

THE SOLUTION TO FULL CONTROL ON AIS

The AIS RX PRO, AIS receiver is designed to meet the all the existing requirements for AIS Base Stations but with receive capacity only . The AIS RX PRO will help fulfill needed requirements for a port to meet ISPS requirements. The AIS RX PRO is the best friend when designing a coastal AIS coverage in terms of accomplishing high coverage and surveillance at an affordable price since it can be used as a tool in the planning of an AIS system to measure and verify your coverage.

By implementing AIS RX PRO in an existing AIS infrastructure extended coverage and improved capacity can be accomplished at low cost. For blue light forces and navies it is the best way to have the most secure means to see all the AIS traffic transmitted within the available coverage, even addressed messages between other ships (everything on the VHF Data Link, VDL, will be available).

When used with the **RX Pro AIS Analysis** software, the RX Pro provides the AIS Management Authority with a valuable tool to monitor the integrity of the AIS network and identify AIS transmitting stations that are operating in non-compliance with the ITU 1317-3 standard for AIS radios, reviewing slot usage, VLD loading and other parameters to assist in the efficient management and operation of the AIS network.

General:

Power supply: 12 VDC
 Power consumption: Less than 5 W
 Temperature range: -15 - +55 deg. C
 EMC: Designed to meet CE, FCC part 15

Physical:

	Box mount	19 inch
Height:	40 mm	1 HE
Depth:	130 mm	285 mm
Width	190 mm	standard
Weight	1,8 kg	1,6 kg



AIS RX PRO 19" BOX MOUNT

LED Indicators:

- Reception Channel A
- Reception Channel B
- GPS 1PPS
- Status (OK/NOK) – Constant/Flashing

Receiver RF specification:

Frequency Range: 155 MHz to 163 MHz
 Maximum Usable Sensitivity: -112dBm for 20% PER
 Overall Noise Figure:< 10dB
 Input Impedance: 50 ohm
 Co-channel rejection: Better than -10dB
 Adjacent Channel selectivity: > 70dB normal cond.
 Spurious response rejection: > 70dB
 Intermodulation response rejection: > 80dB@-112dBm
 Blocking or desensitization: > 84dB
 Spurious radiation, conducted: < -57dBm

Functional specification:

The receiver supports the following functions and modes:

Set-up: Frequency /channel settings
 Operational mode settings
 Data port settings

Operational mode:
 Demodulated HDLC
 Raw mode HDLC
 Time stamp
 RSSI level (dBm)
 Slot number (referenced to UTC)
 Jitter measurement
 Signal to noise ratio
 Message statistics

Output messages:

Sentence	Comment
VDM	Messages 1-22
BRM	Once per received VDL message according to IALA A-124
ALR	Integrity Alarm
TXT	BIIT Warning/Notification
RMC	Position, Nav status, SOG, COG, Mode indicator, UTC Date and Time (once per second) with optional GPS receiver
!PTHAR	VDL Raw data with CRC error

Alarm messages:

- Rx channel 1 malfunction
- Rx channel 2 malfunction
- General failure
- No sensor position in use

Text messages:

- UTC clock lost
- UTC clock OK
- Internal GNSS in use

Input messages:

- Acknowledgement of alarm message
- Configuration of MMSI, position source, fixed position, frequencies, talker ID
- Reboot
- Configuration of optional information

Interfaces:

- Input/output: RS232 (RS 422 optional)
- AIS Antenna: 50 ohm, BNC connector
- GPS Antenna: 50 ohm, TNC connector (3.3VDC supply to antenna)
- DC supply: 12 VDC /5W



AIS RX PRO 19" RACK MOUNT