

R&S®HE500 ACTIVE RECEIVING ANTENNA

20 MHz to 3 GHz

Good reception results in a compact size



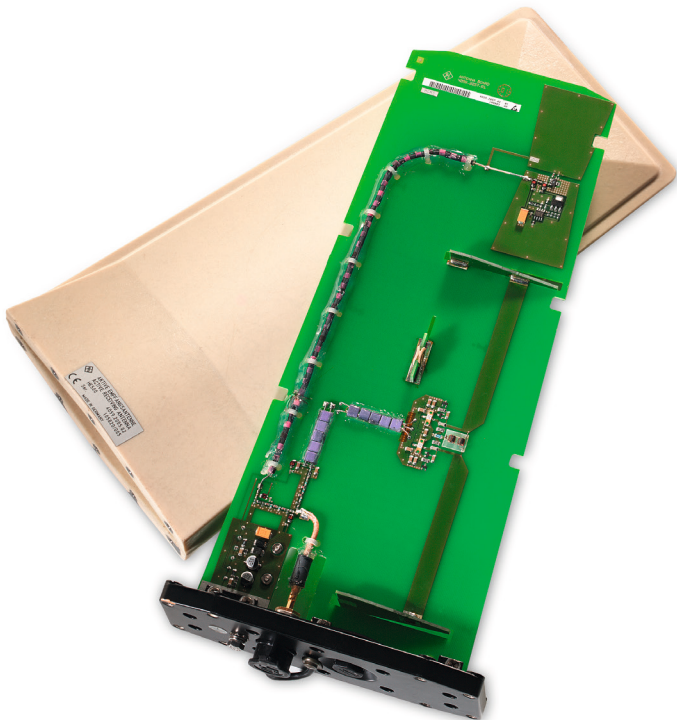
The R&S®HE500 active receiving antenna has been designed as a monitoring antenna for vertical polarization and omnidirectional reception in the frequency range from 20 MHz to 3 GHz.

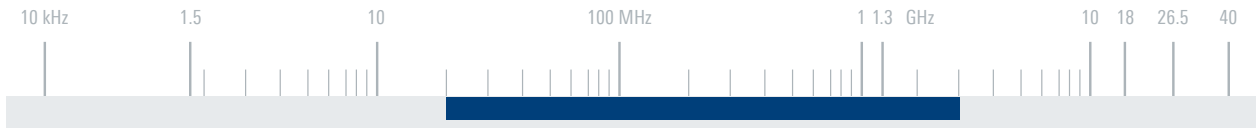
The antenna features a compact design and low weight, making it ideal for use in mobile systems and environments where space is at a premium.

A sturdy, composite radome protects the antenna and its electronics against the effects of weather and high wind speeds.

Key facts

- ▶ Extremely broadband
- ▶ Omnidirectional radiation pattern
- ▶ Low weight
- ▶ Compact size
- ▶ Weatherproof housing





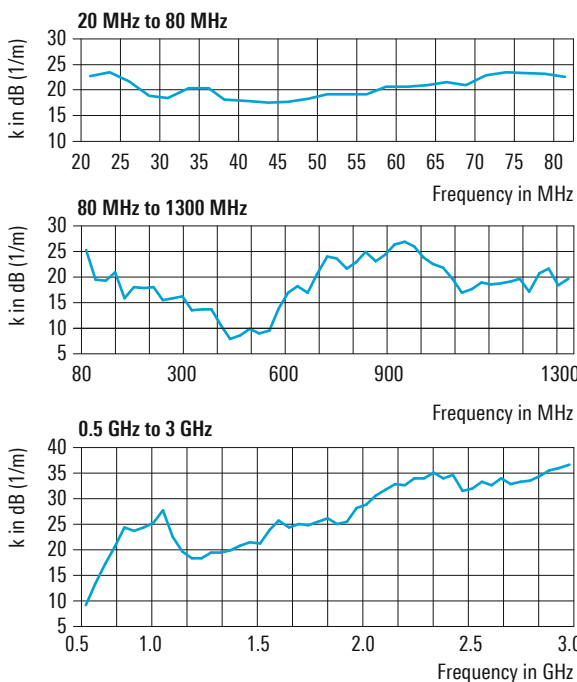
Specifications

| | | |
|--|-------------------------------|---|
| Frequency range | 20 MHz to 3 GHz | |
| Polarization | linear/vertical | |
| Input impedance | 50 Ω | |
| VSWR | typ. < 3 | |
| Horizontal radiation pattern | omnidirectional | |
| Antenna factor | see diagram | |
| Field strength sensitivity (S/N = 0 dB, Δf = 1 Hz) | 20 MHz to 1.3 GHz | typ. -23 dB(μV/m) |
| | 1.3 GHz to 3 GHz | typ. -20 dB(μV/m) |
| Destructive field strength | typ. > 50 V/m | |
| IP2 | 20 MHz to 900 MHz | typ. > 50 dBm |
| | > 900 MHz to 3 GHz | typ. > 30 dBm |
| IP3 | typ. > 25 dBm | |
| Power supply | 18 V to 32 V DC (max. 180 mA) | |
| Connector | N female | |
| MTBF | > 50000 h | |
| Operating temperature range | -40°C to +65°C | |
| Max. wind speed | model .02 | 250 km/h |
| | model .14 | 600 km/h (only on narrow side) |
| Dimensions | W × H × L | approx. 65 mm × 365 mm × 170 mm (3 in × 14 in × 7 in) |
| Weight | approx. 1.2 kg (3 lb) | |

Ordering information

| Ordering information | Type | Order No. |
|---|-----------|--------------|
| Active receiving antenna | R&S®HE500 | 4059.2005.02 |
| Active receiving antenna, for use on aircraft | R&S®HE500 | 4059.2005.14 |
| Recommended extra | | |
| Bias unit | R&S®IN600 | 4094.3004.xx |

Typical antenna factor



Typical VSWR characteristic

