MCS1

Ideal complement for VTS systems

Our AIS Transponder is a powerful and efficient system capable to monitor the vessels movements at port areas, providing essential information and data about ships, weather, and sea conditions. In addition, this information is delivered to a VTS system that will integrate all the processes involved in the port operations.

AIS monitoring system

The MCS1 is an AIS system for monitoring of vessel traffic in real time. Covering an area with a wide range of messages that make it compatible with AIS base stations. MSM hardware receives, decodes, translates and stores AIS messages, and manages data locally before transmission to a VTS system to improve the efficiency and safety of the received data.

Cost-effective solution

The MCS1 is an ideal and cost-effective solution for the ports control centres needing to manage, organise and assist the maritime traffic to guarantee a safe navigation in the area.

The MCS1 complies with IMO, IEC, ITU and IALA Standards.

FEATURES

- *Reception of AIS messages with communications and buffering in real time.*

- *Internal buffer: Received and sent messages are stored in an internal SD memory.*

- *Data recovery after an IP communications failure with the VTS system.*

- *SD memory card up to 256 MB with encrypted data buffered for months.*

- *Data transmission by RATDMA (Random Access Time Division Multiple Access).*

- *Ability to generate up to 10 virtual and synthetic AIS AtoN autonomously.*

- *AIS-AtoN and SART msg repeater function.*

- *Transmission of directed or broadcast security messages.*

- *Filtering and signal processing: Data is filtered to exclude redundant information, only relevant data is sent. Reduces and compresses the volume of communication data (so that the costs of IRIDIUM communications, 3G, 4G, 5G Telephony are minimised).*

- *Connection with weather station for automatic sending of MSG8 Meteo.*

- *Minimum consumption and size. Ideal for solar systems installed in remote areas.*

MCS1

GPS

Integrated Receiver:	50 channels, IEC 61108-1.
Antenna:	35 dB active, external, marine type.

POWER SUPPLY

Power supply range	From 10 to 32 V c.c.
Typical consumption (*):	160 mA average
	3.2 A maximum

AIS RF MODULE FEATURES

Frequency range:	156,025 to 162,025 MHz.
Transmission power:	1, 2, 5, 12.5W (adjustable).
Number of receivers:	2.
Receiver sensitivity:	< -107 dBm.
AIS 1 frequency:	161,975 MHz 25 Khz.
AIS 2 frequency:	162,025 MHz 25 Khz.

RECEPTION

Class A:	1, 2, 3, 5
Class B:	18, 19
METEO:	8
AtoN:	21
Safety:	12, 13, 14
Digital control:	6, 7, 25, 26

TRANSMISSION

Possible messages:	21, 6, 7, 8, 12, 13, 14, 25, 26.

STANDARDS

	IALA A-126. Edition 1.4.
IEC 62320-2 Edition 1.	IEC 61162-1/2. Edition 2.0.
IEC 60945. Edition 4.	ITU-R M. 1371-4
IEC 61108-1.	

MECHANICS AND ENVIRONMENTAL

Dimensions:	180 x 150 x 90 mm.
Weight:	1.6 kg.
Temperature range:	-25º to 55ºC.
Watertightness:	IP 67.

INTERFACES

Digital I/O:	5 nos. opto-coupled inputs.
	2 nos. relay outputs.
	4 nos. non-isolated adjustable inputs/outputs.
Analogical Inputs:	2 nos. isolated inputs 0-36V.
	3 nos. non-isolated inputs 0-32V.
	1 no. current sensor 0.1-5A.
Ports:	RS-422 bidirectional port 38,400 baud. NMEA 0183.
	RS-422 input port 38,400 baud. NMEA 0183.
	Bidirectional port 38,400 baud. NMEA 0183.
	Input port 38,400 baud. NMEA 0183.
	2 nos. adjustable RS-232 ports.
	Configuration USB port.
	SDI12 Bus.

! *Specifications subject to change without previous notice.*

MSM
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