

R&S®CEPTOR – THE MILITARY SPECTRUM MONITORING SOLUTION

Communications and information sharing are key success factors for military operations. Ever increasing number of remotely operated systems, sensors and distributed systems. Coordinating and controlling all these moving parts requires wireless communications, but the electromagnetic spectrum is becoming more and more congested. Spectrum superiority ensures reliable communications when and where it is needed.



Rohde&Schwarz has carried out significant development to help military users easily monitor and measure spectrum use at different times and locations. Test and verify your own equipment in real-world scenarios, resolve interference problems and gain an awareness of your own emissions (EMCON) with software that combines all the required functions in a single platform, the R&S®CEPTOR software suite. R&S®CEPTOR gives spectrum monitoring specialists the online and offline operational capability to understand and characterize the electromagnetic spectrum.

R&S®CEPTOR greatly assists in the discovery, interpretation and reporting of signals of interest (SOI). The software aggregates functions such as signal alerts, static and mobile SOI geolocation, recording and analysis, sensor network management and SOI data reporting in a single application.

Real-time spectrum awareness

R&S®CEPTOR provides a real-time picture of the electromagnetic spectrum and can catalog any emission between 8 kHz to 8 GHz in combination with the R&S®PR200 portable monitoring receiver or R&S®UMS400 universal monitoring system. Spectrum managers can import existing transmitter lists to pre-populate the database and automatically differentiate blue emitters from red and gray emitters. Additionally, users can configure automatic workflows in R&S®CEPTOR to classify, demodulate and direction finding (DF) when a signal of interest appears.

Pattern of live analysis

R&S®CEPTOR catalogs every emission in the search bands so that an operator can easily see when an emitter is on and for how long. This can be helpful when trying to determine if your own emissions are exposing blue force maneuvers. R&S®CEPTOR provides EMS operators the ability to identify indicators related to the electromagnetic spectrum to effectively identify what information the enemy can see.

Application Card | Version 01.00

ROHDE & SCHWARZ

Make ideas real



Future-proof tool

Rohde & Schwarz has provided solutions that support electronic support and attack as well as military intelligence missions for over 30 years. R&S®CEPTOR brings together these tools in a unified platform.

Capabilities

Decision makers require a quick, clear understanding what is happening within the electromagnetic spectrum. R&S®CEPTOR was designed from the outset with this in mind. Easy operation and quick results are the design philosophies underpinning the software with its clean, intuitive graphical user interface (GUI). The GUI lets local and remote sensors supporting data collection to work in the background while other tasks are completed with or without operator intervention.

The GUI supports tactical missions to gather information on SOIs or emitters of interest (EOI) regardless of whether the deployed force is static or maneuvering. High resolution RF scanning, automatic SOI detection and classification, SOI alarms, monitoring of analog voice communications traffic and SOI direction finding and geolocation are all missions R&S®CEPTOR supports.

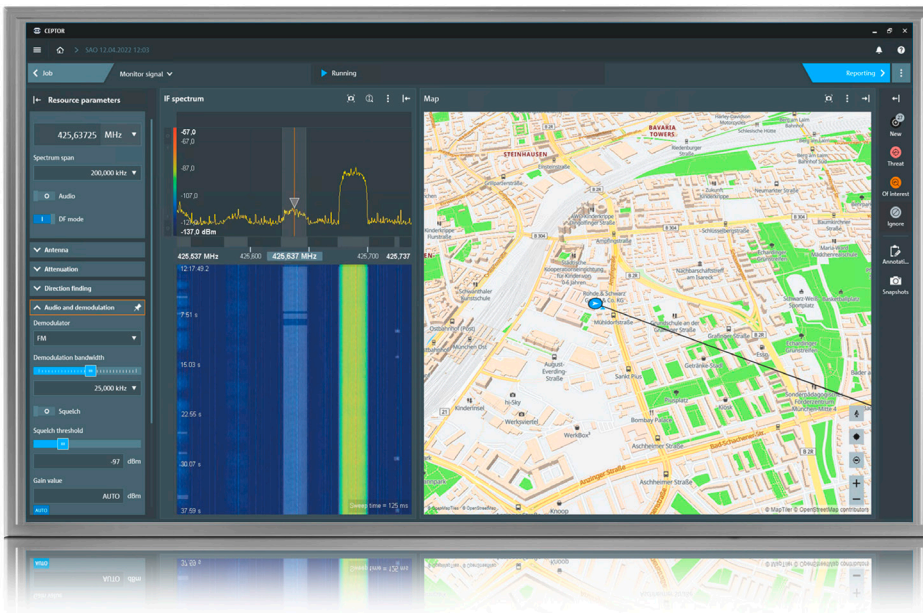
The workflow is structured around identification, execution and completion of tasks. A specific task is initially defined by basic parameters such as frequency range, SOIs or emitters of interest (EOI). The task is executed and its results are reviewed before being recorded as a report. The report can then be disseminated or stored by the software until the operator decides it can be deleted.

Users can configure R&S®CEPTOR to automatically perform certain tasks such as automatic signal monitoring, which monitors EOIs whenever they are active.

R&S®CEPTOR is powered by the RF performance of the R&S®PR200. This high-performance portable monitoring receiver can effectively help identify undesired signals in the shortest possible time and greatly reduce the effort required to locate them. The R&S®PR200 is a perfect balance of RF performance, speed, SWaP and usability that addresses the challenges of spectrum monitoring and emitter geolocation.

Easing your workload

R&S®CEPTOR greatly eases the work of military or civilian operators tasked with detecting, locating, analyzing and reporting on emitters and signals of interest. A user-friendly, intuitive GUI unburdens operators by planning and executing tasks in a clear, logical fashion. R&S®CEPTOR can manage a dense and complex network of sensors feeding data into the software and rapidly share analyzed data with those who need it. Government, armed forces and private sector users all benefit from the peerless capabilities R&S®CEPTOR offers.



R&S®CEPTOR signal monitoring mode with live bearing line display on geographic map.

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R&S®CEPTOR – The military spectrum monitoring solution
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