

5. Operation Steps

- 1) **Power the probe:** Connect the probe to the oscilloscope USB via USB-C cable;
- 2) **Connect to oscilloscope:** Connect the BNC end of the probe to oscilloscope channel (make sure the oscilloscope is grounded);
- 3) **Select Range:** Select appropriate voltage range according to the signal;
- 4) **Connect the DUT:** Use clips or hooks to connect the DUT, if an over-voltage alarm occurs, disconnect the power supply and the circuit immediately;
- 5) **Set on the oscilloscope.**

*Note: Try not to use extension leads when measuring, it could bring more noise floor. If must use the extension leads, please twist the leads together to reduce noise, and the input frequency should not exceed 5MHz. If it exceeds 5MHz, the output will have a certain error.

6. Warranty

- 1) Micsig warrants the main body of this differential probe for 1 year.
During the warranty period, Micsig will be responsible for free maintenance for any failure caused by the quality of the product under normal use.
- 2) Under the following circumstances, Micsig will refuse to provide maintenance services or charge for a fee:
 - a. No packaging or anti-counterfeiting label.
 - b. Anti-counterfeit label has been altered or blurred beyond recognition.
 - c. Unauthorized disassembly, such as: changing wires, dismantling internal components, etc.
 - d. No sales voucher or the content of sales voucher does not match the product.

7. Safety Precautions

- 1) Non-professionals do not open the product casing;
- 2) Do not use while case is open;
- 3) Do not touch any bare metal while testing;
- 4) Disconnect the power supply and circuit immediately when over range;
- 5) Do not use in flammable and explosive environments;

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Micsig

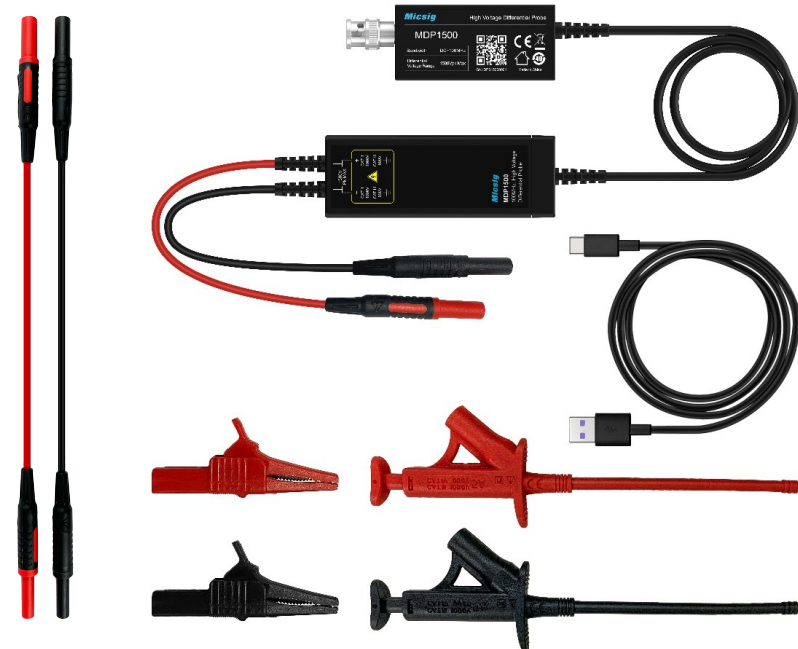
Quick Guide

High Voltage Differential Probe -- MDP series

Bandwidth: 100MHz / 150MHz / 200MHz

1. Overview

Originated from Micsig's cutting-edge SigOFIT™ technology, the MDP series high-voltage differential probe has very low noise floor, excellent amplitude-frequency characteristics and industry-leading common mode rejection capability, allow users to test high-frequency and high-voltage signals with ease.



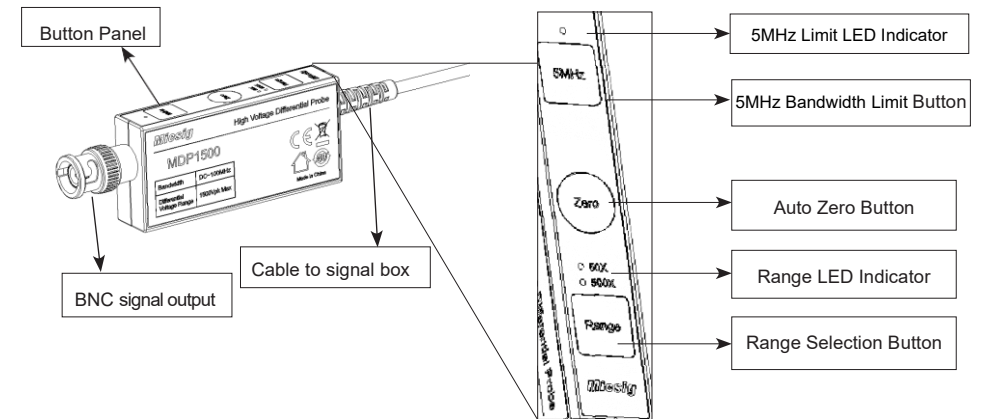
* Extension leads,
twist together can
lower noise

2. Characteristics

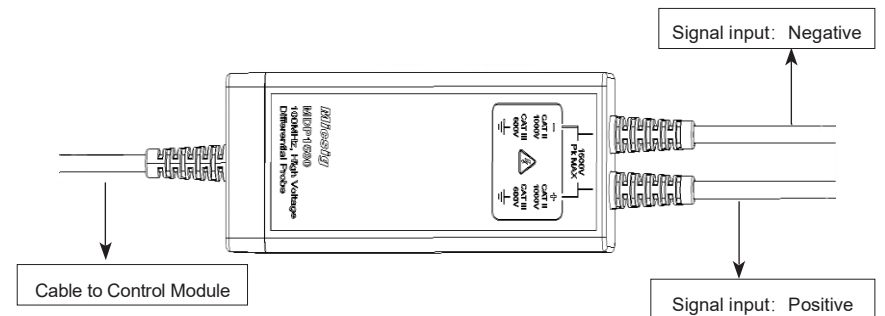
| Model | MDP700 | MDP701 | MDP702 | MDP1500 | MDP1501 | MDP1502 | MDP3000 | MDP3001 | MDP3002 |
|--|---|---------|---------|--|---------|---------|--|---------|---------|
| Bandwidth | 100MHz | 150MHz | 200MHz | 100MHz | 150MHz | 200MHz | 100MHz | 150MHz | 200MHz |
| Rise time | ≤3.5ns | ≤2.33ns | ≤1.75ns | ≤3.5ns | ≤2.33ns | ≤1.75ns | ≤3.5ns | ≤2.33ns | ≤1.75ns |
| Attenuation | 20X / 200X | | | 50X / 500X | | | 100X / 1000X | | |
| Accuracy | ±2% | | | ±2% | | | ±2% | | |
| Max. input Differential Voltage (DC+AC PK) | 70V (20X) 700V (200X) | | | 150V (50X) 1500V (500X) | | | 300V (100X) 3000V (1000X) | | |
| Max. Voltage to ground | CAT I 600V CAT II 450V | | | CAT II 1000V CAT III 600V | | | CAT III 1000V | | |
| Noise | Full Bandwidth: 20X: ≤ 22mVrms 200X: ≤ 80mVrms 5MHz bandwidth limit: 20X: ≤ 8mVrms 200X: ≤ 70mVrms | | | Full Bandwidth: 50X: ≤ 45mVrms 500X: ≤ 200mVrms 5MHz bandwidth limit: 50X: ≤ 20mVrms 500X: ≤ 175mVrms | | | Full Bandwidth: 100X: ≤ 90mVrms 1000X: ≤ 400mVrms 5MHz bandwidth limit: 100X: ≤ 40mVrms 1000X: ≤ 350mVrms | | |
| CMRR | DC: >-80dB; 100kHz: >-60dB 10MHz: >-30dB; 100MHz: >-26dB | | | | | | | | |
| Input impedance | 16MΩ/1.5pF(differential) 8MΩ/3pF(each input to ground) | | | 16MΩ/1.5pF(differential) 8MΩ/3pF(each input to ground) | | | 20MΩ/1.5pF(differential) 10MΩ/3pF(each input to ground) | | |
| Delay | 11.99ns(20X) 12.27ns(200X) | | | 11.99ns(50X) 12.27ns(500X) | | | 11.99ns(100X) 12.27ns(1000X) | | |
| Output voltage | ≤3V | | | | | | | | |
| Power supply | USB Type-C | | | | | | | | |
| Overrange | LED flashes, Buzzer beeps | | | | | | | | |
| Dimensions | Control module: L*W*H: 91 *33 *15 /mm Signal box: L*W*H: 100 * 36 * 20 /mm | | | | | | | | |
| Cable length | Approx. 8 cm (Input); Approx. 120cm (Output) | | | | | | | | |
| Temperature | Operating: 0℃ ~ 40 ℃ Non-operating: -30 ℃ ~ 70 ℃ | | | | | | | | |
| Humidity | Operating: 5 ~ 85% RH (0℃ ~ 40 ℃) Non-operating: 5% ~ 85% RH (≤40 ℃) ; 5% ~ 45% RH (40 ℃ ~70 ℃) | | | | | | | | |

3. Panel Description

● Control Module



● Signal Box



4. Precautions

1) Calibrate the probe before use:

Short-circuit the input ends, power on, press “Zero” button, 5MHz LED light flashes, after hearing a “Di” sound, means calibration succeeded; if hearing “Di Di Di” sound, means calibration failed, needs to be calibrated again;

2) The bandwidth of the oscilloscope should be no less than the bandwidth of the probe, channel input impedance should be 1MΩ.

3) Recommend to use after 10 mins warm-up to get more accurate result.

4) When Range LED indicator flashes and beeps rapidly, indicating Over-voltage warning, please switch to higher range.