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# Switch Matrix R&S® ZV-Z82

## Specifications



**ROHDE & SCHWARZ**

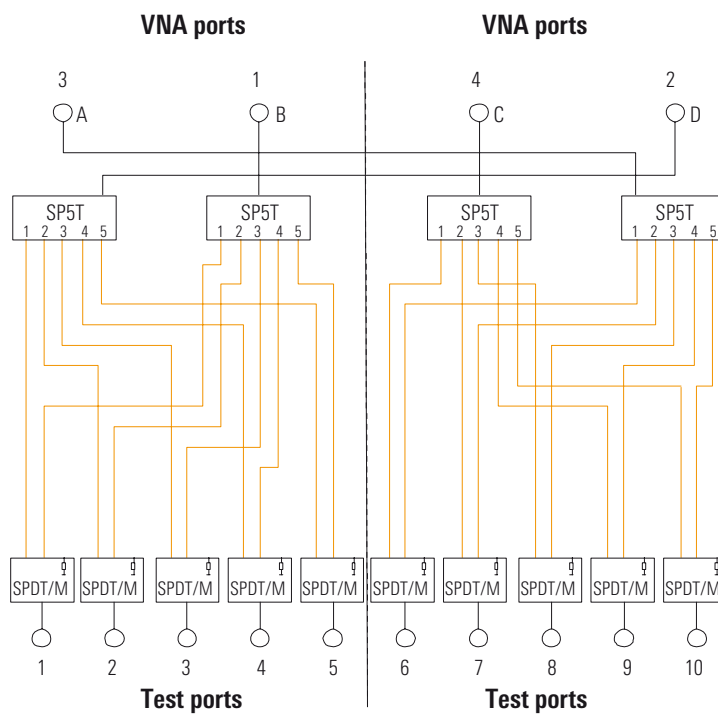
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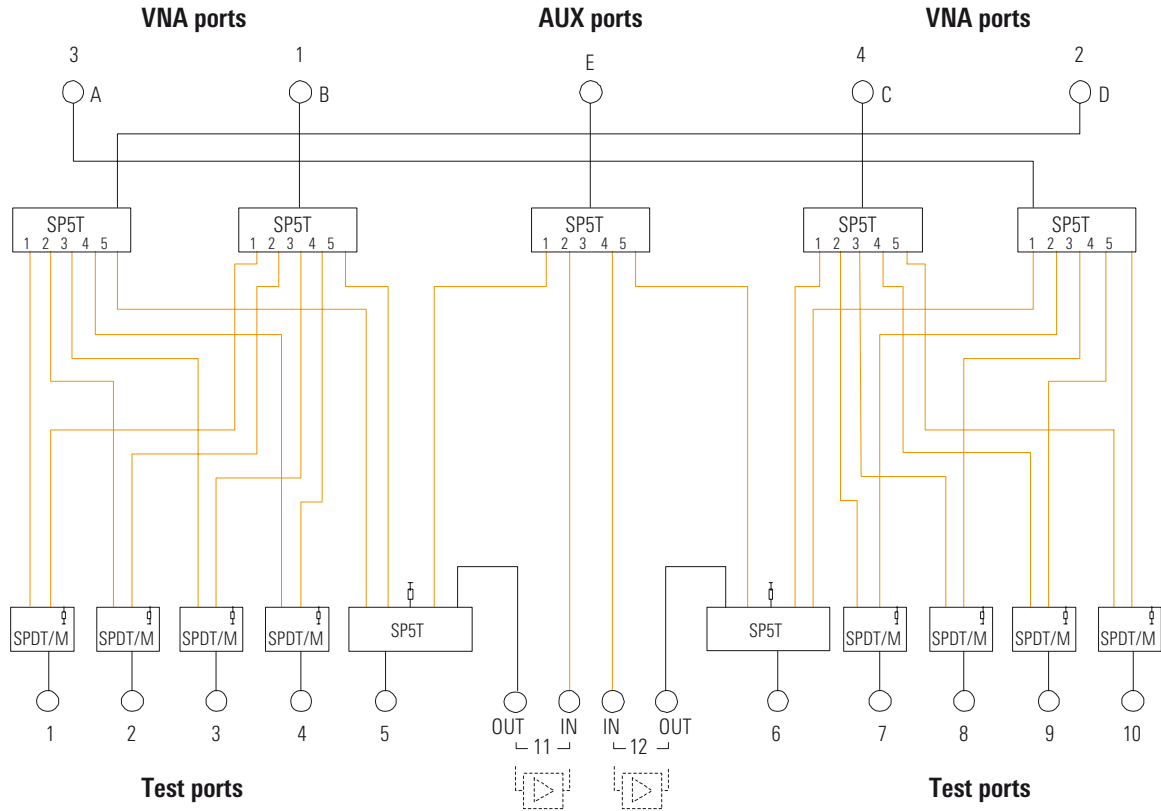
# Specifications

Specifications apply under the following conditions: sufficient warm-up time (approx. 15 minutes) at ambient temperature, specified environmental conditions met, and calibration cycle adhered to. Data designated 'nominal' applies to design parameters and is not tested. Data without tolerance limits: typical values only.

Frequency range		50 MHz to 24 GHz
Impedance		50 $\Omega$
VNA port connector type		type K (2.92 mm), female
Number of VNA ports	R&S ZV-Z82 all models	4
Number of AUX ports	R&S ZV-Z82 model .30 only	1
Test port connector type		type K (2.92 mm), female
Number of test ports	R&S ZV-Z82 all models	2 x 5
Switching configuration	see block diagram	2 x 2 to 5
Number of ports for external amplifiers	R&S ZV-Z82 model .30 only	2 (in + out)
Damage level		+23 dBm
Damage DC voltage		12 V



Block diagram of the R&S ZV-Z82 model .10



Block diagram of the R&S ZV-Z82 model .30

## Performance data

Insertion loss	R&S ZV-Z82 all models VNA port B and D to test ports 1 to 5 VNA port A and C to test ports 6 to 10 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz	<9 dB, typ. 7.5 dB <11 dB, typ. 9.5 dB <15 dB, typ. 13 dB
Insertion loss	R&S ZV-Z82 model .30 only AUX port to test port 5 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz AUX port to test port 6 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz	<9 dB, typ. 7.5 dB <13 dB, typ. 11 dB <15 dB, typ. 13 dB <9 dB, typ. 7.5 dB <13 dB, typ. 11 dB <15 dB, typ. 13 dB
Load match	any selected test port 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz any unselected test port 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz	>10 dB, typ. 11 dB >6 dB, typ. 12 dB >5 dB, typ. 11 dB >10 dB, typ. 15 dB >10 dB, typ. 14 dB >9 dB, typ. 13 dB

Load match	R&S ZV-Z82 model .30 only test ports 5 and 6 any selected test port 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz any unselected test port 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz	>8 dB, typ. 14 dB >6 dB, typ. 12 dB >5 dB, typ. 11 dB  >8 dB, typ. 14 dB >6 dB, typ. 12 dB >5 dB, typ. 11 dB
Isolation	any unselected test port to any VNA port 50 MHz to 8 GHz 8 GHz to 24 GHz	>90 dB >80 dB

## Remote control

USB	universal serial bus connector (type B) for connecting the switch matrix with a vector network analyzer of the R&S ZVA/ZVB family
LAN	local area network connector 10/100baseT, RJ-45
RS-232-C	serial port connector, 9-pin, DB-9 (115 kbps/8N1)

## Switching times

USB	with software handshake turned on	10 ms nominal
LAN	with software handshake turned on	12 ms nominal
RS-232-C	with software handshake turned on	8 ms nominal

## General data

Temperature loading	operating temperature range permissible temperature range storage temperature range	+5 °C to +40 °C 0 °C to +50 °C -40 °C to +70 °C in line with IEC 60068-2-1 and IEC 60068-2-2
Damp heat		40 °C at 95 % rel. humidity in line with IEC 60068-2-30
Mechanical resistance	vibration test, sinusoidal	5 Hz to 150 Hz in line with IEC 60068-2-6
	vibration test, random	10 Hz to 300 Hz in line with IEC 60068-2-64
	shock test	40 g shock spectrum in line with IEC 60068-2-27, MIL-STD-810
Calibration interval	1 year	
EMC, RF emission	in line with CISPR 11/EN 55011 group 1 class B for a shielded test setup	
EMC, other emissions and immunity	in line with IEC/EN 61326; emission: class B; immunity: industrial environment (excluding operating frequency)	
Safety	in line with IEC 61010-1 and EN 61010-1	
Power supply	100 V to 240 V (AC) ±10 %, 50 Hz to 60 Hz ±5 %, safety class I	
Power consumption	100 W	
Certification mark	CE conformity mark	
Dimensions ( W × H × D )	462.7 mm × 132.1 mm × 450 mm	
Weight	6 kg	

## Ordering information

Designation	Type	Order No.
Switch Matrix		
24 GHz, 2 × 2 to 5 ports, model .10	R&S ZV-Z82	5200.6860.10
24 GHz, 2 × 2 to 5 ports + AUX port, model .30	R&S ZV-Z82	5200.6860.30



More information at  
[www.rohde-schwarz.com](http://www.rohde-schwarz.com)  
(search term: ZV-Z82)



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