

Portable, mobile or stationary radiomonitoring – Rohde & Schwarz has the ideal receiver every time

The selection of radiomonitoring receivers from Rohde & Schwarz satisfies practically all requirements for the detection, localization and display of signals in the frequency range 10 kHz to 3 GHz.

As the successor to the near legendary Receiver EB100, **Miniport Receiver EB200** not only covers the complete frequency range of 10 kHz to 3 GHz but also features important options such as Digi Scan for fast spectrum overview or IF panoramic display for internal IF monitoring up to 1 MHz bandwidth. Computer-aided monitoring is possible with the LAN interface [1]. In addition to stationary and mobile applications, EB200 is designed for **portable use** together with Handheld Directional Antenna HE200. A typical example is

the localization of miniature transmitters in rooms, large buildings or on very difficult terrain that even all-wheel-drive DF vehicles cannot penetrate (FIG 1). In conjunction with Antenna HE200

the receiver's range is typically 2 to 3 km. Even without an external power supply but with just a battery pack, a fast overview of the frequency spectrum is obtained in Digi Scan mode.



FIG 1
Miniport Receiver
EB200 in use
Photo: Dörre

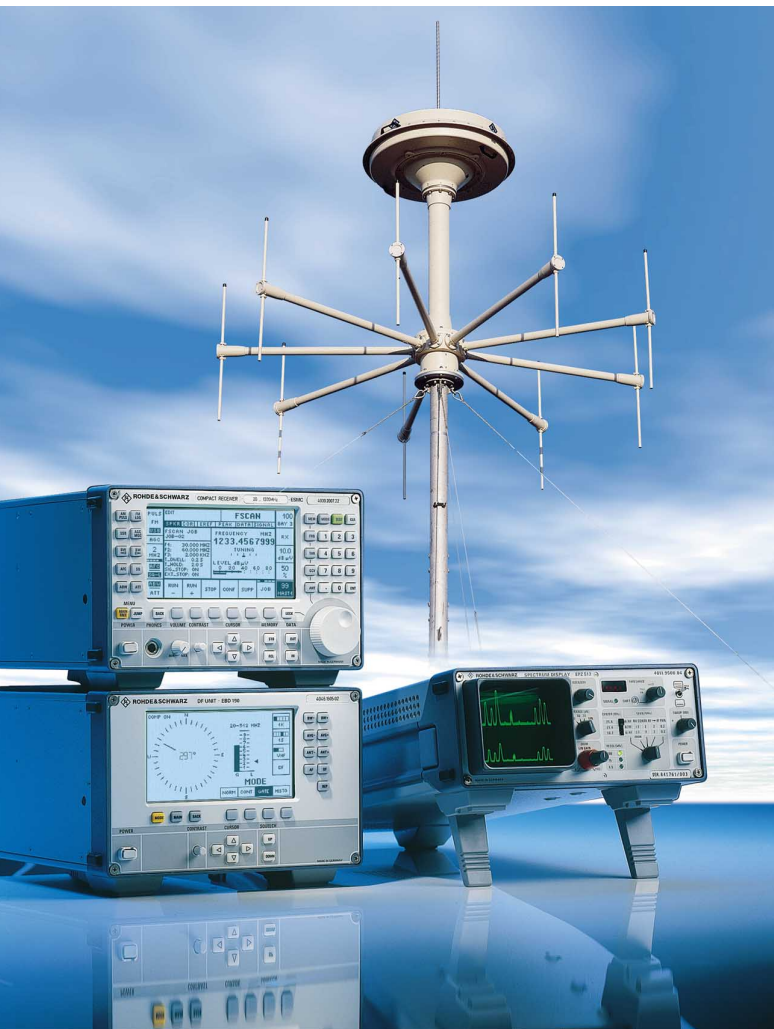


FIG 2
In conjunction with VHF-UHF Direction Finder DDF190 and Spectrum Display EPZ513, Receiver ESMC forms a convenient VHF-UHF monitoring system. Photo 43 150/6

The differential mode of the Digi Scan option allows localization of miniature transmitters at close range. When the mode is called up, the displayed spectrum is stored as a reference. As you move, the field strength of transmitters at close range varies to a greater extent than that of transmitters located far away. Current spectra are superimposed on the reference spectrum, and any new signals or variations in signal strength are clearly discernible as peaks. The highly sensitive amplifier integrated in the antenna handle can detect even the weakest emissions.

Civil applications of EB200 are the tracking of interference in radiotelephone networks (eg taxi, air traffic control or government communications), coverage measurements in individual

cells of a mobile radio network or the detection of spy transmitters (bugs). The frequencies of these bugging devices can be anywhere between a few kHz and GHz, and EB200 is the only receiver that can detect them by determining their frequency and location. It moreover enables military signal search and frequency monitoring.

VHF-UHF Compact Receiver ESMC [2] is by contrast not designed for battery-powered portability but for **mobile and stationary applications** (FIG 2). AC or DC sources (10 to 32 V) can be used to power it. It differs from the lower-cost EB200 in terms of its superior RF characteristics such as sensitivity, linearity and immunity to interference. This is very important for operation on stationary antennas. In the Analog Scan

mode (option ESCM-AS), which is an extremely fast frequency scan at a speed of 13 GHz/s with spectrum display, it can also detect frequency-hopping signals. The technical features of ESMC also make it suitable for mobile use in vehicles. In this case the small EB200 can be used as a handoff and monitoring receiver.

As the nucleus of computer-controlled systems for fast and efficient radio-monitoring with special functions for scan replay and statistical evaluations, **VHF-UHF Search Receiver ESMA [3]** is ideal for **purely stationary operation**. Its outstanding features include tracking preselection, an oven-controlled and extremely accurate reference crystal and a high-speed synthesizer with tuning time faster than 150 μ s.

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Reader service card 161/12 (EB200), 161/13 (ESMC), 161/14 (ESMA)