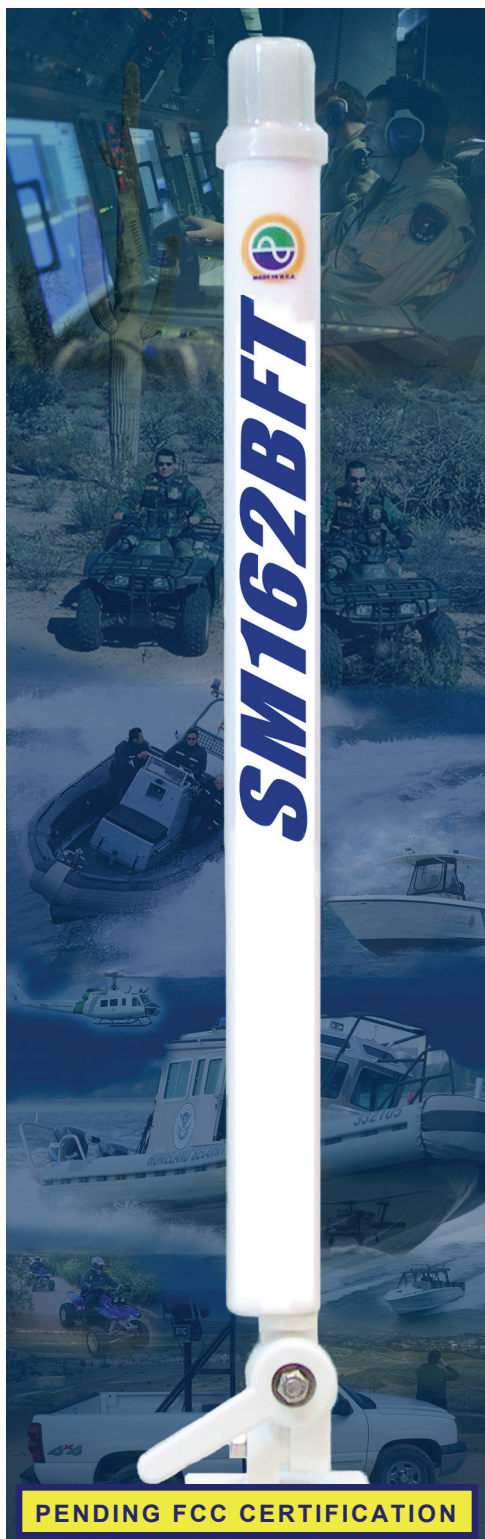




SHINE MICRO

RADARPLUS[®] SM162BFT

BLUE FORCE TRACKING



PENDING FCC CERTIFICATION

The SM162BFT is designed specifically for AIS surveillance PLUS encrypted tracking.

- Dual AIS Receivers
- Encrypted AIS Transmitter
- 12-channel GPS
- VHF antenna
- GPS antenna
- Contained in a 25 inch tube
- Mounts on a standard marine base

With the encrypted transmission of vessel name, call sign, size, position, and more, the **SM162BFT** is a comprehensive secure tracking system.

FEATURES

- Encrypted Tracking
- AIS Surveillance
- Installs in minutes

INTERFACE

- AIS: NMEA 0183 HS V3.0 / IEC 61162

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

WHY SM162BFT?

Automatic Identification System, or AIS, is a cutting-edge tool to assist with concerns such as collision avoidance, law enforcement, and port security. In addition to the features and functions that make AIS an indispensable tool for navigation and safety, the encryption capabilities of the **SM162BFT** allow officers to maintain surveillance of AIS traffic while only disclosing their own locations amongst a specified group.

The **SM162BFT** provides authorities with an integrated solution for monitoring commercial marine activity and tracking "blue" vessels and other assets.

W W W . R A D A R P L U S . C O M
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MADE IN U.S.A.



SM162BFT

CLASS B AIS BLUE FORCE Transponder

System Specifications

- **Designation:** Encrypted Class B AIS Transponder
- **Physical Serial interface:** RS232 or IEC 61162
- **Power Supply:** 12.6V
- **Power Consumption:** Less than 10 watts
- **Temperature:** (per IEC 60945)
-25°C to +70°C (Exposed)
- **Compass Safe Distance:** 1 meter

Navigation Specifications

- **12 channel internal GPS and antenna**

Dimensions and Weights

- **Diameter:** 2.0 in.
- **Height:** 25.0 in.
- **Weight:** 3 lbs.

Frequencies and Channel Bandwidth

- **RX 1 & 2:** 161.500 – 162.025 MHz
at 25 kHz channel spacing
- **RX DSC:** 156.525 MHz

Encrypted AIS Transmitter

- **TX AIS:** 161.500 - 162.025 MHz
at 25 KHz channel spacing
- **Power Output:** ≤ 2 watts
- **Harmonic Emission:** ≤ -53 dBc
- **Spurious Emission:** ≤ -53 dBc
- **Frequency Accuracy:** +/- 3ppm

AIS Receiver

- **AIS Data Rate:** 9,600 bps
- **Sensitivity:** ≤20% PER at -107 dBm
- **Adjacent Channel Rejection:** 60 dB at 25 kHz
- **Blocking:** 70 dB
- **Intermodulation:** 60 dB
- **Large Signal PER:** < 1%
- **Image Rejection:** ≥ 70 dB for 20% PER
- **Spurious Rejection:** ≥ 70 dB for 20% PER

Logical Serial Interface Details:

The logical serial interface of the SM162BFT is a subset of IEC specification 61993-2, using a 38.4 kbps connection to a host computer. The received AIS messages are output using the VDM sentence, and GPS location data is output using the NMEA 0183 sentences.

To request full serial interface specifications, please e-mail info@shinemicro.com or call Shine Micro at (360) 437-2503.

Simple Marine Installation

1. Attach the SM162BFT to a standard 1" x 14 threaded antenna mount.
2. Connect the power cable to a 12 volt power source.
3. Connect the ground lug to a solid ground.



Optionally connect the serial interface cable to a PC for STM applications and visual display.

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 repairs

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