

# R&S® PR200

## PORTABLE MONITORING RECEIVER

High-performance spectrum monitoring  
in a handheld format



Product Brochure  
Version 04.00

**ROHDE & SCHWARZ**  
Make ideas real





# AT A GLANCE

The R&S®PR200 portable monitoring receiver is engineered to effectively support you in your spectrum monitoring and interference hunting tasks. It reliably detects, analyzes and locates signals from 8 kHz to 8 GHz. Optimized and designed for field operations, it combines excellent RF performance with an intuitive user interface and offers an expanded range of functions.



Electronic devices with insufficient shielding or not in line with EMI regulations

Imported radio equipment operating on wrong frequencies, or incorrectly configured electronic devices, e.g. DECT, wireless microphones

Improper or illegal cell repeaters

Unauthorized equipment, e.g. jammers

Faulty electronic devices





**Illegal installation of unlicensed  
radio equipment**

The R&S®PR200 high-performance portable monitoring receiver can effectively help identify undesired signal sources in the shortest possible time and significantly reduce the effort required to locate them.

The R&S®PR200 offers a perfect balance of RF performance, speed, usability and size, weight and power (SWaP) that addresses the challenges in spectrum monitoring and interference hunting. The R&S®PR200 can be used with ITU-compliant measurement tools to verify if analog signal transmission fulfills the technical standards stipulated for licensed operation. The R&S®PR200 includes a broad range of tools and functions to handle tasks such as interference hunting, geolocation of transmitters of interest, resolving frequency conflicts on-site and more. It offers comprehensive visualization modes, a wide range of markers, various recording methods and extensive mapping functions that are essential for evaluation and analysis. What sets the R&S®PR200 apart from comparable instruments is that it delivers simultaneous representation in the time and frequency domain in real time. With gated measurements in the spectral domain, it can capture transient and time-variant dynamic interference signals in TDD networks that are otherwise hard to detect.

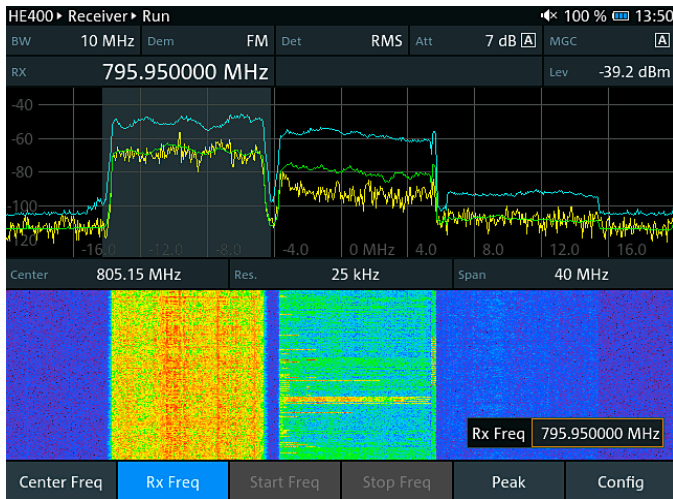
For investigating undesired sources of emission, signal searching over wide frequency ranges, signal analysis, direction finding and more, the R&S®PR200 is one of the most sophisticated portable tools to have on-site.

#### **Key facts**

- ▶ Detect, analyze and locate RF signals from 8 kHz to 8 GHz; extendable to 18 GHz with R&S®HF907DC SHF directional antenna with downconverter
- ▶ Wide range of tools for frequency and time domain analysis with up to 40 MHz real-time bandwidth
- ▶ High RF performance optimized for use in dense spectrum environments thanks to suboctave preselection and automatic overload protection
- ▶ Optimized for demanding field operation with minimal size, weight and power consumption
- ▶ Convenient, simple and intuitive to operate with application-oriented user interface

# HANDHELD SPECTRUM MONITORING FROM THE EXPERTS

The R&S®PR200 offers high-speed digital signal processing that permits seamless capturing and processing of signals in real time. Its state-of-the-art design incorporates the features and capabilities of advanced spectrum monitoring sensors in a handheld format.



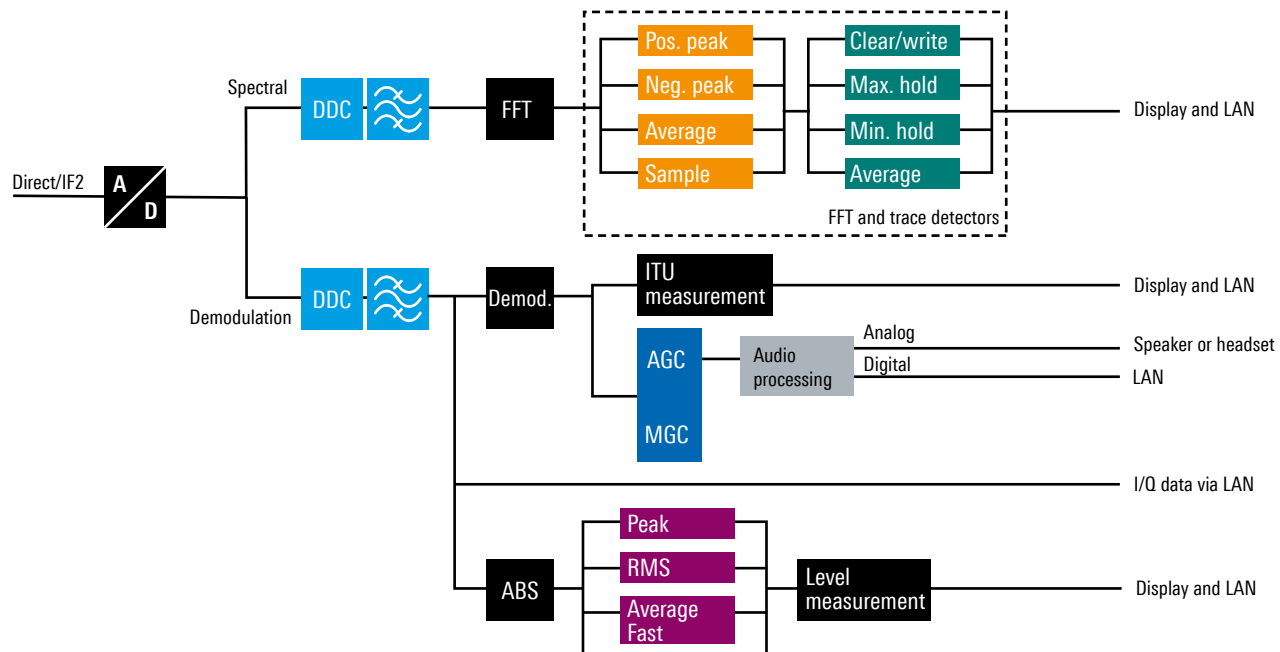
40 MHz real-time bandwidth with an adjustable DDC (gray)

## Backed by decades of experience in spectrum monitoring

The R&S®PR200 is based on the classic Rohde&Schwarz monitoring receiver design using a two-path digital down-converter (DDC) for parallel monitoring and uninterrupted demodulation. Resolution and measurement time can be varied independently in the 40 MHz real-time spectral and demodulation paths, which offers many advantages when evaluating emissions. A current spectral overview in real time, highly accurate level analysis, a high time resolution spectrogram and parallel traces are displayed all at the same time.

An adjustable, user-selectable DDC for demodulation is available within the real-time bandwidth. This helps prevent losing sight of the spectrum, and thus maintain an optimal spectral overview, while probing into the signal of interest.

### Simplified diagram of digital signal processing in the R&S® PR200



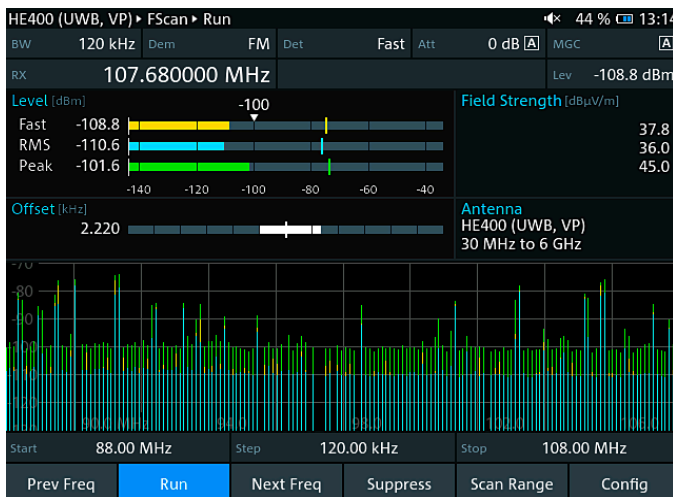
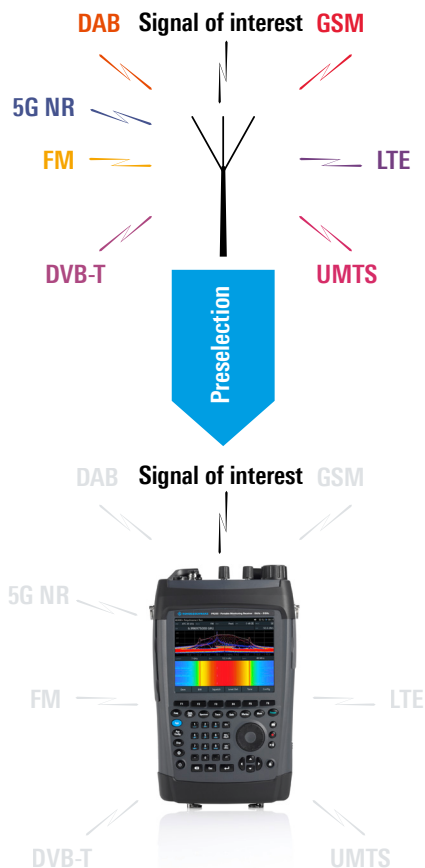


### Designed for use with an antenna

In contrast to spectrum analyzers, the R&S®PR200 is optimized for use with an antenna in dense spectrum environments.

The R&S®PR200 features manually or automatically adjustable built-in gain control to prevent saturation and alleviate overload conditions in the RF frontend.

### Sophisticated preselection



Scan results of up to three configurable traces in FScan mode.

The receiver offers extensive preselection in the form of suboctave or band tracking filters to select desired signals and suppress strong out-of-band signals. This improves linearity and allows reception without distortion.

The high-gain preamplifier stage provides excellent receiver sensitivity and dynamic range, increasing the probability of detecting weak signals.

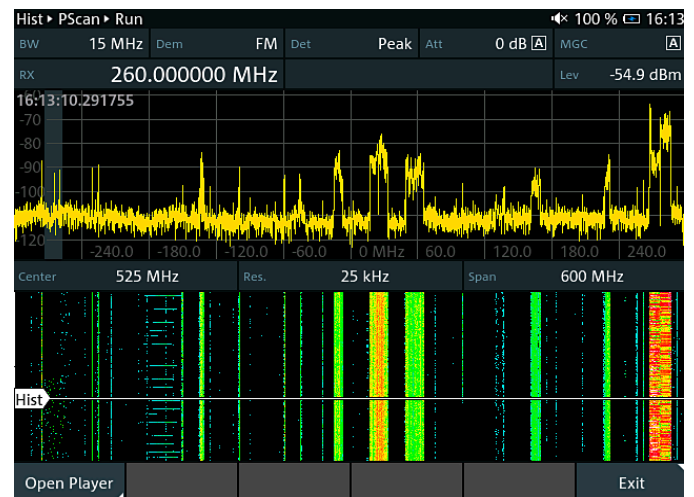
### Fast, efficient digital signal processing

Using gap-free, real-time fast Fourier transform (FFT) signal processing based on a powerful FPGA, the receiver detects even signals that transmit for a period as short as 1.5  $\mu$ s with 100% probability of intercept (POI).

Easily configurable and programmable search and scan modes are available for fast signal searching over wide frequency ranges.

The receiver offers up to 500 Mbyte of internal RAM for I/Q recording, replay and analysis. Data can be downloaded to a storage device for subsequent analysis or output as audible content on a speaker or headset.

The receiver's large history memory buffer can hold minutes of storage. If a signal was missed during the observation period, users can activate the pause/play button to look back in time and examine that signal. Offering high time resolution of max. 500  $\mu$ s per line over the entire history buffer, the receiver displays very detailed history information.



A missed event revisited using the history function to look back in time and examine that signal.

# DESIGNED FOR USE IN THE FIELD

- ▶ Fast boot time
- ▶ Intuitive, application-oriented operation
- ▶ High frequency accuracy, accurate positioning and time stamps with built-in GNSS
- ▶ Weighs approx. 3.5 kg including battery
- ▶ Typically up to 3.5 h on a single battery charge; compartment for easy battery swapping
- ▶ Portrait orientation makes it easy to hold and operate receiver at the same time
- ▶ Dialog boxes with step-by-step guidance for compass calibration
- ▶ Built-in self-test for easy troubleshooting and maintenance
- ▶ Tested in line with MIL-PRF-28800F environmental standard; suitable for outdoor and rugged use
- ▶ Quick disconnect and use with Rohde & Schwarz handheld, compact DF antennas
- ▶ Wide range of setup and transport accessories, e.g. for homing (on foot), tripod (stationary) and mobile (on the move) applications



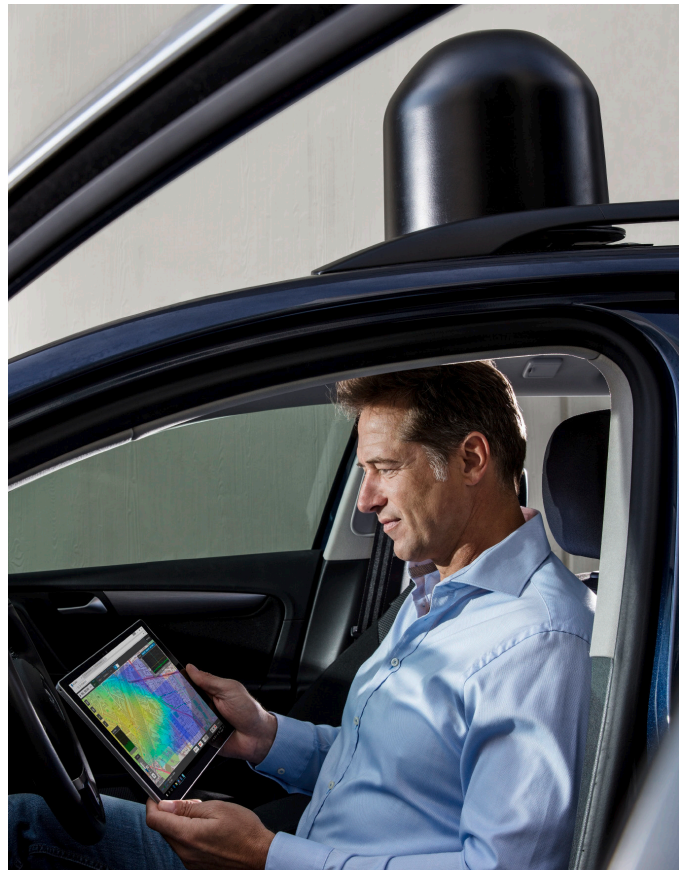
Quick disconnect and use with Rohde & Schwarz antennas.



The R&S®PR200 can be used on a desktop by folding out the support or carried using the R&S®HA-Z222 carrying holster with sun shade.



Manual direction finding with the R&S®HE400.

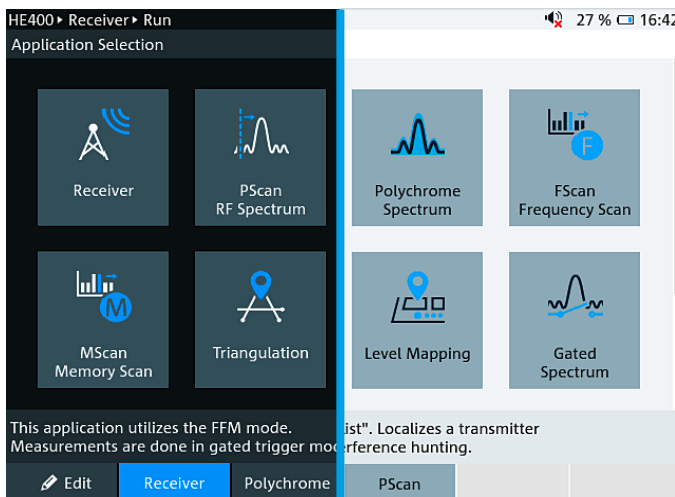


Automatic direction finding with DF upgrade (requires R&S®CS-DF option and a Rohde & Schwarz compact DF antenna) and PC based R&S®MobileLocator software.



# WELL-DESIGNED GUI ENHANCES OPERATIONAL READINESS

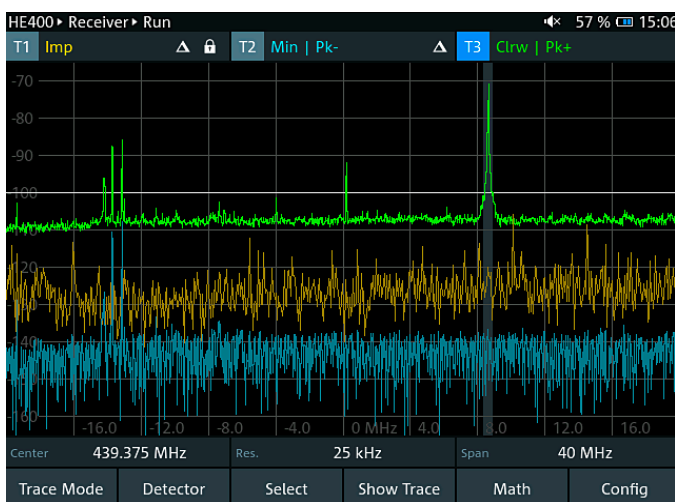
- ▶ Bright, high-contrast color schemes provide good readability even in bright sunlight
- ▶ Enhanced color schemes for operation in bright and low ambient light conditions
- ▶ Clearly organized data display
- ▶ Application-oriented design for convenience, quick access and optimized key clicks
- ▶ Up to 3 traces; display of mixed and matched trace and FFT detectors
- ▶ Map display with integrated spectral view
- ▶ Mathematical functions for easy signal comparison
- ▶ Wide range of markers and triggers



Application cockpit for convenient, easy and fast navigation between various functions (right: high color contrast).



Real-time spectral analysis using smartphone app (Android or iOS) via an external Wi-Fi hotspot; supports gesture operation and is suitable for homing.



Mathematical functions make signal identification easy.



Online analysis via LAN on a standalone R&S®PR200 remote control GUI on a Windows laptop or tablet.

# R&S®PR200 OPERATING ELEMENTS

## FRONT PANEL

Extended data storage and connectivity:  
USB, SD, LAN (SCPI) and remote control  
capability with tablet and/or mobile app

Top panel operating elements

Bright, clearly organized  
6.5" color display

Easy parameter adjustment  
with function keys

Weights approx. 3.5 kg  
including battery

Convenient, application-oriented  
hot key (APP) for switching between  
various applications

One-touch documentation:  
save screenshots and record  
measurements

Adjustable backlighting and keypad for  
bright and low ambient light conditions

One-touch play & pause to look  
back in time for a missed event

Color-coded device  
status feedback

Lock button to prevent  
accidental clicks



The image shows the front panel of the R&S PR200 portable monitoring receiver. It features a large 6.5-inch color display showing a spectrum plot. Below the display is a keypad with function keys (F1-F6), a numeric keypad, and various control buttons. The device has a rugged, dark grey design with a carrying handle on top.

## SIDE PANELS

### Left side

Test OUT, IF, uncontrolled

10 MHz REF in/out

External GNSS antenna

1 Gbit LAN for data transfer and  
remote control:  
I/Q stream (VITA 49), TCP/IP (SCPI)

Anti-theft measures with  
Kensington security slot

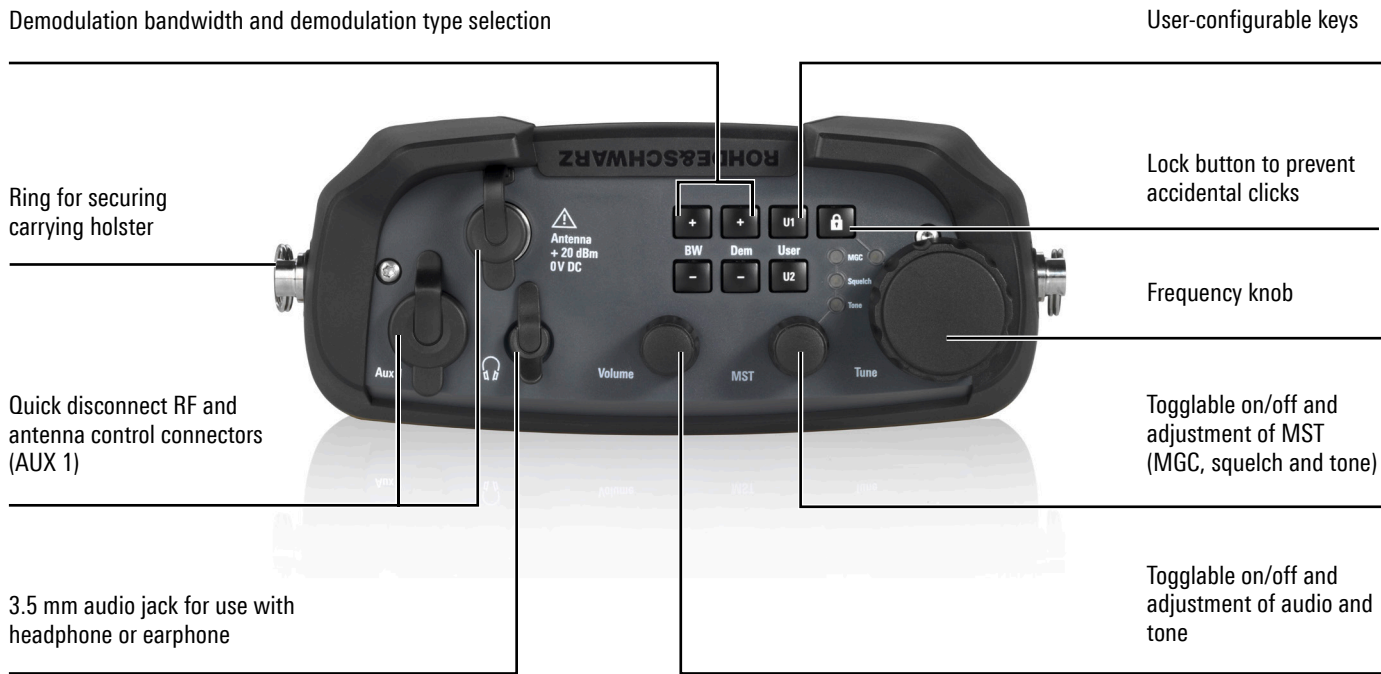
USB connector for external  
storage, keyboard and mouse



The image shows the side panels of the R&S PR200. It features various ports and connectors, including a 1 Gbit LAN port, a USB connector, and a Kensington security slot. The device is shown from a side-on perspective, highlighting its rugged design and connectivity options.



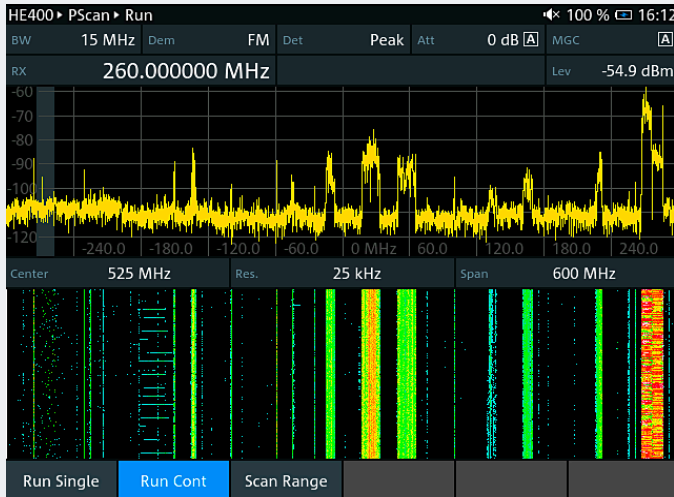
# TOP PANEL



## Right side



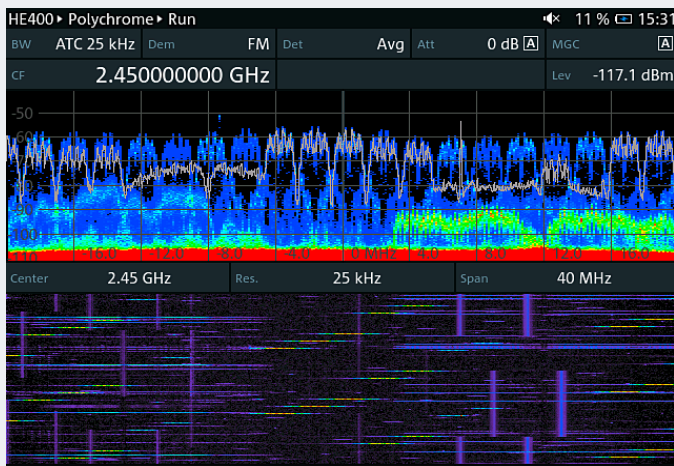
# WIDE RANGE OF TOOL SETS FOR SPECTRUM MONITORING, SIGNAL ANALYSIS AND GEOLOCATION



## Comprehensive analysis tools

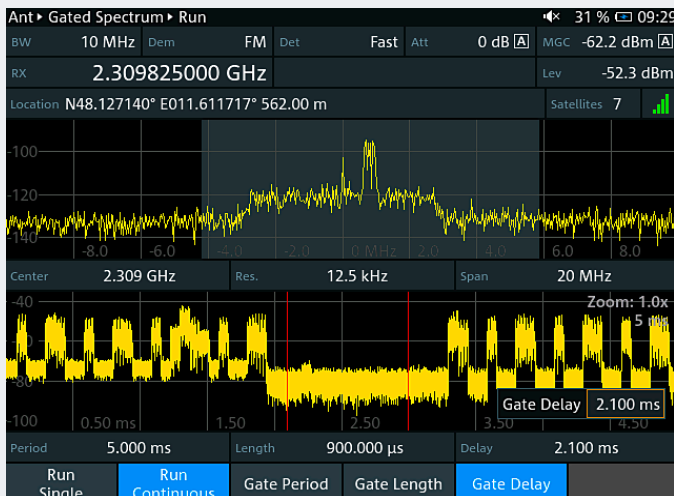
The R&S®CS-PS option offers high panorama scan speed over wide frequency ranges. This is useful for identifying the frequency range of interest for signals originating from an unknown location or identifying the presence of pulsed or frequency agile signals outside the real-time bandwidth.

Fast spectral scan (panorama scan)  
across the entire frequency range,  
including waterfall display.



The R&S®CS-PC option displays a polychrome spectrum to separate superimposed, pulsed signals that cannot be differentiated using conventional methods. Color spectrum schemes indicate how often or how long signals are on air. Cold colors such as blue indicate less frequent/shorter occurrences while warm colors such as red indicate more frequent/longer occurrences.

Polychrome spectrum reveals hidden  
signals that may not otherwise be  
visible.



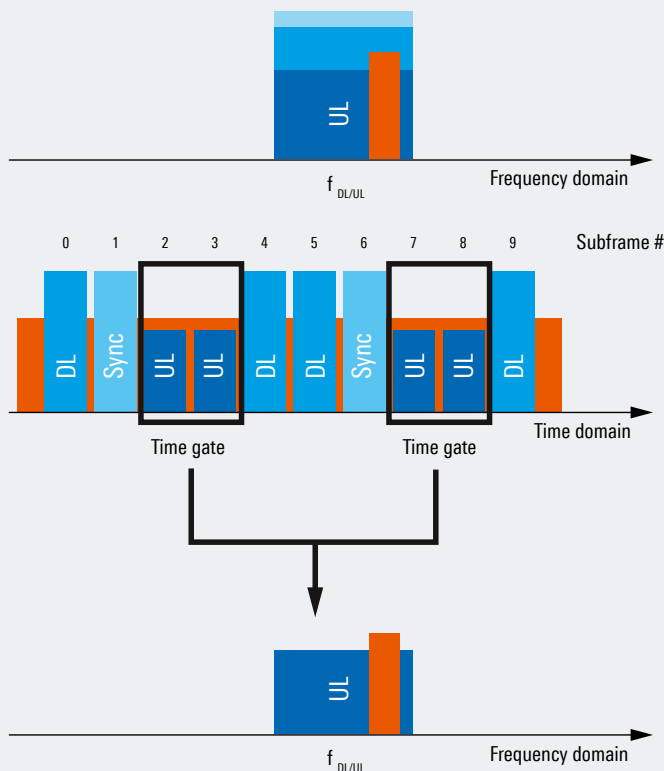
To analyze time division multiplex access (TDMA) signals, such as TETRA, GSM or DECT, or any signals occurring sporadically, signals are displayed in parallel in the time and frequency domain with up to 40 MHz real-time bandwidth.

Parallel time and frequency domain  
analysis with up to 40 MHz real-time  
bandwidth.



### Time-gated trigger for TDD networks

In TDD networks, the uplink and downlink signals use the same frequency. In the frequency domain, the signals appear as one (interference signal shown in red).



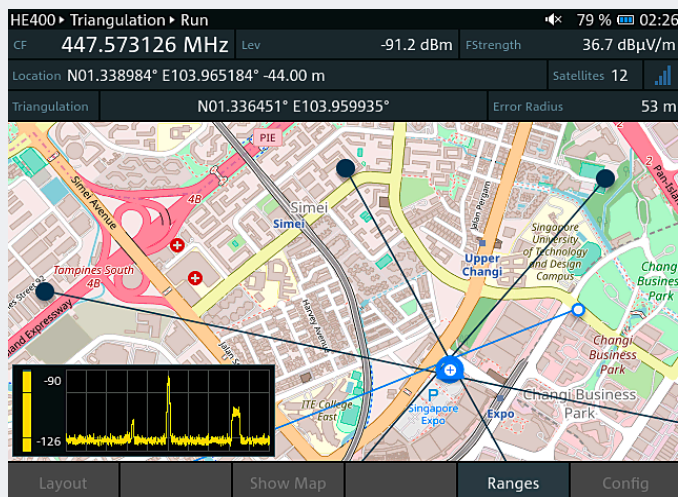
The R&S®CS-ZS option also includes time domain analysis with gated measurements for easy analysis and hunting of interference in TDD networks.

The R&S®CS-IR option allows users to record measured trace, audio and I/Q data for replay, documentation and more detailed analysis.

The R&S®CS-SPM spectral measurements option provides effective interference analysis. It measures leakage power in the adjacent channels, occupied bandwidth and channel power of the signal of interest.

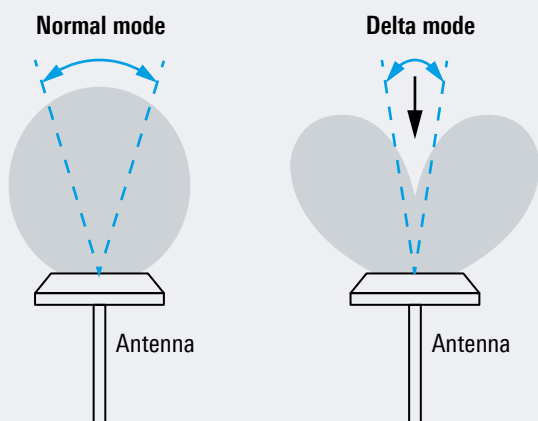
The R&S®CS-MM modulation measurement option is used to measure AM, FM and PM signal parameters in line with ITU recommendations. Measured parameters include the signal modulation index, occupied bandwidth and phase deviation.

The R&S®CS-IQ snapshot, recording and replay option makes it possible to record and replay wideband I/Q signals up to 40 MHz using powerful triggers for capturing and extracting content from short duration signals. In order to reliably capture signals that occur rarely, user-definable trigger masks can be created to eliminate intensive searching through massive amounts of data.



Triangulation based on multiple DF results recorded at several locations.

## Operating modes



R&S®PR200 with dual-mode antenna modules R&S®HE400CEL (700 MHz to 2.5 GHz) and R&S®HE400SCB (1.7 GHz to 6 GHz) for accurate bearings.

## Manual direction finding, triangulation and homing using the R&S®HE400 and legacy handheld directional antennas

The R&S®CS-MAP option provides map display, triangulation and level mapping functions. For all map applications, a convenient integrated spectral view is displayed in addition, allowing users to keep track of the signal during signal hunting. OpenStreetMap (OSM) maps can be easily downloaded using the OSM wizard and transferred to the receiver via an SD card or USB stick. Using the R&S®CS-MAP functions in combination with an R&S®HE400 handheld directional antenna is ideal for applications such as homing, manual direction finding and locating signal sources using the triangulation method. The receiver automatically recognizes all R&S®HE400 antenna modules connected to it. All receiver functions that simplify field operation are available.

When operated with an R&S®HE400CEL cellular or R&S®HE400SCB S/C band antenna module, the receiver can be switched from normal mode to delta mode by pressing a toggle button on the R&S®HE400 handle. This creates a steep notch at the antenna boresight, enabling highly accurate manual direction finding almost equivalent to operation using a Yagi antenna. The two antenna modules offer high directivity over a wide frequency range and eliminate the need to bring along a large number of Yagi antennas to perform signal hunting tasks.

### OpenStreetMap (OSM)

OpenStreetMap (OSM) is a user-editable world map available at the following internet address:  
<http://www.openstreetmap.org/>

OSM is a wiki project in which users can participate by uploading and editing geographical information such as GPS tracking data or the course of a road or river. This world map is growing daily.

OpenStreetMap data can be used freely under the terms of the Creative Commons Attribution-ShareAlike 2.0 license.





R&S®HF907DC SHF directional antenna with built-in battery; available with or without antenna module.

For signal hunting in the microwave range, the R&S®HF907DC SHF directional antenna with a down-converter is used. The R&S®PR200 frequency range is automatically extended up to 18 GHz, with full receiver functionality.

With the R&S®CS-FS option and one of the above antennas, the signal level can be expressed as field strength. The K-factor values of all supported antennas are stored in the R&S®PR200 and are readily available for conversion to field strength. The field-strength values are automatically tabulated and displayed on the receiver.



The tone function outputs a tone with varying pitch or pulse rate representing the received signal level on a headset or built-in speaker to aid homing operations.



The results of up to three level detector measurements can be displayed simultaneously (including field strength).

## Supported Rohde & Schwarz handheld directional antennas

Type	Antenna module	Frequency range	Normal-to-delta toggling
R&S®HE400	R&S®HE400HF	8.3 kHz to 8 GHz	–
	R&S®HE400VHF		
	R&S®HE400UWB		
	R&S®HE400LP		
	R&S®HE400CEL	700 MHz to 2.5 GHz	•
	R&S®HE400SCB	1.7 GHz to 6 GHz	•
	R&S®HE400SHF	5 GHz to 8 GHz	–
R&S®HF907DC		7.5 GHz to 18 GHz	–
Legacy antennas: R&S®HE300, R&S®HE200			



Gesture operation with R&S®PR200 mobile app; available for download on Google Play Store (tablet and mobile phone sold separately).



Setup for mobile direction finding is completed in minutes (R&S®ADD107 antenna and R&S®ADD17XZ3 vehicle adapter with magnet mount).

It is also possible to use a mobile device with gesture control for convenient interference hunting. A mobile phone with an R&S®PR200 mobile app can be easily attached to the antenna handle using a commercial off-the-shelf mobile phone holder. A wireless connection can be set up between the receiver USB port and the mobile phone via an external Wi-Fi router. The mobile app simplifies homing operations and allows users to focus on their tasks.

### Emitter position estimation with signal strength mapping on integrated map display

Connecting the R&S®PR200 to a commercial off-the-shelf omnidirectional antenna and using the R&S®CS-MAP option makes level mapping easy. This setup is ideal for typical applications such as coverage measurements, interference hunting and transmitter range testing.

Coverage measurement with received signal level displayed on a map. As with all map functions, an integrated spectrum view is also displayed, allowing users to keep track of the signal.

### Single-channel correlative interferometer DF method

The correlative interferometer DF method is based on measuring the phase differences between a reference antenna element and the other elements of a DF antenna. A single receiver is used to measure the phase angle  $\phi$  between the signals of the two antenna elements independently of the frequency and phase modulation of the signal to be measured. The phase of one of the two signals is shifted in four steps ( $0^\circ/90^\circ/180^\circ/270^\circ$ ) in a quadrature multiplexer, and the two signals are added after each step. The receiver measures the amplitude of the sum signal after each phase shift. Inserting the four amplitude values obtained ( $A1/A2/A3/A4$ ) into a formula yields the phase angle  $\phi$  between the two signals. This measurement is performed for each antenna element.

Most correlative interferometer direction finders on the market use at least two receivers. The two receive paths must be in phase and need to be calibrated accordingly since otherwise the measurement time will be significantly extended. Additionally, the local oscillator signals need to be multiplied and distributed in-phase. This means that more hardware is necessary than with a single-channel interferometer direction finder: an additional receive path, in-phase multiplication and distribution of the local oscillator signals, a calibration signal generator, calibration signal distribution and an additional cable to the DF antenna for the calibration signal.



While on the move, both the received signal strength and the receiver's GNSS position are collected and saved. Saving is either manually or triggered automatically over distance or time. During data collection, the results are overlaid on the map as a dotted colored track. Different signal strength levels are indicated by different colors.

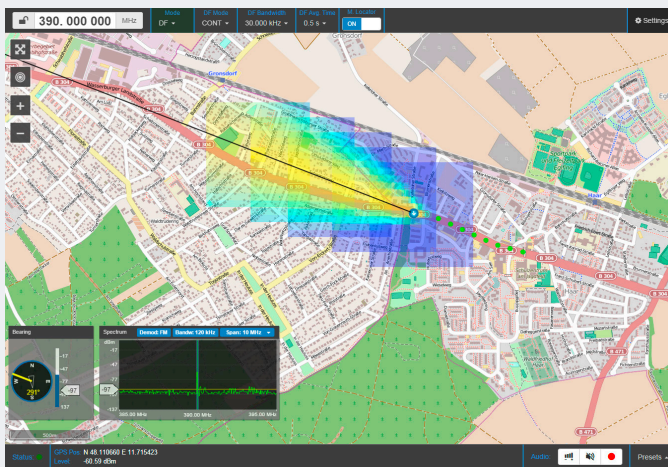
The measured data is saved in CSV format for documentation and post analysis.

### Automatic direction finding and radiolocation with Rohde & Schwarz compact DF antennas and R&S®MobileLocator software

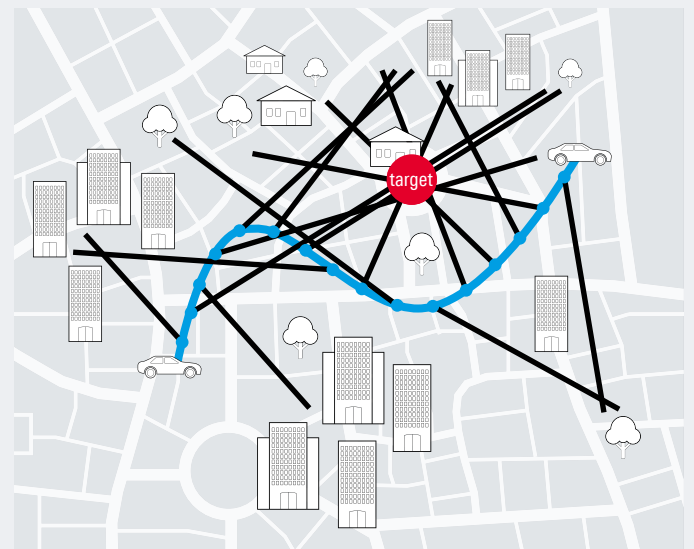
For faster and more precise direction finding, the R&S®PR200 can be easily upgraded and transformed into a high-performance, single-channel direction finding sys-

tem. Using the R&S®CS-DF option and an R&S®ADDx07 compact VHF/UHF/SHF DF antenna, the DF system offers a typical system DF accuracy of up to 1° RMS thanks to the use of the precise correlative interferometer DF method (above 173 MHz) and a multi-element DF antenna. This high accuracy relies on the precise measurement of the phase angles between a reference antenna element and the other elements of the antenna. In contrast to manual direction finding, the R&S®CS-DF option in conjunction with a compact DF antenna can instantly produce bearings of signals from any direction – a prerequisite for locating pulsed and intermittent signals – without the need for rotating a directional antenna.

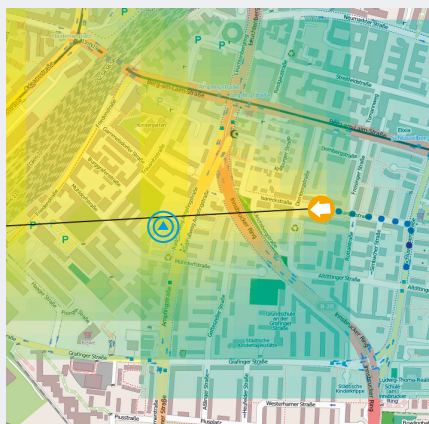
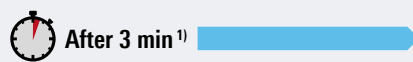
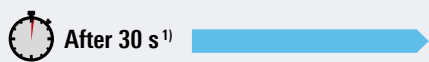
### Principle of a running fix in an urban propagation environment



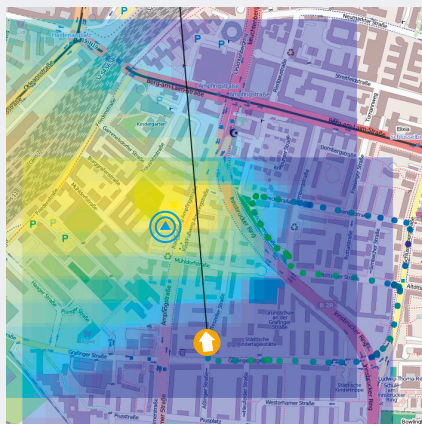
R&S®MobileLocator PC based automatic radiolocation software.



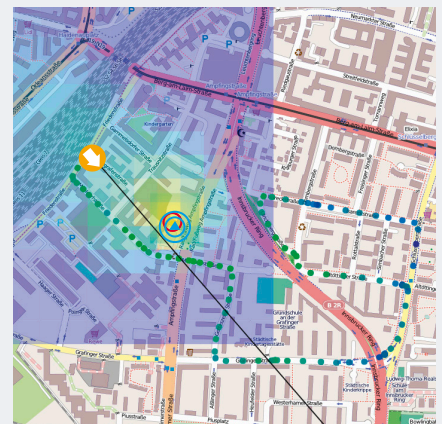
### R&S®MobileLocator




Result after 30 s.<sup>1)</sup>



Approaching the source of interference.



Position fix with 10 m accuracy after 6 min.<sup>1)</sup>

 Position of interferer

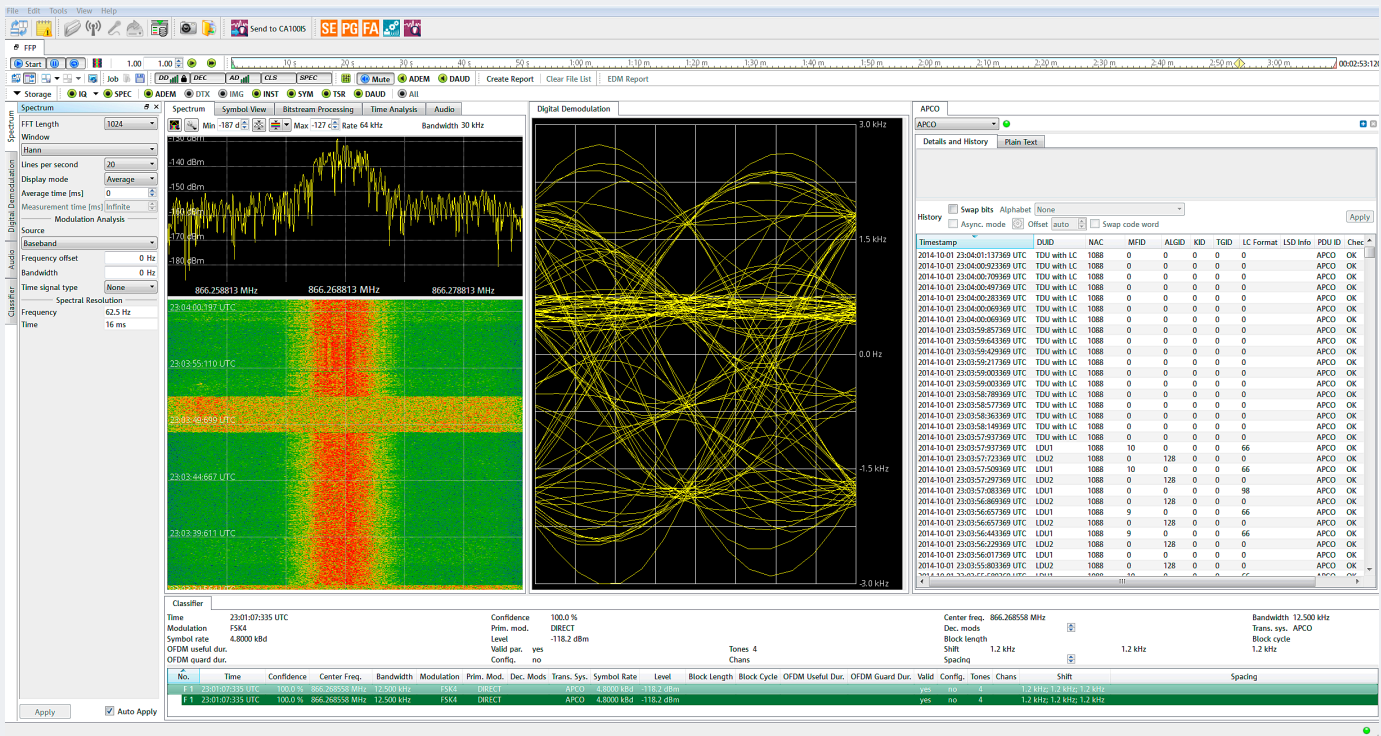
 Mobile direction finder (DF)

<sup>1)</sup> The actual accuracy and processing time depends on the propagation environment.

To eliminate misleading information caused by reflections in urban scenarios, up to 600 DF results per minute are fed from the R&S®PR200 to the R&S®MobileLocator PC based automatic radiolocation software. Sophisticated statistical analysis is applied to discard irrelevant readings, which helps overcome the problem of multipath propagation. The probable location of the emitter is indicated by a red circle that is automatically updated on the map display. With a mouse click, a report in PDF format is generated. The R&S®PR200 based DF system can handle virtually all types of interference, irrespective of bandwidth and modulation type.

Analysis of digitally modulated signals in line with ITU-R SM.1600 using R&S®CA100IS software on a separate PC

The I/Q data streams from the R&S®PR200 can be used for online and offline content recovery and external signal analysis using R&S®CA100 PC based signal analysis and signal processing software. The software incorporates an extensive library of digital and analog modulation modes, including those used in digital personal mobile radios (PMR).



Content extraction from digitally modulated signals, including audio signals, using R&S®CA100 PC based signal analysis and signal processing software.

# SPECIFICATIONS IN BRIEF

## Specifications in brief

Frequency range	base unit	8 kHz to 8 GHz
Preselection	8 kHz to 8 GHz	lowpass, tracking and bandpass filters, combinable
Real-time bandwidth		40 MHz
Attenuation	manual or automatic, switchable	up to 40 dB, in steps of 1 dB, depending on receiver mode
Tuning resolution		1 Hz
Frequency accuracy	GPS aided, averaged over 24 h	$\pm 2 \times 10^{-12}$ , $\pm 1 \times 10^{-12}$ (typ.)
Displayed average noise level (DANL)		typ. -160 dBm (1 Hz)
Third-order intercept (TOI) (at receiver input)	35 MHz < f ≤ 3.3 GHz, low distortion mode	≥ 5 dBm
	3.3 GHz < f ≤ 8 GHz, low distortion mode	≥ -3 dBm
Second-order intercept (SOI)	35 MHz to 8 GHz	> 30 dBm (typ.)
Noise figure	35 MHz < f ≤ 3.3 GHz, low noise mode	≤ 10 dB
	3.3 GHz < f ≤ 5.3 GHz, low noise mode	< 12 dB
	5.3 GHz < f ≤ 7.5 GHz, low noise mode	≤ 17 dB
LO phase noise	35 MHz to 8 GHz	≤ -85 dBc (1 Hz) at 10 kHz offset
Minimum detectable pulse duration, 100% POI	40 MHz span, 1 MHz RBW, 50% FFT overlap	1.5 µs (nom.)
GNSS receiver	modes: off, internal, external	built-in
Dimensions	W × H × D	approx. 192 mm × 320 mm × 62 mm (7.56 in × 12.60 in × 2.44 in)
Weight	including battery	approx. 3.5 kg (7.72 lb)
Battery (lithium-ion, 6 cells)	receive mode	approx. 3.5 h
Power consumption		typ. 16 W

# ORDERING INFORMATION

Designation	Type	Order No.
<b>Base unit (including accessories supplied such as power cable, manual)</b>		
Portable monitoring receiver	R&S®PR200	4500.5002.02
<b>Software options</b>		
Mapping and geotagging application	R&S®CS-MAP	4500.7140.02
Field strength measurement	R&S®CS-FS	4500.7211.02
Timestamp accuracy and external GNSS	R&S®CS-TSA	4500.7170.02
Polychrome spectrum	R&S®CS-PC	4500.7040.02
Panorama scan	R&S®CS-PS	4500.7070.02
Time domain measurement	R&S®CS-ZS	4500.7111.02
Trace recording and replay <sup>1)</sup>	R&S®CS-IR	4500.7240.02
I/Q snapshot, recording and replay <sup>1)</sup>	R&S®CS-IQ	4500.7270.02
Direction finding upgrade <sup>1)</sup>	R&S®CS-DF	4500.7370.02
Modulation measurement for analysis of AM/FM/PM signals <sup>1)</sup>	R&S®CS-MM	4500.7340.02
Spectral measurement <sup>1)</sup>	R&S®CS-SPM	4500.7311.02
<b>External accessories (PC software, add-ons, peripherals, etc.)</b>		
Software option upgrade CD set	R&S®PR200-CD	4500.6950.02
Documentation of calibration values	R&S®CS-DCV	4500.7011.02

<sup>1)</sup> Available on request.



Designation	Type	Order No.
<b>Accessories for power supply and transportation of R&amp;S®PR200</b>		
Cable adapter, ODU-to-Binder	R&S®CS-ZHEX00	4500.5054.00
Car adapter, connector for cigarette lighter	R&S®HA-Z302	1321.1340.02
Battery charger, for R&S®HA-Z306 lithium-ion 6.4 Ah battery pack	R&S®HA-Z303	1321.1328.02
Lithium-ion 6.4 Ah battery pack	R&S®HA-Z306	1321.1334.02
Carrying holster including chest harness and rain cover	R&S®HA-Z222	1309.6198.00
Sun roof and carrying handle, accessory for R&S®HA-Z222	R&S®PR100-AP1	3589.9458.00
Suitcase kit, for R&S®PR200 hard-shell transit case with headphones, telescopic antenna and storage space for R&S®PR200 and mains adapter	R&S®PR100-SC	4071.9258.02
<b>Handheld directional antennas (8.3 kHz to 8 GHz)</b>		
For detailed information on the R&S®HE400 and accessories, see R&S®HE400 Handheld Directional Antenna Family product brochure, PD 3607.3468.12		
<b>SHF directional antenna (7.5 GHz to 18 GHz)</b>		
For detailed information, see R&S®HF907DC SHF Directional Antenna with Downconverter, <a href="http://www.rohde-schwarz.com/brochure-datasheet/hf907dc/">www.rohde-schwarz.com/brochure-datasheet/hf907dc/</a>		



R&S®HE400Z1 transport case



R&S®HA-Z306 battery



R&S®HA-Z222 carrying holster

## Service options

Extended warranty, one year	R&S®WE1
Extended warranty, two years	R&S®WE2
Extended warranty, three years	R&S®WE3
Extended warranty, four years	R&S®WE4
Extended warranty with calibration coverage, one year	R&S®CW1
Extended warranty with calibration coverage, two years	R&S®CW2
Extended warranty with calibration coverage, three years	R&S®CW3
Extended warranty with calibration coverage, four years	R&S®CW4
Extended warranty with accredited calibration coverage, one year	R&S®AW1
Extended warranty with accredited calibration coverage, two years	R&S®AW2
Extended warranty with accredited calibration coverage, three years	R&S®AW3
Extended warranty with accredited calibration coverage, four years	R&S®AW4

Please contact your local Rohde & Schwarz sales office.



R&S®HA-Z302 car adapter



R&S®HA-Z303 desktop battery charger for R&S®HA-Z306 battery



R&S®HE400Z2 transport bag (small)



R&S®HE400Z6 transport bag suitable for R&S®HE400SHF/HE400SCB antenna module

## Service that adds value

- ▶ Worldwide
- ▶ Local und personalized
- ▶ Customized and flexible
- ▶ Uncompromising quality
- ▶ Long-term dependability

## Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

[www.rohde-schwarz.com](http://www.rohde-schwarz.com)

## Sustainable product design

- ▶ Environmental compatibility and eco-footprint
- ▶ Energy efficiency and low emissions
- ▶ Longevity and optimized total cost of ownership

Certified Quality Management

**ISO 9001**

Certified Environmental Management

**ISO 14001**

## Rohde & Schwarz training

[www.training.rohde-schwarz.com](http://www.training.rohde-schwarz.com)

## Rohde & Schwarz customer support

[www.rohde-schwarz.com/support](http://www.rohde-schwarz.com/support)

