

R&S®HX002

1 kW HF Dipole

2 MHz to 30 MHz

With integrated antenna tuning unit
for all distance ranges



Features

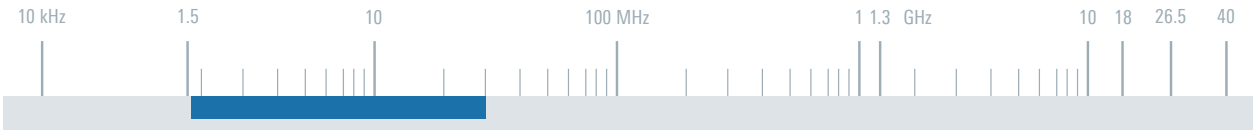
- Omnidirectional coverage with high-angle radiation (NVIS)
- No skip zone
- Automatic adaptive operation
- Silent tuning possible
- Can be set up close to neighboring antennas

Brief description

The R&S®HX002 1 kW HF dipole ensures optimum coverage of all distance ranges and can be used for transmission and reception. The antenna can be directly connected to the R&S®XK2500 and R&S®XK2900 HF transceivers (power supply and control signals via control cable of transceiver). For operation with other transmitters, the R&S®GX007 junction unit is available to provide power supply and antenna control.

Taking into account the ambient conditions, the fully automatic ATU integrated in the antenna ensures optimum matching to the transceiver. This allows antennas to be set up close to neighboring antenna systems and on difficult terrain (e.g. built-on roofs). With the aid of an optional module (R&S®HX002F), the lower frequency limit of 2 MHz can be reduced to 1.6 MHz.





| Specifications | |
|---|----------------------------|
| Frequency range | 2 MHz to 30 MHz |
| With frequency extension | 1.6 MHz to 30 MHz |
| Polarization | linear/horizontal |
| Input impedance | 50 Ω |
| VSWR | <1.5 (typ. <1.1) |
| Max. input power | 1.15 kW CW/1.15 kW PEP |
| Tuning time | |
| Without retuning | 70 ms to 500 ms |
| With retuning | typ. 2 s |
| Initial tuning | typ. <15 s |
| Silent tuning | <60 ms/typ. 56 ms |
| Tuning power | 50 W to 300 W |
| Efficiency | |
| At 2 MHz | >20% |
| From 5 MHz to 30 MHz | >75% |
| Gain (15 m above perfectly conducting ground) | -3.3 dBi to 7.8 dBi (typ.) |

| | |
|-------------------------------|-----------------------------------|
| Power supply | 21 V to 32 V DC (max. 6 A) |
| Average | 28 V DC (2.5 A) |
| Power consumption | max. 165 VA |
| RF connector | N female |
| Control connector | 26-contact, round, male |
| MTBF | >6500 h |
| Operating temperature range | -30°C to +55°C |
| Max. wind speed | |
| Without ice deposit | 150 km/h |
| With 30 mm radial ice deposit | 130 km/h |
| Dimensions | |
| Length | approx. 10.3 m (approx. 405.5 in) |
| Width | approx. 3.6 m (approx. 141.7 in) |
| Height of ATU | approx. 1.10 m (approx. 43.3 in) |
| Weight | approx. 103 kg (approx. 227.1 lb) |

| Ordering information | Type | Order No. |
|---|-------------|--------------|
| 1 kW HF Dipole (with ATU) | R&S®HX002 | 0682.3010.24 |
| Recommended extras | | |
| Junction Unit | R&S®GX007 | 0682.6010.02 |
| Frequency Range Extension, 1.6 MHz to 2 MHz | R&S®HX002F | 4017.9053.02 |
| Control Cable between R&S®GX007 and R&S®HX002 | R&S®FK859K1 | |
| Length 40 m | | 0669.8112.40 |
| Length 60 m | | 0669.8112.60 |
| Length 80 m | | 0669.8112.80 |
| Lattice Mast, length 10 m | R&S®KM451B1 | 4028.3351.02 |
| Lattice Mast, length 15 m | R&S®KM451B2 | 4028.3400.02 |
| Mast Adapter for 10 m or 15 m mast | R&S®KM451Z4 | 4032.2904.02 |

