ICS 33.060.20 SLOVENSKÁ TECHNICKÁ NORMA Október 2025

STN	**Zariadenia krátkeho dosahu (SRD) používané vo frekvenčnom rozsahu od 40 GHz do 260 GHz Harmonizovaná norma pre prístup k rádiovému spektru Časť 6: Špecifické aplikácie rádiodeterminácie Zariadenia na meranie hladiny v nádržiach (TLPR) a na meranie hladiny (LPR) pracujúce vo frekvenčných rozsahoch od 116 GHz do 148,5 GHz; od 167 GHz do 182 GHz a od 231,5 GHz do 250 GHz**	**STN EN 305 550-6 V1.2.1** 87 5550

Short Range Devices (SRD) to be used in the 40 GHz to 260 GHz frequency range; Harmonised Standard for access to radio spectrum; Part 6: Specific radiodetermination applications - Tank Level Probing Radar (TLPR) and Level Probing Radar (LPR) equipment operating in the frequency ranges 116 GHz to 148,5 GHz; 167 GHz to 182 GHz and 231,5 GHz to 250 GHz

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. 09/25

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Contents

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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.2] 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.1].

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 6 of a multi-part deliverable covering Short Range Devices (SRD) to be used in the 40 GHz to 260 GHz frequency range; Harmonised standard for access to radio spectrum, as identified below:

Part 1: "Communication devices within 57 GHz to 64 GHz, 122 GHz to 123 GHz or 244 GHz to 246 GHz";

Part 2: "Radiodetermination for industrial applications (RDI & RDI-S) equipment operating within 116 GHz to 260 GHz";

Part 3: "Radiodetermination for consumer applications within 57 GHz to 64 GHz, 122 GHz to 130 GHz, 134 GHz to 148,5 GHz or 244 GHz to 246 GHz";

Part 4: "Radiodetermination devices at vehicles within 57 GHz to 64 GHz";

Part 5: "Ultra Short Range Communication (USRC) equipment operating within 57 GHz to 64 GHz";

Part 6: "Specific radiodetermination applications - Tank Level Probing Radar (TLPR) and Level Probing Radar (LPR) equipment operating in the frequency ranges 116 GHz to 148,5 GHz; 167 GHz to 182 GHz and 231,5 GHz to 250 GHz".

NOTE: The list above shows the planned multi-part deliverable, at the time, when the present document was finalized.

National transposition dates	
Date of adoption of this EN:	13 May 2025
Date of latest announcement of this EN (doa):	31 August 2025
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	28 February 2026
Date of withdrawal of any conflicting National Standard (dow):	28 February 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

ETSI ERM TGUWB decided to develop more specific standards; this means instead of one generic ETSI EN 305 550 for generic SRD within 40 GHz to 260 GHz, a standard family was started to reflect the intended use in relation to the wanted technical performances in more detail.

The present document is the first version of the harmonised standard ETSI EN 305 550-6 for Level Probing Radar (LPR) and Tank Level Probing Radar (TLPR) equipment using UWB technology in the frequency ranges 116 GHz to 148,5 GHz, 167 GHz to 182 GHz and 231,5 GHz to 250 GHz, and it is part of the standard family ETSI EN 305 550-x which covers Short Range Devices (SRD) to be used in the 40 GHz to 260 GHz frequency range in general.

1 Scope

The present document specifies technical requirements, limits and test methods for SRD radiodetermination equipment using Ultra Wide Band (UWB) technology in the frequency ranges from 116 GHz to 148,5 GHz, from 167 GHz to 182 GHz, and from 231,5 GHz to 250 GHz for Level Probing Radar (LPR) and Tank Level Probing Radar (TLPR).

Level Probing Radars and Tank Level Probing Radars consist of a combined transmitter and receiver and are equipped with an integral or dedicated antenna provided also by the EUT manufacturer. EUTs intended to be equipped with antennas from third-party manufacturers are not covered by the scope of the present document.

Furthermore, the present document is limited to LPR and TLPR devices with FMCW modulation (see clause C.2.2 of ETSI EN 303 883-1 [1]).

Further details of the covered LPR and TLPR EUT can be found in clause 4.2 of the present document.

NOTE 1: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.1] is given in annex A.

NOTE 2: Equipment covered by the present document operates in accordance with clause 2.3 and clause 2.5 of ECC Decision(22)03 [i.3] and the upcoming EC framework for UWB/SRDs for the range 116 GHz to 260 GHz, which is based on the results of ECC Report 334 [i.8].

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 103 789 (V1.1.1) (05-2023): "Short Range Devices (SRD) and Ultra Wide Band (UWB); Radar related parameters and physical test setup for object detection, identification and RCS measurement".

[4] 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)".

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] 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 (RE-Directive).

[i.2] 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.3] ECC/DEC/(22)03 of 18 November 2022 on technical characteristics, exemption from individual licensing and free circulation and use of specific radiodetermination applications in the frequency range 116-260 GHz, amended 8 March 2024.

[i.4] CEPT ERC Recommendation 74-01 (October 2021): "Unwanted emissions in the spurious domain".

[i.5] European Commission Implementing Decision (EU) 2022/180 of 8 February 2022 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices.

[i.6] ETSI EG 203 336 (V1.2.1) (05-2020): "Guide for the selection of technical parameters for the production of Harmonised Standards covering article 3.1(b) and article 3.2 of Directive 2014/53/EU".

[i.7] ETSI TS 103 567 (V1.1.1) (09-2019): "Requirements on signal interferer handling".

[i.8] ECC Report 334: "UWB radiodetermination applications in the frequency range 116-260 GHz", January 2022, amended 2023.

[i.9] ETSI TS 103 361 (V1.1.1) (03-2016): "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Receiver technical requirements, parameters and measurement procedures to fulfil the requirements of the Directive 2014/53/EU".

[i.10] ETSI TS 103 060 (V1.1.1) (09-2013): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Method for a harmonized definition of Duty Cycle Template (DCT) transmission as a passive mitigation technique used by short range devices and related conformance test methods".

[i.11] Committee on Radio Astronomy Frequencies (CRAF), European Science Foundation.