

R&S®HE402

Active Directional Antenna

20 MHz to 87 MHz

Cardioid-shaped horizontal radiation pattern



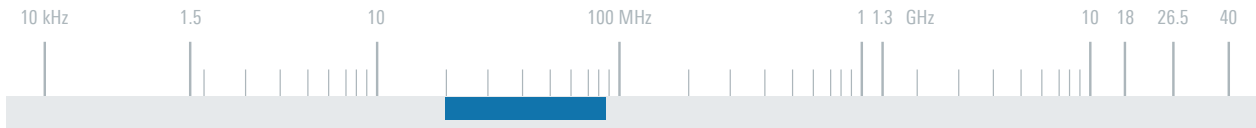
The R&S®HE402 active directional antenna consists of two R&S®HE302 active receiving dipoles, a combining network and mechanical dipole fixing elements.

The antenna receives linearly polarized waves and is matched to the required direction of polarization (horizontal or vertical) by appropriate installation.

Key facts

- Cardioid-shaped horizontal pattern
- Small size
- Optimized for use in mobile or semi-mobile systems





Specifications

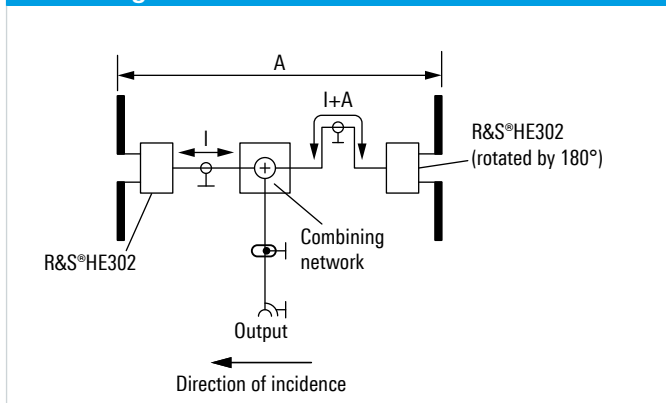
Frequency range	20 MHz to 87 MHz
Polarization	linear
Input impedance	50 Ω
VSWR	< 2.5
Electronic gain	–19 dB to +5 dB
Practical gain	–14 dB to +10 dB
Directivity	5 dB (average)
Noise figure	
20 MHz	34 dB
87 MHz	11 dB
Field strength sensitivity ($\Delta f = 1$ kHz, S/N: typ. 0 dB)	
20 MHz	–12 dB(μ V/m)
87 MHz	–22 dB(μ V/m)

H-plane radiation pattern	cardioid-shaped
IP2	> 60 dBm
IP3	> 30 dBm
Power supply	18 V to 30 V DC (typ. 340 mA)
Connector	N female
MTBF	> 25 000 h
Operating temperature range	–40°C to +75°C
Max. wind speed	180 km/h (without ice deposit)
Dimensions (W × H × L)	approx. 0.2 m × 1.1 m × 1.0 m (7.9 in × 43.3 in × 39.4 in)
Weight	approx. 12 kg (26.5 lb)

Ordering information

	Type	Order No.
Active Directional Antenna	R&S®HE402	0684.2011.02
Recommended extras		
Bias Unit	R&S®IN600	4094.3004.xx

Block diagram



Typical horizontal radiation pattern

