

R&S®HE010E ACTIVE ROD ANTENNA

8.3 kHz to 100 MHz

Sensitive monitoring in stationary and mobile applications



The R&S®HE010E active rod antenna is designed as a broadband monitoring antenna for vertically polarized waves.

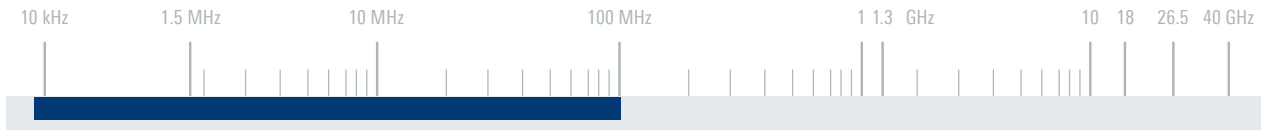
Its main application is sensitive monitoring in stationary and mobile applications where it offers very good reception results due to its low inherent noise figure, which is comparable to, and even below, the atmospheric or man-made noise.

The high sensitivity of the R&S®HE010E in combination with high interference immunity to large signals allows sensitive radiomonitoring and field strength measurements over a wide dynamic range.

Key facts

- ▶ Excellent wideband characteristics
- ▶ Low inherent noise figure
- ▶ High sensitivity in combination with high interference immunity to large signals
- ▶ Compact dimensions (rod length: 1 m)
- ▶ Protected against overvoltage that can occur as a result of atmospheric discharges or in the immediate vicinity of strong transmitters





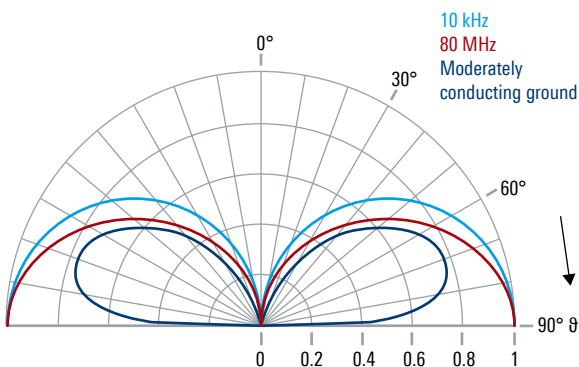
Specifications

Frequency range		8.3 kHz to 100 MHz
Polarization		vertical
Input impedance		50 Ω
VSWR	8.3 kHz to 20 kHz	< 4.5
	20 kHz to 100 MHz	< 2
Antenna factor	antenna mounted on conductive plane	11 dB (1/m) (typ.)
Lower limit field strength (1 Hz)	8.3 kHz to 500 kHz	frequency dependent, see diagram
	> 500 kHz to 100 MHz	< -40 dB(μV/m) (typ.)
IP2	up to 30 MHz	> 50 dBm; 60 dBm (typ.)
	30 MHz to 100 MHz	> 40 dBm
IP3	up to 30 MHz	> 30 dBm; 33 dBm (typ.)
	30 MHz to 100 MHz	> 20 dBm
Power supply		24 V DC (-3 V/+2 V) (max. 190 mA)
Connector		N female
MTBF		> 250 000 h
Operating temperature range		-40 °C to +65 °C
Storage temperature range		-40 °C to +85 °C
Protection class		IP66, in line with EN 60529
Maximum wind speed	without ice deposit	275 km/h
Dimensions	Ø × L	approx. 120 mm × 1000 mm (4.7 in × 39.4 in)
Weight		approx. 1 kg (2.2 lb)

Ordering information

Ordering information	Type	Order No.
Active rod antenna	R&S®HE010E	
Color: squirrel gray (RAL 7000)		4097.6004.02
Color: bronze green (RAL 6031)		4097.6004.03
Color: light ivory (RAL 1015)		4097.6004.04
Recommended extra		
Bias unit	R&S®IN600	4094.3004.xx

Vertical radiation pattern



Typical lower limit field strength level (SNR = 1, directivity = 4.8 dBi) compared to ITU-R P.372-8 rural noise

