

# CHOOSE THE RIGHT PROBE FOR YOUR APPLICATION

## Probe type

- Power rail
- Active single-ended
- Active differential
- Current
- High voltage

### Power rail probe

Use a power rail probe to measure small AC characteristics of DC signals. These probes have a large built-in offset, 1:1 low-noise attenuation and excellent DC loading.



### Benefits

- ▶ Accurately measure your power rail with a low-noise 1:1 probe attenuation factor
- ▶ High offset enables use of small vertical settings
- ▶ Integrated R&S®ProbeMeter accurately measures the DC voltage

[https://www.rohde-schwarz.com/product/power\\_rail\\_probes](https://www.rohde-schwarz.com/product/power_rail_probes)

### Active single-ended probe

Upgrade to an active single-ended probe for more accurate higher frequency measurements. An amplifier built into the probe near the tip ensures low capacitive loading.



### Benefits

- ▶ Low capacitive loading minimizes loading influence at higher frequencies
- ▶ Integrated R&S®ProbeMeter provides DC level with very high accuracy
- ▶ Built-in offset compensation enables higher vertical sensitivity

[https://www.rohde-schwarz.com/product/active\\_single-ended\\_probes](https://www.rohde-schwarz.com/product/active_single-ended_probes)



### Active differential probe

Use differential probes to measure single-ended signals (signal to ground) and differential signals (plus versus minus).

### Benefits

- ▶ Confidently capture differential signals
- ▶ High common mode rejection ratio ensures accuracy with large common mode changes
- ▶ Signals under test retains high fidelity with thanks to capacitive probe loading

[https://www.rohde-schwarz.com/product/active\\_differential\\_probes](https://www.rohde-schwarz.com/product/active_differential_probes)



### High voltage probe

Safety is a key consideration when measuring high voltages. High voltage differential probes with the appropriate CAT rating make sure that large voltage spikes cannot harm the operator.

### Benefits

- ▶ Measure fast-switching semiconductors up to 200 MHz
- ▶ Large offset compensation range up to 2000 V enables higher resolution
- ▶ High common mode rejection ratio enables accurate gate-source voltage measurements

<https://www.rohde-schwarz.com/product/high-voltage-probes>



### Current probe

Choose a clamp-on current probe for non-intrusive current measurements. These probes have a negligible effect on the device under test and come in models with varying current and bandwidth ratings.

### Benefits

- ▶ Quickly measure small to large currents without disturbing your device
- ▶ Measure low to high frequency (> 100 MHz) current bandwidth
- ▶ Easily connect and power the probe with the Rohde & Schwarz probe interface on the oscilloscope

[https://www.rohde-schwarz.com/current\\_probes](https://www.rohde-schwarz.com/current_probes)

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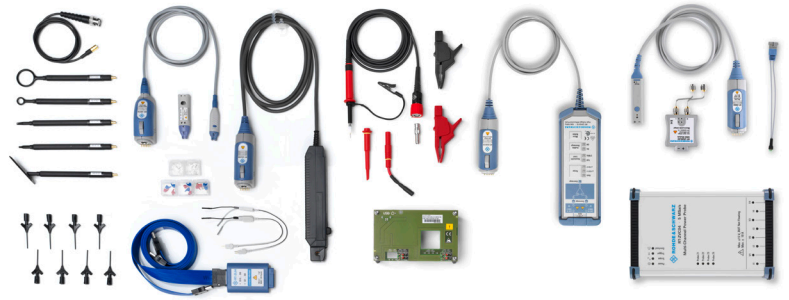
Make ideas real



# DISCOVER THE PROBE PORTFOLIO FROM ROHDE & SCHWARZ

## Probe type

- Passive
- Active single-ended
- Active differential
- Modular
- Power rail
- Multi-channel
- High voltage
- Current
- Near-field



Type	Description	Bandwidth	Dynamic range
R&S®RT-ZP10	passive, single-ended, 10:1	500 MHz	400 V (RMS)
R&S®RT-ZI10	passive, single-ended, 10:1, isolated	500 MHz	600 V CAT IV, 1000 V CAT III
R&S®RT-ZZ80	passive, single-ended, 10:1, broadband	8 GHz	20 V (RMS)
R&S®RT-ZP1X	passive, single-ended, 1:1	38 MHz	55 V (RMS)
R&S®RT-ZS10L	active, single-ended, 10:1	1 GHz	±8 V
R&S®RT-ZS10E	active, single-ended, 10:1 <sup>1)</sup>	1 GHz	±8 V
R&S®RT-ZS10/20/30/60	active, single-ended, 10:1 <sup>1), 2)</sup>	1/1.5/3/6/13/16 GHz	±8 V
R&S®RT-ZD01	active, differential, 100:1/1000:1	100 MHz	±140 V (100:1), ±1400 V (1000:1)
R&S®RT-ZD02	active, differential, 10:1	200 MHz	±20 V
R&S®RT-ZD08	active, differential, 10:1	800 MHz	±15 V
R&S®RT-ZD10/20/30	active, differential, 10:1 <sup>1), 2)</sup>	1/1.5/3 GHz	±5 V, with R&S®RT-ZA15: ±70 V DC, ±46 V AC (peak)
R&S®RT-ZD40	active, differential, 10:1 <sup>1), 2)</sup>	4.5 GHz	±5 V
R&S®RT-ZM15/30/60/90/130/160	active, multimode amplifier module, 10:1/2:1 <sup>1), 2)</sup>	1.5/3/6/9/13/16 GHz	depends on tip module used
R&S®RT-ZMA10	solder-in <sup>3)</sup>	<sup>4)</sup>	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA12	square-pin <sup>3)</sup>	<sup>4)</sup> , max. 6 GHz	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA14	flex solder-in <sup>3)</sup>	<sup>4)</sup>	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA15	quick-connect <sup>3)</sup>	<sup>4)</sup>	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA30	browser <sup>3)</sup>	<sup>4)</sup>	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA40	SMA <sup>3)</sup>	<sup>4)</sup> , max. 6 GHz	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZMA50	extreme temperature solder-in <sup>3)</sup>	<sup>4)</sup> , max. 2.5 GHz	±2.5 V (10:1), ±0.5 V (1:1)
R&S®RT-ZPR20/40	active, single-ended, 1:1 <sup>1)</sup>	2 GHz/4 GHz	±850 mV
R&S®RT-ZVC02/04	multi-channel power probe	1 MHz	±1.8 V to ±15 V, ±4.5 µA to ±10 A
R&S®RT-ZH10	passive, single-ended, 100:1	400 MHz	1 kV (RMS)
R&S®RT-ZH11	passive, single-ended, 1000:1	400 MHz	1 kV (RMS)
R&S®RZ-ZI10C	passive, single-ended, 10:1, isolated, compact	500 MHz	300 V CAT III
R&S®RT-ZI11	passive, single-ended, 100:1, isolated	500 MHz	600 V CAT IV, 1000 V CAT III, 3540 V CAT 0
R&S®RT-ZD002	active, differential, 10:1/100:1	25 MHz	±700 V
R&S®RT-ZD003	active, differential, 20:1/200:1	25 MHz	±1400 V
R&S®RT-ZHD07	active, differential, 25:1/250:1 <sup>1), 2)</sup>	200 MHz	±750 V (peak)
R&S®RT-ZHD15/16	active, differential, 50:1/500:1 <sup>1), 2)</sup>	100 MHz/200 MHz	±1500 V (peak)
R&S®RT-ZHD60	active, differential, 100:1/1000:1 <sup>1), 2)</sup>	100 MHz	±6000 V (peak)
R&S®RT-ZC02	AC/DC current probe	20 kHz	100 A (RMS), 1000 A (RMS), 0.01 V/A, 0.001 V/A switchable
R&S®RT-ZC03	AC/DC current probe	100 kHz	20 A (RMS), ±30 A (peak), 0.1 V/A
R&S®RT-ZC05B	AC/DC current probe <sup>1)</sup>	2 MHz	500 A (RMS), ±700 A (peak), 0.01 V/A
R&S®RT-ZC10/B	AC/DC current probe <sup>1)</sup>	10 MHz	150 A (RMS), ±300 A (peak), 0.01 V/A
R&S®RT-ZC15B	AC/DC current probe <sup>1)</sup>	50 MHz	30 A (RMS), ±50 A (peak), 0.1 V/A
R&S®RT-ZC20/B	AC/DC current probe <sup>1)</sup>	100 MHz	30 A (RMS), ±50 A (peak), 0.1 V/A
R&S®RT-ZC30	AC/DC high-sensitivity current probe	120 MHz	5 A (RMS), ±7.5 A (peak), 1 V/A
R&S®HZ-14	active E and H near-field probe set <sup>5)</sup>	9 kHz to 1 GHz	N/A
R&S®HZ-15	passive E and H near-field probe set	30 MHz to 3 GHz	N/A
R&S®HZ-17	compact H near-field probe set	30 MHz to 3 GHz	N/A

<sup>1)</sup> Includes Rohde & Schwarz probe interface.

<sup>2)</sup> Includes R&S®ProbeMeter and micro button for instrument control.

<sup>3)</sup> Tip module for R&S®RT-ZMxx probes.

<sup>4)</sup> Depends on amplifier module.

<sup>5)</sup> Requires R&S®HZ-9 external power supply.