SPAT-1010A Digital AIS AtoN Terminal

SPAT-1010A Digital AIS AtoN Terminal is installed on navigation indicating facilities such as light buoys, light vessel, light beacon, light house etc. in the coverage area of AIS base station, becomes a part of the navigation indication system, and connects the navigation indicating facilities with management departments, thus providing digital navigation services for navigating ships. The equipment not only can locate accurately, but also is not influenced by poor weather such as heavy fog, rain, snow etc. It can send Navigation-Supporting Information to ships on navigation channels, and indicate it on the electronic chart. At the same time, it can send information such as status of navigation light, storage battery, and solar panels, as well as warning information etc. to management departments, which will greatly improve navigation safety, and is easy for maintenance and management for navigation indicatings.

Main Features

SPAT-1010A Digital AIS AtoN Terminal is III type navigation indicating equipment, completely covering type I and type II equipments on functions.

Telemetry & telecontrol and AIS information relay transmission functions.

Adopt highly efficient solar power/electric power conversion and low power consumption plan.

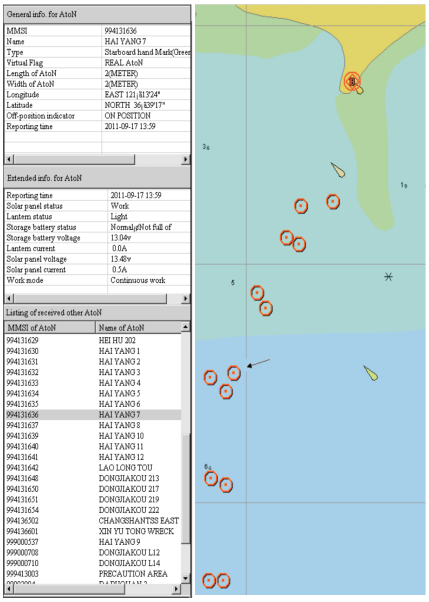
Adopt modularization and integrated design (with built-in antenna), has good maintenance.

The design and test meet requirements of ITU-RM.1371-3, IEC 62320-2, IEC 60945, and have obtained the Practical New Type Patent Certification (No. 1777859 certificate) of State Intellectual Property Office of the People's Republic of China.

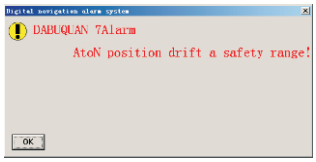
Basic Functions

Digital navigation aid: this equipment can send the navigation-supporting information to ships on navigation channel without being influenced by poor weather such as heavy fog, rain, and snow etc, and indicate on electronic chart, thus improving the navigation aid efficiency of navigation indicating facilities.

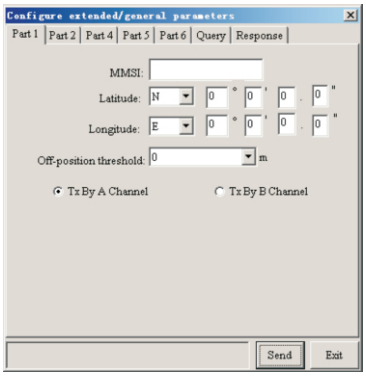
Monitoring status of navigation indicating facilities: this equipment can send the information of status of navigation lights, storage battery, and solar panel, as well as the detailed current and voltage etc. in real time to the monitoring center.



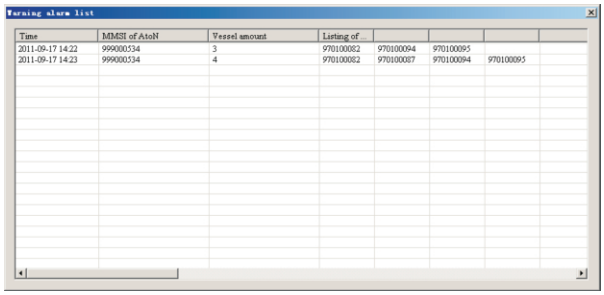
Warning for abnormal status: dislocation warning, guard warning (distance between ships is too small), undervoltage/overvoltage warning for storage battery, and light failure warning etc.

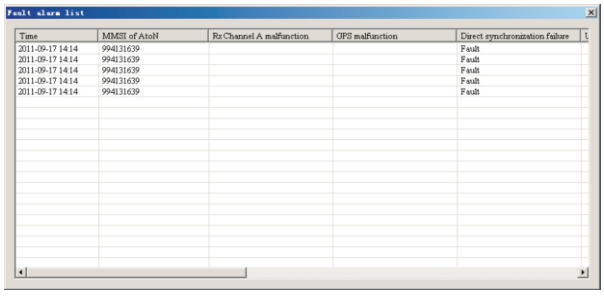


Remote control function: this equipment can control operation mode and deploy working parameters through remote wireless method.

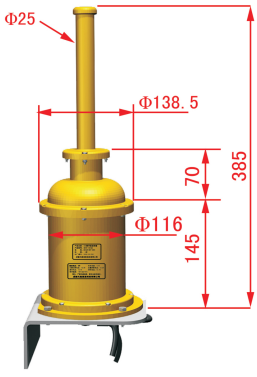


Information statistics: the monitoring center can add up warning information reported by this equipment in time, providing conveniences for arrangement of maintenance of navigation indicating facilities and accurate determination of ships hitting indications and causing accident, which effectively improves working efficiency.



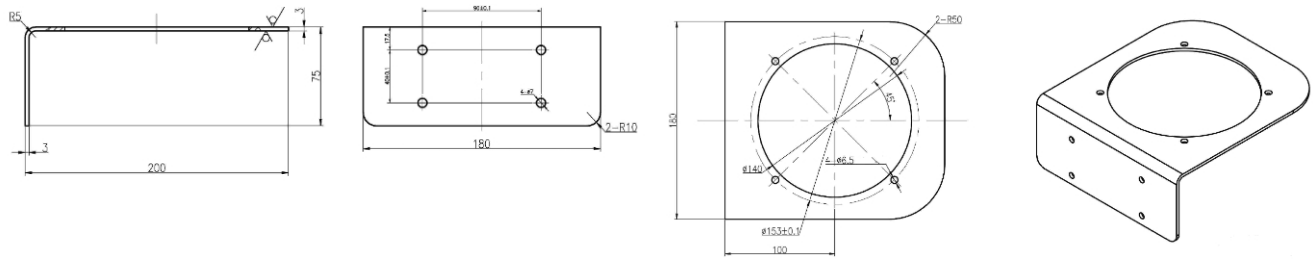


Product Size



Spaceon SPAT-1010A Digital AIS AtoN Terminal

Size of mounting plate



Technical Specifications

AIS receiver		
RX frequency		156.025MHz～162.025MHz
Operation frequency		CH2087（161.975MHz）
		CH2088（162.025MHz）
Receiving sensitivity		＜-107dBm
Dynamic range		＞100dB
Frequency stability		2.5ppm
AIS transmitter		
TX frequency		156.025MHz～162.025MHz
Operation frequency		CH2087(161.975MHz)
		CH2088(162.025MHz)
Transmitting power		2W/6W
Error of transmitting frequency		＜500Hz
Transmitting cycle		1～255min (can be deployed)
Messages transmitted		Message 21、Message 6
Operating mode		RATDMA/FATDMA
GPS Receiver (built-in)		
Receiving sensitivity		＜-140dBm
Number of receiving channels		50 channels
Receiving frequency		1575.42MHz
Positioning accuracy		＜10 m
Time needed for repositioning		＜10 seconds
Interface Description		
RS232 serial port		1, parameter injection interface
Power interface		3 groups (solar panel, storage battery, navigation light)
Power Supply		
Continuous mode		＜3W
Low power consumption mode		＜1W
Nominal voltage		DC 12V
Power supply range		DC 9～18V
Environment		
Operating temperature		-20℃～60℃
Storage temperature		-40℃～70℃
Humidity		Meet IEC60945
Vibration		Meet IEC60945
Degree of protection provided by enclosure		Ip65
Equipment list		
Standard configuration	Main unit	1
	Mounting base	1
	Installation fasteners	1

Technical support

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