

# R&S®HE016 ACTIVE ANTENNA SYSTEM

8.3 kHz to 80 MHz (vertical)

600 kHz to 40 MHz (horizontal)

Omnidirectional reception of vertically and horizontally polarized signals



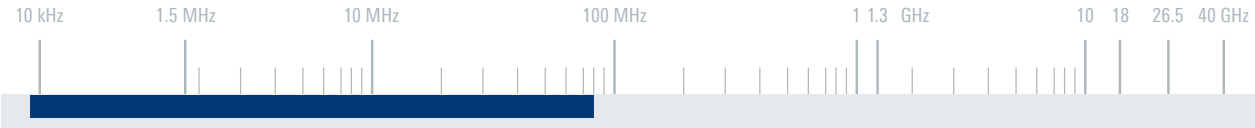
The R&S®HE016 active antenna system is a combination of the R&S®HE010E active rod antenna and two crossed HF dipole antennas. The two horizontal dipole antennas are combined via a 90° coupler to produce an omnidirectional radiation pattern.

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



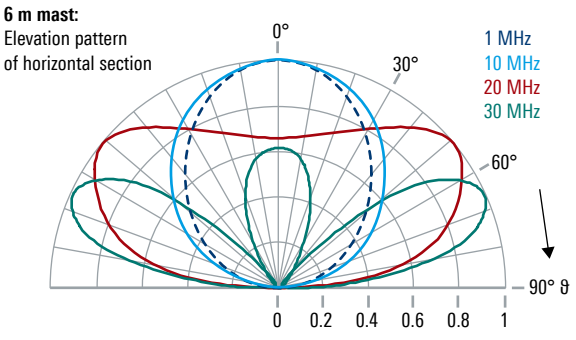
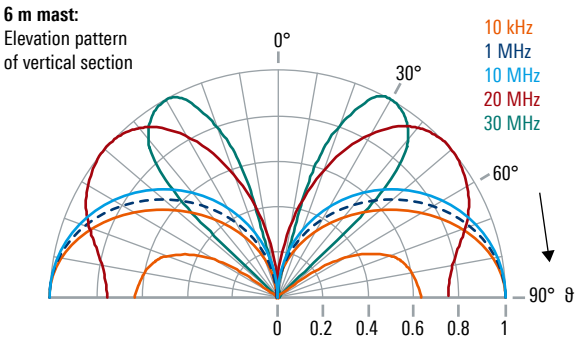


Specifications		
Frequency range	vertical polarization	8.3 kHz to 80 MHz
	horizontal polarization	600 kHz to 40 MHz
Input impedance		50 Ω
VSWR	9 kHz to 20 kHz	< 3
	20 kHz to 80 MHz	< 2
Sensitivity (R&S®HE016 on 6 m mast)	vertical (> 1 MHz)	< -50 dB(μV/m/Hz)
	horizontal	< -30 dB(μV/m/Hz)
IP2	up to 30 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
Maximum wind speed	without ice deposit	188 km/h
Dimensions	Ø × H	approx. 2.85 m × 1.4 m (9 ft × 6 ft)
Weight		approx. 5.5 kg (12 lb)

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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

