

STN	Elektromagnetická kompatibilita a záležitosti rádiového spektra (ERM). Zariadenia s krátkym dosahom (SRD) používajúce technológiu ultraširokého pásma (UWB) na komunikačné účely. Harmonizovaná EN vzťahujúca sa na základné požiadavky podľa článku 3.2 smernice R&TTE. Časť 3: Požiadavky na zariadenia UWB pre cestné a koľajové vozidlá.	STN EN 302 065-3 V1.1.1 87 2065
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Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 3: Requirements for UWB devices for road and rail vehicles

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

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Harmonized European Standard

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Short Range Devices (SRD) using
Ultra Wide Band technology (UWB);
Harmonized EN covering the essential requirements
of article 3.2 of the R&TTE Directive;
Part 3: Requirements for UWB devices
for road and rail vehicles**

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Foreword

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

The present document has been produced by ETSI in response to mandate M/407 issued from the European Commission under Directive 98/34/EC [i.9] as amended by Directive 98/48/EC [i.12].

The title and reference to the present document are intended to be included in the publication in the Official Journal of the European Union of titles and references of Harmonized Standard under the Directive 1999/5/EC [i.10].

See article 5.1 of Directive 1999/5/EC [i.10] for information on presumption of conformity and Harmonized Standards or parts thereof the references of which have been published in the Official Journal of the European Union.

The requirements relevant to Directive 1999/5/EC [i.10] are summarized in Annex A.

Equipment covered by the present document operates in accordance with ECC/DEC(06)04 [i.11] "The harmonised conditions for devices using Ultra-Wideband (UWB) technology in bands below 10,6 GHz" in road and railway vehicles.

The present document is part 3 of a multi-part deliverable covering Short Range Devices (SRD) using Ultra Wide Band technology (UWB) for communication purposes, as identified below:

- Part 1: "Requirements for Generic UWB applications";
- Part 2: "Requirements for UWB location tracking";
- Part 3: "Requirements for UWB devices for road and rail vehicles".**

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1 Scope

The present document applies to transceivers, transmitters and receivers utilizing Ultra WideBand (UWB) technologies and used for short range applications in road and rail vehicles, which includes devices mounted inside or at the surface. The present document applies to impulse, modified impulse and RF carrier based UWB technologies in the main operating frequency ranges from 3,1 GHz to 4,8 GHz or from 6 GHz to 9 GHz.

Examples of applications for road and rail vehicles are:

- stand-alone radio equipment with or without its own control provisions;
- plug-in radio devices intended for use with, or within, a variety of host systems, e.g. personal computers, etc.;
- plug-in radio devices intended for use within combined equipment, e.g. modems, access points, etc.;
- equipment for telemetry communication inside and outside of road and rail vehicles;
- equipment for the localization of devices inside and outside of road and rail vehicles (e.g. hand-held devices);
- equipment to investigate materials (e.g. fuel).

The present document does not apply to fixed road infrastructure installations. For fixed rail infrastructure tracking applications see TR 101 538 [i.5] and TS 103 085 [i.6].

The present document applies to UWB equipment with an output connection used with a dedicated antenna or UWB equipment with an integral antenna.

The present document applies to UWB equipment conforming to ECC/DEC/(06)04 amended 9 December 2011 [i.11] and CEPT Report 45 [i.13].

2 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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2.1 Normative references

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

- [1] ETSI TS 102 883 (V1.1.1) (08-2012): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band (UWB); Measurement Techniques".
- [2] ETSI TS 102 754 (V1.2.1) (11-2008): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Technical characteristics of Detect-And-Avoid (DAA) mitigation techniques for SRD equipment using Ultra Wideband (UWB) technology".
- [3] ETSI TR 100 028 (all parts) (V1.4.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

2.2 Informative references

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] ETSI TR 102 070-2: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Guide to the application of harmonized standards to multi-radio and combined radio and non-radio equipment; Part 2: Effective use of the radio frequency spectrum".
 - [i.2] ETSI TR 103 086: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Conformance test procedure for the exterior limit tests in EN 302065-3 UWB applications in the ground based vehicle environment".
 - [i.3] ECC Report 120 (March 2008): "ECC Report on Technical requirements for UWB DAA (Detect and avoid) devices to ensure the protection of radiolocation in the bands 3.1-3.4 GHz and 8.5-9 GHz and BWA terminals in the band 3.4-4.2 GHz".
 - [i.4] Commission Decision 2007/131/EC of 21 February 2007 on allowing the use of the radio spectrum for equipment using ultra-wideband technology in a harmonised manner in the Community (notified under document number C(2007) 522).
- NOTE: This EC Decision is currently under revision based on CEPT Report 45 [i.13] and amended ECC/DEC(06)04 [i.11]. The new EC/DEC revision is expected within 2014.
- [i.5] ETSI TR 101 538: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); UWB location tracking devices in the railroad environment".
 - [i.6] ETSI TS 103 085: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band (UWB) for Location and Tracking railroad applications; RF conformance testing".
 - [i.7] CEPT/ERC Recommendation 74-01: "Unwanted emissions in the spurious domain".
 - [i.8] Void.
 - [i.9] Directive 1998/34/EC as amended by 1998/48/EC the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.
 - [i.10] Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (R&TTE Directive).
 - [i.11] CEPT ECC/DEC(06)04 of 24 March 2006 amended 9 December 2011: "The harmonised conditions for devices using Ultra-Wideband (UWB) technology in bands below 10.6 GHz".
 - [i.12] Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998 amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations.
 - [i.13] CEPT Report 45: "Report from CEPT to the European Commission in response to the Fifth Mandate to CEPT on ultra-wideband technology to clarify the technical parameters in view of a potential update of Commission Decision 2007/131/EC". Report approved on 21 June 2013 by the ECC.

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