

COMPACT**LOW POWER****DUAL AIS RECEIVERS**

The Shine Micro SF162SV-T3 is a dual low power AIS receiver for solar powered applications.

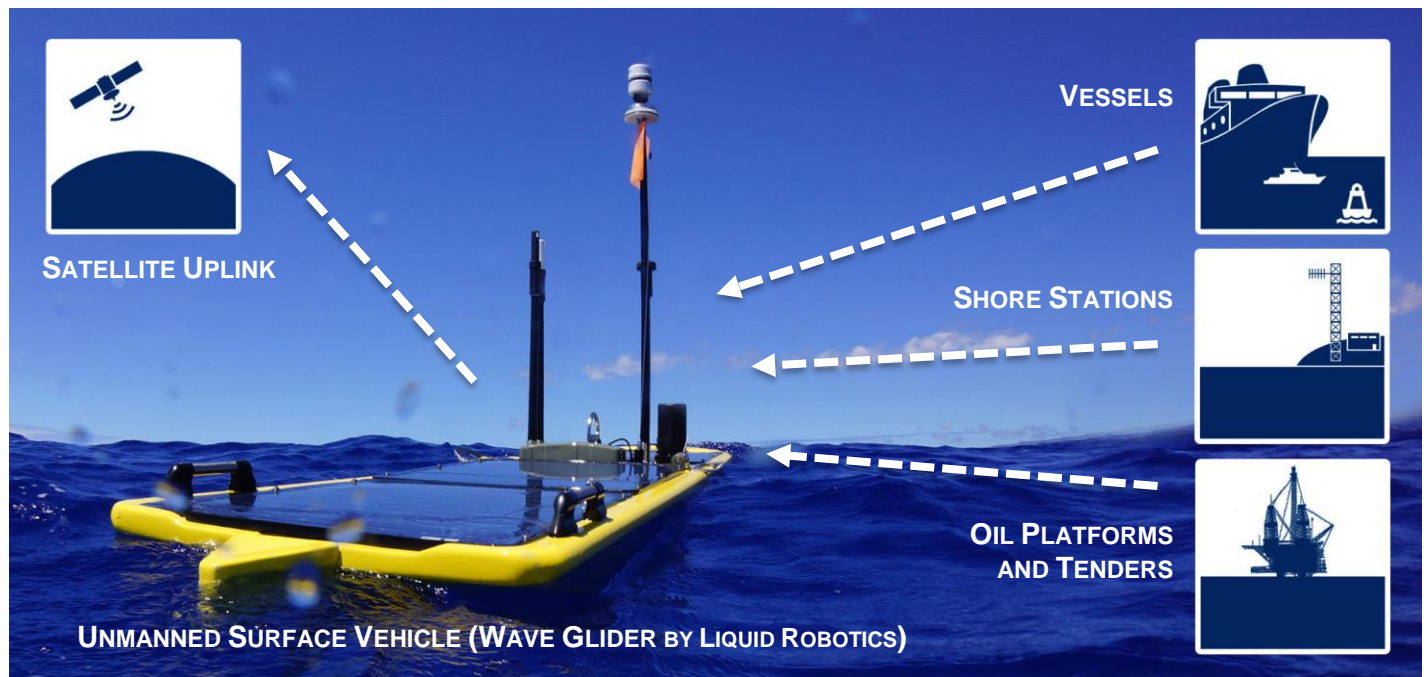
Shine Micro AIS receivers are internationally recognized for rugged construction, long-term reliability, and high-sensitivity AIS reception. In addition, the **SF162SV-T3** features a compact form factor and low power consumption, making it ideal for deployment on self-contained platforms and remote sites.

An Automatic Identification System, or **AIS**, reports identification information including Vessel Name, Size, Position, Course, Cargo, and more. AIS Transponders are mandatory on all SOLAS vessels, and used voluntarily by many non-SOLAS vessels. The global adoption of AIS ensures that information gathered by the **SF162SV-T3** dual AIS receiver provides valuable details about vessel traffic in the installation area.

The **Signal Analysis** capabilities of the **SF162SV-T3** allow users to monitor AIS traffic signal strength levels. Low ambient noise level is a critical parameter for maximum AIS monitoring site performance. The ambient noise level output of the **SF162SV-T3** can assist ongoing health monitoring of the installation.



SF162SV-T3: Ideal for remote monitoring of AIS using a satellite uplink for data backhaul.



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System Specifications

- **Designation:** Dual AIS Receiver
- **Serial interface:** RS-232 at 38400 or 115200 Baud
- **Power Supply:** 9.0 -13.6 VDC
- **Power Consumption:** 1.1 Watts
- **Temperature Range:**
 - **Storage:** -30 to +70 degrees C
 - **Operation:** -25 to +55 degrees C
- **Compass safe distance:** 1 meter

Navigation Specifications

- **12 Channel GNSS Receiver**

Dimensions and Weights

- **Length:** 4.4 in. including flange
- **Width:** 4.3 in.
- **Height:** 2.3 in.
- **Weight:** < 1 lb.

Mechanical

- **Housing Material:** 6061-T6 aluminum
- **Material Finish:** clear anodized and powder coated
- **Shock:** 50G

Connectors

- **Power/Data:** 8 Position Terminal Strip
- **AIS Antenna:** Reverse Polarity SMA Jack
- **GPS Antenna:** SMA Jack
- **Chassis Ground:** # 10 Stud

Indicators

- **Green/Red Bi-Color LED**


AIS Receivers

- **AIS Data Rate:** 9,600 bits/s
- **Sensitivity:** PER ≤20% @ -107 dBm
- **Adjacent Channel Selectivity:** 70 dB
- **Co-Channel Rejection:** 10 dB
- **Blocking:** 78 dB
- **Inter-modulation:** 65 dB
- **Large Signal PER:** 1% or less
- **Image Rejection:** ≥ 70 dB for 20% PER
- **Spurious Rejection:** ≥ 70 dB for 20% PER

Frequencies and Channel Bandwidth

- **RX Ch1:** 156.025 - 161.975 MHz at 25kHz BW
- **RX Ch2:** 156.075 - 162.025 MHz at 25kHz BW

Message Formats

Receives and outputs all standard AIS Messages defined in ITU-R M.1371-5 and anticipated future messages.

Applicable Standards

This device is compliant with the portions of the following standards relevant to AIS receivers:

ITU-R M.1371-5

IEC62320-2 AIS for Aids to Navigation

IEC61993-2 Class A AIS transponders

IEC62287-1 Class B AIS transponders

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FC SHINE MICRO, INC.
SF162SV-T3

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.

