

<b>STN</b>	<b>Telematika dopravy a premávky (TTT) Vysielacie zariadenia účelových komunikácií na krátku vzdialenosť (DSRC) (500 kbit/s / 250 kbit/s) pracujúce vo frekvenčnom pásme od 5 795 MHz do 5 815 MHz Časť 2: Harmonizovaná norma pre prístup k rádióvému spektru Oddiel 2: Palubné jednotky (OBU)</b>	<b>STN EN 300 674-2-2 V2.2.1</b>  87 0674
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Transport and Traffic Telematics (TTT); Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s / 250 kbit/s) operating in the 5 795 MHz to 5 815 MHz frequency band; Part 2: Harmonised Standard for access to radio spectrum; Sub-part 2: On-Board Units (OBU)

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. 12/19

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**Transport and Traffic Telematics (TTT);  
Dedicated Short Range Communication (DSRC)  
transmission equipment (500 kbit/s / 250 kbit/s)  
operating in the 5 795 MHz to 5 815 MHz frequency band;  
Part 2: Harmonised Standard for access to radio spectrum;  
Sub-part 2: On-Board Units (OBU)**

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REN/ERM-TG37-272

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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 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

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# Contents

Intellectual Property Rights .....	6
Foreword.....	6
1 Scope .....	8
2 References .....	8
2.1 Normative references .....	8
2.2 Informative references.....	9
3 Definition of terms, symbols and abbreviations.....	9
3.1 Terms.....	9
3.2 Symbols.....	11
3.3 Abbreviations .....	13
4 Technical requirements specifications .....	14
4.1 General characteristics .....	14
4.1.1 OBU sets.....	14
4.1.2 Uplink sub-carrier frequencies.....	14
4.1.3 Carrier frequencies.....	14
4.1.4 Modulation.....	14
4.2 Environmental conditions.....	15
4.2.1 Environmental profile.....	15
4.2.2 Power supply .....	15
4.3 Conformance requirements .....	15
4.3.1 Transmitter requirements .....	15
4.3.1.1 Transmitter spectrum mask .....	15
4.3.1.2 Maximum equivalent isotropically radiated power .....	15
4.3.1.3 Transmitter frequency error .....	16
4.3.1.4 Transmitter unwanted emissions.....	16
4.3.2 Receiver requirements .....	16
4.3.2.1 Receiver unwanted emissions in the spurious domain .....	16
4.3.2.2 Sensitivity .....	17
4.3.2.3 Receiver selectivity .....	17
4.3.2.3.1 General .....	17
4.3.2.3.2 Receiver spurious response rejection and adjacent channel rejection .....	17
4.3.2.3.3 Receiver blocking.....	18
4.3.2.3.4 Co-channel rejection.....	18
4.3.3 Antennas .....	18
5 Testing for compliance with technical requirements.....	19
5.1 Environmental conditions for testing .....	19
5.2 Interpretation of the measurement results .....	19
5.3 Radio test suites.....	20
5.3.1 Transmitter parameters .....	20
5.3.1.1 Transmitter spectrum mask .....	20
5.3.1.1.1 General .....	20
5.3.1.1.2 Radiated measurements .....	20
5.3.1.1.3 Conducted measurements .....	22
5.3.1.2 Maximum equivalent isotropically radiated power .....	23
5.3.1.2.1 General .....	23
5.3.1.2.2 Radiated measurement.....	24
5.3.1.2.3 Conducted measurement.....	25
5.3.1.3 Transmitter frequency error .....	25
5.3.1.3.1 General .....	25
5.3.1.3.2 Radiated measurements .....	26
5.3.1.3.3 Conducted measurements .....	26
5.3.1.4 Transmitter unwanted emissions .....	27
5.3.1.4.1 General .....	27
5.3.1.4.2 Radiated measurement.....	27

5.3.2	Receiver parameters.....	28
5.3.2.1	Receiver unwanted emissions in the spurious domain .....	28
5.3.2.1.1	General .....	28
5.3.2.1.2	Radiated measurement.....	28
5.3.2.2	Sensitivity .....	29
5.3.2.2.1	General .....	29
5.3.2.2.2	Radiated measurements .....	29
5.3.2.2.3	Conducted measurements .....	29
5.3.2.3	Receiver selectivity .....	30
5.3.2.3.1	General .....	30
5.3.2.3.2	Unwanted signal characteristics .....	30
5.3.2.3.3	Measurement of receiver selectivity in OBU boresight.....	30
<b>Annex A (informative): Relationship between the present document and the essential requirements of Directive 2014/53/EU .....</b>		<b>32</b>
<b>Annex B (normative): Basics on testing .....</b>		<b>33</b>
B.1	General conditions.....	33
B.1.1	Thermal balance .....	33
B.1.2	Test signals .....	33
B.1.3	Test sites .....	34
B.1.3.1	Shielded anechoic chamber.....	34
B.1.3.2	Open area test site .....	35
B.1.3.3	Test fixture.....	35
B.1.4	General requirements for RF cables .....	36
B.1.5	Conducted measurements.....	37
B.1.5.1	One antenna connector arrangement.....	37
B.1.5.2	Two antenna connectors arrangement.....	38
B.1.5.3	Test site requirements .....	38
B.1.5.4	Site preparation for conducted measurements .....	38
B.1.5.4.1	Monochromatic signals .....	38
B.1.5.4.2	Modulated signals .....	38
B.1.6	Radiated measurements .....	39
B.1.6.1	One antenna arrangement .....	39
B.1.6.2	Two antennas arrangement .....	40
B.1.6.3	Test site requirements .....	41
B.1.6.3.1	Measurement distances .....	41
B.1.6.3.2	Free-space wave propagation .....	41
B.1.6.4	Test and substitution antennas .....	42
B.1.6.5	Site preparation for radiated OBU measurements .....	42
B.1.6.5.1	Monochromatic signals .....	42
B.1.6.5.2	Modulated signals .....	44
B.1.6.5.3	Arrangement for OBU transmitter unwanted emissions measurement .....	45
B.1.6.5.4	Arrangement for OBU receiver selectivity measurement .....	47
B.2	Instruments .....	49
B.2.1	Receiving device .....	49
B.2.2	RF power sensor.....	49
B.2.3	Combiner.....	50
B.3	Power of modulated RSU carrier .....	50
B.4	Bit error ratio measurements .....	51
B.4.1	Basics .....	51
B.4.2	BER measurement .....	51
B.4.3	FER measurement .....	51
B.4.3.1	Mathematical expressions.....	51
B.4.3.2	Equipment.....	52
B.4.3.3	Procedure.....	52
<b>Annex C (normative): Environmental profile .....</b>		<b>53</b>
C.1	General Requirements .....	53

C.2	Mandatory environmental conditions.....	53
C.3	Additional environmental conditions .....	53
<b>Annex D (informative):</b>	<b>Maximum Measurement Uncertainty.....</b>	<b>54</b>
<b>Annex E (informative):</b>	<b>Bibliography.....</b>	<b>55</b>
<b>Annex F (informative):</b>	<b>Change History .....</b>	<b>56</b>
History .....		57

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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.3] 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 2, sub-part 2 of a multi-part deliverable covering Transport and Traffic Telematics (TTT); Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s / 250 kbit/s) operating in the 5 795 MHz to 5 815 MHz frequency band, as identified below:

Part 1: "General characteristics and test methods for Road Side Units (RSU) and On-Board Units (OBU)";

**Part 2: "Harmonised Standard for access to radio spectrum";**

Sub-part 1: "Road Side Units (RSU)";

**Sub-part 2: "On-Board Units (OBU)".**

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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2020
Date of withdrawal of any conflicting National Standard (dow):	31 March 2021

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# 1 Scope

The present document specifies technical characteristics and methods of measurements for Transport and Traffic Telematics (TTT) systems:

- with a Radio Frequency (RF) output connection and specified antenna or with an integral antenna;
- for data transmission only;
- operating in the 5 795 MHz to 5 815 MHz frequency band.

The applicability of the present document covers only the On Board Units (OBU).

The present document complies with the Commission Implementing Decision 2017/1483/EU [i.4] and CEPT/ERC Recommendation 70-03 [i.6].

The present document applies to the following radio equipment types operating in all or in part of the following service frequency bands given in table 1.

**Table 1: Frequency bands and centre frequencies  $f_{TX}$  allocated for DSRC**

	<b>Pan European Service Frequencies</b>	<b>National Service Frequencies</b>
Channel 1	5,795 GHz to 5,800 GHz, $f_{TX} = 5,7975$ GHz	
Channel 2	5,800 GHz to 5,805 GHz, $f_{TX} = 5,8025$ GHz	
Channel 3		5,805 GHz to 5,810 GHz, $f_{TX} = 5,8075$ GHz
Channel 4		5,810 GHz to 5,815 GHz, $f_{TX} = 5,8125$ GHz

NOTE: The relationship between the present document and essential requirements of article 3.2 of Directive 2014/53/EU [i.2] is given in annex A.

## 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] CEN EN 12253 (2004): "Road transport and traffic telematics - Dedicated short-range communication - Physical layer using microwave at 5,8 GHz".
- [2] ISO 14906 (2018): "Electronic fee collection -- Application interface definition for dedicated short-range communication".
- [3] CEPT/ERC Recommendation 74-01E (2011): "Unwanted emissions in the spurious domain".
- [4] CEN EN 13372 (2004): "Road Transport and Traffic Telematics (RTTT) - Dedicated short-range communication - Profiles for RTTT applications".

## 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] ETSI TS 103 052 (V1.1.1) (03-2011): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiated measurement methods and general arrangements for test sites up to 100 GHz".
- [i.2] 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.3] 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.4] 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/EC" .
- [i.5] Void.
- [i.6] CEPT/ERC Recommendation 70-03 (May 2018): "Relating to the use of Short Range Devices (SRD)".
- [i.7] ETSI TR 102 273-2 (V1.2.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 2: Anechoic chamber".
- [i.8] ETSI TR 102 273-6 (V1.2.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 6: Test fixtures".
- [i.9] IEC 60721-3-4 (1995) including Amendment 1 (1996): "Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 4: Stationary use at non-weather protected locations".
- [i.10] IEC 60721-3-5 (1997): "Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 5: Ground vehicle installations".

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