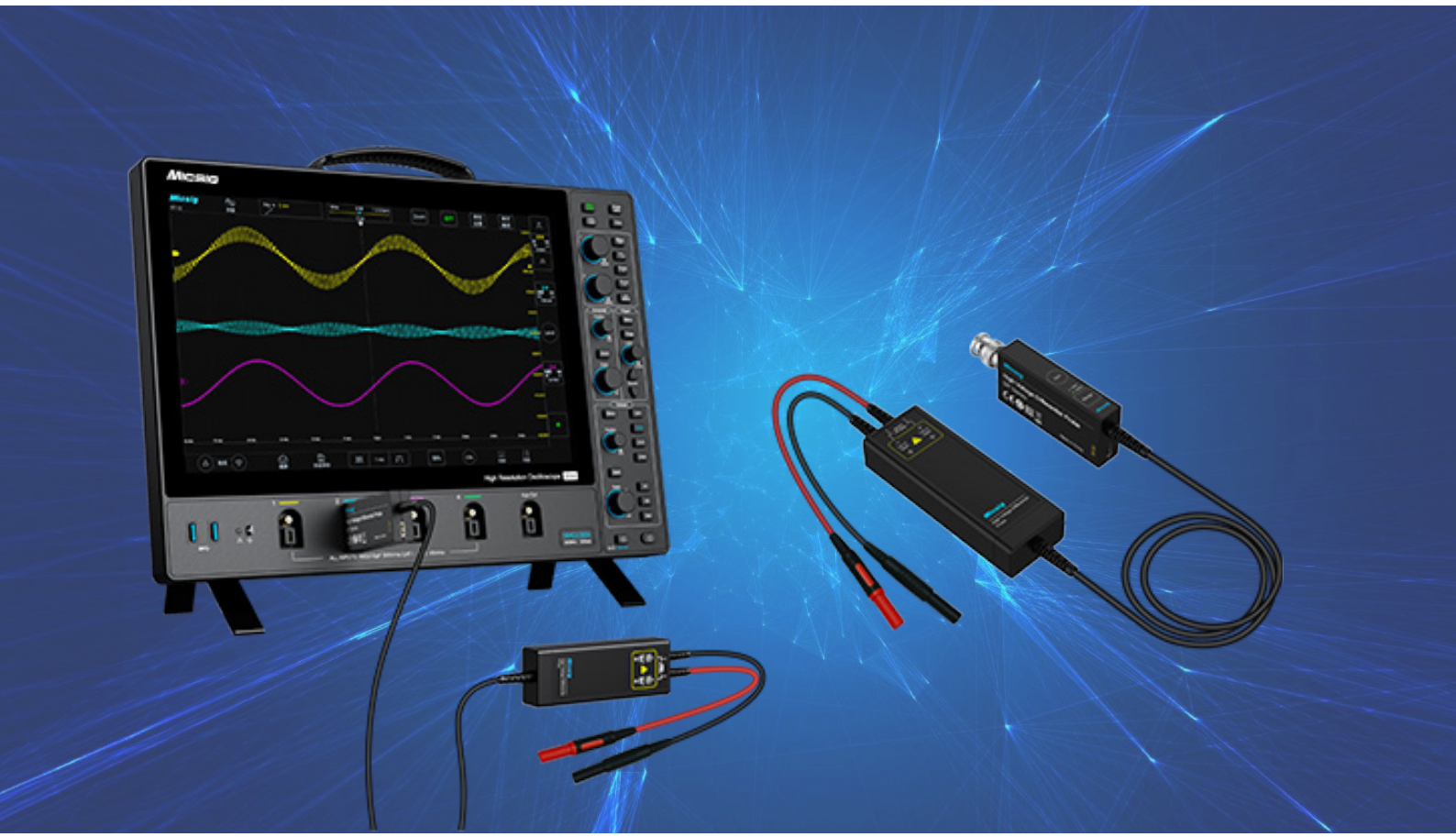
MICSIG

Tablet Oscilloscope Creator
Optical-isolated Probe Leader



DP Series

High Voltage Differential Probe

Bandwidth
100MHz-500MHz

Differential voltage
700Vpk-7000Vpk

Ultra-small
Only 2cm thick

Low Noise
≤ 13mVrms
*DP700(10X) with full bandwidth

CMRR
> -80dB

Interface
BNC
Work with any oscilloscope

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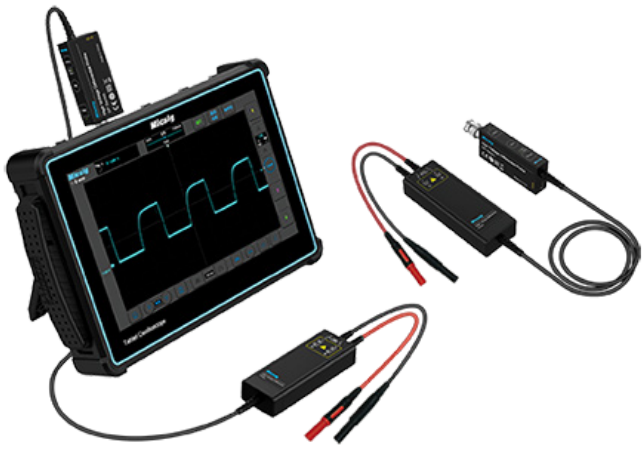
Product Features

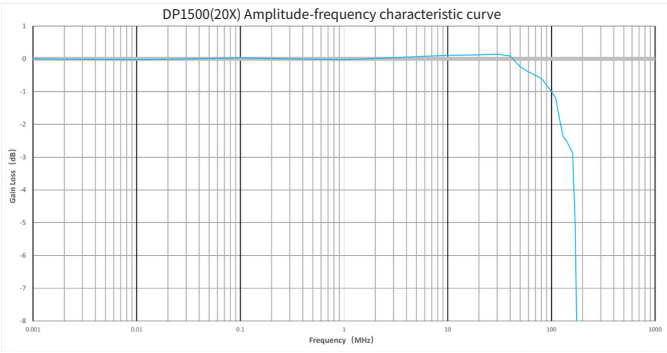
Micsig high-voltage differential probe -- DP series covering bandwidth from 100MHz to 500MHz, differential voltage up to 7000Vpk. Based on the leading optical isolation probe technology, the DP series has very low noise, excellent amplitude-frequency characteristics and high CMRR.

With standard BNC interface, the DP series can work with any oscilloscope; probe body is only 2cm thick, built-in strong metal shielding, achieves strong anti-interference ability. One-press auto Zero, dual-range and overload alarm design. High impedance designed, meets various safety test requirements. 5MHz bandwidth limit function can effectively filter out high-frequency noise and interference, ideal for switching power supplies, various high-frequency and high-voltage floating or isolated signal tests.



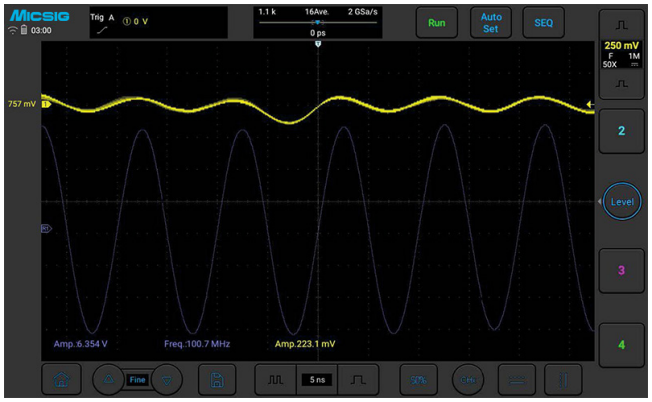
Excellent amplitude frequency characteristics

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

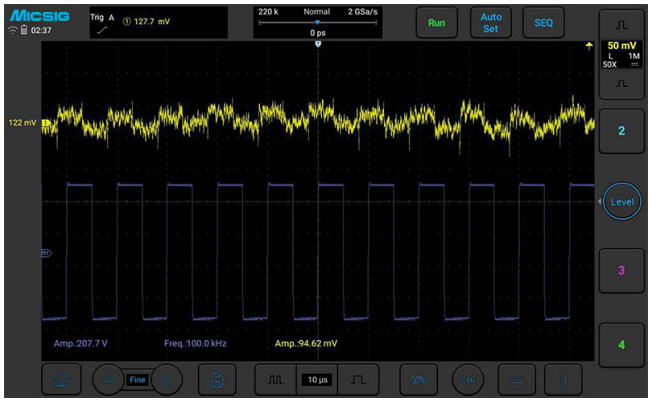


High Accuracy, High CMRR

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.



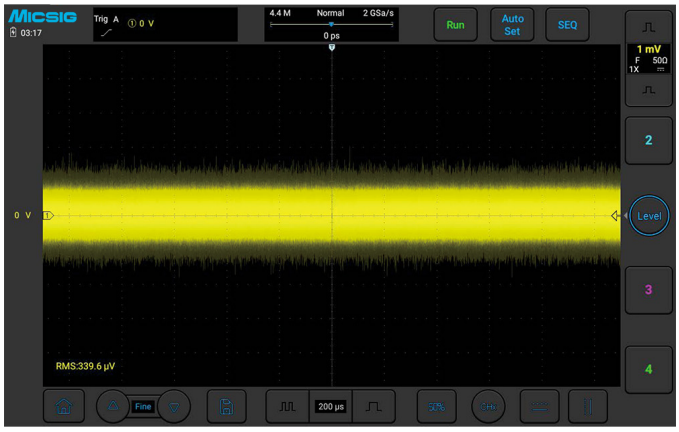
CH1: @ 100MHz, 6.354V, output common mode signal amplitude 223.1mV, CMRR is -29dB



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	DP701	DP702	DP1500	DP1501	DP1502	DP3000	DP3001	DP3002	DP7000	DP7001	DP7002
Bandwidth	100MHz	150MHz	200MHz	100MHz	150MHz	200MHz	100MHz	150MHz	200MHz	100MHz	150MHz	200MHz
Max. input differential voltage (DC+AC PK)	70V（10X） 700V（100X）			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	DP704	DP705	DP1503	DP1504	DP1505	DP3003	DP3004	DP3005
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: ⩽ 100mVrms 200X: ⩽ 140mVrms			50X: ⩽ 200mVrms 500X: ⩽ 300mVrms			100X: ⩽ 400mVrms 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	8cm
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）

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

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