



SLOVENSKI STANDARD

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Radijska oprema in sistemi (RES) - Digitalne izboljšane brezvrvične telekomunikacije (DECT) - Splošne zahteve za priključevanje terminala: Aplikacije v telefoniji

Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements: Telephony applications

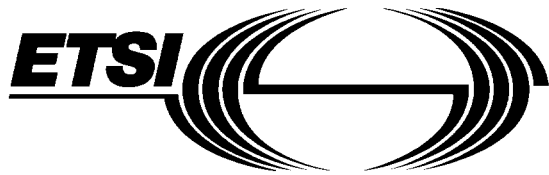
Ta slovenski standard je istoveten z: TBR 010 Edition 2

ICS:

33.070.30	Digitalne izboljšane brezvrvične telekomunikacije (DECT)	Digital Enhanced Cordless Telecommunications (DECT)
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DSIST TBR 010:% - ,

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TECHNICAL
BASIS for
REGULATION

TBR 10

January 1997

Second Edition

Source: ETSI TC-RES

Reference: RTBR/RES-03052

ICS: 33.020

Key words: DECT, radio, testing, type approval

**Radio Equipment and Systems (RES);
Digital Enhanced Cordless Telecommunications (DECT);
General terminal attachment requirements:
Telephony applications**

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Foreword

This 2nd edition Technical Basis for Regulation (TBR) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

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1 Scope

This Technical Basis for Regulation (TBR) specifies the technical characteristics particular to telephony applications provided by terminal equipment which is capable of connection to a public telecommunications network and which uses Digital European Cordless Telecommunications (DECT). The cordless transmissions for such terminal equipment operate within the frequency band 1 880 - 1 900 MHz.

The objective of this TBR is to ensure interworking of terminal equipment via the public network.

The requirements in this TBR apply in addition to the attachment requirements for the appropriate public network (see note) and the TBR for DECT general attachment requirements.

NOTE: TBR for basic ISDN, TBR for primary rate ISDN, or national regulations (implementing ETS 300 001 [1]) for Public Switched Telephone Network (PSTN). Interconnection of a DECT terminal to a GSM network is still under study; in due course, the scope statement may need amending to reflect this point.

This TBR is applicable to simple telephony terminals as well as to the telephony function of multi-function or multi-service terminals.

This TBR includes the speech quality and transmission requirements for a 3,1 kHz telephony teleservice.

For each requirement in this TBR, a test is given, including measurement methods. The terminal equipment may be stimulated to perform the tests by additional equipment if necessary.

This TBR 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 comprises two equipment elements, referred to as a Fixed Part (FP) and a Portable Part (PP). This TBR is structured to allow type approval of either a) the FP and PP together, or b) the FP and PP as separate items. Where the DECT FP is connected to a PSTN, and there are any national peculiarities in the requirements for voice telephony, these shall be accommodated within the FP.

2 Normative references

This TBR incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this TBR only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ETS 300 001 (1992): "Attachments to Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN (NET 4)".
- [2] TBR 8 (1994): "Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice; Attachment requirements for handset terminals".
- [3] ETS 300 111: "Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice; Service description".
- [4] ETS 300 175-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".
- [5] ETS 300 175-2: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical Layer".

- [6] ETS 300 175-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".
- [7] ETS 300 175-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer".
- [8] ETS 300 175-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".
- [9] ETS 300 175-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".
- [10] ETS 300 175-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security features".
- [11] ETS 300 175-8: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech coding and transmission".
- [12] ETS 300 175-9: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 9: Public Access Profile (PAP)".
- [13] ETS 300 444: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Generic Access Profile (GAP)".
- [14] TBR 3: "Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN basic access".
- [15] 73/23/EEC: "Council Directive of 19 February 1973 on the harmonization of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits" (Low Voltage Directive).
- [16] 91/263/EEC: "Council Directive of 29 April 1991 on the approximation of the laws of the Member States concerning telecommunications terminal equipment, including the mutual recognition of their conformity" (Terminal Directive).
- [17] CCITT Recommendation G.101 (1988): "The transmission plan".
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- [19] CCITT Recommendation G.122 (1988): "Influence of national systems on stability talker echo in international connections".
- [20] CCITT Recommendation G.223 (1988): "Assumptions for the calculation of noise on hypothetical reference circuits for telephony".
- [21] CCITT Recommendation G.711 (1988): "Pulse code modulation (PCM) of voice frequencies".
- [22] CCITT Recommendation G.712 (1992): "Transmission performance characteristics of pulse code modulation".
- [23] CCITT Recommendation G.726 (1991): "40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM)".

- [24] CCITT Recommendation O.132 (1988): "Quantizing distortion measuring equipment using a sinusoidal test signal".
- [25] CCITT Recommendation O.133 (1988): "Equipment for measuring the performance of PCM encoders and decoders".
- [26] ITU-T Recommendation P.50 (1993): "Artificial voices".
- [27] ITU-T Recommendation P.51 (1993): "Artificial mouth".
- [28] ITU-T Recommendation P.57 (1993): "Artificial ears".
- [29] ITU-T Recommendation P.64 (1993): "Determination of sensitivity/frequency characteristics of local telephone systems".
- [30] ITU-T Recommendation P.79 (1993): "Calculation of loudness ratings for telephone sets".
- [31] IEC 651: "Sound level meters".
- [32] ISO 3 (1973): "Preferred numbers - series of preferred numbers".
- [33] ISO DIS 9614: "Acoustics - Determination of sound power levels of noise sources using sound intensity".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this TBR, the following definitions apply:

Acoustic Reference Level (ARL): The acoustic level that corresponds to a power level of -10 dBm₀ at the TAP.

conducted measurements: Measurements which are made using a direct connection to the Equipment Under Test (EUT).

dBPa: Sound pressure level relative to 1 Pa (no weighting).

duplex bearer: The use of two simplex bearers operating in opposite directions on two physical channels. These pairs of channels always use the same radio Frequency (RF) carrier and always use evenly spaced slots (i.e. separated by 0,5 Time Division Multiple Access (TDMA) frame).

Equipment Under Test (EUT): The equipment submitted to the test laboratory for type examination.

fixed geometry PP: A PP in which the electro-acoustic transducers and their associated acoustic components are held in fixed relative positions and/or orientations during all on-line conditions of the PP.

Fixed Part (DECT Fixed Part) (FP): A physical grouping that contains all of the elements in the DECT network between the local network and the DECT air interface.

NOTE 1: A DECT fixed part contains the logical elements of at least one fixed radio termination, plus additional implementation specific elements.

Fixed Radio Termination (FT): A logical group of functions that contains all of the DECT processes and procedures on the fixed side of the DECT air interface.

NOTE 2: A fixed radio termination only includes elements that are defined in ETS 300 175 parts 1 to 8 [4] to [11]. This includes radio transmission elements (layer 1) together with a selection of layer 2 and layer 3 elements.

Full Slot (SLOT): One 24th of a TDMA frame which is used to support one physical channel.