

VHF/UHF Antennas

Active Omnidirectional Antenna R&S® HE 314A1



20 MHz to 500 MHz

**Active omnidirectional reception of
horizontally polarized waves**

Features

- ◆ High sensitivity
- ◆ Wide frequency range
- ◆ Omnidirectional reception of horizontally polarized waves
- ◆ Small dimensions
- ◆ Ideal for mobile or semi-mobile receiving systems

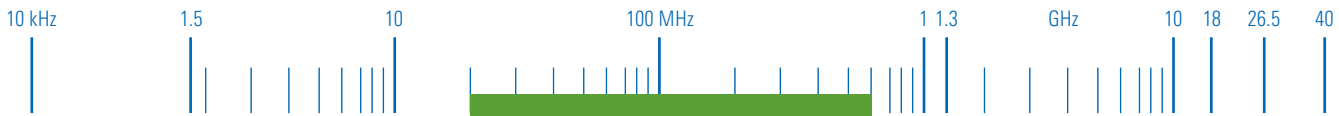


Brief description

The R&S® HE314A1 is a turnstile antenna consisting of two Active Receiving Dipoles R&S® HE 302 connected via a 90° hybrid coupler.

The antenna is used for the reception of horizontally polarized signals; the horizontal radiation pattern is optimized for omnidirectional reception.

The R&S® HE314A1 can be extended for omnidirectional reception of vertically polarized waves by using, for example, an Active Vertical Dipole R&S® HE 309 mounted at the top.



Specifications

Frequency range	20 MHz to 500 MHz	IP2	>60 dBm
Polarization	horizontal	IP3	>30 dBm
Input impedance	50 Ω	Power supply	18 V to 30 V DC (max. 340 mA)
VSWR	<2.5	Connector	N female
Electronic gain	-15 dB to +8 dB	MTBF	>25 000 h
Practical gain	-14 dBi to +5 dBi	Operating	
Directivity	1 dB (average)	temperature range	-40 °C to +70 °C
Antenna factor	2 dB to 20 dB	Max. wind speed	180 km/h (without ice deposit)
Noise figure		Dimensions (L x W x H)	approx. 1 m x 1 m x 0.3 m
20 MHz	<29 dB	Weight	approx. 8 kg
500 MHz	<10 dB		
Field strength sensitivity ($\Delta f = 1$ kHz)			
20 MHz	-12 dB(μ V/m)		
500 MHz	-3 dB(μ V/m)		

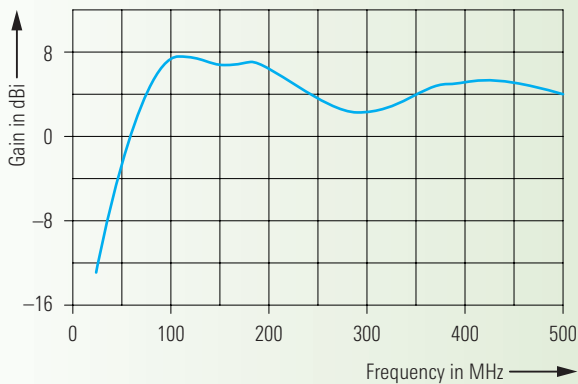
Ordering information

Active

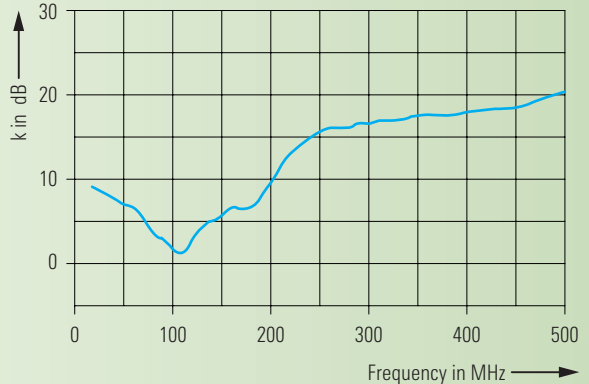
Omnidirectional Antenna R&S®HE314A1 4027.6505.02

Recommended extras

Power Supply Unit	R&S®IN 115	4004.1707.02
Active Vertical Dipole	R&S®HE309	4027.5009.02



Typical practical gain



Typical antenna factor