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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 31843.2-2019

Maritime navigation and radiocommunication equipment and systems -- Digital interfaces -- Part 2: Single talker and multiple listeners -- High-speed transmission

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Foreword

GB/T 31843 "Digital Interface for Maritime Navigation and Radiocommunication Equipment and Systems" is intended to be divided into the following sections.

--- Part 1. Single Talker and Multi Receiver;

--- Part 2. Single-talker and multi-receiver high-speed transmission;

--- Part 3. Serial data device network;

This part is the second part of GB/T 31843.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to IEC 61162-2.1998 "Marine navigation and radio communication equipment and system digital interface

Part 2. Single-talker and multi-receiver high-speed transmission.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 15868-1995 Definition and general provisions for marine electrical equipment (IEC 60945.1994, IDT)

This part is proposed and managed by the National Marine Electrical and Electronic Equipment Standardization Technical Committee (SAC/TC531).

This section drafted by. China Shipbuilding Industry Comprehensive Technology and Economic Research Institute, China Power (Ningbo) Ocean Electronics Research Institute Co., Ltd., on

Haitian Cruises Technology Co., Ltd.

1.1 Scope

This part of GB/T 31843 specifies the interconnection between marine electronic instruments and navigation and radiocommunication equipment interconnected by corresponding interfaces.

Data communication requirements.

This section is intended to support unidirectional serial data transmission from a single talker to one or more receivers. Data can be in ASCII

The formal output can also contain any specified statement information or information encoded according to the rules of the proprietary statement. Length of typical information

It can range from 11 characters to 79 characters and usually requires a repetition rate of every 20ms.

This section defines electrical to accommodate higher rates than those specified in IEC 61162-1. Due to limited error checking

Yes, there is no guarantee of message delivery. This section should be used with caution in all security applications.

Appendix A contains a list of relevant International Maritime Organization (IMO) resolutions applicable to this section and the International Telecommunications Union (ITU)

Discussion.

1.2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 60945.1996 General requirements for test methods and requirements for maritime navigation and radiocommunication equipment and systems

(Maritimenavigationandradiocommunicationequipmentandsystems-Generalrequirements-Meth-

Odsoftestingandrequiredtestresults)

IEC 61162-1.1995 Maritime navigation and radiocommunication equipment and systems - Digital interface - Part 1. Single s

Telephone
(Maritimenavigationandradiocomicicationequipmentandsystems-Digitalinterfaces-

Part 1. Singlelalkerandmultiplelisteners)

ITU-TV.11.1996 Electrical characteristics of balanced dual-stream interface circuits operating at data rates up to 10 Mbit/s

(Electricalcharacteristicsforbalanceddouble-currentinterchangecircuitsoperatingatdatasignaling

ratesupto10Mbit/s)

NMEA0183-2.30.1998 National Marine Electronics Association (USA) Marine Electronic Navigation Device Interface Standard [National

Marineelectronicsassociation(USA)-Standardforinterfacingmarineelectronicnavigationaldevices]

EIA485.1991 Transmitter and receiver electrical characteristics used in balanced digital multipoint systems (Electricalcharacteristicsof

Generatorsandreceiversforuseinbalanceddigitalmultipointsystems)

1.3 Terms and definitions

See Appendix B for common terms. The following terms and definitions apply to this document.

1.3.1

Talker talker

A device that sends data to other devices. Identify the Talker according to the 2 character identifiers listed in Table 4 of 6.2 of IEC 61162-1