

## MTA

### Automatic information on the GPS position

The MTA unit is an AIS AtoN transponder device housed in a IP 67 watertight box, providing automatic information on the GPS position of the marine aid to navigation (AtoN); thus making easy the location and identification of buoys, beacons and lighthouses on a vessel or an AIS Base Station chart.

### Designed to connect to any beacon

This unit is designed to be connected to any beacon of the market with a serial port and NMEA 0183 protocol, thus transmitting operating status data.

### Minimum energy consumption

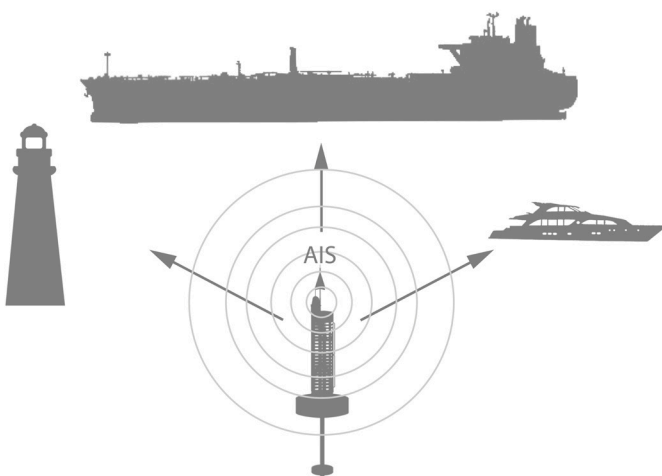
Thanks to its minimum energy consumption, those devices can be integrated in buoys and on-shore lanterns.

The MTA unit complies with IMO, IEC, ITU and IALA Standards.



## FEATURES

- Broadcasting of aids-to-navigation (AtoN) identification data on Message 21, as well as basic data and operating status.
- Ideal for remote monitoring and control unit to NMEA 0183 protocol lanterns, providing alarms and status on Message 6.
- Manufactured according to IEC AIS Aids to Navigation, IEC 62320-2, IEC 60945, IEC 61108-1, IEC 61162-1/2, ITU-R M.1371-4, IALA A-126 Standards.
- Minimum energy consumption (<0.1 Ah/day, Type 1).
- Two versions are available:
  - MTA-1: Type 1, transmitter only.
  - MTA-3: Type 3, transmitter-receiver.
- Capability of generating virtual and synthetic nav aids (AtoN), and also repeater function.
- Configuration via software under Windows environment and commands via VDL radio.
- Position alarm generator by chain breaking (only buoys).
- Remote Monitoring Centre Software via AIS available.



# MTA

## MESSAGE 21 CONTENT

MMSI number / Name of AtoN.  
 WGS84 position.  
 GPS time and date.  
 Type of AtoN.  
 AtoN indicator: Real, Synthetic, Virtual.  
 Out of position alarm.  
 Racon failure alarm.  
 Lantern failure alarm.  
 Day-Night mode lantern status.

## POWER SUPPLY

<b>Power input:</b>	From 10 to 32V c.c.
<b>Typical consumption (*):</b>	Type 1: 0.06 Ah/day.
	Type 3: 0.5 Ah/day.

(\* Emission every 3 min, at 12.5W.

## MTA RF MODULE

<b>Frequency range:</b>	156,025 to 162,025 MHz.
<b>Transmission power:</b>	1, 2, 5, 12.5W (adjustable).
<b>Number of receivers:</b>	2.
<b>Receiver sensitivity:</b>	< -107 dBm (Type 3).
<b>AIS 1 frequency:</b>	161,975 MHz 25 KHz.
<b>AIS 2 frequency:</b>	162,025 MHz 25 KHz.
<b>Auto-diagnosis:</b>	Emission power test and SWR measurement.

## TRANSMISSION

<b>Possible messages:</b>	21, 6, 8, 12, 14, 25, 26.
<b>Standard transmission:</b>	Every 3 min, adjustable.
<b>Control:</b>	Type 1: FATDMA. Type 3: FATDMA, RATDMA.

## GPS

<b>Integrated receptor:</b>	50 channels. IEC 61108-1.
<b>Antena:</b>	Active 35 dB, external, marine type.
<b>Optional:</b>	Glonass.

## VERSIONS

<b>MTA Type 1:</b>	Transmitter only.
<b>MTA Type 3:</b>	Transmitter and receiver.

! Specifications subject to change without previous notice.

## MESSAGE 6 CONTENT (NMEA 0183 INTERFACE)

MMSI number.  
 Battery voltage (V).  
 Lantern current (A).  
 Solar current (A).  
 Day-Night mode lantern status.  
 Lantern failure.  
 Racon failure.  
 Out of position.  
 Low battery voltage.  
 Flasher failure.  
 LED diodes failure.  
 Wrong flashing rhythm.  
 Excess consumption of the lantern.

## MTA INTERFACES

<b>Digital I/O:</b>	3 inputs for beacon and racon.
<b>Ports:</b>	RS422 Bidirectional port 38,400 baud. NMEA 0183. RS422 Input port 38,400 baud. NMEA 0183. Configuration USB port.

## STANDARDS

IEC AIS Aids to Navigation.	IALA A-126. Edition 1.4.
IEC 62320-2. Edition 1.	IEC 61162-1/2. Edition 2.0.
IEC 60945. Edition 4.	ITU-R M.1371-4. 2010.
IEC 61108-1.	

## MECHANICS AND ENVIRONMENTAL

<b>Dimensions:</b>	172 x 128 x 53 mm.
<b>Weight:</b>	350 g.
<b>Temperature range:</b>	-25° to 55°C.
<b>Watertightness:</b>	IP 67.

## BEACON TO AIS MTA CONNEXION.

