

# OIP Pro Series

## Optical-fiber Isolated Probe

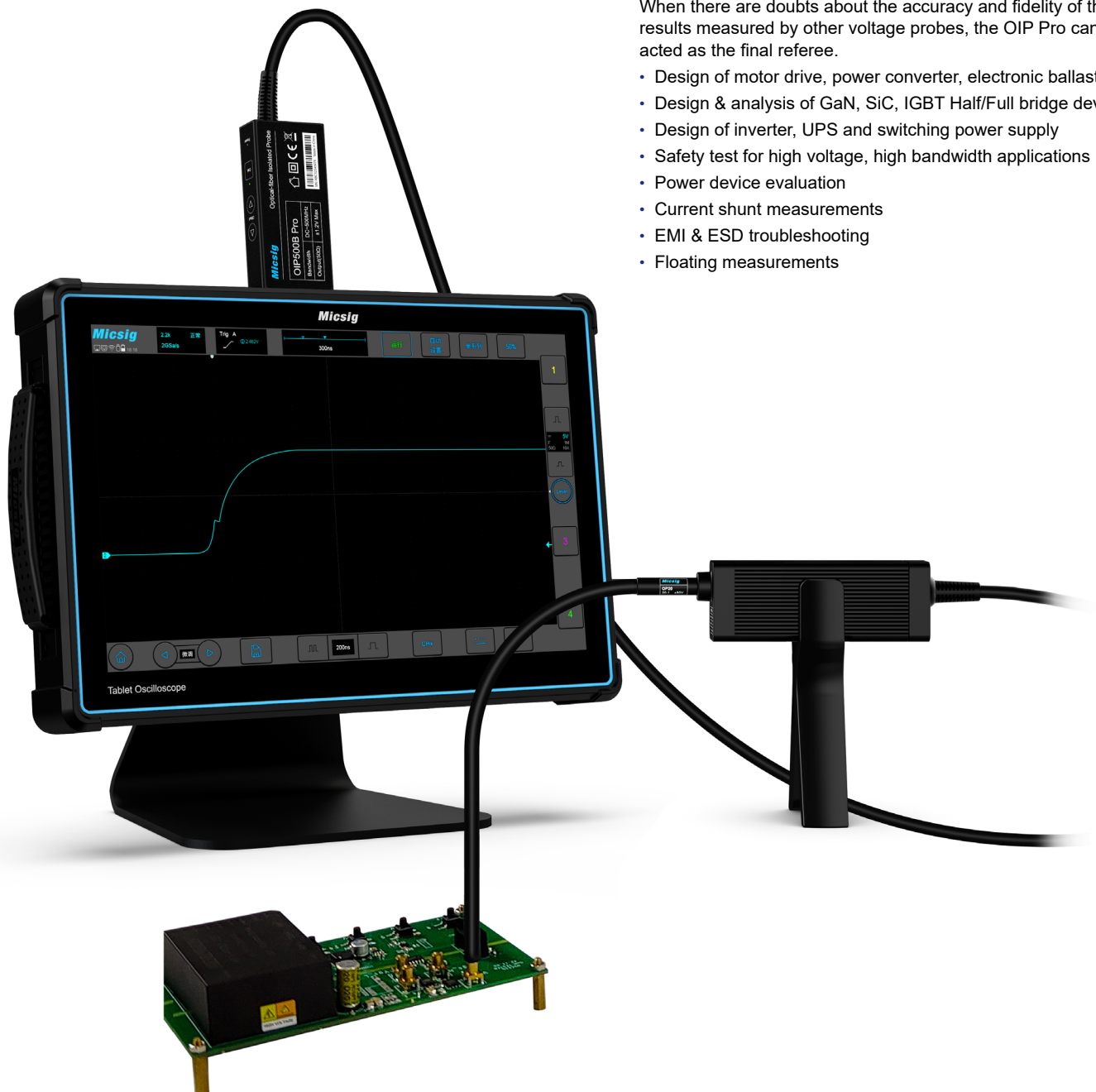
### Unveil Real Signal You've Never Seen

With Micsig's exclusive SigOFIT™ optical isolation technology, the OIP Pro series probe is powered by laser, has extremely high common-mode rejection ratio and Isolation voltage, help engineers to see the whole truth of the signal within its bandwidth.

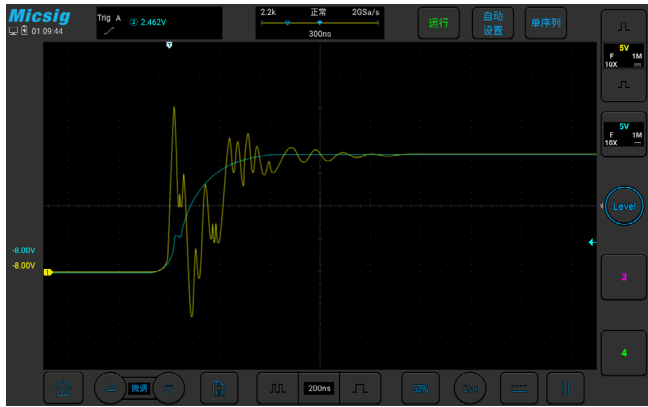
#### Applications:

When there are doubts about the accuracy and fidelity of the results measured by other voltage probes, the OIP Pro can be acted as the final referee.

- Design of motor drive, power converter, electronic ballast
- Design & analysis of GaN, SiC, IGBT Half/Full bridge devices
- Design of inverter, UPS and switching power supply
- Safety test for high voltage, high bandwidth applications
- Power device evaluation
- Current shunt measurements
- EMI & ESD troubleshooting
- Floating measurements



# Key Features:



■ Differential Probe    
 ■ OIP Pro Probe

## Highest Accuracy

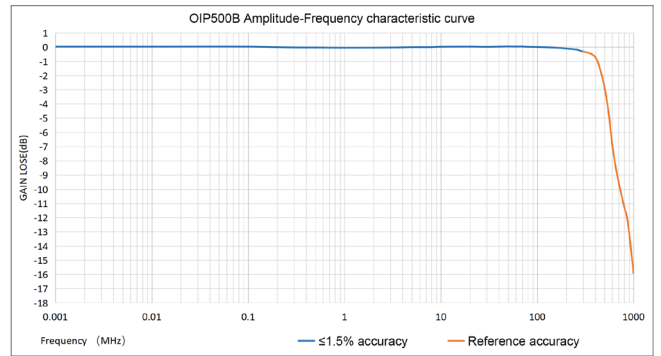
- OIP Pro series optic isolated probe has excellent amplitude-frequency characteristics. Effective Accuracy Bandwidth is as high as 50% of the Nominal Bandwidth, ensures 1.5% test accuracy within the effective bandwidth, while DC gain accuracy up to  $\leq 1\%$ . Full-range noise floor is 1.1mVrms max., and 24-hour Zero drift is less than 50 $\mu$ V.

## Present True Signal

- OIP Pro series probe delivers highest common mode rejection ratio, CMRR up to 112dB at 100MHz, over 100dB at 500MHz. It's the ultimate referee of signal fidelity measured by other voltage probes.

## Best Probe for Third-Gen Semiconductor

- Device like SiC and GaN can switch high voltages in a few nanoseconds, containing very high-energy high-frequency harmonics. Even at the highest bandwidth, the OIP Pro probe still have nearly 100dB CMRR, perfectly suppress oscillation caused by high-frequency common-mode noise, no redundant components, it's the best choice for third-generation semiconductor test and measurement.



10X / 20X / 50X / 100X / 500X / 1000X

## Safe to Test Gallium Nitride (GaN)

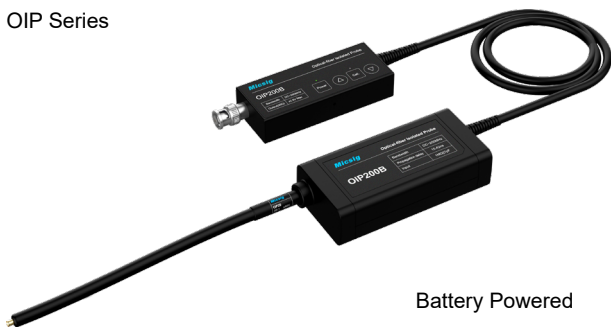
- The test leads of OIP probes are short and with coaxial cable transmission, has less than 3pF input capacitance, very safe to test GaN.

## Wide Measurement Range

- Unlike traditional differential probes can only test high-voltage signals, the OIP probes can be used with different attenuator tips to test differential mode signals from  $\pm 1V$  to  $\pm 2500V$ , achieving full-range output and very high signal-to-noise ratio.

## Model:

OIP Series



Battery Powered

OIP Pro Series



Laser Powered

## Compact & Simple

- Smaller size than traditional differential probes, more accurate probe tips, makes it much more easier and flexible to use.

## Efficient & Affordable

- Fastest response, can be tested immediately after power-on, no need to wait for warm-up, AutoZero in less than 1 second, ensures accurate signal output in real time.

# Specifications:

Model	OIP100B	OIP200B	OIP350B	OIP500B Pro	OIP1000B Pro
	OIP100B Pro	OIP200B Pro	OIP350B Pro		
Bandwidth	100MHz	200MHz	350MHz	500MHz	1GHz
Rise Time	≤3.5ns	≤1.75ns	≤1ns	≤700ps	≤350ps
Effective Accuracy Bandwidth <sup>(1)</sup>	60MHz	100MHz	250MHz	300MHz	550MHz
Output Voltage	±2.5V		±1.25V		±1V
Measuring Voltage	1X: ±2.5V 10X: ±25V 20X: ±50V 500X: ±1250V 1000X: ±2500V		1X: ±1.25V 10X: ±12.5V 20X: ±25V 500X: ±625V 1000X: ±1250V		1X: ±1V 10X: ±10V 20X: ±200V 500X: ±500V 1000X: ±1000V
Noise	OIP series noise <1.41mVrms, OIP Pro series noise <1.1mVrms				
Propagation Delay	15.42ns (2 meter cable)				
Power Supply	Type-C, DC: 5V				
DC Gain Accuracy	1%				
Bandwidth Gain Accuracy <sup>(2)</sup>	1.5%				
Common Mode Voltage Range	60kVpk				
Cable Length	2 meter (Customizable)				

Remarks: OIP series is powered by battery, work for approx. 8 hours; OIP Pro series is powered by laser, support long-lasting stable test.

## 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

## 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
OP50	160dB	115dB	86dB	82dB	80dB	78dB	74dB
OP100	160dB	110dB	62dB	52dB	46dB	40dB	30dB
OP500	160dB	96dB	56dB	48dB	40dB	32dB	26dB
OP1000	160dB	90dB	50dB	42dB	34dB	26dB	20dB

Remarks:

(1) Effective Accuracy Bandwidth: The upper limit of the bandwidth under the premise of ensuring test accuracy

(2) Bandwidth Gain Accuracy: Accuracy within the effective accuracy bandwidth.



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