

# R&S®HE016 ACTIVE ANTENNA SYSTEM

9 kHz to 80 MHz (vertical)

600 kHz to 40 MHz (horizontal)

Omnidirectional reception of vertically and horizontally polarized signals



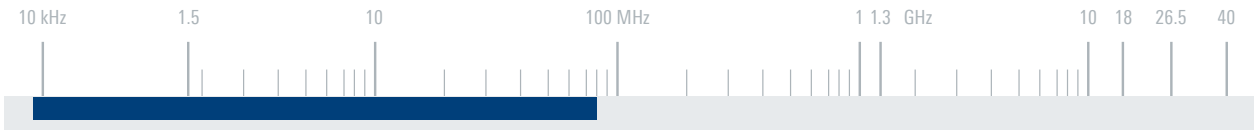
The R&S®HE016 active antenna system is a combination of the R&S®HE010E active rod antenna and two crossed HF dipole antennas. The two horizontal dipole antennas are combined via a 90° coupler to produce an omnidirectional radiation pattern.

The high sensitivity of the antenna system is comparable to that of passive systems, though the R&S®HE016 requires less than one third of the antenna surface of a passive system.

## Key facts

- ▶ Omnidirectional reception of horizontally and vertically polarized signals
- ▶ High linearity
- ▶ High immunity to lightning strikes in the vicinity
- ▶ Extremely compact
- ▶ High sensitivity – comparable to that of passive antennas that are three times larger

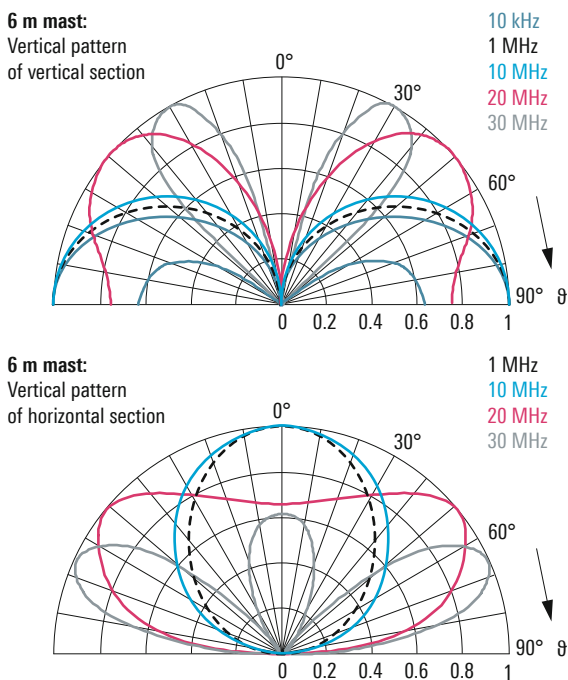




Specifications		
Frequency range	vertical polarization	9 kHz to 80 MHz
	horizontal polarization	600 kHz to 40 MHz
Input impedance		50 Ω
VSWR	9 kHz to 20 kHz	< 3
	20 kHz to 80 MHz	< 2
Sensitivity	vertical (> 1 MHz)	< -50 dB(uV/m/Hz)
	horizontal	< -30 dB(uV/m/Hz)
IP2	up to 30 MHz	≥ 50 dBm
IP3	up to 30 MHz	≥ 30 dBm
Power supply		21 V to 26 V DC (max. 500 mA)
Power consumption	vertical	max. 160 mA at 24 V DC
	horizontal	max. 340 mA at 24 V DC
Connector		2 × N female
MTBF		> 25000 h
Operating temperature range		-40°C to +65°C
Protection class		IP55
Max. wind speed	without ice deposit	188 km/h
Dimensions	∅ × H	approx. 2.85 m × 1.4 m (9 ft × 6 ft)
Weight		approx. 5.5 kg (12 lb)

Ordering information	Type	Order No.
Active antenna system	R&S®HE016	4051.8504.02
Recommended extras		
Bias unit	R&S®IN600	4094.3004.x2
Mast, length: 6 m, pluggable	R&S®KM011	0273.9116.02

### Typical radiation patterns



### Typical inherent noise compared with different standard noise environments

