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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 35552.2-2026

**Technical requirements for Class B shipborne equipment of the
automatic identification system (AIS) - Part 2: Self-organising
time division multiple access (SOTDMA) techniques**

船舶自动识别系统 (AIS) B类设备技术要求 第2部分: 自组织时分多址 (SOTDMA)

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 2 of GB/T 35552 "Technical Requirements for Category B Equipment of Automatic Identification System (AIS) for Ships". GB/T 35552 has been...

The following sections have been published.

---Part 1: Carrier Sense Time Division Multiple Access (CSTDMA);

---Part 2: Self-Organizing Time Division Multiple Access (SOTDMA).

This document modifies and adopts IEC 62287-2:2017 "Automatic Identification Systems (AIS) for Marine Navigation and Radio Communication Equipment and Systems".

Marine Equipment Category B, Part 2: Self-Organizing Time Division Multiple Access (SOTDMA) Technology.

Compared with IEC 62287-2:2017, this document has undergone the following structural adjustments.

- 4.1~4.3 correspond to 4.1.1, 4.1.3, and 4.1.5 in IEC 62287-2:2017;
- 4.1.3 corresponds to 4.1.4 in IEC 62287-2:2017;
- 4.4 and 4.5 correspond to 4.2 and 4.3 in IEC 62287-2:2017;
- Sections 5.1 to 5.5 correspond to Chapter 5 of IEC 62287-2:2017;
- Sections 6.2.1 to 6.2.2 correspond to section 6.2 in IEC 62287-2:2017;
- 6.7.1 and 6.7.2 correspond to 6.7.1 in IEC 62287-2:2017;
- 6.7.3 and 6.7.4 correspond to 6.7.2 and 6.7.3 in IEC 62287-2:2017;
- Section 7.2.3.7 has been removed from IEC 62287-2:2017;
- Sections 7.4.2.1 to 7.4.2.8 correspond to section 7.4.2 in IEC 62287-2:2017;
- Section 7.7 has been removed from IEC 62287-2:2017;
- 7.7 corresponds to 7.8 in IEC 62287-2:2017;
- 10.1.2 corresponds to 10.1.3 in IEC 62287-2:2017;
- 10.1.3 corresponds to 10.1.2 in IEC 62287-2:2017;
- Chapter 14 has been added;
- Appendix A has been removed from IEC 62287-2:2017;
- Appendix A corresponds to Appendix C in IEC 62287-2:2017;
- Appendix C has been added.

The technical differences between this document and IEC 62287-2:2017, and the reasons therefor, are as follows.

- The description of the relationship between IEC 62287-2:2017 and other international standards has been removed from the scope (see section 1 of IEC 62287-2:2017).

Chapter 100 added information on Category B equipment of Automatic Identification System (AIS) employing Self-Organizing Time Division Multiple Access (SOTDMA) technology.

The technical requirements specify the description and scope of application of the

standards (see Chapter 1) to adapt to my country's technical conditions;

---ITU-RM.1084-5.2012 (see Chapter 1, 6.2, Table 5, 7.2.3.3 and 10.3.2.2 of IEC 62287-2:2017) has been deleted to conform to Based on my country's technological conditions;

---All technical content regarding DSC has been removed [see IEC 62287-2:2017 3.2, 6.1c) and d), 6.2, 6.5.1.3].

c) Tables 2, 7.2.3.7, 7.4.2.1, 7.7, 8.5.8, 12.6.2.2a), and Appendix A and B.2], because they are almost never used in practical applications.

The relevant ITU resolution also plans to delete it.

--- Normative references GB/T 16162 and GB/T 20068 (see 3.1) have been added to adapt to my country's technical conditions;

---Added "AIS-SART", "ASCII", "AtoN", "BDS", "CGCS2000", "CS", "FATDMA", "NTS", and "PGN" "PRS", "SI" and "SO" (see 3.2), and "DSC", "IMO", "ITU", "NM" and "RR" (see IEC 62287-2:2017) have been removed.

3.2), to adapt to my country's technological conditions;

---Added the ability to receive brief security-related information for Class B SOAIS [see 4.1.2d], ensuring the ability to receive brief security-related information.

information;

---The quality assurance clause (see 4.1.2 of IEC 62287-2:2017) has been removed. This clause is not part of the content required for drafting Chinese standards.

---The requirements in the manual have been revised (see 4.4, 4.2 of IEC 62287-2:2017) to enhance user safety and equipment reliability;

---Change IEC 60945:2002 to IEC 60945:2002/COR1.2008 (see 4.5, 5.1, 5.4, 8.1, 9.1, 9.2.2).

Comply with IEC 62287-2:2017, sections 4.3, 5, 8.1, 9.1, and 9.2.2, to meet electromagnetic requirements;

---The GNSS position sensor reference has been changed [see 6.1d), IEC 62287-2:2017 6.1], due to the use of the CGCS2000 reference.

More suitable for China's geographical and geological conditions;

---Location information has been removed, and all references to WGS-84 (see IEC 62287-2:2017, section 6.3) have been removed, as the reference has been changed in this document.

CGCS2000, which does not fall under the requirements of IEC 61108 (all parts);

---Added location information using CGCS2000 (see 6.3), as the CGCS2000 benchmark is more suitable for China's geography and geology.

condition;

---The requirements for vessel position in dynamic information have been changed [see 6.5.1.2a), 6.5.1.2 of IEC 62287-2:2017, to ensure transnational vessels Precise mutual recognition of ship positions;

---The conditions for SOG have been modified (see Table 1, Table 1 of IEC 62287-2:2017) to ensure complete SOG values and improve document performance.

Readability;

---Added supplementary instructions on AIS fault response when no position sensor is available (see Table 2) to improve document readability;

---Added requirements for parsing and displaying AIS binary information in the display [see 6.7.2e)], ensuring that AIS binary information is readable;

---The requirements for external interfaces have been changed (see 6.7.4, 6.7.3 of IEC 62287-2:2017) to ensure the openness of additional interfaces;

---The requirements for using VDL messages have been changed, including the addition of technical requirements for Chinese short messages (see 7.3.4.4), consistent with those in Chapter 14.

Used in conjunction with SMS testing;

---Added details on test methods (see 10.1.1.1) to improve document readability;

---The test method for operational safety has been modified (see 10.1.3.2, 10.1.2.2 of IEC 62287-2:2017), clarifying the content of the test method;

---Added Chinese SMS testing (see Chapter 14), making the standard more suitable for the needs of my country's ship communication and navigation equipment.

Requirements for ship safety supervision by ship management authorities using AISB-class equipment;

---ITU-RM.825-3.1998 (see A.1, A.2, A.3.1 of IEC 62287-2:2017) has been deleted, because DSC has already been deleted.

content;

---Added Chinese communication rules and encoding requirements (see Appendix C) to make file technology better meet domestic communication needs;

---The normative reference document GB/T 2312 [see C.1a) and C.3.1.1a] has been added to adapt to my country's technical conditions.