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STN	**Technické charakteristiky a metódy merania zariadení na generovanie, vysielanie a príjem digitálneho selektívneho volania (DSC) v námornej pohyblivej službe v pásmach MF, MF/HF a/alebo VHF** **Časť 1: Spoločné požiadavky**	**STN** **EN 300 338-1** **V1.5.1** 87 0338

Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 1: Common requirements

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

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Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 1: Common requirements

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document is part 1 of a multi-part deliverable covering Digital Selective Calling (DSC), as identified below:

Part 1: "Common requirements";

Part 2: "Class A DSC";

Part 3: "Class D DSC";

Part 4: "Class E DSC";

Part 5: "Handheld VHF Class H DSC";

Part 6: "Class M DSC";

Part 7: "Interfacing DSC radio equipment to Bridge Alert Management systems (BAM)";

Part 8: "Enabling DSC radio equipment with remote control capabilities".

The present document covers the common requirements for all classes of DSC equipment. Operator interfaces and operating system details are class specific and will be found in the appropriate part.

National transposition dates	
Date of adoption of this EN:	29 July 2019
Date of latest announcement of this EN (doa):	31 October 2019
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Date of withdrawal of any conflicting National Standard (dow):	30 April 2021

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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1 Scope

The present document states the minimum requirements for equipment to be used for generation, transmission and reception of Digital Selective Calling (DSC) for use on board ships.

DSC is intended to be used in the Medium Frequency (MF), High Frequency (HF) and Very High Frequency (VHF) bands of the Maritime Mobile Service (MMS), for distress, urgency and safety communication and general communications.

The present document is part 1 of a multi-part deliverable that covers the requirements to be fulfilled by:

- DSC equipment integrated with a transmitter and/or a receiver;
- DSC equipment not integrated with a transmitter and/or a receiver.

These requirements include the relevant provisions of the ITU Radio Regulations [i.17] and Recommendations ITU-R M.493-15 [2], M.541-10 [3], M.689-3 [4] and M.1082-1 [5], the International Convention for the Safety Of Life At Sea (SOLAS) [i.16], and the relevant resolutions of the International Maritime Organization (IMO).

Equipment for generation, transmission and reception of DSC designed according to the following equipment classes:

- Class A: includes all the facilities defined in annex 1 of Recommendation ITU-R M.493-15 [2] and complies with the IMO Global Maritime Distress and Safety System (GMDSS) carriage requirements for MF/HF installations and/or VHF installations.
- Class D: provides minimum facilities for VHF DSC distress, urgency and safety as well as routine calling and reception as recommended by IMO MSC/Circ.803 [i.2] for non-SOLAS vessels participating in the GMDSS.
- Class E: provides minimum facilities for MF and/or HF DSC distress, urgency and safety as well as routine calling and reception as recommended by IMO MSC/Circ.803 [i.2] for non-SOLAS vessels participating in the GMDSS.
- Class H: provides minimum facilities for handheld VHF DSC distress, urgency and safety as well as routine calling and reception as recommended by IMO MSC/Circ.803 [i.2] for non-SOLAS vessels participating in the GMDSS.
- Class M: provides minimum facilities for VHF Man Overboard devices as defined in Recommendation ITU-R M.493-15 [2].

NOTE 1: Class A equipment may support the optional semi-automatic/automatic service in accordance with Recommendations ITU-R M.689-3 [4], M.1082-1 [5] and M.493-15 [2], tables A1-4.10.1 and A1-4.10.2 and are encouraged to do so.

NOTE 2: Class D and Class E equipment may also support the optional semi-automatic/automatic service.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

[1] Recommendation ITU-T E.161: "Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network".

[2] Recommendation ITU-R M.493-15 (2019): "Digital selective-calling system for use in the maritime mobile service".

[3] Recommendation ITU-R M.541-10 (2015): "Operational procedures for the use of digital selective-calling equipment in the maritime mobile service".

[4] Recommendation ITU-R M.689-3 (2012): "International maritime VHF radiotelephone system with automatic facilities based on DSC signalling format".

[5] Recommendation ITU-R M.1082-1 (1997): "International maritime MF/HF radiotelephone system with automatic facilities based on digital selective calling signalling format".

[6] Recommendation ITU-T V.11 (1996): "Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s".

[7] IEC 61162-1:2016: "Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners".

[8] IEC 61162-2:1998 (Ed. 1.0): "Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 2: Single talker and multiple listeners, high-speed transmission".

[9] IEC 61162-3:2008+AMD1:2010+AMD2:2014 (Ed. 1.2): "Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 3: Serial data instrument network".

[10] IEC 61162-450:2018: "Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 450: Multiple talkers and multiple listeners - Ethernet interconnection".

[11] Recommendation ITU-R M.1080 (1994): "Digital selective calling system enhancement for multiple equipment installations".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] IEC 60529:2001 (Ed. 2.1): "Degrees of protection provided by enclosures (IP Code)".

[i.2] IMO Circular MSC/Circ.803: "Participation of non-SOLAS ships in the Global Maritime Distress and Safety System (GMDSS)".

[i.3] Report Recommendation ITU-R M.501: "Digital selective-calling system for future operational requirements of the maritime mobile service".

[i.4] Void.

[i.5] Recommendation ITU-R M.821-1 (1997): "Optional expansion of the digital selective-calling system for use in the maritime mobile service".

[i.6] ETSI EN 301 925: "Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands; Technical characteristics and methods of measurement".

[i.7] ETSI EN 301 033: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Technical characteristics and methods of measurement for shipborne watchkeeping receivers for reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and VHF bands".

[i.8] ETSI EN 301 025: "VHF radiotelephone equipment for general communications and associated equipment for Class "D" Digital Selective Calling (DSC); Harmonised Standard covering the essential requirements of articles 3.2 and 3.3(g) of Directive 2014/53/EU".

[i.9] ETSI EN 300 373-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime mobile transmitters and receivers for use in the MF and HF bands; Part 1: Technical characteristics and methods of measurement".

[i.10] ETSI EN 303 402: "Maritime mobile transmitters and receivers for use in the MF and HF bands; Harmonised Standard covering the essential requirements of articles 3.2 and 3.3(g) of Directive 2014/53/EU".

[i.11] ETSI EN 302 885: "Portable Very High Frequency (VHF) radiotelephone equipment for the maritime mobile service operating in the VHF bands with integrated handheld class H DSC; Harmonised Standard covering the essential requirements of articles 3.2 and 3.3(g) of Directive 2014/53/EU".

[i.12] ISO 3791: "Office machines and data processing equipment - Keyboard layouts for numeric applications".

[i.13] MSC 302(87): "Adoption of performance standards for bridge alert management".

[i.14] IEC 62923 (parts 1 and 2): "Maritime navigation and radiocommunication equipment and systems - Bridge alert management".

[i.15] ETSI EN 303 132: "Maritime low power VHF personal locating beacons employing Digital Selective Calling (DSC); Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU".

[i.16] International Convention for the Safety of Life at Sea (SOLAS), 1974.

[i.17] ITU Radio Regulations (2016).