



**Digital Enhanced Cordless Telecommunications (DECT);
Test specification;
Part 1: Radio**

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Foreword

This draft European Standard (EN) has been produced by ETSI Technical Committee Digital Enhanced Cordless Telecommunications (DECT), and is now submitted for the combined Public Enquiry and Vote phase of the ETSI standards EN Approval Procedure.

The present document contains text pertaining to testing of the Digital Enhanced Cordless Telecommunications (DECT) Common Interface [1] to [4] and [i.11] to [i.14]. Such text should be considered as guidance to approval (or licensing) authorities.

Details of the DECT Common Interface may be found in ETSI EN 300 175 [1] to [4] and [i.11] to [i.14]. Further details of the DECT system may be found in the ETSI Technical Reports, ETSI TR 101 178 [i.1] and ETSI ETR 043 [i.2]. Information about ULE may be found in the ETSI Technical Specifications ETSI TS 102 939-1 [i.20] and ETSI TS 102 939-2 [i.21].

The present document is part 1 of a multi-part deliverable covering the test specification for Digital Enhanced Cordless Telecommunications (DECT), as identified below:

Part 1: "Radio";

Part 2: "Audio and speech".

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
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1 Scope

The present document specifies tests applicable to all Digital Enhanced Cordless Telecommunications (DECT) equipment accessing the DECT frequency band 1 880 MHz to 1 900 MHz (including provisions for testing other or extended frequency bands as described in ETSI EN 300 175-1 [i.11] and ETSI EN 300 175-2 [1]). Part 2 of the present multi-part deliverable [i.15] specifies tests applicable to DECT speech and audio transmission using a collection of speech codecs, including Recommendation ITU-T G.726 [i.7] ADPCM codec, Recommendation ITU-T G.722 [i.8] "7 kHz codec", "MPEG-4 codec" [i.10] and others.

The aims of the present document are to ensure:

- efficient use of frequency spectrum;
- no harm done to any connected network and its services;
- no harm done to other radio networks and services;
- no harm done to other DECT equipment or its services;
- interworking of terminal equipment via the public network.

The tests of ETSI EN 300 176 are split into two parts:

- the present document (part 1) covers testing of radio frequency parameters, security elements and those DECT protocols that facilitate the radio frequency tests and efficient use of frequency spectrum;
- part 2 [i.15] describes testing of speech and audio requirements between network interface and DECT PT, or between a DECT CI air interface and alternatively a DECT PT or FT. Part 2 is not applicable to terminal equipment specially designed for the disabled (e.g. with amplification of received speech as an aid for the hard-of-hearing).

DECT terminal equipment consists of the following elements:

- 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).

Details of the DECT Common Interface may be found in ETSI EN 300 175-1 [i.11], ETSI EN 300 175 parts 2 to 3 [1] to [2], ETSI EN 300 175-4 [i.12], ETSI EN 300 175 parts 5 to 6 [3] to [4], and ETSI EN 300 175 parts 7 to 8 [i.13] to [i.14]. Further details of the DECT system may be found in the ETSI Technical Reports, ETSI TR 101 178 [i.1] and ETSI ETR 043 [i.2]. Information about ULE may be found in the ETSI Technical Specifications ETSI TS 102 939-1 [i.20] and ETSI TS 102 939-2 [i.21].

2 References

2.1 Normative references

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

- [1] ETSI EN 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical Layer (PHL)".
- [2] ETSI EN 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".
- [3] ETSI EN 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".
- [4] ETSI EN 300 175-6: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".
- [5] Recommendation ITU-T V.11: "Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s".
- [6] Recommendation ITU-T O.153: "Basic parameters for the measurement of error performance at bit rates below the primary rate".
- [7] ETSI EN 300 700: "Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS)".

2.2 Informative references

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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] ETSI EN 301 649: "Digital Enhanced Cordless Telecommunications (DECT); DECT Packet Radio Service (DPRS)".
- [i.4] ETSI TS 102 527-1: "Digital Enhanced Cordless Telecommunications (DECT); New Generation DECT; Part 1: Wideband speech".