

Road Transport and Traffic Telematics (RTTT) — Dedicated Short Range Communications (DSRC) — Physical Layer using Microwave at 5.8 GHz

ICS 35.240.60

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National foreword

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature because the level of innovation on the subject is currently high. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the European organization responsible for its conversion into a European Standard. A review of this publication will be initiated 2 years after its publication by the European organization so that a decision can be taken on its status at the end of its three-year life. The commencement of the review period will be notified by an announcement in *Update Standards*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into a European Standard, to extend the life of the prestandard or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee EPL/278, Road transport informatics, at 389 Chiswick High Road, London W4 4AL, giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 18 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This Draft for Development, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 December 1997

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ISBN 0 580 28795 5

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
National foreword	Inside front cover
Foreword	2
Text of ENV 12253	5

ICS

Descriptors: Teleprocessing, road transport, traffic, traffic control, data processing, information interchange, data transmission, open systems interconnection, physical layer

English version

Road Transport and Traffic Telematics (RTTT) — Dedicated Short Range Communication (DSRC) — Physical Layer using Microwave at 5.8 GHz

Telematik für Straßenverkehr und
Transport —
Nahbereichskommunikation Bake-Fahrzeug —
Physikalische Schicht auf Basis 5,8 GHz Träger

This European Prestandard (ENV) was approved by CEN on 7 September 1997 as a prospective standard for provisional application.

The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard.

CEN members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword (informative)

This European Prestandard has been prepared by Technical Committee CEN/TC 278 “*Road transport and traffic telematics*”, the secretariat of which is held by NNI.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Prestandard was prepared by CEN TC278 WG9, using its subgroup SG.L1 and the project team CEN/TC278/PT06 to pursue its objective which is covered by CEN Work Item 00278092.

The subject Prestandard forms a part of a series of Prestandards defining the framework for a Dedicated Short Range Communication (DSRC) link in the RTTT environment. For basic information about RTTT application requirements and the resulting concept for DSRC, please refer to the TC 278 Internal Technical Report TC278/N198 “DSRC — 1st Status Report.

In addition to this Prestandard, the following parts will also be prepared by CEN/TC278 to build a complete set of Prestandards for the DSRC link:

- prENV 00278093 “DSRC Physical Layer using Infrared at 850 nm”;
CEN/TC278 Work Item 00278093; document TC278/N526
- prENV 00278053 “DSRC Data Link Layer: MAC and LLC”;
CEN/TC278 Work Item 00278053; document TC278/N474
- prENV 00278051 “DSRC Application Layer”;
CEN/TC278 Work Item 00278051, document TC278/N505
- prENV 278/9/#74 “DSRC Communication Profiles”;
CEN/TC278 Proposed Work Item 9.3

Further standardisation activities to extend the functionality of DSRC have been initiated on request of CEN/TC 278 with the intent to define additional co-existent low data rate channels.

WG9 consists of experts mainly from telecommunication sector and also from transport sector. Most active participating companies and organisations are:

Austria:	Alcatel, Efkon, Kapsch
France:	CGA, ISIS, Renault, Thomson
Germany:	Alcatel-SEL, Bosch-Telecom (ANT), Daimler-Benz Aerospace, RWTH, Siemens
Italy:	Alenia Marconi, Autostrade, UNINFO
Netherlands:	CMG
Norway:	Micro Design
Sweden:	SAAB Combitech Traffic, Telia Research
United Kingdom:	GEC Marconi, Peek plc, STCL

Recommendations and decisions taken by CEPT, ERC, and ETSI have served as references in the preparation of this Prestandard (see Section 2 — Normative References and Annex A — Bibliography).

Additional contributions came from non-European experts via ISO/TC 204/WG 15, especially from Japan and USA. Although, conditions and regulations for DSRC implementation are different in most regions of the world, e.g. frequency/wavelength band, maximum radiated power (EIRP), requested communication mode (half-duplex, full-duplex) and others. The presented DSRC standard is applicable at least in Europe.

Document Change Control Record (Informative)

Registration by CEN/TC 278	Version	Date	Change description
N293	—	1994-08-08	Output document of project team PT06, a very important contribution for standardisation of DSRC Physical Layer (5.8 GHz).
N387	3.0	1995-02-27	First presentation of draft prENV to CEN/TC278
N473	4.0	1995-09-25	Modification of version 3.0 in accordance with comments received on N387
(this version)	5.0	1996-12-10	(1) Modification of the “Introduction” in accordance with resolution CEN/TC278/16.11 of 1996-09-26 (<i>in italics</i>); (2) Regular update of various reference numbers (CEN work item, ETSI, ...); (3) Deletion of bit rate options “below” the default bit rate (D8/U8)

Contents (informative)

Title page (informative)	1
Foreword (informative)	2
Document change control record (informative)	4
Contents (informative)	4
Introduction (informative)	5
1 Scope (normative)	5
2 Normative references (normative)	6
2.1 Normative relationship with other Standards	6
3 Definitions, symbols and abbreviations (normative)	6
3.1 Definitions for downlink parameters	6
3.2 Definitions for uplink parameters	8
3.3 Definition for interface parameters to DSRC data link layer	10
3.4 Symbols	10
3.5 Abbreviations	11
4 Requirements (normative)	11
4.1 Downlink parameters	11
4.2 Uplink parameters	14
4.3 Interface parameters to DSRC data link layer	16
Annex A (informative) Bibliography	17
Annex B (informative) Installation and re-use distance of DSRC equipment	17
Annex C (informative) Link budget related parameters	18
Table 1 — Downlink parameters	12
Table 2 — Uplink parameters	14
Table 3 — Interface parameters, relevant for communication with DSRC data link layer	16
Table A.1 — Documents, served as references while preparing the standard	17
Table A.2 — Documents, which can provide further insight into the evolution of the standard	18
Table B.1 — Calculated re-use distances	18
Table C.1 — Conversion gain budget	18