

# XNAT-1000 AIS Tester



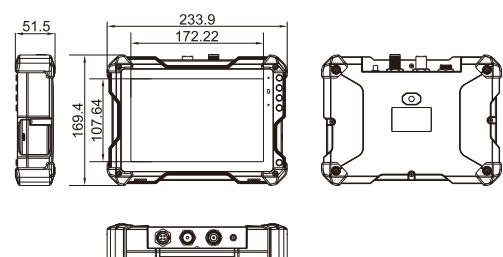
The AIS Tester is a multi-functional AIS testing device with automated testing, photo evidence capture, and report generation. It automatically adapts to various types of AIS devices without the need for manual parameter configuration. The device adopts a large-size full-touch screen design, which can be displayed in high definition, making it easy and flexible to operate. It supports various cloud services such as online upgrades through 4G, Wi-Fi, and other networking methods.

- ◆ 8 inch High-Brightness Wide-Viewing-Angle Touch Screen.
- ◆ Support Class A AIS and Class B AIS detection.
- ◆ Supports device function operation via touch screen or buttons, creating redundancy for dual operation methods.
- ◆ Built-in Li-ion battery, can last for 5 hours, standby for 30 hours.
- ◆ Support 4G, WiFi, and Bluetooth for easy data export and online upgrade.
- ◆ Built-in camera, support photo forensics, ensure traceability and reliability of test results.
- ◆ Automatically generate test reports and support historical test report queries.

| Display Unit                | XNAT-1000                                                |
|-----------------------------|----------------------------------------------------------|
| Test Frequency              | AIS 1: 161.975MHz; AIS 2: 162.025MHz; DSC 70: 156.525MHz |
| Modulation Mode             | GMSK                                                     |
| Power Measurement           | 10dBm~43dBm(0.01~20W)                                    |
| Receiving Sensitivity       | -120dBm~-70dBm                                           |
| Antenna Standing Wave Ratio | <1.5                                                     |
| Lithium-ion Battery         | 6000mAh 7.4V                                             |
| Input Power                 | DC5V-20V 2.5A MAX, support PD fast charge                |
| TYPE C Charging             | 30W MAX                                                  |
| Battery Life                | >8h                                                      |
| Standby Time                | >24h                                                     |
| Liquid Crystal Size         | 8 inch                                                   |
| Touch                       | Full lamination touch screen                             |
| Brightness                  | 500 cd/m <sup>2</sup> (Max)                              |
| Resolution                  | 1280*800                                                 |

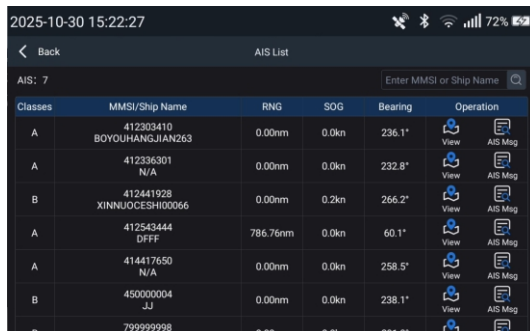
XNAT-1000 Installation dimension diagram

(Unit, mm)  
1.16kg 2.56lb



## AIS List

Supports receiving surrounding AIS information via its AIS antenna, displays it in the AIS list, and allows selecting a vessel to view its position on the chart.



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Back AIS List

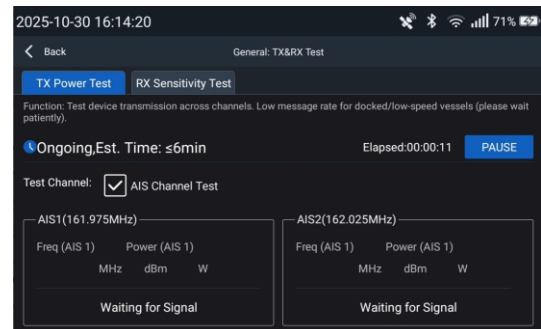
AIS: 7

Enter MMSI or Ship Name

| Classes | MMSI/Ship Name             | RNG      | SOG   | Bearing | Operation    |
|---------|----------------------------|----------|-------|---------|--------------|
| A       | 412303410 BOYOUHANGJIAN263 | 0.00nm   | 0.0kn | 236.1°  | View AIS Msg |
| A       | 412336301 N/A              | 0.00nm   | 0.0kn | 232.8°  | View AIS Msg |
| B       | 412441928 XINNUJOCESH00066 | 0.00nm   | 0.2kn | 266.2°  | View AIS Msg |
| A       | 412543444 DFFP             | 786.76nm | 0.0kn | 60.1°   | View AIS Msg |
| A       | 414417650 N/A              | 0.00nm   | 0.0kn | 258.5°  | View AIS Msg |
| B       | 450000004 JJ               | 0.00nm   | 0.0kn | 238.1°  | View AIS Msg |
| B       | 799999998                  | 0.00nm   | 0.0kn | 231.0°  | View AIS Msg |

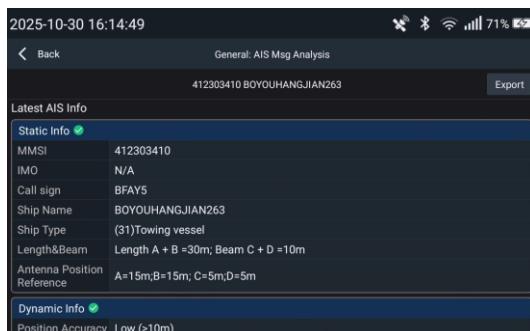
## TX&RX Test

This test includes transmit performance test and receive sensitivity test. After connecting to the device under test, it can test its transmit power, frequency, and receive sensitivity.



## AIS Msg Analysis

Analyze messages from surrounding AIS devices in the last 30 minutes. Select the MMSI of the AIS device under test to view its messages and time slot status. When message collision occurs, the tester will indicate device abnormality.



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Back General: AIS Msg Analysis

412303410 BOYOUHANGJIAN263 Export

Latest AIS Info

Static Info

MMSI 412303410

IMO N/A

Call sign BFAY5

Ship Name BOYOUHANGJIAN263

Ship Type (31)Towing vessel

Length&Beam Length A + B =30m; Beam C + D =10m

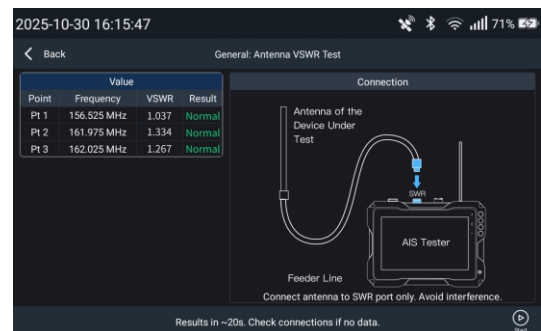
Antenna Position Reference A=15m;B=15m;C=5m;D=5m

Dynamic Info

Position Accuracy Low (>10m)

## Antenna VSWR Test

Supports measuring the VSWR (Voltage Standing Wave Ratio) of AIS antennas at the operating frequency and determines if it is normal (VSWR value < 1.5), thereby helping testers judge whether the antenna can work properly.



## Ship Emulation

Simulated AIS functions include three testing features: virtual vessels, autonomous transmission, and inquiry initiation.

**Simulate AIS Messages:** Send simulated AIS messages to the AIS device under test, with configurable settings for the virtual vessel's azimuth and distance, transmission interval, and duration.

**Auto TX:** Utilize built-in GNSS to send AIS position messages (Message 1/18) and test device decoding.

**Polling:** Automatically initiate inquiry request messages 3/5/18/24 to the selected AIS device under test. Upon receiving the inquiry, the AIS device under test will respond in accordance with standard requirements, and the response results will be displayed on the tester's screen.

