

GCSC ATON AIS

CS-AIS-AT-01 MARITIME TRANSCEIVER

GCSC Aids to Navigation (AtoN) AIS is a navigational aids device, providing ship's own position to other ships around or shore station, and transmitting information collected from peripheral devices (tide, weather data, solar light and lighthouses) to pre-defined objects and its equipments are controlled remotely from Ground stations. Its performance and specification are comply with IALA and IEC regulations and certified by BSH (Bundesamt für Seeschifffahrt und Hydrographie).



OVERVIEW

SIMPLE DESIGN

GCSC AtoN AIS is designed as simple for user convenience, cost saving and easy to fix.

STANDARD & MULTI INTERFACE

GCSC AtoN AIS provides various interfaces in order to interwork with external equipments, and available to user's modification according to communication protocol of other ready made products. Dedicated program is also provided to operate simply and easily on PC and PDA via RS-232 Serial port.

REMOTE CONFIGURATION

GCSC AtoN AIS is the first product in the world enabling setting value of modem to be changed by AIS message, therefore address change of transmitting channel and resetting operational mode can be made at Ground stations.

ROBUSTNESS

In order to endure bad maritime environment condition it is made of materials complying with IP-67, and potential damages of core component is protected by double disclosure waterproof.

SPECIAL MODE

Even at the times of communication disconnection with ground stations it continues to monitor ships own position and surroundings and maintain ships own deviation information to protect against collision, and it logs and saves more than 60 days in Data Logger.



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CS-AIS-AT-01 AIDS TO NAVIGATION AUTOMATIC IDENTIFICATION SYSTEM

SPECIFICATION

- Fully compliant with IEC 62320-2, IALA A.126 and IEC 60945
- Provides health status of the AtoN device, including battery life and light burnouts
- Capable of changing Mode type 1/2/3 depending on settings of transceiver
- Designed to support chaining and RATDMA (Type 3 configuration only)
- Capable of supporting synthetic and virtual transmissions
- Digital I/O interfaces permitting extensive monitoring and control AtoN equipments. Message 6,8,12,14(optional)
- Capable of changing settings of transceiving modem by AIS messages

PHYSICAL

Height 237 mm
Width 164 mm
Depth 95 mm
Weight 3.0 kg

INPUT POWER & CONSUMPTION

Input power 12 VDC(±10%)
Continuous Mode 0.45A(12VDC)

TRANSMITTER PERFORMANCE

TX Frequency Range 156.025 - 162.025MHz
Tuning Resolution 25kHz
Modulation GMSK
TX Power Control 1-12.5W
TX Power Accuracy ±0.7dB
TX Frequency Drift ±500Hz
Nominal Impedance 50Ω
Antenna Connection Type N

RECEIVER PERFORMANCE

of Receivers 2
RX Frequency Range 156.025 - 162.025MHz
Tuning Resolution 25kHz
Dynamic Range ≥100dB
Co-Channel Rejection ≥10dB
Adj. Channel Rejection ≥72dB
Intermod. Rejection ≥65dB
In-Band Blocking ≥86dB
Noise Figure ≤5dB
GPS Receiver DGPS(RTCM, SBAS), 16CH
GPS Accuracy 0.05m/s(DGPS mode)

Environmental

Operating Temp Range -25°C to +55°C
Relative Humidity 0 ~ 95%
 *note : All Specifications Tested @ 25°C

International Standards

IEC 60945
 ITU 1371-3
 IEC 62320-2

Interface

Digital In /Out each 6 Port
GPS synchronizing switch 1 Port
Analog In 10 Port
Data I/O 4 Port(RS232)
Power 9~36VDC
Support configuration RS232 port

*Continuous Mode : AIS AtoN reports
 Message 21 every 3
 minutes in accordance with ITU-R M.1371

Type Approvals



System Architecture

