SVENSK STANDARD SS-EN 62287-2

Fastställd	Utgåva	Sida	Ansvarig kommitté
2017-06-14	2	1 (1+94)	SEK TK 80

Marin navigerings- och kommunikationsutrustning – System för automatisk identifiering (AIS) – Utrustning i klass B för fartyg – Del 2: SOTDMA

Maritime navigation and radiocommunication equipment and systems – Class B shipborne equiment of the automatic identification system (AIS) – Part 2: Self-organising time division multiple access (SOTDMA) techniques

Som svensk standard gäller europastandarden EN 62287-2:2017. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62287-2:2017.

Nationellt förord

Europastandarden EN 62287-2:2017

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

– **IEC 62287-2, Second edition, 2017 - Maritime navigation and radiocommunication equipment and systems - Class B shipborne equiment of the automatic identification system (AIS) - Part 2: Self-organising time division multiple access (SOTDMA) techniques**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62287-2, utgåva 1, 2013, gäller ej fr o m 2020-03-14.

ICS 47.020.70

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62287-2

May 2017

ICS 47.020.70

Supersedes EN 62287-2:2013

English Version

Maritime navigation and radiocommunication equipment and systems - Class B shipborne equipment of the automatic identification system (AIS) - Part 2: Self-organising time division multiple access (SOTDMA) techniques (IEC 62287-2:2017)

Matériels et systèmes de navigation et de radiocommunications maritimes - Transpondeur embarqué du système d'identification automatique (AIS) de classe B - Partie 2: Technique d'accès multiple par répartition dans le temps auto-adaptatif (SOTDMA) (IEC 62287-2:2017)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Geräte der Klasse B des automatischen Identifikationssystems (AIS) für Schiffe - Teil 2: Sich selbst abstimmende Zeitmultiplex-Vielfachzugriffstechniken (SOTDMA) (IEC 62287-2:2017)

This European Standard was approved by CENELEC on 2017-03-14. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62287-2:2017 E

SEK Svensk Elstandard

European foreword

The text of document 80/827/FDIS, future edition 2 of IEC 62287-2, 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 62287-2:2017.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2017-12-14
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-03-14

This document supersedes EN 62287-2:2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62287-2:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61162-3:2008	NOTE	Harmonized as EN 61162-3:2008.
IEC 61162-3:2008/AMD1:2010	NOTE	Harmonized as EN 61162-3:2008/A1:2010.
IEC 61162-3:2008/AMD2:2014	NOTE	Harmonized as EN 61162-3:2008/A2:2014.
IEC 61924-2:2012	NOTE	Harmonized as EN 61924-2:2012.
IEC 62287-1	NOTE	Harmonized as EN 62287-1.
ISO 9000 (Series)	NOTE	Harmonized as EN ISO 9000 (Series).

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.

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 61108-4	-	Maritime navigation and radiocommunication equipment and systems - Global navigation satellite systems (GNSS) - Part 4: Shipborne DGPS and DGLONASS maritime radio beacon receiver equipment - Performance requirements, methods of testing and required test results	EN 61108-4	-
IEC 61162-1	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners	EN 61162-1	-
IEC 61993-2	-	Maritime navigation and radiocommunication equipment and systems - Automatic Identification Systems (AIS) - Part 2: Class A shipborne equipment of the automatic identification system (AIS) - Operational and performance requirements, methods of test and required test results	EN 61993-2	-
ITU Radio regulations, Vol 1	-	Radio Regulations - Volume 1: Articles	-	-
ITU-R Recommendation M.1084-5	-	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.1371-5	-	Technical characteristics for an automatic identification system using time-division multiple access in the VHF maritime mobile band	-	-
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	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2: Self-organising time division multiple access (SOTDMA) techniques

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62287-2 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 2013. It constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: the introduction of transmission of Message 27 on channels 75 and 76 for the long range application by broadcast.

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

FDIS	Report on voting
80/827/FDIS	80/836/RVD

Full information on the voting for the approval of this document 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 in the IEC 62287 series, published under the general title *Maritime navigation and radiocommunication 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.

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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

Part 2: Self-organising time division multiple access (SOTDMA) techniques

1 Scope

This part of IEC 62287 specifies operational and performance requirements, methods of testing and required test results for Class B "SO" shipborne automatic identifications system (AIS) equipment using self-organising time division multiple access (SOTDMA) techniques as described in Recommendation ITU-R M.1371. This document takes into account other associated IEC International Standards and existing national standards, as applicable.

The main differences between Class B "CS" (IEC 62287-1) and Class B "SO" units are that the Class B "SO"

- covers all 25 kHz channels listed in Recommendation ITU-R M.1084-5,
- only uses the internal GNSS – no position sensor input is allowed,
- requires use of VDL Message 17 for correction of the internal GNSS,
- requires a presentation interface,
- has additional reporting intervals, down to 5 s,
- has two power settings, with a high level of 5 W, and
- has the capability to transmit binary messages.

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 61108 (all parts), *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*

IEC 61108-4, *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 4: Shipborne DGPS and DGLONASS maritime radio beacon receiver equipment – Performance 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 61993-2, *Maritime navigation and radio communication equipment and systems – Automatic identification systems (AIS) – Part 2: Class A shipborne equipment of the automatic identification system (AIS) – Operational and performance requirements, methods of test and required test results*

ITU Radio regulations:2012

ITU-R Recommendation M.825-3:1998, *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.1084-5:2012, *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.1371-5:2014, *Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile band*