

R&S®WCA12-135

Specifications

Calibrated Adapter Waveguide WR12 to Coaxial Connector 1.35 mm (f)



Wooden box including adapter, USB flash drive and stabilization brackets

Description

Calibrated adapter from waveguide WR12 to coaxial connector 1.35 mm (f) for use with R&S®NRP power sensors with 1.35 mm interface.

Scope of delivery:

- Adapter, waveguide WR12 to coaxial connector 1.35 mm (f)
- USB flash drive with
 - calibration data (S2P file of adapter)
 - R&S®NRP toolkit, including R&S®S2P Wizard tool for loading the S2P data into the power sensor, system requirements for R&S®S2P Wizard: Microsoft Windows 10 (32 bit/64 bit)
 - documentation
- Mechanical stabilization, suitable for R&S®NRP90S/NRP90T/NRP90SN/NRP90TN power sensors
 - bracket set suitable for R&S®NRP90S/NRP90T USB power sensors
 - bracket set suitable for R&S®NRP90SN/NRP90TN LAN power sensors
 - screwdriver to mount/remove stabilization brackets

Specifications | Version 01.01

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Specifications

Radio frequency characteristics

Interface type		R 740 in line with IEC 60153-2, WR 12 in line with EIA RS261C), 1.35 mm socket in line with IEEE 287
Waveguide interface connector		precision flange with anti-cocking rim in line with IEC 60154-2 and M3922/67-009 (UG-387/U)
Frequency range		60 GHz to 90 GHz
Impedance of 1.35 mm (f) connector		50 Ω
Return loss	60 GHz to 90 GHz	> 16 dB (typ.)

Measurement uncertainty of S-parameters

Absolut uncertainty of reflection S_{11} , S_{22}		0.042 (linear)
Uncertainty of attenuation S_{12} , S_{21}		0.110 dB

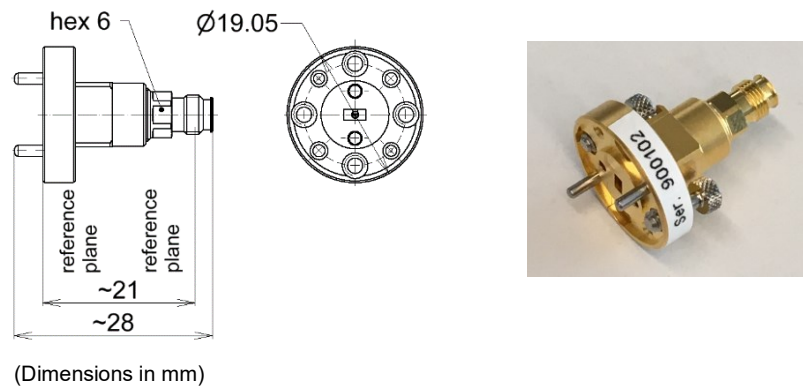
Environmental conditions

Ambient temperature	operating temperature range	+18 °C to +28 °C
	storage temperature range	-40 °C to +70 °C
Relative humidity		95 % (non-condensing)

Mechanical characteristics

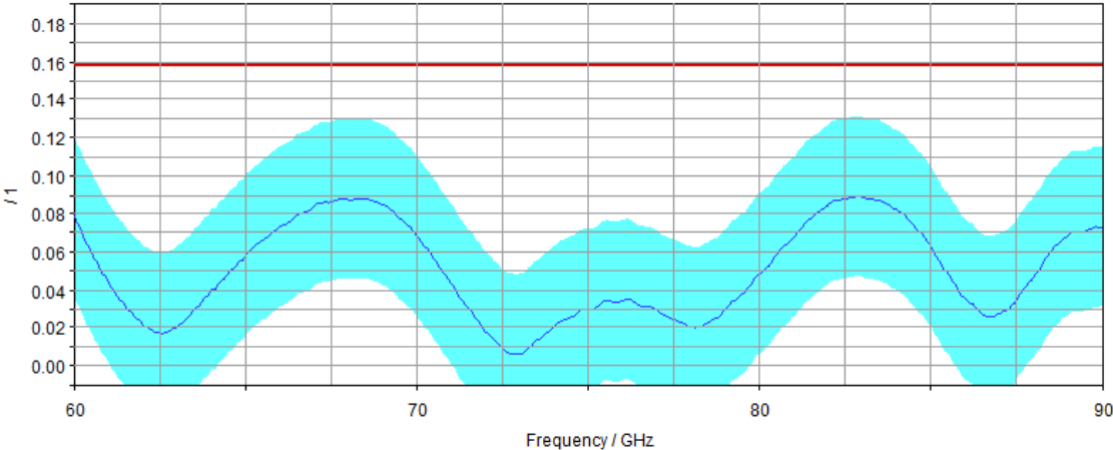
Surface finish	center conductor material	CuBe, age hardened, gold-plated
	outer conductor material	CuBe, gold-plated copper alloy, gold-plated
	other metallic parts	stainless steel
Weight		approx. 0.02 kg (0.044 lb)

Dimensions

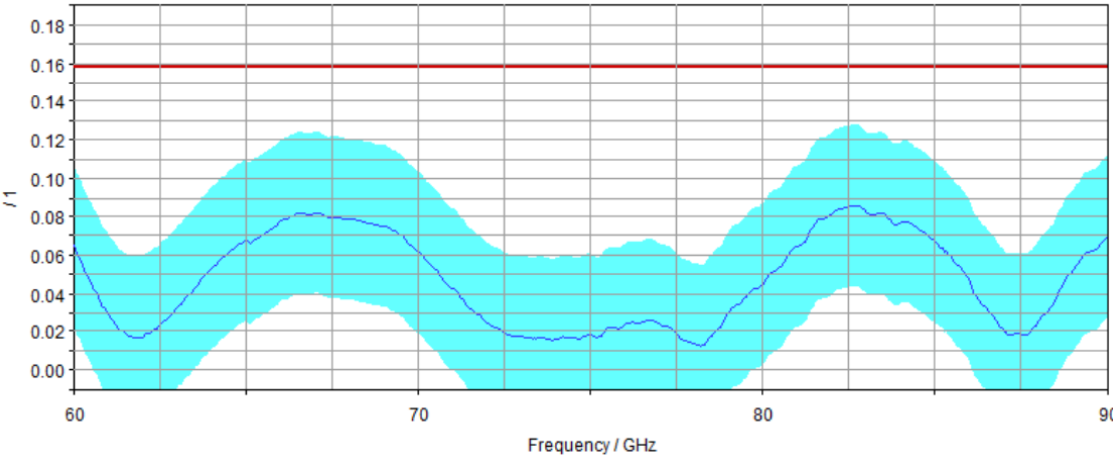


Mechanical stabilization of the R&S®WCA12-135 adapter with R&S®NRP power sensors

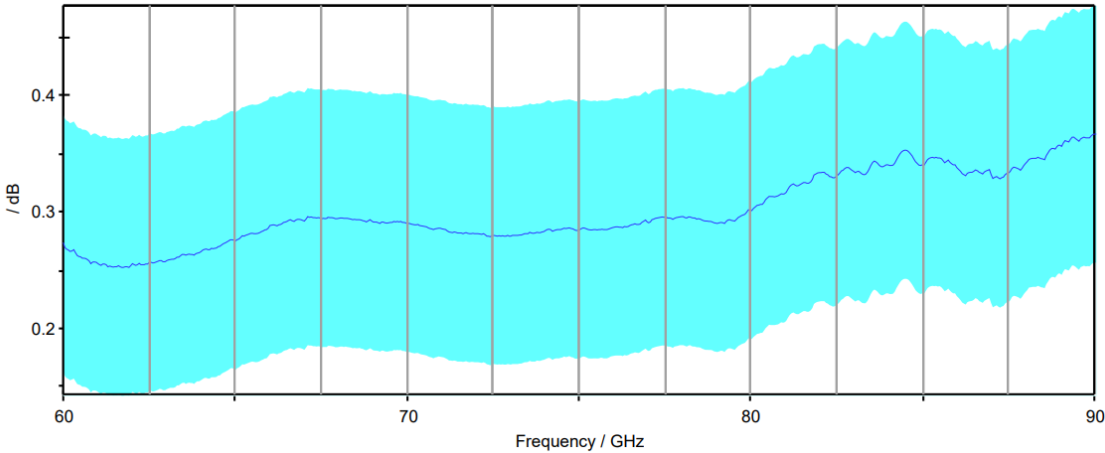
Typical reflection and attenuation



Input reflection (linear) WR12 connector



Output reflection (linear) 1.35 mm (f) connector



Attenuation

Ordering information

Designation	Type	Order No.
Calibrated adapter waveguide WR12 to coaxial connector 1.35 mm (f)	R&S®WCA12-135	1700.3977.02
Scope of delivery:		
<ul style="list-style-type: none"> • Adapter, waveguide WR12 to coaxial connector 1.35 mm (f) • USB flash drive with <ul style="list-style-type: none"> – calibration data (S2P file of adapter) – R&S®NRP toolkit, including R&S®S2P Wizard tool for loading the S2P data into the power sensor, system requirements for R&S®S2P Wizard: Microsoft Windows 10 (32 bit/64 bit) – documentation • Mechanical stabilization, suitable for R&S®NRP90S/NRP90T/NRP90SN/NRP90TN power sensors <ul style="list-style-type: none"> – bracket set suitable for R&S®NRP90S/NRP90T USB power sensors – bracket set suitable for R&S®NRP90SN/NRP90TN LAN power sensors – screwdriver to mount/remove stabilization brackets 		
Documentation		
Documentation of calibration values	R&S®DCV-1	0240.2187.06
Printout of R&S®DCV-1 (in combination with R&S®DCV-1 only)	R&S®DCV-ZP	1173.6506.02
Accredited calibration	R&S®ACAWCA12	3599.3598.03
Recommended three-path diode power sensors		
100 pW to 100 mW, 50 MHz to 90 GHz, 1.35 mm connector	R&S®NRP90S	1424.6421.02
100 pW to 100 mW, 50 MHz to 90 GHz, LAN version	R&S®NRP90SN	1424.6450.02
Recommended thermal power sensors		
300 nW to 100 mW, DC to 90 GHz	R&S®NRP90T	1424.6473.02
300 nW to 100 mW, DC to 90 GHz, LAN version	R&S®NRP90TN	1424.6480.02

Service options		
Extended warranty, one year	R&S®WE1	Contact your local Rohde & Schwarz sales office.
Extended warranty, two years	R&S®WE2	
Extended warranty with calibration coverage, one year	R&S®CW1	
Extended warranty with calibration coverage, two years	R&S®CW2	
Extended warranty with accredited calibration coverage, one year	R&S®AW1	
Extended warranty with accredited calibration coverage, two years	R&S®AW2	

Extended warranty with a term of one to four years (WE1 to WE2)

Repairs carried out during the contract term are free of charge ¹. Necessary calibration and adjustments carried out during repairs are also covered.

Extended warranty with calibration (CW1 to CW2)

Enhance your extended warranty by adding calibration coverage at a package price. This package ensures that your Rohde & Schwarz product is regularly calibrated, inspected and maintained during the term of the contract. It includes all repairs ¹ and calibration at the recommended intervals as well as any calibration carried out during repairs or option upgrades.

Extended warranty with accredited calibration (AW1 to AW2)

Enhance your extended warranty by adding accredited calibration coverage at a package price. This package ensures that your Rohde & Schwarz product is regularly calibrated under accreditation, inspected and maintained during the term of the contract. It includes all repairs ¹ and accredited calibration at the recommended intervals as well as any accredited calibration carried out during repairs or option upgrades.

This product is manufactured for Rohde & Schwarz by Spinner GmbH, Erzgießereistr. 33, 80335 München, Germany

¹ Excluding defects caused by incorrect operation or handling and force majeure. Wear-and-tear parts are not included.



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 R&S®WCA12-135 Calibrated Adapter Waveguide WR12 to
 Coaxial Connector 1.35 mm (f)
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