

PORTABLE**RUGGED****TRANSMIT-ONLY****AIS TEST SET****INTRODUCING THE ST162-T1:**

A portable, transmit-only AIS Test Set designed for verification and optimization of AIS receivers on aircraft, ships, and shore stations.

- **Generates** Up to 100 AIS Messages
- **Integrated, Internal** AIS Antenna
- **RS232** and **Bluetooth** Communication options
- **Fast setup, Lightweight, Simple to use**

The **ST162-T1** features an internal VHF antenna and is pre-configured with 10 AIS messages including 6 unique MMSI numbers, allowing fast and simple operation straight out of the box. Simply turn on the **ST162-T1** and begin testing.

The included PC software enables programming of up to 100 AIS messages. Along with standard ship messages, the **ST162-T1** can also simulate an AIS Aid to Navigation

(AtoN), Safety Related Message (SRM), Search and Rescue Transmitter (SART) and binary message types.

Appropriate for both lab and field technicians, the **ST162-T1** is housed in a compact, rugged, lightweight and highly visible Pelican™ 1200 series enclosure, and is powered by two alkaline C cell batteries. The control panel is protected against exposure to UV, dust, impact and water immersion by IP67-rated hardware. All removable parts, including connector caps and battery covers, are tethered for use on active runways.

AIS system failures are most often due to incorrect connections, faulty or damaged cables or connectors, or incompatible display devices or software. Save valuable time and resources by using the ST162-T1 portable AIS Test Set to quickly and easily verify an AIS installation before each AIS deployment.

The ST162-T1 is used for:

- **Pre-Operational Checks**
- **Field and Bench Testing**
- **Installation Quality Comparisons**
- **Identification of Malfunctioning Systems**
- **Simulated AIS Data**
- **Other Custom Data**



PORTABLE**RUGGED****TRANSMIT-ONLY****AIS TEST SET****System Specifications**

- **Designation:** Portable AIS Test Set for AIS Receivers
- **User Interface:** RS232 at 115200 Baud (Bluetooth available; see Config. Options Worksheet)
- **Power Requirements:** C cell batteries (X2) (120V available; see Config. Options Worksheet)
- **Battery Life:** 10 hours average
- **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

AIS Signal Generator

- **Modulation Type:** GMSK
- **AIS Data Rate:** 9600 bits/s (RF Output)
- **Signal Generator Output:** Less than 150 $\mu\text{V}/\text{m}$ @ 3m
- **Emission Type (ITU Class):** 16KOFD
- **EUT Port Output Level:** -120 to -90 dBm w/ 20dB Attenuator. Programmable. (20 dB attenuator included in recommended companion product BDL-T162-001 ST162-T1 Quick Start Bundle.)
- **EUT Port Impedance:** 50 Ω
- **Maximum Duty Cycle:** 50%
- **EUT Port Input Power Level:** 25 W maximum
- **Frequency Accuracy:** +/- 2.5 ppm

Message Formats

- Capable of simulating AIS messages 1, 2, 3, 5, 6, 8, 12, 14, 18, 19, 21, 24A and 24B non-encrypted* AIS messages

*Contact Shine Micro for additional messages and encryption options

Mechanical

- **Enclosure:** 1200 Pelican™ Case (Polypropylene Copolymer)
- **Material Finish:** Bright Yellow
- **IP67 Compliant**

Front Panel Features

- **Power Switch:** ON/OFF MIL-S-83731 compliant Toggle Switch w/sealing boot
- **AIS Direct Output:** N-type female w/ cap and ball chain
- **GPS Antenna Input:** TNC female w/ cap and ball chain
- **Serial Data:** IP67 DB9 female w/ tethered dust boot
- **LED Indicators:** Power, Transmit, GPS Lock, Low Battery, *Bluetooth Status

*Bluetooth available; see Config. Options Worksheet

Device Compliance

- **FCC Part 15 Subpart C Section 15.209**
- **IC RSS-210 Issue 8**

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.

