

Ombra Group: Radio Frequency Edge-Alert Unit (EA8)

The Ombra Group Radio Frequency Edge-Alert Unit (Model EA8) represents a paradigm shift in Signals Intelligence technology, providing unparalleled capability for real-time, passive analysis of the radio frequency spectrum. Designed to be the most advanced system available today, the EA8 offers continuous, 24/7/365 monitoring across a vast frequency range (10MHz – 6GHz).

Its core function is to simplify the complex landscape of the electromagnetic spectrum, automatically identifying and highlighting potential threats in an easily understandable manner through an intuitive Coefficient of Risk (CoR) metric.





Key Features & Specifications



Extensive Monitoring

Monitors spectrum from 10 MHz to 6 GHz with high-speed sweep rate of 6 GHz per second



Portable Design

Lightweight (2 lbs/1 kg) and compact with simple installation and calibration-free operation



Advanced Detection

Automatic information decoding for drones, Bluetooth, Wi-Fi, and fake BTS detection with continuous 24/7/365 signal recording

Unlike traditional spectrum analyzers requiring skilled operators and manual interpretation, the EA8 autonomously listens to, parses, evaluates, and geolocates collected radio signals. By leveraging advanced Software Defined Radio broadband receivers and proprietary algorithms, it distinguishes between genuine and suspicious RF activity.

Modular Architecture

AVA (Aerial Vehicle Analyzer)

Monitors and analyzes air traffic by listening to ADS-B Mode S and ASTM ASD-STAN protocols. Identifies all aircraft and UAVs, including drone controller locations. Features user-definable geofencing capabilities to alert when aerial vehicles enter restricted areas.

FSA (Frequency Spectrum Analyzer)

Provides comprehensive monitoring of the entire 10MHz – 6 GHz frequency range. Observes power emissions across the spectrum using a novel, patent-pending 3D model waterfall display that enhances the operator's ability to identify subtle and potentially suspicious signal patterns.

WDA (Wireless Device Analyzer)

Detects and analyzes short-range wireless communication protocols. Listens to and parses Bluetooth Low Energy and Wi-Fi signals, identifying various wireless devices using patent-pending fingerprinting techniques to detect AirTags, AirPods, SmartTags, and similar devices.

MCA (Mobile Cell Analyzer)

Monitors and analyzes cellular network activity by parsing GSM, UMTS, LTE, and NR protocols. Compares configurations broadcast by legitimate network operators against detected signals to automatically identify fake cell sites (IMSI/IMEI catchers).

Intuitive User Interface & Risk Assessment

GREEN

Indicates data identified as genuine with no associated risk. These are normal and expected RF signals within the environment.



YELLOW

Signals a potential anomaly or suspicious warnings. This category warrants further investigation as it may indicate unusual activity requiring closer scrutiny.

RED

Represents the detection of dangerous or highly suspicious signals. This category signifies a potential threat requiring immediate attention and action.

The EA8's user interface is meticulously designed to present complex RF data in a clear, concise, and actionable manner for users of all technical levels. In addition to real-time risk assessment, the software provides detailed reports on both current and historical RF activity, enabling trend analysis and comprehensive post-incident investigation.

Key Benefits



Continuous Surveillance

Provides 24/7/365 monitoring, ensuring constant vigilance against illicit surveillance devices and unauthorized RF activity.



Geolocation Capabilities

Automatically decodes geographical positions of detected threats, providing precise GPS coordinates for drones and controllers, enabling rapid localization and response.



Data Storage & Reporting

Securely stores detected signals and metadata for historical analysis, generating detailed reports for security teams to understand threats and implement countermeasures.



Integration Capabilities

Can be seamlessly integrated with existing security infrastructure, such as Video Surveillance and License Plate Recognition systems, providing a holistic security approach.

Deployment Options

Temporary Deployment

Ideal for short-term applications such as TEMPEST testing and single-room monitoring during sensitive meetings or events. The EA8's portable design allows for quick setup and relocation as needed.

Perfect for security sweeps of executive meeting rooms, VIP protection scenarios, or temporary security enhancements at special events where electronic surveillance is a concern.

Fixed Installation

Designed for permanent deployment providing continuous RF monitoring across facilities. Multiple units can be strategically placed throughout a campus or building to ensure comprehensive coverage.

The optional central management feature enables monitoring of multiple EA8 units deployed across different sites from a single control room, providing a unified security overview for complex facilities.

Target Applications



Government & Military

Protecting sensitive information and critical infrastructure from electronic surveillance and threats. The EA8 provides comprehensive monitoring of restricted areas to detect unauthorized communications or surveillance attempts.

Additional applications include law enforcement and intelligence agencies identifying illegal surveillance devices, critical infrastructure protection, and VIP security ensuring privacy by detecting potential surveillance threats in their vicinity.



Corporate Security

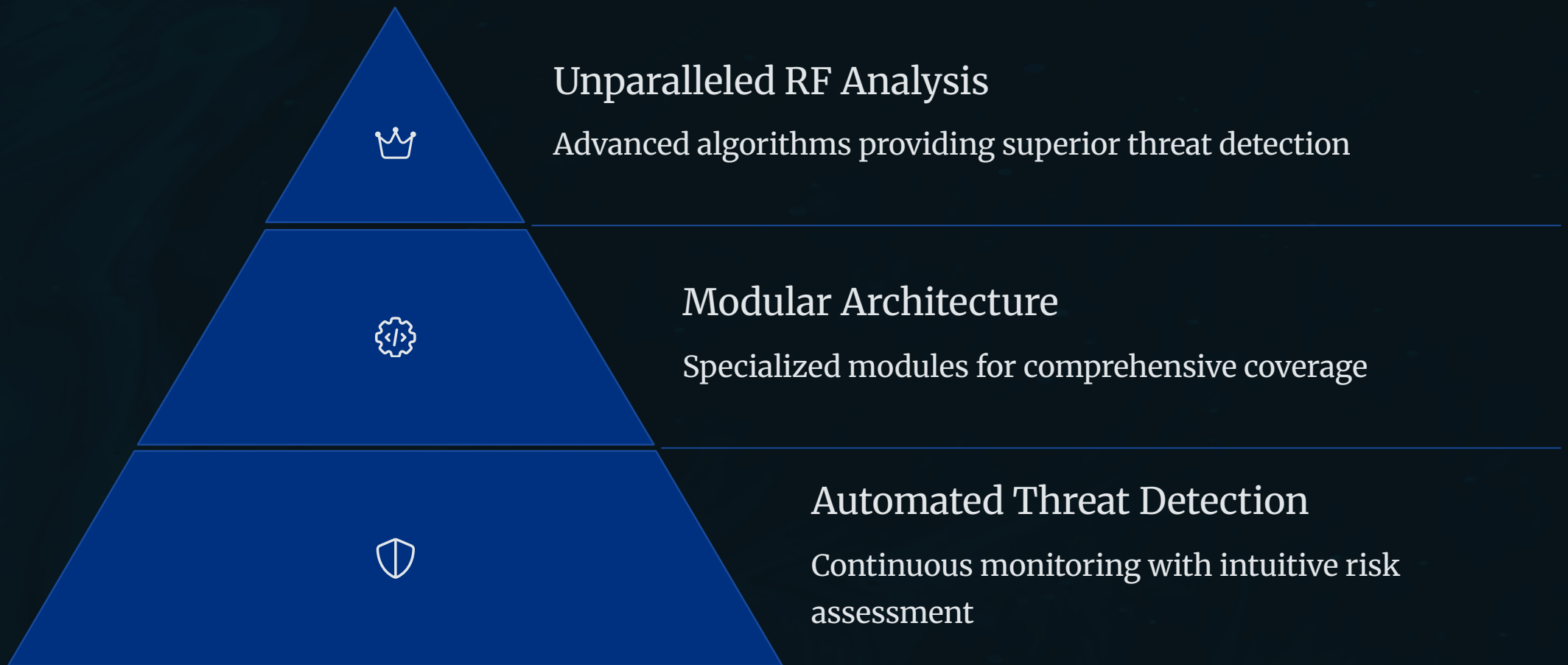
Safeguarding confidential business information, preventing industrial espionage, and ensuring secure meeting environments. The EA8 can detect unauthorized recording devices or transmissions during sensitive discussions.



Counter-Drone Operations

Detecting, locating, and tracking unauthorized drone activity in restricted airspace. The EA8's AVA module provides early warning of drone incursions and helps locate the operators.

Technical Superiority & Conclusion



The Ombra Group Radio Frequency Edge-Alert Unit (Model EA8) stands at the forefront of SIGINT technology, offering unprecedented automated and intelligent radio frequency spectrum analysis. Its ability to passively monitor a vast frequency range, automatically identify threats, and provide intuitive risk assessments makes it an indispensable tool for organizations prioritizing security in the electromagnetic domain.

Further technical specifications, deployment scenarios, and pricing information are available upon request. Contact Ombra Group to explore how the EA8 can enhance your organization's security posture.