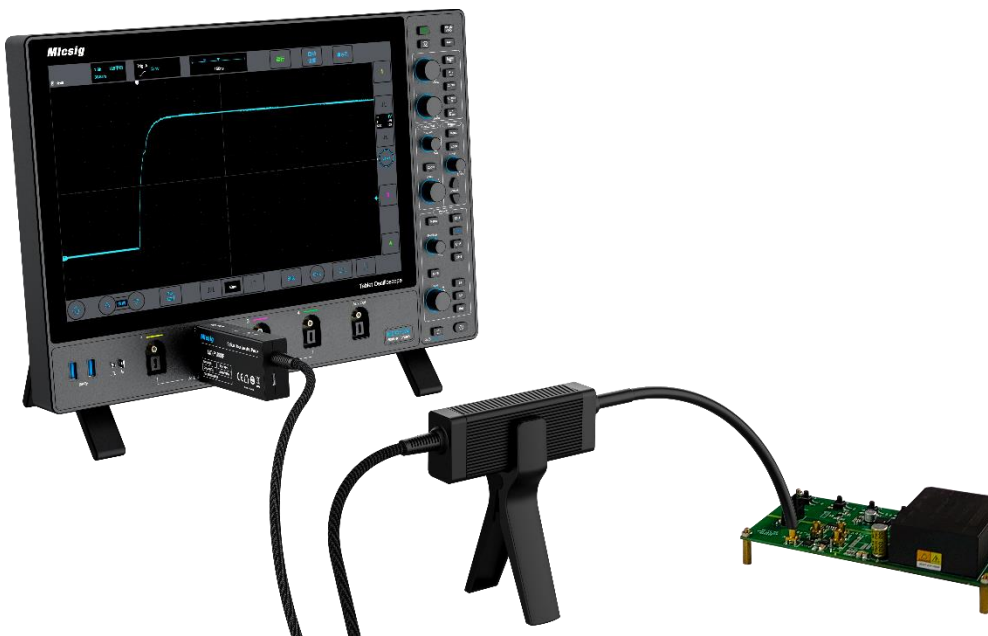




SigOFIT™ Optical-fiber Isolated Probe

Quick Guide



Version updated: March 20, 2024

Shenzhen Micsig Technology Co., Ltd.
www.micsig.com



Scan to watch Youtube video



WARNING:

* DO NOT block the heat dissipation port on the back of Optical-Electrical converter, otherwise the probe may be overheated and damaged.



* DO NOT excessively bend the fiber cable. Avoid tight radius ($<8\text{cm}$) bends, crushing, crimping, twisting, pulling or otherwise stressing the cable.



Main Steps:

1. Connect the Optical-Electrical (O-E) converter to oscilloscope (Figure 1);



Figure. 1

2. Set the oscilloscope input impedance to 50 Ω , set corresponding attenuation ratio and delay time on the oscilloscope;
3. Connect attenuating tip to the Electrical–Optical (E-O) converter (Figure 2);

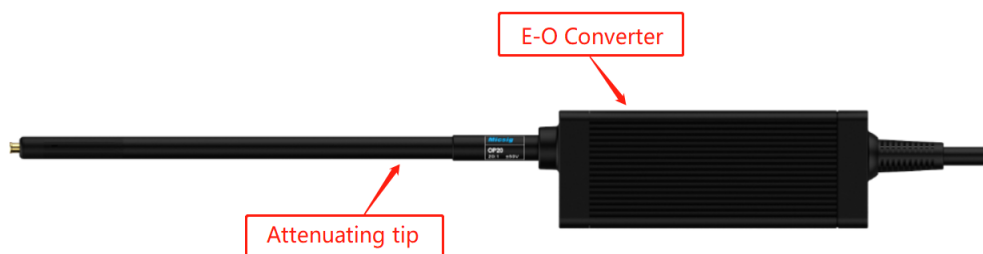


Figure. 2

4. Power the SigOFIT probe by connecting USB-C cable to O-E Converter using standard charger (localized);
5. Solder the MCX or MMCX adapter to the test board:
 - 1) When testing Vgs signal, the signal pin (in the middle) of the adapter must be connected to the G-end of the MOSFET;
 - 2) Solder the adapter directly to the test point, try NOT to use extension lead, it may bring unsatisfactory test results.
 - 3) For easy soldering, suggest to cut three of the four ground pins around the base (Figure 3), just keep one.

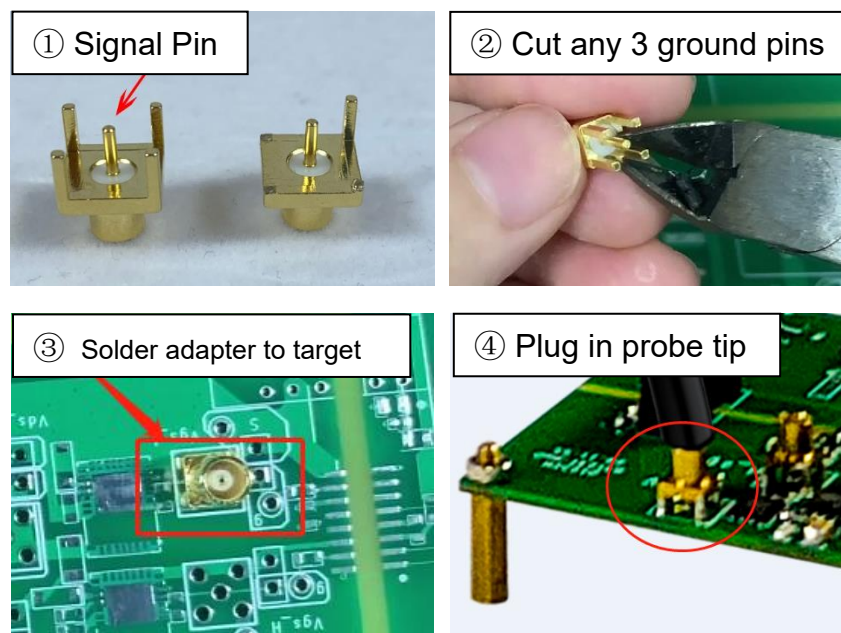


Figure 3.

6. Plug in the attenuating tip to adapter, when hearing a "click", it means that the connection is successful.
7. Power ON the test board;
8. Adjust the oscilloscope settings and proceed normal test;
9. Suggest to press **Cali.** button to get better results before get final readings, Calibration will be completed in 1 second, no need to disconnect the circuit.



Over-voltage Warning:

*When “Gain” button flashes and hearing a rapid "DiDiDiDi.." buzzer sound, indicate a over-voltage warning, please select a suitable attenuating tip.



Over-heating Warning:

*When hearing a “DiDi” sound every 2 seconds, it means the temperature of the Optical-Electrical (O-E) converter is overheated, please check whether the dissipation port is blocked.

Button Descriptions:



Figure 4.

① **Cali.:** Press to calibrate in 1 second, no need to disconnect circuit, one sound means success, three sounds mean failure. **Always press Cali. button before get final test readings.**

② **Gain:** Press to switch between 0dB and 20dB. The attenuation ratio of the attenuating tip is various, corresponding attenuation ratio needs to be set according to the indicator light. By selecting 20dB, the signal will be amplified 10 times, i.e. 50X tip is 0dB, switched to 20dB, it becomes 5X tip, need to set respective attenuation ratio on oscilloscope. 20dB is suitable for smaller signal tests. Please refer to Data sheet or User manual for specific voltage range of 0dB and 20dB.

Adapters and coaxial lead

Accessory name	Withstand voltage range
MMCX-adapter	< 300 Vpp
MCX-adapter	< 3000 Vpp
MMCX coaxial lead	< 300 Vpp
MCX coaxial lead	< 3000 Vpp
LCX coaxial lead	< 8000 Vpp

* Please refer to User Manual or contact Micsig for more information.