R&S®RSP
RF Step Attenuator
Specifications

70 Years of Driving Innovation

ROHDE&SCHWARZ

Test & Measurement

Data Sheet | 01.01

Electrical data		
Impedance		50 Ω
RF connectors	on front or rear panel	N female
Frequency range		DC to 2.7 GHz
Attenuation range		0 dB to 139.9 dB
Attenuation steps	1 dB to 139.9 dB	0.1 dB
VSWR	DC to 2 GHz	<1.2 + 0.15 x frequency in GHz
	2 GHz to 2.7 GHz	<1.5
Attenuation in 0 dB position	DC	<0.12 dB, typ. 0.08 dB
	up to 1 GHz	<1.2 dB, typ. 0.8 dB
	1 GHz to 2.7 GHz	<1.8 dB, typ. 1.4 dB
Attenuation uncertainty without correction	DC to 1 GHz	<0.2 dB + 1 % of attenuation value
	1 GHz to 2 GHz	<0.3 dB + 1 % of attenuation value
	2 GHz to 2.7 GHz	<0.4 dB + 1 % of attenuation value
Attenuation uncertainty with correction for attenuation values >3 dB	DC to 0.5 GHz	<0.05 dB + 0.5 % of attenuation value
	0.5 GHz to 1 GHz	<0.1 dB + 0.5 % of attenuation value
	1 GHz to 2 GHz	<0.15 dB + 1 % 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 x 10^6 switching cycles [1]
Switching time		<25 ms

General data		
Temperature loading	operating temperature range	0 °C to +55 °C
	permissible temperature range	0 °C to +55 °C
	storage temperature range	–40 °C to +70 °C
Power supply		100/120/220/240 V ±10 %, 47 Hz to 440 Hz (20 W), in line with EN 61010-1:2001, safety class I
Remote control		in line with IEC 625-1/IEEE 488
Electromagnetic compatibility / RF leakage		in line with EN 61000-6-1:2001, emission class B, radiated and conducted interference
Mechanical resistance	shock	30 g, 11 ms, in line with IEC 60068-2-27
	vibration	2 g, 5 Hz to 55 Hz, in line with IEC 60068-2-6
Dimensions (W x H x D)		435 mm x 103 mm x 359 mm (17.1 in x 4.1 in x 14.1 in)
Weight		5.5 kg (12 lb)

Ordering information

Designation	Type	Order No.
RF Step Attenuator	R&S®RSP	831.3515.02
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.

Rohde&Schwarz GmbH&Co.KG
Europe, Africa, Middle East +49 1805 12 42 42* or +49 89 4129 137 74
customersupport@rohde-schwarz.com
North America 1-888-TEST-RSA (1-888-837-8772)
customer.support@rsa.rohde-schwarz.com
Latin America +1-410-910-7988
customersupport.la@rohde-schwarz.com
Asia/Pacific +65 65 13 04 88
customersupport.asia@rohde-schwarz.com
www.rohde-schwarz.com

R&S®RSP | PD 5213.9770.22 | Version 01.01 | May 2008
Data without tolerance limits is not binding | Subject to change
Printed in Germany (as)

*0.14 €/min within German wireline network; rates may vary in other networks (wireline and mobile) and countries.