

ICS 33.060
CCS R 63



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

GB/T 39620-2025

Replacing GB/T 39620-2020

**Technical requirements and test methods for automatic
identification system (AIS) base stations**

船舶自动识别系统 (AIS) 基站技术要求及测试方法
(English Translation)

Issued on: October 5, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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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 supersedes GB/T 39620-2020 "Technical Requirements for Automatic Identification System (AIS) Base Stations for Coastal Ships" and is consistent with GB/T 39620-Compared to 2020, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added "Functional Layout of AIS Base Stations" (see Chapter 4);
- b) The section "AIS Base Station Composition" has been removed (see Chapter 4 of the 2020 edition);
- c) The "AIS Base Station Site Selection Requirements" section has been removed (see Chapter 5 of the 2020 edition);
- d) Added "AIS Base Station Air Interface Function Definition" (see Chapter 5);
- e) Added "Basic Requirements for AIS Base Stations" (see Chapter 6);
- f) Added "AIS base station PI function" (see Chapter 7);
- g) Added "Testing Methods and Result Requirements for AIS Base Stations" (see Chapter 8);
- h) Added "Radio Testing" (see Chapter 9);
- i) Added "AIS Base Station Function Test" (see Chapter 10);
- j) Added "Technical Requirements for Ancillary Equipment and Supporting Facilities" (see Chapter 11);
- k) The "Technical Requirements for AIS Base Station Management" has been removed (see Chapter 11 of the 2020 edition);
- l) A "Summary of Technical Differences Compared to IEC 62320-1:2015 and the Reasons Therefor" has been added (see Appendix A);
- m) Added "General Statements for AIS Base Stations" (see Appendix B);
- n) Added "Legacy AIS Base Station Statements" (see Appendix C);
- o) Added "IEC 61162-1 Amendment Statements Applicable to AIS Base Stations" (see Appendix D);
- p) Added "AIS base station TAGblock statement" (see Appendix E);

- q) Added "AIS base station backup configuration statements" (see Appendix F);
- r) Added "AIS base station network configuration statements" (see Appendix G);
- s) Added "AIS base station custom statements" (see Appendix H).

This document is modified to adopt IEC 62320-1:2015 "Automatic Identification System (AIS) for Marine Navigation and Radio Communication Equipment and Systems" - Part 1 Part. Minimum Operating and Performance Requirements, Test Methods, and Test Results for AIS Base Stations. This document differs from IEC 62320-1:2015.

Technical differences are indicated by a vertical single line (|) in the margin of the page.

A summary table of surgical differences and their causes is provided in Appendix A.

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 was proposed and is under the jurisdiction of the Ministry of Transport of the People's Republic of China.

1 Scope

This document specifies the technical requirements and testing methods for Automatic Identification System (AIS) base stations, mainly including the functional layout of AIS base stations.

Definition of AIS base station air interface functions, basic requirements for AIS base stations, AIS base station representation interface (PI) functions, and testing methods for AIS base stations.

Requirements for results, radio testing, AIS base station functional testing, and technical requirements for ancillary equipment and supporting facilities.

This document applies to the design, production, testing, and use of AIS base station equipment.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 16162 Global Maritime Distress and Safety System (GMDSS) Terminology GB/T 17478 Performance characteristics of low-voltage DC power supply equipment GB 50057