

MF/HF/VHF GMDSS Test Equipment

The Device is designed for check the transmitting and the receiving channels of the GMDSS complex in accordance with the requirements of part 4 of the ship's conventional equipment Regulations and DSC Protocol of the International Radio Consulting Committee requirements 493 - 8 and 541 - 7 without the emission on the emergency frequencies, in the wave-bands MF, HF, with the channel's wave resistance being 50/75 Ohm and VHF - 50 Ohm.



MAIN FEATURES

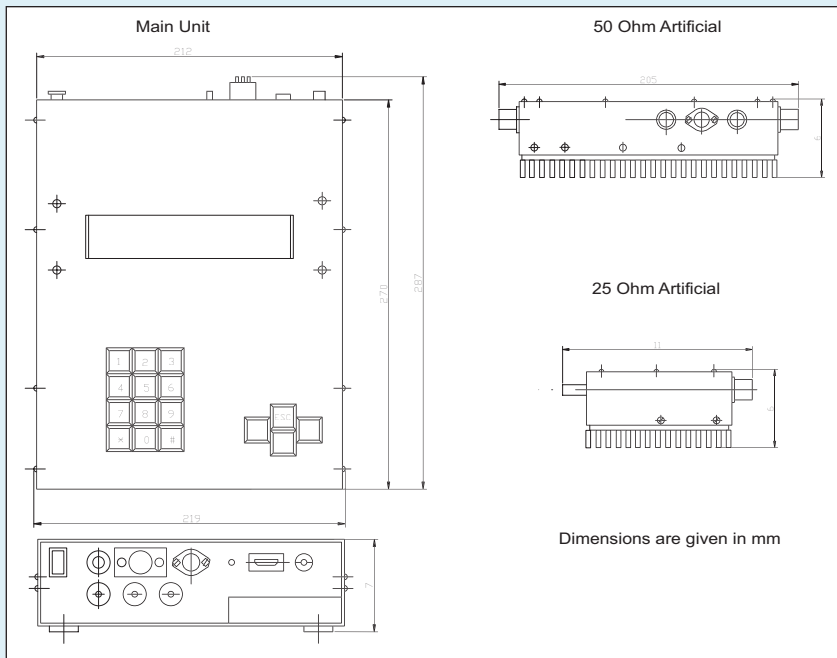
During the test of the transmitting channel the device allows to:

- check the reliability of formation and reception of the DSC messages of Distress format on frequencies MF, HF-2187,5 kHz, 8414,5 kHz; VHF - 156,525 MHz without emission to the broadcast;
- check the decoding of the received DSC signals;
- display the received DSC signals on LCD;
- sound the reception of the DSC signal;
- indicate the time of reception of the DSC message;
- indicate the power level of the transmitting GMDSS equipment on LCD;
- indicate the synchronized bit quantity, message, previous to the DSC message phase, indicating the correct operation of the transmitting HF path of the GMDSS equipment of a vessel;
- make qualitative estimation of the transmitting HF path: the transmitter - linkage - antenna of the GMDSS equipment by level of power;
- estimate the frequency's stability of the checked transmitter by the received DSC message;

During the test of the receiving channel the device allows to:

- form and send to the input of the MF/HF receiver not less than three types of DSC messages : 'Distress -5', "Distress - 1", "Safety" for MF, HF on the frequencies 2187,5 kHz, 8414,5 kHz; for VHF on the frequency 156,525 MHz.
- form and send to the input of the VHF receiver not less than three kinds of the messages DSC "Distress-5", "Distress-1", "Safety" on frequency 156,525 MHz;
- estimate the receiver ability to restore the information by sending of the messages with a single mistake;
- print the test results of receiving section





The supply voltage of the device is 24 V +8V, -6V; power is no more than 10 W, without the printer and no more than 18 W - with the printer.

The resistance of the artificial antenna of the MF/HF device - 50/75 Ohm 2,5 Ohm.

The resistance of the artificial antenna of the VHF device - 50 Ohm-2,5 Ohm.

The power level supplied to the artificial antenna input:

- MF/HF75 Ohm < 400 W
- MF/HF50 Ohm < 250 W
- VHF 50 Ohm < 40 W

The signal level on the device input with attenuation - 0 db is from 0,5 up to 1 V.

Operational frequencies of the device for MF/HF - 2187,5 kHz and 8414,5 kHz; for VHF - 156,525 MHz.

Precision of the frequency set:

- MF/HF - 10 Hz;
- VHF - 5×10^{-6} ;

The device provides transmission of three kinds of the DSC messages: "Distress-5", "Distress-1" and "Safety";

The device provides reception of the DSC messages in "Distress" format on frequencies MF/HF - 2187,5 kHz and 8414,5 kHz; VHF - 156,525 MHz;

The device provides cyclic mode of operation during reception of the messages such as "Distress-5" with periodicity not less than 5 minutes at P < 250 W and 10 minutes at P < 400 W.

During reception of the single messages with 3 minutes cycle period - not less than 7 hours, with the subsequent one hour's interval.

The device allows to print the check protocols of the receiver and transmitter on a tape which width is 58 mm (24 symbols in a line). Protocols consist of the basic parameters of message.

It is possible to input the name of a vessel, first name, middle initial, last name of representative of a vessel and date of check in the Russian and English alphabet with the help of buttonboard.

Set of the Device

#	Name	qt
1.	GMDSS Tester	1
2.	50 Ohm artificial	1
3.	25 Ohm artificial	1
4.	The printer	1
5.	Power supply cable	1
6.	LF Cable	1
7.	LF Socket	1
8.	HF transition	2
9.	Paper (width 58 mm)	1
10.	HF Cable	2
11.	Set of spare parts	2
12.	Specification	1
13.	Device's package	1

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