

HIGH TRANSMIT POWER (5W SOTDMA)

## B953 CLASS B | AIS Transceiver



### DESCRIPTION

The B953 is a high transmit power (5W SOTDMA) Class B AIS transceiver that is small and lightweight, yet delivers the very best AIS receive and transmit performance so you see more AIS information and targets at maximum range – all achieved with the lowest power consumption.

The integrated high performance VHF antenna splitter of the B953 enables the transceiver to share your existing VHF radio antenna without any loss of performance and fail safe reliability. With built-in intelligent connectivity, integrated next generation GPS receiver & antenna and a unique FLEXI-FIT™ bracket system, safe and secure installation is simple.

### FEATURES

- | Certified AIS Class B – 5W SOTDMA
- | Integrated VHF antenna splitter
- | Global certification - USCG / FCC / Canada / Europe
- | SRT-AIS™ Transceiver Engine for superlative proven performance
- | FLEXI-FIT™ bracket system for easy, convenient and secure installation
- | Internal high-performance GPS receiver and antenna (external antenna optional)
- | Water, pressure spray and damp proof (IPx6, IPx7 certified)
- | Protected from vibration, shock and extreme temperatures
- | Small and lightweight
- | Ultra-low power consumption – best in class
- | Guaranteed connectivity and interoperability with any chart plotter or PC
- | NMEA 0183 & NMEA 2000
- | Automated health and performance monitoring
- | Silent mode (transmit-off) function
- | Enhanced RF screening to protect against electromagnetic interference
- | Built-in power surge protection
- | Fail safe VHF radio operation



## PHYSICAL & ENVIRONMENTAL SPECIFICATION

Size (H x W x D)	150 x 115 x 45mm
Weight	415g
Operating temperature	-25°C to +55°C
Storage temperature	-25°C to +70°C
Ingress protection	IPx6 and IPx7

## ELECTRICAL SPECIFICATION

Supply voltage	12V or 24V DC
Supply voltage range	9.6V - 31.2V DC
Average current (at 12V)	245mA
Peak current	2.5A
Average power consumption (at 12V)	2.9W
Galvanic isolation	NMEA 0183 inputs only, NMEA 2000, VHF antenna port

## CONNECTORS

VHF antenna	SO-239
VHF radio	SO-239
GNSS	TNC
Power/NMEA 0183/silent mode	12 way circular multipole
NMEA 2000	5 way Micro-C connector
USB	USB Micro-B

## DATA INTERFACES

NMEA 0183	2 x bi-directional ports
NMEA 2000	NMEA 2000 Ed 3.101, LEN=1
USB	PC virtual com port for NMEA 0183 data

## STANDARDS COMPLIANCE

AIS standards	IEC 62287-2 Ed. 2 ITU-R M.1371.5
Product safety standards	EN60950-1 2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013 EN62311:2008
Environmental standards	IEC 60945 Ed. 4
Serial data interface standards	IEC 61162-1 Ed 5.0 IEC 61162-2 Ed 1.0
NMEA 2000	NMEA 2000 Ed 3.101
GNSS performance standards	IEC 61108-1 Ed 2.0 IEC 61108-02 Ed 1.0

## GNSS

Systems supported	GPS, GLONASS, BeiDou, Galileo (two of any combination, three including GPS, Galileo)
Channels	72
Internal/external antenna	Internal or optional external antenna
Time to first fix from cold start	26s

## VHF TRANSCIVER

VDL access scheme	SOTDMA
Operating frequency	156.025MHz - 162.025MHz
Channel bandwidth	25kHz
Receivers/transmitters	2 x receivers, 1 x transmitter
AIS receiver sensitivity (20% PER)	-111dBm
AIS transmitter power	5W (+37dBm)

## USER INTERFACE

Indicators	Power, transmit timeout, error, silent mode
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## IN THE BOX

1 x AIS transceiver
1 x Power and data cable (2M)
1 x VHF radio accessory cable
1 x FLEXI-FIT™ mounting bracket
Complete with screws & optional fixing tape

## WARRANTY

With em-trak you can buy with confidence. If you are unhappy with your new product for any reason, within two days of receipt and subject to the product and packaging being complete and undamaged, you may return it to us for a full refund. We are sorry, but we cannot accept the return of any product if you have not advised us in writing within 48 hours of receiving your em-trak product, or if it has been used and or damaged or if any of the package is incomplete. All em-trak products benefit from our three year global warranty. In the unlikely event of a problem, please contact our Customer Support department (24/7) at support@em-trak.com and one of our experts will work with you to resolve your issue or arrange the repair or replacement of your em-trak product. The warranty is invalidated if the product has been incorrectly used, damaged or tampered.

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**B953 CLASS B | AIS TRANSCEIVER**  
**INSTALLATION GUIDE**

