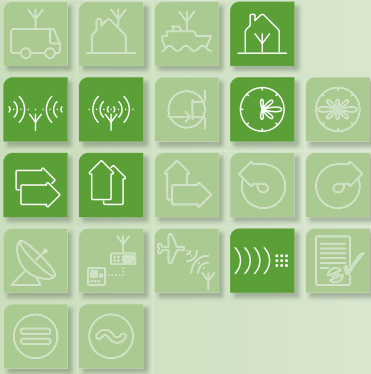


VHF/UHF Antennas

EMS Antenna R&S® HL046



80 MHz to 1300 MHz

Log-periodic antenna for
EMS measurements

Features

- ◆ High antenna gain, i.e. low amplifier power required
- ◆ Only one antenna required to cover a wide frequency range
- ◆ Uniform object irradiation due to optimized radiation patterns
- ◆ Reduced influence of test chamber
- ◆ Wall mounting possible
- ◆ Small size

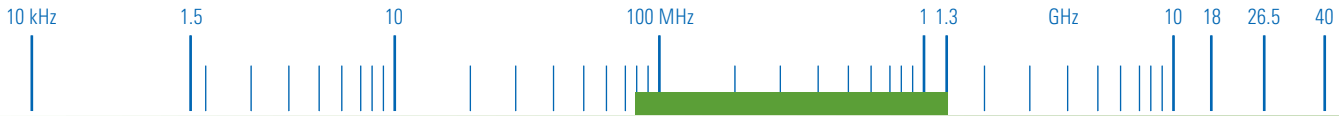
Brief description

The R&S® HL046 for EMS measurements consists of two log-periodic antennas arranged in a V-shape and connected in parallel. Due to this construction, high selectivity is obtained in the H plane and the radiation patterns are almost rotation-symmetrical.

The small size and the wide frequency range make the antenna suitable for use in test chambers.

Antenna model .02 is mounted on a trolley whose height can be continuously adjusted between approx. 1 m and 1.75 m above ground (model .03 is without trolley). Polarization is manually set. Pneumatic actuators can optionally be provided.





Specifications

Frequency range	80 MHz to 1.3 GHz	Connector	N female
Polarization	linear	Class of application	laboratory
Input impedance	50 Ω	MTBF	>100 000 h
VSWR	<2	Operating	
Max. input power ($T_A = +40^\circ\text{C}$)		temperature range	-10°C to $+50^\circ\text{C}$
80 MHz	1000 W + 100% AM	Dimensions (W \times H \times L)	
500 MHz	500 W + 100% AM	Without trolley	approx. 0.85 m \times 1.57 m \times 1.75 m
1 GHz	300 W + 100% AM	With trolley	approx. 0.86 m \times 1.90 m (variable up to 2.60 m) \times 1.85 m
1.3 GHz	250 W + 100% AM	Weight	
Gain	typ. >7 dBi	Without trolley	approx. 12.5 kg
Front-to-back ratio	typ. >20 dB	With trolley	approx. 22.5 kg
Polarization decoupling	typ. 20 dB		

Ordering information

EMS Antenna			Recommended extras		
With tripod	R&S®HL046	4040.8708.02	Pneumatic Actuators		
Without tripod	R&S®HL046	4040.8708.03	for polarization setting	R&S®HL046-P	4053.1694.02
			Tripod	R&S®HL046Z1	4061.0106.02

