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

GB/T 35552.1-2026

Replacing GB/T 35552.1-2017

**Technical requirements for Class B shipborne equipment of the
automatic identification system(AIS) - Part 1: Carrier-sense time
division multiple access(CSTDMA) techniques**

船舶自动识别系统 (AIS) B类设备技术要求 第1部分: 载波侦听时分多址 (CSTD
MA)

(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.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document is Part 1 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).

This document replaces GB/T 35552.1-2017 "Technical Requirements for Ship Automatic Identification System (AIS) Class B Equipment Part 1: Carrier Detection" Compared with GB/T 35552.1-2017, the main technical changes in "CSTDMA" are as follows, aside from structural adjustments and editorial modifications.

as follows.

---All technical content related to DSC has been removed [sections 6.1b) and c) of the 2017 edition, 6.2, 6.5.1.3c), and 7.2.2.7].

Tables 12, 7.4.2, 7.4.3a), 7.6, 8.3.1, 8.4.1.2, 10.3.1.1, 12.6.2, and Appendix A;

---The terms and definitions for Carrier Sense Time Division Multiple Access (CSDMA) and small vessels have been removed (sections 3.1.1 and 3.1.2 of the 2017 edition).

---The requirements for Category B CSAIS functionality have been changed (see 4.1, 4.1.1 in the 2017 version);

---The technical requirements for operational security have been changed (see 4.2, 4.1.2 in the 2017 version);

---The requirements in the manual have been changed (see 4.4, 4.2 in the 2017 edition);

---The requirements for environment, power supply, interference, and safety have been changed (5.1, Table 22, Chapter 5, Table 22 of the 2017 edition);

---Changes have been made to the reference requirements for GNSS position sensors [see 6.1d, 2017 edition of 6.1d];

---The requirements for GNSS position sensors have been changed (see 6.3, 2017 version 6.3);

---The requirements for labeling have been changed (see 6.4, 2017 version 6.4);

---The requirements for vessel position in dynamic information have been changed [see 6.5.1.2a, 2017 version 6.5.1.2a];

---The requirements for AIS security-related SMS messages have been changed (see 6.5.1.4, version 2017 of 6.5.1.4);

---The display requirements have been changed (see 6.7.2, 6.7.1 in the 2017 version);

---The requirements for the external interface have been changed (see 6.7.4, version 6.7.3 of 2017);

---The requirements for the modulation accuracy parameters of the transmitting unit have been changed (see Table 4, Table 4 in the 2017 version);

---The synchronization requirements have been changed (see 7.3.2.2, version 7.3.2.2 of 2017);

- The CS detection threshold has been changed (see 7.3.2.4, version 7.3.2.4 from 2017);
 - The configuration of the launch packet has been added (see 7.3.3.4);
 - The requirements for using VDL messages have been changed (see 7.3.4.7, version 2017 of 7.3.4.7);
 - The description of the location precision flag for message 18 has been changed (see Table 13, Table 12 in the 2017 version);
 - Test settings have been changed (see 8.4.1.1, version 8.4.1.1 from 2017);
 - The requirements for positioning test inputs have been changed (see 8.4.1.2, 8.4.1.3 in the 2017 version);
 - The requirements for simulated antennas have been changed (see 8.4.1.5, 8.4.1.6 in the 2017 version);
 - Added test conditions for invalid control protection (see 8.4.3);
 - Added testing requirements for additional functionality and operational security (see 10.1);
 - Added general requirements for message display testing (see 10.9.2.1);
 - The external interface has been changed to a display interface, and the relevant test requirements have been modified (see 10.9.4, version 10.8.4 of 2017);
 - Added related testing methods for limiting frequency range and specifying frequency, where the receiving frequency is set to the lowest frequency and the test is repeated.
- Requirements [see 11.2.5.4.2f), 11.2.5.4.3f), and 11.2.5.5e];
- The testing method for Synchronization Mode 2 has been changed (see 12.1.2.1, version 2017);
 - The test requirements for channel management via addressing message 22 have been changed (see 13.3.2, version 2017);
 - The content of the Chinese SMS test has been changed (see Chapter 14, Chapter 14 in the 2017 edition);
 - The Chinese communication rules and encoding requirements have been changed (see Appendix B, Appendix C of the 2017 edition).

This document modifies and adopts IEC 62287-1:2017 "Automatic Identification Systems (AIS) for Marine Navigation and Radio Communication Equipment and Systems".

Marine Equipment Category B, Part 1: Carrier Sense Time Division Multiple Access (CSTDMA) Technology.

Compared with IEC 62287-1:2017, 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 62287-1:2017;
- 4.1.5 corresponds to 4.1.4 in IEC 62287-1:2017;
- 4.4 and 4.5 correspond to 4.2 and 4.3 in IEC 62287-1:2017;
- Removed 6.5.1.1 from IEC 62287-1:2017;
- Sections 6.5.1.1 to 6.5.1.4 correspond to sections 6.5.1.2 to 6.5.1.4 in IEC 62287-1:2017;
- 6.7.1 and 6.7.2 correspond to 6.7.1 in IEC 62287-1:2017;
- 6.7.3 and 6.7.4 correspond to 6.7.2 and 6.7.3 in IEC 62287-1:2017;
- Sections 7.2.2.7, 7.6, 8.3.1, 8.4.1.2, 10.1.1, and 12.6.2 have been removed from IEC 62287-1:2017;
- 8.3.1, 8.3.2, 8.3.3, and 8.3.4 correspond to 8.3.2, 8.3.3, 8.3.4, and 8.3.5 in IEC 62287-1:2017;
- 10.1.1 corresponds to 10.1.3 in IEC 62287-1:2017;
- 10.9.4.1~10.9.4.3 correspond to 10.9.4.1.1~10.9.4.1.3 in IEC 62287-1:2017;
- Added version 12.8.3;
- Chapter 14 has been added;
- Appendix A corresponds to Appendix D in IEC 62287-1:2017.

The technical differences between this document and IEC 62287-1:2017, and the reasons therefor, are as follows.

---All technical content regarding DSC has been removed because it is rarely used in practice and is not consistent with relevant ITU resolutions.

Planned deletion;

---Quality assurance has been removed because it is not part of the content required for drafting Chinese standards;

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

---Added abbreviations "ACA", "AIS-SART", "ASCII", "BDS", "BIIT", "BR", "CGCS2000", "CSD", and "DTM".

"FATDMA" "GB S" "ID" "ITDMA" "NTS" "PGN" "PRS" "RFR" "SAR" "SI" "SOTDMA" and the abbreviations "TS" and its definition (see 3.2) have been removed, along with the definitions of "DSC", "IMO", "NM", "Pss", and "SOLAS", thus improving usability.