

Radio monitoring becomes quick and precise with portable receiver from Rohde & Schwarz

■ Munich, 21 January 2008 — The R&S PR100 from Rohde & Schwarz is the only portable receiver specifically tailored to worldwide requirements of mobile radio monitoring. Its wide frequency range from 9 kHz to 7.5 GHz makes it suitable for diverse applications such as radio reconnaissance, locating interference sources, and frequency monitoring. Despite its compact size, the R&S PR100 offers high sensitivity and a scan speed of up to 2.0 GHz per second. This enables regulatory authorities, industry, or armed forces to capture even weak or short-term signals.

Featuring real-time bandwidth of up to 10 MHz and powerful digital signal processing capabilities, the R&S PR100 can intercept short-term signals such as those emitted by short-haul radio modules or military radios using frequency-hopping techniques. Because intercepted data is continuously buffered during scanning, no signals are lost during data processing. Stored activities can be displayed with a waterfall diagram. This means that even signals that are no longer being transmitted can be analyzed while the operator optimizes the receiver settings for the short-term signal being monitored.

The IF bandwidth of the R&S PR100 ranges between 10 kHz and the 10 MHz maximum visible real-time bandwidth. As a result, the receiver can be adapted to handle a variety of radio services such as air traffic control, shortwave, TETRA, or UMTS. IF bandwidth can be selected independent of demodulation bandwidth. This allows the operator to demodulate an audio signal, store it and – at the same time – intercept signals across the set IF bandwidth. As a result, no signals are lost during demodulation. Moreover, the differential spectrum display lets the operator compare stored frequency occupancies with signal activities currently being received. Any differences will be shown in the differential spectrum. This feature makes it possible to track illegal transmitters such as bugs without a major analysis effort.

The R&S PR100 processes both analog and digital signals. Digitally modulated radio signals such as TETRA, Packet Radio, or Pactor III can be demodulated in the baseband with an I/Q demodulation bandwidth of up to 500 kHz and stored on an SD card in real-time. After completing a mission, data stored on the SD card can be transferred to an external PC via USB or LAN or the SD card itself. Recorded digital emissions such as Pactor III can then be analyzed offline by means of the R&S GX430 analysis software.

The portable receiver may also be deployed for unmanned operation because it can be fully remote-controlled via its LAN interface – as part of a stationary radio monitoring system, for example. This makes it possible to install a full-coverage monitoring network on a comparatively low budget. Moreover, the R&S PR100 can perform automatic functional tests quickly and easily – on radio equipment, for example – because the receiver settings for a variety of signal and frequency scenarios can be directly stored on the SD card and recalled as needed. Airport operators, police, government authorities, and other security organizations can perform continuous checks to ensure the proper functioning of their radio systems. Even better, the R&S PR100 does not require having a service technician on site in order to perform a functional test: The receiver is first set to one of its predefined operating states and then a test sequence is played back in the radios to be tested.

Weighing only 3.5 kg and boasting an operating time of approximately four hours, the R&S PR100 is ideal for locations that cannot be accessed with DF vehicles – in particular, inside buildings. When used in conjunction with the R&S HE300 active directional antenna from Rohde & Schwarz, the portable receiver locates, for example, emergency transmitters or interfering pulses being emitted by defective electronic equipment that can impair the reception of regular radio signals. The R&S PR100 has been optimized for radio monitoring tasks. With its large display, straightforward menu structure, menu-specific soft key labeling, and fast navigation, the receiver is extremely convenient to operate.

The R&S PR100 portable monitoring receiver is available now from Rohde & Schwarz at a starting price of US\$17,400 (base unit).

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Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radio monitoring and radio location, as well as secure communications. Established 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. It has approx. 7200 employees and achieved a net revenue of € 1.4 billion (US\$ 1.9 billion) in fiscal year 2006/2007 (July 2006 to June 2007). Company headquarters are in Munich, Germany.

All press releases are available on the Internet at <http://www.press.rohde-schwarz.com>.

A press photo for download is also provided there.