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**Data Sheet**

August 13, 2026

RIGOL

# Rigol Rp1050D High Voltage Differential Probe, Dc-50 Mhz, 7000 Vpp

Rigol RP1050D High Voltage Differential Probe DC to 50 MHz The RP1050D is a high voltage differential probe in the RP1000D family (RP1025D 25 MHz, RP1050D 50 MHz, RP1100D 100 MHz). It converts a high differential voltage to a low voltage for an oscilloscope. Bandwidth is DC to 50 MHz (minus 3 dB) at X200, X500, or X1000; X100 is DC to 25 MHz on the English user guide. Attenuation is X100, X200, X500, X1000 with plus/minus 2 percent accuracy. Maximum differential input is 7000 Vpp (about 2300 Vrms). Power is as specified external 9 V DC adaptor. The RP1050D is a high voltage differential probe in the RP1000D family (RP1025D 25 MHz, RP1050D 50 MHz, RP1100D 100 MHz). It converts a high differential voltage to a low voltage for an oscilloscope. Bandwidth is DC to 50 MHz (minus 3 dB) at X200, X500, or X1000; X100 is DC to 25 MHz on the English user guide. Attenuation is X100, X200, X500, X1000 with plus/minus 2 percent accuracy. Maximum differential input is 7000 Vpp (about 2300 Vrms). Power is as specified external 9 V DC adaptor. High voltage power electronics and inverter debug



MODEL

**Rigol RP1050D**

CALIBRATION

**Available on request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**RP1050D**

LISTING

<https://aumictechlabs.com/products/rp1050d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

**This unit**

The Rigol RP1050D is a high-voltage differential probe that converts high differential input voltages into low-voltage signals suitable for standard oscilloscope analysis. Operating from DC to 50 MHz at x200, x500, and x1000 attenuation ratios, it handles maximum differential voltages of 7000 Vpp and operates safely to 6500 Vrms with respect to ground. The probe features selectable attenuation ratios of x100, x200, x500, and x1000, enabling flexible measurement scaling across diverse high-voltage applications. With  $\pm 2\%$  accuracy and 50  $\Omega$  output impedance, the RP1050D delivers  $\pm 7.0$  V minimum output and integrates with all general-purpose and Rigol oscilloscopes.

**Technical Specifications**  
Bandwidth: DC to 50 MHz ( $-3$  dB) at x200, x500, x1000;  
DC to 25 MHz ( $-3$  dB) at x100  
Maximum Differential Input Voltage: 7000 Vpp (x1000); 3500 Vpp (x500); 1400 Vpp (x200); 700 Vpp (x100)  
Maximum Voltage to Ground: 6500 Vrms  
Attenuation Ratios: x100, x200, x500, x1000  
Input Impedance (Differential): 16 M $\Omega$ /1 pF or 100 M $\Omega$ /1.2 pF  
Input Impedance (Single-ended to ground): 50 M $\Omega$ /2.3 pF  
Output Impedance: 50  $\Omega$   
Output Voltage:  $\geq \pm 7.0$  V  
Rise Time: 7 ns (x200, x500, x1000); 14 ns (x100)  
Measurement Accuracy:  $\pm 2\%$   
Power Supply: External 9 V DC (0.4 W)  
Power Consumption: <300 mA or 0.4 W  
Safety Rating: CAT III, IEC 1010-1, Pollution Degree 2

**Key Features**  
Selectable attenuation ratios optimize measurement resolution across voltage ranges  
High input impedance minimizes circuit loading  
50  $\Omega$  output impedance ensures compatibility with standard oscilloscope inputs  
Dual high-voltage banana plug connectors support safe, reliable connections  
Includes dedicated safety clips rated for CAT III applications

**Typical Applications**  
High-voltage signal measurement in power electronics, inverter analysis, switching circuit characterization, and industrial power systems testing.

**Compatibility & Integration**  
Compatible with all general-purpose oscilloscopes and Rigol oscilloscope models. Supplied with dual-BNC coaxial cable (RG58C, 50  $\Omega$ , 100 cm) and high-voltage silicon cable assembly (6 kV UL, 60 cm).

## RP1050D Characteristics / Specifications

| PARAMETER                       | VALUE                                                  |
|---------------------------------|--------------------------------------------------------|
| Model                           | RP1050D                                                |
| Manufacturer                    | Rigol                                                  |
| Instrument Type                 | High voltage differential probe                        |
| Alias                           | RP 1050D; RIGOL RP1050D; RP1000D family 50 MHz         |
| Bandwidth X200 X500 X10         | DC to 50 MHz (minus 3 dB)                              |
| Bandwidth X1                    | DC to 25 MHz (English user guide)                      |
| Attenuation Ratio               | X100, X200, X500, X1000                                |
| Accuracy                        | plus/minus 2 percent                                   |
| Input Range X1                  | less than or equal to 700 Vpp, about 230 Vrms or DC    |
| Input Range X2                  | less than or equal to 1400 Vpp, about 460 Vrms or DC   |
| Input Range X5                  | less than or equal to 3500 Vpp, about 1140 Vrms or DC  |
| Input Range X10                 | less than or equal to 7000 Vpp, about 2300 Vrms or DC  |
| Maximum Differential Voltage    | 7000 V (DC plus AC peak to peak) or 2300 Vrms          |
| Input to Ground Official        | 1200 Vrms                                              |
| Differential Impedance Official | 16 MOhm / 1 pF                                         |
| Single Ended Impedance Official | 8 MOhm / 2 pF                                          |
| Output Voltage                  | less than or equal to plus/minus 7.0 V                 |
| Output Impedance                | 50 ohm                                                 |
| Rise Time X200 X500 X10         | 7 ns                                                   |
| Rise Time X1                    | 14 ns (English user guide)                             |
| CMRR 60 Hz Official             | greater than 50 dB                                     |
| CMRR 100 Hz Official            | greater than 50 dB                                     |
| CMRR 1 MHz Official             | greater than 50 dB                                     |
| Power Supply                    | specified external 9 V DC (Rigol acknowledged adaptor) |
| Supply Current                  | less than 300 mA                                       |

| PARAMETER                 | VALUE                                                                                                                                                                                                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Probe Dimensions          | 240 mm x 85 mm x 36 mm                                                                                                                                                                                                                                                               |
| Weight                    | 280 g                                                                                                                                                                                                                                                                                |
| Safety                    | IEC 1010-1, CAT III, pollution degree 2                                                                                                                                                                                                                                              |
| EMC                       | EN50081-1 and EN50082-1                                                                                                                                                                                                                                                              |
| Insulation                | double insulation                                                                                                                                                                                                                                                                    |
| Using Environment         | indoor                                                                                                                                                                                                                                                                               |
| Sibling RP1025D Bandwidth | DC to 25 MHz                                                                                                                                                                                                                                                                         |
| Sibling RP1100D Bandwidth | DC to 100 MHz Notes Specs from Rigol RP1025D/RP1050D/RP1100D user guides. Official CN-EN lists 16 MOhm/1 pF differential; some English printings list 100 MOhm/1.2 pF differential and 6500 Vrms to ground. Confirm attenuation switch, adaptor, and impedance printing on the unit. |
| Bandwidth                 | is DC to 50 MHz (minus 3 dB) at X200, X500, or X1000; X100 is DC to 25 MHz on the English user guide. Attenuation is X100, X200, X500, X1000 with plus/minus 2 percent accuracy. Maximum differential input is 7000 Vpp (about 2300 Vrms). Power is as specified                     |
| Rise Time                 | X200 X500 X1000: 7 ns                                                                                                                                                                                                                                                                |
| Attenuation               | is X100, X200, X500, X1000 with plus/minus 2 percent accuracy. Maximum differential input is 7000 Vpp (about 2300 Vrms). Power is as specified external 9 V DC adaptor.                                                                                                              |

# Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

| Specifications                  |                                                        |
|---------------------------------|--------------------------------------------------------|
| Specifications                  |                                                        |
| PARAMETER                       | VALUE                                                  |
| Model                           | RP1050D                                                |
| Manufacturer                    | Rigol                                                  |
| Instrument Type                 | High voltage differential probe                        |
| Alias                           | RP 1050D; RIGOL RP1050D; RP1000D family 50 MHz         |
| Bandwidth X200 X500 X1000       | DC to 50 MHz (minus 3 dB)                              |
| Bandwidth X100                  | DC to 25 MHz (English user guide)                      |
| Attenuation Ratio               | X100, X200, X500, X1000                                |
| Accuracy                        | plus/minus 2 percent                                   |
| Input Range X100                | less than or equal to 700 Vpp, about 230 Vrms or DC    |
| Input Range X200                | less than or equal to 1400 Vpp, about 460 Vrms or DC   |
| Input Range X500                | less than or equal to 3500 Vpp, about 1140 Vrms or DC  |
| Input Range X1000               | less than or equal to 7000 Vpp, about 2300 Vrms or DC  |
| Maximum Differential Voltage    | 7000 V (DC plus AC peak to peak) or 2300 Vrms          |
| Input to Ground Official        | 1200 Vrms                                              |
| Differential Impedance Official | 16 MOhm / 1 pF                                         |
| Single Ended Impedance Official | 8 MOhm / 2 pF                                          |
| Output Voltage                  | less than or equal to plus/minus 7.0 V                 |
| Output Impedance                | 50 ohm                                                 |
| Rise Time X200 X500 X1000       | 7 ns                                                   |
| Rise Time X100                  | 14 ns (English user guide)                             |
| CMRR 60 Hz Official             | greater than 50 dB                                     |
| CMRR 100 Hz Official            | greater than 50 dB                                     |
| CMRR 1 MHz Official             | greater than 50 dB                                     |
| Power Supply                    | specified external 9 V DC (Rigol acknowledged adaptor) |
| Supply Current                  | less than 300 mA                                       |
| Probe Dimensions                | 240 mm x 85 mm x 36 mm                                 |

| PARAMETER                 | VALUE                                   |
|---------------------------|-----------------------------------------|
| Weight                    | 280 g                                   |
| Safety                    | IEC 1010-1, CAT III, pollution degree 2 |
| EMC                       | EN50081-1 and EN50082-1                 |
| Insulation                | double insulation                       |
| Using Environment         | indoor                                  |
| Sibling RP1025D Bandwidth | DC to 25 MHz                            |
| Sibling RP1100D Bandwidth | DC to 100 MHz                           |

#### Notes

Specs from Rigol RP1025D/RP1050D/RP1100D user guides. Official CN-EN lists 16 MΩ/1 pF differential; some English printings list 100 MΩ/1.2 pF differential and 6500 V<sub>rms</sub> to ground. Confirm attenuation switch, adaptor, and impedance printing on the unit.

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.