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Data Sheet

August 13, 2026

ROHDE & SCHWARZ

Rohde and Schwarz ZV-Z52 Calibration Unit, 4-port, 10MHzâ€"24GHz

The Rohde & Schwarz ZV-Z52 is an adapter designed for use with network analyzers. It facilitates the connection of devices with different connector types, ensuring accurate and reliable measurements. This adapter is ideal for RF and microwave applications, providing impedance matching and signal integrity.



MODEL

Rohde & Schwarz ZV-Z52

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

ZV-Z52

LISTING

<https://aumictechlabs.com/products/zv-z52-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rohde & Schwarz ZV-Z52 is an automatic calibration unit for multiport system error correction in RF and microwave network analysis. It electronically switches integrated calibration standards across four ports, enabling rapid, accurate measurements from 10 MHz to 24 GHz. The unit connects via USB to compatible Rohde & Schwarz analyzers ZVA/T, ZNB/T, ZNC, ZND, ZNL, ZVA, ZVT, and ZVB series - with automatic detection upon connection. No warm-up time is required; the unit operates immediately at ambient temperature. Technical Specifications
Frequency range: 10 MHz to 24 GHz Port configuration: 4 ports Connectors: 3.5 mm (f)
Impedance: 50 Ω or 75 Ω Nominal input level: -45 dBm to +20 dBm Maximum input level: +23 dBm Damage threshold DC voltage: 12 V Control and power interface: USB Type B Warm-up time: Virtually none; ready at ambient temperature Calibration speed varies with measurement

parameters. At 1 kHz bandwidth: 27 seconds for 201 points, 34 seconds for 401 points. At 100 Hz bandwidth: 67 seconds for 201 points.

Key Features

- Four-port configuration supports multiport calibration and reconnection-based measurement of ZNB and ZNB+switch matrix systems
- USB Type B connection supplies both power and control; cable length limited to 1 m maximum
- Automatic detection and installation via compatible analyzer
- Multiple calibration units can connect simultaneously to separate USB ports
- Maximum RF input power exceeds compatible analyzer output range, providing integrated overvoltage protection
- Unused ports must be terminated with 50 Ω matching to ensure calibration accuracy
- Adapters must not be inserted between calibration unit and analyzer test ports

Integration & Operational Requirements

Connection is restricted to the network analyzer's USB port only; connection to external computers, USB hubs, or other hosts risks equipment damage. ESD protection is mandatory - use the supplied wrist strap and grounding cord connected to the front panel GND connector. The unit has system-level error correction for accurate RF and microwave measurements without requiring external calibration kits.

ZVZ52 Characteristics / Specifications

PARAMETER	VALUE
Model .	10 MHz to 24 GHz; model .70: 100 kHz to 18 GHz Connectors type N (50 ohm) female or 3.5 mm female (all ports same type) Family siblings ZV Z53 (2 port), ZV Z54 (2.92 mm to 40 GHz), ZV Z55 (2.4 mm to 50 GHz), ZV Z58 (8 port), ZV Z59 (6 port)
Model	ZV Z52
Manufacturer	Rohde & Schwarz
Instrument Type	Automatic VNA Calibration Unit
Alias	R&S ZV-Z52; 1164.0521.30 (model .30)
Number of Calibration Ports	4
Frequency Range Model	100 kHz to 18 GHz
Connector Options	type N 50 ohm female or 3.5 mm female
Impedance	50 ohm (family also 75 ohm on other ZV Z5x)
Nominal Input Level Range	minus 45 dBm to plus 20 dBm
Damage Level	plus 23 dBm
Damage DC Voltage	12 V
Calibration Time 4 Ports 201 Points 1 kHz BW	27 s
Calibration Time 4 Ports 401 Points 1 kHz BW	34 s
Calibration Time 4 Ports 201 Points 100 Hz BW	67 s
Effective Directivity 10 MHz to 700 MHz	greater than 36 dB
Effective Directivity 700 MHz to 8 GHz	greater than 40 dB
Effective Directivity 8 GHz to 20 GHz	greater than 36 dB
Effective Directivity 20 GHz to 24 GHz	greater than 32 dB
Source Match 10 MHz to 700 MHz	greater than 30 dB
Source Match 700 MHz to 8 GHz	greater than 36 dB
Source Match 8 GHz to 18 GHz	greater than 30 dB

PARAMETER	VALUE
Source Match 18 GHz to 24 GHz	greater than 26 dB
Reflection Tracking 10 MHz to 700 MHz	less than 0.2 dB
Reflection Tracking 700 MHz to 8 GHz	less than 0.1 dB
Reflection Tracking 8 GHz to 24 GHz	less than 0.15 dB
Control Interface	USB type B (power and control)
RF Connector Equality	all ports same sex/type
Unused Port Termination	50 ohm match required
Effective System Data Temperature	plus 18 C to plus 28 C
Effective System Data IFBW	10 Hz
Effective System Data Power	minus 10 dBm at calibration ports
Order Number Model 30 3.5 mm	1164.0521.30
Family 2 Port Sibling	ZV Z53
Family 40 GHz Sibling	ZV Z54 2.92 mm
Family 50 GHz Sibling	ZV Z55 2.4 mm Notes Specs from the R&S ZV-Z5x calibration units specifications (effective system data for ZV-Z52 model .30). Confirm .30 versus .70 andNversus 3.5 mm. Terminate unused ports. Do not exceed plus 23 dBm or 12 V DC.

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	
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PARAMETER	VALUE
Model	ZV Z52
Manufacturer	Rohde & Schwarz
Instrument Type	Automatic VNA Calibration Unit
Alias	R&S ZV-Z52; 1164.0521.30 (model .30)
Number of Calibration Ports	4
Frequency Range Model 30	10 MHz to 24 GHz
Frequency Range Model 70	100 kHz to 18 GHz
Connector Options	type N 50 ohm female or 3.5 mm female
Impedance	50 ohm (family also 75 ohm on other ZV Z5x)
Nominal Input Level Range	minus 45 dBm to plus 20 dBm
Damage Level	plus 23 dBm
Damage DC Voltage	12 V
Calibration Time 4 Ports 201 Points 1 kHz BW: 27 s	
Calibration Time 4 Ports 401 Points 1 kHz BW: 34 s	
Calibration Time 4 Ports 201 Points 100 Hz BW: 67 s	
Specifications	
PARAMETER	VALUE
Effective Directivity 10 MHz to 700 MHz	greater than 36 dB
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Effective Directivity 20 GHz to 24 GHz	greater than 32 dB
Source Match 10 MHz to 700 MHz	greater than 30 dB
Source Match 700 MHz to 8 GHz	greater than 36 dB
Source Match 8 GHz to 18 GHz	greater than 30 dB
Source Match 18 GHz to 24 GHz	greater than 26 dB
Reflection Tracking 10 MHz to 700 MHz	less than 0.2 dB

PARAMETER	VALUE
Reflection Tracking 700 MHz to 8 GHz	less than 0.1 dB
Reflection Tracking 8 GHz to 24 GHz	less than 0.15 dB
Control Interface	USB type B (power and control)
RF Connector Equality	all ports same sex/type
Unused Port Termination	50 ohm match required
Effective System Data Temperature	plus 18 C to plus 28 C
Effective System Data IFBW	10 Hz
Effective System Data Power	minus 10 dBm at calibration ports
Order Number Model 30 3.5 mm	1164.0521.30
Family 2 Port Sibling	ZV Z53
Family 40 GHz Sibling	ZV Z54 2.92 mm
Family 50 GHz Sibling	ZV Z55 2.4 mm

Notes

Specs from the R&S ZV-Z5x calibration units specifications (effective system data for ZV-Z52 model .30). Confirm .30 versus .70 andNversus 3.5 mm. Terminate unused ports. Do not exceed plus 23 dBm or 12 V DC.

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.