# Micsig

# SigOFIT<sup>™</sup> Optical-fiber Isolated Probe Unveil Real Signal You've Never Seen

Based on Micsig's exclusive SigOFIT<sup>™</sup> technology, the SigOFIT optical-fiber isolated probe has extremely high CMRR and isolation voltage, unveils the whole truth of the signal within bandwidth range, it adopts advanced laser power supply technology, perfectly solves the problem of isolated power supply.

### **Applications:**

- · Design of motor drive, power converter, electronic ballast
- · Design & analysis of GaN, SiC, IGBT Half/Full bridge devices
- $\cdot\,$  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:**



#### **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.



#### Safe to Test Gallium Nitride (GaN)

- The test leads of SigOFIT probe are short and with coaxial cable transmission, has less than 2.5pF input capacitance, very safe to test GaN.

#### Wide Measurement Range

 $10X \sim 5000X$ 

 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 ±0.1V to ±5000V, achieving full-range output and very high signal-to-noise ratio.

### **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%.</li>



 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 outputin real time.



# Specifications:

| Model & Ordering Name         | MOIP01P                    | MOIP02P                    | MOIP03P                    | MOIP05P                    | MOIP08P                    | MOIP10P                  |
|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------------|
| Bandwidth                     | 100MHz                     | 200 MHz                    | 350 MHz                    | 500 MHz                    | 800 MHz                    | 1 GHz                    |
| Rise time                     | ≤3.5ns                     | ≤1.75n                     | ≤1ns                       | ≤700ps                     | ≤438ps                     | ≤350ps                   |
| CMRR                          | DC: 180dB<br>100MHz: 128dB | DC: 180dB<br>200MHz: 122dB | DC: 180dB<br>350MHz: 118dB | DC: 180dB<br>500MHz: 114dB | DC: 180dB<br>800MHz: 110dB | DC: 180dB<br>1GHz: 108dB |
| Differential Voltage<br>Range | 2.5V - 5000V               |                            | 1.25V - 5000V              | 0.1V - 5000V               |                            |                          |
| Noise                         | <1.46mVrms                 |                            |                            | <450µVrms                  |                            |                          |
| DC Gain accuracy              | 1%                         |                            |                            |                            |                            |                          |
| Common mode<br>voltage range  | 85kVpk                     |                            |                            |                            |                            |                          |
| Fiber cable length            | 2m (Customizable)          |                            |                            |                            |                            |                          |



▲ Amplitude-frequency characteristics of different SigOFIT probes



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

- \* Please refer to datasheet for more information
- \* Micsig reserves the right of final interpretation for the content hereinabove, it is subject to update without prior notice.