

Maritime navigation and radiocommunication equipment and systems - Automatic identification systems (AIS) -- Part 3: AIS Simplex Repeater Station - Minimum operational and performance requirements, methods of testing and required test results

EESTI STANDARDI EESSÕNA

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English Version

Maritime navigation and radiocommunication equipment and
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Part 3: Repeater stations - Minimum operational and
performance requirements -
Methods of test and required test results
(IEC 62320-3:2015)

Matériels et systèmes de navigation et de
radiocommunication maritimes - Systèmes d'identification
automatique (AIS) - Partie 3: Stations de répéteurs -
Exigences de fonctionnement et de performance minimales
- Méthodes d'essai et résultats d'essai exigés
(IEC 62320-3:2015)

Navigations- und Funkkommunikationsgeräte und -systeme
für die Seeschifffahrt - Automatisches Identifikationssystem
(AIS) - Teil 3: Repeater Stationen - Mindest-Betriebs- und -
Leistungsanforderungen - Prüfverfahren und geforderte
Prüfergebnisse
(IEC 62320-3:2015)

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European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 80/744/FDIS, future edition 1 of IEC 62320-3, prepared by IEC/TC 80 "Maritime navigation and radiocommunication equipment and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62320-3:2015.

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IEC 61162-2 NOTE Harmonized as EN 61162-2.

IEC 61162-450 NOTE Harmonized as EN 61162-450.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60945	-	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	and EN 60945	-
IEC 61162-1	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces -- Part 1: Single talker and multiple listeners	and EN 61162-1	-
ITU Regulations, Appendix 18	-	Table of transmitting frequencies in the VHF maritime mobile band		-
ITU-R Recommendation M.1084	-	Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service		-
ITU-R Recommendation M.1371	-	Technical characteristics for a universal-shipborne automatic identification system using time division multiple access in the VHF maritime mobile band		-
ITU-R Recommendation M.585	-	Assignment and use of identities in the maritime mobile service		-
ITU-R Recommendation O.153	-	O.153 : Basic parameters for the measurement of error performance at bit rates below the primary rate		-

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INTRODUCTION

Chapter V of the 1974 SOLAS Convention requires mandatory carriage of Automatic Identification System (AIS) equipment on all vessels constructed on or after 01 July 2002. Implementation for other types and sizes of SOLAS Convention vessels was required to be completed not later than 31 December 2004.

SOLAS Chapter V, Regulation 19, section 2.4.5 states that AIS shall:

- a) provide automatically to appropriate equipped shore stations, other ships and aircraft information, including ship's identity, type, position, course, speed, navigational status and other safety-related information;
- b) receive automatically such information from similarly fitted ships;
- c) monitor and track ships; and
- d) exchange data with shore-based facilities.

In addition, the IMO Performance Standards for AIS states that:

- The AIS should improve the safety of navigation by assisting in the efficient navigation of ships, protection of the environment, and operation of Vessel Traffic Services (VTS), by satisfying the following functional requirements:
 - 1) in a ship-to-ship mode for collision avoidance;
 - 2) as a means for littoral States to obtain information about a ship and its cargo; and
 - 3) as a VTS tool, i. e. ship-to-shore (traffic management).
- The AIS should be capable of providing to ships and to competent authorities, information from the ship, automatically and with the required accuracy and frequency, to facilitate accurate tracking. Transmission of the data should be with the minimum involvement of ship's personnel and with a high level of availability.

The provision of Shore Based AIS will be necessary to attain the full benefit of the SOLAS Convention requirements.

This standard provides the minimum operational and performance requirements, methods of test and the required test results for AIS repeater stations. The testing is divided into two parts, the logical tests and the transceiver tests. These are captured in Clause 6 and Clause 8 respectively.