CSignum Introduces EM-2S: A Breakthrough in Wireless Under-Ship Monitoring

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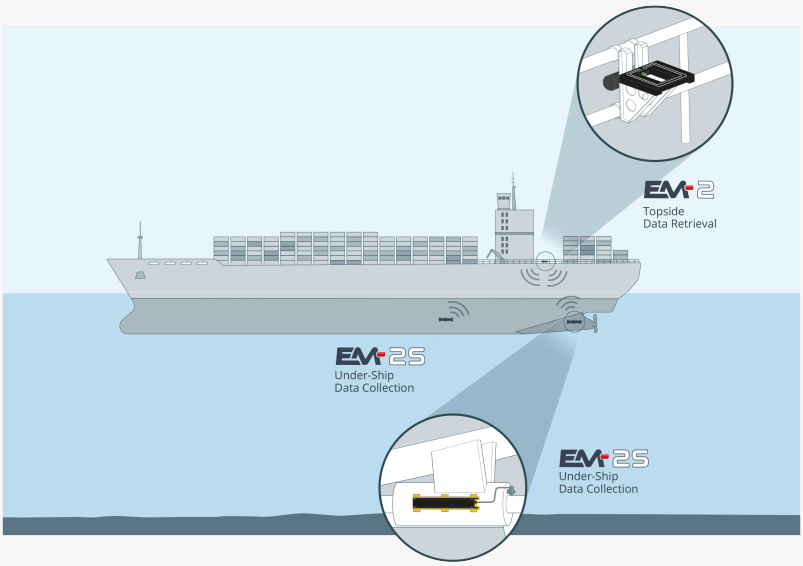


CSignum EM-2S Under Ship Monitoring System

EDINBURGH, SCOTLAND, September 10, 2024 /EINPresswire.com/ -- CSignum, a leader in underwater and underground wireless data networking, is excited to announce the launch of its latest innovation, the EM-2S. This new solution is purpose-designed to be mounted on marine vessels below the waterline providing essential communications for advanced monitoring functions.

Traditional wireless networks do not work underwater; CSignum's patented electromagnetic field signaling (EMFS) crosses the divide enabling underwater sensor data to be communicated to networks above the surface.

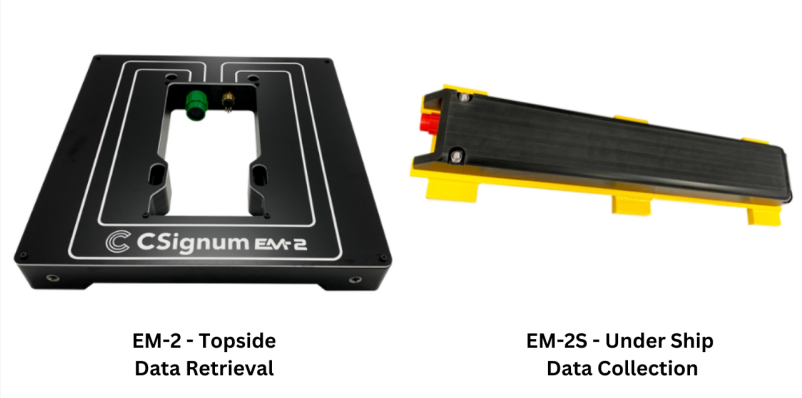
> "The EM-2S is a game-changer for the maritime industry, providing a reliable, cost-effective, and environmentally friendly solution for under-ship monitoring"
>
> *Jonathan Reeves, CEO CSignum*

For the first time, the shipping industry, navies and coastguards are able to conduct comprehensive monitoring below the water, with wireless communications to the deck and networks above.

The innovative capabilities of the EM-2S ship-mounted solution provides two-way data communications to monitor various areas:

- Track propulsion system wear, strain, and efficiency to optimize performance.
- Detects and notifies of critical security threats to maritime assets.

- Enables precise control and release of underwater objects.
- Facilitates seamless data communication with dockside monitoring systems.
- Monitors environmental conditions to ensure compliance and sustainability.



EM-2 Components

Presently, monitoring is predominantly conducted through manual inspections and such approaches lack the capability to provide continuous, real-time data, making it challenging to promptly address emerging issues. CSignum's EM-2S significantly improves monitoring by offering a wireless, cable-free solution that overcomes the limitations of traditional methods and offers a way to monitor dynamic operating conditions.

"The EM-2S is a game-changer for the maritime industry, providing a reliable, cost-effective, and environmentally friendly solution for under-ship monitoring," said Jonathan Reeves, CEO at CSignum. "By enabling continuous, real-time data collection, we empower ship operators to address potential issues before they become major problems, enhancing operational efficiency and reducing environmental impact."

The EM-2S system includes the following key features and benefits:

- Wireless Data Transmission: Utilizing advanced electromagnetic field signaling (EMFS), the EM-2S ensures reliable data transmission from the hull-mounted sensors to a topside EM-2 unit, eliminating the need for cumbersome cabling.

- Comprehensive Monitoring: The EM-2S can be integrated with a variety of sensors to monitor environmental parameters and security to provide a holistic view of the ship's hull.

- Real-Time Data: Continuous monitoring and real-time data transmission enable proactive maintenance, reducing the risk of severe damage and costly repairs.

- Cost Efficiency: By reducing the need for manual inspections and minimizing installation and maintenance costs, the EM-2S offers a cost-effective solution for ship hull monitoring.

- Minimal Environmental Impact: The non-intrusive design of the EM-2S ensures minimal disruption to marine life and ecosystems, supporting sustainable maritime operations.

For further information, please visit www.csignum.com.

CSignum is a leader in wireless underwater communications, pioneering cable-free data

solutions using patented low-frequency electromagnetic (EM) fields. This innovative technology ensures autonomous, reliable data transmission through and across the water-air boundary, water column, seabed, and underwater structures to networks on land and in the air.

CSignum's EM technology supports Critical Infrastructure Security & Defense, Environmental Monitoring, Aquaculture Monitoring & Actuator Control, and Subsea Structure industries. By enabling these sectors to digitally transform and scale remote communication systems, CSignum enhances sustainability, performance, and preparedness for unforeseen events, driving the future of underwater data communication.

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