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## Test & Measurement

- > sales
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## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

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Product Lifecycle Management System

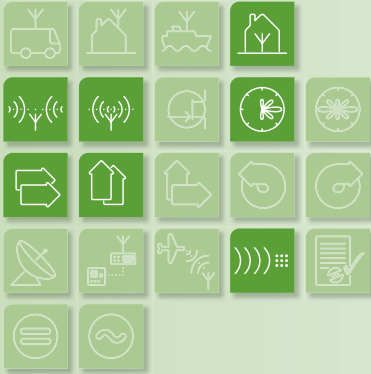
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# VHF/UHF Antennas

## 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

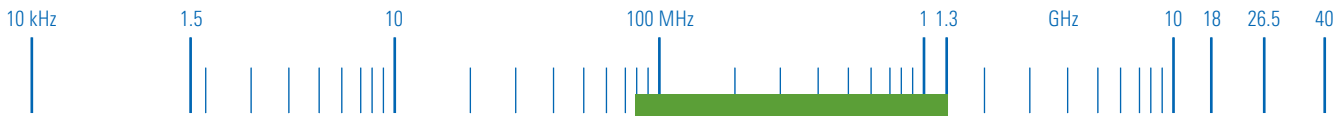


### Brief description

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

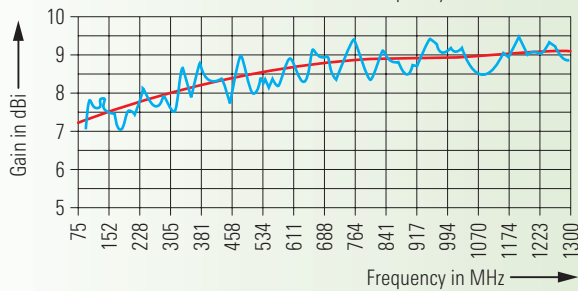
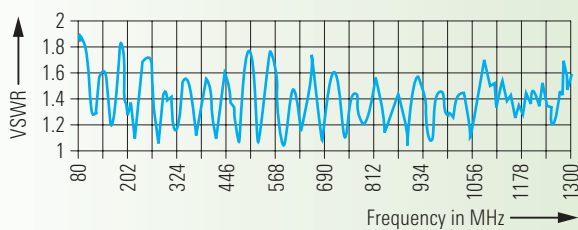
Frequency range	80 MHz to 1.3 GHz
Polarization	linear
Input impedance	50 Ω
VSWR	<2
Max. input power (T <sub>A</sub> = +40°C)	
80 MHz	1000 W + 100% AM
500 MHz	500 W + 100% AM
1 GHz	300 W + 100% AM
1.3 GHz	250 W + 100% AM
Gain	typ. >7 dBi
Front-to-back ratio	typ. >20 dB
Polarization decoupling	typ. 20 dB

Connector	N female
Class of application	laboratory
MTBF	>100 000 h
Operating temperature range	-10 °C to +50 °C
Dimensions (W × H × L)	
Without trolley	approx. 0.85 m × 1.57 m × 1.75 m
With trolley	approx. 0.86 m × 1.90 m (variable up to 2.60 m) × 1.85 m
Weight	
Without trolley	approx. 12.5 kg
With trolley	approx. 22.5 kg

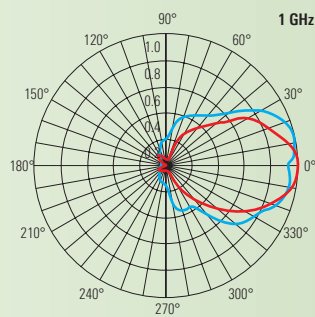
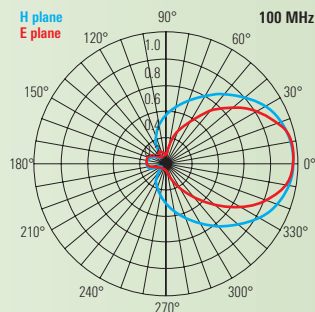
## Ordering information

EMS Antenna		
With tripod	R&S®HL046	4040.8708.02
Without tripod	R&S®HL046	4040.8708.03

Recommended extras		
Pneumatic Actuators		
for polarization setting	R&S®HL046-P	4053.1694.02
Tripod	R&S®HL046Z1	4061.0106.02



Typical VSWR and typical gain



Typical radiation patterns