

R&S®AU600 ACTIVE OMNIDIRECTIONAL RECEIVING ANTENNA SYSTEM

20 MHz to 8 GHz

For sensitive spectrum monitoring of horizontally and vertically polarized signals



The R&S®AU600 active omnidirectional receiving antenna system is optimized for the reception of linearly polarized signals in the frequency range from 20 MHz to 8 GHz.

Featuring a wide frequency range and simultaneous omnidirectional reception of signals with vertical and horizontal polarization, it is particularly suited for radiomonitoring and radiolocation tasks in stationary and semi-mobile installations.

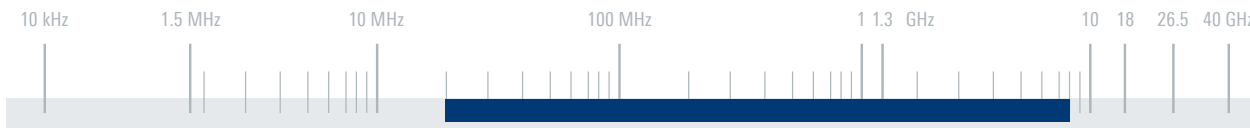
The antenna system is designed for extreme environmental conditions. Its compact size makes it ideal for locations with limited available space.

Built-in switchable low-noise amplifiers (LNA) and band-stop filters on the integrated switchboard ensure maximum sensitivity and allow the installation even at locations in close vicinity to transmitting antennas.

Key facts

- ▶ Wide frequency range
- ▶ Omnidirectional reception
- ▶ Horizontal and vertical polarization simultaneously
- ▶ Ruggedized design for extreme environmental conditions
- ▶ Integrated switchable low-noise amplifiers and bandstop filters
- ▶ Suitable for installation even at locations close to transmitting antennas



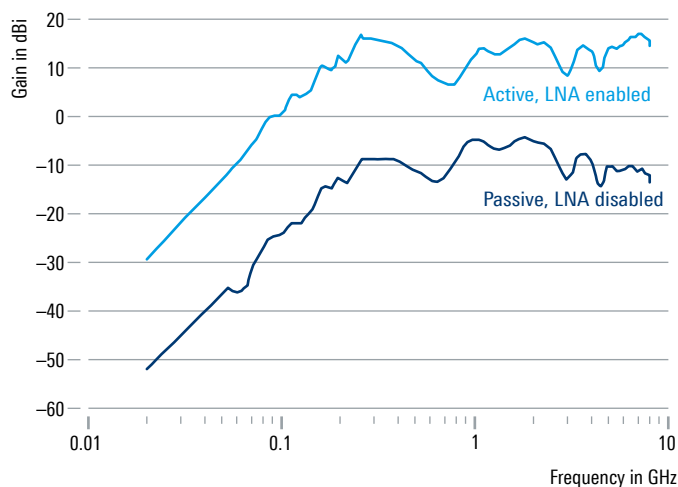


Specifications		
Frequency range		20 MHz to 8 GHz
Polarization		linear vertical and horizontal
Nominal impedance		50 Ω
VSWR		< 2.5; 1.5 (typ.)
Circularity of azimuth pattern	vertical polarization	±2.5 dB (typ.)
	horizontal polarization	±4.5 dB (typ.)
IP3 in active mode	vertical polarization, f < 0.85 GHz; f ≥ 0.85 GHz	25 dBm (typ.); 22 dBm (typ.)
	horizontal polarization, f < 0.85 GHz; f ≥ 0.85 GHz	20 dBm (typ.); 23 dBm (typ.)
IP2 in active mode	vertical polarization, f < 0.85 GHz; f ≥ 0.85 GHz	60 dBm (typ.); 32 dBm (typ.)
	horizontal polarization, f < 0.85 GHz; f ≥ 0.85 GHz	37 dBm (typ.); 33 dBm (typ.)
Destructive field strength		> 50 V/m
Stopband attenuation of internal filters	GSM1800/UMTS	25 dB (typ.)
	WLAN/LTE band 7	20 dB (typ.)
MTBF		> 100000 h
DC power supply	via R&S®OSP-B158 or R&S®OCB600	-12 V (90 mA), +10 V (285 mA), +12 V (550 mA)
Operating temperature range		-40°C to +65°C
Maximum wind speed	without ice deposit	275 km/h
	with 30 mm ice deposit	200 km/h
Protection class		IPx5, in line with EN 60529
Dimensions	Ø x L	approx. 0.382 m x 1.015 m (1 ft in x 3 ft)
Weight		approx. 17.5 kg (39 lb)

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Ordering information	Type	Order No.
Active omnidirectional receiving antenna system, color: squirrel gray (RAL 7000)	R&S®AU600	4094.6003.02
Recommended extras		
Open switch and control platform, without touchscreen	R&S®OSP-220	1528.3105.02
Open switch and control platform, with touchscreen	R&S®OSP-230	1528.3105.03
Module for R&S®OSP, for controlling R&S®AU600	R&S®OSP-B158	4094.7300.02
Supply and control cable for R&S®AU600 and R&S®OSP-B158, lengths: 10/20/50 m	R&S®AU600-K1	4094.7100.10/20/50
Outdoor control box for R&S®AU600	R&S®OCB600	3059.7400.02

Typical realized gain for vertical polarization



Block diagram of the antenna system

