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AUTOMATIC DETECTION, LOCATION AND MITIGATION OF WI-FI DRONES

Solution overview

AUTOMATIC DETECTION, CLASSIFICATION, LOCATION AND MITIGATION OF DRONES USING WIRELESS LAN

ARDRONIS Wi-Fi is the solution in the ARDRONIS family for detecting and mitigation of drones and remote controls using wireless LAN (ISM bands 2.4 GHz, 5.,2 GHz & 5.8GHz). ARDRONIS Wi-Fi detects drones by their Wi-Fi communication protocols and displays an approximate direction of the detected signal. The video links from selected drones can also be displayed in a live view. ARDRONIS Wi-Fi identifies the drones by using information provided by their transmitted Remote ID, which is subject to national regulations. Depending on the national regulations, the Remote ID includes information such as its unique identifier, GNSS location, speed and altitude. Mitigation measures to interrupt the connection between a specific pilot and drone is an additional option available for the ARDRONIS Wi-Fi.

Benefits:
► Fully automatic high-speed detection/classification of drones using wireless LAN
► Automatic identification by decoding transmitted Remote ID
► Targeted mitigation measures to interrupt specific drones without disturbingother Wi-Fi users
► Early warning while drone is still grounded

Displayed system based on
► ARDRONIS Wi-Fi receiver station
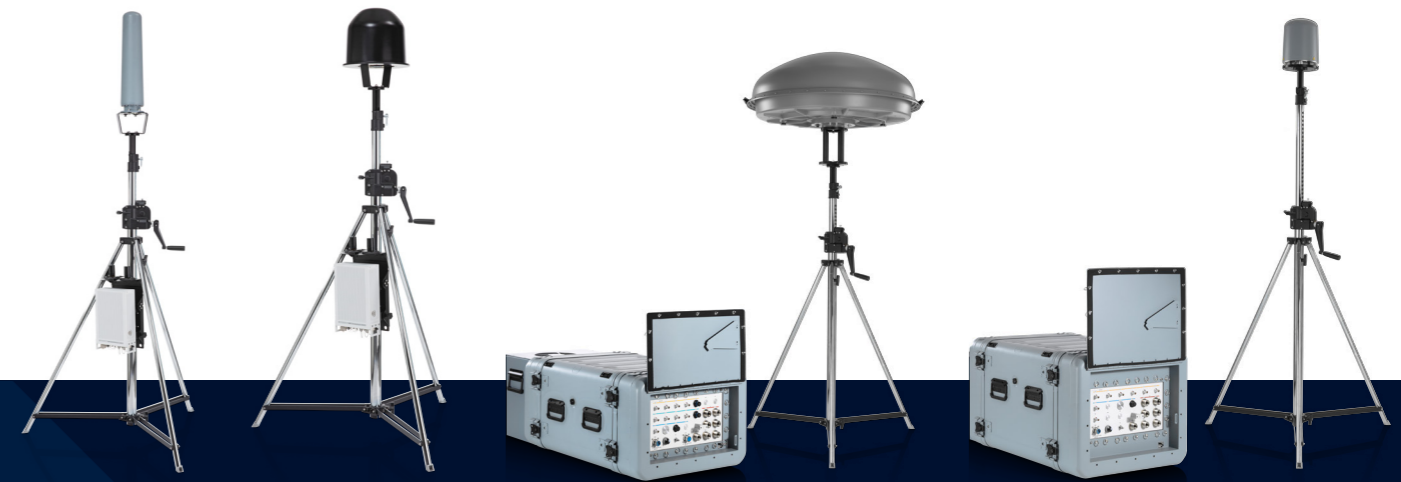► ANTENNAS L-COM high-gain directional Wi-Fi antennas

► **Detection of Wi-Fi drones:** ARDRONIS Wi-Fi can detect commercially available Wi-Fi drones by their MAC address and communication protocols.
► **Location of Wi-Fi drones:** ARDRONIS Wi-Fi can locate the sector a Wi-Fi signal is transmitted from and identify spoofing attempts.
► **Identification of Wi-Fi drones:** ARDRONIS Wi-Fi can identify drones by the transmitted Remote ID. Transmitted information such as drone identification number, GNSS drone location, speed and altitude and also transmitted information about the pilot location are displayed. This tool is ideal for government services charged with air policing and identification of friendly drones in a multi threat scenario. Transmitted Remote ID information is subject to national regulations.
► **Early warning:** Early warning is key to countering any threat. ARDRONIS Wi-Fi detects Wi-Fi signals even before drones take off. Early warning alone often ensures an effective response, such as pilot interception.

► **Flexible operating environments:** The option of using sector or omni antennas as well as the solution's low power consumption is ideal for any operating environment. ARDRONIS Wi-Fi can be handled and operated by a single person and integrated into permanent structures such as airports, borders or prisons.
► **Weatherproof:** ARDRONIS Wi-Fi can be deployed across a wide variety of operating environments, with environmental ratings of IP65, a temperature range from -30°C to 55°C and maximal operating altitude of 5000m.
► **Future-ready:** The solution supports future software upgrades and optional add-ons, pan-tilt control and decoding functionalities. The signal database is frequently updated with service packs.
► **Open interface:** An open interface enables integration into multivendor and multisensor solutions, making ARDRONIS particularly attractive to system integrators.

ARDRONIS Wi-Fi
► detect/identify Wi-Fi drones
► disruption of Wi-Fi drones

The complete ARDRONIS family

ARDRONIS Detect
► detect / identify

ARDRONIS Locate Compact
► detect / identify
► locate / track drone

ARDRONIS Locate Advanced
► detect / identify
► locate / track drone and pilot

ARDRONIS Effect
► detect / identify
► disruption

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► Uncompromising quality
► Long-term dependability

Rohde & Schwarz

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Sustainable product design

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► Energy efficiency and low emissions
► Longevity and optimized total cost of ownership

Certified Quality Management	Certified Environmental Management
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Information Security Management System	Certified Quality Management
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