

INTERNATIONAL STANDARD



**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**

INTERNATIONAL
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CONTENTS

FOREWORD.....	7
INTRODUCTION to Amendment 1	9
1 Scope.....	10
2 Normative references.....	10
3 Abbreviations.....	11
4 General requirements	12
4.1 General.....	12
4.1.1 Capabilities of the Class B“CS” AIS.....	12
4.1.2 Quality assurance	13
4.1.3 Safety of operation.....	13
4.1.4 Additional features	13
4.1.5 Modes of operation.....	13
4.2 Manuals.....	14
4.3 Marking and identification	14
5 Environmental, power supply, interference and safety requirements.....	14
6 Performance requirements.....	15
6.1 Composition	15
6.2 Operating frequency channels	15
6.3 GNSS receiver for position reporting.....	15
6.4 Identification.....	16
6.5 AIS information.....	16
6.5.1 Information content	16
6.5.2 Information reporting intervals	17
6.5.3 Permissible initialisation period.....	18
6.6 Alarms and indications, fall-back arrangements.....	18
6.6.1 Integrity and protection	18
6.6.2 Transmitter shutdown procedure.....	18
6.6.3 Position sensor fallback conditions.....	18
6.6.4 SOG/COG sensor fallback conditions	20
6.7 User interface.....	20
6.7.1 Indicators and display.....	20
6.7.2 Static data input.....	20
6.7.3 External interfaces	20
6.8 Protection from invalid control commands.....	20
7 Technical requirements	21
7.1 General.....	21
7.2 Physical layer	21
7.2.1 General.....	21
7.2.2 Transceiver characteristics.....	22
7.2.3 Transmitter requirements	23
7.2.4 Receiver requirements.....	23
7.3 Link layer	24
7.3.1 General.....	24
7.3.2 Link sublayer 1: Medium access control (MAC)	24
7.3.3 Link sublayer 2: Data Link Service (DLS).....	27

7.3.4	Link sublayer 3: Link management entity (LME).....	31
7.4	Network layer	40
7.4.1	General.....	40
7.4.2	Dual channel operation.....	40
7.4.3	Channel management.....	41
7.4.4	Distribution of transmission packets	41
7.4.5	Data link congestion resolution	41
7.5	Transport layer	41
7.5.1	General.....	41
7.5.2	Transmission packets	42
7.5.3	Sequencing of data packets	42
7.6	Digital selective calling (DSC)	42
8	Test conditions.....	42
8.1	General.....	42
8.2	Normal and extreme test conditions	42
8.2.1	Normal test conditions	42
8.2.2	Extreme test conditions.....	42
8.3	Test signals.....	42
8.3.1	Standard test signal number 1	43
8.3.2	Standard test signal number 2	43
8.3.3	Standard test signal number 3	43
8.3.4	Standard test signal number 4	43
8.3.5	Standard test signal number 5	43
8.4	Test arrangements	44
8.4.1	Standard test environment	44
8.4.2	Modes of operation of the transmitter	45
8.4.3	Common test conditions for protection from invalid controls.....	45
8.4.4	Measurement uncertainties	45
9	Power supply, environmental and EMC tests	46
9.1	Test summary.....	46
9.2	Vibration/shock	47
9.2.1	Vibration	47
9.2.2	Shock	47
9.3	Performance tests/checks.....	47
9.4	Undervoltage test (brown out)	48
9.4.1	Purpose	48
9.4.2	Method of test.....	48
9.4.3	Required result	48
10	Operational tests	48
10.1	General.....	48
10.1.1	Quality assurance	48
10.1.2	Safety of operation.....	48
10.1.3	Additional features	48
10.2	Modes of operation	49
10.2.1	Autonomous mode	49
10.2.2	Assigned mode	50
10.2.3	Polled mode/interrogation response	51
10.3	Messages extending one time period	52
10.3.1	Method of measurement	52

10.3.2	Required results.....	52
10.4	Channel selection	52
10.4.1	Valid channels	52
10.4.2	Invalid channels	52
10.5	Internal GNSS receiver	52
10.6	AIS information	53
10.6.1	Information content	53
10.6.2	Information update rates	54
10.7	Initialisation period	55
10.7.1	Method of measurement	55
10.7.2	Required results.....	55
10.8	Alarms and indications, fall-back arrangements.....	56
10.8.1	Built-in integrity test	56
10.8.2	Transceiver protection	56
10.8.3	Transmitter shutdown procedure.....	56
10.8.4	Position sensor fallback conditions.....	56
10.8.5	Speed sensors.....	57
10.9	User interface	57
10.9.1	Display.....	57
10.9.2	Message display	58
10.9.3	Static data input.....	58
10.9.4	External interfaces	58
11	Physical tests.....	58
11.1	TDMA transmitter	58
11.1.1	Frequency error	59
11.1.2	Carrier power.....	59
11.1.3	Transmission spectrum	60
11.1.4	Modulation accuracy.....	61
11.1.5	Transmitter output power versus time function	62
11.2	TDMA receivers	63
11.2.1	Sensitivity	63
11.2.2	Error behaviour at high input levels.....	63
11.2.3	Co-channel rejection.....	64
11.2.4	Adjacent channel selectivity	65
11.2.5	Spurious response rejection	65
11.2.6	Intermodulation response rejection	68
11.2.7	Blocking or desensitisation.....	69
11.3	Conducted spurious emissions	70
11.3.1	Spurious emissions from the receiver	70
11.3.2	Spurious emissions from the transmitter	70
12	Specific tests of link layer	71
12.1	TDMA synchronisation.....	71
12.1.1	Synchronisation test sync mode 1	71
12.1.2	Synchronisation test sync mode 2.....	72
12.1.3	Synchronisation test with UTC.....	72
12.2	Carrier-sense tests.....	72
12.2.1	Threshold level	72
12.2.2	Carrier-sense timing	74
12.3	VDL state/reservations	75

12.3.1	Method of measurement	75
12.3.2	Required results.....	75
12.4	Data encoding (bit stuffing)	75
12.4.1	Method of measurement	75
12.4.2	Required results.....	75
12.5	Frame check sequence	75
12.5.1	Method of measurement	75
12.5.2	Required results.....	75
12.6	Slot allocation (channel access protocol).....	75
12.6.1	Autonomous mode allocation.....	75
12.6.2	DSC listening periods	76
12.7	Assigned operation	76
12.7.1	Assignment priority.....	76
12.7.2	Entering rate assignment	76
12.7.3	Reverting from rate assignment	77
12.7.4	Reverting from quiet mode	77
12.7.5	Retry of interrogation response.....	77
12.8	Message formats.....	77
12.8.1	Received messages	77
12.8.2	Transmitted messages.....	78
13	Specific tests of network layer.....	78
13.1	Regional area designation by VDL message	78
13.1.1	Method of measurement	78
13.1.2	Required results.....	79
13.2	Regional area designation by serial message or manually	79
13.2.1	Method of measurement	79
13.2.2	Required result	79
13.3	Management of received regional operating settings.....	79
13.3.1	Replacement or erasure of dated or remote regional operating settings.....	79
13.3.2	Channel management by addressed Message 22	80
13.3.3	Invalid regional operating areas	80
13.3.4	Continuation of autonomous mode reporting rate.....	81
13.3.5	Other conditions.....	81
Annex A (informative)	Results of computer simulations and testing of CSTDMA technology	82
Annex B (informative)	Description of the system	85
Annex C (normative)	DSC channel management.....	86
Annex D (informative)	Channel management regions	93
Bibliography	94
Figure 1	– OSI layer model	21
Figure 2	– Carrier-Sense timing	25
Figure 3	– Power versus time mask	26
Figure 4	– Transmission packet	27
Figure 5	– Training sequence	29
Figure 6	– Transmission timing	31
Figure 7	– Example for CSTDMA access.....	32

Figure 8 – Format for repeating four-packet cluster	43
Figure 9 – Measurement arrangement for carrier power	59
Figure 10 – Emission mask	60
Figure 11 – Measurement arrangement for modulation accuracy	61
Figure 12 – Measurement arrangement	63
Figure 13 – Measurement arrangement with two generators	64
Figure 14 – SINAD or PER/BER measuring equipment	66
Figure 15 – Measurement arrangement for intermodulation	68
Figure 16 – Configuration for carrier-sense threshold test	73
Figure 17 – Regional area scenario	78
Figure A.1 – Effect on Class A AIS messages of Class B messages	82
Figure A.2 – Reception of messages by Class A AIS	83
Figure A.3 – Reception of messages by Class B AIS	83
Figure A.4 – Range achieved by a Class A AIS from Class B AIS	84
Figure D.1 – Channel management regions used for test given in 13.3.1	93
Table 1 – Position sensor fallback conditions	19
Table 2 – Use of accuracy (PA) flag	19
Table 3 – Transceiver characteristics	22
Table 4 – Transmitter parameters	23
Table 5 – Receiver parameters	24
Table 6 – Definition of timings for Figure 3	26
Table 7 – Start-buffer	28
Table 8 – Summary of the transmission packet	30
Table 9 – Transmission timing	30
Table 10 – Access parameters	32
Table 11 – Use of VDL messages by a Class B"CS" AIS	35
Table 12 – Number of data bits for use with Message 14	36
Table 13 – Contents of Message 18	37
Table 14 – Message 24 Part A	38
Table 15 – Message 24 Part B	38
Table 16 – Contents of Message 23	39
Table 17 – Reporting Interval Settings for use with Message 23	40
Table 18 – Channel management	41
Table 19 – Content of first two packets	43
Table 20 – Fixed PRS data derived from ITU-T.O.153	44
Table 21 – Test summary	46
Table 22 – Peak frequency deviation versus time	62
Table 23 – Frequencies for inter-modulation test	69
Table 24 – Required threshold test results	74
Table 25 – Required carrier-sense timing results	74
Table 26 – Required channels in use	79
Table C.1 – DSC monitoring times	87

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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**

FOREWORD

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This consolidated version of IEC 62287-1 consists of the second edition (2010) [documents 80/605/FDIS and 80/608/RVD] and its amendment 1 (2013) [documents 80/680/CDV and 80/695/RVC]. It bears the edition number 2.1.

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience. A vertical line in the margin shows where the base publication has been modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through.

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

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 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.

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 the base publication and its amendment 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.

INTRODUCTION to Amendment 1

This amendment clarifies the conditions required for input of external GNSS position, the associated tests and required results.

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.

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 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*

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 a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band*

ITU Radio Regulations, Appendix 18, <http://www.itu.int/publ/R-REG-RR/en>