

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

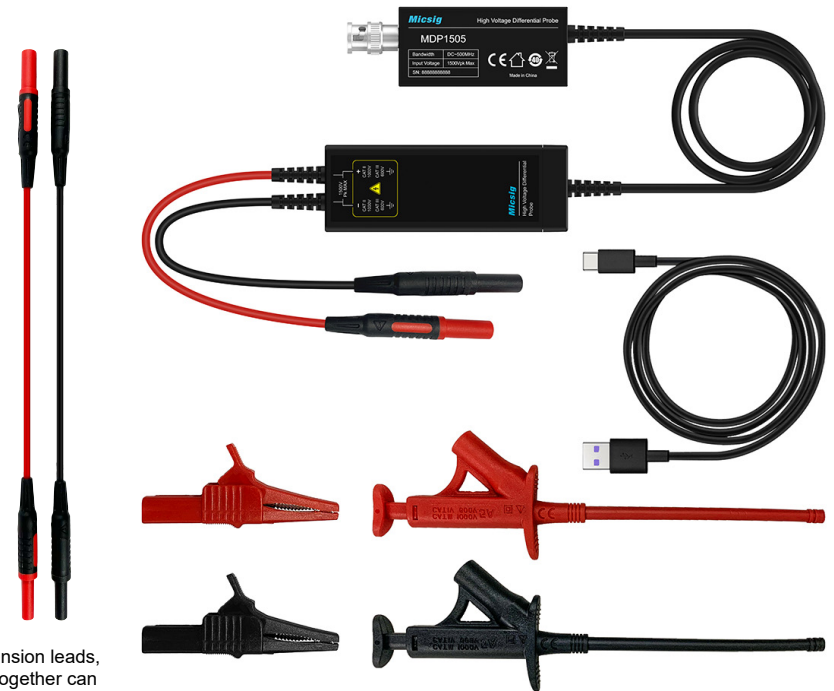
Quick Guide

High Voltage Differential Probe -- MDP series

Bandwidth: 300MHz / 400MHz / 500MHz

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.



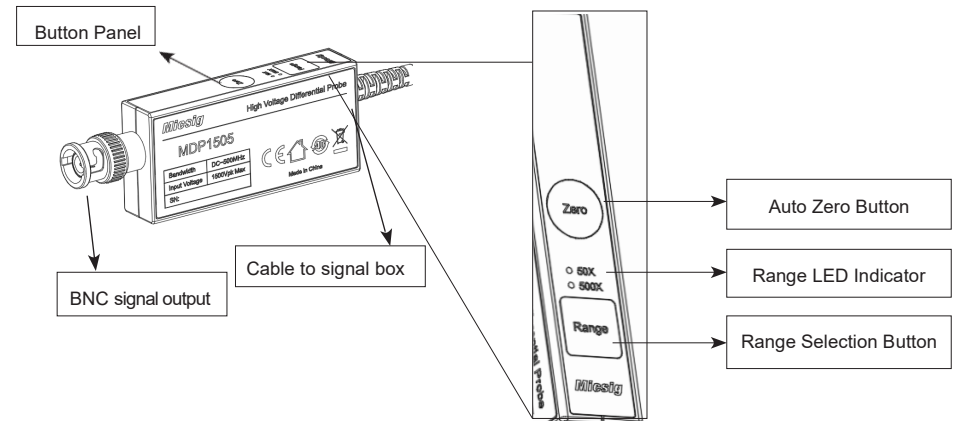
* Extension leads, twist together can lower noise

2. Characteristics

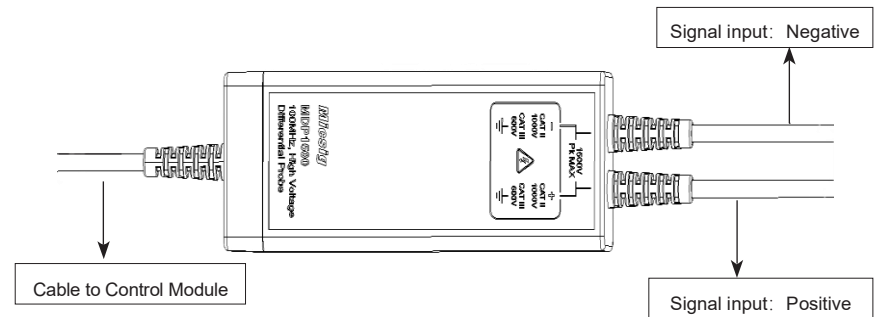
Model	MDP703	MDP704	MDP705	MDP1503	MDP1504	MDP1505	MDP3003	MDP3004	MDP3005
Bandwidth	300MHz	400MHz	500MHz	300MHz	400MHz	500MHz	300MHz	400MHz	500MHz
Rise time	≤1.2ns	≤0.87ns	≤0.7ns	≤1.2ns	≤0.87ns	≤0.7ns	≤1.2ns	≤0.87ns	≤0.7ns
Attenuation	20X / 200X			50X / 500X			100X / 1000X		
Accuracy	±2%			±2%			±2%		
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: ≤ 80mVrms 200X: ≤ 100mVrms			Full Bandwidth: 50X: ≤ 200mVrms 500X: ≤ 250mVrms			Full Bandwidth: 100X: ≤ 400mVrms 1000X: ≤ 500mVrms		
CMRR	DC: >-80dB; 100kHz: >-70dB 20MHz: >-40dB; 120MHz: >-26dB								
Input impedance	16MΩ/0.5pF(differential) 8MΩ/1pF(each input to ground)			16MΩ/0.5pF(differential) 8MΩ/1pF(each input to ground)			20MΩ/0.5pF(differential) 10MΩ/1pF(each input to ground)		
Delay	8.44ns(20X) 7.9ns(200X)			8.44ns(50X) 7.9ns(500X)			8.44ns(100X) 7.9ns(1000X)		
Output voltage	≤3.5V			≤3V					
Output impedance	50Ω								
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, Range indicator lights flash alternately; if hearing a “Di” sound, means calibration succeeded; if hearing a “DiDiDi” sound, means calibration failed, needs to recalibration;

2) The bandwidth of the oscilloscope should be no less than the bandwidth of the probe, channel input impedance should be 50Ω.

3) Recommend to use after 10 minutes 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.