

R&S®FK002H0 ANTENNA TUNING UNIT (1 KW)

1.5 MHz to 30 MHz

For stationary, land-mobile and shipboard applications



The R&S®FK002H0 is a standalone antenna tuning unit (ATU). It can match the impedance of a radiator to 50 Ω for every frequency from 1.5 MHz and 30 MHz.

The R&S®FK002H0 is powered and controlled by the R&S®GX002 junction unit.

The R&S®FK002H0 can be operated under harsh environmental conditions and continuous 24-hour operation. The rugged, waterproof and dustproof construction of the R&S®FK002H0 allows its use in stationary, land-mobile and shipboard applications.

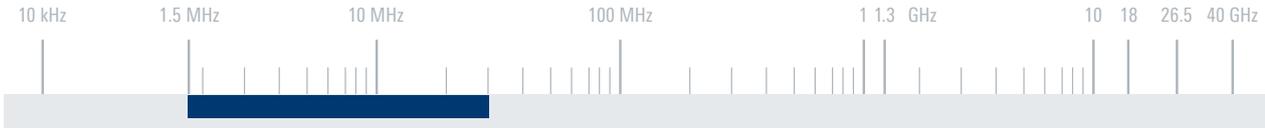
Together with the R&S®GX002, the R&S®FK002H0 is seamlessly integrable into the R&S®Series4100 radio systems. Furthermore, the R&S®FK002H0 can be controlled by a third-party system controller via LAN interface.

For cooling, the R&S®FK002H0 is provided with a sophisticated internal air circulation system.

Key facts

- ▶ High RF power at small antennas (1 kW RF power at rod antennas starting at 7 m)
- ▶ High efficiency (no resistive loading)
- ▶ HF-cable-only interface
- ▶ Cosite robust, fast tuning with low RF power (active tune) or zero RF power (silent tune)
- ▶ Transceiver-independent control interface and power supply (via R&S®GX002)
- ▶ Fully automatic operation possible





Specifications		
Frequency range		1.5 MHz to 30 MHz
Maximum permissible RF input power		1 kW
Input impedance		nom. 50 Ω
Permissible antennas		monopole antennas with radiator length from 7 m to 12 m (e.g. R&S®HA175) wire antennas with radiator length from 8 m to 30 m (e.g. R&S®AK503)
VSWR after tuning		≤ 1.8; ≤ 1.3 (typ.)
Tuning time	silent tune/bypass activation	< 70 ms
	active tune	< 25 s; < 4 s (typ.)
Tuning power	integrated antenna analyzer	≤ 1 W
Efficiency	depends on frequency and connected antenna	20% to 90% (typ.)
Power supply	via R&S®GX002	max. 150 W
Protection class		IPx6, waterproof, in line with IEC 60529
Dimensions	L × W × H	approx. 0.45 m × 0.45 m × 0.58 m (17.7 in × 17.7 in × 22.8 in)
Weight		approx. 52 kg (115 lb)

Ordering information	Type	Order No.
Antenna tuning unit (1 kW)	R&S®FK002H0	4105.8006.03
Recommended extras		
Junction unit	R&S®GX002	4106.0009.02
HF rod antenna	R&S®HA175	0101.1101.02

Typical efficiency for rod antenna at height of 7 m to 10 m

