R&S®HE300CE Active Directional Antenna

500 MHz to 7.5 GHz

Portable directional antenna for locating transmitters and interfering sources

The R&S®HE300CE active directional antenna locates transmitters and interference sources when combined with portable receivers (e.g. the R&S®PR100).

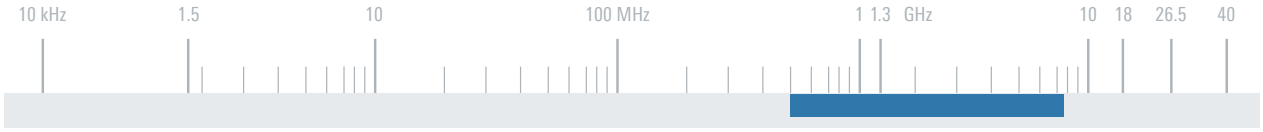
The overall frequency range from 500 MHz to 7.5 GHz is covered by a log-periodic dipole array antenna structure with a distinct directional pattern. The antenna does not have to be tuned within its frequency range.

A built-in, low-noise wideband amplifier can be activated to enhance system sensitivity (active mode). In passive mode, the amplifier is bypassed so that the R&S®HE300CE can also be used in the vicinity of strong transmitters.

The antenna is mainly intended for vertical polarization, but can be rotated 90° to provide horizontal polarization for testing.

Key facts

- Unambiguous and nearly frequency-independent radiation pattern
- Direction finding by orienting antenna toward maximum field strength
- Wideband performance in a compact size
- Low weight
- Wide dynamic range due to switchable preamplifier
- Individual calibration



Specifications

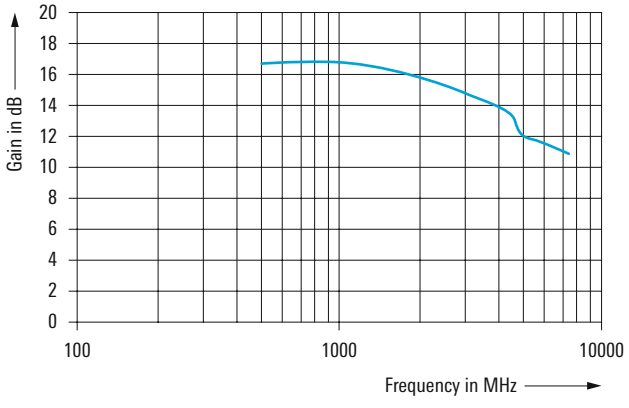
Frequency range	500 MHz to 7.5 GHz
Polarization	vertical (horizontal by rotating the antenna 90°)
VSWR	< 2.5 (typ.)
Nominal impedance	50 Ω
RF connector	N male on cable (approx. 1 m emerging from handle)
Power supply	
Batteries	1.5 V AA cells (6 ×)
Rechargeable batteries	1.2 V (6 ×)
External	7 V to 9 V DC via plug
Current drain	approx. 100 mA at +25 °C

Operating temperature range	–30 °C to +55 °C
MTBF	> 50 000 h (in line with MIL-HDBK-217E, ground fixed, +25 °C)
Dimensions (W × H × L)	approx. 310 mm × 90 mm × 580 mm (12.2 in × 3.5 in × 22.8 in)
Weight	approx. 1.2 kg (2.7 lb)

Ordering information

Ordering information	Type	Order No.
Active Directional Antenna	R&S®HE300CE	4080.9505.02
Recommended extras		
Portable Receiver	R&S®PR100	4071.9006.02

Typical gain in active mode



Typical radiation patterns in frequency range from 500 MHz to 7.5 GHz