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Pomorska navigacijska in radiokomunikacijska oprema in sistemi - Ladijska oprema razreda B samodejnega identifikacijskega sistema (AIS) - 1. del: Tehnike uporabniško občutljivega časovnega sodostopa (CSTDMA) (IEC 62287-1:2010)

Maritime navigation and radiocommunication equipment and systems - Class B shipborne equipment of the automatic identification system (AIS) - Part 1: Carrier-sense time division multiple access (CSTDMA) techniques (IEC 62287-1:2010)

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Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Geräte der Klasse B des automatischen Identifikationssystems (AIS) für Schiffe - Teil 1: Zeitmultiplex-Vielfachzugriffstechniken mit Aktivitätserkennung (CSTDMA) (IEC 62287-1:2010)

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Matériels et systèmes de navigation et de radiocommunications maritimes - Transpondeur embarqué du système d'identification automatique (AIS) de classe B - Partie 1: Technique d'accès multiple par répartition dans le temps avec écoute de porteuse (CSTDMA) (CEI 62287-1:2010)

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2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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(IEC 62287-1:2010)

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Foreword

The text of document 80/605/FDIS, future edition 2 of IEC 62287-1, prepared by IEC TC 80, Maritime navigation and radiocommunication equipment and systems, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62287-1 on 2011-01-01.

This European Standard supersedes EN 62287-1:2006.

The major technical changes with respect to EN 62287-1:2006 are the following. The reference to the relevant recommendation of the ITU has been updated from M.1371-1 to M.1371-4 with some consequential small changes. A previous option of providing short safety-related messages in 6.5.1.5 has been removed on advice from the IMO. A new requirement for a default MMSI has been added in 6.4 and a further new requirement for protection from invalid control commands has been added in 6.8. Some test methods have been updated and, in particular, small revisions have been made to the frequencies used for testing in some of the test methods. The introduction has been deleted since it is only of historic interest.

Some editorial rearrangement has been made.

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The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-10-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-01-01

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Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62287-1:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

ISO 9000 NOTE Harmonized as EN ISO 9000.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

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

Publication	Year	Title	EN/HD	Year
IEC 60945	2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	2002
IEC 61108	Series	Maritime navigation and radiocommunication equipment and systems - Global navigation satellite systems (GNSS)	EN 61108	Series
IEC 61162	Series	Maritime navigation and radiocommunication equipment and systems - Digital interfaces	EN 61162-1	Series
IEC 61993-2	-	Maritime navigation and radiocommunication equipment and systems - Automatic Identification Systems (AIS) - Part 2: Class A shipborne equipment of the universal automatic identification system (AIS) - Operational and performance requirements, methods of test and required test results	EN 61993-2	-
IEC 62320-1	-	Maritime navigation and radiocommunication equipment and systems - Automatic Identification Systems (AIS) - Part 1: AIS Base Stations - Minimum operational and performance requirements, methods of testing and required test results	EN 62320-1	-
IMO MSC.140(76)	-	Recommendation for the protection of the AIS VHF data link	-	-
ITU-R Recommendation M.493-13	-	Digital selective-calling system for use in the maritime mobile service	-	-
ITU-R Recommendation M.825-3	-	Characteristics of a transponder system using digital selective calling techniques for use with vessel traffic services and ship-to-ship identification	-	-
ITU-R Recommendation M.1084-4	-	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.1371-4	-	Technical characteristics for an automatic identification system using time-division multiple access in the VHF maritime mobile band	-	-

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Publication	Year	Title	EN/HD	Year
ITU Radio Regulations, Appendix 18	-	Table of transmitting frequencies in the VHF maritime mobile band	-	-

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Part 1: Carrier-sense time division multiple access (CSTDMA) techniques

FOREWORD

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International Standard IEC 62287-1 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This second edition cancels and replaces the first edition published in 2006, and constitutes a technical revision.

The major technical changes with respect to the first edition are the following. The reference to the relevant recommendation of the ITU has been updated from M.1371-1 to M.1371-4 with some consequential small changes. A previous option of providing short safety-related messages in 6.5.1.5 has been removed on advice from the IMO. A new requirement for a default MMSI has been added in 6.4 and a further new requirement for protection from invalid control commands has been added in 6.8. Some test methods have been updated and, in

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particular, small revisions have been made to the frequencies used for testing in some of the test methods. The introduction has been deleted since it is only of historic interest.

Some editorial rearrangement has been made.

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

FDIS	Report on voting
80/605/FDIS	80/608/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.

A list of all parts of the IEC 62287 series published under the general title *Maritime navigation and radiocommunication equipment and systems – Class B shipborne equipment of the automatic identification system (AIS),* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – CLASS B SHIPBORNE EQUIPMENT OF THE AUTOMATIC IDENTIFICATION SYSTEM (AIS) –

Part 1: Carrier-sense time division multiple access (CSTDMA) techniques

1 Scope

This part of IEC 62287 specifies the minimum operational and performance requirements, methods of testing and required test results for Class B shipborne AIS equipment using CSTDMA techniques. This standard takes into account other associated IEC International Standards and existing national standards, as applicable.

It is applicable for AIS equipment used on craft that are not covered by the mandatory carriage requirement of AIS under SOLAS Chapter V.

An AIS station intended to operate in receive-only mode is not considered a Class B shipborne mobile AIS station.

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2 Normative references

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IEC 61108 (all parts), *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*

IEC 61162 (all parts), *Maritime navigation and radiocommunication equipment and systems – Digital interfaces*

IEC 61993-2, *Maritime navigation and radiocommunication equipment and systems – Automatic identification systems (AIS) – Part 2: Class A shipborne equipment of the universal automatic identification system (AIS) – Operational and performance requirements, methods of test and required test results*

IEC 62320-1, *Maritime navigation and radiocommunication equipment and systems – Automatic identification systems (AIS) – Part 1: AIS Base Stations – Minimum operational and performance requirements, methods of testing and required test results*

IMO MSC.140(76), *Recommendation for the protection of the AIS VHF data link*

ITU-R Recommendation M.493-13, *Digital selective-calling system for use in the maritime mobile service*

ITU-R Recommendation M.825-3, *Characteristics of a transponder system using digital selective calling techniques for use with vessel traffic services and ship-to-ship identification*