



National Standards Authority of Ireland

IRISH STANDARD

**ENV 13372:1999**

ICS 35.240.60

**ROAD TRAFFIC AND TRANSPORT**

**TELEMATICS (RTTT) - DEDICATED**

**SHORT-RANGE COMMUNICATION (DSRC) -**

**DSRC PROFILES FOR RTTT APPLICATIONS**

National Standards  
Authority of Ireland  
Dublin 9  
Ireland

Tel: (01) 807 3800  
Tel: (01) 807 3838

*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland  
and comes into effect on:  
April 14, 2000*

**NO COPYING WITHOUT NSAI  
PERMISSION EXCEPT AS  
PERMITTED BY COPYRIGHT  
LAW**

© NSAI 1999

**Price Code F**

Údarás um Chaighdeán Náisiúnta na hÉireann



UDC  
Descriptors: ...

**English version**  
**Road Traffic and Transport Telematics (RTTT) -**  
**Dedicated Short-Range Communication (DSRC) -**  
**DSRC Profiles for RTTT Applications**

Télématique de la Circulation et du Transport  
Routier - Communication dédiées aux courtes  
portées - Profils de communication

Telematik für Straßenverkehr und Transport -  
Nachbereichskommunikation -  
Kommunikationsprofile

This draft European Prestandard is submitted to CEN members for formal vote.

**It has been drawn up by the Technical Committee TC278**

CEN members shall make the ENV available at national level in an appropriate form promptly and announce its existence in the same way as for EN or HD. Existing conflicting national standards may be kept in force (in parallel with the ENV) until the final decision about the possible conversion of the ENV into an EN is reached. The lifetime of an ENV is first limited to three years. After two years the Central Secretariat shall take action by requesting members to send in comments on that ENV within six months. The comments received will be transmitted to the Technical Board for further action as follows:

- conversion into an EN after formal vote;
- or extension of the life of an ENV for another two years (once only);
- or replacement by a revised ENV approved in accordance with 7.2 and 7.3 of the CEN/CLC Internal Regulations Part 2;
- or withdrawal of the ENV;
- or assignment to a technical body of the task of assisting the Technical Board to reach any of the decisions listed above.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardisation  
Comité Européen de Normalisation  
Europäisches Komitee für Normung  
**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Contents

<b>1. SCOPE .....</b>	<b>5</b>
<b>2. NORMATIVE REFERENCES.....</b>	<b>5</b>
<b>3. DEFINITIONS AND ABBREVIATIONS.....</b>	<b>5</b>
3.1 Definitions .....	5
3.2 Abbreviations .....	6
<b>4. DSRC PROFILES .....</b>	<b>7</b>
4.1 Parameters of DSRC Physical Layer using Microwave .....	7
4.2 Parameters of DSRC Physical Layer using Infrared.....	8
4.3 Parameters in DSRC Data Link Layer .....	9
4.4 Profiles in DSRC Application Layer .....	10
4.5 DSRC Profiles for RTTT Applications.....	10

## Foreword

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.

The present European Prestandard forms a part of a series of Pre-Standards defining the framework of a Dedicated Short Range Communication link in the RTTT environment. In addition to this Prestandard, the following parts will also be issued by CEN TC278 WG9 to form a complete set of European Prestandards for the DSRC link.

The complete set of Prestandards for DSRC, prepared by CEN/TC 278, consists of:

- ENV 12253 Dedicated Short-Range Communication - Physical Layer using Microwave at 5.8 GHz
- prENV XXXXX Dedicates Short-Range Communication - Physical Layer using Infrared at 850 nm (under preparation)
- ENV 12975 Dedicated Short-Range Communication - DSRC Data Link Layer: Medium Access and Logical Link Control
- ENV 12834 Dedicated Short-Range Communication - Application Layer
- prENV ISO 15625 Dedicated Short-Range Communication (DSRC) - DSRC Profiles for RTTT Applications

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

- |                  |  |
|------------------|--|
| • Austria        | (Kapsch)                                     |
| • France         | (CGA, THOMSON, ISIS, ...)                    |
| • Germany        | (ANT/Bosch, DASA, RWTH Aachen, Siemens, ...) |
| • Italy          | (Marconi, Autostrade, UNINFO, ...)           |
| • Netherlands    | (CMG, Intercai)                              |
| • Norway         | (Micro Design)                               |
| • Sweden         | (Saab Combitech, Telia Research, Optronics)  |
| • United Kingdom | (GEC Marconi, Peek Traffic)                  |

Additional input came from Non-European experts from USA and Japan via ISO TC204 WG15.

## Introduction

Dedicated Short-range Communication (DSRC) is intended to be a communication means for Road Traffic and Transport Telematics (RTTT) applications, amongst others such as Automatic Fee Collection (AFC), Automatic Vehicle and Equipment Identification (AVI/AEI) and Traffic and Traveller Information (TTI).

The protocol stack for the DSRC is based on a three layer adaptation of the seven layer OSI model (ISO/IEC 7498-1). Each of the standards for the layers of DSRC contains some degree of variability in order to cater for different and evolving needs from existing and future RTTT applications and configurations.

For each of the layers parameters describing this variability are defined. The use of a certain set of parameter values for one layer is closely related to limitations in possible parameter values in other layers. Therefore sets of parameter values must be defined across all layers. Each set of parameter values is called a Profile and is assigned a unique identifier number.

When instances of mobile equipment arrive at the DSRC zone the use of one Profile is negotiated between the fixed equipment (which might support more than one Profile) and the mobile equipment (which might also support more than one Profile) in a way described by the DSRC layer standards.

The word Profile is a reserved word in the standard for the DSRC Application Layer and is used in the definition of the Beacon Service Table and the Vehicle Service Table respectively.

Future extension of the number of profiles defined by this European Pre-Standard, made necessary by the introduction of new applications and/or configurations, will be undertaken by means of revision of the Pre-Standard.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-