Musson Marine
Safety solutions

AIS TESTER

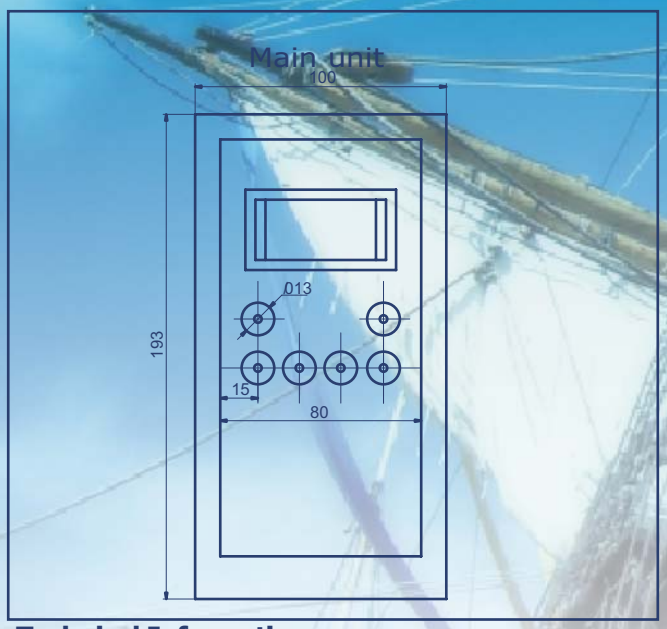
AIS Tester is a test device operating on AIS1 (ch87B), AIS2(ch88B) and DSC(ch70) frequencies. The tester is designed under corresponding standards and recommendations as a tool of operation and installation tests of AIS unit (Automatic Identification System). The tests' volume comply with "Guidelines on annual testing of the AIS unit MSC.1/Circ.1252".

Tester allows to make measurements both through the cable and broadcast by means of issued antenna.

The measurement results can be viewed on LCD display or can be saved in tester's nonvolatile memory. Tester allows to save tow independent sessions of test/measurements to be saved lately on PC by means of software.

Tester does not use a GPS for synchronization. A proprietary TDMA slot-synchronizing algorithm is used which does not require a GPS 1 pps. It uses RATDMA for generating VDL and interrogation messages. A Pilot Plug evaluation function and NMEA/RS422 terminal display of external sensor inputs is provided.

The input signal displaying on LCD from external sensors through the RS-422 port provides the control of "Pilot plug".



Technical Information:

Signal Generator
Output Power 2mW (+1,–0.5 mW)
AIS frequency 161.975,162.025 MHz
AIS dual channel operation (AIS1&2)
AIS modulation FM-GMSK
AIS data rate 9600 bits/sec
DSC frequency 156.525 MHz
DSC modulation FSK (V23)
DSC data rate 1200 bits/sec
AIS & DSC channel spacing 25 kHz

Receivers (2 x AIS, 1 x DSC)
AIS frequency 161.975, 162.025 MHz
AIS dual channel operation (AIS1&2)
AIS data rate 9600 bits/sec
AIS sensitivity (ANT BNC) -47 dBm
DSC data rate 1200 bits/sec
DSC frequency 156.525 MHz
DSC sensitivity (ANT BNC) -37 dBm
AIS & DSC channel spacing 25 kHz

I/O Interface:
Presentation: RS232 - 38400 bits/sec
Pilot Port: RS422 -38400 bits/sec
NMEA terminal: RS422 - 4800-38400 bits/sec

Temperature:
Operating: +15°C - +35°C

Tester's features:

AIS Test:

- Poll, receive and check data from AIS transponders.
- Simulate AIS data transmissions, such as ship's name, position, length, course, speed, power and beam.
- Simulate AIS data transmissions, such as ship's name, position, length, course, speed, power and beam.
- Poll information on chnnel 70
- Simulate NMEA data transmissions.

Frequency measurements:
- Channel AIS 1 (161.975 MHz)
- Channel AIS 2 (162.025 MHz)
- Channel DSC (156.525 MHz)

Signal power measurement:
- Channel AIS 1 (161.975 MHz)
- Channel AIS 2 (162.025 MHz)
- Channel DSC (156.525 MHz)

Design reference standards:
ITU.R M.1371 IEC61993-2 IEC62287-1
IEC61162-1/2 EN50081-1 EN50082-1
EN55022 EN61000-4-2 EN61000-4-3
IEC62320-1 IEC62320-2 IMO SN/Circ.227
MSC.74(69), annex 3

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