

LABOTECH

TECHNICAL INFORMATION

TEST REPORT ON THE PERFORMANCE OF MARITIME DSC-CONTROLLER WITH INTEGRATED MF/HF- WATCHKEEPING RECEIVER

Trade Mark : FURUNO

Model : DSC-60

Report no.: FLI 12-99-044
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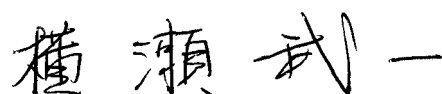
All tests were performed in Furuno Labotech International Co., Ltd.
All data herein contained is true and correct to our best knowledge.

All tests were performed by:

Name : Takekazu Yokose

Function : Chief engineer

Signature :

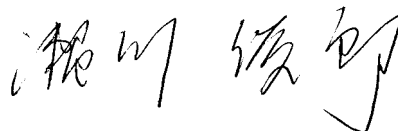


Review and report by:

Name : Toshiro Segawa

Function : Manager/QA

Signature :



This report has been verified and approved by:

Date : December 15, 1999

Name : Sadatomo Kuwahara

Function : Manager/Engineering Section

Signature :



* * * * * **C O N T E N T S** * * * * *

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1 General Information

1.1 General

(a) Manufacturer	: Furuno Electric Co., Ltd. Ashihara-Cho 9-52, Nishinomiya-City, 662-8580 Japan.
(b) Model/Name	: MARITIME DSC-CONTROLLER WITH INTEGRATED MF/HF- WATCHKEEPING RECEIVER
(c) Type	: DSC-60
Serial No.	: 3516-0011
(d) Frequency Range	: 1.6 to 27.5 MHz
(e) GMDSS Compliance	: IMO Res. A.613(15)
(f) Communication Protocol	: Complies with ITU-R Rec. 493-9, 541-8, 1082-1
(g) Class of Emission	: F1B/J2B
(h) Power Supply	: 24 VDC, 24 W
(i) Dimensions & Weight	: 108 (H) x 258 (D) x 303 (D) mm, 4 kg

2 Identification of Equipment (FCC Rule 2.925)

The following nameplate is permanently fixed on the equipment unit.

FCC ID: ADB9ZWDSC60

Material of nameplate: Polyester film, 0.1 mm thick

Size: 80 (W) x 16 (H) (mm)

DSC/WATCH RECEIVER	MODEL	DSC-60
SER.NO. 3516-0011	FCC ID: ADB9ZWDSC60	
DATE 1999-10	FURUNO ELECTRIC CO., LTD.	
	9-52 Ashihara-Cho, Nishinomiya	
	City, Japan	MADE IN JAPAN

3 Test Data

1) RF Power Output (FCC Rule 2.1046)

Not applicable.

2) Modulation Characteristics (Bit Stream Speed) (FCC Rule 2.1047)

Method of measurement:

Fig. 1 shows setup for measurement.

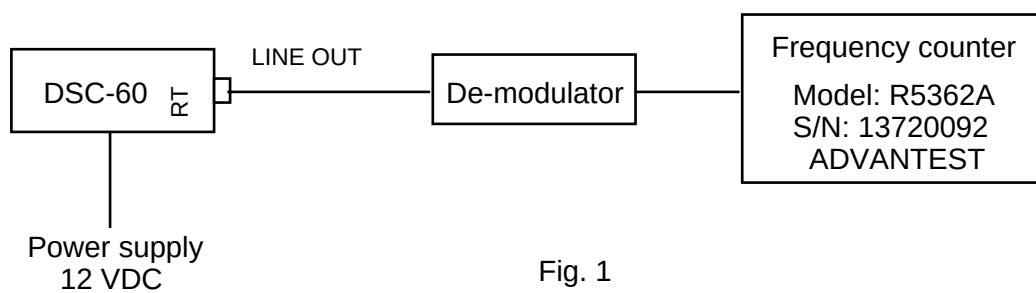


Fig. 1

Test result: - 4.7 ppm
(Dot pattern signals generated in the DSC-60 were measured.)

Limit: The frequency shall be 50 Hz +/- 30 ppm corresponding to the bit stream speed 100 bit/s.

3) Occupied Bandwidth (FCC Rule 2.1049)

Method of measurement:

Fig. 2 shows setup for measurement.

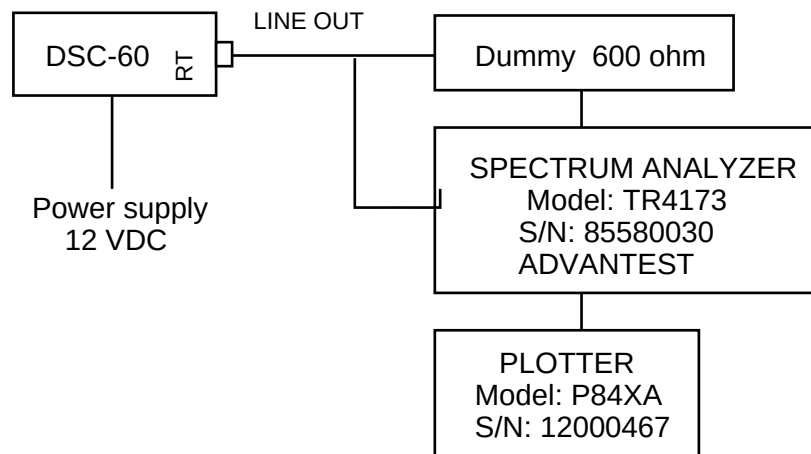


Fig. 2

Test result:

Refer to Fig. 3.

(Dot pattern signals generated in the DSC-60 were measured.)

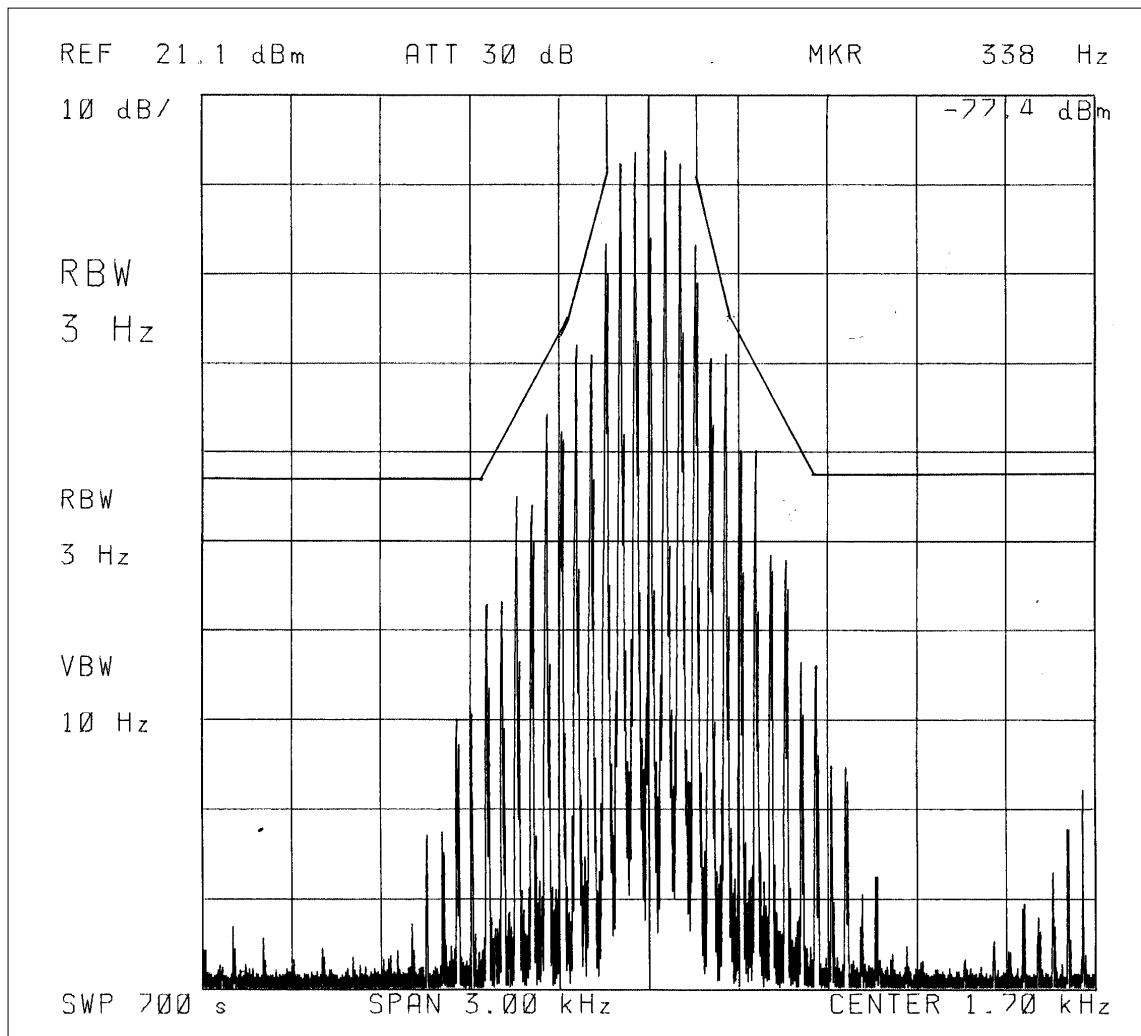


Fig. 3

4) Spurious Emissions at Antenna Terminals (FCC Rule 2.1051)

Not applicable.

5) Field Strength of Spurious Radiation (FCC Rule 2.1053)

Not applicable.

6) Frequency Stability (FCC Rule 2.1055)

Method of measurement:

Fig. 4 shows setup for measurement.

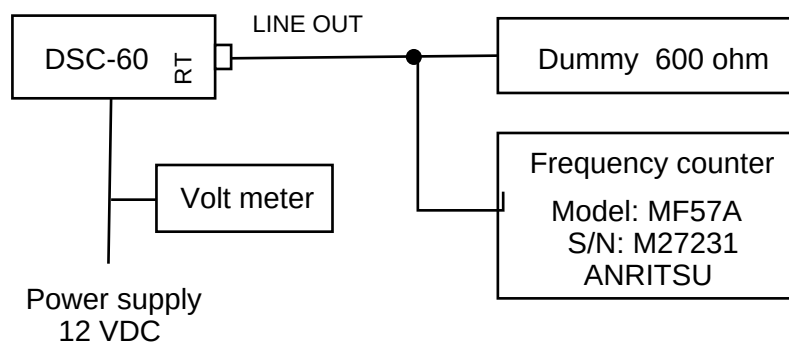


Fig. 4

Test result:

Results are shown in Table 1.

		Table 1								
		Frequency error (Hz)								
		- 20 °C			+ 25 °C			+ 50 °C		
		21.6 V	24.0 V	31.2 V	21.6 V	24.0 V	31.2 V	21.6 V	24.0 V	31.2 V
Frequency (Hz)										
B state	1615	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y state	1785	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Limit: +/- 1.0 Hz

4 Photographs to reveal equipment construction and layout (FCC Rule 2.1035)

(See Attachment A Photos of DSC-60.)

5 Description of Circuitry and Devices (FCC Rule 2.1033)

5.1 Block Description

(See Attachment B DSC-60 Block Description.)

5.2 Description of the Functions of the Active Devices

(See Attachment C Description of the functions of the active devices.)

6 Operator's Manual including Circuit Diagrams (FCC Rule 2.1033)

(See separate covers.)