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**Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) - Naprave kratkega dosega (SRD) - Oprema za odkrivanje in premikanje - Radar za sondiranje nivoja v rezervoarjih (TLPR), ki deluje v frekvenčnih pasovih 5,8 GHz, 10 GHz, 25 GHz, 61 GHz in 77 GHz - 2. del: Harmonizirani EN, ki zajema bistvene zahteve člena 3.2 direktive R&TTE**

Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices (SRD) - Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz - Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

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# ETSI EN 302 372-2 V1.2.1 (2011-02)

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*Harmonized European Standard*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Short Range Devices (SRD);  
Equipment for Detection and Movement;  
Tanks Level Probing Radar (TLPR) operating in the  
frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz;  
Part 2: Harmonized EN covering the essential requirements  
of article 3.2 of the R&TTE Directive**

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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 a mandate from the European Commission issued under Council Directive 98/34/EC (as amended) [i.1] laying down a procedure for the provision of information in the field of technical standards and regulations.

The present document is intended to become a Harmonized Standard, the reference of which will be published in the Official Journal of the European Communities referencing the Directive 1999/5/EC [i.2] 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 ("the R&TTE Directive").

For non EEA countries the present document may be used for regulatory (type approval) purposes.

The requirements relevant to Directive 1999/5/EC [i.2] are summarised in annex A.

The present document is part 2 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz; as identified below:

Part 1: "Technical characteristics and test methods";

**Part 2: "Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive".**

### National transposition dates

Date of adoption of this EN:	21 February 2011
Date of latest announcement of this EN (doa):	31 May 2011
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2011
Date of withdrawal of any conflicting National Standard (dow):	30 November 2012

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## Introduction

The present document is part of a set of standards developed by ETSI and is designed to fit in a modular structure to cover all radio and telecommunications terminal equipment within the scope of the R&TTE Directive [i.2]. The modular structure is shown in EG 201 399 [i.5].

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# 1 Scope

The present document specifies the requirements for Tank Level Probing Radar (TLPR) applications based on pulse RF, FMCW, or similar wideband techniques, operating in the following frequency bands or part hereof as specified in table 1.

**Table 1: Frequency bands designated to Tank Level Probing Radars (TLPR)**

	Frequency Bands/frequencies (GHz)
Transmit and Receive	4,5 to 7
Transmit and Receive	8,5 to 10,6
Transmit and Receive	24,05 to 26,5
Transmit and Receive	57 to 64
Transmit and Receive	75 to 85

Table 1 shows a list of the frequency bands as designated to Tank Level Probing Radars in the EC-Decision 2009/381 [i.4] and CEPT/ERC/Recommendation 70-03 [i.3] as known at the date of publication of the present document.

TLPRs are used for tank level measurement applications.

The scope is limited to TLPRs operating as Short Range Devices, in which the devices are installed in closed metallic tanks or reinforced concrete tanks, or similar enclosure structures made of comparable attenuating material, holding a substance, liquid or powder.

The radar applications in the present document are not intended for communications purposes. Their intended usage excludes any intended radiation into free space.

The present document applies to TLPRs radiating RF signals directly from the tank top downwards to the surface of a substance contained in a closed tank. Any radiation outside of the tank is caused by leakage and is considered as unintentional emission. It applies only to TLPRs fitted with dedicated antennas. 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.

## 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 reference document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

### 2.1 Normative references

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

- [1] ETSI EN 302 372-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz; Part 1: Technical characteristics and test methods".



## 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] Directive 98/34/EC of 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.2] 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.3] CEPT/ERC/Recommendation 70-03: "Relating to the use of Short Range Devices (SRD)".
- [i.4] Commission Decision 2006/771/EC on harmonization of the radio spectrum for use by short range devices as amended by commission decision 2009/381/EC.
- [i.5] ETSI EG 201 399 (V2.1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); A guide to the production of candidate Harmonized Standards for application under the R&TTE Directive".

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## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in the R&TTE Directive [i.2] and EN 302 372-1 [1] apply.

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### 3.2 Symbols

For the purposes of the present document, the symbols given in EN 302 372-1 [1] apply.

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### 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in EN 302 372-1 [1] apply.

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## 4 Technical requirements specifications

### 4.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be declared by the supplier. The equipment shall comply with all the technical requirements of the present document at all times when operating within the boundary limits of the declared operational environmental profile.