



L3HARRIS™
FAST. FORWARD.

VIGILANT™

Family of digital ESM solutions



VIGILANT™ DIGITAL ESM FAMILY

Superior situational awareness and threat detection

L3Harris' Vigilant family of digital electronic support measures (ESM) solutions is essential for survival and dominance in the increasingly complex and congested electromagnetic operational environment of the modern battlefield – where critical threats are going undetected.

Vigilant provides maritime platforms with advanced situational awareness and threat detection capabilities that are robust against electromagnetic spectrum congestion and adaptable to new threats, keeping ships and their crews safe and dominant.

The Vigilant family enables common operation, training and support, while remaining configurable to specific customer needs. Our solutions leverage new digital sensor technology, a modular open architecture and software-defined electronic warfare (EW) capabilities to increase functionality, upgradability and ease of operation, while decreasing long-term sustainment costs.

BENEFITS OF VIGILANT AND DIGITAL ESM

Being able to handle interfering signals in today's congested environment and adapt to new threats is critical for mission success and vessel survival. The Vigilant digital ESM family provides a next-generation replacement for existing analog ESM systems that simply cannot detect enemy threats amidst the noise of the modern battlefield. Vigilant offers the following benefits:

- > State-of-the-art situational awareness and threat detection, even in an increasingly congested electromagnetic spectrum environment with many interfering signals
- > Superior probability of intercept against all types of signals, regardless of source and power level.
- > Adaptability to new emerging threats
- > Lower costs, both acquisition and life cycle
- > Ease of upgrades in the future by swapping cards to add or improve functionality
- > Autonomous mode support that makes it easier to operate and allows minimally manned crews
- > Reduced size, weight and power (SWaP) requirements
- > Hardware commonality across fleets, including manned and unmanned submarines and ships, which enables lower operational and training costs and easier upgradability
- > Configurability to meet specific customer needs, enabled by the modular software-defined technology

A HISTORY OF ESM EXCELLENCE

For the past 60 years, L3Harris has developed technologies that detect, protect and help project naval power anywhere on Earth. We lead the field in providing maritime ESM solutions for allied naval surface and subsurface vessels – with systems installed in more than 20 maritime fleets worldwide. Now, we're tapping into our unmatched, decades-long ESM expertise to introduce the Vigilant family of digital, software-defined radar ESM solutions.



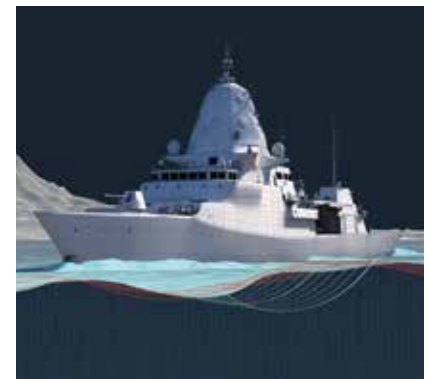
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Digital ESM solutions for advanced situational awareness and threat detection

DIGITAL ESM SOLUTIONS FOR SURFACE NAVAL PLATFORMS – VS-3601S AND VS-3701S

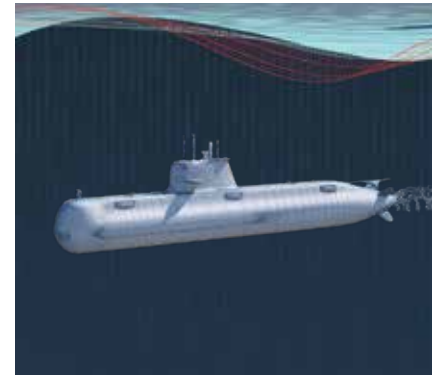
FEATURES		
	VS-3601S	VS-3701S
Key system capabilities	<ul style="list-style-type: none"> > High sensitivity and dynamic range > 100% probability of intercept > Instantaneous DF over 360° > Long-range detection, DF and tracking > Measures all radars simultaneously 	<ul style="list-style-type: none"> > High sensitivity and dynamic range > 100% probability of intercept > High precision, instantaneous DF over 360° > Wideband, narrowband and low-band subsystems for comprehensive signal exploitation using advanced sapience emitter processing algorithms > Handles FMCW radars with ultra-high sensitivity and DF
Performance	<ul style="list-style-type: none"> > 2-18 GHz instantaneous RF coverage with AOA on every pulse > High sensitivity > Receives RHCP and LHCP > Accurate pulse measurements > Processes narrow pulses 	<ul style="list-style-type: none"> > Customizable instantaneous RF coverage (low-band and MMW) > Precision DF over elevation and all azimuths with high dynamic range > Extensive interference rejection capabilities > Suitable for operation in highly congested and contested signal environments > Processes narrow pulses
Signal processing performance	<ul style="list-style-type: none"> > Operates effectively in 1 MPPS signal environment > 20,000 emitter mode library capacity > Tracks 500 emitters simultaneously > < 1 second reaction time for new emitters 	<ul style="list-style-type: none"> > Operates effectively in 1 MPPS signal environment > 20,000 emitter mode library capacity > Tracks 500 emitters simultaneously > < 1 second reaction time for new emitters > Supports topologies with multiple signal processing components
Human-Machine Interface (HMI)	<ul style="list-style-type: none"> > Windows user interface > Easily integrated to modern combat management systems > Updated command-and-control interface supports HMI, remote control or autonomous control of the system > Single, compact and performance-enhanced user displays and controls > Built-in training 	
Options	<ul style="list-style-type: none"> > FMCW detection and identification at very high sensitivity > ELINT capabilities > Uses digital receivers for precision measurements > High-speed digital recorder > Extended RF ranges 	<ul style="list-style-type: none"> > FMCW detection and identification at very high sensitivity > ELINT capabilities > Uses digital receivers for precision measurements > High-speed digital recorder > Low-band and continuous MMW RF processing support > Extended RF ranges



L3Harris' VS-3601S and VS-3701S solutions provide critical situational awareness that aids warfighter decision-making and enables mission success.

**DIGITAL ESM SOLUTIONS FOR SUBSURFACE NAVAL PLATFORMS –
VS-3601U AND VS-3701U**

FEATURES		
	VS-3601U	VS-3701U
Key system capabilities	<ul style="list-style-type: none"> > Compact antenna configurations > High sensitivity and dynamic range > 100% probability of intercept > Instantaneous DF over 360° > Long-range detection, DF and tracking 	<ul style="list-style-type: none"> > Multiple mast configuration support > High sensitivity and dynamic range > 100% probability of intercept > High precision, instantaneous DF over 360° > Wideband, narrowband and low-band subsystems for comprehensive signal exploitation using advanced sapience emitter processing algorithms > Handles FMCW radars with ultra-high sensitivity and DF
Performance	<ul style="list-style-type: none"> > Operates successfully with DF or OMNI directional antenna inputs > 2-18 GHz instantaneous RF coverage with AOA on every pulse > High sensitivity > Receives RHCP and LHCP > Accurate pulse measurements > Processes narrow pulses 	<ul style="list-style-type: none"> > Accepts RF inputs from array of antenna components > Customizable instantaneous RF coverage (low-band and MMW) > Precision DF over elevation and all azimuths with high dynamic range > Extensive interference rejection capabilities > Suitable for operation in highly congested and contested signal environments > Processes narrow pulses
Signal processing performance	<ul style="list-style-type: none"> > Supports operation in multiple mast states > Operates effectively in 1 MPPS signal environment > 20,000 emitter mode library capacity > Tracks 500 emitters simultaneously > < 1 second reaction time for new emitters 	<ul style="list-style-type: none"> > Supports operation in multiple mast states > Operates effectively in 1 MPPS signal environment > 20,000 emitter mode library capacity > Tracks 500 emitters simultaneously > < 1 second reaction time for new emitters > Supports topologies with multiple signal processing components
Human-Machine Interface (HMI)	<ul style="list-style-type: none"> > Windows user interface > Easily integrated to modern combat management systems > Updated command-and-control interface supports HMI, remote control or autonomous control of the system > Single, compact and performance-enhanced user displays and controls > Built-in training 	
Options	<ul style="list-style-type: none"> > ELINT capabilities > Uses digital receivers for precision measurements > High-speed digital recorder > Extended RF ranges 	<ul style="list-style-type: none"> > ELINT capabilities > Uses digital receivers for precision measurements > High-speed digital recorder > Low-band and continuous MMW RF processing support > Extended RF ranges



L3Harris’ VS-3601U and VS-3701U solutions enable warfighters to intercept, analyze, locate, evaluate and report radar signals faster and more effectively than ever.

Vigilant™ Digital ESM Solutions

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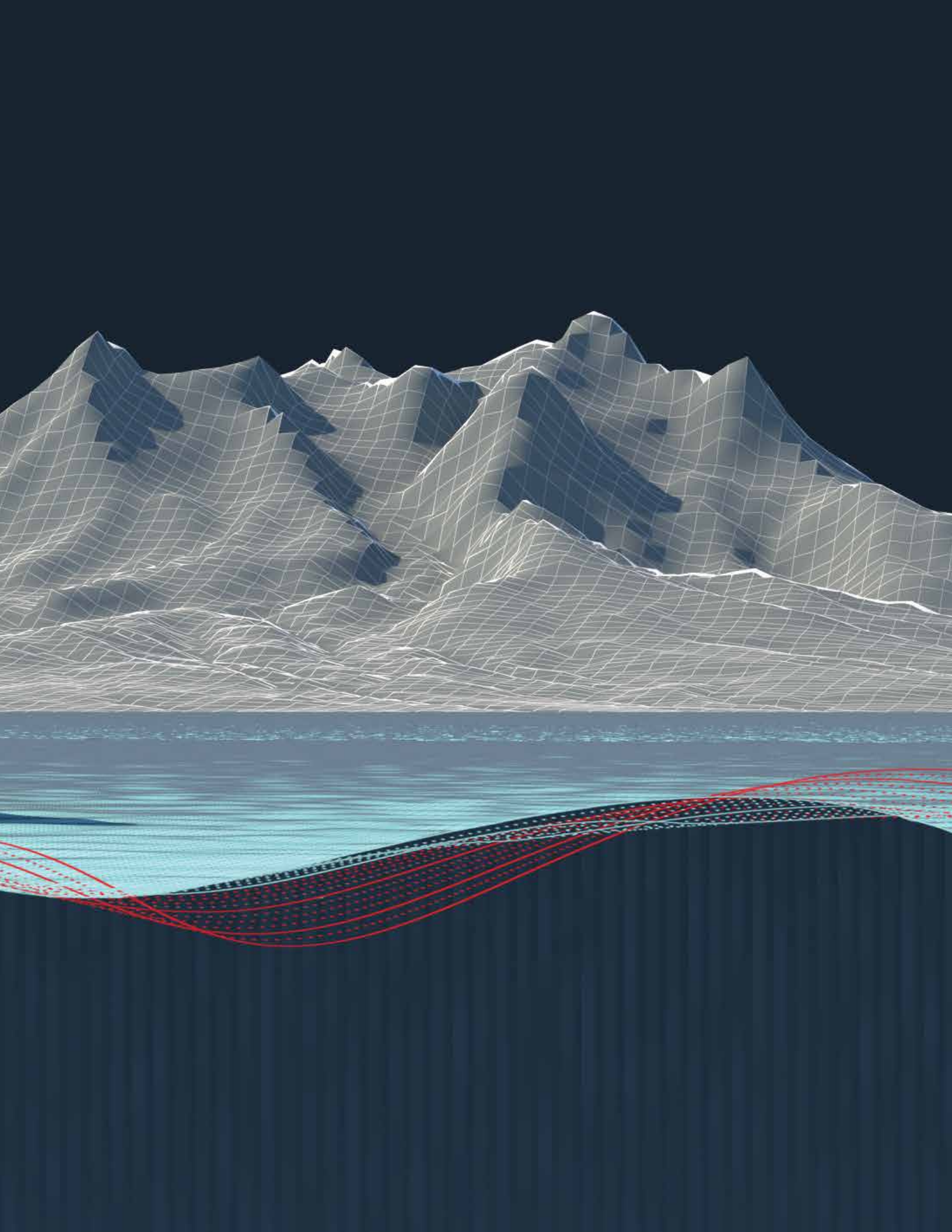
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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers’ mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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