
Naprave kratkega dosega (SRD), ki uporabljajo ultra širokopasovno tehnologijo (UWB) - Harmonizirani standard za dostop do radijskega spektra - 2. del: Naprave za sledenje lokaciji z ultra širokim pasom - 5. poddel: Zahteve za izboljšane notranje naprave v frekvenčnem pasu od 6,0 GHz do 8,5 GHz

Short Range Devices (SRD) using Ultra Wide Band technology (UWB) - Harmonised standard for access to radio spectrum - Part 2: Ultra Wide Band location tracking devices - Sub-part 5: Requirements for enhanced indoor devices within 6,0 GHz to 8,5GHz

Sample Document

get full document from standards.iteh.ai

Ta slovenski standard je istoveten z: ETSI EN 302 065-2-5 V1.1.1 (2026-03)

ICS:

33.060.99	Druga oprema za radijske komunikacije	Other equipment for radiocommunications
-----------	---------------------------------------	---

SIST EN 302 065-2-5 V1.1.1:2026 **en**

Sample Document

get full document from standards.iteh.ai

ETSI EN 302 065-2-5 V1.1.1 (2026-03)



HARMONISED EUROPEAN STANDARD

**Short Range Devices (SRD)
using Ultra Wide Band technology (UWB);
Harmonised standard for access to radio spectrum;
Part 2: Ultra Wide Band location tracking devices;
Sub-part 5: Requirements for enhanced indoor devices
within 6,0 GHz to 8,5 GHz**

Reference

DEN/ERM-TGUWB-622

Keywordsharmonised standard, location, radiodetermination,
SRD, UWB**ETSI**650 Route des Lucioles
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
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from the
[ETSI Search & Browse Standards](#) application.

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format on [ETSI deliver](#) repository.

Users should be aware that the present document may be revised or have its status changed, this information is available in the [Milestones listing](#).

If you find errors in the present document, please send your comments to the relevant service listed under [Committee Support Staff](#).

If you find a security vulnerability in the present document, please report it through our [Coordinated Vulnerability Disclosure \(CVD\)](#) program.

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.
In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

Copyright Notification

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2026.
All rights reserved.

Contents

Intellectual Property Rights	5
Foreword.....	5
Modal verbs terminology.....	6
Introduction	6
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references.....	7
3 Definition of terms, symbols and abbreviations.....	8
3.1 Terms.....	8
3.2 Symbols.....	8
3.3 Abbreviations	8
4 Technical requirements specifications	8
4.1 Environmental profile.....	8
4.2 Equipment categories	9
4.2.1 General.....	9
4.2.2 Summary equipment sub-categories	9
4.3 Transmitter requirements	10
4.3.1 General.....	10
4.3.2 Operating Frequency Range (OFR).....	10
4.3.2.1 Applicability.....	10
4.3.2.2 Description	10
4.3.2.3 Limits	10
4.3.2.4 Conformance.....	10
4.3.3 Mean e.i.r.p. spectral density	10
4.3.3.1 Applicability.....	10
4.3.3.2 Description	10
4.3.3.3 Limits	10
4.3.3.4 Conformance.....	11
4.3.4 Peak e.i.r.p. spectral density.....	11
4.3.4.1 Applicability.....	11
4.3.4.2 Description	11
4.3.4.3 Limits	11
4.3.4.4 Conformance.....	11
4.3.5 TX Unwanted Emissions (TXUE).....	11
4.3.5.1 Applicability.....	11
4.3.5.2 Description	11
4.3.5.3 Limits	12
4.3.5.4 Conformance.....	12
4.3.6 Duty cycle (DC).....	12
4.3.6.1 Applicability.....	12
4.3.6.2 Description	12
4.3.6.3 Limits	12
4.3.6.4 Conformance.....	12
4.3.7 Subject to control by an indoor infrastructure and operation within an identifiable network.....	12
4.3.7.1 Applicability.....	12
4.3.7.2 Description	12
4.3.7.3 Limits	13
4.3.7.4 Conformance.....	13
4.3.8 TX behaviour under the complete environmental profile	13
4.3.8.1 Applicability.....	13
4.3.8.2 Description	13
4.3.8.3 Limits	13
4.3.8.4 Conformance.....	13

4.4	Receiver requirements	13
4.4.1	General	13
4.4.2	Wanted technical performance criteria	14
4.4.2.1	Message success ratio	14
4.4.2.2	Automatic recovery	14
4.4.3	Receiver Baseline Sensitivity (RBS)	14
4.4.3.1	Applicability	14
4.4.3.2	Description	14
4.4.3.3	Limits	14
4.4.3.4	Conformance	15
4.4.4	Receiver Baseline Resilience (RBR)	15
4.4.4.1	Applicability	15
4.4.4.2	Description	15
4.4.4.3	Limits	15
4.4.4.4	Conformance	16
5	Testing for compliance with technical requirements	16
5.1	Environmental conditions for testing	16
5.1.1	General	16
5.1.2	Normal test conditions	16
5.1.3	Complete environmental profile test conditions	16
5.2	General conditions for testing and conformance test suites	16
5.2.1	General conditions for testing	16
5.2.2	Conformance test suites	17
5.2.3	Test scenarios	17
5.3	Conformance methods of measurement for transmitter requirements	17
5.3.1	General	17
5.3.2	Operating Frequency Range (OFR)	17
5.3.3	Mean e.i.r.p. spectral density	18
5.3.4	Peak e.i.r.p. spectral density	18
5.3.5	TX unwanted emissions	18
5.3.6	Duty cycle	19
5.3.7	Subject to control by an indoor infrastructure and operation within an identifiable network	20
5.3.7.1	General	20
5.3.7.2	Setup for a Companion Device with Command & control signal outside the EUT UWB operating frequency range	22
5.3.7.3	Setup for a Companion Device with Command & control signal inside the EUT UWB operating frequency range and time gating	23
5.3.7.4	Setup for a Companion Device with Command & control signal inside the EUT UWB operating frequency range and spatial separation	23
5.3.8	TX behaviour under the complete environmental profile	24
5.3.8.1	General	24
5.3.8.2	Conformance test procedure	24
5.4	Conformance methods of measurement for receiver	24
5.4.1	Receiver Baseline Sensitivity (RBS)	24
5.4.2	Receiver Baseline Resilience (RBR)	25
Annex A (informative):	Relationship between the present document and the essential requirements of Directive 2014/53/EU	27
Annex B (informative):	Requirement mapping	29
History		31

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the [ETSI IPR online database](#).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™**, **LTE™** and **5G™** logo are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

Foreword

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

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.4] 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.5].

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 conformance with the corresponding essential requirements of that Directive and associated EFTA regulations.

The present document is part 2, sub-part 5 of a multi-part deliverable covering Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised standard for access to radio spectrum. Full details of the entire series can be found in part 1 [i.8].

National transposition dates

Date of adoption of this EN:	25 February 2026
Date of latest announcement of this EN (doa):	31 May 2026
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2026
Date of withdrawal of any conflicting National Standard (dow):	30 November 2027

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.

Introduction

In the present document the updated UWB regulation for the EU [i.2] covering enhanced indoor devices is considered. Adequate measurement methods and relevant parameter limits are described in order to support EU market stakeholders in their efforts to ensure conformance of their UWB products based on enhanced indoor devices with the updated EU regulatory rules published in ECC/DEC/(06)04 [i.1] and in (EU) 2024/1467 [i.2].

Sample Document

get full document from standards.iteh.ai

1 Scope

The present document specifies technical requirements, limits and test methods for transceivers and transmitters utilizing Ultra WideBand (UWB) technologies for location tracking for enhanced indoor devices within 6,0 GHz to 8,5 GHz.

NOTE: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU is given in Annex A.

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.

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

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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

- [1] [ETSI EN 303 883-1 \(V2.1.1\) \(08-2024\)](#): "Short Range Devices (SRD) and Ultra Wide Band (UWB); Part 1: Measurement techniques for transmitter requirements".
- [2] [ETSI EN 303 883-2 \(V2.1.1\) \(08-2024\)](#): "Short Range Devices (SRD) and Ultra Wide Band (UWB); Part 2: Measurement techniques for receiver requirements".
- [3] [ETSI TS 103 941 \(V1.1.1\) \(01-2024\)](#): "Short Range Devices (SRD) and Ultra Wide Band (UWB); Measurement setups and specifications for testing under full environmental profile (normal and extreme environmental conditions)".
- [4] [ETSI EN 302 065-3-1 \(V3.2.1\) \(02-2025\)](#): "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised standard for access to radio spectrum; Part 3: UWB devices installed in motor and railway vehicles; Sub-part 1: Requirements for UWB devices for vehicular access systems within 3,8 GHz to 4,2 GHz or 6 GHz to 8,5 GHz".

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.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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] [ECC/DEC/\(06\)04](#): "ECC Decision of 24 March 2006 on the harmonised use, exemption from individual licensing and free circulation of devices using Ultra-Wideband (UWB) technology in bands below 10.6 GHz (ECC Decision (06)04), amended on 6 July 2007, amended 9 December 2011, amended on 8 March 2019 and amended 18 November 2022".