

9`Y_fca U[bYfbUnXfi y`qj cghfØ A7L]b`nUXYj Yj`nj Ynj`n`fUX]`g_ Ja`gdY_fca`fØFAŁ!
GHUbXUfX`YY_fca U[bYfbY`nXfi y`qj cghj`fØ A7L`nUfUX]`g_c`cdfYa c`]b`ghcf]lj Y!`%\$"
XY.`DcgYVb]`dc[c`q`nUdfj c`f7 H%]b`7 H%ZL]b`Xfi [c`[YbYfUW]`c`VfYnj fj] bY
H`YZ`bg_Y`cdfYa Y`f7 H&Ł

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 10: Specific conditions for First (CT1 and CT1+) and Second Generation Cordless Telephone (CT2) equipment

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Ta slovenski standard je istoveten z: EN 301 489-10 Version 1.2.1

ICS:

33.050.10	Telefonska oprema	Telephone equipment
33.060.01	Radijske komunikacije na splošno	Radiocommunications in general
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

SIST EN 301 489-10:2002

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ETSI EN 301 489-10 V1.2.1 (2001-11)

Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
ElectroMagnetic Compatibility (EMC)
standard for radio equipment and services;
Part 10: Specific conditions for First (CT1 and CT1+) and
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<https://standards.iteh.ai/catalog/standards/sist/4ce5127f-9dca-4ab8-b7ba-ccdf25be3f3b/sist-en-301-489-10-2002>



Reference

REN/ERM-EMC-219-10

Keywords

CT, CT2, EMC, radio, regulation

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Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

This Candidate 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 [5] (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 Council Directive on the approximation of the laws of the Member States relating to electromagnetic compatibility ("the EMC Directive") (89/336/EEC [3] as amended) and 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 ("the R&TTE Directive [2]").

The present document is part 10 of a multi-part deliverable covering the ElectroMagnetic Compatibility (EMC) standard for radio equipment and services, as identified below:

- <https://standards.iteh.ai/catalog/standards/sist/4ce5127f-9dca-4ab8-b7ba-333b/sist-en-301-489-10-2002>
- Part 1: "Common technical requirements";
 - Part 2: "Specific conditions for radio paging equipment";
 - Part 3: "Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz";
 - Part 4: "Specific conditions for fixed radio links and ancillary equipment and services";
 - Part 5: "Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech)";
 - Part 6: "Specific conditions for Digital Enhanced Cordless Telecommunications (DECT) equipment";
 - Part 7: "Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)";
 - Part 8: "Specific conditions for GSM base stations";
 - Part 9: "Specific conditions for wireless microphones and similar Radio Frequency (RF) audio link equipment, cordless audio and in-ear monitoring devices";
 - Part 10: "Specific conditions for First (CT1 and CT1+) and Second Generation Cordless Telephone (CT2) equipment";**
 - Part 11: "Specific conditions for analogue terrestrial sound broadcasting (Amplitude Modulation (AM) and Frequency Modulation (FM)) service transmitters";
 - Part 12: "Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS)";

- Part 13: "Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)";
- Part 14: "Specific conditions for analogue and digital terrestrial TV broadcasting service transmitters";
- Part 15: "Specific conditions for commercially available amateur radio equipment";
- Part 16: "Specific conditions for analogue cellular radio communications equipment, mobile and portable";
- Part 17: "Specific conditions for Wideband data and HIPERLAN equipment";
- Part 18: "Specific conditions for Terrestrial Trunked Radio (TETRA) equipment";
- Part 19: "Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications";
- Part 20: "Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS)";
- Part 22: "Specific conditions for ground based VHF aeronautical mobile and fixed radio equipment";
- Part 23: "Specific conditions for IMT-2000 CDMA Direct Spread (UTRA) Base Station (BS) radio, repeater and ancillary equipment";
- Part 24: "Specific conditions for IMT-2000 CDMA Direct Spread (UTRA) for Mobile and portable (UE) radio and ancillary equipment";
- Part 25: "Specific conditions for IMT-2000 CDMA Multi-carrier Mobile Stations and ancillary equipment";
- Part 26: "Specific conditions for IMT-2000 CDMA Multi-carrier Base Stations and ancillary equipment".

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National transposition dates (standards.iteh.ai)

Date of adoption of this EN:	23 November 2001
Date of latest announcement of this EN (doa): SIST EN 301 489-10:2002	28 February 2002
Date of latest publication of new National Standard or endorsement of this EN (dop/e): https://standards.iteh.ai/catalog/standards/sist/4ce5127f-9dca-4ab8-b7ba-c4d296c55b/sist-en-301-489-10-2002	31 August 2002
Date of withdrawal of any conflicting National Standard (dow):	31 August 2003

1 Scope

The present document, together with EN 301 489-1 [1], covers the assessment of First Generation (CT1 and CT1+) and Second Generation (CT2) Cordless Telephone equipment, and associated ancillary equipment, in respect of ElectroMagnetic Compatibility (EMC).

Technical specifications related to the antenna port and emissions from the enclosure port of the radio equipment are not included in the present document. Such technical specifications are found in the relevant product standards for the effective use of the radio spectrum.

The present document specifies the applicable test conditions, performance assessment and performance criteria for First Generation (CT1 and CT1+) and Second Generation (CT2) Cordless Telephone equipment, and associated ancillary equipment.

Definitions of types of Cordless Telephone equipment covered by the present document are given in annex A.

In case of differences (for instance concerning special conditions, definitions, abbreviations) between the present document and EN 301 489-1 [1], the provisions of the present document take precedence.

The environmental classification and the emission and immunity requirements used in the present document are as stated in EN 301 489-1 [1], except for any special conditions included in 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.

- [1] ETSI EN 301 489-1 (V1.3.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements".
- [2] 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.
- [3] Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility.
- [4] ETSI EN 300 176 (all parts): "Digital Enhanced Cordless Telecommunications (DECT); Approval test specification".
- [5] 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.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in EN 301 489-1 [1] and the following apply:

CT1 equipment: first generation Cordless Telephone apparatus which includes one or more transceivers and/or receivers and/or parts thereof which operate in the frequency bands detailed in clauses A2, A4, A5, and A6 of EN 301 489-10

CT1+ equipment: first generation Cordless Telephone apparatus which includes one or more transceivers and/or receivers and/or parts thereof which operate in the frequency bands 885 MHz to 887 MHz and 930 MHz to 932 MHz

CT2 equipment: second generation Cordless Telephone apparatus which includes one or more transceivers and/or receivers and/or parts thereof which operate in the frequency band 864,1 MHz to 868,1 MHz

host equipment: any equipment which has a complete user functionality when not connected to the cordless telephone or similar radio communications equipment, and to which this radio equipment provides additional functionality, and to which connection is necessary for this radio equipment to offer functionality, and in which the transceiver part of the radio equipment is physically installed

non-speech equipment: cordless telephone or similar communications equipment intended for the provision and reception of digital data either originating from or destined to external digital speech processing circuitry or other external equipment

speech equipment: cordless telephone or similar communications equipment containing transducers such as microphones and/or loudspeakers intended for the provision and reception of acoustic audio signals

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

BER	Bit Error Ratio
BPF	Band Pass Filter
BW	BandWidth
CF	Carrier Frequency
CFP	Cordless Fixed Part
CPP	Cordless Portable Part
CR	Continuous phenomena applied to cordless telephone or communication Receive-only equipment
CT	Continuous phenomena applied to cordless telephone or communication Transceivers
CT1	Cordless Telephone, first generation
CT1+	Cordless Telephone, first generation. Different frequency range from CT1
CT2	Cordless Telephone, second generation
ERP	Ear Reference Point
MRP	Mouth Reference Point
SPL	Sound Pressure Level
TR	Transient phenomena applied to cordless telephone or communication Receive-only equipment
TT	Transient phenomena applied to cordless telephone or communication Transceivers

4 Test conditions

4.1 General

For the purposes of the present document, the test conditions of EN 301 489-1 [1], clause 4, shall apply as appropriate. Further product-related test conditions for cordless telephone or communications equipment are specified in the present document, clauses 4.2 to 4.5.

4.2 Arrangements for test signals

The provisions of EN 301 489-1 [1], clause 4.2 shall apply.

4.2.1 Arrangements for test signals at the input of transmitters

The provisions of EN 301 489-1 [1], clause 4.2.1 shall apply with the following modification.

The transmitter part of the particular type of cordless telephone or communications equipment shall be modulated with normal test modulation as specified for that type of equipment (see clause 4.5).

4.2.1.1 Speech equipment

Audio input signals may be provided to the EUT either by a non-metallic acoustic tube or, if provided, electrical connections. The equipment shall not be modified to provide any electrical connection ports for the purposes of EMC tests only. Suitable test arrangements for the acoustic tube are described e.g. in EN 300 176 [4].

4.2.1.2 Non-speech equipment

Digital (data) input signals shall be supplied to the EUT by electrical connection to the modulation input port via an appropriate connecting cable, test jig, or host equipment (see clauses 5.2.1 and 5.2.2).

4.2.2 Arrangements for test signals at the output of transmitters

The provisions of EN 301 489-1 [1], clause 4.2.2 shall apply.

4.2.3 Arrangements for test signals at the input of receivers

The provisions of EN 301 489-1 [1], clause 4.2.3 shall apply with the following modification.

The receiver part or stand alone receiver of the particular type of cordless telephone or communications equipment shall be provided with the appropriate wanted RF signal modulated as specified for that type of equipment (see clause 4.5).

4.2.4 Arrangements for test signals at the output of receivers

The provisions of EN 301 489-1 [1], clause 4.2.4 shall apply.

4.2.5 Arrangements for testing transmitter and receiver together (as a system)

The provisions of EN 301 489-1 [1], clause 4.2.5 shall apply with the following modification.

The normal test modulation shall be transmitted by the test system and looped back in the radio equipment, as described in the corresponding product specifications referred to in clause 2 and annex A.