

# R&S®HL471 LOG-PERIODIC HF ANTENNA

5 MHz to 30 MHz

Transmission and reception of horizontally polarized waves over long distances



The compact, rotatable R&S®HL471 log-periodic HF antenna can be used for transmission and reception of horizontally polarized waves.

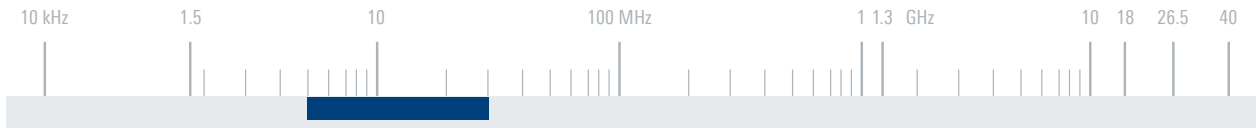
The antenna's transmission frequency range from 7 MHz to 30 MHz makes it particularly suitable for communications over long distances. Reception is possible from 5 MHz so that all distances can be covered.

The antenna has been optimized for small size, low weight and minimum maintenance.

## Key facts

- ▶ Reception from 5 MHz
- ▶ Transmission from 7 MHz
- ▶ Extremely small size
- ▶ Low weight
- ▶ Easy and quick assembly
- ▶ Low maintenance
- ▶ Suitable for roof mounting





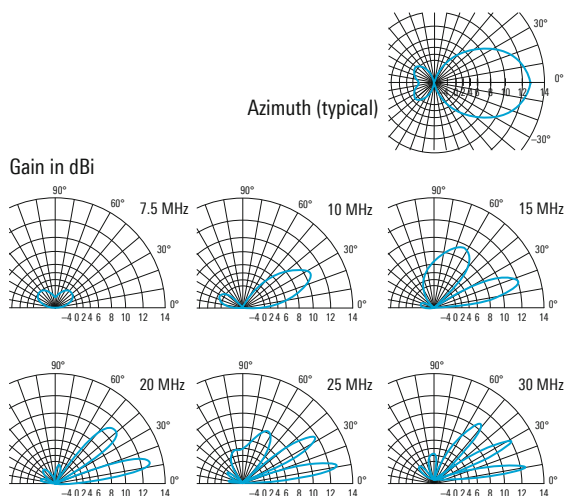
### Specifications

Frequency range	reception	5 MHz to 30 MHz
	transmission	7 MHz to 30 MHz
Polarization		linear/horizontal
Input impedance		50 Ω
VSWR	7 MHz to 30 MHz	≤ 2
Max. input power		1 kW CW/2 kW PEP
Gain (on 15 m mast)	7 MHz to 8 MHz	0 dBi to 6 dBi
	8 MHz to 30 MHz	6 dBi to 12.5 dBi
Max. wind speed	without ice deposit	180 km/h
Connector		N female
MTBF		> 100 000 h
Operating temperature range		–30 °C to +50 °C
Dimensions of antenna array	W x L	approx. 11 m x 8.8 m (36 ft x 29 ft)
Weight of antenna array		approx. 100 kg (221 lb)

### Ordering information

Ordering information	Type	Order No.
Log-periodic HF antenna	R&S®HL471	0755.3008.02
<b>Recommended extras</b>		
Lattice mast, length: 15 m (standard)	R&S®KM451B2	4028.3400.02
Lattice mast, length: 10 m (for roof mounting)	R&S®KM451B1	4028.3351.02
Hazard light	R&S®KM451F1	4028.3500.02
Antenna rotator	R&S®RD130	4059.8503.02
Rotary joint/adaption set	R&S®RD008Z1	0720.6400.02
Control unit	R&S®GB130	4059.8755.02
Set of cables (connecting R&S®GB130 to R&S®RD130, lengths: 50/80/120/200 m)	R&S®GK130	4059.8855.0x (x = 2/3/4/5)
Other configurations on request.		

### Typical radiation patterns on a 15 m mast



### Typical directivity on a 15 m mast

