

# R&S®HE400 Handheld Directional Antenna

8.3 kHz to 8 GHz

Handheld directional antenna for locating transmitters and interference sources

**New**



The R&S®HE400 handheld directional antenna is used to locate transmitters and interference sources. Bearings are found by manually pointing the antenna in the direction where the signal is strongest.

The antenna is optimized to be used with the R&S®PR100 portable receiver or the R&S®FSH and the R&S®Spectrum Rider FPH handheld spectrum analyzers.

It consists of an antenna handle, a receiver-customized cable set and different antenna modules that can easily be attached using a locking ring. Five different antenna modules are available, allowing the reception of vertically or horizontally polarized signals. The type of module and its orientation is detected by the antenna handle.

A built-in low-noise amplifier (LNA) can be activated in order to increase system sensitivity. In passive mode, the amplifier is bypassed and the antenna can also be used in the vicinity of strong transmitters.

The integrated electronic compass delivers exact azimuth and elevation data. Together with the sensitive GPS- and Glonass-capable receiver in the antenna handle, precise location accuracy is provided by triangulation.

The integrated trigger button can be used to externally trigger a receiver-configurable action.

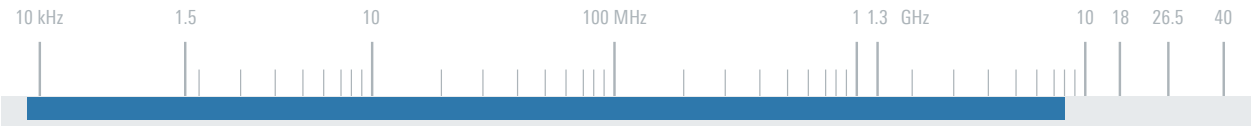
## Key facts

- ▀ Distinct directional pattern
- ▀ Wide dynamic range due to switchable active and passive mode (LNA on/off)
- ▀ Very wide frequency range in a compact size
- ▀ Automatic antenna module and polarization detection
- ▀ Trigger button for external triggering of the receiver
- ▀ Fatigue-free operation due to antenna design and materials used, which keep weight to a minimum
- ▀ GPS- and Glonass-capable receiver and electronic compass included
- ▀ Tripod thread and adapter thread for smartphone/tablet cradle
- ▀ Exchangeable cable set between antenna and receiver



**T**Equipment  
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An Interworld Highway, LLC Company

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Specifications	
<b>RF specification of antenna handle</b>	
Frequency range	8.3 kHz to 8 GHz
Nominal impedance	50 Ω
VSWR (1 MHz to 8 GHz)	< 2.5; typ. 2
Output IP3 (1 MHz to 8 GHz)	typ. 20 dBm
Output 1 dB compression point (10 MHz to 8 GHz)	typ. 10 dBm
Destructive field strength	> 10 V/m
<b>RF specification of antenna modules</b>	
Frequency range	
R&S®HE400HF	8.3 kHz to 30 MHz
R&S®HE400VHF	20 MHz to 200 MHz
R&S®HE400UWB	30 MHz to 6 GHz
R&S®HE400LP	450 MHz to 8 GHz
R&S®HE400CEL	700 MHz to 2500 MHz

RF specification of antenna modules (cont.)	
Polarization	adjustable, linear horizontal or vertical
Nominal impedance	50 Ω
VSWR	< 3.5; typ. 2.0 except R&S®HE400HF module
Operating temperature range	-10°C to +55°C
Storage temperature range	-25°C to +70°C
Damp heat	95 % at +25°C/+55°C
Dimensions (with R&S®HE400UWB antenna module)	approx. 600 mm x 285 mm x 60 mm (24 in x 11 in x 2 in)
Weight	approx. 1.0 kg (2 lb)

Ordering information	Type	Order No.
Handheld Directional Antenna (antenna handle)	R&S®HE400	4104.6000.02
HF Antenna Module, 8.3 kHz to 30 MHz	R&S®HE400HF	4104.8002.02
VHF Antenna Module, 20 MHz to 200 MHz	R&S®HE400VHF	4104.8202.02
UWB Antenna Module, 30 MHz to 6 GHz	R&S®HE400UWB	4104.6900.02
Log-Periodic Antenna Module, 450 MHz to 8 GHz	R&S®HE400LP	4104.8402.02
Cellular Antenna Module, 700 MHz to 2500 MHz	R&S®HE400CEL	4104.7306.02
Cable Set for R&S®HE400 and R&S®PR100 or R&S®FSH	R&S®HE400-K	4104.7770.02
<b>Recommended extras</b>		
Transport Case for R&S®HE400 (five antenna modules)	R&S®HE400Z1	4104.9009.02
Transport Bag (small) for R&S®HE400 (recommended for one or two antenna modules)	R&S®HE400Z2	4104.9050.02
Transport Bag (large) for R&S®HE400 (recommended for three or four antenna modules)	R&S®HE400Z3	4104.9080.02
Tripod for R&S®HE400	R&S®HE400Z4	4104.9109.02

