ICS 47.020.70 SLOVENSKÁ TECHNICKÁ NORMA September 2020

STN	**Námorné navigačné a rádiokomunikačné zariadenia a systémy Globálne navigačné družicové systémy (GNSS) Časť 5: Navigačný satelitný systém BeiDou (BDS) Prijímacie zariadenie Prevádzkové požiadavky, skúšobné metódy a požadované výsledky skúšok**	**STN EN IEC 61108-5** 32 6780

Maritime navigation and radiocommunication equipment and systems - Global navigation satellite systems (GNSS) - Part 5: BeiDou navigation satellite system (BDS) - Receiver equipment - Performance requirements, methods of testing and required test results

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/20

Obsahuje: EN IEC 61108-5:2020, IEC 61108-5:2020

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61108-5

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English Version

Maritime navigation and radiocommunication equipment and systems - Global navigation satellite systems (GNSS) - Part 5: BeiDou navigation satellite system (BDS) - Receiver equipment - Performance requirements, methods of testing and required test results (IEC 61108-5:2020)

Matériels et systèmes de navigation et de radiocommunication maritimes - Système mondial de navigation par satellite (GNSS) - Partie 5: Système de navigation par satellite BeiDou (BDS) - Matériels de réception - Exigences de performances, méthodes d'essai et résultats d'essai exigés (IEC 61108-5:2020)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Weltweite Navigations-Satellitensysteme (GNSS) - Teil 5: BeiDou Satellitennavigationssystem (BDS) - Empfangsanlagen - Leistungsanforderungen, Prüfverfahren und geforderte Prüfergebnisse (IEC 61108-5:2020)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 61108-5:2020 E

European foreword

The text of document 80/952/FDIS, future edition 1 of IEC 61108-5, 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 IEC 61108-5:2020.

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) 2021-01-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-04-15

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

Endorsement notice

The text of the International Standard IEC 61108-5:2020 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 61108 (series)	NOTE	Harmonized as EN 61108 (series)
IEC 61162-460	NOTE	Harmonized as EN IEC 61162-460

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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 60721-3-6	1987	Classification of environmental conditions. Part 3: Classification of groups of environmental parameters and their severities. Ship environment	EN 60721-3-6	1993
IEC 60945	-	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	-
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 61162-2	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 2: Single talker and multiple listeners, high-speed transmission	EN 61162-2	-
IEC 61162-450	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 450: Multiple talkers and multiple listeners - Ethernet interconnection	EN IEC 61162-450	-

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IEC 62288	-	Maritime navigation and radiocommunication equipment and systems - Presentation of navigation-related information on shipborne navigational displays - General requirements, methods of testing and required test results	-	-
IEC 62923-1	-	Maritime navigation and radiocommunication equipment and systems - Bridge alert management - Part 1: Operational and performance requirements, methods of testing and required test results	EN IEC 62923-1	-
IEC 62923-2	-	Maritime navigation and radiocommunication equipment and systems - Bridge alert management - Part 2: Alert and cluster identifiers and other additional features	EN IEC 62923-2	-
ITU-R M.823-3	-	Technical characteristics of differential transmissions for global navigation satellite systems from maritime radio beacons in the frequency band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3	-	-
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.915(22)	-	Revised maritime policy and requirements for a future Global Navigation Satellite System (GNSS)	-	-
IMO A.1046(27)	-	Worldwide radionavigation system	-	-
IMO MSC.379(93)	-	Performance standards for shipborne BeiDou satellite navigation system (BDS) receiver equipment	-	-
IMO MSC.401(95)	-	Performance standards for multi-system shipborne radionavigation receivers	-	-
RTCM 10402.4	-	Recommended standards for differential GNSS (Global Navigation Satellite Systems) service	-	-
BDS-SIS-ICD-B1I-3.0	-	BeiDou Navigation Satellite System Signal In Space Interface Control Document Open Service Signal B1I (Version 3.0), China Satellite Navigation Office	-	-

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INTERNATIONAL STANDARD

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Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 5: BeiDou navigation satellite system (BDS) – Receiver equipment – Performance requirements, methods of testing and required test results

Matériels et systèmes de navigation et de radiocommunication maritimes – Système mondial de navigation par satellite (GNSS) – Partie 5: Système de navigation par satellite BeiDou (BDS) – Matériels de réception – Exigences de performances, méthodes d'essai et résultats d'essai exigés

IEC 61108-5:2020-03(en-fr)

IEC 61108-5

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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Part 5: BeiDou navigation satellite system (BDS) – Receiver equipment – Performance requirements, methods of testing and required test results

FOREWORD

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International Standard IEC 61108-5 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
80/952/FDIS	80/955/RVD

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

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

All text of this document, whose meaning is identical to that in IMO resolution MSC.379(93), is printed in italics and the resolution and paragraph numbers are indicated in brackets, i.e. (M.379/A1.2).

A list of all parts in the IEC 61108 series, published under the general title *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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

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 – GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) –

Part 5: BeiDou navigation satellite system (BDS) – Receiver equipment – Performance requirements, methods of testing and required test results

1 Scope

This part of IEC 61108 specifies the minimum performance requirements, methods of testing and required test results for BDS shipborne receiver equipment, based on IMO resolution MSC.379(93), which uses the signals from the BeiDou navigation satellite system in order to determine position. It takes account of the general requirements given in IMO resolution A.694(17) and is associated with IEC 60945. When a requirement in this document is different from IEC 60945, the requirement in this document takes precedence. This document also takes account, as appropriate, of requirements for the presentation of navigation-related information on shipborne navigational displays given in IMO resolution MSC.191(79) and is associated with IEC 62288 and MSC.302(87) associated with IEC 62923-1.

This receiver standard applies to navigation in the ocean, coastal, harbour entrances, harbour approaches and restricted waters, as defined in IMO resolution A.915(22) and IMO resolution A.1046(27).

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 60721-3-6:1987, *Classification of environmental conditions. Part 3: Classification of groups of environmental parameters and their severities. Ship environment*

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

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

IEC 61162-450, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 450: Multiple talkers and multiple listeners – Ethernet interconnection*

IEC 62288, *Maritime navigation and radiocommunication equipment and systems – Presentation of navigation-related information on shipborne navigational displays – General requirements, methods of testing and required test results*

IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 1: Operational and performance requirements, methods of testing and required test results*

IEC 62923-2, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 2: Alert and cluster identifiers and other additional features*

ITU-R Recommendation M.823-3, *Technical characteristics of differential transmissions for global navigation satellite systems from maritime radio beacons in the frequency band 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3*

IMO resolution 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 resolution A.915(22), *Revised maritime policy and requirements for a future Global Navigation Satellite System (GNSS)*

IMO resolution A.1046(27), *Worldwide radionavigation system*

IMO resolution MSC.379(93), *Performance standards for shipborne BeiDou satellite navigation system (BDS) receiver equipment*

IMO resolution MSC.401(95), *Performance standards for multi-system shipborne radionavigation receivers*

RTCM 10402.4, *Recommended standards for differential GNSS (Global Navigation Satellite Systems) service*

BDS-SIS-ICD-B1I-3.0, *BeiDou Navigation Satellite System Signal In Space Interface Control Document Open Service Signal B1I (Version 3.0), China Satellite Navigation Office*