

R&S®HF907DC SHF Directional Antenna with Downconverter

7.5 GHz to 18 GHz

Broadband directional antenna with
downconverter

For locating transmitters and interference
sources in combination with a portable receiver
(e.g. the R&S®PR100)

New



Features

- ▀ Manual polarization switching (horizontal, vertical, 45° slant)
- ▀ Distinct directional pattern
- ▀ Battery operation for portable applications
- ▀ Automatic frequency switching (when combined with the R&S®PR100)
- ▀ Excellent suppression of image frequency and IF breakthrough by means of switchable preselection filters

Brief description

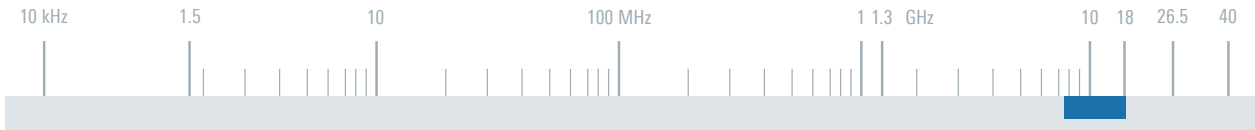
The R&S®HF907DC consists of a downconverter and an antenna fixed to it. In order to detect signal sources, R&S®HF907DC must be connected to a receiver (e.g. the R&S®PR100).

Signal bearings are obtained by manually pointing the antenna in the direction of maximum field strength.

The operating frequency range is downconverted to the range below 7.5 GHz in two switchable frequency bands. Preselection filters for each frequency band suppress image frequency and IF breakthrough.

The interface and display panel contains all of the display and control elements as well as the connectors and the access to the battery compartment.





Specifications

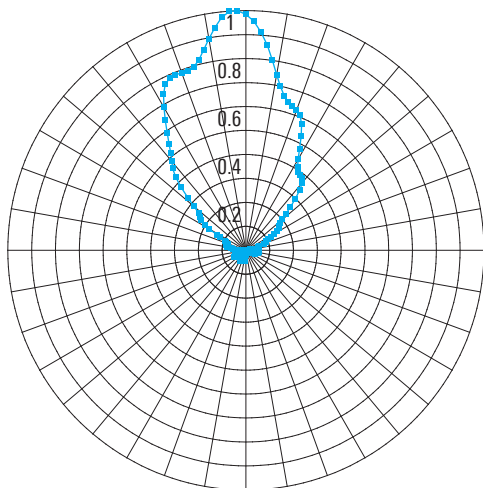
Frequency range	7.5 GHz to 18 GHz
Input frequency range	
Band 1	7.5 GHz to 12.5 GHz
Band 2	12.5 GHz to 18 GHz
Intermediate frequency range	
Band 1	6.5 GHz to 1.5 GHz
Band 2	7.5 GHz to 2 GHz
Antenna polarization	horizontal, vertical or 45°, manually adjustable
Nominal impedance	50 Ω
VSWR	typ. <2.5, peaks up to 3.5 possible; IF frequency range 1.5 GHz to 7.5 GHz
Connector	N female
Frequency accuracy	<25 kHz

Image frequency rejection	>30 dB (typ. >45 dB)
IF breakthrough	<-30 dB (typ. <-40 dB)
Antenna gain (passive structure)	typ. 8 dBi
Total noise figure	typ. 6 dB
Conversion gain of downconverter	
Band 1	typ. 42 dB
Band 2	typ. 35 dB
MTBF	>30 000 h
Operating temperature range	-10°C to +50°C
Dimensions (L × W × D)	approx. 355 mm × 147 mm × 172 mm (approx. 14.0 in × 5.8 in × 6.8 in)
Weight	approx. 3.5 kg (approx. 7.7 lb)

Ordering information

	Type	Order No.
SHF Directional Antenna with Downconverter	R&S®HF907DC	4070.8006.02
Recommended extras		
Portable Receiver	R&S®PR100	4071.9006.02
Rechargeable battery, 12 V, 3850 mAh		4052.5680.02
Cable Set	R&S®HF907DC-K1	4070.8958.02
Tripod Adapter	R&S®HF907DC-Z1	4079.3113.02
Carrying Case	R&S®HF907DC-Z2	4079.3207.02

Typical E-field pattern



Typical H-field pattern

