MICSIG 麦科信





DP Series

High Voltage Differential Probe

Bandwidth
100MHz-500MHz

Ultra-small
Only 2cm thick

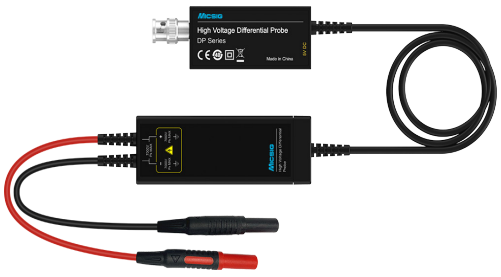
CMRR
> -80dB

Differential voltage
700Vpk-7000Vpk

Low Noise
≤ 5mVrms

*DP700(10X) with 5MHz bandwidth limit

Interface
BNC
Work with any oscilloscope



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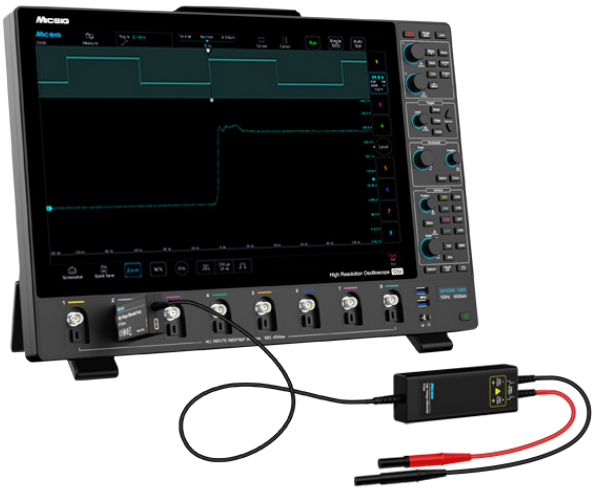
Product Overview

The Micsig DP Series High-Voltage Differential Probes offer selectable bandwidths ranging from 100MHz to 500MHz, with a maximum differential input voltage of 7000Vpk.A standard BNC interface ensures compatibility with all major oscilloscope brands. Built-in metal shielding enhances anti-interference performance. With a compact 2cm-thin design, the probes save workspace and feature one-click auto-zeroing for quick setup. Additional functions include overload protection alarms and power-off memory for seamless operation.

An ultra-low noise floor (as low as 5mVrms) and dual-range design optimize the signal-to-noise ratio across different voltage levels. A high-impedance input and low input capacitance minimize loading effects, delivering ±2% measurement accuracy and excellent common-mode rejection (CMRR).

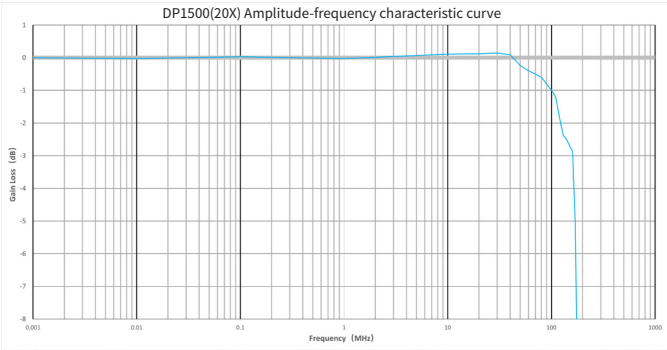
The 5MHz bandwidth limit reduces high-frequency noise for accurate, high-speed differential voltage measurements. Ideal for EV power systems, solar inverters, switching power supplies, and floating or isolated high-voltage signal testing.

Product Features



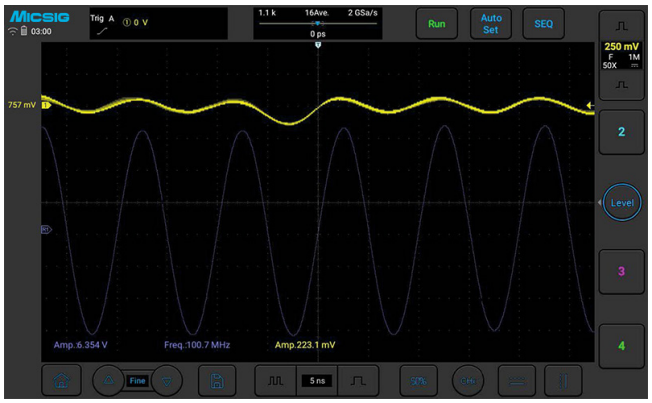
Excellent amplitude frequency characteristics

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

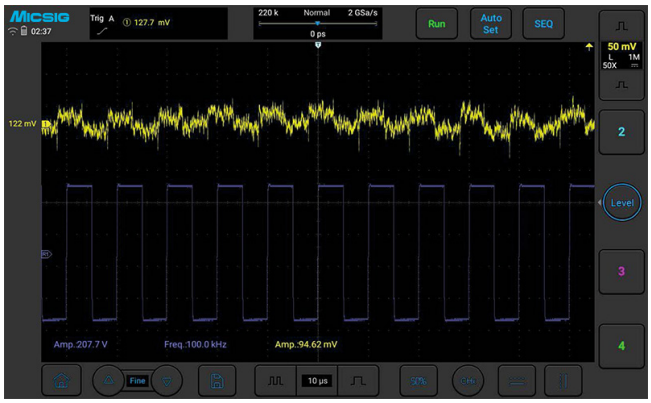


High Accuracy, High CMRR

DP 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.



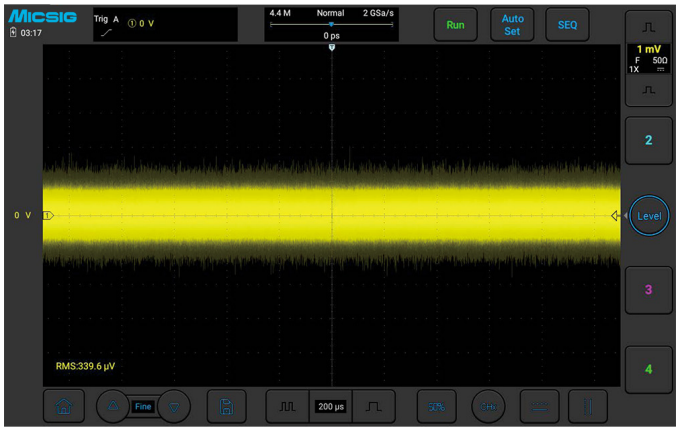
CH1: @ 100MHz, 6.354V, output common mode signal amplitude 223.1mV, CMRR is -29dB



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.



DP1503, @ 500X, full bandwidth (300MHz) , noise floor: 339.6µVrms

5MHz Bandwidth Limit

(*Available on 100-200MHz bandwidth only)

When measuring FET switching frequency in most switching power supplies, it could effectively eliminates high frequency noise.

BNC Interface

Standard BNC interface, work with any oscilloscope.

Stronger anti-interference ability

Built-in strong metal shielding, more durable, and have stronger anti-interference ability

Specifications

Model	DP700	DP702	DP1500	DP1502	DP3000	DP3002	DP7000	DP7002
Bandwidth	100MHz	200MHz	100MHz	200MHz	100MHz	200MHz	100MHz	200MHz
Max. input differential voltage (DC+AC PK)	70V（20X） 700V（200X）		150V（20X） 1500V（200X）		300V（50X） 3000V（500X）		700V（100X） 7000V（1000X）	
Noise	Full bandwidth: 10X: ⩽ 13mVrms 100X: ⩽ 40mVrms 5MHz bandwidth limit: 10X: ⩽ 5mVrms 100X: ⩽ 30mVrms		Full bandwidth: 20X: ⩽ 25mVrms 200X: ⩽ 80mVrms 5MHz bandwidth limit: 20X: ⩽ 10mVrms 200X: ⩽ 60mVrms		Full bandwidth: 50X: ⩽ 63mVrms 500X: ⩽ 200mVrms 5MHz bandwidth limit: 50X: ⩽ 25mVrms 500X: ⩽ 150mVrms		Full bandwidth: 100X: ⩽ 125mVrms 1000X: ⩽ 400mVrms 5MHz bandwidth limit: 100X: ⩽ 50mVrms 1000X: ⩽ 300mVrms	
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	11.7ns(10X) 11.1ns(100X)		12.7ns(20X) 12.2ns(200X)		12.1ns(50X) 11.5ns(500X)		12.2ns(100X) 12.3ns(1000X)	
Input impedance	5MΩ/2pF(differential) 2.5MΩ/4pF(each input to ground)		10 MΩ/2pF(differential) 5MΩ/4pF(each input to ground)		20MΩ/1.2 pF(differential) 10MΩ/2.4pF(each input to ground)		60MΩ/0.78pF(differential) 30MΩ/1.6pF(each input to ground)	
Output impedance	1MΩ		1MΩ		1MΩ		1MΩ	

*The previous model DP10007 has been upgraded to DP700.
*The previous model DP10013 has been upgraded to DP1500.
*The previous model DP20003 has been upgraded to DP3000.
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	DP703	DP705	DP1503	DP1505	DP3003	DP3005
Bandwidth	300MHz	500MHz	300MHz	500MHz	300MHz	500MHz
Max. input differential voltage (DC+AC PK)	70V（20X） 700V（200X）		150V（50X） 1500V（500X）		300V（100X） 3000V（1000X）	
Noise	20X: ⩽ 125mVrms 200X: ⩽ 140mVrms		50X: ⩽ 250mVrms 500X: ⩽ 300mVrms		100X: ⩽ 500mVrms 1000X: ⩽ 600mVrms	
CMRR	DC：>-80dB 100kHz: >-60dB 20MHz: >-40dB		DC：>-80dB 100kHz: >-60dB 20MHz: >-40dB		DC：>-80dB 100kHz: >-60dB 20MHz: >-40dB	
Delay time	10.83ns (20X) 11.56ns (200X)		11ns (50X) 9.8ns (500X)		10.83ns (100X) 10.93ns (1000X)	
Input impedance	4MΩ/1.175pF (differential) 2MΩ/2.35pF (each input to ground)		20MΩ/1.175pF (differential) 10MΩ/2.35pF (each input to ground)		20MΩ/1.175 pF (differential) 10MΩ/2.35pF (each input to ground)	
Output impedance	50Ω		50Ω		50Ω	

Parameters	
Accuracy	±2%
Power supply	DC 5V
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	28cm
Output cable length	135cm
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）

Standard Accessories

Model	Standard Accessories
High Voltage Differential Probe DP Series	Main unit*1
	Alligator clip*1 pair
	Expandable IC clip*1 pair
	Input extension cable*1 pair
	Power adapter*1
	USB Type-C cable*1
	Quick Guide*1

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