

R&S®HE010D ACTIVE HF DIPOLE

100 kHz to 100 MHz

Sensitive monitoring in stationary or mobile installations



The R&S®HE010D active HF dipole is designed as a broadband monitoring antenna for horizontally or vertically polarized waves in the frequency range from 100 kHz to 100 MHz.

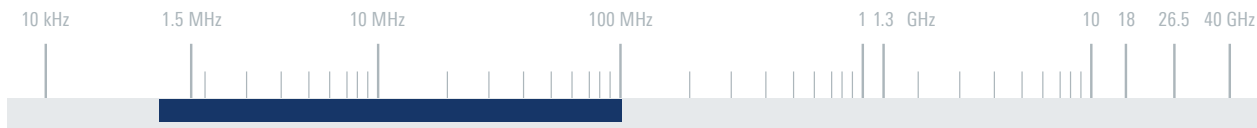
The main application of the antenna is sensitive monitoring in stationary or mobile installations.

The high sensitivity of the R&S®HE010D in combination with high interference immunity to large signal levels allows radiomonitoring and field strength measurements in a wide dynamic range.

Key facts

- ▶ Excellent wideband characteristics
- ▶ Low inherent noise
- ▶ Compact dimensions
- ▶ Easy exchange of antenna rods for service or removal for transportation
- ▶ Protected against overvoltage, which may occur as a result of atmospheric discharges or in the immediate vicinity of strong transmitters





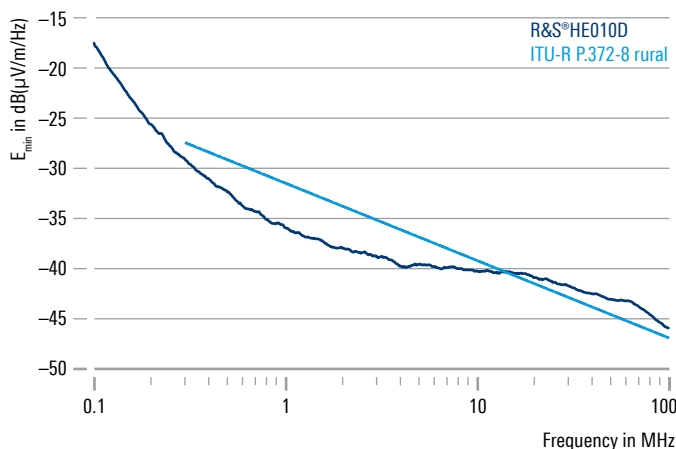
Specifications

Frequency range		100 kHz to 100 MHz
Polarization		linear horizontal or vertical
Nominal impedance		50 Ω
VSWR	100 kHz to 200 kHz	< 3.5
	200 kHz to 100 MHz	< 2.5; 2.0 (typ.)
Antenna factor	antenna mounted horizontally	2.0 dB (1/m) (typ.)
Lower limit field strength (1 Hz)	100 kHz to 1 MHz	frequency dependent, see diagram
	> 1 MHz to 100 MHz	< -35 dB(μV/m) (typ.)
IP2	up to 50 MHz	60 dBm (typ.)
	50 MHz to 100 MHz	48 dBm (typ.)
IP3	1 MHz to 100 MHz	30 dBm (typ.)
Power supply		24 V DC (-3 V/+1 V) (max. 150 mA)
RF 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		IPx5, in line with EN 60529
Maximum wind speed	without ice deposit	200 km/h
	with 30 mm ice deposit	180 km/h
Dimensions		approx. 1.75 m × 0.13 m × 0.14 m (69 in × 5 in × 5 in)
Weight		approx. 1.2 kg (3 lb)

Ordering information

Ordering information	Type	Order No.
Active HF dipole	R&S®HE010D	
Color: squirrel gray (RAL 7000)		4097.8007.02
Color: bronze green (RAL 6031)		4097.8007.03
Color: light ivory (RAL 1015)		4097.8007.04
Recommended extras		
Bias unit	R&S®IN600	4094.3004.xx
Mast, length: 6 m, pluggable	R&S®KM011	0273.9116.02

Typical lower limit field strength level (SNR = 1, directivity = 1.8 dBi) compared to ITU-R P.372-8 rural noise



Typical elevation field pattern for horizontally installed antenna on a 6 m mast above perfectly conducting ground

