

R&S®HD420 Mobile TFD Broadband Antenna

1.5 MHz to 30 MHz

Sky wave transmission over short, medium and global distances



The R&S®HD420 mobile TFD¹⁾ broadband antenna operates as a loop antenna on which traveling waves are generated by means of a termination. A tuning unit is not required to attain the specified VSWR.

Signals are fed in via a transformer at the highest point in the middle of the antenna. Due to its geometry, the TFD antenna radiates horizontally polarized waves and is therefore suitable for the transmission of sky waves over any distance.

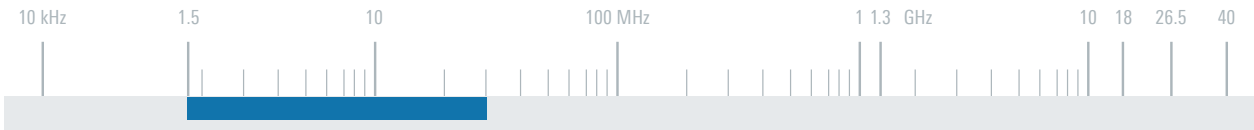
Since the antenna is configured as an inverted V, only one antenna support is needed. Where space is limited, the length of the antenna can be considerably reduced through the use of two lateral 4 m masts.

Key facts

- Coverage of any distance
- Omnidirectional coverage through high-angle radiation (NVIS)
- Broadband operation
- No tuning unit required
- Quick assembly/disassembly (approx. 30 min)
- Suitable for stationary use
- Extremely favorable price

¹⁾ Terminated folded dipole.

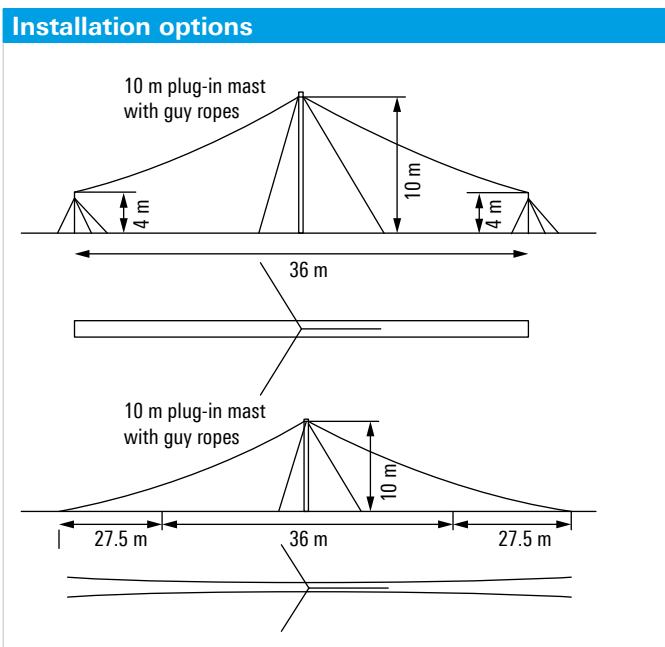




Specifications	
Frequency range	1.5 MHz to 30 MHz
Polarization	linear/horizontal
Input impedance	50 Ω
VSWR	≤ 3
Max. input power	400 W
Connector	N female
MTBF	> 100000 h
Operating temperature range	-40°C to +55°C
Mechanical interface	for R&S®KM420A1 and 10 m tower from Geroh

Max. wind speed	180 km/h (without ice deposit), with R&S®KM420A1 and 2 × R&S®KM420A2
Dimensions	
Length	approx. 90 m (3543.3 in), approx. 36 m (1417.3 in) (with 2 × R&S®KM420A2)
Recommended height of feed point	approx. 10 m (393.7 in)
Weight	approx. 13 kg (28.7 lb)

Ordering information	Type	Order No.
Mobile TFD Broadband Antenna	R&S®HD420	4053.2503.02
Recommended extras		
Tilttable Mast, length: 10 m	R&S®KM420A1	4054.1000.02
Tilttable Mast, length: 4 m (two masts required)	R&S®KM420A2	4054.1400.02



With guy ropes (bottom) and auxiliary masts for reducing the antenna length (top) (dimensions not to scale).

