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1 AIS 300 OPERATIONAL DESCRIPTION

1.1 Introduction

AIS is mainly an anti-collision system. The AIS 300 is a class A AIS mobile station, tested and approved according to IEC 61993-2 (Main Equipment and Test standard).

1.2 Build up and operation

AIS has one transmitter and three receivers. It operates in the maritime VHF band; 156.025 to 162.025 MHz. Default AIS frequencies are (RX/TX) CH87B (161.975 MHz) and CH88B (162.025 MHz) GMSK modulation, SOTDMA protocol. In addition the AIS can receive information on CH70 (156.525 MHz), FSK modulation (very seldom used). Each three minutes the units transmits a short position message on the AIS SAT frequencies; SAT 1 (156.775 MHz) and SAT 2 (156.825 MHz).

Transmission output power is nominal 12W, but close to oil platforms, the unit can be configured to transmit with 1W.

AIS 300 contains a 12 channel GPS receiver on a separate circuit board. This receiver is mainly used for time synchronization. The receiver uses the L1 frequency (1575.42 MHz).

An N connector is provided on the box for the external VHF antenna and a TNC connector for the GPS antenna.

A separate interface board with serial data channels and LAN interface is mounted on top of the AIS interface board. Thus, communication with other types of equipment can be handled.

AIS 300 is powered from a DC source, 12-24 V nominal input. Average power consumption is below 10 W, with peaks up to 25 W when transmitting (max transmitting power).

AIS display can be provided as a separate unit (Multi Function Display - MFD)