

INTERNATIONAL STANDARD

IEC 61924

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Maritime navigation and radiocommunication equipment and systems – Integrated navigation systems – Operational and performance requirements, methods of testing and required test results

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOCOMMUNICATION
EQUIPMENT AND SYSTEMS –
INTEGRATED NAVIGATION SYSTEMS –
OPERATIONAL AND PERFORMANCE REQUIREMENTS,
METHODS OF TESTING AND REQUIRED TEST RESULTS**

FOREWORD

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International Standard IEC 61924 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/433/FDIS	80/440/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this standard may be issued at a later date.

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INTRODUCTION

International Standard IEC 61924 has been developed by IEC Technical Committee 80 to clarify the IMO Resolution MSC 86(70) Annex 3 Recommendation on Performance Standards for an Integrated Navigation System (INS). This standard provides adequate requirements, methods of tests and required test results to facilitate type approval.

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – INTEGRATED NAVIGATION SYSTEMS – OPERATIONAL AND PERFORMANCE REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

1 Scope

This International Standard specifies the minimum requirements for the design, manufacture, integration, methods of testing and required test results for an integrated navigation system (INS) to comply with the International Maritime Organization (IMO) requirements of Resolution MSC 86(70) Annex 3. (See Annex A).

This standard aims to resolve conflicts that may occur from the differences in the requirements of the relevant IMO Performance Standards for individual navigational aids when forming part of the INS.

All text of this standard, whose meaning is identical to that in IMO Resolution MSC 86(70) Annex 3 will be printed in *italics* and the Resolution and paragraph number indicated between brackets.

This standard is applicable to an INS, that is an *combination of navigational aids that provides functions beyond the general intent defined in the respective performance standards adopted by the Organization for individual equipment* (MSC 86(70) Annex 3, 2.1).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945:2002, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61162-1, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

IEC 61162-2, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 2: Single talker and multiple listeners, high-speed transmission*

IEC 61171:2001, *Maritime navigation and radiocommunication equipment and systems – Electronic chart display and information system (ECDIS) – Operational and performance requirements, methods of testing and required test results*

IEC 61209:1997, *Maritime navigation and radiocommunication equipment and systems – Integrated bridge systems (IBS) – Operational and performance requirements, methods of testing and required test results*

IEC 62065:2002, *Maritime navigation and radiocommunication equipment and systems – Track control systems – Operational and performance requirements, methods of testing and required test results*

IMO A.224(VII) as amended by MSC.74(69) Annex 4, *Performance standards for echosounding equipment*

IMO A.424 (XI), *Performance standards for gyro-compasses*

IMO A.529 (XIII), *Accuracy standards for navigation*

IMO A.694(17), *General requirements for shipborne radio equipment forming part of the Global maritime distress and safety system (GMDSS) and for electronic navigational aids*

IMO A.815(19), *World-wide radionavigation system*

IMO A.821(19), *Performance standards for gyro-compasses for high speed craft*

IMO A.823(19), *Performance standards for automatic radar plotting aids*

IMO A.824(19), *Performance standards for devices to indicate speed and distance*

IMO A.830(19), *Code on alarms and indicators*

IMO A.893(21), *Guidelines for voyage planning*

IMO 1974, *International Convention for the Safety of Life at Sea (SOLAS)*, as amended

IMO MSC.64 (67) Annex 1, *Recommendation on performance standards for integrated bridge systems (IBS)*

IMO MSC.64 (67) Annex 4, *Recommendation on performance standards for radar equipment*

IMO MSC 86(70) Annex 3, *Performance standards for an integrated navigation system (INS)*

ISO 11674: 2000, *Ships and marine technology – Heading control systems*