R&S®AC004R1/ R&S®AC004L1 Omnidirectional Antennas

18 GHz to 26.5 GHz

Broadband omnidirectional antenna

Available for left-hand or right-hand circular polarization

New

Features

- Omnidirectional reception
- Wide frequency range
- Suitable for use under harsh environmental conditions (e.g. in mobile applications)

Brief description

The R&S®AC004R1 and R&S®AC004L1 omnidirectional antennas are designed for reception in the frequency range from 18 GHz to 26.5 GHz.

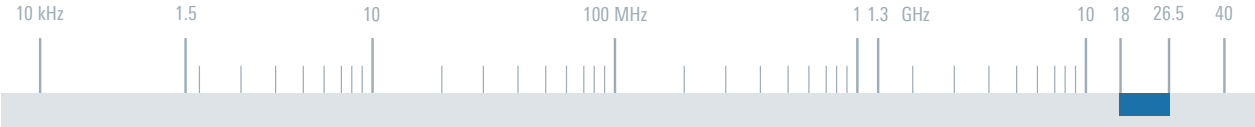
The circularly polarized antennas can also be used to receive horizontally and vertically polarized signals.

In addition to signal reception, the antennas are capable of radiating signals at medium power.

The mechanical design of the antennas ensures reliable operation even under harsh environmental conditions, e.g. in mobile applications.

The antennas are delivered with a weather protection hood.

Antennas shown without weather protection hood.

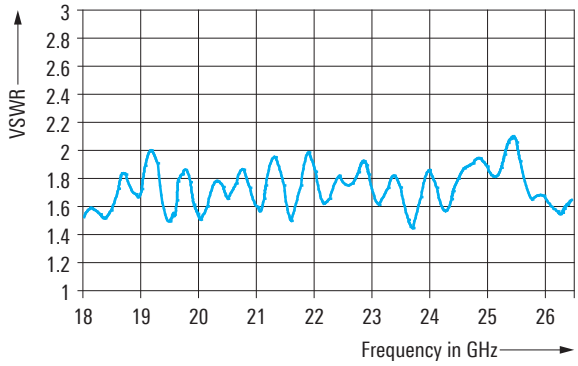
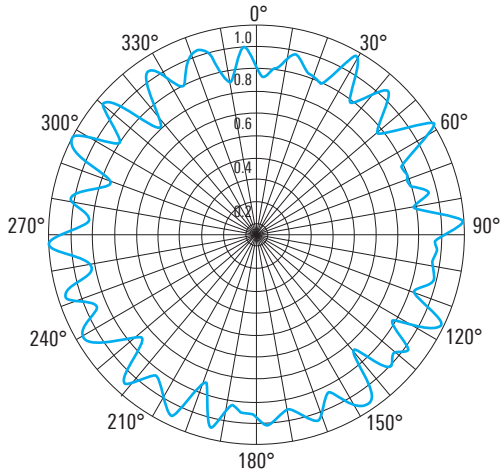


Specifications	
Frequency range	18 GHz to 26.5 GHz
Polarization	right-hand circular (R&S®AC004R1) or left-hand circular (R&S®AC004L1)
Axial ratio	typ. ±2 dB, max. ±5 dB
Input impedance	50 Ω
VSWR	typ. <2.5 (see graph below)
Gain	typ. 2 dBi
Connector	RPC2.92 (K) female
Max. input power	25 W (CW, +20 °C ambient temperature)

Radiation pattern, azimuth plane	omnidirectional (see diagram), uncircularity max. ±3 dB
Radiation pattern, elevation plane	directional, half-power beamwidth typ. 20°
MTBF	>500 000 h
Operating temperature range	–35 °C to +65 °C
Permissible wind speed	180 km/h (without ice deposit)
Dimensions (height × diameter)	approx. 130 mm × 150 mm (approx. 5.1 in × 5.9 in)
Weight	approx. 1.4 kg (approx. 3.1 lb)

Ordering information	Type	Order No.
Omnidirectional Antenna		
For right-hand circular polarization	R&S®AC004R1	0749.3000.03
For left-hand circular polarization	R&S®AC004L1	0749.4000.02

Typical VSWR



Typical horizontal radiation pattern