Pharos Marine Automatic Power

BROCHURE

# AIS AtoN
## Type 1 and Type 3

AIS AtoN
Type 1
Model **N321**

AIS AtoN
Type 3
Model **N323**

*Sensor Box (option)*
*Model SB-305*

NMEA 0183 USB

▸▸▸ *Specification P3*

The Widelink N321/N323 is an internationally type-approved AIS AtoN with the world's lowest power consumption. Building on the success of the Manda AIS AtoN system, the N321/N323 offers a full range of advanced features, including the broadcasting of virtual/synthetic AtoN targets, remote configuration, chaining and impact detection by built-in G sensor. N321/N323 can integrate lanterns and racons, and a variety of sensors directly. An optional sensor box as an accessory is also available to extend the connec-tivity.

The ruggedized enclosure is designed for reliable operation in even the most extreme environments from the equator to the Antarc-tic. Its small form factor ensures easy installation in even the tightest of compartments.

## Features

- **Available as AIS AtoN Type 1 or Type 3**
  **World's lowest power consumption in all operation modes**
- **World's smallest form factor for easy installation**
  **Best-in-Class receiving sensitivity (better than -112 dBm)**
- **Best operational reliability and performance**
  **IP68 waterproof with environmental robustness**
  **Versatile sensor interfaces with scalability through optional sensor box**
  **Built-in multi GNSS receiver**

### Versatile sensor interfaces

The N321/N323 incorporates 2*NMEA 0183 ports, 3*digital inputs and wake-up port to enable connectivity with lantern and sensors at minimum power consumption.

### World's most power -saving AIS AtoN

N321 consumes <0.037 Ah/day under FATDMA mode, while N323 only needs <0.764 Ah/day under RATDMA mode

## G-sensor built-in:

The 6-Axis 3D accelerometer sensor allows the AIS AtoN to detect possible impacts by vessels

## Virtual AIS AtoN support:

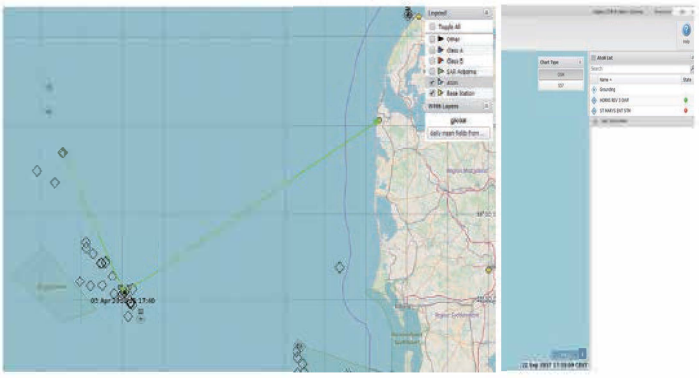
configurable to warn of a danger or to transmit relevant information to mariners

## Alarm function integrated:

outputs NMEA 0183 ALR sentences by exceeded VSWR, Tx malfunction, Rx malfunction or lost synchronization for improved monitoring and maintenance

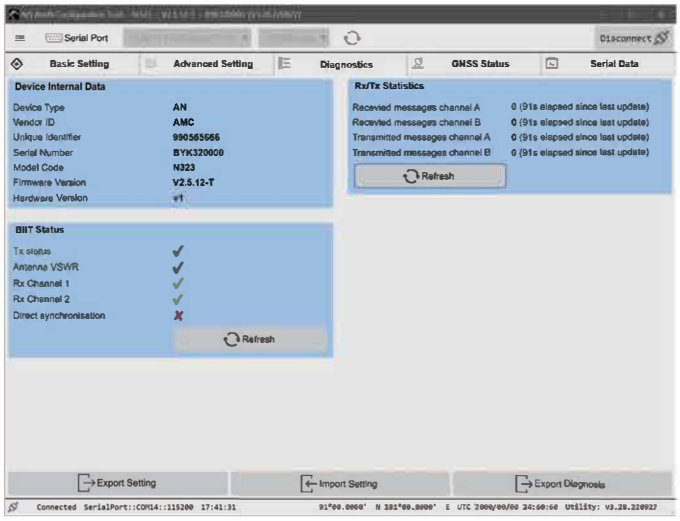
## Chaining function enabled:

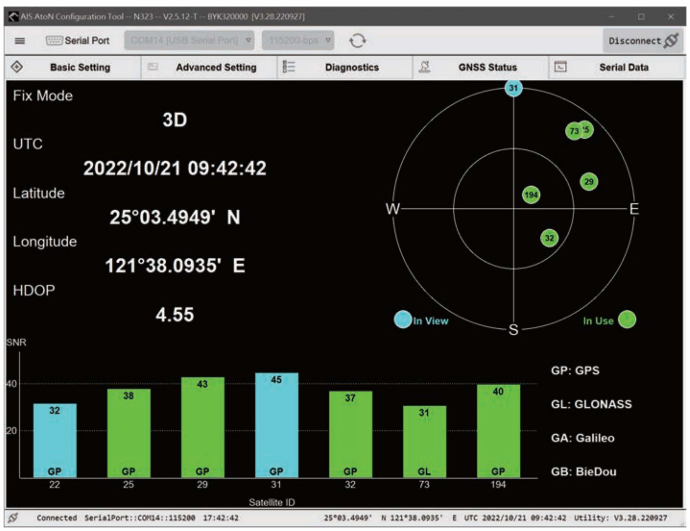
extend the VDL commands beyond the range of an AIS shore station, which is a function introduced by the latest IEC 62320-2 Ed. 2.0:2016



## User-friendly configuration interface:

mouse-hover to reveal the name and function for eased configuration



# Technical Specifications

| | AIS AtoN (Aids-to-Navigation) | |
|---|---|---|
| | N Series | |
| | Type 1 (N321) | Type 3 (N323) |
| | | |
| **STANDARDS** | | |
| | IEC 62320-2 Ed. 2.0: 2016<br>IEC 60945 Ed. 4.0: 2002<br>IEC 61108-1 Ed. 2.0: 2003<br>IEC 61162-1 Ed. 5.0: 2016<br>ITU-R M.1371-5: 2014 | |
| Access Scheme | FATDMA only | Support FATDMA and RATDMA |
| **VHF TRANSCEIVER** | | |
| Frequency Range | 156.025 MHz ~ 162.025 MHz | |
| Tx Output Power | 2 / 5 / 12.5 Watt (33 / 37 / 41 dBm +/- 1.5 dB), configurable | |
| **AIS RECEIVER** | | |
| Receive Frequency | N.A. | 156.025 MHz ~ 162.025 MHz |
| Rx Sensitivity | N.A. | better than -107 dBm @ 20% PER |
| **GNSS RECEIVER** | | |
| Receiving Channels | 72 channels | |
| Supported GNSS | GPS, GLONASS, BeiDou & Galileo | |
| Position Accuracy | < 2.5 m Autonomous, < 2.0 m SBAS | |
| **CONNECTION INTERFACE** | | |
| Antenna Connector | GPS ant con: TNC (female);<br>VHF ant con: SO-239 (female) | |
| Data & Control | 18-pin connector: NMEA 0183 #1 (Tx/Rx); NMEA 0183 #2 (Rx only); Isolated digital input x 3; Wake up input; Wake up output | |
| Power | 7 pins power cable | |
| **ENVIRONMENTAL** | | |
| Operating Temperature | -25°C to +55°C | |
| Waterproof Rating | IP68 | |
| **POWER SUPPLY** | | |
| Power Input Requirement | 12~24V DC (9.6 ~ 31.2V DC) / 3A at 12 V DC | |
| Power Consumption | < 0.037 Ah/day* | RATDMA <0.764 Ah/day* |

Note: "*" At 12.5W, transmission scheduled every 3 minutes.

R1

*All values are subject to change without notice.*


**Pharos Marine Automatic Power, Ltd.**
Great Yarmouth, United Kingdom
sales@pharosmarine.com
Phone: +44-1493-659271

**Pharos Marine Automatic Power**
Gray, LA - USA
rleblanc@automaticpower.com
Phone: +1-985-223-8700

**Pharos Marine Automatic Power, Ltd.**
London, United Kingdom
sales@pharosmarine.com
Phone:+44-20-8538-1100

**AB Pharos Marine Pte.**
Singapore
sales@pharos-api.com
Phone: +65-6747-9325