

R&S® RSG

RF Step Attenuator

Specifications



75 Years of
Driving
Innovation


ROHDE & SCHWARZ

Electrical data		
Impedance		50 Ω
RF connectors	on front or rear panel	N female
Frequency range		DC to 5.2 GHz
Attenuation range		0 dB to 139 dB
Attenuation steps		1 dB
VSWR	DC to 3.5 GHz 3.5 GHz to 5.2 GHz	<1.1 + 0.2 × frequency in GHz <1.8
Attenuation in 0 dB position	DC up to 1 GHz 1 GHz to 3 GHz 3 GHz to 5.2 GHz	<0.1 dB, typ. 0.05 dB <0.8 dB, typ. 0.5 dB <1.2 dB, typ. 0.8 dB <1.6 dB, typ. 1.3 dB
Attenuation uncertainty	DC to 1 GHz 1 GHz to 3 GHz 3 GHz to 5.2 GHz	<0.2 dB + 1 % of attenuation value <0.4 dB + 1 % of attenuation value <0.6 dB + 1.3% of attenuation value
Correction data frequency spacing		50 MHz
Maximum power-handling capability	continuous wave	1 W
	pulse <10 μs	200 W
Maximum voltage	pulse <10 μs	150 V
Life		>5 × 10 ⁶ switching cycles ¹⁾
Switching time		<25 ms

General data		
Temperature loading	operating temperature range permissible temperature range storage temperature range	0°C to +55°C 0°C to +55°C -40°C to +70°C
Power supply		100/120/220/240 V ±10%, 47 Hz to 440 Hz (20 W) in line with DIN EN 61010-1:2001, safety class I
Remote control		in line with IEC 625-1/IEEE 488
Electromagnetic compatibility / RF leakage		in line with DIN EN 61326: 1997 + ^A1: 1998 + A2:2001 + A3:2003, class B (emission); DIN EN 55011:1998 + A1: 1999 + A2:2002 (industrial immunity)
Mechanical resistance		
Shock		30 g, 11 ms; in line with DIN EN 60068-2-27
Vibration		2 g, 5 Hz to 55 Hz; in line with DIN EN 60068-2-6
Dimensions (W × H × D)		435 mm × 103 mm × 359 mm (17.1 in × 4.1 in × 14.1 in)
Weight		5.5 kg (12 lb)

Ordering information

Designation	Type	Order No.
RF Step Attenuator	R&S®RSG	1009.4505.02
Matching Pad	R&S®RAM	358.5414.02

Specifications apply under the following conditions: 30 minutes warm-up time at ambient temperature, specified environmental conditions met, calibration cycle adhered to, and all internal automatic adjustments performed. "Typical values" are designated with the abbreviation "typ." These values are verified during the final test but are not assured by Rohde & Schwarz. "Nominal values" are design parameters that are not assured by Rohde & Schwarz. These values are verified during product development but are not specifically tested during production. Rohde & Schwarz equipment is designed for reliable operation up to an altitude of 3000 m above sea level, and for transport up to an altitude of 4500 m above sea level.

¹⁾ A switching cycle is defined as a switchover from one setting to another and back again.

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