



# GEW RES9000

## Radar electronic support solution

The GEW<sup>®</sup> RES9000 radar electronic support (RES) system provides an innovative and compact tactical emitter classification and intelligence gathering capability. Using the latest technology in sensor-based signal acquisition, the system provides for the detection, locating and analysis of modern radar emitters in the 0.5 GHz - 40 GHz frequency band.

- Frequency range of 0.5 GHz to 40 GHz (< 0.5 GHz optional)
- Latest technology in sensor-based signal acquisition
- More than 18 GHz instantaneous bandwidth
- High sensitivity with 100% POI
- 360° azimuth coverage
- AI-driven emitter classification and matching of intercepted emissions to emitter library
- Spectrum surveillance, signal analysis and direction finding
- Optional wideband recording with advanced ELINT analysis and recording

# GEW<sup>®</sup> RES9000

## Radar interception solution

The system's objective is interception of modern radar signals for precision direction finding (DF), tactical visualization of gathered emitter information, emitter classification and matching of intercepted emissions to the emitter library, reporting and tracking of radar threats in the 0.5 GHz to 40 GHz frequency range.

The system is complimented with the addition of an optional digital radar analyser for advanced technical ELINT analysis.

### Spectrum surveillance

A true wideband receiver with a very high probability of intercept (POI) is used together with a narrowband receiver for signal interception and analysis of signals. This integration and concurrent use of wideband and narrowband receiver technologies provide a comprehensive radar-emitter situational-awareness capability.

### Direction finding

High accuracy DF is done via a multi-channel processing of staring antenna arrays. A spinning DF antenna configuration can be provided to meet higher sensitivity requirements.

### Emitter location

Emitter location is achieved through analysis of line of bearing (LOB) as reported by multiple, strategically positioned RES sensors, working in a battalion.

### Intra-pulse modulation

Narrowband receiver signals are analysed for intra-pulse modulations, such as amplitude modulation on pulse (AMOP), frequency modulation on pulse (FMOP) as well as phase modulation on pulse (PMOP).

### Emitter classification

Accurate emitter classification and matching to a user populated threat library is achieved through advanced

artificial intelligence (AI) and machine driven analysis.

### ELINT (optional)

The digital radar analyser intercepts, records and analyses emerging and adaptive radar threats. It is specifically designed to analyse new-generation, low-probability-of-intercept (LPI) type radars. The intuitive user interface displays the analysis results, including:

- › Real-time PDW displays (amplitude, frequency, pulse width, pulse repetition interval).
- › Intra-pulse analysis displays spectrum, spectrogram, AM, FM and PM) with measurement tools.
- › De-interleaving of pulse trains.
- › Stagger and jitter analysis.

### Applicable radar threats

- › Surface-based and airborne search and targeting radars.

## MAIN SPECIFICATIONS

Total frequency coverage	0.5 to 18 GHz as standard, with option up to 40 GHz
Azimuth coverage	360°
DF method	Hybrid amplitude and phase comparison
DF accuracy relative to pedestal base	< 2° rms
Probability of intercept	100% POI
Wideband receiver instantaneous bandwidth	Frequency range of 18 GHz to 40 GHz
System sensitivity (typical)	-80 dBm (wideband receiver) -90 dBm (narrowband receiver)
Instantaneous dynamic range	> 60 dB
Intra-pulse modulation	AMOP, FMOP, and PMOP
ELINT analysis and processing	Optional

## FEATURES

- › 100% POI
- › 360° azimuth coverage
- › Staring antenna array
- › Passive ELINT option
- › Radar spectrum surveillance interpulse and intrapulse analysis
- › AI driven emitter classification
- › Ultra-fast FFT processing and displays
- › Novel, true wideband receiver for situational awareness