ESM/ELINT System for Submarines and UUV

ELL-8385

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ELL-8385 is an Electronic Support Measures (ESM) and Electronic Intelligence (ELINT) system designed for use on submarines and Unmanned Underwater Vessels (UUV). The system intercepts, classifies, locates and analyzes electromagnetic signals including radar and other hostile transmissions.

Its high sensitivity and precise Direction Finding (DF) provide enhanced threat warnings with a very high Probability of Intercept (POI), while continuous, reliable tracking yields a comprehensive passive Situational Awareness Picture.

Fast detection of emitters improves the ability to separate and distinguish between close and similar emitters, and greatly reduces signal saturation effects. Built on a fully digital SDR platform, the solution can quickly incorporate detection-algorithm updates to counter new threats in the field. AI algorithms assist in signal correlation, classification, and the creation of the emitter library and Electronic Order of Battle (EOB). Signals are recorded for in-depth ELINT analysis.

The system meets stringent SWaP (size, weight, and power) constraints while enduring the extreme pressures of deep water environments. Seamless mast integration renders the system an excellent choice for new platforms and submarine modernization projects.

Features

- Spectral coverage: extendable to 0.1 - 40GHz
- 360º instantaneous coverage; wide instantaneous bandwidth
- Very high POI and DF accuracy; no degradation in dense electromagnetic environments
- Integrated AIS data processing
- Seamless integration to the vessel's Combat Management System (CMS)
- Highly automated and intuitive Human-Machine Interface (HMI), requiring minimal operator training
- Integrated training, playback and simulation within the operational system

R-ESM RWR for Attack Mast/Periscope Mast

R-ESM for Search Mast

R-ESM/ELINT for SIGINT Mast

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