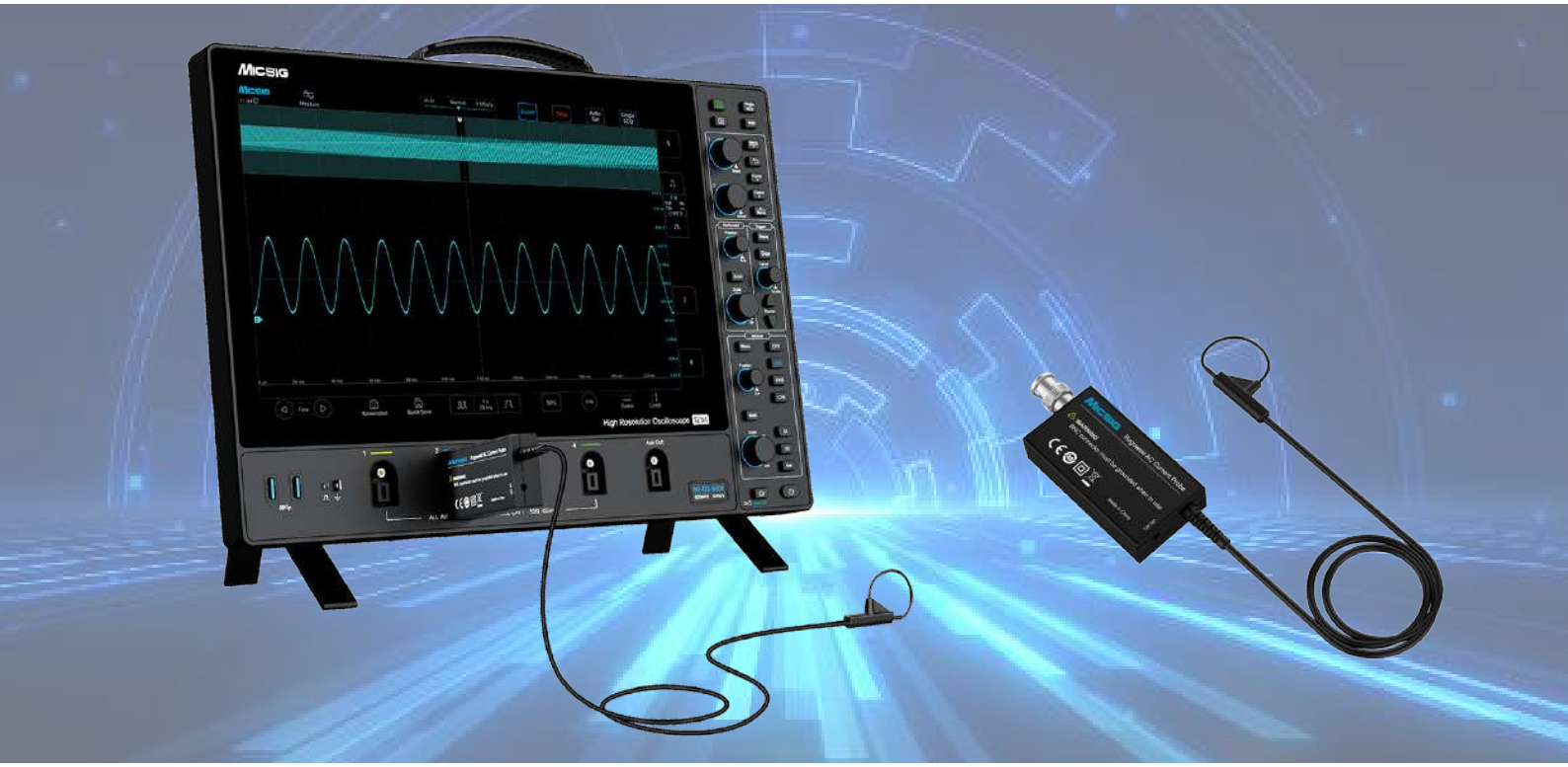
Rogowski AC Current Probe
RCP series

- Up to 30MHz bandwidth
- Max.6000Apk measurable current
- 2% typical accuracy
- 1.6mm coil cross-section diameter
- Standard BNC interface, compatible with any oscilloscope

Bandwidth	Coil cross-section diameter	Typical accuracy
2Hz-30MHz	**About 1.6mm**	**2%**

Peak Current	Interface
Up to 6000Apk	**BNC**



Shenzhen Micsig Technology Co., Ltd.

www.micsig.com

Micsig Website

PRODUCT OVERVIEW

Micsig RCP series Rogowski current probe measures AC currents up to 6000Apk, max. bandwidth up to 30 MHz, withstand voltage is up to 1kVrms, nearly zero insertion impedance, greatly minimized the interference to the DUT. A 1.6mm thin, flexible, clip-around Rogowski coil allow user easily pass through pin leg of TO-220 semiconductor devices. With 2% accuracy (typical) , accurately measures high-frequency and high-current signals like double-pulse dynamic test, monitor semiconductor switch current.

Standard BNC interface to use on any oscilloscope, most compact flexible design easily solved the hard-to-reach part issue, coil diameter support customzied made to meet more test requirements.

Smallest coil cross-section

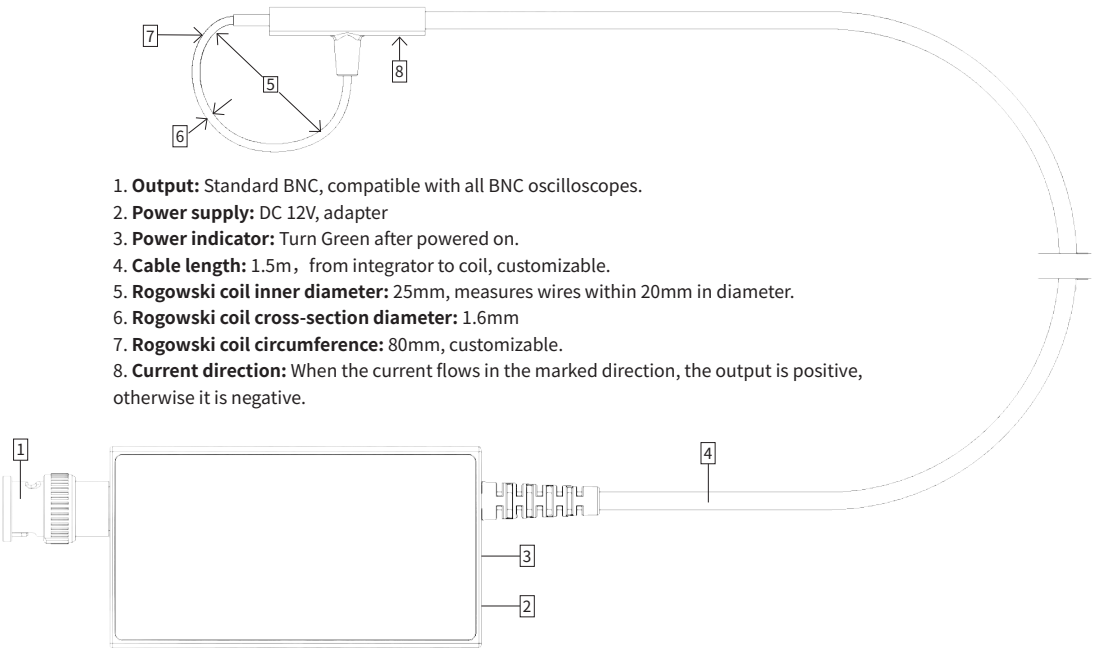
The cross-sectional diameter of the coil is only 1.6mm, allow engineers measure current in most difficult-to-reach parts of the circuit, such as TO-220, TO-47 MOSFET.

Measure the Id current of MOSFET

Excellent high-frequency measurement capabilities, easily measures high-speed signals, able to observe
HF harmonic components when measuring the Id current of MOSFET (as shown the oscillation section).

*The measurement in the above figure is carried out using RCP600XS.

Appearance



1. **Output:** Standard BNC, compatible with all BNC oscilloscopes.
2. **Power supply:** DC 12V, adapter
3. **Power indicator:** Turn Green after powered on.
4. **Cable length:** 1.5m，from integrator to coil, customizable.
5. **Rogowski coil inner diameter:** 25mm, measures wires within 20mm in diameter.
6. **Rogowski coil cross-section diameter:** 1.6mm
7. **Rogowski coil circumference:** 80mm, customizable.
8. **Current direction:** When the current flows in the marked direction, the output is positive, otherwise it is negative.

Specifications

Model	RCP60XS	RCP300XS	RCP600XS	RCP1200XS	RCP3000XS	RCP6000XS
Bandwidth	85Hz-30MHz	10Hz-30MHz	10Hz-30MHz	12Hz-30MHz	3Hz-30MHz	2Hz-30MHz
Rise time	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns
Peak current	60Apk	300Apk	600Apk	1200Apk	3000Apk	6000Apk
Output sensitivity	100mV/A（10X）	20mV/A（50X）	10mV/A（100X）	5mV/A（200X）	2mV/A（500X）	1mV/A（1000X）
Accuracy (typical)	2%	2%	2%	2%	2%	2%
Output noise	< 20mVpp	< 18mVpp	< 12mVpp	< 5mVpp	< 5mVpp	< 5mVpp
Peak di/dt	4kA/μs	20kA/μs	40kA/μs	70kA/μs	70kA/μs	70kA/μs
Droop (%/ms)	65%/ms	9%/ms	6%/ms	3%/ms	2%/ms	2%/ms
Delay time	26.2ns	22.4ns	20ns	20.8ns	20ns	20ns
Effect of conductor position	Within ±1% (deviation from center part)					
Offset voltage	< ±1mV					
Peak coil isolation voltage	AC 1kVrms (1 min) (50Hz/60Hz) (Rogowski coil part only)					
Measurable conductor diameter	≤ 20mm					
Power supply	DC 12V					
Integrator size	70*40*17mm					
Wire length (integrator to Rogowski coil)	1.5m（customizable）					
Coil inner diameter	25mm（customizable）					
Coil circumference	80mm（customizable）					
Coil cross-section diameter	Appx. 1.6mm					
Interface	1MΩ BNC					

Applications

- Measuring current in motor drives and in particular power quality measurements in VSD, UPS or SMPS circuits
- Double-pulse testing to measure the pin currents of MOSFET and IGBT chips made of materials such as SiC and GaN.
- Monitoring currents in small inductors, capacitors, snubber circuits, etc
- Measurement of load current and high-order harmonic current in power electronics
- Measuring small AC currents in the presence of large DC currents
- Measuring high frequency sinusoidal, pulsed or transient currents
- Measuring AC currents in 3-phase supply system
- Measuring the power consumption in semiconductors
- Measurement of 50/60Hz power frequency current
- Power converter development and diagnostics

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