SigOFIT Optical-fiber Isolated Probe

MOIP Series

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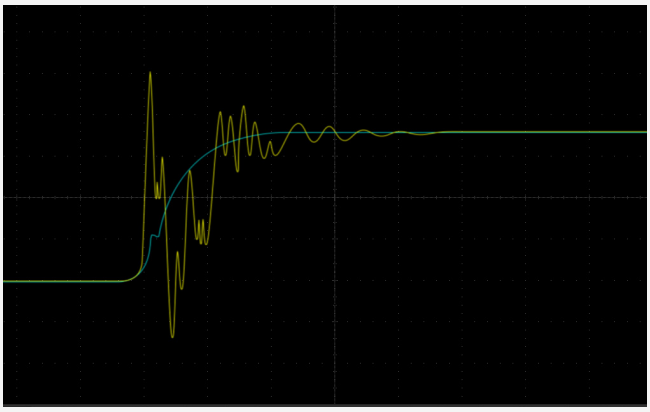
Product Overview

Built on the exclusive SigOFIT™ leading technology, Micsig MOIP Series Optically Isolated Probes boast an extremely CMRR—still as high as 108dB at the 1GHz frequency bandalong with an isolation voltage of up to 85kV and a noise floor of less than 0.45mVrms. its bandwidth ranges from 200MHz to 1GHz, capable of measuring differential mode signals from ±0.01V to ±6250V. It reveals the complete truth of signals within its bandwidth range, serving as the ultimate judge for verifying the authenticity of signals measured by other voltage probes.

Product Features



Present True Signal

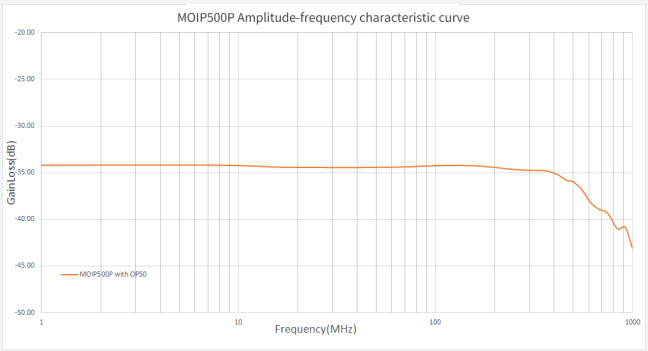
SigOFIT probe delivers highest CMRR: over 128dB at 100MHz, up to 108dB at 1GHz. It's the ultimate referee of signal fidelity measured by other voltage probes.

Best Probe for Third-Gen Semiconductor

Devices like SiC and GaN can switch high voltages in a few nanoseconds and generate very high-energy, high-frequency harmonics. Even at its highest bandwidth, the SigOFIT probe still maintains over 100dB CMRR and perfectly suppresses oscillations caused by high-frequency common-mode noise, making it the best choice for third-generation semiconductor test and measurement.

Highest Accuracy

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



Switching between 0dB and 20dB

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

Key Solution for Wide Semiconductor Testing

The test leads of SigOFIT probe are short and with coaxial cable transmission, the input capacitance is as low as 1pF minimum, making it very safe for testing GaN devices.

Wide Measurement Range

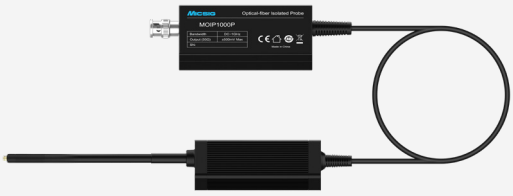
Unlike traditional differential probes can only test high-voltage signals, the SigOFIT probe can be used with different attenuator tips to test differential mode signals from ±0.01V to ±6250V, achieving full-range output and very high signal-to-noise ratio.

Compact & Simple

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

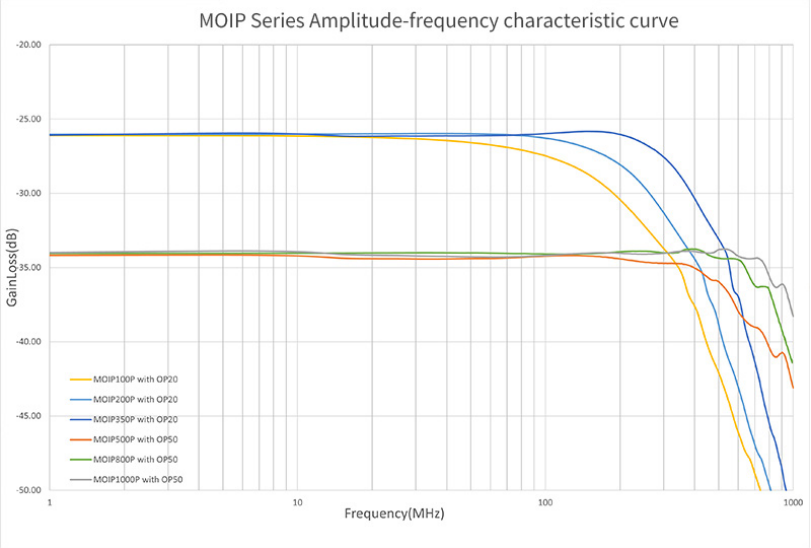
Efficient & Affordable

It has a fast response, can be used immediately after power-on, and performs auto-calibration in less than 1 second, ensuring accurate real-time signal output.

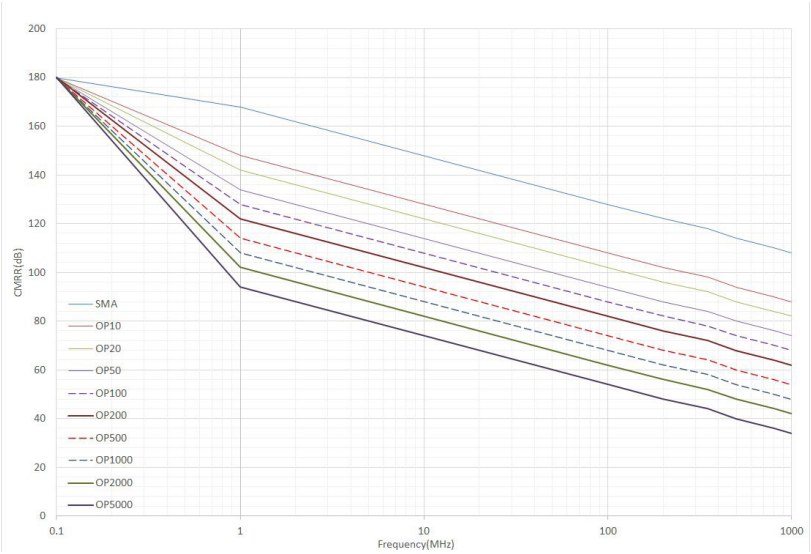


Product Specifications

Model	MOIP100P	MOIP200P	MOIP350P	MOIP500P	MOIP1000P
Bandwidth	100MHz	200MHz	350MHz	500MHz	1GHz
Rise time	≤ 3.5ns	≤ 1.75ns	≤ 1ns	≤ 700ps	≤ 450ps
CMRR	DC: 180dB 100MHz: 128dB	DC: 180dB 200MHz: 122dB	DC: 180dB 350MHz: 118dB	DC: 180dB 500MHz: 114dB	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 OP5000(MCX), ±2500V Optional: OP20(MMCX), ±10V OP100(MMCX), ±50V OP2000(MCX), ±1000V OP10000(LCX), ±5000V	
Noise	<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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