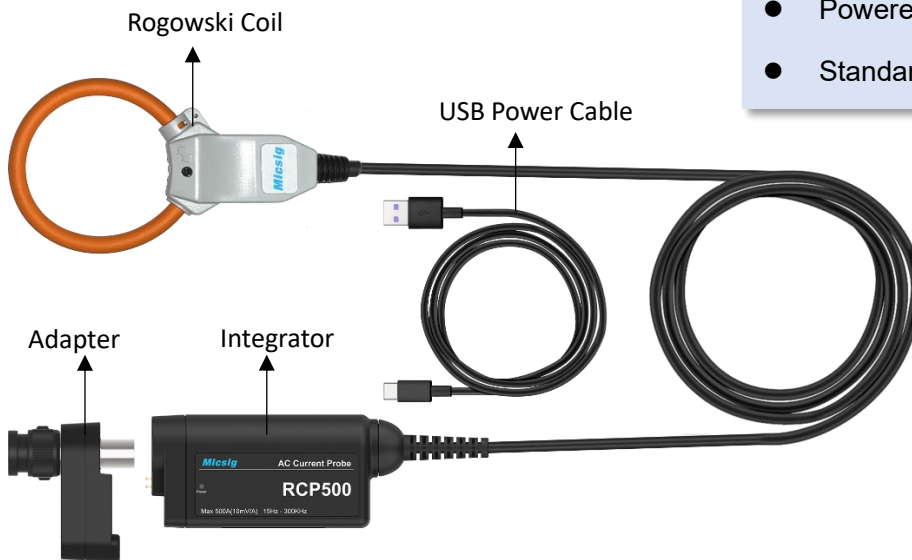


Model / Ordering Number	CP2100A	CP2100B
Bandwidth	DC~800KHz	DC~2.5MHz
Rise Time	≤437.5ns	≤ 140ns
Range	10A/100A	
Output Sensitivity	0.1V/A (10A) ; 0.01V/A (100A)	
DC Accuracy (typical)	3%±50mA (10A) 4%±50mA (100A, 500mA~40Apk) 15% (100A, 40Apk~100Apk)	
Signal Delay	< 150ns (10A) < 200ns (100A)	
Current Range	50mA~10Apk (10A) 1A~100Apk (100A)	
Max. Measuring Range	100Apk, 70.7Arms (DC+AC, pk) 200Apk-pk, 70.7Arms (AC)	
Max. Working Voltage	CATIII 300V ; CAT II 600V	
Max. Conductor Diameter	13mm	
Overrange Alarm	Buzzer beeps, flashing light	
Power Supply	DC 5V	
Input Cable Length	45cm	
Output Cable Length	90cm	
Operating Temperature	0°C-50°C	
Operating Humidity	10%-85%	

# AC Current Probe

## RCP500

- Compactly designed, exquisite appearance
- 1% high accuracy with less than 2mV noise
- Rogowski coil measurement system
- Powered directly by Micsig UPI
- Standard adapter for all BNC interface



Model / Ordering Number	RCP500
Bandwidth	15Hz - 300KHz (-3dB )
Current Range	200mA (pk) - 500A (pk)
Output Sensitivity	10mV/A
Output Noise	< 2mV rms
Typical Accuracy	1%
Phase Accuracy	≤0.8° (45Hz-66Hz)
Offset Voltage	±1mV or below
Max. Voltage	AC 10kV RMS (1 minute), (50Hz/60Hz) (Rogowski coil part only)
Conductor Under Test Diameter	≤ ϕ50mm
Power Supply	Micsig UPI probe interface; Adapter (USB cable)
Conductor Positional Accuracy	Within ±1% (Deviation from the Center)
Influence of External Magnetic Fields	1.5% f.s. or below (400A/m,50Hz/60Hz)
Coil to Integrator Cable Length	2m (customizable)
Operating Temperature	-20-70°C
Operating Altitude	≤ 2000m

# AC Current Probe

## ACP1000

- Open clamp design
- BNC connection to all oscilloscope
- Operating frequency: 10Hz–100kHz
- Max. peak current: 2000A (2s)
- Output signal: mV/A
- Maximum accuracy: 1%
- Safety category: CAT III 600V



Model / Ordering Number	ACP1000
Input Current	0.1-10A 0.1-100A 1-1000A
Rated Output	100mV/A 10mV/A 1mV/A
Frequency	10Hz-100KHz
Rated Load	≥ 100KOhms
Accuracy	3%±10mV 2%±5mV 1%±1mV
Current range	0.1A-1000A
Frequency	10Hz–100kHz
Maximum accuracy	1%
Safety category	CAT III 600V
Max. conductor diameter	52mm
Size	111mm x 216mm x 45mm

*New Product Coming Soon*

Photo	Name	Main Specs
	<p>GEN 5 Tablet Oscilloscope ETO series</p>	<ul style="list-style-type: none"> <li>◆ Bandwidth: 500MHz</li> <li>◆ Analog Channels: 4</li> <li>◆ Sampling Rate: 3GSa/s</li> <li>◆ Memory Depth: 360Mpts</li> <li>◆ Display: 14", 1920*1200</li> <li>◆ Battery: 7.4V, 13500mAh</li> </ul>
	<p>Split-type (Virtual) Oscilloscope</p>	<ul style="list-style-type: none"> <li>◆ Bandwidth: 100MHz-200MHz</li> <li>◆ Analog Channels: 4</li> <li>◆ Sampling Rate: 1GSa/s</li> <li>◆ Memory Depth: 50Mpts</li> </ul>
<p>More ...</p>		

# Accessories

**MS-A-001**

BNC to banana lead



**MS-A-004**

IC pincer clips / pair



**MS-A-005**

multimeter probe / pair



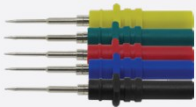
**MS-A-006**

alligator clips B / pair



**MS-A-007**

piercing needle / 5 pcs



**MS-A-008**

automotive pickup



**MS-A-009**

flexible needle / pair



**MS-A-010**

multimeter pen



**MS-A-011**

alligator clips S / pair



**MS-A-012**

piercing test hook



**T3100**

HV probe 2000V/100X



**P130A**

BNC probe 600v/200MHz



**P300**

BNC probe 600v/300MHz



**MS-Adapter**

power adapter 12V 4A



**MS-Mask**

Screen protector



**MS-HB**

oscilloscope handbag



**MS-SC-1**

Suitcase for Smart/TO series



**MS-SC-2**

Suitcase for SATO/ATO series



**STO-BA-A750**

Battery for STO1000C/E  
/STO2000C series



**MS-A-B747500**

Battery for Smart/SATO  
/ATO/TO series







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