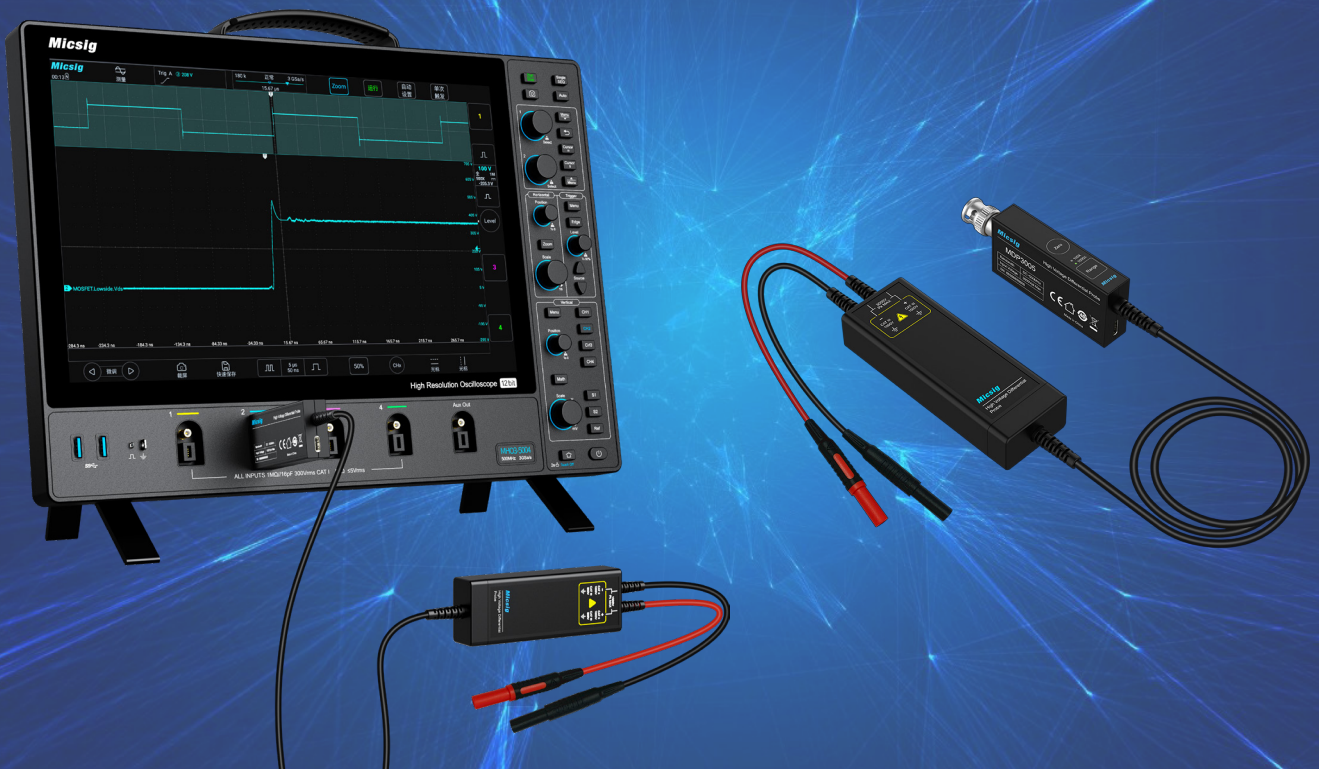


High Voltage Differential Probe MDP/DP Series

- ▶ Bandwidth: 100MHz-500MHz
- ▶ Most compact design
- ▶ Low noise, high CMRR
- ▶ Range: 700Vpk-7000Vpk
- ▶ Support quick Zero setting
- ▶ Standard BNC interface



Shenzhen Micsig Technology Co., Ltd.

www.micsig.com



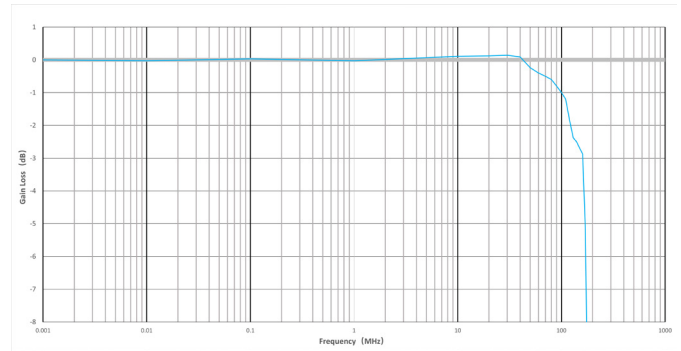
Micsig Website

Product Features



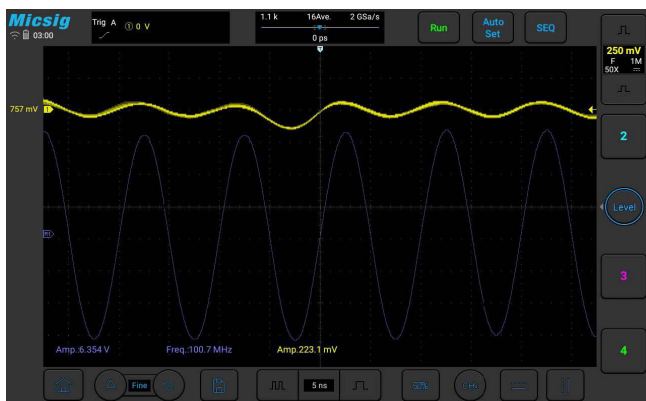
Excellent amplitude frequency characteristics

The amplitude fluctuation within half bandwidth is less than 0.5dB, achieves excellent bandwidth flatness, maintains high accuracy in high frequency bands.

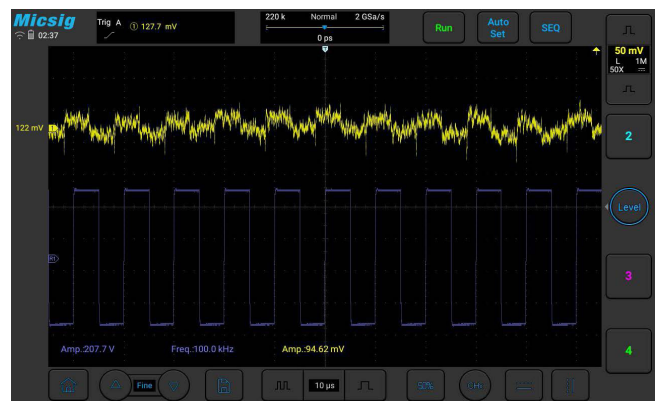


High Accuracy, High CMRR

MDP series has high input impedance and low input capacitance, minimized load effect, greatly improved the accuracy of the differential signal. High common mode rejection capability, able to meet floating measurements of high common mode voltage at high frequencies.



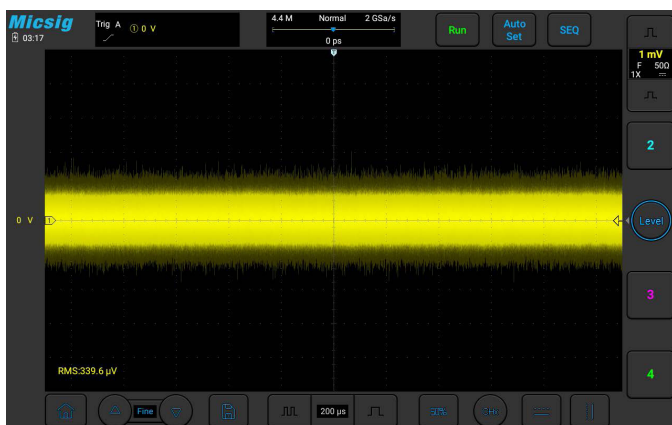
CH1: @ 100MHz, 6.354V, output common mode signal amplitude 223.1mV, CMRR is -29dB



CH1: @ 100kHz, 207.7V, output common mode signal amplitude 94.62mV, CMRR > -70dB

Low Noise

The extremely low noise floor enhances the sensitivity of measurement and can accurately measure small signal changes.



MDP1503, @ 500X, full bandwidth (300MHz), noise floor: 339.6µVrms

5MHz Bandwidth Limit

(*Available on 100-200MHz bandwidth only, except DP7000)

When measuring FET switching frequency in most switching power supplies, MDP effectively eliminates high frequency noise

Standard BNC Interface

Standard BNC interface, work with any oscilloscope.

Specifications

Model	MDP700	MDP701	MDP702	MDP1500	MDP1501	MDP1502	MDP3000	MDP3001	MDP3002	DP7000
Bandwidth	100MHz	150MHz	200MHz	100MHz	150MHz	200MHz	100MHz	150MHz	200MHz	100MHz
Max. input differential voltage (DC+AC PK)	70V (20X) 700V (200X)			150V (50X) 1500V (500X)			300V (100X) 3000V (1000X)			700V (100X) 7000V (1000X)
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			Full bandwidth: 100X: ≤ 90mVrms 1000X: ≤ 400mVrms
CMRR	DC: >-80dB 100kHz: >-60dB 10MHz: >-30dB 100MHz: >-26dB			DC: >-80dB 100kHz: >-60dB 10MHz: >-30dB 100MHz: >-26dB			DC: >-80dB 100kHz: >-60dB 10MHz: >-30dB 100MHz: >-26dB			DC: >-80dB 100kHz: >-60dB 10MHz: >-30dB 100MHz: >-26dB
Delay time	11.99ns at 20X 12.27ns at 200X			11.99ns at 50X 12.27ns at 500X			11.99ns at 100X 12.27ns at 1000X			11.2ns at 100X 10.65ns at 1000X
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)			60MΩ / 0.78pF(differential) 30MΩ / 1.6pF(each input to ground)
Output impedance	1MΩ			1MΩ			1MΩ			1MΩ

* Former DP10007 has been upgraded to MDP700 as alternative.

* Former DP10013 has been upgraded to MDP1500 as alternative.

* Former DP20003 has been upgraded to DP7000 as alternative.

Model	MDP703	MDP704	MDP705	MDP1503	MDP1504	MDP1505	MDP3003	MDP3004	MDP3005
Bandwidth	300MHz	400MHz	500MHz	300MHz	400MHz	500MHz	300MHz	400MHz	500MHz
Max. input differential voltage (DC+AC PK)	70V (20X) 700V (200X)			150V (50X) 1500V (500X)			300V (100X) 3000V (1000X)		
Noise	20X: ≤ 80mVrms 200X: ≤ 100mVrms			50X: ≤ 200mVrms 500X: ≤ 250mVrms			100X: ≤ 400mVrms 1000X: ≤ 500mVrms		
CMRR	DC: >-80dB 100kHz: >-70dB 20MHz: >-40dB 120MHz: >-26dB			DC: >-80dB 100kHz: >-70dB 20MHz: >-40dB 120MHz: >-26dB			DC: >-80dB 100kHz: >-70dB 20MHz: >-40dB 120MHz: >-26dB		
Delay time	8.44ns at 20X 7.9ns at 200X			8.44ns at 50X 7.9ns at 500X			8.44ns at 100X 7.9ns at 1000X		
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)		
Output impedance	50Ω			50Ω			50Ω		

Parameters	
Accuracy	±2%
Overload indication	LED flash, buzzer
Dimension	control module: L: 91mm W: 33mm H: 15mm Signal box: L: 100mm W: 36mm H: 20mm
Input cable length	8cm
Output cable length	120cm
Temperature	Working: 0°C ~ 40 °C Non-working: -30 °C ~ 70 °C
Humidity	Working: 5 ~ 85% RH (0°C ~ 40 °C) Non-working: 5% ~ 85% RH (≤ 40 °C) ; 5% ~ 45% RH (40 °C ~70 °C)
Power supply	DC 5V adapter / USB-C cable

Applications

- Floating measurements
- Motor drive design
- Inverter, UPS
- Electronic ballast design
- High voltage isolation measurements
- Welding, electroplating power supply
- Switching power supply design
- Induction heating, induction cooker
- Third generation semiconductor test
- Power conversion and related design
- Frequency conversion home appliances
- CRT display design

Micsig

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