

# R&S®HL562E ULTRALOG

30 MHz to 6 GHz

Ultrabroadband antenna for EMI and  
EMS applications



The R&S®HL562E ULTRALOG is used for emission measurements and immunity tests in the wide frequency range from 30 MHz to 6000 MHz. Measurement times are considerably reduced since it is not necessary to change antennas. Symmetry of radiation patterns and matching (VSWR) of the R&S®HL562E allow its use in EMS measurements where field strengths of 10 V/m or higher are required.

The R&S®HL562E combines the characteristics of a biconical and a log-periodic antenna. The log-periodic part of the antenna is V-shaped in order to increase gain and to achieve an almost rotation-symmetrical radiation pattern (above 200 MHz).

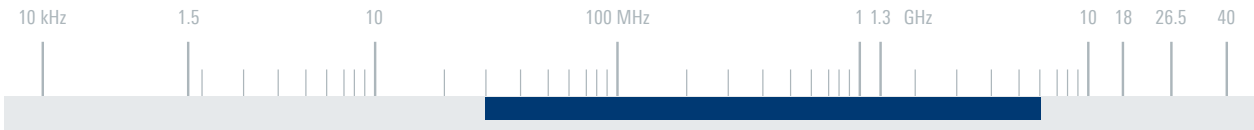
The ULTRALOG is supplied without a tripod; the tripod shown is available as an extra.

### Key facts

- ▶ Suitable for immunity tests and emission measurements
- ▶ No change of antennas needed throughout the whole frequency range
- ▶ Radiation patterns in E and H plane practically rotationally symmetrical (from 200 MHz to 6000 MHz)
- ▶ Compact size, low weight
- ▶ High gain, low antenna factor
- ▶ Movable tripod optionally available
- ▶ Factory standard calibration included
- ▶ Individual calibrations in line with ANSIC63.5, CISPR 16-1-6 and SAE ARP958
- ▶ Accredited calibration available on request
- ▶ 4 dB and 6 dB attenuators (HAIMP<sup>1)</sup>) in line with ANSIC63.4 and CISPR 16-1-4 respectively with/without accredited calibration optionally available

<sup>1)</sup> HAIMP: Hybrid antenna impedance matching pad.





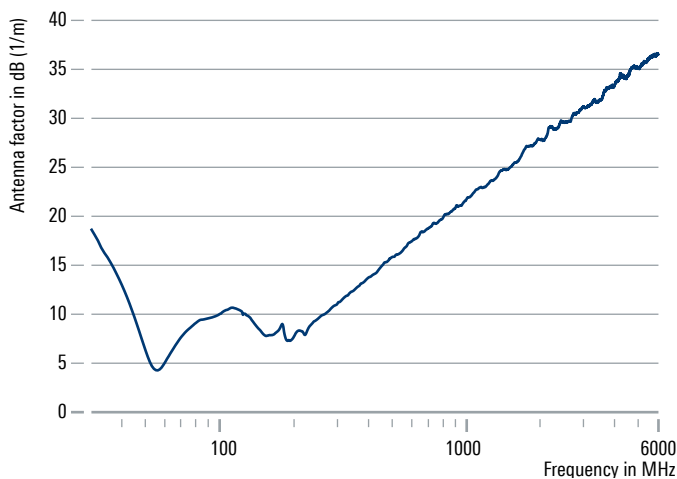
**Specifications**

Frequency range	30 MHz to 6 GHz	
Polarization	linear	
Cross-polarization	typ. < -25 dB	
VSWR	above 200 MHz	typ. < 2
RF connector	N female	
Nominal impedance	50 Ω	
Gain	above 200 MHz	typ. 8.5 dBi
MTBF	> 100 000 h	
Max input power	30 MHz	225 W CW
	80 MHz	900 W CW
	250 MHz	750 W CW
	1 GHz	420 W CW
	3 GHz	270 W CW
	6 GHz	150 W CW
Operating temperature range	-40°C to +40°C	
Class of operation	laboratory, anechoic chamber, outdoor use up to 20 km/h wind speed	
Dimensions (W × H × L)	approx. 0.57 m × 1.43 m × 1.65 m (22 in × 56 in × 65 in)	
Weight	approx. 5 kg (11 lb)	

Ordering information	Type	Order No.
ULTRALOG	R&S®HL562E	4100.0007.03

Recommended extras		
Movable tripod	R&S®HL562Z1	4041.3900.03
Attenuator, 4 dB, 2 W (HAIMP) or 6 dB, 2 W (HAIMP) with/without accredited calibration	R&S®HL562E-ATT	on request

**Typical antenna factor**



**Typical radiation patterns**

