



RHEINMETALL CERES 2.0

TACTICAL SATELLITE COMMUNICATION MONITORING

SOLDIER-PROOFED SATCOM MONITORING SYSTEM

Tactical surveillance is critical to military operations because it provides real-time information about hostile groups and the terrain. This information enables commanders to make informed decisions, coordinate troop movements and avoid surprises. The challenges lie in the fast speed of modern conflicts, the difficulty of gathering reliable information in complex and difficult environments, and the risk of surveillance units being detected and attacked. Passive SatCom Monitoring improves situational awareness and can increase the safety of the brigade.

SOLUTION

To meet these challenges, Rheinmetall offers a light, soldier-proofed, robust, turnkey solution to quickly cover specific areas of interest for military and civilian intelligence. Rheinmetall CERES 2.0 is highly flexible – it can be used as mobile device during movement or fully integrated into any kind of vehicle, e.g., drones, tanks or vessels. Depending on the topography, the system can detect communication content as well as data and positions of intercepted SatCom users within 10–200 km. Data is transmitted in real time through encrypted communication channels and can be seamlessly forwarded to the command center via dedicated interfaces.

The system operates independently of public network connections and is fully passive. This eliminates the risk of detection.

The system's flexible deployment can improve troop safety and provide valuable input for tactical and strategic surveillance.

PRODUCT OVERVIEW

Rheinmetall CERES 2.0 combines specialized antennas and a receiver that are able to receive signals from SatCom providers such as THURAYA, INMARSAT (IsatPhone and BGAN) and IRIDIUM. This enables the identification of users and the precise geolocation of their signals within the operational radio spectrum.

This tactical monitoring system is enhanced by signal processing software that decodes and analyzes incoming signals, transforming them into actionable data. All processing occurs in real time on the device and remains fully passive. With Rheinmetall CERES 2.0, intelligence on an area of interest can be generated in the shortest possible time, and – if needed – the collected data can be transferred to higher-level strategic intelligence via an export interface.



Higher security through real-time monitoring



Detailed analysis of communication streams and transmission of position data



Robust hardware and soldier-approved monitoring



Simple integration and user-friendly



Fully passive monitoring



Scalability and adaptability to cover multiple SatCom systems



WHAT DO WE DO?

Trusted advisor

Rheinmetall sees itself as a trusted advisor for all customers and supports the selection of the necessary infrastructure and systems on the basis of customer requirements.

System demonstration

In order to prove the performance and reliability of the tactical system, Rheinmetall will be demonstrating the system on demand.

Integration support

Depending on customer requirements, Rheinmetall pre-installs the systems for integration into various vehicles and portable equipment (e.g. Pelicase) or supervises their installation.

Training

Rheinmetall enables users to use the system effectively despite different levels of technical knowledge.

Customer service

Rheinmetall offers fast help with technical problems and regular maintenance.

Development

Rheinmetall is constantly investing in its products and processes in order to keep pace with technological advances and new threats.

WHAT WILL YOU GET?

Complete system solution

Rheinmetall supplies a complete, turnkey system that includes all the necessary hardware and software components. This includes the antenna, the receiver, a ruggedized notebook and software for signal processing and real-time decoding.

Smart antenna

The scope of delivery includes a smart antenna for different application scenarios, which can monitor the signals from THURAYA, INMARSAT (IsatPhone and BGAN and IRIDIUM). The antenna can also be supplied in a version designed for maritime environments.

Automated processes

Rheinmetall Ceres 2.0 seamlessly merges the corresponding uplink and downlink L-band sessions.

Multiple installation options

The system can be mounted on a variety of platforms – cars, vessels, tanks and drones and more – enabling rapid deployment to areas of interest.

Modular design

With its adaptable design, Rheinmetall Ceres 2.0 can easily adjust to evolving SatCom monitoring requirements and integrate efficiently with existing Rheinmetall data analysis solutions.

Get in touch

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