

# VHF/UHF Antennas

## Active Vertical Dipole

### R&S® HE 309



**20 MHz to 1300 MHz**

**High sensitivity, large bandwidth and wide dynamic range**

#### Features

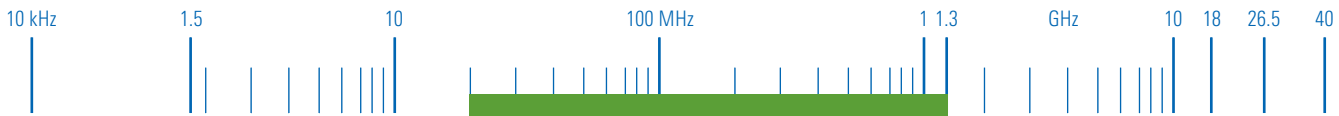
- ◆ Extremely wide frequency range
- ◆ High sensitivity
- ◆ One active antenna instead of several passive antennas
- ◆ High immunity to nonlinear distortion
- ◆ High immunity to lightning strokes in the vicinity
- ◆ Small dimensions – only 1.2 m antenna length
- ◆ Low weight

#### Brief description

The extremely large bandwidth, wide dynamic range and excellent sensitivity make the R&S® HE 309 ideal for all receiving tasks in radiocommunication, detection and monitoring, where the focus is on small size, a minimum amount of distribution and switching units and a high S/N ratio.

The broadband characteristics of the R&S® HE 309 are achieved through a combination of the active antenna principle with a special design of the passive radiators.

When the antenna is used together with the Active Omnidirectional Antenna R&S® HE 314A1 and the Omnidirectional Antenna R&S® HF 214, also horizontally polarized waves can be received.



## Specifications

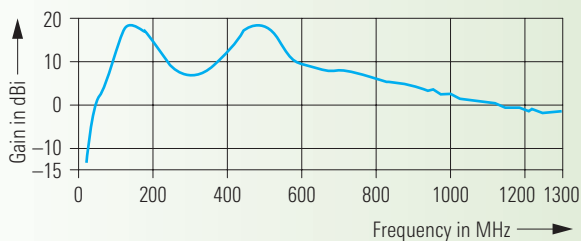
Frequency range	20 MHz to 1 GHz (up to 1.3 GHz with reduced sensitivity)	IP2	typ. 55 dBm
Polarization	linear/vertical	IP3	typ. 32 dBm
Input impedance	50 $\Omega$	Power supply	21 V to 28 V DC (max. 150 mA)
Horizontal radiation pattern	omnidirectional	Connector	N female
Noise figure (frequency-dependent, acc. to external noise)		MTBF	>500 000 h
20 MHz	typ. 22 dB	Operating temperature range	-40 °C to +70 °C
100 MHz	typ. 10 dB	Max. wind speed	180 km/h (without ice deposit)
1 GHz	typ. 7 dB	Dimensions	
		Length	approx. 1210 mm
		Diameter	approx. 100 mm
		Weight	approx. 3 kg

## Ordering information

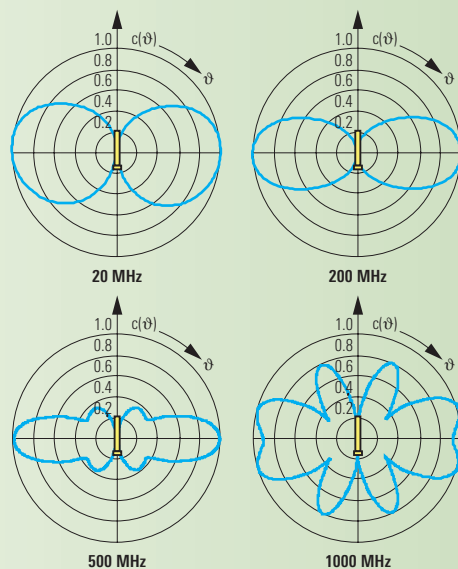
**Active Vertical Dipole** R&S®HE309 4027.5009.02

### Recommended extras

Power Supply Unit	R&S®IN 115	4004.1707.02
Active Omnidirectional Antenna	R&S®HE314A1	4027.6505.02
Passive Omnidirectional Antenna	R&S®HF214	4042.7009.02
Omnidirectional Antenna	R&S®HF902	4042.8005.02



**Typical practical gain**



**Typical vertical radiation patterns**