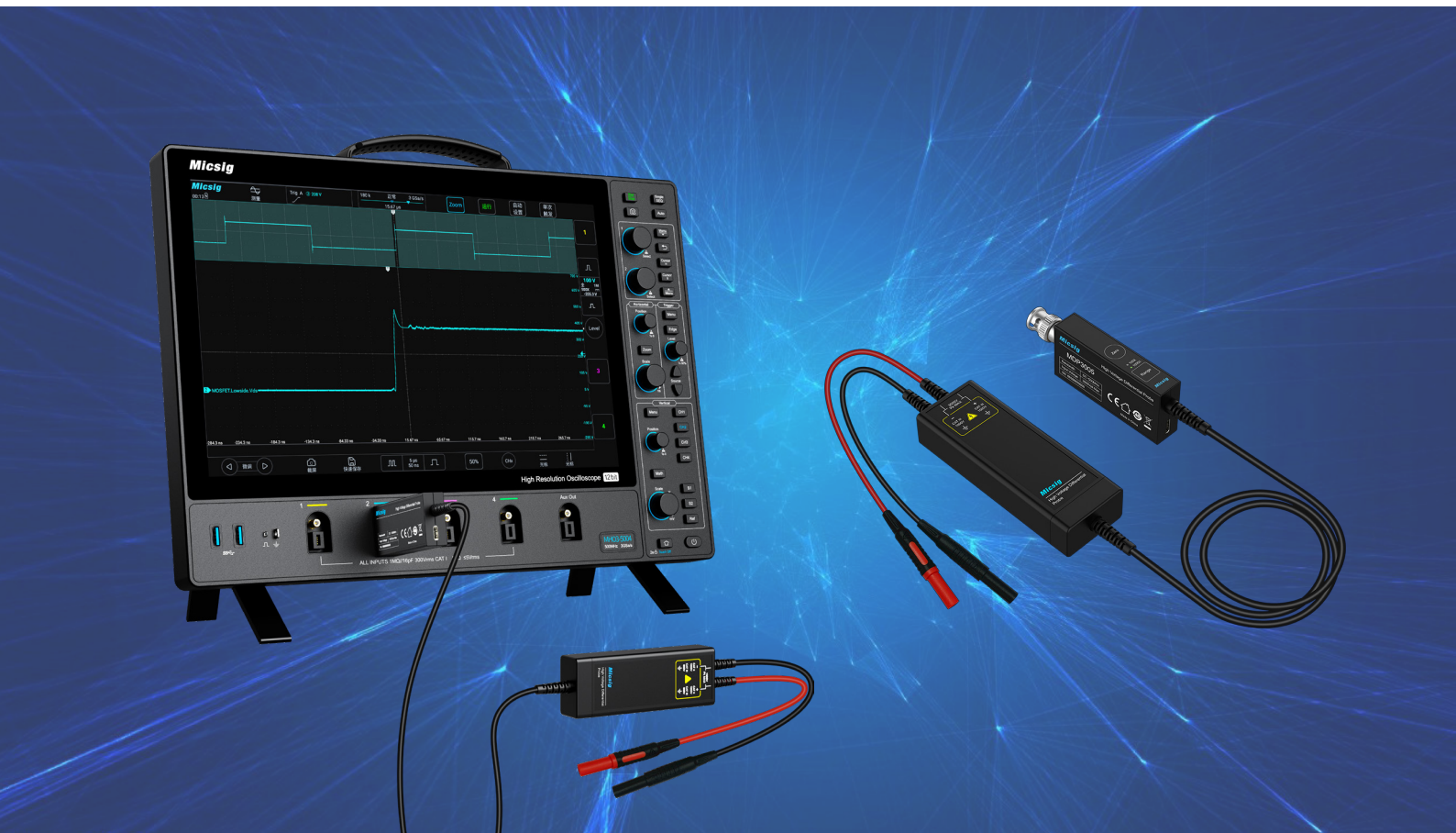


High Voltage Differential Probe MDP/DP Series

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



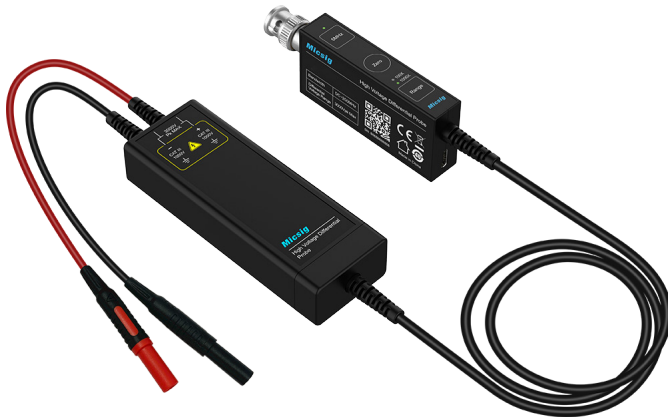
Shenzhen Micsig Technology Co., Ltd.

www.micsig.com



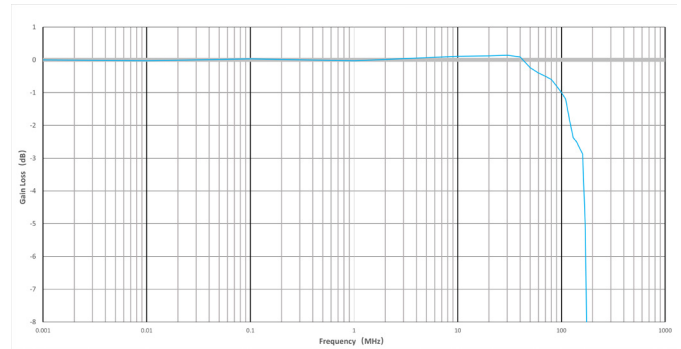
Micsig Official Website

Product Features



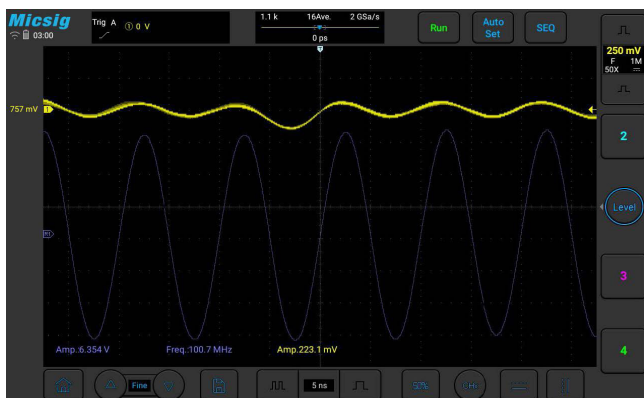
Excellent amplitude frequency characteristics

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.



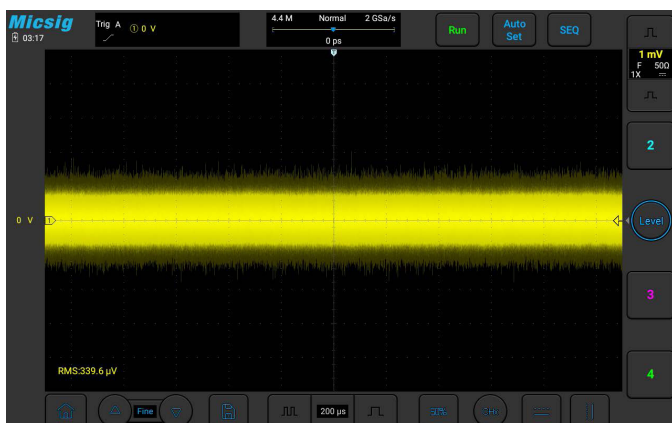
CH1: @ 100MHz, 6.354V, output common mode signal amplitude 223.1mV, CMRR is -29dB



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

BNC Interface

Standard BNC interface, work with any oscilloscope.

USB Power Supply

Powered directly by type-C cable, easy and convenient.

*DP7000 powered by its standard adapter.

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: $\leq 22\text{mVrms}$ 200X: $\leq 80\text{mVrms}$ 5MHz bandwidth limit: 20X: $\leq 8\text{mVrms}$ 200X: $\leq 70\text{mVrms}$			Full bandwidth: 50X: $\leq 45\text{mVrms}$ 500X: $\leq 200\text{mVrms}$ 5MHz bandwidth limit: 50X: $\leq 20\text{mVrms}$ 500X: $\leq 175\text{mVrms}$			Full bandwidth: 100X: $\leq 90\text{mVrms}$ 1000X: $\leq 400\text{mVrms}$ 5MHz bandwidth limit: 100X: $\leq 40\text{mVrms}$ 1000X: $\leq 350\text{mVrms}$			Full bandwidth: 100X: $\leq 90\text{mVrms}$ 1000X: $\leq 400\text{mVrms}$
CMRR	DC: $>-80\text{dB}$ 100kHz: $>-60\text{dB}$ 10MHz: $>-30\text{dB}$ 100MHz: $>-26\text{dB}$			DC: $>-80\text{dB}$ 100kHz: $>-60\text{dB}$ 10MHz: $>-30\text{dB}$ 100MHz: $>-26\text{dB}$			DC: $>-80\text{dB}$ 100kHz: $>-60\text{dB}$ 10MHz: $>-30\text{dB}$ 100MHz: $>-26\text{dB}$			DC: $>-80\text{dB}$ 100kHz: $>-60\text{dB}$ 10MHz: $>-30\text{dB}$ 100MHz: $>-26\text{dB}$
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(100X) 10.65ns(1000X)
Input impedance	16M Ω / 1.5pF (differential) 8M Ω / 3pF(each input to ground)			16M Ω / 1.5pF (differential) 8M Ω / 3pF(each input to ground)			20M Ω / 1.5pF (differential) 10M Ω / 3pF(each input to ground)			60M Ω / 0.78pF(differential) 30M Ω / 1.6pF(each input to ground)
Output impedance	1M Ω			1M Ω			1M Ω			1M Ω

*The previous model DP10007 has been upgraded to MDP700.

*The previous model DP10013 has been upgraded to MDP1500.

*The previous model DP20003 has been upgraded to DP7000.

Note: These models have not only been upgraded in performance (see parameter table), but also in appearance, which has been newly designed and made more compact and exquisite. When placing orders, please handle them according to the new model numbers.

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: $\leq 80\text{mVrms}$ 200X: $\leq 100\text{mVrms}$			50X: $\leq 200\text{mVrms}$ 500X: $\leq 250\text{mVrms}$			100X: $\leq 400\text{mVrms}$ 1000X: $\leq 500\text{mVrms}$		
CMRR	DC: $>-80\text{dB}$ 100kHz: $>-70\text{dB}$ 20MHz: $>-40\text{dB}$ 120MHz: $>-26\text{dB}$			DC: $>-80\text{dB}$ 100kHz: $>-70\text{dB}$ 20MHz: $>-40\text{dB}$ 120MHz: $>-26\text{dB}$			DC: $>-80\text{dB}$ 100kHz: $>-70\text{dB}$ 20MHz: $>-40\text{dB}$ 120MHz: $>-26\text{dB}$		
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	16M Ω / 0.5pF (differential) 8M Ω / 1pF(each input to ground)			16M Ω / 0.5pF (differential) 8M Ω / 1pF(each input to ground)			20M Ω / 0.5pF (differential) 10M Ω / 1pF (each input to ground)		
Output impedance	50 Ω			50 Ω			50 Ω		

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)

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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