

AIS Aids to Navigation

Maritime Domain Awareness Technologies

What is AIS?

Automatic Identification Systems (AIS) is a maritime radio technology system developed and maintained under the auspices of the International Maritime Organisation (IMO). Globally mandated in 2002 as part of the IMO SOLAS agreement, AIS is widely and increasingly deployed to improve and enhance maritime efficiency, safety and security.

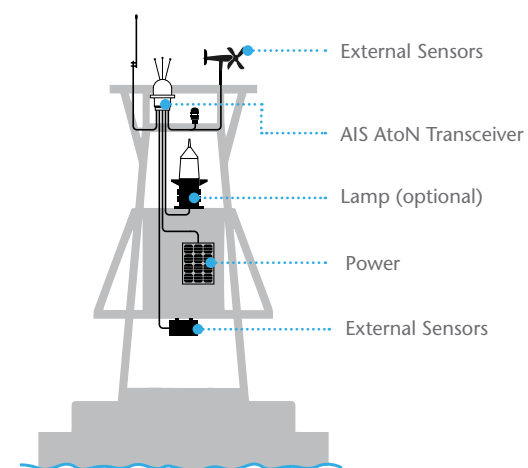
AIS is a sophisticated, proven international maritime technology that supports efficient, real time data exchange between multiple entities located on the sea and shore. Vessels of all sizes can be easily identified and tracked, whilst existing Aids to Navigation such as buoys and important maritime infrastructure can be electronically marked for the benefit of mariners and authorities.

What is an AIS AtoN?

An AIS AtoN is a special AIS transceiver designed specifically for installation on marine Aids to Navigation such as buoys, light houses and other maritime infrastructure. They are a highly effective and cost efficient method to enhance maritime domain awareness for mariners and authorities.

- An AIS AtoN can be fitted to any remote maritime structure and operate for years on solar power without maintenance.
- AIS AtoN transmits on standard AIS frequencies and will be received and understood by shore networks and vessel transceivers.
- An AIS AtoN transmits the identity and accurate real time position of an Aid to Navigation.
- AIS AtoN enables the remote monitoring and control of existing equipment by authorities such as lanterns and racon's.
- Meteorological and other sensors can be connected to an AtoN and the information generated transmitted to mariners and authorities.

A typical AIS AtoN system



AIS AtoN mounted on a buoy



Display in a control room

Hardware

[See individual product data sheets for further information]

1 / Carbon – Certified Type 1 & 3

The world's most advanced AIS AtoN. Fully certified, engineered and built for deployment in even the harshest marine environment, Carbon offers the lowest power consumption, a complete range of features and an innovative future proof sensor interface system.



Dimensions

- 284 x 180mm (H x D)

Power Consumption

- 12 to 24VDC
- <0.09Ah/day (Type 1 AtoN, FATDMA, with 3 minute position reporting interval)
- <0.8 Ah/day (Type 3 AtoN, RATDMA, with 3 minute position reporting interval)

International type approvals:



2 / Express – Certified Type 1

Small, low cost and easy to deploy, the EXPRESS is a Type 1 certified AIS AtoN with integrated GPS and VHF antennas. Robust and waterproof, EXPRESS can be easily installed temporarily or permanently on even the smallest buoy.



Dimensions

- 380 x 63mm max. (H x D)

Power Consumption

- Internal Li-Ion rechargeable battery pack
- Optional external power supply (12 to 24VDC)

International type approvals:



Display Solutions

1 / GeoVS Viewer



GeoVS Viewer displays real time AIS and other marine domain information in an easy to use and understand format.

2 / AIS Coast Station



A high performance networked AIS transceiver for shore based reception and transmission of all AIS messages. Easy to install and configure.

About SRT Marine System Solutions

SRT Marine System Solutions is a specialist division within the SRT group which provides customers with complete system solutions. With access to the complete technology and product portfolio of the SRT group coupled with unmatched knowledge and experience, our ability to deliver innovative and customised solutions is unrivalled. Our expertise is in providing authorities with solutions to their maritime domain monitoring requirements. From creating a control system for the smallest waterway or port to a national scale system

tracking all vessels within your EEZ, SRT Marine System Solutions can create a robust and fully interoperable system solution, delivered, installed, and maintained by one of our local partners.

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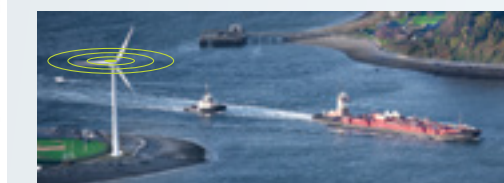
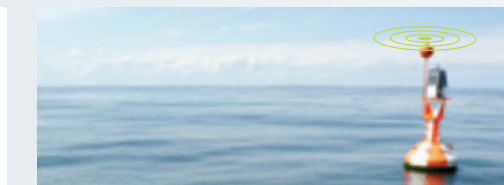


SRT Marine System Solutions

SOLUTION I

AIS Aids to Navigation

Enhancing maritime domain awareness and improving safety and traffic control



AIS AtoN

Enhancing Maritime Domain Awareness and improving safety and traffic control



Control your waterways and reduce your costs

AIS AtoN is the next generation of electronic navigation and operating enhancement for the management of both ports and waterways. It provides both the port controller and the vessel operator with a valuable stream of real time information about the marine domain, presented on their display screens in easy to understand formats.

The AIS AtoN is typically installed on buoys and other navigation aids and integrated with existing systems and sensors at that location. It is designed to act as a hub for the data produced by all the other systems on location such as the lantern, weather sensors, tide, temperature etc. The AtoN transmits the data back to the central control room via the normal AIS system. This information allows the position of the buoy and the operational status of the lamp to be monitored in all conditions, along with a constant live stream of sensor data.

There are a wide range of features and functions offered by an AtoN all of which are designed to significantly enhance port and waterway safety and security. The AtoN is a powerful addition to any existing AIS system, providing a critical piece of the marine domain jigsaw.



Benefits of an AIS AtoN

- Improved maritime domain awareness.
- Accurate real time monitoring of buoy positions in all weathers.
- Dynamic marking of shipping lanes.
- Instant marking of new hazards with virtual AtoN projection feature.
- Automatic alerts in the event of buoy or lantern malfunction.

Key features of the SRT AtoN

1. QUALITY

All SRT AIS AtoN products are engineered to the highest professional quality standards. Toughened UV stable exterior shells protect the units from extreme cold and heat, whilst military specification connectors and dual IPx6 and IPx7 water proof certification ensures mission critical reliability in all marine environments.

2. PERFORMANCE

Inside all SRT AIS AtoN products is the state-of-the-art SRT AtoN module. Using the latest proven technology, this ensures 'best in class' performance, maximising both range and feature set.

3. SENSOR INTEGRATION

Multiple external sensors can be efficiently integrated. Dedicated sensor interfaces, coupled with built in intelligence provide a future proof platform as you add more sensors.

4. CERTIFICATION

All SRT AIS AtoN products are internationally certified to the relevant IEC AIS AtoN specifications using government approved independent test laboratories.

5. POWER CONSUMPTION

SRT AIS AtoN products offer 'best in class' power consumption. This minimises the power required to install an AtoN, making it easier and less expensive.

AIS AtoN digitises your marine domain by streaming real time live information on position, weather, lamp status and much more from buoys, docks and other locations back to your control room.