AIS001A – VHF AIS Receiver with LAN interface and local control

The AIS001A is a dual channel VHF receiver with the following features:-

- Full time dual channel receiver
- Able to receive AIS information from both AIS channels simultaneously
- High-sensitivity AIS data reception
- Line of sight reception similar to marine VHF reception distances
- Very low power consumption
- Receives AIS Class A and Class B vessel reports
- Remote control is via a LAN port which accesses the RS232 port of the receiver.
- On board computer (Cubieboard) allowing stand alone operation and recording function.

Figure 1- AIS001 Under operation

Specification:

Receiver:

Frequency 2 Channels	161.975MHz/162.025MHz
Channel Spacing	25kHz
Sensitivity	-112dBm
Demodulation type:	GMSK
Input impedance:	50 ohm ±5%
Output Baud Rate (RS232)	≥9600 Baud (Default set to 38,400 Baud).
Output Format	NMEA 0183 (V3)
Switched Bias T	Bias T switched to provide DC onto RX Coax, (12V)

Control Interface: (Ethernet Serial Server)

Type	Blackbox LES301A
Protocols	ICMP, TCP/IP, UDP, DCHP client, SNMP, TELNET, HTTP.
Configuration	Easy configuration through Web browser, serial consol, Telnet, or Windows utility
Connection	LAN (10BASE-TX/100BASE-T)
Mechanical	RJ45

Internal 'local' Control. (Enclosed in cover)

Main computer	CubieBoard.
Data storage (SATA/USB connected to Cubieboard)	500GB Hard drive.
Data Storage	Cubieboard 16GB SD Card provided

(Extra space is provided for a second cubieboard and hard drive)

Electrical (Power)

Mains Power	110/220 +/- 10% AC, 60Hz. Autosensing
Mains Filter fitted	
Fuse	1A AC (Rear Panel)
Front Panel DC fuse 12V	3A DC (Front Panel)
Front Panel DC fuse 5V	7.5A DC (Front Panel)

Mechanical:

Case Size.	1U rack mounted case x 400mm deep.
Cooling	2 Fans intake on the front
Weight:	4kg. (est)
RF Input Connector	N type Female connector.
LAN Connection x 2	2 x RJ45
Mains input	IEC 3 Pin connector.
Main Power Switch	Front Panel, Illuminated.
Front Panel Indicators x 3	VHF POWER, Channel A/B and AIS RX DATA.

Environmental:

Temperature:	0°C to +40°C
Humidity	Operating 10% to 90% (Non condensing)

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