

ETSI EN 301 908-10 V4.2.2 (2016-11)



**Electromagnetic compatibility and
Radio spectrum Matters (ERM);
Base Stations (BS), Repeaters and User Equipment (UE) for
IMT-2000 Third-Generation cellular networks;
Part 10: Harmonised Standard for IMT-2000,
FDMA/TDMA (DECT) covering the essential requirements
of article 3.2 of the Directive 2014/53/EU**

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Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Digital Enhanced Cordless Telecommunications (DECT).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.3] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.18].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in table A.1 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

The present document is part 10 of a multi-part deliverable covering the Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks, as identified below:

- Part 1: "Harmonized EN for IMT-2000, introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 2: "Harmonised EN for IMT-2000, CDMA Direct Spread (UTRA FDD) User Equipment (UE) covering essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 3: "Harmonised EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (BS) covering essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 4: "Harmonized EN for IMT-2000, CDMA Multi-Carrier (cdma2000) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 5: "Harmonized EN for IMT-2000, CDMA Multi-Carrier (cdma2000) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 6: "Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 7: "Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 8: "Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 9: "Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 10: "Harmonised Standard for IMT-2000, FDMA/TDMA (DECT) covering the essential requirements of article 3.2 of the Directive 2014/53/EU";**
- Part 11: "Harmonised EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (Repeaters) covering essential requirements of article 3.2 of the Directive 2014/53/EU";

- Part 12: "Harmonised EN for IMT-2000, CDMA Multi-Carrier (cdma2000) (Repeaters) covering essential requirements of article 3.2 of the Directive 2014/53/EU";
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- Part 15: "Harmonised EN for IMT-2000, Evolved Universal Terrestrial Radio Access (E-UTRA) (Repeater) covering essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 16: "Harmonized EN for IMT-2000, Evolved CDMA Multi-Carrier Ultra Mobile Broadband (UMB) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
- Part 17: "Harmonized EN for IMT-2000, Evolved CDMA Multi-Carrier Ultra Mobile Broadband (UMB) (BS) covering essential requirements of article 3.2 of the R&TTE Directive".
- Part 18: "Harmonised EN for IMT-2000, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS), covering the essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 19: "Harmonised EN for IMT-2000, OFDMA TDD WMAN (Mobile WiMAX) TDD User Equipment (UE), covering the essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 20: "Harmonised EN for IMT-2000, OFDMA TDD WMAN (Mobile WiMAX) TDD Base Stations (BS), covering the essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 21: "Harmonised EN for IMT-2000, OFDMA TDD WMAN (Mobile WiMAX) FDD User Equipment (UE), covering the essential requirements of article 3.2 of the Directive 2014/53/EU";
- Part 22: "Harmonised EN for IMT-2000, OFDMA TDD WMAN (Mobile WiMAX) FDD Base Stations (BS), covering the essential requirements of article 3.2 of the Directive 2014/53/EU".

National transposition dates

Date of latest announcement of this EN (doa):	28 February 2017
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2017
Date of withdrawal of any conflicting National Standard (dow):	31 August 2018

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"must" and "must not" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document applies to the following equipment types for IMT-FT. IMT-FT is the Digital Enhanced Cordless Telecommunications (DECT) system being a member of the ITU IMT-2000 family:

- a) Fixed Part (FP).
- b) Portable Part (PP).
- c) Cordless Terminal Adapter (CTA).
- d) Wireless Relay Station (WRS) (FP and PP combined).
- e) Hybrid Part (HyP) (a PP with capability to act as a FP to provide PP to PP communication).

These radio equipment types are capable of operating in all or any part of the frequency bands given in table 1.

Table 1: Radiocommunications service frequency bands

	Radiocommunications service frequency bands
Transmit	1 900 MHz to 1 980 MHz
Receive	1 900 MHz to 1 980 MHz
Transmit	2 010 MHz to 2 025 MHz
Receive	2 010 MHz to 2 025 MHz

The IMT-FT (DECT) service frequency bands for transmitting and receiving for all elements are the parts of the European UMTS spectrum applicable for TDD operation, 1 900 MHz to 1 980 MHz and 2 010 MHz to 2 025 MHz, (see ERC/DEC(99)25 [8] and ERC/DEC(00)01 [9]).

NOTE: IMT-FT equipment may have a second mode for providing operation also in the DECT band 1 880 MHz to 1 900 MHz. Application of DECT in the band 1 880 MHz to 1 900 MHz is covered by ETSI EN 301 406 [i.7].

Details of the DECT Common Interface may be found in ETSI EN 300 175-1 [i.12], ETSI EN 300 175 parts 2 [1] to 3 [2], ETSI EN 300 175-4 [i.13], ETSI EN 300 175 parts 5 [3] to 6 [4] and ETSI EN 300 175 parts 7 [i.14] to 8 [i.15]. Further details of the DECT system may be found in ETSI TR 101 178 [i.1] and ETSI ETR 043 [i.2]. Information about ULE may be found in ETSI TS 102 939-1 [i.16] and ETSI TS 102 939-2 [i.17].

The present document contains requirements to demonstrate that radio equipment both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference.

2 References

2.1 Normative 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 referenced 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>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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

- [1] ETSI EN 300 175-2 (V2.6.1) (07-2015): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical layer (PHL)".

- [2] ETSI EN 300 175-3 (V2.6.1) (07-2015): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) Layer".
- [3] ETSI EN 300 175-5 (V2.6.1) (07-2015): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".
- [4] ETSI EN 300 175-6 (V2.6.1) (07-2015): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".
- [5] Void.
- [6] ETSI EN 300 700 (V1.2.1) (09-2000): "Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS)".
- [7] Recommendation ITU-T O.153 (10-1992): "Basic parameters for the measurement of error performance at bit rates below the primary rate".
- [8] ERC/DEC(99)25: "ERC Decision of 29 November 1999 on the harmonised utilisation of spectrum for terrestrial Universal Mobile Telecommunications System (UMTS) operating within the bands 1900 - 1980 MHz, 2010 - 2025 MHz and 2110 - 2170 MHz".

NOTE: Available at <http://www.erodocdb.dk/docs/doc98/official/pdf/Dec9925.pdf>.

- [9] ERC/DEC(00)01: "ERC Decision of 28 March 2000 extending ERC/DEC/(97)07 on the frequency bands for introduction of terrestrial Universal Mobile Telecommunications System (UMTS)".

NOTE: Available at <http://www.erodocdb.dk/docs/doc98/official/pdf/Dec0001.pdf>.

2.2 Informative 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 referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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] ETSI TR 101 178: "Digital Enhanced Cordless Telecommunications (DECT); A High Level Guide to the DECT Standardization".
- [i.2] ETSI ETR 043: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Services and facilities requirements specification".
- [i.3] Commission Implementing Decision C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.
- [i.4] Void.
- [i.5] Void.
- [i.6] Void.
- [i.7] ETSI EN 301 406 (V2.2.2) (04-2016): "Digital Enhanced Cordless Telecommunications (DECT); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU".
- [i.8] Void.
- [i.9] Void.