

R&S®AM524 LOW-NOISE ACTIVE ANTENNA SYSTEM

100 Hz to 1 GHz; optional 26.5 GHz

For measuring low-level signals in anechoic chambers

Update



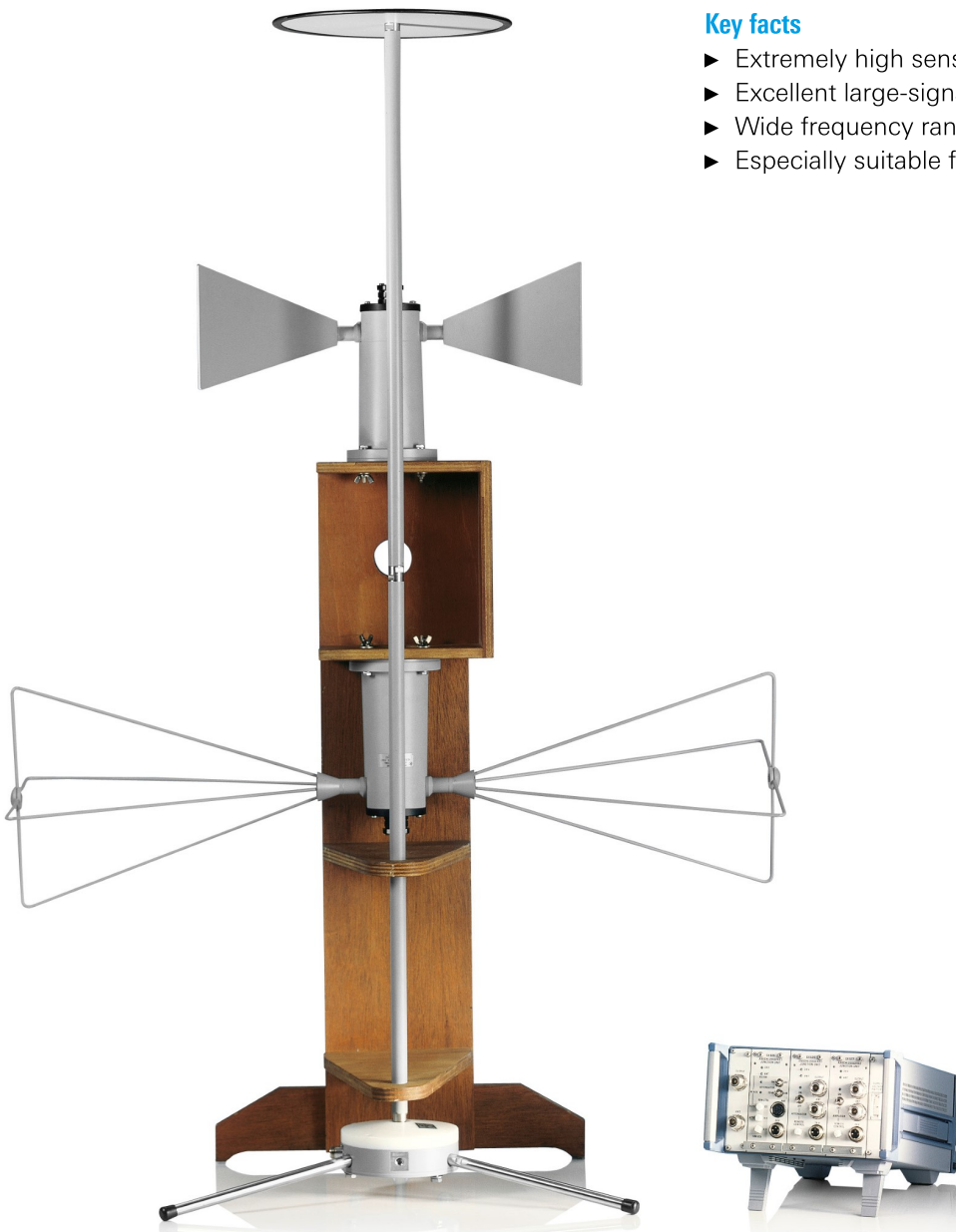
The R&S®AM524 low-noise active antenna system has been designed for measuring low-level signals in anechoic chambers. Criteria for dimensioning such antennas are different from those of active antennas used outside shielded rooms.

The R&S®AM524 features maximum sensitivity, small dimensions and the capacity to handle large signal emissions from the EUT.

Individual calibration in line with ANSI standards available.

Key facts

- ▶ Extremely high sensitivity
- ▶ Excellent large-signal characteristics
- ▶ Wide frequency range
- ▶ Especially suitable for TEMPEST measurements





Specifications

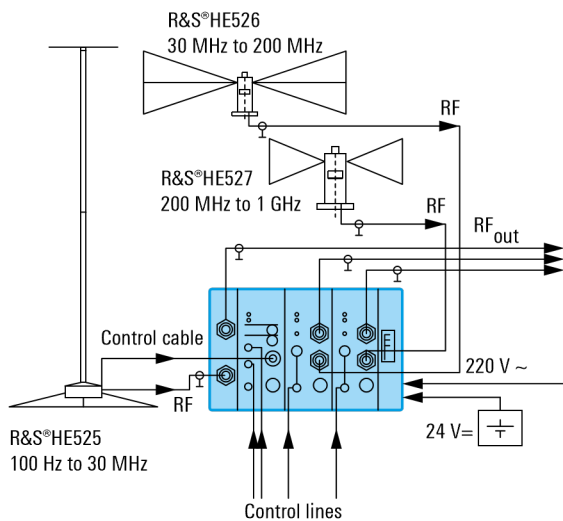
Frequency range	100 Hz to 1 GHz (in three subranges)	
	850 MHz to 26.5 GHz (optional with R&S®HL050S7)	
Input impedance	50 Ω	
Antenna factor ¹⁾	100 Hz to 30 MHz	-2 dB/m to 0 dB/m
	100 MHz	-10 dB/m to -4 dB/m
	1 GHz	-5 dB/m to 19 dB/m
Field strength sensitivity ($\Delta f = 1 \text{ Hz}$, $S/N = 0 \text{ dB}$)	100 Hz	0 dB($\mu\text{V/m}$) (typ.)
	100 kHz	-43 dB($\mu\text{V/m}$) (typ.)
	30 MHz	-51 dB($\mu\text{V/m}$) (typ.)
	100 MHz	-54 dB($\mu\text{V/m}$) (typ.)
	1 GHz	-37 dB($\mu\text{V/m}$) (typ.)
Power supply	AC	100/120/220/230/240 V \pm 10%, 47 Hz to 63 Hz
	DC	22 V to 28 V, max. 0.7 A
Connectors	N female	
MTBF	> 15000 h	
Operating temperature range	-10°C to +55°C	
Dimensions (W x H)	R&S®HE525	approx. 0.3 m x 1.5 m (11.8 in x 59.1 in)
	R&S®HE526	approx. 1 m x 0.3 m (39.4 in x 11.8 in)
	R&S®HE527	approx. 0.5 m x 0.25 m (19.7 in x 9.9 in)
Weight	R&S®HE525	approx. 5 kg (11.0 lb)
	R&S®HE526	approx. 1.7 kg (3.8 lb)
	R&S®HE527	approx. 1.6 kg (3.5 lb)

¹⁾ Without attenuator or amplifier.

Ordering information	Type	Order No.
Low-noise active antenna system	R&S®AM524	4015.7001.02
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®AM524	R&S®OSP-BS524	4118.6007.02
Log-periodic directional antenna with preamplifier	R&S®HL050S7	4064.6040.02

Overview of system components

Shielded room



Typical field strength sensitivity

