

**PORTABLE****RUGGED****AIS TEST SET****INTRODUCING THE RADARPLUS® ST162:**

A portable, two-channel AIS Test Set designed for AIS operational checkouts aboard Aircraft, UAVs, and Ships.

- **Versatile** Test Set is Fully Configurable with a Simple Graphical User Interface and Bluetooth or RS-232 Communications.
- **Rugged Design:** Highly Water Resistant, IP67 Enclosure

Highly suitable for pre-flight AIS system operational checkout, the RadarPlus® ST162 is a sophisticated AIS transmitting and receiving test set capable of simulating up to 10 ships that are reporting position, course, speed, or other custom data at a programmable interval of 5 seconds to 5 minutes with very low power consumption, allowing hours of trouble free operation with standard C Cell Batteries.

The ST162 is capable of generating virtually any AIS message and provides valuable information to aid in verification of AIS installations, including the installation's capability to receive and display Class A, Class B, AtoN, SART, Aircraft SAR, and other AIS messages.

The ST162 can be easily configured in advance, using the provided graphical user interface, allowing the field technician / inspector to simply turn the unit on and test not only the AIS receiver, but the entire aircraft / vessel AIS installation, including cables, antenna, and display.

**The ST162 is capable of performing:**

- Pre-Operational Checks
- Identifying Malfunctioning Systems
- Noise Measurements (optional)
- Field and Bench Testing
- Simulate AIS Data
- Installation Quality Comparisons
- Other Custom Data

**PORTABLE****RUGGED****AIS TEST SET****System Specifications**

- **Designation:** Portable AIS Test Set for AIS Transmitters and Receivers
- **User Interface:** Bluetooth at 115200 Baud or RS232 at 115200 Baud
- **Power Requirements:** C cell batteries (X2)
- **Battery Life:** 5 hours minimum
- **Temperature Range:**
  - **Storage:** -30 to +70 degrees C
  - **Operation:** -15 to +55 degrees C
- **Compass Safe Distance:** 1 meter

**Navigation Specifications**

- **12 Channel GPS Receiver**

**Dimensions and Weights**

- **Width:** 9.68 in.
- **Length:** 10.62 in.
- **Height:** 4.87 in.
- **Weight:** < 7.5 lbs.

**Frequencies and Channel Bandwidth**

- **TX AIS1:** 161.975 MHz at 25 KHz
- **TX AIS2:** 162.025 MHz at 25 KHz
- **Custom Frequency Range:** 161.925-162.050 MHz (25 KHz steps)\*

\*Contact factory for options

**AIS Signal Generator**

- **AIS Data Rate:** 9600 bits/s (RF Output)
- **Radiated Output Power:** Less than 200  $\mu$ V/m
- **Test Port Output Power Level:** -107 to -77 dBm (Programmable)
- **Test Port Input Power Level:** 25 W maximum
- **Transmit Interval:** 5 sec. – 5 min. (Programmable)
- **Harmonic Emission:**  $\leq$  -55 dBc
- **Spurious Emission:**  $\leq$  -55 dBc
- **Ramp Up:**  $\leq$  1 ms
- **Ramp Down:**  $\leq$  1 ms
- **Frequency Accuracy:** +/- 2.5 ppm

**Message Formats**

- Capable of outputting all standard, non-encrypted\* AIS messages
- \*Contact factory for encryption options

**Mechanical**

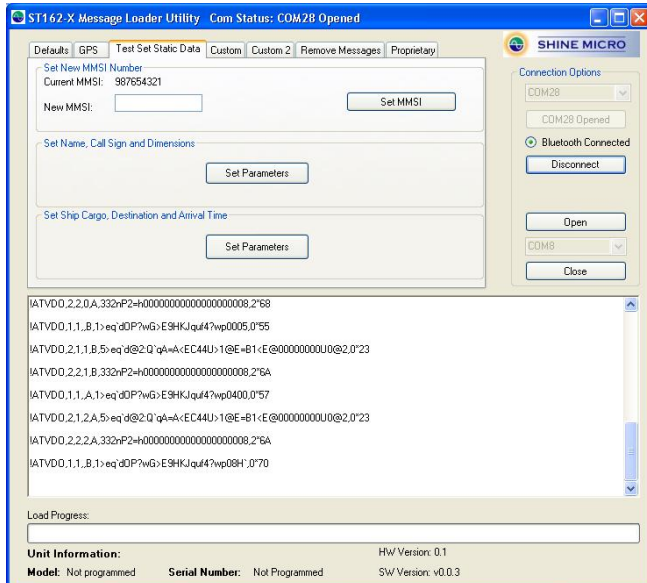
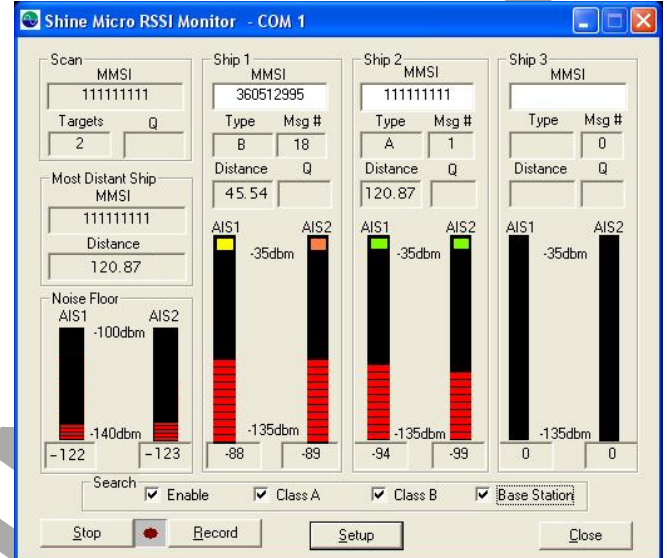
- **Housing Material:** Pelican 1200 Case
- **Material Finish:** Black or Yellow
- **Water Resistant:** IP67

**Front Panel Features**

- **Power On:** TX-RX/OFF/RX Toggle Switch with water proof boot.
- **AIS Direct Output:** Type N female bulkhead with screw on cap and chain
- **AIS Direct Input:** Type N female bulkhead with screw on cap and chain
- **GPS Antenna:** TNC female bulkhead with screw on cap and chain
- **LED Indicators:** Power, Transmit, Receive, GPS Lock, and Bluetooth Connection

**Dual Receivers (optional)**

- **AIS Data Rate:** 9,600 bits/s (RF Input)
- **Sensitivity:** PER  $\leq$  20% @ -107 dBm
- **Enhanced Signal Processing:**
  - Received Signal Strength Indication
  - Slot Numbering
  - VDL Loading
  - Ambient Noise Measurement
  - Packet Time of Arrival

**PORTABLE**
**RUGGED**
**AIS TEST SET**
**User Interface**
**User Interface:** Simple, easy to use Graphical User Interface

**Receiver Signal Strength Monitoring Interface**


PRELIMINARY

**WARRANTY INFORMATION**

Shine Micro warrants its products to be free from defects for one full year from the date of purchase. Shine Micro will, at its sole discretion, repair or replace any components that fail in normal use. Labor and material costs for such repairs or replacement will be free of charge. This warranty does not cover failures due to abuse, misuse, accidents, or unauthorized alterations or repair.

