



## AIS Tester

### General description

AIS Tester is designed to check the Class A and Class B AIS mobile stations.

AIS Tester is a test device operating on AIS channel 1 (ch87B), AIS Channel 2 (ch88B) and DSC Channel 70 frequencies. The tester is designed under corresponding standards and recommendations ITU R M-1371-3 and IEC 61993-2 as a tool of operation and installation tests of AIS unit (Automatic Identification System).

The tests volume complies with IMO circular letter "Guidelines on annual testing of the AIS unit MSC.1/Circ.1252".

AIS Tester allows to test all type of AIS transponders of any manufacturer also it is capable to provide validation of operation of AIS-SARTs (Search and Rescue Transponders).

The AIS Tester is specified equipment for ship surveyors, classification societies and administrative authorities.

The test reports can be presented on the LCD display and stored in the memory accordingly with the facility of transferring them to a PC or laptop.

All measurements are carried out by means of cable and attenuator included in standard delivery set.

AIS Tester allows to check as terminal the pilot plug or external sensor.



### Operation / Features

AIS Tester is user-friendly and easy to use test device.

During the tests the AIS Tester allows to:

- Measure AIS frequencies (on channels 1, 2);
- Measure or estimate the AIS transmitted power (on channels 1, 2);
- Receive and decode the AIS messages;
- Send the data to AIS stations;
- Pass the DSC polling information (channel 70);
- Check AIS answer to so called "virtual vessel";
- Simulate NMEA data transmissions.
- Simulate AIS data transmissions, such as ship's name, position, length, course, speed, power and beam.
- Transmit and receive the DSC messages of

- different types for VHF stations;
- Check the AIS-SART operation facilities;
- Receive the data from pilot-plug or external sensors.

All data will be saved in memory for further processing, 10 memory blocks are available.

All data can be viewed on the tester's LCD or can be transmitted to PC for procession.

The tester power supply is performed by 4 AA batteries 1,5V, as well as by external DC source with voltage 4,5...7V and load current no less than 500 mA.

### Features:

- Any AIS Class A and Class B station are supported;
- Carrier frequency measurement in range of 156-162MHz within the accuracy  $\pm 99$  Hz
- Pilot plug and external sensors support;
- Internal database of received data with possibility to save upto 10 test results;
- Easy connection to PC, laptop, notebook to process the stored data;
- Windows user friendly desktop application for database storage and review, process and test reports printout;
- Long life batteries, easy replace;
- Easy recalibration without returning back to factory;
- 1year warranty.

### PC Connection

On completing all the test it is required to process the measured data, make ready and print test reports using Tester PC software.





## Complete set of the AIS Tester

- AIS Tester
- Attenuator
- PC Cable (USB A – USB A) 1.5m
- PC Cable (DB9 - NMEA) with open wires
- RF Cable TNC-TNC
- RF Cable BNC-BNC
- RF Connector BNC-UHF
- Technical Description and User Manual
- Package
- Software and software user's guide manual (optional); \*software can be downloaded at our website
- Cable (DB9 - NMEA) with ready output for connection to pilot plug (Pilot plug cable) (optional)
- Antenna to make measurements through broadcast (optional)



Thus the AIS tester can be easily connected to any PC or laptop. The connection is carried out by means of standard USB A-USB A cable and special software available on this website. The minimal requirements are Microsoft OS, such as Windows XP, Windows Vista or Windows 7 and USB port. No special hardware configuration is required.

Also the special FTDI driver should be installed for proper connection. It can be downloaded at our web-site as well.

Tester PC connection is very simple. All you have to do is to attach one end of the USB cable to the tester and the other one to the PC. No extra software installation is required. Just run the executive file and press DOWNLOAD MESSAGE button. All saved data will be transferred to PC.

### Technical description

- AIS operational frequencies are: channel 1 - 161,975 MHz ; channel 2 - 162,025 MHz.
- DSC operational frequency channel 70 - 156,525 MHz.
- Setting accuracy of output frequency - no less than  $\pm 1$ ppm.

- Output power of AIS channel 1 and 2 and channel 70 DSC not less than (-7) dBm or 100 mW.
- AIS modulation - FM-GMSK.
- AIS channel band rate - 9600 Baud.
- DSC channel band rate - 1200 Baud.
- Tester provides carrier frequency measurement in range of 156-162MHz within the accuracy  $\pm 99$  Hz.

Input\Output resistance -- (50  $\pm$  1.5) Ohm.

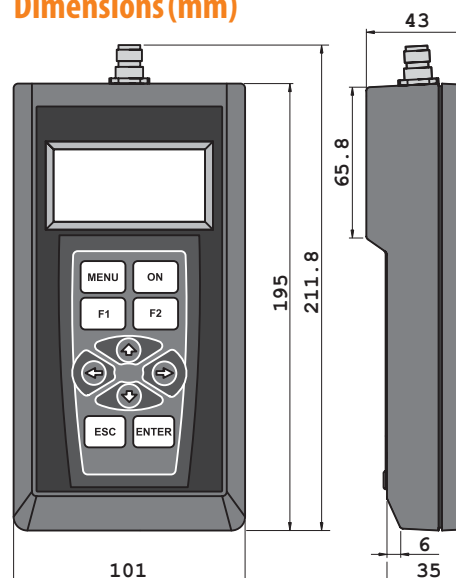
Approximate continuous operation time using the battery – about 5 hours.

The tester power supply is performed by 4 AA batteries 1,5V, as well as by external DC source with voltage 4,5...7V and load current no less than 500 mA.

TESTER displays internal battery voltage with accuracy  $\pm 5\%$ .

The tester is designed to operate at the temperature range from 5oC to + 45oC and relative air humidity should be no more than 95%, which is determined by used LCD.

## Dimensions (mm)



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