

STN	Zariadenia s krátkym dosahom (SRD) využívajúce ultraširokopásmovú technológiu (UWB) Harmonizovaná norma pre prístup k rádiovému spektru Časť 1: Zariadenia na meranie hladiny (LPR) pracujúce vo frekvenčných rozsahoch od 6 GHz do 8,5 GHz, od 24,05 GHz do 26,5 GHz, od 57 GHz do 64 GHz, od 75 GHz do 85 GHz pre striktné vertikálnu inštaláciu smerom nadol	STN EN 302 729-1 V3.1.1 87 2729
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Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised standard for access to radio spectrum; Part 1: Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz for strictly vertical downward installation

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

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**Short Range Devices (SRD)
using Ultra Wide Band technology (UWB);
Harmonised standard for access to radio spectrum;
Part 1: Level Probing Radar (LPR) equipment operating in the
frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz,
57 GHz to 64 GHz, 75 GHz to 85 GHz for strictly vertical
downward installation**

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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
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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 1 of a multi-part deliverable covering Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised standard for access to radio spectrum, as identified below:

- Part 1: "Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz for strictly vertical downward installation";**
- Part 2: "Level Probing Radar (LPR) equipment operating in the frequency range 75 GHz to 85 GHz for tilted downward installation".

National transposition dates	
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Date of withdrawal of any conflicting National Standard (dow):	28 February 2027

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Introduction

ETSI ERM TGUWB decided to develop more specific standards; this means instead of one generic ETSI EN 302 729 [i.13] for all Level Probing Radar (LPR) devices, a multi-part deliverable was initiated in order to reflect the intended use in relation to different aspects of the corresponding regulation ECC Decision (11)02 [i.3].

Part 1 of the multi-part deliverable covers the original provisions made in ECC Decision (11)02 [i.3] of 11 March 2011 for LPR equipment with strictly vertical downward installation (see ECC Decision (11)02 [i.3], first four lines of Table 1 for strictly vertical antenna orientation).

Part 2 of the multi-part deliverable covers the amendments made in ECC Decision (11)02 [i.3] on 5 July 2019 for LPR equipment with tilted downward installation (see ECC Decision (11)02 [i.3], last three lines of Table 1 for tilted antenna orientation).

Due to the amendment of ECC Decision (11)02 [i.3] on 5 July 2019, ETSI ERM TGUWB decided to follow henceforth a two part structure and to only reflect the amendments made in 2019 in part 2 of the series.

More information on the conducted changes in previous versions of the present document can be found in the change history in Annex H.

1 Scope

The present document specifies technical requirements, limits and test methods for Level Probing Radar (LPR) equipment operating in the frequency ranges 6 GHz to 8,5 GHz, 24,05 GHz to 26,5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz for strictly vertical downward installation in outdoor as well as indoor environments.

Level Probing Radars in the scope of the present document 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.

LPR equipment and the related categorization is further specified in clause 4.2.

NOTE: 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.

2 References

2.1 Normative references

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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)".

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- [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 Decision \(11\)02](#): "ECC Decision of 11 March 2011 and amended on 5 July 2019 on industrial Level Probing Radars (LPR) operating in frequency bands 6-8.5 GHz, 24.05-26.5 GHz, 57-64 GHz and 75-85 GHz".
- [i.4] [ECC Report 139](#): "Impact of Level Probing Radars Using Ultra-Wideband Technology on Radiocommunications Services", Rottach-Egern, February 2010.
- [i.5] [CEPT ERC Recommendation 74-01 \(May 2022\)](#): "Unwanted emissions in the spurious domain".
- [i.6] ETSI TR 102 601 V1.1.1 (12-2007): "Electromagnetic compatibility and Radio spectrum Matters (ERM); System reference document; Short Range Devices (SRD); Equipment for Detecting Movement using Ultra Wide Band (UWB) radar sensing technology; Level Probing Radar (LPR)-sensor equipment operating in the frequency bands 6 GHz to 8,5 GHz; 24,05 GHz to 26,5 GHz; 57 GHz to 64 GHz and 75 GHz to 85 GHz".
- [i.7] [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 (notified under document C(2022) 644) (Text with EEA relevance).
- [i.8] [Committee on Radio Astronomy Frequencies, European Science Foundation](#).
- [i.9] [IEC 61298-2:2008](#): "Process measurement and control devices - General methods and procedures for evaluating performance - Part 2: Tests under reference conditions".
- [i.10] 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.11] ETSI TS 103 567 (V1.1.1) (09-2019): "Requirements on signal interferer handling".
- [i.12] 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.13] ETSI EN 302 729 (all parts): "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised standard for access to radio spectrum".

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