

# SigOFIT Optical-fiber Isolated Probe MOIP Series

- ▶ Bandwidth: 100MHz-1GHz
- ▶ CMRR: Up to 180dB
- ▶ Differential Voltage Range:  $\pm 6250V$
- ▶ DC Gain Accuracy: 1%
- ▶ Common Mode Voltage: 85kVpk
- ▶ Interface: Universal BNC



Shenzhen Micsig Technology Co., Ltd.

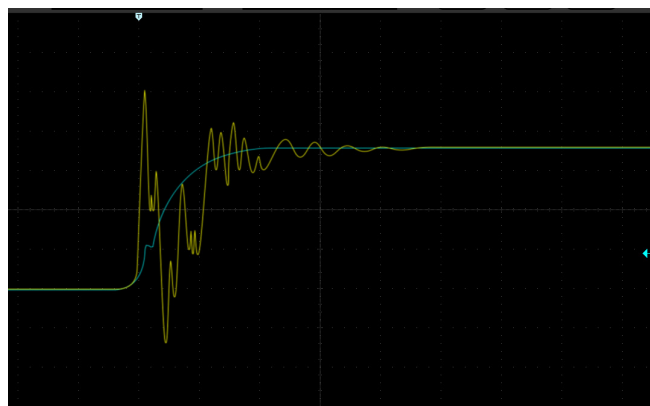
[www.micsig.com](http://www.micsig.com)



Micsig Website

# Product Overview & Key Features

Based on exclusive SigOFIT™ technology, the SigOFIT optical-fiber isolated probe has extremely high CMRR and isolation voltage, help to unveil the whole truth of the signal within bandwidth.



Yellow Differential Probe      Blue SigOFIT Optical-fiber Isolated Probe

## Present True Signal

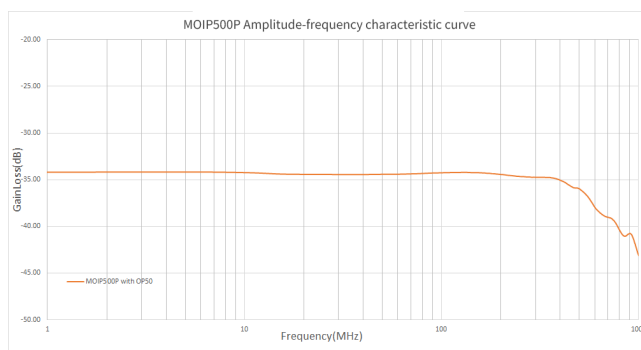
- SigOFIT probe delivers highest CMRR: over 128dB at 100MHz, up to 108dB at 1GHz. It's the ultimate referee of signal fidelity measured by other voltage probes.

## 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 SigOFIT probe still have over 100dB CMRR in max. bandwidth, perfectly suppress oscillation caused by high-frequency common-mode noise, it's the best choice for third-generation semiconductor test and measurement.

## Highest Accuracy

- SigOFIT probe has excellent amplitude-frequency characteristics. DC gain accuracy  $\leq 1\%$ , while noise  $\leq 0.45\text{mVrms}$ . Zero drift  $<0.1\%$  (works 5 mins later), gain drift also  $<1\%$ .



## Support the switching between 0dB and 20dB

- The SigOFIT optical isolation probe can be switched between 0dB (1X) and 20dB (100mX). Besides, different attenuators can be replaced to improve the signal-to-noise ratio, so that a single attenuator also has two range gears to improve the signal-to-noise ratio.



20X / 50X / 100X / 200X / 1000X / 2000X / 5000X / 10000X

### Safe to Test Gallium Nitride (GaN)

- The test leads of SigOFIT probe are short and with coaxial cable transmission, the input capacitance is as low as 1pF minimum, very safe to test GaN.

### Wide Measurement Range

- Unlike traditional differential probes can only test high-voltage signals, the SigOFIT probe can be used with different attenuator tips to test differential mode signals from  $\pm 0.01V$  to  $\pm 6250V$ , achieving full-range output and very high signal-to-noise ratio.

### Compact & Simple

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

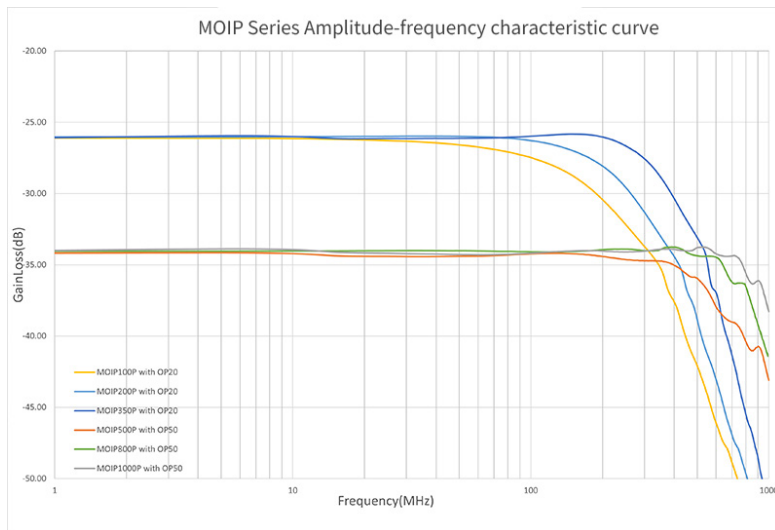
### Efficient & Affordable

- Fastest response, can be tested immediately after power-on, Auto Calibration in less than 1 second, ensures accurate signal output in real time.

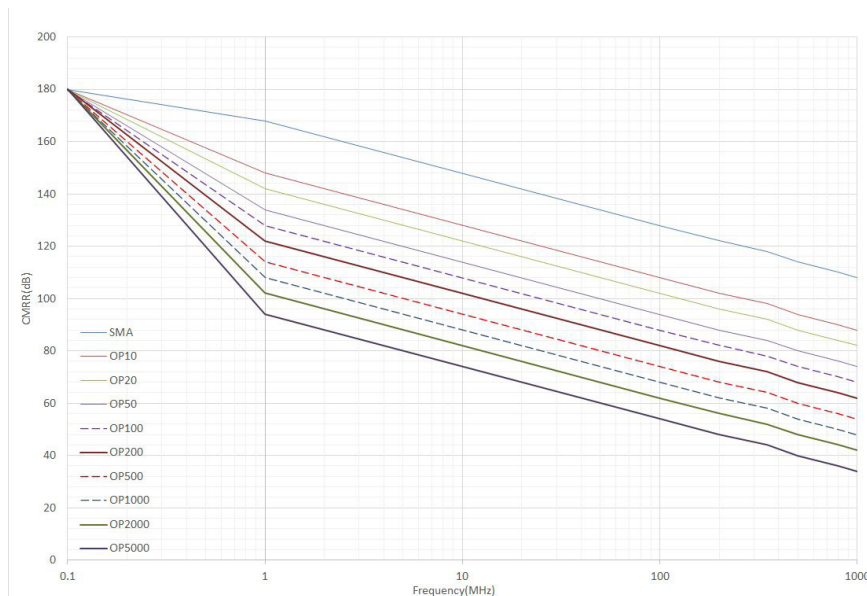


## Specifications

Model	MOIP100P	MOIP200P	MOIP350P	MOIP500P	MOIP800P	MOIP1000P
Bandwidth	100MHz	200MHz	350MHz	500MHz	800MHz	1GHz
Rise time	≤ 3.5ns	≤ 1.75ns	≤ 1ns	≤ 700ps	≤ 500ps	≤ 450ps
CMRR	DC: 180dB 100MHz: 128dB	DC: 180dB 200MHz: 122dB	DC: 180dB 350MHz: 118dB	DC: 180dB 500MHz: 114dB	DC: 180dB 800MHz: 110dB	DC: 180dB 1GHz: 108dB
Differential Voltage Range	Standard: OP20(MMCX), ±25V  Optional: OP50(MMCX), ±62.5V OP200(MCX), ±250V OP1000(MCX), ±1250V OP2000(MCX), ±2500V OP5000(LCX), ±6250V		Standard: OP20(MMCX), ±25V OP1000(MCX), ±1250V  Optional: OP50(MMCX), ±62.5V OP200(MCX), ±250V OP2000(MCX), ±2500V OP5000(LCX), ±6250V		Standard: OP50(MMCX), ±25V OP2000(MCX), ±1000V  Optional: OP20(MMCX), ±10V OP100(MMCX), ±50V OP5000(MCX), ±2500V OP10000(LCX), ±5000V	
Noise	<0.45mVrms			<0.45mVrms		
DC Gain Accuracy	1%					
Common Mode Voltage Range	85kVpk					
Power Supply	DC 12V					
Fiber cable length	2m (Customizable)					
Interface	Universal BNC					



▲ Amplitude-frequency characteristics of different SigOFIT probes



▲ CMRR of different types of attenuators (0dB) at various frequencies.

## Applications

- \* Design of motor drive, power converter, electronic ballast
- \* Design 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

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