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Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices; Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range; Part 1: Technical requirements and methods of measurement

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

For non EU countries the present document may be used for regulatory (Type Approval) purposes.

Equipment compliant with the present document is intended for fitment into road vehicles, therefore it is subject to automotive EMC type approval and has to comply with Directive 95/54/EC [4]. For use on vehicles outside the scope of Directive 95/54/EC [4] compliance with an EMC directive/standard appropriate for that use is required.

The present document is part 1 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices, Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range, as identified below:

Part 1: "Technical requirements and methods of measurement";

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:	19 March 2012
Date of latest announcement of this EN (doa):	30 June 2012
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 December 2012
Date of withdrawal of any conflicting National Standard (dow):	31 December 2012

1 Scope

The present document specifies the technical requirements and methods of measurement for Short Range Devices (SRD) working as UWBdevices with at least 500 MHz bandwidth in the 22,000 GHz to 26,65 GHz frequency range intended for Road Transport and Traffic Telematics (RTTT) applications, such as automotive 24 GHz Short Range Radar (SRR) for e.g. obstacle detection, stop and go, blind spot detection, parking aid, backup aid, precrash and other automotive applications.

The present document covers transmitters intended to operate in a temporary frequency designation under the 24 GHz ECC decision CEPT/ECC/DEC/(04)10 [i.7], the EU Commission decision on 24 GHz SRR 2005/50/EC [i.1] and the amendment as presented in RSCOM11-07 21 [i.8].

The operating frequency range for intentional UWB emissions with at least 500 MHz bandwidth in the 22,000 GHz to 26,65 GHz range until 30th June 2013 as given in annex D and from 24,25 GHz to 26,65 GHz until 1st January 2018 as given in annex E. However, the date of 1 January 2018 will be extended by 4 years for automotive short-range radar equipment mounted on motor vehicles for which a type approval application has been submitted pursuant to Article 6(6) of Directive 2007/46/EC [6] and has been granted before 1 January 2018.

The present document applies to:

a) Transmitters in the range from 22,000 GHz to 26,65 GHz operating as UWB devices over the specific bandwidth defined for the individual devices.

b) Receivers operating in the range from 22,000 GHz to 26,65 GHz.

c) Integrated transceivers.

The present document contains the technical characteristics and test methods for short range radar equipment fitted with integral 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.

The present document covers short range radar mobile applications. The present document covers only SRR equipment for road vehicles.

The present document complies with field limits for human exposure to electromagnetic fields as provided by the EC Recommendation 1999/519/EC [i.2] and the methods for compliance demonstration in EN 50371 [i.3].

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.

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2.1 Normative references

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

[1] CISPR 16 (parts 1-1, 1-4 and 1-5): "Specification for radio disturbance and immunity measuring apparatus and methods; Part 1: Radio disturbance and immunity measuring apparatus".

[2] CEPT/ERC/REC 01-06: "Procedure for mutual recognition of type testing and type approval for radio equipment".