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Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Land mobile service;
Radio equipment intended for the transmission
of data (and/or speech) using constant or non-constant
envelope modulation and having an antenna connector;
Part 2: Harmonized EN covering essential requirements
of article 3.2 of the R&TTE Directive**



Reference

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Foreword

This Harmonized European Standard (Telecommunications series) 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 [3] (as amended) 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 [1] 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").

Technical specifications relevant to Directive 1999/5/EC are given in annex A.

The present document is part 2 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector, as identified below:

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

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

National transposition dates	
Date of adoption of this EN:	29 June 2007
Date of latest announcement of this EN (doa):	30 September 2007
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2008
Date of withdrawal of any conflicting National Standard (dow):	31 March 2009

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. The modular structure is shown in EG 201 399 (see bibliography).

1 Scope

The present document covers the technical requirements for radio transmitters and receivers used in stations in the Private Mobile Radio (PMR) service.

It applies to use in the land mobile service, operating on radio frequencies in all or in any part of the frequencies as given below, with channel separations of 12,5 kHz, 20 kHz and 25 kHz, intended for speech and/or data.

Table 1: Radiocommunications service frequency bands

	Radiocommunications service frequency bands
Transmit	30 MHz to 1 000 MHz
Receive	30 MHz to 1 000 MHz

It applies to equipment for continuous and/or discontinuous transmission of data and/or digital speech.

The equipment comprises a transmitter and associated encoder and modulator and/or a receiver and associated demodulator and decoder. The types of equipment covered by the present document are as follows:

- base station (equipment fitted with an antenna connector, intended for use in a fixed location);
- mobile station (equipment fitted with an antenna connector, normally used in a vehicle or as a transportable);
- and those hand portable stations:
 - a) fitted with an antenna socket; or
 - b) without an external antenna socket, but fitted with a permanent internal or a temporary internal 50 Ω Radio Frequency (RF) connector which allows access to the transmitter output and the receiver input.

Hand portable equipment without an external or internal RF connector and without the possibility of having a temporary internal 50 Ω RF connector is not covered by the present document.

The present document is intended to cover the provisions of article 3.2 of Directive 1999/5/EC (R&TTE Directive) [1], which states that "(...) radio equipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radiocommunications and orbital resources so as to avoid harmful interference".

In addition to the present document, other ENs that specify technical requirements in respect of essential requirements under other parts of article 3 of the R&TTE Directive [1] may apply to equipment within the scope of the present document.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version 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.

- [1] 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).
- [2] ETSI EN 300 113-1 (V1.6.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector; Part 1: Technical characteristics and methods of measurement".
- [3] 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 and of rules on information society services.

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 [1] and EN 300 113-1 [2] apply.

3.2 Symbols

For the purposes of the present document, the symbols given in EN 300 113-1 [2] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in EN 300 113-1 [2] apply.

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 manufacturer of the equipment. 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.

4.2 Transmitter requirements

4.2.1 Frequency error

4.2.1.1 Definition

The frequency error is defined in EN 300 113-1 [2], clause 7.1.1.

4.2.1.2 Limit

The frequency error shall not exceed the limits in EN 300 113-1 [2], clause 7.1.3.

4.2.1.3 Conformance

If the transmitter adjacent and alternate channels power (clause 5.3.4) has not been measured under extreme test conditions, then the conformance tests as defined in clause 5.3.1 shall be carried out.

4.2.2 Transmitter power (conducted)

4.2.2.1 Definition

The transmitter power (conducted) is defined in EN 300 113-1 [2], clause 7.2.1.

4.2.2.2 Limit

The transmitter power (conducted) shall not exceed the limits in EN 300 113-1 [2], clause 7.2.3.

4.2.2.3 Conformance

Conformance tests as defined in clause 5.3.2 shall be carried out.

4.2.3 Maximum effective radiated power

4.2.3.1 Definition

The maximum effective radiated power is defined in EN 300 113-1 [2], clause 7.3.1.

4.2.3.2 Limit

The maximum effective radiated power shall not exceed the limits in EN 300 113-1 [2], clause 7.3.3.

4.2.3.3 Conformance

Conformance tests as defined in clause 5.3.3 shall be carried out.

4.2.4 Adjacent and alternate channel power

4.2.4.1 Definition

The adjacent and alternate channel power is defined in EN 300 113-1 [2], clause 7.4.1.

4.2.4.2 Limit

The adjacent and alternate channel power shall not exceed the limits in EN 300 113-1 [2], clause 7.4.3.

4.2.4.3 Conformance

Conformance tests as defined in clause 5.3.4 shall be carried out.

4.2.5 Unwanted emissions in the spurious domain

4.2.5.1 Definition

The unwanted emissions in the spurious domain are defined in EN 300 113-1 [2], clause 7.5.1.

4.2.5.2 Limit

The unwanted emissions in the spurious domain shall not exceed the limits in EN 300 113-1 [2], clause 7.5.4.

4.2.5.3 Conformance

Conformance tests as defined in clause 5.3.5 shall be carried out.

4.2.6 Intermodulation attenuation

4.2.6.1 Definition

The intermodulation attenuation is defined in EN 300 113-1 [2], clause 7.6.1.

4.2.6.2 Limit

The intermodulation attenuation shall not exceed the limits in EN 300 113-1 [2], clause 7.6.3.

4.2.6.3 Conformance

Conformance tests as defined in clause 5.3.6 shall be carried out.

4.2.7 Transient frequency behaviour of the transmitter

4.2.7.1 Definition

The transient frequency behaviour of the transmitter is defined in EN 300 113-1 [2], clause 7.9.1.

4.2.7.2 Limit

The transient frequency behaviour of the transmitter shall not exceed the limits in EN 300 113-1 [2], clause 7.9.4.

4.2.7.3 Conformance

Conformance tests as defined in clause 5.3.7 shall be carried out.

4.2.8 Transmitter timeout timer

4.2.8.1 Definition

A transmitter timeout timer is a call duration timer that starts when the PTT key is pressed and when this timer expires, the equipment will stop transmitting immediately and may not re-transmit until PTT has been released and pressed again.

4.2.8.2 Limit

This timer and the limits values used will depend on the class and use of the equipment.

NOTE: Equipment complying with the present document and operating within the frequency range from 446,1 MHz to 446,2 MHz require a limit value of 180 seconds.

4.2.8.3 Conformance

Compliance with this function and the limit value employed shall be by declaration.

4.3 Receiver requirements

4.3.1 Maximum usable receiver sensitivity

4.3.1.1 Definition

The maximum usable receiver sensitivity is defined in EN 300 113-1 [2], clause 8.1.1 (conducted) and clause 8.2.1 (field strength).

In addition, for duplex equipment (equipment providing simultaneous transmission and reception), the receiver desensitization is defined in EN 300 113-1 [2], clause 9.1.1.

4.3.1.2 Limit

The sensitivity shall not exceed the limits in EN 300 113-1 [2], clause 8.1.3 (conducted) and clause 8.2.3 (field strength).

In addition, for duplex equipment (equipment providing simultaneous transmission and reception), the receiver desensitization shall meet the requirements of EN 300 113-1 [2], clause 9.1.4.

4.3.1.3 Conformance

Conformance tests as defined in clause 5.4.1 may be carried out.

4.3.2 Co-channel rejection

4.3.2.1 Definition

The co-channel rejection is defined in EN 300 113-1 [2], clause 8.5.1.

4.3.2.2 Limit

The co-channel rejection shall not exceed the limits in EN 300 113-1 [2], clause 8.5.3.

4.3.2.3 Conformance

Conformance tests as defined in clause 5.4.2 may be carried out.

4.3.3 Adjacent channel selectivity

4.3.3.1 Definition

The adjacent channel selectivity is defined in EN 300 113-1 [2], clause 8.6.1.

4.3.3.2 Limit

The adjacent channel selectivity shall not exceed the limits in EN 300 113-1 [2], clause 8.6.3.

4.3.3.3 Conformance

Conformance tests as defined in clause 5.4.3 may be carried out.

4.3.4 Spurious response rejection

4.3.4.1 Definition

The spurious response rejection is defined in EN 300 113-1 [2], clause 8.7.1.

In addition, in the case of duplex equipment (equipment providing simultaneous transmission and reception), the receiver spurious response rejection is defined in EN 300 113-1 [2], clause 9.2.1.

4.3.4.2 Limit

The spurious response rejection shall not exceed the limits in EN 300 113-1 [2], clause 8.7.6.

In addition, in the case of duplex equipment (equipment providing simultaneous transmission and reception), the receiver spurious response rejection shall not exceed the limits in EN 300 113-1 [2], clause 9.2.3.

4.3.4.3 Conformance

Conformance tests as defined in clause 5.4.4 may be carried out.

4.3.5 Intermodulation response rejection

4.3.5.1 Definition

The intermodulation response rejection is defined in EN 300 113-1 [2], clause 8.8.1.

4.3.5.2 Limit

The intermodulation response rejection shall not exceed the limits in EN 300 113-1 [2], clause 8.8.3.

4.3.5.3 Conformance

Conformance tests as defined in clause 5.4.5 may be carried out.

4.3.6 Blocking or desensitization

4.3.6.1 Definition

The blocking or desensitization is defined in EN 300 113-1 [2], clause 8.9.1.

4.3.6.2 Limit

The blocking or desensitization shall not exceed the limits in EN 300 113-1 [2], clause 8.9.3.

4.3.6.3 Conformance

Conformance tests as defined in clause 5.4.6 may be carried out.

4.3.7 Spurious radiations

4.3.7.1 Definition

The spurious radiations are defined in EN 300 113-1 [2], clause 8.10.1.

4.3.7.2 Limit

The spurious radiations shall not exceed the limits in EN 300 113-1 [2], clause 8.10.4.

4.3.7.3 Conformance

Conformance tests as defined in clause 5.3.8 shall be carried out.

5 Testing for compliance with technical requirements

5.1 Environmental conditions for testing

Tests defined in the present document shall be carried out at representative points within the boundary limits of the declared operational environmental profile.

Where technical performance varies subject to environmental conditions, tests shall be carried out under a sufficient variety of environmental conditions (within the boundary limits of the declared operational environmental profile) to give confidence of compliance for the affected technical requirements.

5.1.1 Normal and extreme test-conditions

Measurements shall be made under normal test conditions, and also, where stated, under extreme test conditions.

The test conditions and procedures shall be as specified in EN 300 113-1 [2], clauses 5.3, 5.4 and 5.5.

5.1.2 Test power source

The test power source shall meet the requirements of EN 300 113-1 [2], clause 5.2.

5.1.3 Choice of samples for test suites

Measurement shall be performed, according to the present document, on samples of equipment defined in EN 300 113-1 [2], clause 4.1.

5.2 Interpretation of the measurement results

The interpretation of the results recorded in a test report for the measurements described in the present document shall be as follows:

- the measured value related to the corresponding limit will be used to decide whether an equipment meets the requirements of the present document;
- the value of the measurement uncertainty for the measurement of each parameter shall be included in the test report;
- the value of the measurement uncertainty shall be, for each measurement, equal to or lower than the figures given in clause 10 (table 11) in EN 300 113-1 [2].

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028 (see bibliography) and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

The particular expansion factor used for the evaluation of the measurement uncertainty shall be stated.

The absolute measurement uncertainties are given in clause 10 (table 11) in EN 300 113-1 [2].

5.3 Essential radio test suites

Essential test suites are referred to in annex III of R&TTE Directive [1].

The following essential test suites shall be used to assess the performance of equipment.

5.3.1 Frequency error

If the transmitter adjacent and alternate channels power (clause 5.3.4) has not been measured under extreme test conditions, then the measurements specified in EN 300 113-1 [2], clause 7.1.2 shall be carried out.

5.3.2 Transmitter power (conducted)

The measurements specified in EN 300 113-1 [2], clause 7.2.2 shall be carried out.

5.3.3 Maximum effective radiated power

The measurements specified in EN 300 113-1 [2], clause 7.3.2 shall be carried out.

5.3.4 Adjacent and alternate channel power

The measurements specified in EN 300 113-1 [2], clause 7.4.2 shall be carried out.

5.3.5 Unwanted emissions in the spurious domain

The measurements specified in EN 300 113-1 [2], clauses 7.5.2 and 7.5.3 shall be carried out.

5.3.6 Intermodulation attenuation

The measurements specified in EN 300 113-1 [2], clause 7.6.2 shall be carried out.

5.3.7 Transient frequency behaviour of the transmitter

The measurements specified in EN 300 113-1 [2], clause 7.9.3 shall be carried out.

5.3.8 Receiver Spurious radiations

The measurements specified in EN 300 113-1 [2], clauses 8.10.2 and 8.10.3 shall be carried out.

5.4 Other radio test suites

The requirements in clauses 4.3.1 to 4.3.6 inclusive have been set on the assumption that the measurements in clauses 5.4.1 to 5.4.6 are used in order to assess the performance of the equipment.

5.4.1 Maximum usable receiver sensitivity

The measurements specified in EN 300 113-1 [2], clause 8.1.2 (conducted) and clause 8.2.2 (field strength) shall be carried out.

In addition, in the case of duplex equipment (equipment providing simultaneous transmission and reception), the measurements specified in EN 300 113-1 [2], clauses 9.1.2 or 9.1.3 shall be carried out.

5.4.2 Co-channel rejection

The measurements specified in EN 300 113-1 [2], clause 8.5.2 shall be carried out.

5.4.3 Adjacent channel selectivity

The measurements specified in EN 300 113-1 [2], clause 8.6.2 shall be carried out.

5.4.4 Spurious response rejection

The measurements specified in EN 300 113-1 [2], clauses 8.7.2, 8.7.3 and either 8.7.4 or 8.7.5 shall be carried out.

In addition, in the case of duplex equipment (equipment providing simultaneous transmission and reception), the measurements specified in EN 300 113-1 [2], clause 9.2.2 shall be carried out.

5.4.5 Intermodulation response rejection

The measurements specified in EN 300 113-1 [2], clause 8.8.2 shall be carried out.

5.4.6 Receiver blocking or desensitization

The measurements specified in EN 300 113-1 [2], clause 8.9.2 shall be carried out.

Annex A (normative): HS Requirements and conformance Test specifications Table (HS-RTT)

The HS Requirements and conformance Test specifications Table (HS-RTT) in table A.1 serves a number of purposes, as follows:

- it provides a statement of all the essential requirements in words and by cross reference to (a) specific clause(s) in the present document or to (a) specific clause(s) in a specific referenced document;
- it provides a statement of all the test procedures corresponding to those essential requirements by cross reference to (a) specific clause(s) in the present document or to (a) specific clause(s) in (a) specific referenced document(s);
- it qualifies each requirement to be either:
 - Unconditional: meaning that the requirement applies in all circumstances, or
 - Conditional: meaning that the requirement is dependant on the manufacturer having chosen to support optional functionality defined within the schedule.
- in the case of Conditional requirements, it associates the requirement with the particular optional service or functionality;
- it qualifies each test procedure to be either:
 - Essential: meaning that it is included with the Essential Radio Test Suite and therefore the requirement shall be demonstrated to be met in accordance with the referenced procedures;
 - Other: meaning that the test procedure is illustrative but other means of demonstrating compliance with the requirement are permitted.

Table A.1: HS Requirements and conformance Test specifications Table (HS-RTT)

Harmonized Standard EN 300 113-2						
The following essential requirements and test specifications are relevant to the presumption of conformity under Article 3.2 of the R&TTE Directive						
Essential Requirement			Requirement Conditionality		Test Specification	
No	Description	Reference: Clause No	U/C	Condition	E/O	Reference: Clause No
1	Transmitter frequency error	4.2.1	C	Does not apply if transmitter adjacent and alternate channels power is measured under extreme test conditions.	E	5.3.1
2	Transmitter power conducted	4.2.2	U		E	5.3.2
3	Transmitter maximum effective radiated power	4.2.3	C	Applies only to equipment without an external antenna connector.	E	5.3.3
4	Transmitter adjacent and alternate channels power	4.2.4	U		E	5.3.4
5	Transmitter unwanted emissions in the spurious domain	4.2.5	U		E	5.3.5
6	Transmitter intermodulation attenuation	4.2.6	C	Applies only to transmitters to be used in base stations.	E	5.3.6
7	Transmitter transient frequency behaviour	4.2.7	U		E	5.3.7
8	Receiver spurious radiations	4.3.7	U		E	5.3.8

Harmonized Standard EN 300 113-2						
The following essential requirements and test specifications are relevant to the presumption of conformity under Article 3.2 of the R&TTE Directive						
Essential Requirement			Requirement Conditionality		Test Specification	
No	Description	Reference: Clause No	U/C	Condition	E/O	Reference: Clause No
9	Receiver maximum useable sensitivity	4.3.1	C	Applies only to equipment using listen-before-transmit.	O	5.4.1
10	Receiver co-channel rejection	4.3.2	C	Applies only to equipment using listen-before-transmit.	O	5.4.2
11	Receiver adjacent channel selectivity	4.3.3	C	Applies only to equipment using listen-before-transmit.	O	5.4.3
12	Receiver spurious response rejection	4.3.4	C	Applies only to equipment using listen-before-transmit.	O	5.4.4
13	Receiver inter-modulation response	4.3.5	C	Applies only to equipment using listen-before-transmit.	O	5.4.5
14	Receiver blocking or desensitization	4.3.6	C	Applies only to equipment using listen-before-transmit.	O	5.4.6
15	Transmitter time out timer	4.2.8	C	Applicable to certain classes of equipment having a transmitter time out timer.	X	

Key to columns:

Essential Requirement:

No A unique identifier for one row of the table which may be used to identify a requirement or its test specification.

Description A textual reference to the requirement.

Clause Number Identification of clause(s) defining the requirement in the present document unless another document is referenced explicitly.

Requirement Conditionality:

U/C Indicates whether the requirement is to be *unconditionally* applicable (U) or is *conditional* upon the manufacturers claimed functionality of the equipment (C).

Condition Explains the conditions when the requirement shall or shall not be applicable for a technical requirement which is classified "conditional".

Test Specification:

E/O Indicates whether the test specification forms part of the Essential Radio Test Suite (E) or whether it is one of the Other Test Suite (O).

NOTE: All tests whether "E" or "O" are relevant to the requirements. Rows designated "E" collectively make up the Essential Radio Test Suite; those designated "O" make up the Other Test Suite; for those designated "X" there is no test specified corresponding to the requirement. The completion of all tests classified "E" as specified with satisfactory outcomes is a necessary condition for a presumption of conformity. Compliance with requirements associated with tests classified "O" or "X" is a necessary condition for presumption of conformity, although conformance with the requirement may be claimed by an equivalent test or by manufacturer's assertion supported by appropriate entries in the technical construction file.

Clause Number Identification of clause(s) defining the test specification in the present document unless another document is referenced explicitly. Where no test is specified (that is, where the previous field is "X") this field remains blank.

Annex B (informative): The EN title in the official languages

Language	EN title
Bulgarian	Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) - Storitve kopenskih mobilnih komunikacij - Radijska oprema za prenos podatkov (oziroma govora), ki uporablja modulacijo s konstantno ali nekonstantno ovojnico in ima antenski priključek - 2. del: Harmonizirani EN, ki zajema bistvene zahteve člena 3.2 direktive R&TTE
Czech	Elektromagnetická kompatibilita a rádiové spektrum (ERM) - Pozemní pohyblivá služba - Rádiová zařízení s anténním konektorem určená pro přenos dat (a/nebo hovorů), používající modulaci s konstantní nebo proměnnou obálkou - Část 2: Harmonizovaná EN pokrývající základní požadavky článku 3.2 Směrnice R&TTE
Danish	Elektromagnetisk kompatibilitet og radiospektrumanliggende (ERM); Landmobile tjenester; Radioudstyr beregnet til transmission af data (og/eller tale) med benyttelse af modulation med konstant eller varierende amplitude og med en antennebøsning — Del 2: Harmoniseret EN, der dækker de væsentlige krav i R&TTE Direktivets artikel 3.2
Dutch	Elektromagnetische compatibiliteit en radiospectrumaangelegenheden (ERM); Landmobiele dienst; Radioapparatuur voor de transmissie van data (en/of spraak) bij constante of niet constante envelop modulatie en met een antenne connector; Deel 2: Geharmoniseerde EN welke invulling geeft aan de essentiële eisen onder artikel 3.2. van de R&TTE richtlijn.
English	Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Radio equipment intended for the transmission of data (and/or speech) using constant or non-constant envelope modulation and having an antenna connector; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive
Estonian	Elektromagnetilise ühilduvuse ja raadiospektri küsimused (ERM); Liikuv maaside; Antenniühendusega pidevat või vahelduvat mähisjoone modulaatsiooni kasutavad raadioseadmed andme- ja/või kõneanduriteks; Osa 2: Harmoneeritud EN R&TTE direktiivi artikli 3.2 põhinõuete alusel
Finnish	Sähkömagneettinen yhteensopivuus ja radiospektriasiat (ERM); Siirtyvä maaradioliikenne; Antenniliittimellä varustetut datasiirtoon (ja/tai puheensiiirtoon) tarkoitettut vakioverhokäyrimodulaatiota tai ei-vakioverhokäyrimodulaatiota käyttävät radiolaitteet; Osa 2: Yhdenmukaistettu standardi (EN), joka kattaa R&TTE-direktiivin artiklan 3.2 mukaiset olennaiset vaatimukset
French	Télécommunications - CEM et spectre radioélectrique (ERM) - Service mobile terrestre - Équipements de radio destinés à la transmission de données (et/ou voix) utilisant une modulation à enveloppe constante ou non constante et ayant un connecteur d'antenne - Partie 2 : EN harmonisée couvrant l'exigence essentielle de l'article 3.2 de la Directive R&TTE
German	Elektromagnetische Verträglichkeit und Funkspektrumaangelegenheiten (ERM) - Mobiler Landfunkdienst - Funkgeräte, die für die Übertragung von Daten (und/oder Sprache) mit konstanter oder nicht konstanter Hüllkurvenmodulation ausgelegt sind und einen Antennenstecker haben - Teil 2: Harmonisierte EN, die wesentliche Anforderungen nach Artikel 3.2 der R&TTE
Greek	Ηλεκτρομαγνητική συμβατότητα και Θέματα Ραδιοφάσματος (ERM) – Κινητή Υπηρεσία Ξηράς – Ραδιοεξοπλισμός που προορίζεται για τη μετάδοση δεδομένων (και/ή ομιλίας) ο οποίος χρησιμοποιεί διαμόρφωση σταθερής ή μη σταθερής περιβάλλουσας και διαθέτει σύνδεσμο κεραίας – Μέρος 2: Εναρμονισμένο EN για την κάλυψη των ουσιαστών απαιτήσεων του άρθρου 3.2 της Οδηγίας R&TTE
Hungarian	Elektromágneses összeférhetőségi és rádióspektrumügyek (ERM). Földi mozgószoigálat. Adat- és/vagy beszédátviteli célú, állandó vagy nem állandó burkológörbék modulációt használó, antennacsatlakozóval ellátott rádióberendezések. 2. rész: Az R&TTE-irányelv 3. cikke (2) bekezdésének alapvető követelményeit tartalmazó, harmonizált európai szabvány
Icelandic	
Italian	
Latvian	Elektromagnetiska saderiba un radiofrekvencu spektra jautajumi (ERM) - Sauszemes mobilais dienests - Datu (un/vai runas) parradei paredzetas radioiekartas, kas izmanto modulaciju ar pastavigu vai nepastavigu aplieceju un kam ir antenas piesleguma ligzda -2.dala: Harmonizets Eiropas standarts (EN), kas atbilst R&TTE
Lithuanian	Elektromagnetinio suderinamumo ir radijo dažnių spektro dalykai. Judrioji sausumos tarnyba. Radijo ryšio įranga, skirta duomenims (ir/arba kalbai) perduoti, naudojant pastovią arba kintamą moduliaciją, ir turinti antenos jungtį. 1 dalis. Darnusis Europos standartas, apimantis esminius reikalavimus pagal 1999/5/EC direktyvos 3.2 straipsnį
Maltese	Kompatibilità elettromanjetika u materji relatati ma' spettru radjofoniku (ERM); Servizz mobbli fuq l-art; Tagħmir radjofoniku ma'nsub għat-trasmissjoni ta' data (u/jew diskors) bl-użu ta' modulazzjoni misruma kostanti jew mhux kostanti u li għandha konnettur ma' antenna Parti 2: EN armonizzata li jkopri rekwiżiti essenzjali ta' l-artiklu 3.2 tad-Direttiva R&TTE

Language	EN title
Norwegian	Elektromagnetisk kompatibilitet og Radiospektrum spørsmål (ERM); Mobile tjenester til land; Radio utstyr som er ment for overføring av data (og/eller tale) som bruker en fast eller variabel modulasjonskurve og som har en antenne som forbindelsesledd; Del 2: Harmonisert EN som dekker de vesentligste krav i R&TTE
Polish	Kompatybilność elektromagnetyczna i zagadnienia widma radiowego (ERM); Łączność ruchoma łączowa; Urządzenia radiowe transmisji danych (mowy i/lub danych) ze stałą lub zmienną obwiednią widma zmodulowanego sygnału, mających połączenie antenowe; Część 2: Zharmonizowana EN zapewniająca spełnianie zasadniczych wymagań artykułu 3.2 dyrektywy R&TTE
Portuguese	Assuntos de Espectro Radioelétrico e Compatibilidade Electromagnética (ERM); Serviço Móvel Terrestre; Equipamento rádio para transmissão de dados (e/ou voz) que utilize modulação de envolvente constante ou não-constante e tenha um conector de antena; Parte 2: EN Harmonizada cobrindo os requisitos essenciais no âmbito do artigo 3.º, n.º 2, da Directiva R&TTE
Romanian	
Slovak	Elektromagnetická kompatibilita a závislosti rádiového spektra (ERM). Pozemná pohyblivá služba. Rádiové zariadenia určené na prenos dát (a/alebo hovoru) používajúce moduláciu s konštantnou alebo s nekonštantnou obálkou a vybavené anténovým konektorom. Časť 2: Harmonizovaná EN vzťahujúca sa na základné požiadavky podľa článku 3.2 smernice R&TTE
Slovenian	Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) - Storitve kopenskih mobilnih komunikacij - Radijska oprema za prenos podatkov (oziroma govora), ki uporablja modulacijo s konstantno ali nekonstantno ovojnico in ima antenski priključek - 2. del: Harmonizirani EN, ki zajema bistvene zahteve člena 3.2 direktive R&TTE
Spanish	Cuestiones de Compatibilidad Electromagnética y Espectro de Radiofrecuencia (ERM); Servicio móvil terrestre; Equipos de radiocomunicaciones destinados para la transmisión de datos (y/o voz), usando modulación de envolvente constante o no constante y que tienen un conector de antena; Parte 2: Norma Europea (EN) armonizada, cubriendo los requisitos especiales según el artículo 3,2 de la Directiva R&TTR
Swedish	Elektromagnetisk kompatibilitet och radiospektrumfrågor (ERM); Landmobil tjänst; Radioutrustning avsedd för sändning av data (och/ eller tal) med användning av konstant eller icke konstant enveloppmodulering och som har antennkontakt; Del 2: Harmoniserad EN omfattande väsentliga krav enligt artikel 3.2 i R&TTE-direktivet

Annex C (informative): Bibliography

ETSI TR 100 028 (V1.4.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

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".

History

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