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# High Voltage Differential Probe

## DP Series



TPS Company Video on Youtube  
<https://youtu.be/DTcA-IU2NWA>

# High-Voltage Differential Probe

## DP Series



### Key Features

- Dual Power Supply Port Selection
- Command Programming Control
- 5MHz Bandwidth Limit
- One-Touch Zero Calibration
- Dual Range Selection

### Applications

- New Energy Vehicle Power Systems
- Photovoltaic Inverters
- Switching Power Supply Design
- High-Frequency High-Voltage Testing Scenarios

### Product Overview

The DP series products have undergone a comprehensive upgrade from the traditional “standalone module + separate signal box” architecture to an “integrated host” design. This design consolidates core functions—including signal input interfaces, parameter control buttons, and signal output ports—into a compact chassis. It achieves product integration, optimizes connection methods, and enables broader application scenarios with faster deployment speeds.

The new Maikezin DP Series high-voltage differential probes feature a bandwidth of 100-200MHz and a maximum input voltage of 7000Vpk. Standard BNC connectors ensure compatibility with oscilloscopes from all brands. Key features include: one-button calibration, overload alarm, and range power-off memory for enhanced operational convenience; dual-range design accommodates varying test voltages; high-impedance, low-capacitance construction effectively suppresses load effects, achieving  $\pm 1\%$  measurement accuracy with excellent amplitude-frequency characteristics and high common-mode rejection ratio. Dual power options (DC5V and Type-C) ensure flexible mobile operation. Supports command programming for automated process testing. The 5MHz bandwidth limiting function suppresses high-frequency noise interference, delivering clearer waveforms. Widely applicable for high-frequency, high-voltage testing scenarios such as new energy vehicle power systems, photovoltaic inverters, and switching power supplies.

## Product Features



- **Command & Programming Control**

The Type-C interface supports data communication, enabling connection to a computer for command control.

- **5MHz Bandwidth Limit**

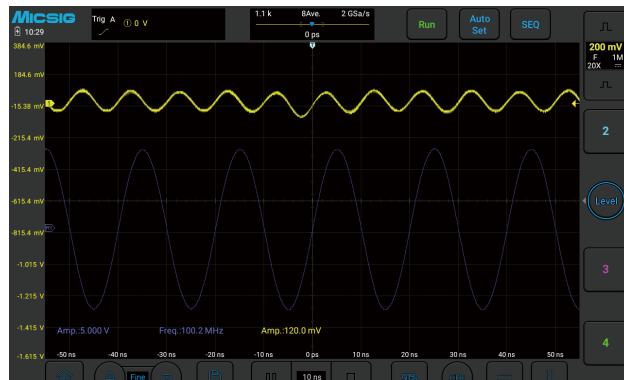
Ideal for measuring switching frequencies of FETs in most power supply applications, effectively filtering out high-frequency noise and interference.

- **Dual Range Selection**

One-button auto zero calibration and flexible dual-range switching, improving signal-to-noise ratio.

## Higher Accuracy and 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.



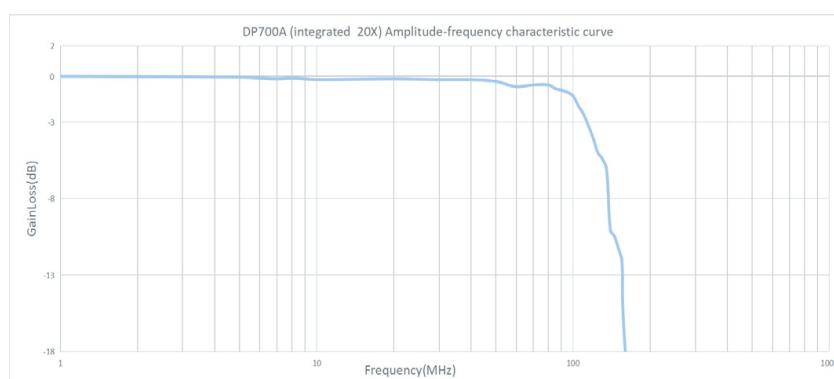
DP700, @100MHz, 5V, output common mode signal amplitude 120mV, CMRR is -32dB



DP700, @100KHz, 198.2V, output common mode signal amplitude 144.6mV, CMRR > -62dB

## Excellent Amplitude Frequency Characteristics

DP series features excellent bandwidth flatness. Within 100 MHz bandwidth, the gain/loss variation is small. It maintains the accuracy of signal test even in high-frequency bandwidth.



## Lower Noise Floor

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



## 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 (50X) 1500V (500X)		300V (100X) 3000V (1000X)		700V (100X) 7000V (1000X)	
Noise	Full bandwidth: 20X: ≤ 20mVrms 200X: ≤ 90mVrms		Full bandwidth: 50X: ≤ 50mVrms 500X: ≤ 200mVrms		Full bandwidth: 100X: ≤ 100mVrms 1000X: ≤ 500mVrms		Full bandwidth: 100X: ≤ 200mVrms 1000X: ≤ 600mVrms	
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 (20X) 11.7ns (200X)		12.5ns (50X) 12.1ns (500X)		11.7ns (100X) 11.5ns (1000X)		12.5ns (100X) 12.5ns (1000X)	
Input Impedance	6MΩ/1.67pF(differential) 3MΩ/3.3pF (each input to ground)		13.2MΩ/1.67pF(differential) 6.6MΩ/3.3pF (each input to ground)		30MΩ/0.78pF(differential) 15MΩ/1.57pF (each input to ground)		120MΩ/0.78pF(differential) 60MΩ/1.57pF (each input to ground)	
Output Impedance	1MΩ		1MΩ		1MΩ		1MΩ	

Parameters	
Accuracy (Typical)	± 2% (Customizable 1% accuracy)
Power Supply	DC 5V
Overload Indication	LED flash, buzzer
Dimension	L: 13.5cm W: 5cm H: 2.5cm
Input Cable Length	31cm
Output Cable Length	100cm
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	① DP Series Probe*1
	② Extendable Hook Pliers*1 Pair
	③ Alligator Clips*1 Pair
	④ Input Extension Cables*1 Pair
	⑤ Power adapter*1
	⑥ BNC Output Lin*1
	⑦ USB Line*1
	⑧ Quick Guide*1

