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European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Land Mobile Service;
Radio equipment using integral antennas
intended primarily for analogue speech;
Part 1: Technical characteristics and
methods of measurement**

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Contents

Intellectual Property Rights	6
Foreword.....	6
1 Scope	7
2 References	7
2.1 Normative references	7
2.2 Informative references.....	7
3 Definitions, symbols and abbreviations	8
3.1 Definitions.....	8
3.2 Symbols.....	9
3.3 Abbreviations	9
4 General	10
4.1 Selection of equipment for testing purposes.....	10
4.2 Mechanical and electrical design.....	10
4.2.1 General.....	10
4.2.2 Controls	10
4.2.3 Transmitter shut-off facility	10
4.3 Marking.....	10
5 Test conditions, power sources and ambient temperatures	10
5.1 Normal and extreme test conditions	10
5.2 Test power source.....	11
5.3 Normal test conditions.....	11
5.3.1 Normal temperature and humidity	11
5.3.2 Normal test power source	11
5.3.2.1 Mains voltage	11
5.3.2.2 Regulated lead-acid battery power sources used on vehicles.....	11
5.3.2.3 Other power sources.....	11
5.4 Extreme test conditions	12
5.4.1 Extreme temperatures	12
5.4.2 Extreme test source voltages.....	12
5.4.2.1 Mains voltage	12
5.4.2.2 Regulated lead-acid battery power sources used on vehicles.....	12
5.4.2.3 Power sources using other types of batteries.....	12
5.4.2.4 Other power sources.....	12
5.5 Procedure for tests at extreme temperatures	13
5.5.1 Procedure for equipment designed for continuous transmission.....	13
5.5.2 Procedure for equipment designed for intermittent transmission	13
6 General test conditions	13
6.1 Test signals.....	13
6.2 Receiver mute or squelch facility	14
6.3 Artificial antenna.....	14
6.4 Test sites and general arrangements for radiated measurements	14
6.5 Arrangement for test signals at the input of the transmitter	14
6.6 Receiver rated audio output power	14
6.7 Reference for degradation measurements.....	14
6.7.1 Definition.....	14
6.7.2 Procedures for measurements using the test fixture.....	15
6.7.3 Procedures for measurements using the test site.....	15
7 Technical characteristics of the transmitter	15
7.1 Frequency error	15
7.1.1 Definition.....	15
7.1.2 Method of measurement	16
7.1.3 Limits.....	16

7.2	Effective radiated power	16
7.2.1	Definition	16
7.2.2	Method of measurement	17
7.2.2.1	Maximum effective radiated power under normal test conditions	17
7.2.2.2	Average effective radiated power under normal test conditions	18
7.2.2.3	Method of measurements of maximum and average effective radiated power under extreme test conditions	19
7.2.3	Limits	19
7.3	Maximum permissible frequency deviation	20
7.3.1	Definition	20
7.3.2	Method of measurement	20
7.3.2.1	Maximum permissible frequency deviation	21
7.3.2.2	Response of the transmitter to modulation frequencies above 3 kHz	21
7.3.3	Limits	21
7.3.3.1	Maximum permissible frequency deviation	21
7.3.3.2	Response of the transmitter to modulation frequencies above 3 kHz	21
7.4	Adjacent and alternate channel power	22
7.4.1	Definition	22
7.4.2	Method of measurement	22
7.4.3	Limits	24
7.5	Radiated unwanted emissions in the spurious domain	24
7.5.1	Definition	24
7.5.2	Method of measurement	24
7.5.3	Limits	26
8	Technical characteristics of the receiver	27
8.1	Average usable sensitivity (field strength, speech)	27
8.1.1	Definition	27
8.1.2	Methods of measurement	27
8.1.2.1	Method of measurement under normal test conditions	27
8.1.2.2	Method of measurement under extreme test conditions	29
8.1.3	Limits	29
8.2	Spurious radiations	30
8.2.1	Definition	30
8.2.2	Method of measurement	30
8.2.3	Limits	32
8.3	Co-channel rejection	32
8.3.1	Definition	32
8.3.2	Method of measurement	32
8.3.3	Limits	33
8.4	Adjacent channel selectivity	33
8.4.1	Definition	33
8.4.2	Method of measurement	33
8.4.3	Limits	34
8.5	Spurious response rejection	35
8.5.1	Definition	35
8.5.2	Method of measurement	35
8.5.2.1	Introduction to the method of measurement	35
8.5.2.2	Measurement arrangement	36
8.5.2.3	Method of the search	36
8.5.2.4	Measurement	37
8.5.3	Limits	38
8.6	Intermodulation response rejection	38
8.6.1	Definition	38
8.6.2	Method of measurement	38
8.6.3	Limits	39
8.7	Blocking or desensitization	40
8.7.1	Definition	40
8.7.2	Method of measurement	40
8.7.3	Limits	41
9	Measurement uncertainty	41

Annex A (normative):	Radiated measurement.....	43
A.1	Test sites and general arrangements for measurements involving the use of radiated fields	43
A.1.1	Anechoic chamber	43
A.1.2	Anechoic chamber with a conductive ground plane	44
A.1.3	Open Area Test Site (OATS)	45
A.1.4	Test antenna.....	46
A.1.5	Substitution antenna	46
A.1.6	Measuring antenna	47
A.2	Guidance on the use of radiation test sites	47
A.2.1	Verification of the test site	47
A.2.2	Preparation of the EUT.....	47
A.2.3	Power supplies to the EUT	47
A.2.4	Volume control setting for analogue speech tests	47
A.2.5	Range length.....	48
A.2.6	Site preparation	48
A.3	Coupling of signals.....	49
A.3.1	General	49
A.3.2	Data Signals.....	49
A.3.3	Speech and analogue signals	49
A.3.3.1	Acoustic coupler description.....	49
A.3.3.2	Calibration	50
A.4	Test fixture	50
A.4.1	Description	50
A.4.2	Calibration.....	51
A.4.3	Mode of use	51
Annex B (normative):	Specifications for adjacent channel power measurement arrangements.....	52
B.1	Power measuring receiver specification.....	52
B.1.1	General	52
B.1.2	IF filter	52
B.1.3	Oscillator and amplifier	54
B.1.4	Attenuation indicator	54
B.1.5	Level indicators	54
B.1.5.1	Rms level indicator	54
B.1.5.2	Peak level indicator.....	54
B.2	Spectrum analyzer for adjacent channel power measurement.....	54
Annex C (normative):	Spectrum Analyzer	56
C.1	Adjacent Channel Power Measurement	56
C.2	Unwanted Emissions Measurement	56
Annex D (normative):	Band-stop filter (for SINAD meter).....	57
History		58

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Foreword

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

The present document is part 1 of a multi-part deliverable covering the Land Mobile Service; Radio equipment using integral antennas intended primarily for analogue speech, as identified below:

Part 1: "Technical characteristics 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:	29 June 2010
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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2011
Date of withdrawal of any conflicting National Standard (dow):	31 March 2011

1 Scope

The present document covers the minimum characteristics considered necessary in order to avoid harmful interference and to make acceptable use of the available frequencies.

The present document applies to equipment with integral antennas, used in angle modulation systems in the land mobile service, operating on radio frequencies between 30 MHz and 1 000 MHz, with channel separations of 12,5 kHz, 20 kHz and 25 kHz, and is intended primarily for analogue speech.

In the present document different requirements are given for the different radio frequency bands, channel separations, environmental conditions and types of equipment, where appropriate.

The present document is complementary to EN 300 086 [i.7], which covers radio equipment with an internal or external RF connector, for use in the land mobile service.

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.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

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2.1 Normative references

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

- [1] 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".
- [2] ANSI C63.5 (2006): "American National Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration of Antennas (9 kHz to 40 GHz)".

2.2 Informative references

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] CEPT/ERC/REC 74-01E: "Unwanted emissions in the spurious domain" (Siófok 1998, Nice 1999, Sesimbra 2002; Hradec Kralove 2005).
- [i.2] ETSI EN 300 793 (V1.1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Land mobile service; Presentation of equipment for type testing".
- [i.3] ETSI TR 102 273 (V1.2.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties".
- [i.4] IEC 60489-3 (1988): "Methods of measurement for radio equipment used in the mobile services; Part 3: Receivers for A3E or F3E emissions".
- [i.5] ITU-T Recommendation O.41 (1994): "Psophometer for use on telephone-type circuits".