

STN	Zariadenia s krátkym dosahom (SRD) Snímače detekcie kovov a predmetov pracujúce vo frekvenčnom rozsahu od 1 kHz do 148,5 kHz Harmonizovaná norma vzťahujúca sa na základné požiadavky podľa článku 3.2 Smernice 2014/53/EU	STN EN 303 454 V1.1.1 87 3454
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Short Range Devices (SRD); Metal and object detection sensors in the frequency range 1 kHz to 148,5 kHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU

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. 02/19

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**Short Range Devices (SRD);
Metal and object detection sensors
in the frequency range 1 kHz to 148,5 kHz;
Harmonised Standard covering the essential requirements
of article 3.2 of Directive 2014/53/EU**

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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.6] 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.3].

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.

National transposition dates	
Date of adoption of this EN:	18 December 2017
Date of latest announcement of this EN (doa):	31 March 2018
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 September 2018
Date of withdrawal of any conflicting National Standard (dow):	30 September 2019

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).

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Introduction

The present document covers metal and object detection sensors in the frequency range 1 kHz to 148,5 kHz.

The present document is structured as follows:

- Clauses 1 through 3 provide a general description on the types of equipment covered by the present document and the definitions, symbols and abbreviations used.
- Clause 4 provides the technical requirements specifications, limits and conformance relative to transmitter and receiver.
- Clause 5 specifies the conditions for testing of the equipment and interpretation of the measurement results with the maximum measurement uncertainty values.
- Clause 6 specifies the required measurement methods.
- Annex A (informative) provides the relationship between the present document and the essential requirements of Directive 2014/53/EU [i.3].

1 Scope

The present document specifies technical characteristics and methods of measurements for metal and object detection sensors in the frequency range 1 kHz to 148,5 kHz.

The present document covers the essential requirements of article 3.2 of Directive 2014/53/EU [i.3] under the conditions identified in annex A.

The size for the inductive loops covered by the present document is limited to 3 m².

The present document does not cover other devices using the frequency range below 148,5 kHz, e.g. ETSI EN 303 348 [i.7] (Inductive loop for hearing impaired in 0 kHz to 20 kHz), ETSI EN 303 447 [i.8] (Inductive robotic mowers).

These radio equipment types are capable of operating in all or part of the frequency bands given in table 1.

Table 1: Permitted range of operation

Permitted range of operation	
Transmit	1 kHz to 148,5 kHz
Receive	1 kHz to 148,5 kHz

NOTE: It should be noted that the frequency range between 9 kHz and 148,5 kHz is EU wide harmonised for inductive Short Range Devices according to Decision 2017/1483 [i.2].

2 References

2.1 Normative references

References are specific, identified by date of publication and/or edition number or version number. Only the cited version applies.

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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 300 330 (V2.1.1) (02-2017): "Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU".

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] CEPT/ERC Recommendation 70-03: "Relating to the use of Short Range Devices (SRD)".

- [i.2] Commission Implementing Decision (EU) 2017/1483 of 8 August 2017 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices and repealing Decision 2006/804.
- [i.3] 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.4] CEPT/ERC/REC 74-01: "Unwanted emissions in the spurious domain".
- [i.5] ETSI EG 203 336: "Electromagnetic compatibility and Radio spectrum Matters (ERM); 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.6] 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.7] ETSI EN 303 348: "Induction loop systems intended to assist the hearing impaired in the frequency range 10 Hz to 9 kHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU".
- [i.8] ETSI EN 303 447: "Short Range Devices (SRD); Inductive loop systems for robotic mowers in the frequency range 0 Hz to 148,5 kHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU".

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