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Data Sheet

August 12, 2026

ROHDE & SCHWARZ

Rohde and Schwarz RT-ZD30 Active Probe, Differential, 0 Hz to 3 GHz

Rohde & Schwarz Laboratory Measurement Instruments. Bandwidth: 3 GHz, Voltage: ± 30 V (non-destructive).



MODEL

**Rohde & Schwarz
RT-ZD30**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

RT-ZD30

LISTING

<https://aumictechlabs.com/products/rt-zd30-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz RT-ZD30 is an active differential probe engineered for precision measurement of differential signals across DC and high-speed applications. Operating from 0 Hz to 3 GHz with a 110 ps rise time, this probe delivers exceptional signal fidelity while minimizing loading effects on the Device Under Test. Its dual attenuation factors (10:1 and 100:1) and high input impedance ($1\text{ M}\Omega \parallel 0.6\text{ pF}$) make it ideal for signal integrity analysis, high-speed data communication, and power electronics development. The probe incorporates DC offset compensation up to $\pm 22\text{ V}$ and handles maximum input voltages of $\pm 30\text{ V}$, with inherent common-mode rejection for suppressing interference in noisy environments.

Technical Specifications

Electrical Performance Bandwidth: 3 GHz Rise Time: 110 ps Attenuation Factor: 10:1, 100:1 selectable Input Impedance: $1\text{ M}\Omega \parallel 0.6\text{ pF}$ Input Capacitance: 0.6 pF Maximum Input Voltage: $\pm 30\text{ V}$ (non-destructive) DC Offset Compensation: $\pm 22\text{ V}$ (signal sockets to ground) Common-Mode Rejection: High Added Noise: Very low Physical & Interface Cable Length: 1.2 m Probe Head

Dimensions: Approx. 68 mm × 12 mm × 7.5 mm Connector: Rohde & Schwarz probe interface (7 mm BNC + pogo pins) Environmental Operating Temperature: 0 °C to +50 °C Calibration Interval: 2 years

Key Features Low DUT loading through high input impedance and minimal capacitance Switchable 10:1 and 100:1 attenuation for flexible gain selection Wide offset compensation range enables measurement of biased differential signals Comprehensive accessory kit: multiple probe tips, adapters, clips, and carrying case ProbeMeter and micro button for instrument control integration

Typical Applications Signal integrity analysis in high-speed digital circuits Differential signal measurement in data communication systems Power electronics and switching circuit characterization Common-mode noise suppression in multi-layer PCB environments

Compatibility & Integration Designed for Rohde & Schwarz oscilloscopes with native probe interface compatibility. Confirmed compatible with RTM2032/34, RTM2052/54, RTO1002/04, RTO1012/14, and RTO1044 series instruments.

Features & description

From manufacturer datasheet

Features

- Bandwidth: DC to 3.0 GHz (from rise time)
- Rise time (10%–90%): <135 ps
- Attenuation: 10:1; error $\pm 0.5\%$ after digital correction
- Diff. input R/C: $1\text{ M}\Omega \parallel 0.6\text{ pF}$ (between sockets); $500\text{ k}\Omega / 0.8\text{ pF}$ each to GND
- Dynamic range (diff.): $\pm 5\text{ V}$ (+ offset); offset $\pm 5\text{ V}$
- Operating window each pin to GND: $\pm 8\text{ V}$; CM offset $\pm 22\text{ V}$
- Non-destructive: $\pm 30\text{ V}$ DC peak each signal to ground
- Noise (ref. probe input): 3.0 mV RMS (meas.)
- Flatness: 0.2 dB (100 kHz – 100 MHz); 0.5 dB to 1 GHz (meas.)
- CMRR: $>50\text{ dB}$ DC– 10 kHz ; $40 / 30 / 20\text{ dB}$ across higher bands (meas.)
- Propagation delay: 5.5 ns (meas.); slew $\sim 60\text{ V/ns}$ (meas.)
- ProbeMeter: $\pm 0.1\% \pm 2\text{ mV}$ ($+15\text{...}+35\text{ }^\circ\text{C}$)
- With RT-ZA15: BW 2.0 GHz ; rise $<200\text{ ps}$; diff. $\pm 50\text{ V}$; C_{in} 1.3 pF between sockets

RTZD30 Characteristics / Specifications

PARAMETER	VALUE
Model	RT-ZD30
Manufacturer	Rohde & Schwarz
Instrument Type	Active Differential Voltage Probe
Alias	RT-ZD30; R&S RT-ZD30; order 1410.4609.02 Electrical
Bandwidth	DC to 3.0 GHz (from rise time)
Rise time	<135 ps
Attenuation	10:1; error $\pm 0.5\%$ after digital correction
Diff. R/C	1 M Ω / 0.6 pF
Dynamic range	± 5 V; offset ± 5 V
Rise time (10%–90%)	<135 ps
Diff. input R/C	1 M Ω 0.6 pF (between sockets); 500 k Ω / 0.8 pF each to GND
Dynamic range (diff.)	± 5 V (+ offset); offset ± 5 V
Operating window each pin to GND	± 8 V; CM offset ± 22 V
Non-destructive	± 30 V DC peak each signal to ground
Noise (ref. probe input)	3.0 mV RMS (meas.)
Flatness	0.2 dB (100 kHz–100 MHz); 0.5 dB to 1 GHz (meas.)
CMRR	>50 dB DC–10 kHz; 40 / 30 / 20 dB across higher bands (meas.)
Propagation delay	5.5 ns (meas.); slew ~ 60 V/ns (meas.)
ProbeMeter	$\pm 0.1\%$ ± 2 mV (+15...+35 °C)
With RT-ZA15	BW 2.0 GHz; rise <200 ps; diff. ± 50 V; Cin 1.3 pF between sockets

RTZD30 Specifications

PARAMETER	VALUE
Applications	High-speed differential signaling to 3 GHz; CMRR-critical measurements; ProbeMeter on R&S scopes.
Key Features	- Bandwidth: DC to 3.0 GHz (from rise time)
Technical Specifications	Model: RT-ZD30
Electrical	Bandwidth: DC–3.0 GHz
Notes	Specs from R&S RT-Zxx High Bandwidth Probes datasheet and RT-ZD10/20/30 user manual. Confirm order number and accessories on the unit.

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	RT-ZD30
Manufacturer	Rohde & Schwarz
Instrument Type	Active Differential Voltage Probe
Alias	RT-ZD30; R&S RT-ZD30; order 1410.4609.02

Electrical

Electrical

PARAMETER	VALUE
Bandwidth	DC-3.0 GHz
Rise time	<135 ps
Attenuation	10:1
Diff. R/C	1 MΩ / 0.6 pF
Dynamic range	±5 V; offset ±5 V

Non-destruct: ±30 V

Notes

Specs from R&S RT-Zxx High Bandwidth Probes datasheet and RT-ZD10/20/30 user manual. Confirm order number and accessories 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 · +1 (484) 841-9341

Aumictech

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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.