

R&S®HFH2-Z6E ACTIVE ROD ANTENNA

8.3 kHz to 30 MHz

Broadband active rod antenna for measuring electrical field components in EMI test setups



The R&S®HFH2-Z6E active rod antenna measures the electrical field strength in the LF, MF and HF range. It can be used for EMI measurements in line with various standards (i.e. CISPR, MIL, FCC, ANSI, ETSI).

Individual calibration in line with CISPR/ANSI standards available.

It is characterized by an almost frequency-independent antenna factor and very high sensitivity.

In strong field environments, an attenuator can be activated to reduce distortion. An integrated RF detector with a threshold circuit reports overload of the antenna.

The antenna is supplied via a coaxial cable using the optional R&S®IN600 bias unit.

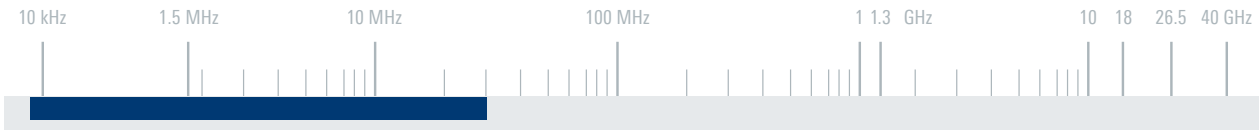
Different standards require different ground planes. For MIL-STD-461G, the R&S®HFH2-Z12 ground plane is 60 cm × 60 cm. For CISPR measurement applications, the R&S®HFH2-Z13 ground plane is 60 cm × 125 cm.

Key facts

- ▶ Wide frequency range
- ▶ High sensitivity
- ▶ Wide dynamic range
- ▶ Compact design
- ▶ Integrated overload warning
- ▶ R&S®IN600 bias unit for power supply via coaxial cable available
- ▶ No batteries needed
- ▶ Individual calibration certificate supplied with antenna
- ▶ Virtually constant antenna factor



R&S®HFH2-Z6E (.03 model) including
R&S®HFH2-Z12 ground plane



Specifications		
Frequency range		8.3 kHz to 30 MHz
Polarization		linear/vertical
Nominal impedance		50 Ω
VSWR		< 1.6
RF connector		N female
Antenna factor	normal mode, rod length: 1 m	12 dB(1/m) (nom.)
	attenuation mode, rod length: 1 m	25 dB(1/m) (nom.)
Lower limit field strength in normal mode	8.3 kHz to 1 MHz	see diagram
	> 1 MHz to 30 MHz	< -37 dB(μV/m/Hz) (meas.)
Upper limit field strength	normal mode	125 dB(μV/m) (typ.)
	attenuation mode	135 dB(μV/m) (typ.)
Destructive field strength	8.3 kHz to 30 MHz	> 50 V/m
	> 30 MHz to 2 GHz	> 10 V/m
MTBF		> 250 000 h
Power supply (via coaxial cable)		+24 V DC -3 V/+1 V (max. 150 mA)
Operating temperature range		+5°C to +40°C
Dimensions	base (W × L × H)	approx. 160 mm × 160 mm × 92 mm (6 in × 6 in × 4 in)
	rod height	approx. 1000 mm (39 in)/1040 mm (41 in)
Weight	without ground plane	approx. 2.6 kg (6 lb)
	with ground plane	approx. 6.5 kg (14 lb)

Ordering information	Type	Order No.
Active rod antenna, without ground plane	R&S®HFH2-Z6E	4110.1006.03
Recommended extras		
Calibration adapter	R&S®HFH2-Z10	4110.1570.03
Bias unit	R&S®IN600	4094.3004.13
Wooden tripod	R&S®HZ-1	0837.2310.02
Rod antenna stand	R&S®RAS	5611.5035.02
Ground plane for R&S®HFH2-Z6E, for MIL-STD-461G (60 cm × 60 cm)	R&S®HFH2-Z12	4110.1141.02
Ground plane for R&S®HFH2-Z6E, for CISPR measurement applications (60 cm × 125 cm)	R&S®HFH2-Z13	4110.1158.02

Lower limit field strength level (for SNR = 1) in normal mode with average detector (meas.)

