

# SENSITIVE AREA PROTECTION

Increasing public safety and privacy through proven counter drone and cellular network analysis solutions.



**ROHDE & SCHWARZ**

Make ideas real





# ARDRONIS

## DRONE DEFENSE TECHNOLOGY THAT ENHANCES SAFETY AND SECURITY.

### DRONE IDENTIFICATION AND LOCALIZATION

The demand for highly efficient and reliable drone defense solutions is stronger than ever. Companies and government institutions around the world with the highest security requirements rely on Rohde&Schwarz for their drone defense systems.

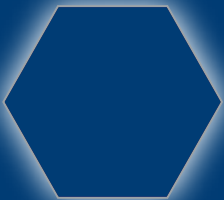
The Rohde&Schwarz ARDRONIS counter drone solution uses various sensors and defense technologies to secure the airspace around critical infrastructure facilities against unauthorized UAVs. The number sensors and the size of the array can be custom configured to meet security requirements and the threat level on site. ARDRONIS offers efficient protection against the threat posed by hostile drones.

ARDRONIS detects commercial drone activity and automatically classifies the type of drone signal, determining the direction of the drone and its pilot, and (on command) disrupts the radio control link to prevent the drone from reaching its target.

ARDRONIS combines leading Rohde&Schwarz sensors to form a reliable, high-performance solution to secure a predefined airspace against drones. Highly sensitive antennas and monitoring receivers collect RC drone signals.

### KEY BENEFITS

- ▶ **Early warning**  
ensuring an effective response, including jamming and pilot geolocation.
- ▶ **Precise detection and localization**  
enabling a rapid, effective response to the drone and the pilot.
- ▶ **Easy-to-use-system**  
allowing fast and efficient operations for security personnel.



# ARDRONIS AND R&S®NESTOR

## RELIABLE SURVEILLANCE AND INTERVENTION SOLUTIONS FROM ONE SOURCE.

### PROTECTING SENSITIVE AREAS

The ability to detect drones and simultaneously analyze the surrounding cellular network is a major advantage, especially when protecting critical infrastructure such as embassies and government buildings from drones carrying rogue base stations.

Customers can combine ARDRONIS and R&S®NESTOR from Rohde&Schwarz to benefit from both solutions and use them against threats.

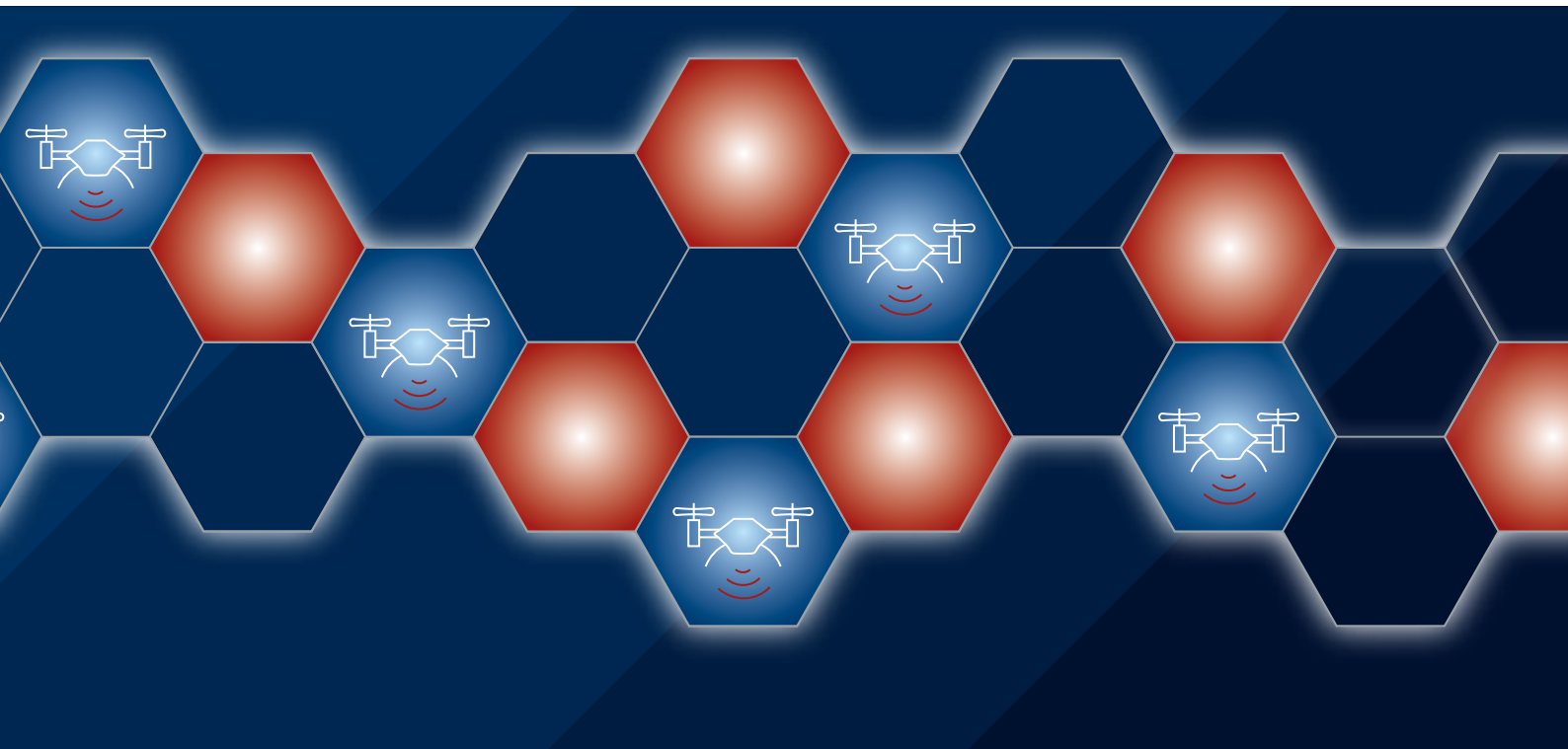
If both systems are operated at the same time, hostile UAVs can be tracked down by locating misconfigured cells in mobile radio networks. Conversely, rogue base stations can be identified by detecting the RF signal of the drone they are mounted on.

Early warning from ARDRONIS and the long range of R&S®NESTOR NESTOR means that threats can be identified even earlier and more effectively than ever.

ARDRONIS and R&S®NESTOR let users and operators take effective measures to prevent drone use or physically intervene in their operation, ensuring effective protection for critical infrastructure assets and reliably securing their airspace.

### KEY BENEFITS

- ▶ **Lifetime support and services** from a **single source** significantly reduces maintenance management effort by providing one point of contact
- ▶ **Reliable partnership** for integrating tomorrow's technology into today's infrastructures
- ▶ **Highest quality and safety standards** through a strict security-by-design approach for all mission-critical components



# R&S®NESTOR

## HIGH-LEVEL SOLUTION MAKES MOBILE RADIO NETWORKS VISIBLE.

### BASE STATION ANALYSIS

Rogue base stations are a threat to network integrity and thus pose a high security risk. R&S®NESTOR, the Rohde&Schwarz cellular network analysis solution, detects and locates misconfigured cells in mobile radio networks.

R&S®NESTOR recognizes irregularities in the surrounding network and alerts users early on. Suspicious cell analysis can be performed from a stationary position with a single system, with several networked stations or via mobile operation. R&S®NESTOR supports efficient information gathering in cellular networks and enables base station analysis.

R&S®NESTOR cellular network analysis software is the heart of the Rohde&Schwarz CNA portfolio. Not only does it control Rohde&Schwarz mobile network scanners, it analyzes, evaluates and visualizes the results.

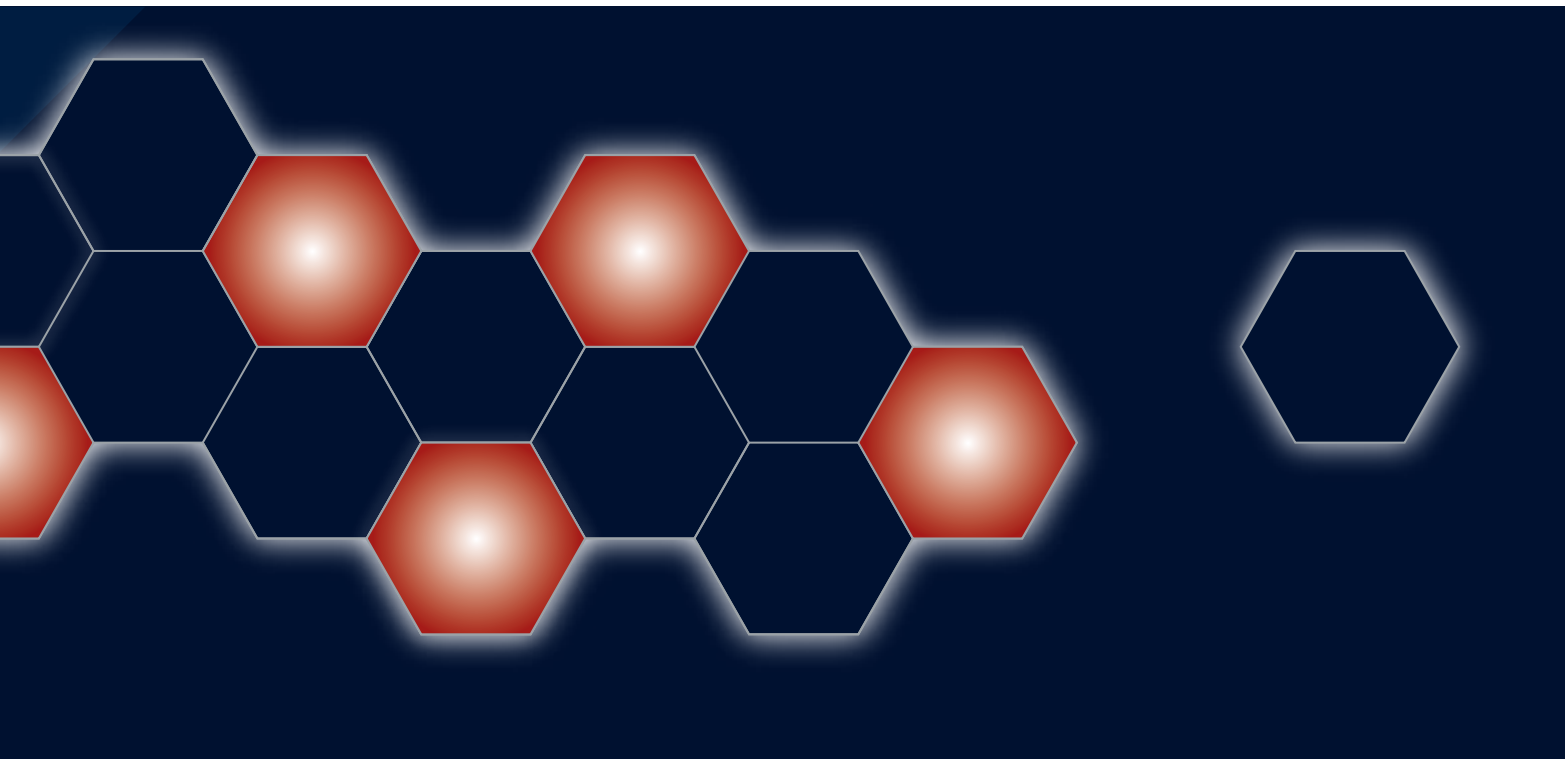
R&S®NESTOR supports all of the applications that public authorities and security organizations need to gather

information about cellular networks. It can be deployed in motor vehicles, trains, aircraft, drones, ships or installed on a handheld solution.

The highly efficient software offers real-time analysis during data acquisition as well as recordings of measurements for in-depth post-mission analysis. Its application-oriented user interface offers intuitive operation for even the most complex tasks that public authorities require.

### KEY BENEFITS

- ▶ **Real-time Analysis**  
during data acquisition provides immediate data to the user.
- ▶ **User-friendly interface**  
can be operated via touchscreen and/or mouse.
- ▶ **Intuitive usability**  
enables efficient data collection and investigation.
- ▶ **Data postprocessing**  
enables in depth analysis.



# ENSURING THE HIGHEST LEVEL OF SECURITY

Critical infrastructure such as refineries, ports, nuclear power plants, government buildings, embassies and other public security facilities have very high security standards. Nevertheless, drones and rogue base stations pose a significant risk to these entities. Ensuring the highest level of security at these locations is paramount.

Drones can pose threats in the form of intentional attack, sabotage, damage to critical infrastructure, as well as spying on employees, visitors or work processes, among others. Rogue base stations are a threat to network integrity because they force phones to connect with them, compromising the phones and violating the privacy of individuals and communications integrity within the area of interest.

A combination of both technologies poses an even greater threat: rogue base stations mounted on UAVs collecting data overhead in sensitive areas. When drones are equipped with rogue base stations, the potential search area for the base station is much larger and the ability to simultaneously detect and analyze both the drone link and the surrounding cellular network is crucial.

Rohde&Schwarz technologies offer absolutely secure and reliable solutions to protect national infrastructure facilities for government and civil security organizations. These technologies ensure timely detection, identification and classification to assess and avert dangerous situations posed by drones, rogue base stations or a combination of both.



## Service at Rohde & Schwarz You're in great hands

- ▶ Worldwide
- ▶ Local and 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 90 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

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