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HARMONISED EUROPEAN STANDARD

**ElectroMagnetic Compatibility (EMC) standard
for marine radio equipment and services;
Harmonised Standard for electromagnetic compatibility;
Part 8: Specific conditions for radio beacons and
locating devices**

Reference

DEN/ERM-EMC-421

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F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
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Foreword

This draft Harmonised European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM), and is now submitted for the combined Public Enquiry and Vote phase of the ETSI Standardisation Request deliverable Approval Procedure (SRdAP).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.1] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.2].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A.1 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

The present document is part 8 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	18 months after doa

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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document covers the assessment of the following maritime radio beacons in respect of ElectroMagnetic Compatibility (EMC):

- Emergency Position Indicating Radio Beacons (EPIRBs) operating in the COSPAS-SARSAT satellite system in the UHF band 406,0 MHz to 406,1 MHz and in the maritime VHF band on frequencies 161,975 MHz (AIS1) and 162,025 MHz (AIS2).
- Personal Locating Beacons (PLBs) operating in the COSPAS-SARSAT satellite system in the UHF band 406,0 MHz to 406,1 MHz.
- Maritime Survivor Locating Devices (MSLDs) operating in the maritime VHF band on frequencies 156,525 MHz (CH 70), 161,975 MHz (AIS1) and 162,025 MHz (AIS2).
- Mobile Aids to Navigation (AtoN) operating on 161,975 MHz (AIS1) and 162,025 MHz (AIS2).
- Search And Rescue Transmitters (SARTs) operating on 161,975 MHz (AIS1) and 162,025 MHz (AIS2).

Any of the above devices may also include homing transmitters operating on 121,5 MHz and/or 243 MHz.

These devices may operate stand alone or together with ancillary equipment as a system.

Technical specifications related to the antenna port and emissions from the enclosure port of radio beacons are not included in the present document. Such technical specifications are found in the related product standards for the effective use of the radio spectrum.

The present document specifies the applicable test conditions, performance assessment, and performance criteria for radio beacons and the associated ancillary equipment.

NOTE: The relationship between the present document and essential requirements of article 3.1b of Directive 2014/53/EU [i.2] is given in annex A.

2 References

2.1 Normative references

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Referenced documents which are not found to be publicly available in the expected location might be found in the [ETSI docbox](#).

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

- [1] [ETSI EN 301 843-1 \(V2.3.0\)](#): "ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 1: Common technical requirements".
- [2] [ETSI EN 303 132 \(V2.1.1\) \(2022-10\)](#): "Maritime VHF survivor locating devices employing Digital Selective Calling (DSC Class M); Harmonised Standard for access to radio spectrum and for features for emergency services".
- [3] [ETSI EN 300 338-6 \(V1.3.1\) \(2024-03\)](#): "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 6: Class M DSC".

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 may be useful in implementing an ETSI deliverable or add to the reader's understanding, but are not required for conformance to the present document.

- [i.1] [Commission Implementing Decision C\(2015\) 5376 final of 4.8.2015](#) on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.
- [i.2] [Directive 2014/53/EU](#) of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.
- [i.3] [Recommendation ITU-R M.1371-5](#): "Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band".

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in ETSI EN 301 843-1 [1] and the following apply:

activated EUT: EUT that is transmitting its distress

live sky: GNSS signal derived from live satellite signals

position fix: valid GNSS position has been acquired

primary battery: "single use" battery that cannot be recharged

armed: MSLD or PLB that has been armed ready to be activated

3.2 Symbols

For the purposes of the present document, the symbols given in ETSI EN 301 843-1 [1] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI EN 301 843-1 [1] and the following apply:

AIS	Automatic Identification System
AtoN	Aids to Navigation
C/S	COSPAS-SARSAT
COSPAS-SARSAT	COsmicheskaya Sistyema Poiska Avariynych Sudov - Search and Rescue Satellite-Aided Tracking
DSC	Digital Selective Calling
DST	Down Swept Tone
EMC	ElectroMagnetic Compatibility
EPIRB	Emergency Position Indicating Radio Beacon
EUT	Equipment Under Test
GNSS	Global Navigation Satellite System

LO	Local Oscillator
MSLD	Maritime Survivor Locating Device
NMEA	National Marine Electronics Association
PLB	Personal Locator Beacon
RF	Radio Frequency
VHF	Very High Frequency

4 General and operational requirements

4.1 Environmental profile

The provisions of ETSI EN 301 843-1 [1], clause 4.1 shall apply.

Samples used for testing shall be fitted with fresh, fully charged batteries.

4.2 Arrangements for test signals

4.2.0 General

The provisions of ETSI EN 301 843-1 [1], clause 4.2.0 shall apply with the following additions.

A video camera shall be used inside the test environment to monitor visual indicators on the EUT.

A microphone shall be used inside the test environment to monitor the EUT's audio indications.

4.2.1 Arrangements for test signals at the input of the transmitter

The transmitter shall only be modulated by its own internal sources.

4.2.2 Arrangements for test signals at the output of the transmitter

The provisions of ETSI EN 301 843-1 [1], clause 4.2.2 shall apply with the following modifications.

A DSC and AIS radio or DSC / AIS message tester shall be used to monitor DSC and AIS transmissions outside the test environment. To decode AIS message data content suitable software connected to the radio's NMEA output should be used.

A C/S message tester shall be used to monitor C/S transmissions outside the test environment.

A spectrum analyser (with appropriate RF attenuator) outside the test environment shall be used to monitor the EUT for spurious transmissions.

4.2.3 Arrangements for test signals at the input of the receiver

4.2.3.1 GNSS test signals

For EUT with an integral GNSS receiver, a GNSS source outside the test environment shall be provided and this shall be re-radiated into the test environment. The source of the GNSS signal may be either live sky, recorded or simulated.

For radiated immunity, the level of the wanted GNSS signal at the enclosure port of the EUT, shall be 20 dB above the minimum sensitivity for the EUT.

The method to establish the required level shall be as follows:

- a) Ensure all immunity test sources are switched off.
- b) Substitute the EUT with a GNSS receiver continuously outputting position fix data and monitor this data.

- c) Switch on the GNSS source and increase the level as necessary to establish a GNSS fix on the substitution GNSS receiver.
- d) Reduce the level of the wanted GNSS signal progressively in 1 dB steps until the data indicates that the position fix has been lost.
- e) Increase the level of the wanted GNSS signal by 21 dB.
- f) Remove the substitution GNSS receiver and replace the EUT in the same position.

4.2.3.2 DSC test signals

For EUT with an integral DSC receiver, for example a DSC class M MSLDs test equipment outside the test environment is needed to transmit DSC test acknowledgement messages. The output of this test equipment shall be coupled to the EUT as described in clause 4.2.3 of ETSI EN 301 843-1 [1].

Test equipment described in clause 6.7 of ETSI EN 303 132 [2] is required to transmit DSC test acknowledgement messages on demand.

The provisions of ETSI EN 301 843-1 [1], clause 4.2.3 shall apply with the following modifications.

In the case of EUT with an integral antenna where the input of the EUT's receiver is not accessible, the DSC test signal shall be re-radiated into the test environment, the wanted DSC signal shall be set at 40 dB above the minimum sensitivity of the receiver.

The method to establish the required level shall be as follows:

- a) Ensure all immunity test sources are switched off.
- b) Put the EUT into the test mode x) as described in clause F.3.1 of ETSI EN 303 132 [2].
- c) Switch on the DSC test source and increase the level as necessary until at least 80 % of test acknowledgments are indicated as received by the EUT (see clause 4.3.2.2, iv) of ETSI EN 303 132 [2]).
- d) Reduce the level of the wanted DSC signal progressively in 1 dB steps until less than 80 % of test acknowledgments are indicated as received.
- e) Increase the level of the wanted DSC signal by 41 dB.

In the case of EUT with a detachable antenna the level of the wanted DSC signal shall be 40 dBuV (emf) applied to the antenna connector of the EUT.

4.2.4 Arrangements for test signals at the output of the receiver

EUTs do not have any means for the output of their receivers to be directly connected to test equipment.

4.2.5 Arrangements for testing transmitter and receiver together (as a system)

The EUT and its ancillary equipment (if applicable) shall always be tested as a system.

4.3 Exclusion bands

4.3.0 General

The provisions of ETSI EN 301 843-1 [1], clause 4.3 shall apply.

The emission measurement and immunity test exclusions are referred to as "exclusion bands" and are defined in clauses 4.3.1 to 4.3.3.

4.3.1 Exclusion bands for receivers

4.3.1.1 GNSS exclusion bands

For EUT with an integral GNSS receiver the exclusion band for immunity testing of equipment with GNSS operating in the 1 559 MHz to 1 610 MHz band shall be:

- lower limit of exclusion band = 1 492 MHz (-67 MHz of the lowest band edge frequency)
- upper limit of exclusion band = 1 706 MHz (+96 MHz of the highest band edge frequency)

The exclusion band for immunity testing of equipment with GNSS operating in the 1 164 MHz to 1 300 MHz band shall be:

- lower limit of exclusion band = 1 100 MHz (-64 MHz of the lowest band edge frequency)
- upper limit of exclusion band = 1 364 MHz (+64 MHz of the highest band edge frequency)

4.3.1.2 DSC Class M exclusion band

The exclusion band for DSC Class M MSLDs shall be from 146,525 MHz to 166,525 MHz.

4.3.2 Exclusion band for transmitters

The exclusion bands for EUTs shall be set according to their intended use as selected from the followings:

121,5 MHz	from 121,450 MHz to 121,550 MHz
243 MHz	from 242,850 MHz to 242,050 MHz
DSC Class M	from 156,475 MHz to 156,575 MHz
AIS	from 161,925 MHz to 162,075 MHz
C/S	from 405,950 MHz to 406,150 MHz

4.3.3 Exclusion band for EUTs employing broadband data transceivers

4.3.3.1 The 2,4 GHz band

The exclusion bands for EUTs employing broadband data transceivers in the 2,4 GHz band (i.e. Bluetooth® or Wi-Fi®) shall be:

- lower limit of exclusion band = lowest allocated band edge frequency - 120 MHz (i.e. 2 280 MHz);
- upper limit of exclusion band = highest allocated band edge frequency + 120 MHz (i.e. 2 603,5 MHz).

4.3.3.2 5 GHz RLAN

The exclusion bands for EUTs employing 5 GHz RLAN band shall be:

- lower limit of exclusion band = lowest allocated band edge frequency -320 MHz, i.e. 4 830 MHz;
- upper limit of exclusion band = 6 GHz

NOTE: Any upper edge exclusion band limit for 5 GHz RLAN would be greater than 6 GHz for both the 5 470 MHz to 5 725 MHz and 5 725 MHz to 5 850 MHz bands. Therefore, testing effectively ends at the lower limit of exclusion band (i.e. 4 830 MHz).

4.4 Intermediate frequency responses of receivers

Intermediate frequency responses shall only be considered for EUTs incorporating a DSC or AIS receivers.

For EUTs with a DSC or AIS receiver and where the first LO frequency of that receiver is known and is more than 4,975 kHz away from 156,525 MHz a single narrow band spurious response shall be assumed to occur at:

$$2 \times \text{LO} - 156,525 \text{ MHz}$$

No immunity tests shall be carried out at the calculated narrow band spurious response.

For EUTs without a receiver or where the first LO frequency is not known, it shall be assumed that there is no narrow band spurious response outside the receiver exclusion band specified in clause 4.3.1. In which case immunity testing shall be carried out at all applicable frequencies.

4.5 Test modulation

The equipment is assumed to produce all the required test modulation internally and no additional external test equipment is needed.

5 Performance assessment

5.1 General

EUTs that can be armed shall be armed but not activated prior to each test on the transmitter and then disarmed at the end of each test unless specified otherwise in the present document.

For equipment that does not have an armed state the first mechanical action used to activate the EUT shall be operated, but the second mechanical action shall not be operated. This state shall be considered as equivalent to the armed state in the present document.

Mobile AtoN shall be configured to transmit their regular AIS message 21 at least once every 3 minutes (see clause 3.19 of Recommendation ITU-R M.1371-5 [i.3]).

5.2 Equipment which can provide a continuous communication link

The equipment being tested is not capable of providing a continuous communication link.

5.3 Equipment which does not provide a continuous communication link

The provisions of ETSI EN 301 843-1 [1], clause 5.3 shall apply.

5.4 Ancillary equipment

Category 1 EPIRBs shall be tested within their housings. Their housings are to be considered as ancillary equipment that cannot be tested separately.

Category 2 MSLDs shall be tested within their personal floatation devices (see clause 4.1.2 of ETSI EN 303 132 [2]).

Where the manufacturer supplies any additional ancillary equipment with the EUT, this shall be connected as per the operating instructions. The EUT and ancillary equipment shall always be tested as a system.

5.5 Equipment classification

The provisions of ETSI EN 301 843-1 [1], clause 5.5 shall apply.

Mobile AtoN and category 1 EPIRBs fixed into their housings shall be classified as mobile equipment.

All other equipment shall be classified as portable equipment.

6 Performance criteria

6.0 General

The provisions of ETSI EN 301 843-1 [1], clause 6.0 shall apply.

6.1 Performance criteria A for continuous phenomena applied to transmitters and receivers

The provisions of ETSI EN 301 843-1 [1], clause 6.1 shall apply with the following modifications:

- No spurious audio or visual indications shall occur during immunity testing. The EUT shall not activate. Mobile AtoN shall continue to transmit message 21 at least every 3 minutes without interruption. The EUT shall not change operating mode, transmit any spurious messages nor make any other spurious transmissions.

6.2 Performance criteria B for transient phenomena applied to transmitters and receivers

The provisions of ETSI EN 301 843-1 [1], clause 6.2 shall apply with the following modifications:

- During the test sequence, degradation or loss of function or performance which is self-recoverable is allowed including transient spurious visual or audible indication, but the EUT shall not activate. Mobile AtoN shall continue to transmit message 21 normally without interruption. The EUT shall not enter test mode or transmit any spurious messages or make any other spurious transmissions.

6.3 Performance criteria C applied to power supply failure

The provisions of ETSI EN 301 843-1 [1], clause 6.3 shall apply.

6.4 Performance check

6.4.1 Transmitter

6.4.1.1 General

A "performance check" of the transmitter shall be the normal operation of the test facility (if the EUT has a test facility) after the EUT has been disarmed (if the EUT can be armed), combined with a check that the appropriate test messages are transmitted by the EUT.

For EUT with a detachable antenna, the antenna shall be removed, and the transmitter shall be connected to an artificial antenna.

For EUT with an integral antenna a coupling device shall be used to carry the transmitted signals to test equipment outside the test environment.

6.4.1.2 121,5 MHz and 243 MHz Homing transmitters

A receiver shall be used to confirm the presence of DST on 121,5 MHz or 243 MHz depending on the frequency employed by the homing transmitter.

An EUT that transmits messages described in clauses 6.4.1.3 to 6.4.1.5 will interrupt the transmission of DST to do so. This shall not constitute a test failure.

6.4.1.3 DSC Class M

The EUT shall be monitored after testing to ensure it transmits a DSC test message as defined in clause 5.2.2 of ETSI EN 300 338-6 [3].

6.4.1.4 AIS

Emergency beacons shall be monitored after testing to ensure they transmit an AIS message burst in the format specified in clause D.2 of ETSI EN 303 132 [2]. No more than 1 in 8 messages is allowed to be missing.

NOTE: The text contents of message 14 in the AIS message burst vary for different types of emergency beacons.

Mobile AtoN shall continue to transmit message 21 at least every 3 minutes without interruption.

6.4.1.5 COSPAS-SARSAT

The EUT shall be monitored after immunity testing to ensure it transmits a C/S self-test message. C/S Self-test messages are the same as active messages except that a frame synchronization pattern of 011010000 is used.

6.4.2 Receiver

6.4.2.1 GNSS

A "performance check" of the GNSS receiver is taken to mean the acquisition and the maintenance of a position fix.

For equipment that transmits AIS message bursts the position decoded from AIS messages after the position fix has been obtained shall be checked to ensure that it is correct.

Note that it is not necessary to test DSC message positions because Class-M DSC MSLDs are required to carry AIS for position indication.

Otherwise for equipment that transmits C/S self-test messages without AIS, the position indicated in C/S messages after the position fix has been obtained shall be checked to ensure it is correct. Note that if a moving GNSS source is used for testing the position in C/S messages only updates once every 5 minutes.

6.4.2.2 DSC

A "performance check" of the DSC receiver is taken to mean the receipt of a DSC test message as described in clause 4.2.3.2. For a Class M DSC EUT, the DSC receiver shall be tested immediately after the receipt of the test message from the EUT (see clause 6.4.1.3). This is done by test equipment outside of the test environment as described in clause 6.7 of ETSI EN 303 132 [2] by sending a test acknowledgment. The EUT shall indicate the receipt of such with the appropriate visual indicator.

7 Applicability overview

7.0 General

The provisions of ETSI EN 301 843-1 [1], clause 7.0 shall apply.

7.1 EMC Emission

7.1.1 General conditions

For EUT classified as mobile equipment the emission requirements set out in table 1 shall apply. For EUT classified as portable equipment no emissions testing is applicable. See clause 5.5 for a description of these classifications.

Table 1: Emission Requirements for mobile equipment

Phenomenon	Port	Applicability	Reference clause
Radiated emission	Enclosure port of the EUT with its ancillary equipment as a system	Only applicable to a system including ancillary equipment	ETSI EN 301 843-1 [1], clause 8.2
Conducted emission	DC power input/output port	Applicable	ETSI EN 301 843-1 [1], clause 8.3

7.1.2 Special conditions

The following special conditions set out in table 2 shall apply.

Table 2: Special conditions for EMC emission measurements

Reference to clauses in ETSI EN 301 843-1 [1]	Special product-related conditions, additional to or modifying the test conditions in ETSI EN 301 843-1 [1], clause 8
8.2.3: Limits, enclosure port	The relevant exclusion band specified in clause 4.3 of the present document shall apply.

7.2 Immunity

7.2.0 Objective

The object of immunity testing in the present document is to ensure that the EUT does not falsely activate or operate spuriously when subjected to electro-magnetic interference.

7.2.1 General conditions

For EUT classified as mobile equipment, the immunity tests set out in table 3 shall apply. For EUT classified as portable equipment, the immunity tests set out in table 4 shall apply. See clause 5.5 for a description of these classifications.

Category 1 EPIRBs classified as mobile equipment shall only apply conducted immunity tests where the EPIRB housing has wired connections.

Table 3: Immunity tests for mobile equipment

Phenomenon	Port	Applicability	Reference clause	Performance Criteria
RF electromagnetic field (80 MHz to 6 GHz)	Enclosure	Applicable	ETSI EN 301 843-1 [1], clause 9.2	A
Electrostatic discharge	Enclosure	Applicable	ETSI EN 301 843-1 [1], clause 9.3	B
Fast transients common mode	DC power & signal ports	Applicable to ports capable of supporting cables of at least 2 m in length	ETSI EN 301 843-1 [1], clause 9.4	B
RF common mode 0,15 MHz to 80 MHz	DC power & signal ports	Applicable	ETSI EN 301 843-1 [1], clause 9.5	A

Table 4: Immunity tests for portable equipment

Phenomenon	Port	Applicability	Reference clause	Performance Criteria
RF electromagnetic field (80 MHz to 6 000 MHz)	Enclosure	Applicable	ETSI EN 301 843-1 [1], clause 9.2	A
Electrostatic discharge	Enclosure	Applicable	ETSI EN 301 843-1 [1], clause 9.3	B

7.2.2 Special conditions

The following special conditions set out in table 5 shall apply.

Table 5: Special conditions for EMC immunity tests

Reference to clauses in ETSI EN 301 843-1 [1]	Special product-related conditions, additional to or modifying the test conditions in ETSI EN 301 843-1 [1], clause 9
9.2.2: Test method; Radio frequency electromagnetic field	The wanted RF input signal for the receiver under test as specified in clause 4.2.3 of the present document. The relevant exclusion band specified in clause 4.3.1 of the present document shall apply.
9.5.2: Test method; Radio frequency, Common mode	The wanted RF input signal for the receiver under test as specified in clause 4.2.3 of the present document. The relevant exclusion band specified in clause 4.3.1 of the present document shall apply.

Annex A (informative): Relationship between the present document and the essential requirements of Directive 2014/53/EU

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.1] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.2].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A.1 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

Table A.1: Relationship between the present document and the essential requirements of Directive 2014/53/EU

Harmonised Standard ETSI EN 301 843-8					
Requirement				Requirement Conditionality	
No	Description	Essential requirements of Directive	Clause(s) of the present document	U/C	Condition
1	Emission: Enclosure port of the EUT with its ancillary equipment as a system	3.1(b)	7.1	C	Only applies to ancillary equipment
2	Emission: DC power input/output ports	3.1(b)	7.1	C	Only applies to DC powered equipment
3	Immunity: RF electromagnetic field (80 MHz to 6 GHz)	3.1(b)	7.2	U	
4	Immunity: Electrostatic discharge	3.1(b)	7.2	U	
5	Immunity: Fast transients common mode	3.1(b)	7.2	C	Applies to all ports capable of supporting cables of at least 2 m in length
6	Immunity: RF common mode 0,15 MHz to 80 MHz	3.1(b)	7.2	U	

Key to columns:

Requirement:

No A unique identifier for one row of the table which may be used to identify a requirement.

Description A textual reference to the requirement.

Essential requirements of Directive

Identification of article(s) defining the requirement in the Directive.

Clause(s) of the present document

Identification of clause(s) defining the requirement in the present document unless another document is referenced explicitly.

Requirement Conditionality:

U/C Indicates whether the requirement is unconditionally applicable (U) or is conditional upon the manufacturer's claimed functionality of the equipment (C).

Condition Explains the conditions when the requirement is or is not applicable for a requirement which is classified "conditional".

Presumption of conformity stays valid only as long as a reference to the present document is maintained in the list published in the Official Journal of the European Union. Users of the present document should consult frequently the latest list published in the Official Journal of the European Union.

Other Union legislation may be applicable to the product(s) falling within the scope of the present document.

Annex B (informative): Bibliography

- [Directive 2014/30/EU](#) of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

Annex C (informative): Change history

Version	Information about changes
V1.1.1	First published version

History

Version	Date	Status
V1.0.0	December 2025	SRdAP process EV 20260318: 2025-12-18 to 2026-03-18