

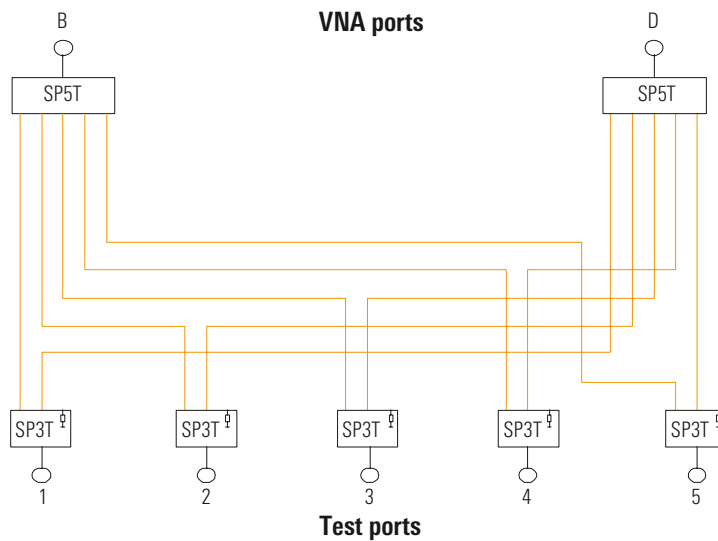
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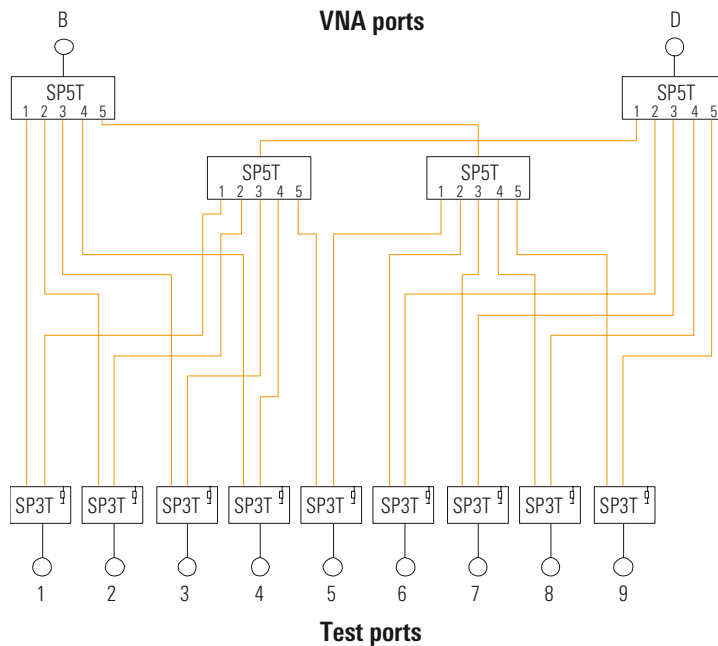
Specifications

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 Ω
VNA port connector type		type K (2.92 mm), female
Number of VNA ports	R&S ZV-Z81 all models	2
Test port connector type		type K (2.92 mm), female
Number of test ports	R&S ZV-Z81 model .05	5
	R&S ZV-Z81 model .09	9
Switching configuration	see block diagram	full crossbar
Damage level		+23 dBm
Damage DC voltage		12 V



Block diagram of the R&S ZV-Z81 model .05



Block diagram of the R&S ZV-Z81 model .09

Performance data

Insertion loss	R&S ZV-Z81 model .05 any VNA port to any test port 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-Z81 model .09 VNA port B to test ports 1 to 4 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz VNA port D to test ports 6 to 9 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz VNA port B to test ports 5 to 9 50 MHz to 8 GHz 8 GHz to 18 GHz 18 GHz to 24 GHz VNA port D to test ports 1 to 5 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 <9 dB, typ. 7.5 dB <11 dB, typ. 9.5 dB <15 dB, typ. 13 dB <13 dB, typ. 11.5 dB <18 dB, typ. 15.5 dB <20 dB, typ. 17 dB <13 dB, typ. 11.5 dB <18 dB, typ. 15.5 dB <20 dB, typ. 17 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	>8 dB, typ. 14 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
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 multiport test set 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.
Multiport Test Set		
24 GHz, 2 to 5 ports, model .05	R&S ZV-Z81	5200.6790.05
24 GHz, 2 to 9 ports, model .09	R&S ZV-Z81	5200.6790.09

