



HARMONISED EUROPEAN STANDARD

**Short Range Devices;
Transport and Traffic Telematics (TTT);
Radar equipment operating in the 76 GHz to 77 GHz range;
Harmonised Standard covering the essential requirements
of article 3.2 of Directive 2014/53/EU;
Part 3: Railway/Road Crossings obstacle detection
system applications**

Reference

DEN/ERM-TGSRR-73

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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.5] 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.2].

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 3 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.6].

National transposition dates	
Date of adoption of this EN:	20 February 2017
Date of latest announcement of this EN (doa):	31 May 2017
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2017
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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, together with ETSI EN 303 396 [1], covers the assessment of certain types of equipment as defined herein.

1 Scope

The present document specifies technical characteristics and methods of measurements for the following types of equipment:

- radar equipment for obstacle detection applications in the frequency range from 76 GHz to 77 GHz at the road crossing of a railway track and references CEPT/ECC ERC Recommendation 70-03 [i.1] Annex 4;
- Short Range Devices (SRD) intended for the use at road crossing of a railway track.

It covers integrated transceivers and separate transmit/receive modules.

The present document does not necessarily include all the characteristics which may be required by a user, nor does it necessarily represent the optimum performance achievable.

In case of differences (for instance concerning special conditions, definitions, abbreviations) between the present document and ETSI EN 303 396 [1], the provisions of the present document take precedence.

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 [i.1]

Permitted range of operation	
Transmit	76 GHz to 77 GHz
Receive	76 GHz to 77 GHz

The present document covers the essential requirements of article 3.2 of Directive 2014/53/EU [i.2] under the conditions identified 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 303 396 (V1.1.1) (12-2016): " Short Range Devices; Measurement Techniques for automotive and surveillance radar equipment".

2.2 Informative references

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