

Tablet Oscilloscope

Automotive Oscilloscope

Optical-fiber Isolated Probe

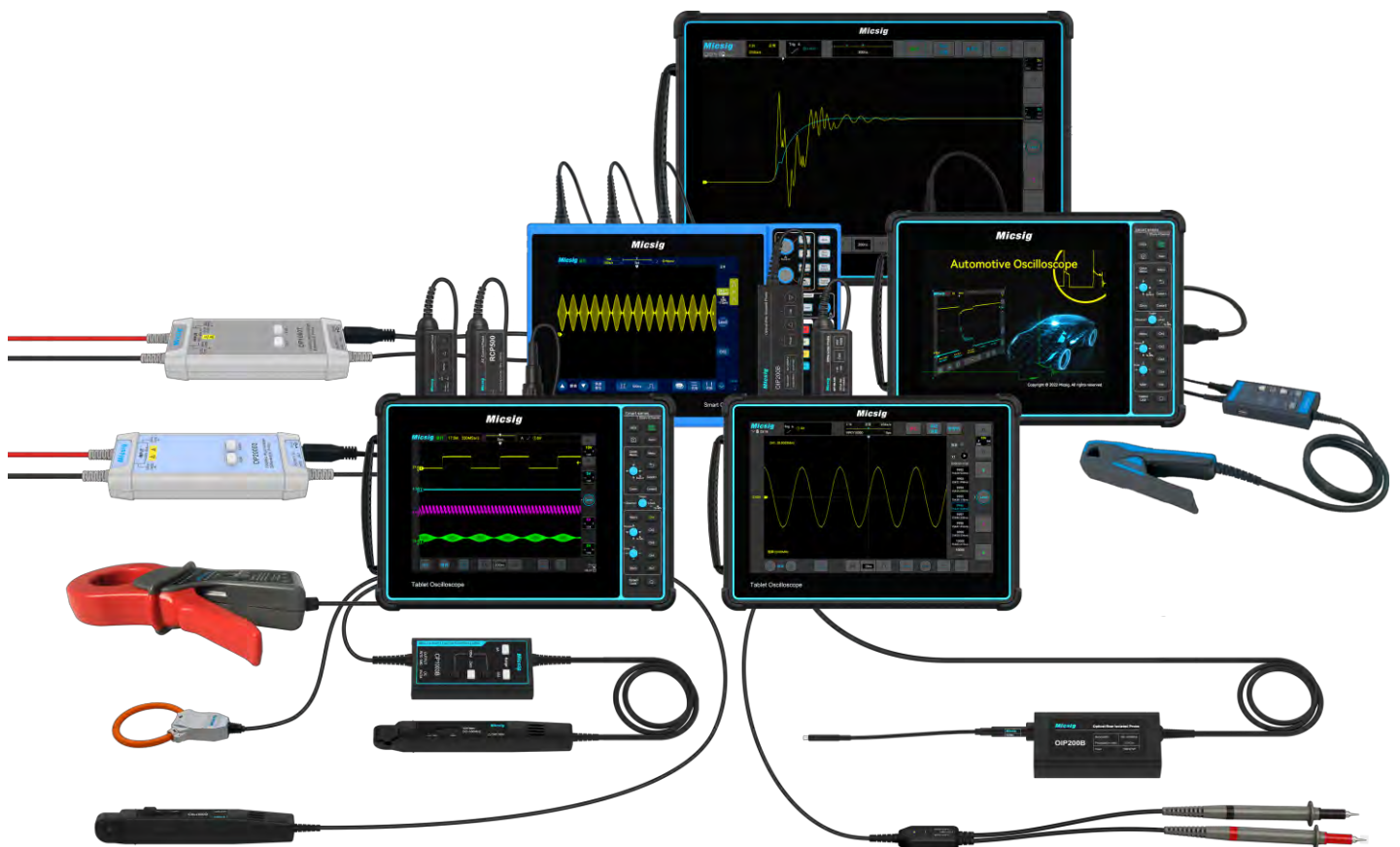
High Voltage Differential Probe

High Frequency AC/DC Current Probe

Low Frequency AC/DC Current Probe

AC Current Probe

PRODUCT CATALOG



Tablet Oscilloscope

TO Series

- ▶ Equipped with Micsig latest SigtestUI™ multitasking system
- ▶ 10.1" integrated touchscreen with 1280*800 resolution
- ▶ Intelligent bi-directional probe interface -- Micsig UPI*
- ▶ Standard bus trigger and decode: UART, CAN, LIN, SPI, I²C
- ▶ Built-in battery, works on the bench or in the field
- ▶ Intuitive UI & Android OS make sure to use at ease
- ▶ Support Wi-Fi, HDMI, USB 3.0/2.0, USB Type-C
- ▶ Segmented Memory support to capture 10000 events



*UPI: Universal Probe Interface

Model / Ordering Number	TO3004	TO2004	TO1004
Analog Channels	4	4	4
Bandwidth	300 MHz	200 MHz	100 MHz
Rise Time	≤ 1.16ns	≤ 1.75ns	≤ 3.5ns
Sampling Rate (Max.)	2 GSa/s		1 GSa/s
Memory Depth (Max.)	220 Mpts		110 Mpts
Waveform Capture Rate (Max.)	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
Internal Storage	32GB		
I/O Ports	Wi-Fi, USB 3.0/2.0 Host, USB type-C, Grounding, HDMI, Trigger out		
Vertical Resolution	8-bit		
Display	10.1" TFT-LCD capacitive touch screen (1280*800), 11 x 10 divisions		
Trigger Types	Edge, Pulse Width, Logic, Video, Time Out, Slope, Runt, N Edge		
Serial Trigger and Decode	Std.: UART, LIN, CAN, SPI, I ² C; Opt.: MIL-STD-1553B, ARINC-429, CAN FD		
Math	+, -, *, /, FFT, AX+B, Advanced Math		
Remote Control	PC Software, Smartphone App (iOS & Android)		
Dimension / Weight	265*192*50 mm / 1.9kg (with battery)		
Battery / Duration	7.4V, 7500 mAh / 2H		7.4V, 7500 mAh / 5H

Tablet Oscilloscope

STO Series



- ▶ Robust hardware design, intuitive Android operation system
- ▶ 32GB storage to save large data / videos / screenshots
- ▶ Rich connectivity: Wi-Fi, HDMI, USB 3.0/2.0 Host/Type-C
- ▶ Support various protocol decoding: UART, CAN, LIN, SPI, I²C
- ▶ 8" LCD touchscreen + compact knob/button panel operation
- ▶ Innovative PC & Smartphone App remote control
- ▶ Battery enabled & portable size for easy field work
- ▶ Intelligent bi-directional probe interface - Micsig UPI

Model / Ordering Number	STO1004
Analog Channels	4
Bandwidth	100 MHz
Rise Time	≤ 3.5ns
Sampling Rate (Max.)	1 GSa/s (single-channel)
Memory Depth (Max.)	70 Mpts (single-channel)
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 Trigger and Decode	Std: UART, LIN, CAN, SPI, I ² C ; Opt: MIL-STD-1553B, ARINC-429, CAN FD
Bandwidth Filter	20MHz, High Pass, Low Pass (to 30KHz)
Auto Measurements	31 types
Remote Control	PC Software, Smartphone App (iOS & Android)
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



SATO1004



ATO1004 / ATO2004 / ATO3004



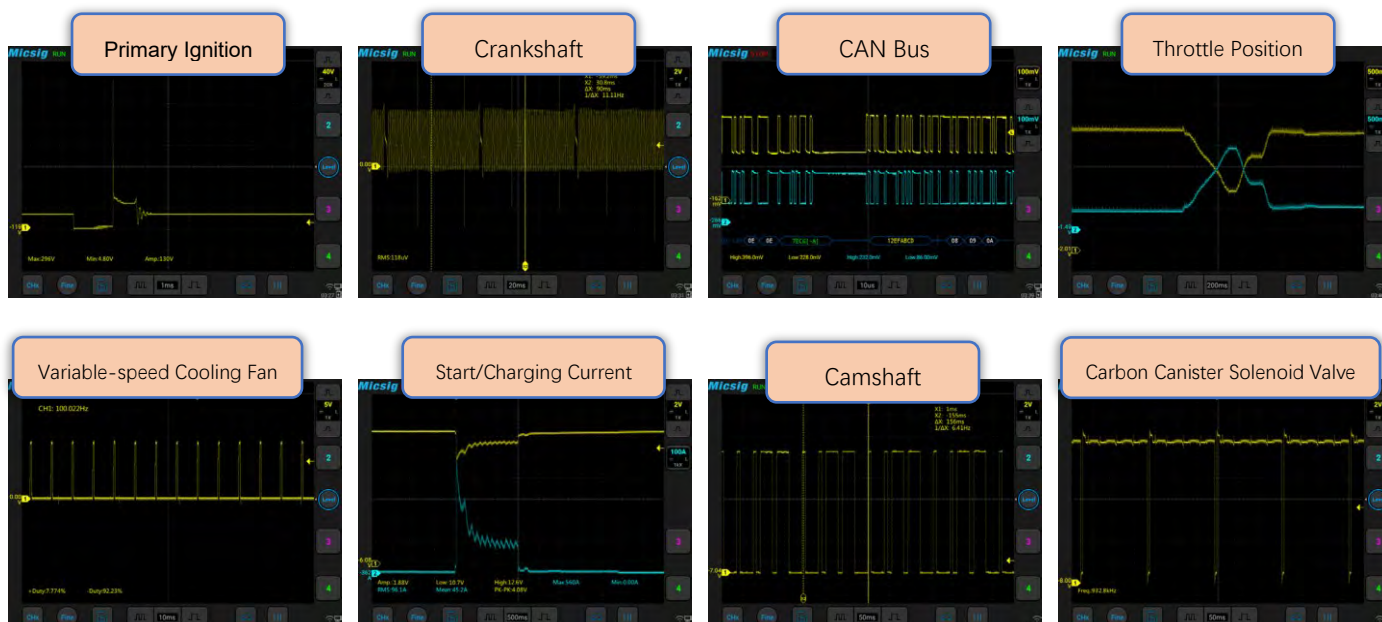
Model / Ordering Number	SATO1004	ATO1004	ATO2004	ATO3004
Analog Channels	4	4	4	4
Bandwidth	100MHz	100MHz	200MHz	300MHz
Sampling Rate (Max.)	1 GSa/s	1 GSa/s	2 GSa/s	2 GSa/s
Memory Depth (Max.)	70Mpts	110Mpts	220Mpts	220Mpts
Waveform Capture Rate (Max.)	130,000 wfms/s	78,000 wfms/s	300,000 wfms/s	300,000 wfms/s
Display	8" LCD, 800*600, 14*10 divisions	10.1" LCD, 1280*800, 11*10 divisions		
Support Diagnostic Tests	Charging Circuits, Starter Circuits, Sensors, Actuators, Ignition, Networks (CAN, CAN FD, LIN, Flexray, K line), Combination Tests			
Bandwidth Filter	20MHz, Low Pass (to 30KHz)		20MHz, Low Pass (to 30Hz)	
I/O Ports	Wi-Fi, USB 3.0/2.0 Host, USB type-C, Grounding, HDMI, Trigger out			
Battery / Duration	7.4V, 7500mAh / 5H		7.4V, 7500mAh / 2H	
Dimension / Net 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



SATO1004 Standard Kit



SATO1004 Master Kit



Remarks: SATO1004 has the same packaging configurations as SATO1004

Optical-fiber Isolated Probe

OIP Series

With Micsig's exclusive SigOFIT[™] optical isolation technology, the OIP has extremely high common-mode rejection ratio and isolation voltage, unveils true signal at its full bandwidth range.



Common Mode Rejection Ratio (CMRR)							
Probe Tip	DC	1MHz	100MHz	200MHz	350MHz	500MHz	1GHz
SMA	160dB	152dB	112dB	106dB	102dB	100dB	92dB
OP10	160dB	120dB	96dB	92dB	90dB	86dB	82dB
OP20	160dB	120dB	92dB	90dB	86dB	84dB	80dB
OP500	160dB	96dB	56dB	48dB	40dB	32dB	26dB
OP1000	160dB	90dB	50dB	42dB	34dB	26dB	20dB

OIP Series



Differential Probe

Micsig OIP Probe

Vgs signal at SiC conduction moment

- Present True Signal
- Compact & Simple
- Efficient & Affordable
- Wide Measurement Range
- Best Probe for SiC & GaN test



Model / Ordering Number	OIP100B	OIP200B	OIP350B	OIP500B	OIP1000B
Bandwidth	100MHz	200MHz	350MHz	500MHz	1GHz
Rise Time	≤3.5ns	≤1.75ns	≤1ns	≤700ps	≤350ps
Output Voltage	±2.5V		±1V		
Test voltage	1X: ±2.5V		1X: ±1V		
	10X: ±25V		10X: ±10V		
	20X: ±50V		20X: ±20V		
	500X: ±1250V		500X: ±500V		
	1000X: ±2500V		1000X: ±1000V		
Propagation Delay	15.42ns (2m cable length)				
Power Supply	USB Type-C; DC: 5V				
DC Gain Accuracy	1%				
Bandwidth Gain Accuracy	1.5%				
Noise	<1.41mVrms				
Common Mode Voltage Range	60kVpk				
Battery Runtime	8 hours				
Cable Length	2m (Std.), customizable				

Attenuator Ratio, Input Impedance

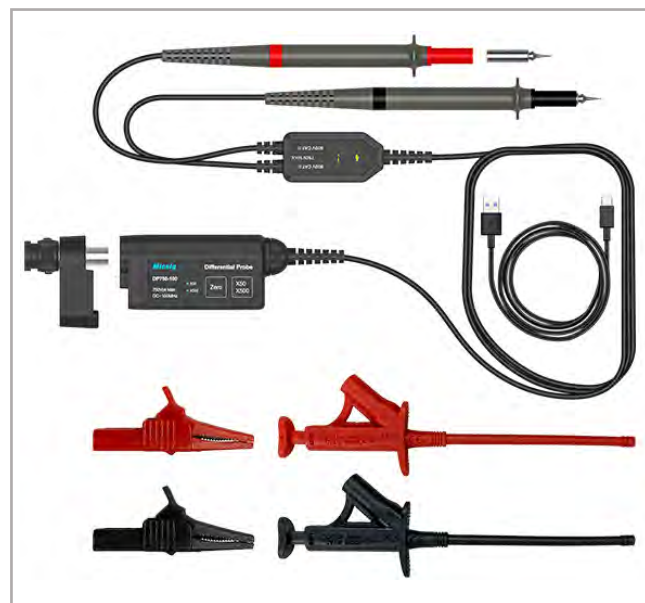
Probe Tip	Attenuation Ratio	Input Impedance
SMA Input	1X	1MΩ 10pF
OP10 Input	10X	4.47MΩ 3.0pF
OP20 Input	20X	4.23MΩ 2.8pF
OP500 Input	500X	12.27MΩ 2.6pF
OP1000 Input	1000X	30.63MΩ 2.6pF

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



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
Table continued...				

	DP10007	DP10013	DP20003	DP750-100
Input Referred Noise	$\leq 15\text{mVrms (10X)}$ $\leq 60\text{mVrms (100X)}$	$\leq 40\text{mVrms (50X)}$ $\leq 230\text{mVrms (500X)}$	$\leq 160\text{mVrms (200X)}$ $\leq 920\text{mVrms (2000X)}$	$\leq 240\mu\text{Vrms (50X、500X)}$
Common Mode Rejection Ratio (CMRR)	$> 80\text{dB (50Hz / DC)}$ $> 60\text{dB (20KHz)}$ $> 45\text{dB (1MHz)}$	$> 80\text{dB (DC)}$ $> 60\text{dB (100KHz)}$ $> 50\text{dB (1MHz)}$	$> 80\text{dB (DC)}$ $> 60\text{dB (100KHz)}$ $> 50\text{dB (1MHz)}$	$> 80\text{dB (DC)}$ $> 60\text{dB (100KHz)}$ $> 50\text{dB (1MHz)}$
Input Impedance	$8\text{M}\Omega/1.25\text{pF}$ (differential) $4\text{M}\Omega/2.5\text{pF}$ (single end to ground)	$10\text{M}\Omega/1\text{pF}$ (differential) $5\text{M}\Omega/2\text{pF}$ (single end to ground)	$50\text{M}\Omega/1.25\text{pF}$ (differential) $25\text{M}\Omega/2.5\text{pF}$ (single end to ground)	$8\text{M}\Omega/1.25\text{pF}$ (differential) $4\text{M}\Omega/2.5\text{pF}$ (single end to ground)
Output Voltage	$\leq 7\text{V}$	$\leq 3\text{V}$	$\leq 3\text{V}$	$\leq 1.5\text{V}$
Power	1.25W	0.85W	0.85W	1W
Power Supply	DC 5V, USB	DC 5V, USB	DC 5V, USB	DC 5V, USB; UPI
Ovrange Alarm	Flashing Light			
Input cable length	45cm			15cm
Output cable length	90cm			100cm
Operating temperature	$0^{\circ}\text{C}-45^{\circ}\text{C}$			
Operating humidity	10%-85%			

High Frequency AC/DC Current Probe

CP Series



CP503B / CP1003B



CP503 / CP1003

- ▶ AC/DC measuring capabilities
- ▶ Degaussing / Auto Zero setting
- ▶ Overload flashing light indicator
- ▶ Superior 1% DC accuracy (typical)
- ▶ USB adapter or Micsig UPI power supply
- ▶ Auto match Range with Micsig UPI oscilloscope (CP503/CP1003 only)

Model / Ordering Number	CP503	CP1003	CP503B	CP1003B
Bandwidth	50MHz	100MHz	50MHz	100MHz
Rise Time	≤ 7ns	≤ 3.5ns	≤ 7ns	≤ 3.5ns
Power interface	Micsig UPI		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	< 6ns (6A) < 6ns (30A)		< 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. Floating Voltage	CAT I 300V			
Max. Conductor Diameter	5mm			
Overload Indicator	Flashing light			
Power Supply	DC 12V (Micsig UPI)		DC 5V 3A (Std. Adapter)	

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

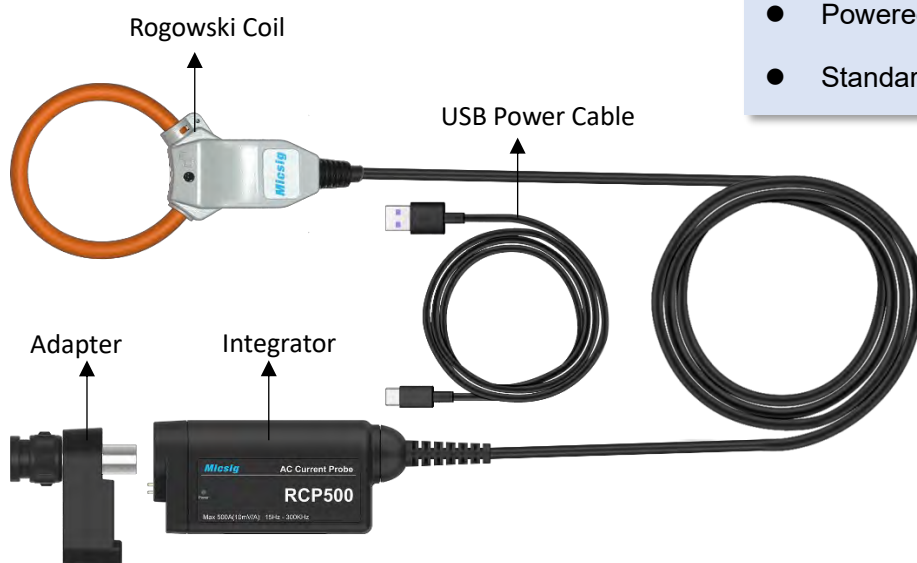


Model / Ordering Number	CP2100A	CP2100B
Bandwidth	DC~800KHz	DC~2.5MHz
Rise Time	≤437.5ns	≤140ns
Range	10A/100A	
Output Sensitivity	0.1V/A (10A) ; 0.01V/A (100A)	
DC Accuracy (typical)	3%±50mA (10A) 4%±50mA (100A, 500mA~40Apk) 15% (100A, 40Apk~100Apk)	
Signal Delay	< 150ns (10A) < 200ns (100A)	
Current 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℃-50℃	
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	$\leq 0.8^\circ$ (45Hz-66Hz)
Offset Voltage	$\pm 1\text{mV}$ or below
Max. Voltage	AC 10kV RMS (1 minute), (50Hz/60Hz) (Rogowski coil part only)
Conductor Under Test Diameter	$\leq \Phi 50\text{mm}$
Power Supply	Micsig UPI probe interface; Adapter (USB cable)
Conductor Positional Accuracy	Within $\pm 1\%$ (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	$\leq 2000\text{m}$

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

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 / 5pcs


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

STO1004 & New TO series


MS-SC-2

Suitcase for SATO1004


STO-BA-A750

Battery for STO1000C/E
/STO2000C series

MS-A-B747500

Battery for STO1004/SATO
/ATO/TO series
