

R&S®HE700 Active Antenna System

10 kHz to 18 GHz

Highly sensitive system camouflaged in a briefcase for wideband monitoring of rooms and enclosed spaces

New



Features

- Optimal sensitivity in a compact size
- Reflection-free arrangement permits directional reception
- Combination of multiple systems enables the simple detection of electromagnetic waves in a wide frequency range

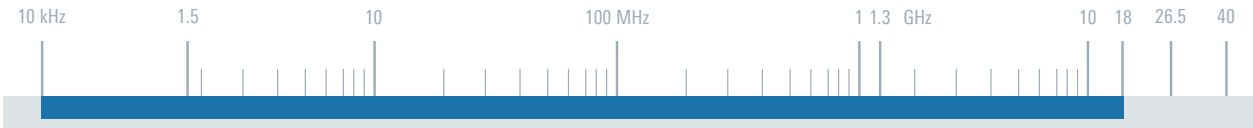
Brief description

The R&S®HE700 active antenna system covers the wide frequency range from 10 kHz to 18 GHz by means of three antenna structures that can be controlled with the R&S®GX700 antenna control unit. The antenna structures are integrated on a common carrier board. The R&S®GX700 can be extended to support up to three R&S®HE700 active antenna systems. It also serves as a power supply.

In the HF and VHF range, a rod antenna covers primarily vertically polarized signals. The dipole antenna used for the VHF and UHF range receives mainly horizontally polarized signals. For the SHF range, two selectable spiral antennas are utilized to cover both left-hand and right-hand circularly polarized signals.

Stationary application is also possible by simply removing the unit from the briefcase and installing it behind the wall covering or ceiling covering.





Specifications	
Number of frequency ranges	3
Rod antenna	
Frequency range	10 kHz to 100 MHz
Polarization	vertical
Nominal impedance	50 Ω
Antenna factor/ electronic gain	see graph below
VSWR	<3.0
Linearity IP2	typ. ≥40 dBm
Linearity IP3	typ. ≥20 dBm
Power supply	24 V, typ. 160 mA (via R&S®GX700)
Dipole antenna	
Frequency range	100 MHz to 1.5 GHz
Polarization	horizontal
Nominal impedance	50 Ω
VSWR	<3.0
Antenna factor/ electronic gain	see graph below
Linearity IP2	typ. ≥40 dBm
Linearity IP3	typ. ≥25 dBm

Dipole antenna (cont.)	
Power supply	10 V, typ. 70 mA (via R&S®GX700)
Spiral antenna with LNA	
Frequency range	1.5 GHz to 18 GHz
Polarization	left-hand or right-hand circular
Nominal impedance	50 Ω
VSWR	<3.0
Antenna factor/ electronic gain	see graph below
Linearity IP2	typ. 25 dBm
Linearity IP3	typ. 34 dBm
Power supply	+5 V, +12 V, -12 V (via R&S®GX700)
General data	
Control connector	15-pin D-sub male
RF connector	N female
MTBF	>140000 h
Operating temperature range	0°C to +50°C
Dimensions (L x W x H)	approx. 477 mm x 365 mm x 112 mm (approx. 18.8 in x 14.4 in x 4.4 in)
Weight	approx. 5 kg (approx. 11 lb)

Ordering information	Type	Order No.
Active Antenna System	R&S®HE700	4054.1800.02
Recommended extras		
Antenna Control Unit	R&S®GX700	4054.7009.02
Control Module	R&S®GX700-S	4054.7509.02
RF Switch	R&S®GX700-U	4054.7650.02
Control Cable	R&S®GX700K2	
Length 10 m		4054.7867.02
Length 20 m		4054.7967.02

