

Outstanding high voltage differential probes



The perfect choice for

High voltage floating circuits measurement

Fast-switching power electronics

Gate-source measurements with high common mode voltage

Ripple voltage detection on DC link

Precise high voltage measurements with exceptional CMRR

In order to achieve highest power efficiencies and power densities in switched-mode power supplies, switching loss has to be minimized. This requires the use of modern, fast-switching semiconductors. With up to 200 MHz bandwidth and an excellent common mode rejection ratio (CMRR) over a broad frequency range, the R&S®RT-ZHD high voltage differential probes are ideal for measurements on fast-switching power electronics. Extraordinarily low added noise results in high-quality measurements.

Key specifications

Maximum voltage	6000/1500/750 V	
Bandwidth	100/200/100 MHz	
Rise time	2 ns to 4 ns	
Common mode rejection	DC to 60 Hz	80 dB
	60 Hz to 1 kHz	70 dB
	1 kHz to 1 MHz	55 dB
	1 MHz to 50 MHz	35 dB

Your benefit

Always safe (for user and DUT)

Excellent functions

Accurate results

Features

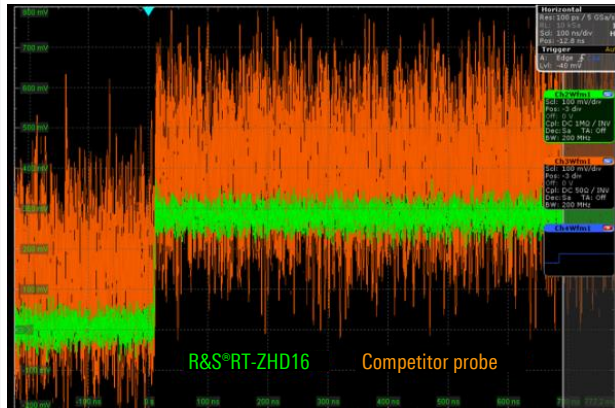
No short circuits due to GND connections and the scope is always connected to earth

Automatic range adjustment, overrange signalization, integrated DC voltmeter

Accurate, low inherent noise, high bandwidth and slew rate, high linearity, very low drift, high CMRR

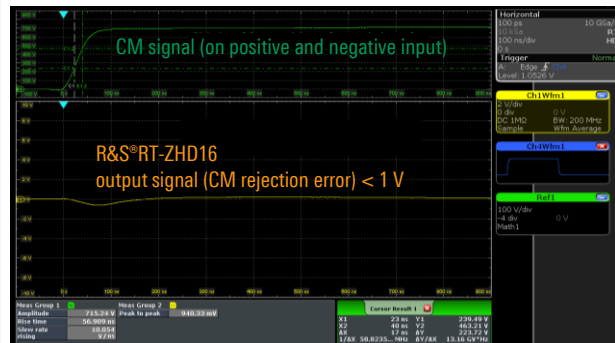
► For more information, visit
www.rohde-schwarz.com/high-voltage-probes

Low inherent noise



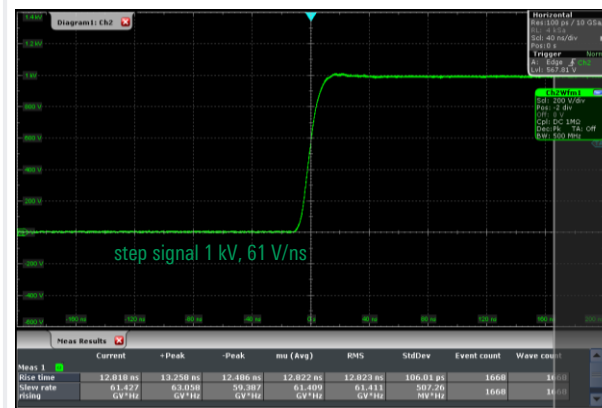
Noise voltage below 80 mV (R&S®RT-ZHD16, 200 MHz)

High CMRR



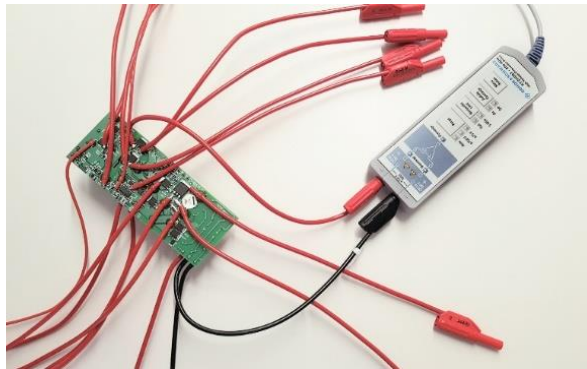
Suitable for high side gate measurements in applications with slew rates up to 10 V/ns

High bandwidth and slew rate



Short rise time enables measurement of fast transients (e.g. 12 ns) without any overshoot

Measurement leads changeable (solderable)



Fast and safe alternation between measurement leads

High voltage probes: differential

Models	Specification
R&S®RT-ZHD07	<ul style="list-style-type: none"> Bandwidth: 200 MHz Attenuation factor: 250:1 / 25:1 Dyn. range (diff. input): $\pm 750 \text{ V} / \pm 75 \text{ V}$ Max. input voltage to earth (each terminal): 300 V CAT III, 600 V CAT II, 600 V (V_{RMS}) / 4500 V (V_{PK}) Differential offset: $\pm 1000 \text{ V}$ Diff. input impedance: $5 \text{ M}\Omega \parallel 2.5 \text{ pF}$
R&S®RT-ZHD15	<ul style="list-style-type: none"> Bandwidth: 100 MHz Attenuation factor: 500:1 / 50:1 Dyn. range (diff. input): $\pm 1500 \text{ V} / 150 \text{ V}$ Max. input voltage to earth (each terminal): 1000 V CAT III, 1000 V (V_{RMS}) / 6800 V (V_{PK}) Differential offset: $\pm 2000 \text{ V}$ Diff. input impedance: $10 \text{ M}\Omega \parallel 2 \text{ pF}$
R&S®RT-ZHD16	<ul style="list-style-type: none"> Bandwidth: 200 MHz Attenuation factor: 500:1 / 50:1 Dyn. range (diff. input): $\pm 1500 \text{ V} / 150 \text{ V}$ Max. input voltage to earth (each terminal): 1000 V CAT III, 1000 V (V_{RMS}) / 6800 V (V_{PK}) Differential offset: $\pm 2000 \text{ V}$ Diff. input impedance: $10 \text{ M}\Omega \parallel 2 \text{ pF}$
R&S®RT-ZHD60	<ul style="list-style-type: none"> Bandwidth: 100 MHz Attenuation factor: 1000:1 / 100:1 Dyn. range (diff. input): $\pm 6000 \text{ V} / 600 \text{ V}$ Max. input voltage to earth (each terminal): 1000 V CAT III, 1750 V (V_{RMS}) / 6800 V (V_{PK}) Differential offset: $\pm 2000 \text{ V}$ Diff. input impedance: $40 \text{ M}\Omega \parallel 2 \text{ pF}$