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Digital Enhanced Cordless Telecommunications (DECT);
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DECT access to GSM Private Land Mobile Network (PLMN)
for 3,1 kHz speech applications

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Foreword

This draft Technical Basis for Regulation (TBR) has been produced by the Digital Enhanced Cordless Telecommunications (DECT) Project of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

Details of the Digital Enhanced Cordless Telecommunications (DECT) Common Interface (CI) may be found in ETS 300 175, Parts 1 - 8 [1] to [8].

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1 Scope

This Technical Basis for Regulation (TBR) specifies the technical characteristics to be provided by terminal equipment which is capable of connection to a Global System for Mobile communications (GSM) Public Land Mobile Network (PLMN) and which uses Digital European Cordless Telecommunications (DECT) for network access. The cordless transmissions for such terminal equipment operate within the frequency band 1 880-1 900 MHz.

A DECT terminal equipment comprises two elements, referred to as a Fixed Part (FP) and Portable Part (PP). The objective of this TBR is to ensure air-interface interoperability between a FP and PP which follow the DECT/GSM interworking profile (IWP) (see note 2), where these parts are capable of 3,1 kHz telephony applications, and where the Fixed Part is connected to a GSM PLMN in order to provide GSM services (according to TBRs 19 and 20) over the DECT air-interface.

For functional parts of a FP, that are terminal equipment, which are declared to conform to the basic CTRs for DECT (see note 1) and to the DECT/GSM IWP, the requirements of this TBR shall apply, in addition to the attachment requirements for the appropriate GSM PLMN.

This TBR does not apply to FPs where they form a part of the GSM PLMN.

The requirements of this TBR are also applicable for the complete set of functionality of a PP declared to conform to the DECT/GSM IWP. For a PP, this TBR is in addition to the basic CTRs for DECT.

Where a feature is indicated as optional it need not to be provided, but where such a feature is provided, the FP and/or the PP shall conform to the requirements and tests of this TBR. This TBR is structured to allow type approval of the FP and PP as separate items. For each requirement in this TBR a test is given, including measurement methods where applicable. The terminal equipment may be stimulated to perform the tests by additional equipment if necessary.

> NOTE 1: The basic CTRs for DECT are the general attachment requirements [CTR 6], requirements for telephony applications [CTR10] and requirements of Generic Access Profile [CTR 22].

> NOTE 2: In the respect of this TBR, the DECT/GSM inter-working profile is based on the provision of access mappings/inter-working requirements of ETS 300 370 [9] and the general description of services, capabilities and information flows of ETS 300 466 [26].

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 300 175-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".

[2]   ETS 300 175-2: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical layer (PHL)".

[3]   ETS 300 175-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".

[4]   ETS 300 175-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer".

[5]   ETS 300 175-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".

[6]   ETS 300 175-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".

[7]   ETS 300 175-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security features".

[8]   ETS 300 175-8: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech coding and transmission".

[9]   ETS 300 370: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications / Global System for Mobile communications (DECT/GSM) inter-working profile; Access and mapping (Protocol/procedure description for 3,1 kHz speech service)".

[10]   ETS 300 444 (1995): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Generic Access Profile (GAP)".

[11]   ETS 300 476-1 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 1: Network (NWK) layer - Portable radio Termination (PT)".

[12]   ETS 300 476-2 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 2: Data Link Control (DLC) layer - Portable radio Termination (PT)".

[13]   ETS 300 476-3 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 3: Medium Access Control (MAC) layer - Portable radio Termination (PT)".

[14]   ETS 300 476-4 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 4: Network (NWK) layer - Fixed radio Termination (FT)".

[15]   ETS 300 476-5 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 5: Data Link Control (DLC) layer - Fixed radio Termination (FT)".

[16]   ETS 300 476-6 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 6: Medium Access Control (MAC) layer - Fixed radio Termination (FT)".

[17]   ETS 300 476-7 (1996): "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma; Part 7: Physical layer".

[18]   ETS 300 474-1: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile requirement list and profile specific Implementation Conformance Statement (ICS) proforma; Part 1: Portable radio Termination (PT)".

[19]   ETS 300 474-2: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile requirement list and profile specific Implementation Conformance Statement (ICS) proforma; Part 2: Fixed radio Termination (FT)".

[20]   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).

[21]   ETS 300 704-1: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications/Global System for Mobile communications (DECT/GSM) Interworking Profile (IWP); Profile Implementation Conformance Statement (ICS); Part 1: Portable radio Termination (PT)".

[22]   ETS 300 704-2: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications/Global System for Mobile communications (DECT/GSM) Interworking Profile (IWP); Profile Implementation Conformance Statement (ICS); Part 2: Fixed radio Termination (FT)".

[23]   TBR 6: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements".

[24]   TBR 10: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements; Telephony applications".

[25]   TBR 22: "Radio Equipment and Systems (RES); Attachment requirements for terminal equipment for Digital Enhanced Cordless Telecommunications (DECT) Generic Access Profile (GAP) applications".

[26]   ETS 300 466: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications/Global System for Mobile Communications (DECT/GSM) interworking profile; General description of service requirements; Functional capabilities and information flows".

[27]   ETS 300 494-2: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile Test Specification (PTS); Part 2: Profile Specific Test Specification (PSTS) - Portable radio Termination (PT)".

[28]   ETS 300 702-2: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications/Global System for Mobile telecommunications (DECT/GSM) interworking profile; Part 2: Profile Specific Test Specification (PSTS) Portable radio Termination (PT)".

[29]   ETS 300 702-3: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications/Global System for Mobile telecommunications (DECT/GSM) interworking profile; Part 3: Profile Specific Test Specification (PSTS) Fixed radio Termination (FT)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this TBR, the definitions given in ETS 300 370 [9], ETS 300 444 [10] and ETS 300 175, Parts 1 to 7 [1] to [7] apply.

3.2 Abbreviations

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

AC	Authentication Code
ARI	Access Rights Identity (see PARI, SARI and TARI)
ATS	Abstract Test Suit
BCD	Binary Coded Decimal
BSC	GSM Base Station Controller
Cat	Category
CC	Call Control
CCITT	(The) International Telegraph and Telephone Consultative Committee
CI	Common Interface
CK	Cipher Key
CTR	Common Technical Regulation
DAM DA	DECT Authentication Module DECT Application
DAM	DECT Authentication Module
DCK	Derived Cipher Key
DECT	Digital Enhanced Cordless Telecommunications
DLC	Data Link Control
DSAA	DECT Standard Authentication Algorithm
DTMF	Dual Tone Multi-Frequency
FP	Fixed Part
FT	Fixed radio Termination
GAP	Generic Access Profile
GOP	GSM Operator code
GSM	Global System for Mobile Communications
ICS	Implementation Conformance Statement
IMEI	International Mobile Equipment Identity
IMSI	International Mobile Subscriber Identity
IPEI	International Portable Equipment Identity
IPUI	International Portable User Identity
ISDN	Integrated Services Digital Network
ISO	International Organization for Standardization
IUT	Implementation Under Test
IWU	Inter-Working Unit
IXIT	Implementation eXtra Information for Testing
K	authentication Key
LCE	Link Control Entity
LLME	Lower Layer Management Entity
LLN	Logical Link Number
MAC	Medium Access Control
MAP	GSM Mobile Application Part
MM	Mobility Management
MS	Mobile Station
MSB	Most Significant Bit
MSC	Mobile Switching Center
NLF	New Link Flag
NWK	NetWorK
OSI	Open Systems Interconnection
PA	Portable Application
PARI	Primary Access Rights Identity
PARK	Portable Access Rights Key
PE	Portable Equipment
PH	PHysical
PICS	Protocol Implementation Conformance Statement

PIXIT	Protocol Implementation eXtra Information for Testing
PLMN	Public Land Mobile Network
PP	Portable Part
PSTN	Public Switched Telephone Network
PSTS	Profile Specific Test Specification
PT	Portable radio Termination
PTS	Profile Test Specification
PUN	Portable User Number
PUT	Portable User Type
RAND	A RANDom challenge issued by a FP
RES	A RESponse calculated by a PP
RFP	Radio Fixed Part
RFPI	Radio Fixed Part Identity
RS	A value used to establish authentication session keys
RT	Requirements Tables
SARI	Secondary Access Rights Identity
SIM/DAM GA	Subscriber Identity Module/DECT Authentication Module, GSM Application
SRES	A GSM specific authentication response calculated by the GSM SIM or the DAM GA
SUT	System Under Test
TARI	Tertiary Access Rights Identity
TBR	Technical Basis for Regulation
TMSI	Temporary Mobile Subscriber Identity
TPUI	Temporary Portable User Identity
TS	Test System
TSS&TP	Test Suit Structure & Test Purposes

4 How to use this TBR

This TBR contains one set of tables for the PP and one set of tables for the FP. Each set of tables is divided into subsets depending on the particular DECT layer. Each set of tables comprises:

- a test suit structure table;

- a test case index table;

- a TBR-RT feature table;

- a TBR-RT procedure table;

- a messages/frames table.

If a particular feature, procedure or message specified in ETS 300 175, Parts 1 to 8 [1] to [8] is not listed in any table it shall be considered as out of scope of this TBR and not required to be tested.

5 Requirements

The DECT/GSM IWP features, services and requirements as defined in ETS 300 370 [9] are considered to fall under the essential requirements specified in article 4 of the Council directive 91/263/EEC [20] applying to terminal equipment, given in the following subclauses. The column TD Cat (Terminal Directive Category) identifies the applicable clauses of article 4 of directive 91/263/EEC [20].

NOTE 1:   This clause does not specify the exact status (e.g. mandatory or optional) of the listed features, services and requirements. This is specified in annex A.

5.1 Network (NWK) layer features

In addition to the requirements for GAP as defined in TBR 22 [25] the following DECT/GSM specific requirements apply:

Table 1: Network layer requirements and justifications

ETS 300 370 Item	DESCRIPTION	TBR JUSTIFICATION	TD Cat
5.4.2	Authentication of PT	To ensure the correct authentication of a terminal as a result of a GSM authentication procedure	d, f
5.4.2	Identification of PT	To ensure the correct identification of a terminal as a result of a GSM identification procedure	d, f
5.4.2	Location registration	To ensure the correct location of a terminal for call establishment and access to other services (e.g. charging) covering the GSM normal location update, periodic location update and attach procedure	d, f
5.4.2	Detach	To ensure the terminal can indicate to the network (GSM) that it is not ready to receive incoming calls	e, f
5.4.2	Temporary identity assignment	To ensure the terminal behaves correctly on receiving a temporary identity assignment as a result of a GSM TMSI re-allocation procedure	f
5.4.2	Cipher switching initiated by FT	To ensure interworking with and through the network during ciphering as a result of a GSM ciphering procedure. If ciphering is incorrectly supported, interworking will not be possible	d, f, g
5.4.2	Cipher switching initiated by PT	To ensure interworking with and through the network during ciphering as a result of a external handover procedure (implementation dependant). If ciphering is incorrectly supported, interworking will not be possible	d, f, g
5.4.2	External handover	To ensure interworking with and through the network via MSC associated handover when external handover is supported. If external handover is incorrectly supported, interworking will not be possible	e, f, g
5.4.2	Outgoing call request (including overlap sending)	To ensure the terminal can establish an outgoing call covering the GSM CM service procedure and outgoing call initiation to ensure correct interworking with the GSM network	f, g
5.4.2	Parameter retrieval	To ensure the terminal can exchange information with the network (and vice versa) to support location update and external handover procedure	d, f
5.4.2	Incoming call	To ensure the terminal behaves correctly on receiving an incoming call (invoked by GSM MSC), to ensure correct interworking with the GSM network	f, g
5.4.2	Emergency call establishment procedure	To ensure the terminal can establish an emergency call covering the GSM emergency call procedure to ensure correct interworking with the GSM network	f, g
5.4.2	Accepted call establishment	To ensure the terminal behaves correctly during the different connection phases of a call establishment, to ensure correct interworking with the network (GSM)	f

(continued)

Table 1 (concluded): Network layer requirements and justifications

ETS 300 370 Item	DESCRIPTION	TBR JUSTIFICATION	TD Cat
5.4.2	Abnormal call release	To ensure the terminal behaves correctly during abnormal call release (either PP or GSM initiated), to ensure correct interworking with the network (GSM)	d, e, f
5.4.2	Normal call release	To ensure the terminal behaves correctly during normal call release (either PP or GSM initiated), to ensure correct interworking with the network (GSM)	d, e, f
5.4.2	Paging	To ensure the terminal behaves correctly on receipt of a paging message as a result of a GSM paging procedure	d, f
5.4.2	Handling of DTMF	To ensure the terminal behaves correctly on handling of a DTMF signal to ensure correct interworking with the GSM network.	d, f
5.4.2	Notification of progress and interworking	To ensure the terminal behaves correctly on notification of progress as a result of a GSM progress (or other appropriate) procedure	d, f
5.4.2	User notification	To ensure the terminal behaves correctly on handling call related events as a result of a GSM user notification procedure	d, f

5.2 Data Link Control (DLC) layer services

In addition to the requirements for GAP as defined in TBR 22 [25] no DECT/GSM specific requirements apply.

5.3 Medium Access Control (MAC) layer services

In addition to the requirements for GAP as defined in TBR 22 [25] no DECT/GSM specific requirements apply.

5.4 Application features

In addition to the requirements for GAP as defined in TBR 22 [25] no DECT/GSM specific requirements apply.

5.5 PHysical (PH) layer requirements

In addition to the requirements for GAP as defined in TBR 22 [25] no DECT/GSM specific requirements apply (see note).

NOTE: TBR 22 [25] makes reference to the requirements of TBR 6 [23] and TBR 10 [24].

6 Test specification

6.1 Portable Part (PP)

This subclause includes lists of the test groups and abstract test cases relevant for DECT/GSM IWP TBR derived from ETS 300 702-2 [28].

6.1.1 NWK layer

6.1.1.1 Test suit structure

Table 2

TBR 36: Test Suite Structure PP	
Suite Name:	nwk_pt_gsm
Standards Ref.:	ETS 300 370 [9]
Profile ICS Ref.:	ETS 300 704-1 [21]
Profile IXIT Ref.:	ETS 300 494-2 [27]; ETS 300 702-2 [28]
Test Method:	remote
Comments:	
Test Group Reference	**Test Group Objective**
PT/	To check the behaviour of the NWK layer of the PT(IUT)
PT/CC/	To check the IUT CC-state machine behaviour
PT/CC/IT/	To check that the IUT CC-state machine provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/CC/CA/	Limited testing that the observable capabilities of the CC entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
PT/CC/BV/	To tests the CC entity of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/CC/BV/OC/	To check the IUT's behaviour to setup an outgoing call
PT/CC/BV/IC/	To check the IUT's behaviour to setup an incoming call
PT/CC/BV/CI/	To check the IUT's behaviour in information transfer procedures
PT/CC/BV/CR/	To check the IUT's behaviour to release an outgoing/incoming call
PT/CC/BV/HO/	To check the IUT's behaviour to perform an External Handover
PT/MM/	To check the behaviour of the Mobility Management entity of the IUT
PT/MM/IT/	To check that the MM entity of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/MM/CA/	Limited testing that the observable capabilities of the MM entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
PT/MM/BV/	To tests the MM entity of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/MM/BV/ID/	To check the IUT's behaviour concerning identity procedures
PT/MM/BV/AU/	To check the IUT's behaviour concerning the authentication procedures
PT/MM/BV/LO/	To check the IUT's behaviour concerning the location procedures
PT/MM/BV/CH/	To check the IUT's behaviour concerning the ciphering related procedures

(continued)

Table 2 (concluded)

TBR 36: Test Suite Structure PP	
Test Group Reference	**Test Group Objective**
PT/ME/	To check the behaviour of the LLME of the IUT
PT/ME/IT/	To check that LLME of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/ME/CA/	Limited testing that the observable capabilities of the LLME of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
PT/ME/BV/	To tests the LLME of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/LC/	To check the behaviour of the LCE of the IUT
PT/LC/IT/	To check that LCE of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/LC/CA/	Limited testing that the observable capabilities of the LCE of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
PT/LC/BV/	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/LC/BV/LE/	To check the IUT's behaviour concerning the connection oriented link establishment procedures
Detailed Comments:	
1.　　　The sub-sub-groups with identifiers PT/xx/IT/ and PT/xx/CA/ do not include their own test cases but only list an appropriate selection of tests from the relevant sub-group with identifier PT/xx/.	

6.1.1.2 Test case index

Table 3

**TBR 36: Test Case Index**		
Test Group Reference	**Test Case Id**	**Description**
PT/CC/BV/OC/	TC_PT_CC_BV_OC_21	Outgoing call with IPUI; T-00, T-01, T-02, T-03, T-04, T-10; piece wise or en-block dialling
	TC_PT_CC_BV_OC_22	Outgoing emergency call; T-00, T-01, T-02, T-03, T-04, T-10; piece wise or en-block dialling
	TC_PT_CC_BV_OC_23	Outgoing call with TPUI; T-00, T-01, T-02, T-03, T-04, T-10; piece wise or en-block dialling
PT/CC/BV/IC/	TC_PT_CC_BV_IC_21	Incoming call; T-00, T-06, (T-07), T-08, T-10; <<SIGNAL>> in {CC-INFO}
	TC_PT_CC_BV_IC_22	Incoming call; T-00, T-06, (T-07), T-08, T-10; <<SIGNAL>> in {CC-SETUP}
PT/CC/BV/CI/	TC_PT_CC_BV_CI_21	Go to DTMF invocation in T-10; infinite tone length; Acknowledge from FT (MSC)
	TC_PT_CC_BV_CI_22	Go to DTMF invocation in T-10; infinite tone length; Rejection from FT (MSC)
	TC_PT_CC_BV_CI_23	Cancel DTMF tone in T-10; Acknowledge from FT (MSC)
PT/CC/BV/CR/	TC_PT_CC_BV_CR_21	Outgoing normal call; T-01; FT (PLMN) initiated abnormal release (reason: "Unknown identity")
	TC_PT_CC_BV_CR_22	Outgoing normal call; T-01; FT (PLMN) initiated abnormal release (reason: "Invalid identity")
	TC_PT_CC_BV_CR_23	Outgoing normal call; T-02; FT (PLMN) initiated normal release (reason: "Unknown identity")
	TC_PT_CC_BV_CR_24	Outgoing normal call; T-02; FT (PLMN) initiated normal release (reason: "Invalid identity")
PT/CC/BV/HO/	TC_PT_CC_BV_HO_01	External Handover; T-10; Handover Complete to MSC
	TC_PT_CC_BV_HO_02	External Handover; T-10; Handover Reject by PP
	TC_PT_CC_BV_HO_03	External Handover; T-10; Handover Reject by FP-1
	TC_PT_CC_BV_HO_04	External Handover; T-10; Handover Reject by MSC
PT/MM/BV/ID/	TC_PT_MM_BV_ID_21	Identity request; IPUI type requested; IPUI (IMSI) returned
	TC_PT_MM_BV_ID_22	Identity request; IPEI type requested; IPEI returned
	TC_PT_MM_BV_ID_23	Identity request; TMSI type requested; TMSI returned
	TC_PT_MM_BV_ID_24	Temporary identity assign procedure (invoked by MSC)
PT/MM/BV/AU/	TC_PT_MM_BV_AU_20	Authentication of PT (invoked by MSC); Storage of DCK
	TC_PT_MM_BV_AU_21	Authentication of PT (invoked by MSC); MSC rejection

(continued)

Table 3 (concluded)

TBR 36: Test Case Index		
Test Group Reference	**Test Case Id**	**Description**
PT/MM/BV/LO/	TC_PT_MM_BV_LO_20	No CC activities; power off; power on; Location registration request (no TPUI but TMSI assignment)
	TC_PT_MM_BV_LO_21	No CC activities; power off; power on; Location registration request (TPUI and TMSI assignment)
	TC_PT_MM_BV_LO_22	Location registration after change of DECT (not GSM) location area; TPUI assignment
	TC_PT_MM_BV_LO_23	Location registration after change of DECT and GSM location area; TPUI and TMSI assignment
	TC_PT_MM_BV_LO_27	Location registration; reject with reason: "IPUI unknown"
	TC_PT_MM_BV_LO_28	Location registration; reject with reason: "IPUI not accepted"
	TC_PT_MM_BV_LO_29	Location registration; reject with reason: "PLMN not allowed"
	TC_PT_MM_BV_LO_30	Location registration; reject with reason: "Location area not allowed"
	TC_PT_MM_BV_LO_31	Location registration after change of DECT (not GSM) location area; TPUI assignment; new location registration with TPUI
PT/MM/BV/CH/	TC_PT_MM_BV_CH_06	Cipher switching; FT (MSC) initiated; "cipher-off" to "cipher-on"
	TC_PT_MM_BV_CH_07	Cipher switching; FT (MSC) initiated; "cipher-on" to "cipher-off"
PT/ME/BV/	TC_PT_ME_BV_20	Outgoing call; T-01; Cipher switching FT (MSC) initiated performed before answering the setup request
	TC_PT_ME_BV_21	Outgoing call; T-01; GSM CM service procedure and Cipher switching FT (MSC) initiated performed before answering the setup request
PT/LC/BV/LE/	TC_PT_LC_BV_LE_03	Indirect FT initiated link establishment; Page response with IPUI
	TC_PT_LC_BV_LE_04	Indirect FT initiated link establishment; Page response with TPUI

Detailed Comments:
1.   The PT is the IUT.

6.1.2   DLC layer

No relevant test groups and abstract test cases exist.

6.1.3   MAC layer

No relevant test groups and abstract test cases exist.

6.1.4   PH layer

No relevant test groups and abstract test cases exist.

6.2 Fixed Part (FP)

This subclause includes lists of the test groups and abstract test cases relevant for DECT/GSM IWP TBR derived from ETS 300 702-3 [29].

This subclause shall apply only if the DECT FP is a terminal equipment connected to a public network interface. If the DECT FP is a part of the network (i.e. functionally attached to the GSM MSC) and is therefore not considered to be a terminal equipment this TBR shall not apply (see clause 1).

6.2.1 NWK layer

6.2.1.1 Test suit structure

Table 4

TBR 36: Test Suite Structure FP	
Suite Name:	nwk_ft_gsm
Standards Ref.:	ETS 300 370 [9]
Profile ICS Ref.:	ETS 300 704-2 [22]
Profile IXIT Ref.:	ETS 300 702-3 [29]
Test Method:	remote
Comments:	
Test Group Reference	**Test Group Objective**
FT/	To check the behaviour of the NWK layer of the FT(IUT)
FT/CC/	To check the IUT CC-state machine behaviour
FT/CC/IT/	To check that the IUT CC-state machine provides sufficient conformance for possible interconnection without trying to perform thorough testing
FT/CC/CA/	Limited testing that the observable capabilities of the CC entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
FT/CC/BV/	To tests the CC entity of the IUT in response to syntactically and contextual correct behaviour of the test system
FT/CC/BV/OC/	To check the IUT's behaviours to setup an outgoing call
FT/CC/BV/IC/	To check the IUT's behaviours to setup an incoming call
FT/CC/BV/CI/	To check the IUT's behaviours in information transfer procedures
FT/CC/BV/CR/	To check the IUT's behaviours to release an outgoing/incoming call
FT/CC/TI/	To verify that the IUT CC timers are with correct values and the IUT is reacting properly to the expiry of a timer
FT/MM/	To check the behaviour of the Mobility Management entity of the IUT
FT/MM/IT/	To check that the MM entity of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
FT/MM/CA/	Limited testing that the observable capabilities of the MM entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
FT/MM/BV/	To tests the MM entity of the IUT in response to syntactically and contextual correct behaviour of the test system
FT/MM/BV/ID/	To check the IUT's behaviour concerning identity procedures
FT/MM/BV/AU/	To check the IUT's behaviour concerning the authentication procedures
FT/MM/BV/LO/	To check the IUT's behaviour concerning the location procedures
FT/MM/BV/CH/	To check the IUT's behaviour concerning the ciphering related procedures
	(continued)

Table 4 (concluded)

TBR 36: Test Suite Structure FP	
Test Group Reference	**Test Group Objective**
FT/MM/TI/	To verify that the IUT MM timers are with correct values and the IUT is reacting properly to the expiry of a timer
FT/LC/	To check the behaviour of the LCE of the IUT
FT/LC/IT/	To check that LCE of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
FT/LC/CA/	Limited testing that the observable capabilities of the LCE of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the PROFILE ICS/PROFILE IXIT
FT/LC/BV/	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system
FT/LC/BV/LE/	To check the IUT's behaviour concerning the connection oriented link establishment procedures
FT/LC/TI/	To verify that the IUT LCE timers are with correct values and the IUT is reacting properly to the expiry of a timer
Detailed Comments: 1. The sub-sub-groups with identifiers FT/xx/IT/ and FT/xx/CA/ do not include their own test cases but only list an appropriate selection of tests from the relevant sub-group with identifier FT/xx/.	

6.2.1.2 Test case index

Table 5

TBR 36: Test Case Index		
Test Group Reference	**Test Case Id**	**Description**
FT/CC/BV/OC/	TC_FT_CC_BV_OC_07	Outgoing normal call; F-00 to F-10; piece-wise dialling
	TC_FT_CC_BV_OC_08	Outgoing normal call; F-00 to F-10; en-block dialling in {CC-SETUP}
	TC_FT_CC_BV_OC_09	Emergency call; F-00 to F-10; en-block dialling in {CC-SETUP}
	TC_FT_CC_BV_OC_10	Outgoing normal call; F-00 to F-10; en-block dialling in {CC-INFO}
	TC_FT_CC_BV_OC_11	Outgoing normal call; F-00 to F-10; en-block dialling in second {CC-INFO}
FT/CC/BV/IC/	TC_FT_CC_BV_IC_03	Incoming call; F-00, F-06, F-07 to F-10
	TC_FT_CC_BV_IC_04	Incoming call; F-00, F-06, directly to F-10
FT/CC/BV/CI/	TC_FT_CC_BV_CI_20	Notification of progress and interworking (invoked by the MSC with a {PROGRESS} msg)
	TC_FT_CC_BV_CI_21	User notification (invoked by the MSC with a {NOTIFY} msg)
	TC_FT_CC_BV_CI_22	Go to DTMF invocation in F-10; infinite tone length; Acknowledge from IUT (MSC)
	TC_FT_CC_BV_CI_23	Go to DTMF invocation in F-10; infinite tone length; Rejection from IUT (MSC)
	TC_FT_CC_BV_CI_24	Cancel DTMF tone in F-10; Acknowledge from IUT (MSC)
FT/CC/BV/CR/	TC_FT_CC_BV_CR_13	Outgoing normal call; F-02; IUT initiated normal release (invoked by the MSC)
	TC_FT_CC_BV_CR_14	Outgoing normal call; F-10; IUT initiated normal release (invoked by the MSC)
	TC_FT_CC_BV_CR_15	Incoming call; F-10; IUT initiated normal release (invoked by the MSC)
	TC_FT_CC_BV_CR_16	Outgoing normal call; F-02; PT initiated normal release
	TC_FT_CC_BV_CR_17	Outgoing normal call; F-10; PT initiated normal release
	TC_FT_CC_BV_CR_18	Incoming call; F-07; PT initiated normal release
	TC_FT_CC_BV_CR_19	Incoming call; F-07; PT initiated abnormal release
	TC_FT_CC_BV_CR_20	Outgoing normal call; F-10; PT initiated abnormal release
	TC_FT_CC_BV_CR_21	Incoming call; F-06; PT initiated abnormal release
	TC_FT_CC_BV_CR_22	Outgoing normal call; F-02; IUT initiated abnormal release (invoked by the MSC)
	TC_FT_CC_BV_CR_23	Outgoing normal call; F-10; IUT initiated abnormal release (invoked by the MSC)
	TC_FT_CC_BV_CR_24	Incoming call; F-07; IUT initiated abnormal release (invoked by the MSC)
	TC_FT_CC_BV_CR_25	Outgoing normal call; F-02; IUT initiated abnormal release (invoked by the MSC) after SETUP msg to MSC
	TC_FT_CC_BV_CR_26	Outgoing normal call; F-02; IUT initiated abnormal release (invoked by the MSC) after unsuccessful CM Service procedure

(continued)

Table 5 (continued)

TBR 36: Test Case Index		
Test Group Reference	**Test Case Id**	**Description**
FT/CC/TI/	TC_FT_CC_TI_05	Outgoing call; F-02; timer F-<CC.01> expiry (± 5 % margin); IUT sends {CC-RELEASE}
	TC_FT_CC_TI_06	Outgoing call; F-02; restart of timer F-<CC.01> on receipt of {CC-INFO}
	TC_FT_CC_TI_07	Outgoing call; F-19; timer F-<CC.02> expiry (± 5 % margin); IUT sends {CC-RELEASE-COM}
	TC_FT_CC_TI_08	Outgoing call; F-06; timer F-<CC.03> expiry (± 5 % margin); IUT sends {CC-RELEASE-COM}
FT/MM/BV/ID/	TC_FT_MM_BV_ID_05	Identity request procedure; IUT (MSC) initiated (with IMSI)
	TC_FT_MM_BV_ID_06	Identity request procedure; IUT (MSC) initiated (with IMEI)
	TC_FT_MM_BV_ID_07	Identity request procedure; IUT (MSC) initiated (with TMSI)
	TC_FT_MM_BV_ID_08	Temporary identity assign procedure; IUT (MSC) initiated
FT/MM/BV/AU/	TC_FT_MM_BV_AU_07	Authentication of PT (invoked by MSC); PT has not stored ZAP value and service class info
	TC_FT_MM_BV_AU_08	Authentication of PT (invoked by MSC); rejection from IUT (MSC)
FT/MM/BV/LO/	TC_FT_MM_BV_LO_07	Location registration (GSM related); request with (known) IPUI; change of GSM and DECT location area
	TC_FT_MM_BV_LO_09	Location registration (attach procedure); request with (known) IPUI; no change of GSM and DECT location area
	TC_FT_MM_BV_LO_10	Location registration (first attach procedure); request with (known) IPUI; no change of GSM and DECT location area; detach; new attach (request with (known) IPUI; no change of GSM and DECT location area)
	TC_FT_MM_BV_LO_11	Location registration (first attach procedure); request with (known) IPUI; no change of GSM and DECT location area; detach; new location registration (request with (known) IPUI; change of GSM and DECT location area)
	TC_FT_MM_BV_LO_12	Location registration (first attach procedure); request with (known) IPUI; no change of GSM and DECT location area; periodic location updating procedure (request with (known) IPUI; no change of GSM and DECT location area)
	TC_FT_MM_BV_LO_13	Location registration (first attach procedure); request with (known) IPUI; no change of GSM and DECT location area; normal location updating procedure (request with (known) IPUI; change of GSM and DECT location area)
	TC_FT_MM_BV_LO_14	Location registration; request with (unknown) IPUI; IUT (MSC) rejects

(continued)

Table 5 (concluded)

TBR 36: Test Case Index		
Test Group Reference	**Test Case Id**	**Description**
	TC_FT_MM_BV_LO_15	Location registration; request with (unknown) PLMN; IUT (MSC) rejects
	TC_FT_MM_BV_LO_16	Location registration; request with (unknown) LAC; IUT (MSC) rejects
FT/MM/BV/CH/	TC_FT_MM_BV_CH_06	Cipher switching; IUT (MSC) initiated; "cipher-off" to "cipher-on"
	TC_FT_MM_BV_CH_07	Cipher switching; IUT (MSC) initiated; "cipher-on" to "cipher-off"
FT/MM/TI/	TC_FT_MM_TI_08	Identity request (IUT (MSC) initiated); just before timer F-<MM_ident.2> expiry (- 10 % margin)
	TC_FT_MM_TI_09	Authentication of PT (invoked by MSC); just before timer F-<MM_auth.1> expiry (- 10 % margin)
	TC_FT_MM_TI_10	Cipher switching; IUT(MSC) initiated; just before timer F-<MM_cipher.1> expiry (- 10 % margin)
	TC_FT_MM_TI_11	Location registration (GSM related); request with known IPUI; change of GSM and DECT location area; timer F-<MM_ident.1> expiry (± 5 % margin)
	TC_FT_MM_TI_12	Temporary identity assign procedure; IUT (MSC) initiated; timer F-<MM_ident.1> expiry (± 5 % margin)
FT/LC/BV/LE/	TC_FT_LC_BV_LE_04	Indirect IUT(MSC) initiated link establishment procedure
FT/LC/TI/	TC_FT_LC_TI_02	Indirect IUT(MSC) initiated link establishment; no answer; timer <LCE.03> expiry (± 5 % margin)
Detailed Comments: 1. The FT is the IUT.		

6.2.2   DLC layer

No relevant test groups and abstract test cases exist.

6.2.3   MAC layer

No relevant test groups and abstract test cases exist.

6.2.4   PH layer

No relevant test groups and abstract test cases exist.

Annex A (normative): Requirements Tables (RT)

Notwithstanding the provisions of the copyright clause related to the text of this TBR, ETSI grants that users of this TBR may freely reproduce the RT proforma in this annex so that it can be used for its intended purposes and may further publish the completed RT.

A.1 Introduction

The TBR-RT tables indicate which features and procedures are Mandatory, Optional or Conditional. The features and procedures are referenced via an existing profile ICS document.

The following table headers are applicable to TBR-RT.

Item   is a number unique in the table to be used for references. Each table carries the table number of the corresponding PICS table in ETS 300 476 [11] to [17] or ETS 300 474 [18] and [19], therefore in order to have matching item numbers, item numbering in these tables may not be continuous.

Cat   the category in which the relative item falls under the article 4 in the Council directive 91/263/EEC [20].

Reference   references to ETS 300 370 [9], the DECT/GSM IWP specification, unless otherwise specified.

Status   contains the status required for implementation conforming to this DECT/GSM IWP TBR.

Support   is the column for the manufacturer's statement of whether the particular item is supported by the implementation.

Send   specifies whether the support of sending a message, frame or information element is required.

Receive   specifies whether the support of receiving a message, frame or information element is required.

The interpretation of status columns in all tables is as follows:

m   mandatory - the capability is required to be supported.

o   optional - the capability may be supported or not.

n/a   not applicable - in the given context, it is impossible to use the capability.

x   prohibited (excluded) - there is a requirement not to use this capability in the given context.

o.i   qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.

ci   conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table or which is defined in the general condition table below.

i   out-of-scope - this capability is outside the scope of the given specification, and hence irrelevant and not subject to conformance testing. This status is in particular applicable for data fields which are reserved for future use. The structure of such fields has to be supported, but the value is undefined and thus to be ignored.

If a procedure, message/frame, information element or timer/constant are not explicitly listed in any of the following tables these shall be considered as i.

The interpretation of **Category** column in all tables is as follows:

d   falls under item (d) from article 4 of Council directive 91/263/EEC [20];

e   falls under item (e) from article 4 of Council directive 91/263/EEC [20];

f   falls under item (f) from article 4 of Council directive 91/263/EEC [20];

g   falls under item (g) from article 4 of Council directive 91/263/EEC [20].

A.2   Portable Part (PP)

A.2.1   Tables for PP NWK layer

A.2.1.1   Major Capabilities

A.2.1.1.1   Entities

Table A.1: ETS 300 476-1 [11] Table A.12 Entity supported

Item	Category	Entity name	Reference	Status	Support
1	d, e, f	Call control (CC)	5.4.2, 6.1.1, 6.3.1	m	
5	d, f, g	Mobility management (MM)	5.4.2, 6.1.2, 6.3.2	m	
6	f	Link control entity (LCE)	5.4.2, 6.1.3, 6.3.3	m	
7	d, f, g	Management (LLME)	5.4.2, 6.1, 6.3	m	

A.2.1.1.2 CC features

Table A.2: ETS 300 476-1 [11] Table A.13 CC features supported

Item	Category	Call Control features	Reference	Status	Support
1	f	Bell off (Alerting)	5.4.2, 6.1.1.1, 6.1.1.3	m	
2	f	Bell on (Alerting)	5.4.2, 6.1.1.1, 6.1.1.3	m	
5	f	Dialled digits (basic)	5.4.2, 6.1.1.1	m	
7	f	Dialling delimiter	5.4.2, 6.1.1.1	m	
8	f	Dialling delimiter request	5.4.2, 6.1.1.1	m	
10	f	Emergency service access request	5.4.2, 6.1.1.2, 6.3.1.1.2.	m	
11	f	External Handover (inter-cell)	5.4.2, 6.1.2.9, 6.3.2.7	o	
13	f	Go to DTMF (infinite tone length)	6.1.4.3	m	
17	f	Incoming call	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
19	f	Off hook	5.4.2, 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.3.1.1	m	
20	f	On hook (full release)	5.4.2, 6.1.1.4, 6.1.1.5, 6.1.1.6, 6.1.1.7, 6.1.1.8, 6.3.1.2	m	
21	f	Outgoing call	5.4.2, 6.1.1.1, 6.1.1.2, 6.3.1.1.1, 6.3.1.1.2	m	

A.2.1.1.3 MM features

Table A.3: ETS 300 476-1 [11] Table A.14 MM features supported

Item	Category	Mobility Management features	Reference	Status	Support
1		Authentication of FT	5.4.2	x	
2	d, f	Authentication of PT	5.4.2, 6.1.2.1, 6.3.2.1	m	
4	f, g	Encryption activation FT initiated	5.4.2, 6.1.2.6, 6.3.2.6	m	
5	f, g	Encryption activation PT initiated	5.4.2, 6.1.2.9.5.3, 6.3.2.7.5.3	c301	
6	f, g	Encryption deactivation FT initiated	5.4.2, 6.1.2.6, 6.3.2.6	m	
7	f, g	Encryption deactivation PT initiated	5.4.2, 6.1.2.9.5.3, 6.3.2.7.5.3	c301	
8	d, f	Identification of PP	5.4.2, 6.1.2.2, 6.3.2.2	m	
10	d, f	Location de-registration (Detach)	5.4.2, 6.1.2.4, 6.3.2.4	m	
11	d, f	Location registration	5.4.2, 6.1.2.3, 6.3.2.3	m	
16		Subscription registration procedure on-air	5.4.2	x	
20		Terminate access rights PT initiated	5.4.2	x	
23	d, f	Temporary identity assign	5.4.2, 6.1.2.5, 6.3.2.5	m	

c301: IF A.2/11 THEN m ELSE i

A.2.1.1.4 LCE features

Table A.4: ETS 300 476-1 [11] Table A.16 LCE features supported

Item	Category	LCE features	Reference	Status	Support
1	f	Connection oriented Link control (Link control)	5.4.2, 6.1.3, 6.3.3	m	

A.2.1.1.5 Procedures

Table A.5: ETS 300 476-1 [11] Table A.18 CC procedures supported

Item	CC procedures	Reference	Status	Support
1	cc_outgoing_normal_call_request	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
2	cc_outgoing_emergency_call_request	5.4.2, 6.1.1.2, 6.3.1.1.2	m	
3	cc_outgoing_external_handover_request	5.4.2, 6.1.2.9, 6.3.2.7	c501	
5	cc_outgoing_connection_of_U_plane	5.4.2, 6.2.1	m	
6	cc_outgoing_overlap_sending	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
7	cc_outgoing_call_proceeding	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
8	cc_outgoing_call_confirmation	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
9	cc_outgoing_call_connection	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
10	cc_incoming_call_request	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
12	cc_incoming_connection_of_U_plane	5.4.2, 6.2.1	m	
15	cc_incoming_call_confirmation	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
16	cc_incoming_call_connection	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
18	cc_sending_keypad_info	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
19	cc_call_information	5.4.2, 6.1.1.1, 6.1.4.3	m	
20	cc_normal_call_release	5.4.2, 6.1.1.4, 6.1.1.5, 6.3.1.2	m	
22	cc_abnormal_call_release	5.4.2, 6.1.1.6, 6.1.1.7, 6.3.1.2	m	
23	cc_release_collisions	5.4.2, 6.1.1.8	m	
31	cc_timer_p_cc_02_mgt	5.4.2, 6.1.1.4, 6.1.5.2, 6.3.6	m	
32	cc_timer_p_cc_03_mgt	5.4.2, 6.1.5.2, 6.3.6	m	
33	cc_timer_p_cc_04_mgt	5.4.2, 6.1.5.2, 6.3.6	m	
34	cc_timer_p_cc_05_mgt	5.4.2, 6.1.5.2, 6.3.6	m	
40	pt_alerting	5.4.2, 6.1.1.3	m	

c501: IF A.2/11 THEN m ELSE n/a

Table A.6: ETS 300 476-1 [11] Table A.19 MM procedures supported

Item	Mobility Management procedures	Reference	Status	Support
1	mm_identification_of_pt	5.4.2, 6.1.2.2, 6.3.2.2	m	
2	mm_temporary_identity_assignment	5.4.2, 6.1.2.5, 6.3.2.5	m	
3	mm_authentication_of_pt	5.4.2, 6.1.2.1, 6.3.2.1	m	
5	mm_authentication_of_ft	5.4.2	x	
6	mm_location_registration	5.4.2, 6.1.2.3, 6.3.2.3	m	
7	mm_detach	5.4.2, 6.1.2.4, 6.3.2.4	m	
8	mm_location_update	5.4.2, 6.1.2.3, 6.3.2.3	m	
9	mm_obtain_access_rights	5.4.2	x	
10	mm_pt_init_terminate_access_rights	5.4.2	x	
13	mm_pt_init_parameter_retrieval	5.4.2, 6.1.2.9.2, 6.3.2.7.2	c601	
14	mm_ft_init_parameter_retrieval	5.4.2, 6.1.2.1, 6.1.2.3	m	
15	mm_pt_init_cipher_switching	5.4.2, 6.1.2.9.5.3, 6.3.2.7.4.3	c601	
16	mm_ft_init_cipher_switching	5.4.2, 6.1.2.6, 6.3.2.6	m	
18	mm_dck_storing	5.4.2, 6.1.2.1, 6.3.2.1	m	
22	mm_timer_p_mm_access_1_mgt	5.4.2	x	
23	mm_timer_p_mm_access_2_mgt	5.4.2	x	
24	mm_timer_p_mm_auth_1_mgt	5.4.2, 6.1.5.2	m	
26	mm_timer_p_mm_cipher_2_mgt	5.4.2, 6.1.5.2	c601	
27	mm_timer_p_mm_locate_1_mgt	5.4.2, 6.1.5.2, 6.3.2.3	m	

c601: IF A.2/11 THEN m ELSE i

Table A.7: ETS 300 476-1 [11] Table A.23 LCE procedures supported

Item	LCE procedures	Reference	Status	Support
2	lce_indirect_ft_init_link_establishment	5.4.2, 6.1.3	m	
11	lce_timer_lce_01_mgt	5.4.2, 6.1.5.2	m	
12	lce_timer_lce_02_mgt	5.4.2, 6.1.5.2	m	

Table A.8: ETS 300 476-1 [11] Table A.24 LLME procedures supported

Item	LLME procedures	Reference	Status	Support
5	mgt_mm_procedures_priority_mgt	-	m	
6	mgt_mm_cc_coexistance	5.4.2, 6.1	m	
8	mgt_call_ciphering_mgt	5.4.2, 6.1.2.6, 6.1.2.9, 6.3.2.6, 6.3.2.7	m	
9	mgt_external_handover	5.4.2, 6.1.2.9, 6.3.2.7	c801	

c801: IF A.2/11 THEN m ELSE n/a

A.2.1.2 Messages

A.2.1.2.1 Call control messages

Table A.9: ETS 300 476-1 [11] Table A.25 CC sending (P to F) messages supported

Item	CC sending (P to F) Message name	Reference	Status	Support
1	CC-SETUP	6.1.6.2, 6.1.6.2.6, 6.1.6.2.15, 6.1.6.2.16, 6.1.6.2.21	m	
2	CC-INFOrmation	6.1.6.2, 6.1.4.2, 6.1.4.3, 6.1.6.2.10, 6.1.6.2.18, 6.1.6.2.19	m	
5	CC-ALERTING	6.1.6.2, 6.1.6.2.8	m	
6	CC-CONNECT	6.1.6.2, 6.1.6.2.9	m	
7	CC-CONNECT-ACKnowledge	6.1.6.2, 6.1.6.2.22	c901	
8	CC-RELEASE	6.1.6.2, 6.1.6.2.11, 6.1.6.2.12, 6.1.6.2.17	m	
9	CC-RELEASE-COMplete	6.1.6.2, 6.1.6.2.13, 6.1.6.2.14	m	

c901: IF A.2/11 THEN m ELSE i

Table A.10: ETS 300 476-1 [11] Table A.26 CC receiving (F to P) messages supported

Item	CC receiving (F to P) Message name	Reference	Status	Support
1	CC-SETUP	6.1.6.1, 6.1.6.1.11	m	
2	CC-INFOrmation	6.1.6.1, 6.1.4.2, 6.1.4.3, 6.1.6.1.18, 6.1.6.1.20, 6.1.6.1.22, 6.1.6.1.23, 6.1.6.1.24	m	
3	CC-SETUP-ACKnowledge	6.1.6.1, 6.1.1.1	m	
4	CC-CALL-PROCeeding	6.1.6.1, 6.1.6.1.9	m	
5	CC-ALERTING	6.1.6.1, 6.1.6.1.8	m	
6	CC-CONNECT	6.1.6.1, 6.1.6.1.10	m	
7	CC-CONNECT-ACKnowledge	6.1.6.1, 6.1.6.1.17	m	
8	CC-RELEASE	6.1.6.1, 6.1.6.1.12, 6.1.6.1.21, 6.1.6.1.27	m	
9	CC-RELEASE-COMplete	6.1.6.1, 6.1.6.1.13, 6.1.6.1.14, 6.1.6.1.15, 6.1.6.1.16	m	
13	CC-NOTIFY	6.1.6.1, 6.1.4.2.1, 6.1.6.1.19	m	

A.2.1.2.2 Mobility management messages

Table A.11: ETS 300 476-1 [11] Table A.51 MM message sending (P to F) supported

Item	MM message sending (P to F) Message name	Reference	Status	Support
8	AUTHENTICATION-REPLY	6.1.6.2, 6.1.6.2.3	m	
10	CIPHER-REJECT	6.1.6.2, 6.1.2.6	m	
12	CIPHER-SUGGEST	6.1.2.9.5.3, 6.3.2.7.4.3	c1101	
13	DETACH	6.1.6.2, 6.1.6.2.4	m	
14	IDENTITY-REPLY	6.1.6.2, 6.1.6.2.7	m	
19	LOCATE-REQUEST	6.1.6.2, 6.1.6.2.1	m	
22	MM-INFO-REQUEST	6.1.6.2, 6.1.6.2.20, 6.1.6.2.23	c1102	
25	TEMPORARY-IDENTITY-ASSIGN-ACKNOWLEDGE	6.1.6.2, 6.1.6.2.5	m	
26	TEMPORARY-IDENTITY-ASSIGN-REJECT	6.1.6.2, 6.1.2.5	m	

c1101: IF A.6/15 THEN m ELSE i
c1102: IF A.6/13 THEN m ELSE i

Table A.12: ETS 300 476-1 [11] Table A.52 MM message receiving (F to P) supported

Item	MM message receiving (F to P) Message name	Reference	Status	Support
9	AUTHENTICATE-REQUEST	6.1.6.1, 6.1.6.1.1	m	
11	CIPHER-REQUEST	6.1.6.1, 6.1.6.1.5	m	
15	IDENTITY-REQUEST	6.1.6.1, 6.1.6.1.3	m	
17	LOCATE-ACCEPT	6.1.6.1, 6.1.6.1.6	m	
18	LOCATE-REJECT	6.1.6.1, 6.1.6.1.7	m	
20	MM-INFO-ACCEPT	6.1.6.1, 6.1.6.1.26	c1201	
21	MM-INFO-REJECT	6.1.6.1.28	c1201	
23	MM-INFO-SUGGEST	6.1.6.1, 6.1.6.1.2	m	
24	TEMPORARY-IDENTITY-ASSIGN	6.1.6.1, 6.1.6.1.4	m	

c1201: IF A.6/13 THEN m ELSE i

A.2.1.2.3 Link control entity messages

Table A.13: ETS 300 476-1 [11] Table A.126 LCE message sending (P to F) supported

Item	LCE message sending (P to F) Message name	Reference	Status	Support
1	LCE-PAGE-RESPONSE	6.1.6.2, 6.1.6.2.2	m	

Table A.14: ETS 300 476-1 [11] Table A.127 LCE message receiving (F to P) supported

Item	LCE message receiving (F to P) Message name	Reference	Status	Support
3	LCE-REQUEST-PAGE short	6.1.3	m	

A.2.2 Tables for PP DLC layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.2.3 Tables for PP MAC layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.2.4 Tables for PP PHL layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.2.5 Tables for PP Application requirements

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.3   Fixed Part (FP)

This clause shall apply only if the DECT FP is a terminal equipment connected to a public network interface. If the DECT FP is a part of the network (i.e. functionally attached to the GSM MSC) and is therefore not considered to be a terminal equipment this clause shall not apply (see clause 1).

A.3.1   Tables for FP NWK layer

A.3.1.1   Major capabilities

A.3.1.1.1   Entities

Table A.15: ETS 300 476-4 [14] Table A.12 Entity supported

Item	Category	Entity name	Reference	Status	Support
1	d, e, f	Call control (CC)	5.4.2, 6.1.1, 6.3.1	m	
5	d, f, g	Mobility management (MM)	5.4.2, 6.1.2, 6.3.2	m	
6	f	Link control entity (LCE)	5.4.2, 6.1.3, 6.3.3	m	
7	d, f, g	Management (LLME)	5.4.2, 6.1, 6.3	m	

A.3.1.1.2 CC features

Table A.16: ETS 300 476-4 [14] Table A.13 CC features supported

Item	Category	Call Control features	Reference	Status	Support
1	f	Bell off (Alerting)	5.4.2, 6.1.1.1, 6.1.1.3	m	
2	f	Bell on (Alerting)	5.4.2, 6.1.1.1, 6.1.1.3	m	
5	f	Dialled digits (basic)	5.4.2, 6.1.1.1	m	
7	f	Dialling delimiter	5.4.2, 6.1.1.1	m	
8	f	Dialling delimiter request	5.4.2, 6.1.1.1	m	
10	f	Emergency service access request	5.4.2, 6.1.1.2, 6.3.1.1.2.	m	
11	f	External Handover (inter-cell)	5.4.2, 6.1.2.9, 6.3.2.7	o	
13	f	Go to DTMF (infinite tone length)	6.1.4.3	m	
17	f	Incoming call	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
19	f	Off hook	5.4.2, 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.3.1.1	m	
20	f	On hook (full release)	5.4.2, 6.1.1.4, 6.1.1.5, 6.1.1.6, 6.1.1.7, 6.1.1.8, 6.3.1.2	m	
21	f	Outgoing call	5.4.2, 6.1.1.1, 6.1.1.2, 6.3.1.1.1, 6.3.1.1.2	m	

A.3.1.1.3 MM features

Table A.17: ETS 300 476-4 [14] Table A.14 MM features supported

Item	Category	Mobility Management features	Reference	Status	Support
2	d, f	Authentication of PT	5.4.2, 6.1.2.1, 6.3.2.1	m	
3		Authentication of user	5.4.2	x	
4	f, g	Encryption activation FT initiated	5.4.2, 6.1.2.6, 6.3.2.6	m	
5	f, g	Encryption activation PT initiated	5.4.2, 6.1.2.9.5.3, 6.3.2.7.5.3	c1701	
6	f, g	Encryption deactivation FT initiated	5.4.2, 6.1.2.6, 6.3.2.6	m	
7	f, g	Encryption deactivation PT initiated	5.4.2, 6.1.2.9.5.3, 6.3.2.7.5.3	c1701	
8	d, f	Identification of PP	5.4.2, 6.1.2.2, 6.3.2.2	m	
10	d, f	Location de-registration (detach)	5.4.2, 6.1.2.4, 6.3.2.4	m	
11	d, f	Location registration	5.4.2, 6.1.2.3, 6.3.2.3	m	
13		On air key allocation	5.4.2	x	
19		Terminate access rights FT initiated	5.4.2	x	
21		ZAP	5.4.2	x	
23	d, f	Temporary identity assign	5.4.2, 6.1.2.5, 6.3.2.5	m	

c1701: IF A.16/11 THEN m ELSE i

A.3.1.1.4 LCE features

Table A.18: ETS 300 476-4 [14] Table A.16 LCE features supported

Item	Category	LCE features	Reference	Status	Support
1	f	Connection oriented Link control (Link control)	6.1.3, 6.3.3	m	

A.3.1.1.5 Procedures

Table A.19: ETS 300 476-4 [14] Table A.18 CC procedures supported

Item	CC procedures	Reference	Status	Support
1	cc_outgoing_normal_call_request	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
2	cc_outgoing_emergency_call_request	5.4.2, 6.1.1.2, 6.3.1.1.2	m	
3	cc_outgoing_external_handover_request	5.4.2, 6.1.2.9, 6.3.2.7	c1901	
5	cc_outgoing_connection_of_U_plane	5.4.2, 6.2.1	m	
6	cc_outgoing_overlap_sending	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
7	cc_outgoing_call_proceeding	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
8	cc_outgoing_call_confirmation	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
9	cc_outgoing_call_connection	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
10	cc_incoming_call_request	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
12	cc_incoming_connection_of_U_plane	5.4.2, 6.2.1	m	
15	cc_incoming_call_confirmation	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
16	cc_incoming_call_connection	5.4.2, 6.1.1.3, 6.3.1.1.3	m	
18	cc_sending_keypad_info	5.4.2, 6.1.1.1, 6.3.1.1.1	m	
19	cc_call_information	5.4.2, 6.1.1.3, 6.1.4.2	m	
20	cc_normal_call_release	5.4.2, 6.1.1.4, 6.1.1.5, 6.3.1.2	m	
22	cc_abnormal_call_release	5.4.2, 6.1.1.6, 6.1.1.7, 6.3.1.2	m	
23	cc_release_collisions	5.4.2, 6.1.1.8	m	
31	cc_timer_f_cc_02_mgt	5.4.2, 6.1.1.5, 6.1.1.8, 6.1.5.2, 6.3.6	m	
32	cc_timer_f_cc_03_mgt	5.4.2, 6.1.1.3, 6.1.1.8, 6.1.5.2, 6.3.6	m	
33	cc_timer_f_cc_04_mgt	5.4.2, 6.1.1.1, 6.1.1.3, 6.1.1.8, 6.1.5.2, 6.3.6	m	
34	cc_timer_f_cc_01_mgt	5.4.2, 6.1.1.1, 6.1.1.8, 6.1.5.2, 6.3.6	m	
40	pt_alerting	5.4.2, 6.1.1.3	m	

c1901: IF A.16/11 THEN m ELSE n/a

Table A.20: ETS 300 476-4 [14] Table A.19 MM procedures supported

Item	Mobility Management procedures	Reference	Status	Support
1	mm_identification_of_pt	5.4.2, 6.1.2.2, 6.3.2.2	m	
2	mm_temporary_identity_assignment	5.4.2, 6.1.2.5, 6.3.2.5	m	
3	mm_authentication_of_pt	5.4.2, 6.1.2.1, 6.3.2.1	m	
4	mm_authentication_of_user	5.4.2	x	
6	mm_location_registration	5.4.2, 6.1.2.3, 6.3.2.3	m	
7	mm_detach	5.4.2, 6.1.2.4, 6.3.2.4	m	
8	mm_location_update	5.4.2, 6.1.2.3, 6.3.2.3	m	
11	mm_ft_init_terminate_access_rights	5.4.2	x	
12	mm_key_allocation	5.4.2	x	
13	mm_pt_init_parameter_retrieval	5.4.2, 6.1.2.9.2, 6.3.2.7.2	c2001	
14	mm_ft_init_parameter_retrieval	5.4.2, 6.1.2.1, 6.1.2.3	m	
15	mm_pt_init_cipher_switching	5.4.2, 6.1.2.9.5.3, 6.3.2.7.4.3	c2001	
16	mm_ft_init_cipher_switching	5.4.2, 6.1.2.6, 6.3.2.6	m	
17	mm_zap_increment	5.4.2	x	
18	mm_dck_storing	5.4.2, 6.1.2.1, 6.3.2.1	m	
23	mm_timer_f_mm_ident_1_mgt	5.4.2, 6.1.5.2	m	
25	mm_timer_f_mm_auth_1_mgt	5.4.2, 6.1.5.2	m	
26	mm_timer_f_mm_cipher_1_mgt	5.4.2, 6.1.5.2	m	
28	mm_timer_f_mm_ident_2_mgt	5.4.2, 6.1.5.2	m	

c2001: IF A.16/11 THEN m ELSE i

Table A.21: ETS 300 476-4 [14] Table A.23 LCE procedures supported

Item	LCE procedures	Reference	Status	Support
2	lce_indirect_ft_init_link_establishment	5.4.2, 6.1.3	m	
11	lce_timer_lce_01_mgt	5.4.2, 6.1.5.2	m	
12	lce_timer_lce_02_mgt	5.4.2, 6.1.5.2	m	
13	lce_timer_lce_03_mgt	5.4.2, 6.1.3, 6.1.5.2	m	

Table A.22: ETS 300 476-1 [11] Table A.24 LLME procedures supported

Item	LLME procedures	Reference	Status	Support
6	mgt_mm_cc_coexistance	5.4.2, 6.1	m	
8	mgt_call_ciphering_mgt	5.4.2, 6.1.2.6, 6.1.2.9, 6.3.2.6, 6.3.2.7	m	
9	mgt_external_handover	5.4.2, 6.1.2.9, 6.3.2.7	c2201	

c2201: IF A.16/11 THEN m ELSE n/a

A.3.1.2   Messages

A.3.1.2.1   Call control messages

Table A.23: ETS 300 476-4 [14] Table A.25 CC receiving (P to F) messages supported

Item	CC receiving (P to F) Message name	Reference	Status	Support
1	CC-SETUP	6.1.6.2, 6.1.6.2.6, 6.1.6.2.15, 6.1.6.2.16, 6.1.6.2.22	m	
2	CC-INFOrmation	6.1.6.2, 6.1.4.2, 6.1.4.3, 6.1.6.2.10, 6.1.6.2.18, 6.1.6.2.19	m	
5	CC-ALERTING	6.1.6.2, 6.1.6.2.8	m	
6	CC-CONNECT	6.1.6.2, 6.1.6.2.9	m	
7	CC-CONNECT-ACKnowledge	6.1.6.2, 6.1.6.2.22	c2301	
8	CC-RELEASE	6.1.6.2, 6.1.6.2.11, 6.1.6.2.12, 6.1.6.2.17	m	
9	CC-RELEASE-COMplete	6.1.6.2, 6.1.6.2.13, 6.1.6.2.14	m	

c2301: IF A.16/11 THEN m ELSE i

Table A.24: ETS 300 476-4 [14] Table A.26 CC sending (F to P) messages supported

Item	CC sending (F to P) Message name	Reference	Status	Support
1	CC-SETUP	6.1.6.1, 6.1.6.1.11	m	
2	CC-INFOrmation	6.1.6.1, 6.1.4.2, 6.1.4.3, 6.1.6.1.18, 6.1.6.1.20, 6.1.6.1.22, 6.1.6.1.23, 6.1.6.1.24	m	
3	CC-SETUP-ACKnowledge	6.1.6.1, 6.1.1.1	m	
4	CC-CALL-PROCeeding	6.1.6.1, 6.1.6.1.9	m	
5	CC-ALERTING	6.1.6.1, 6.1.6.1.8	m	
6	CC-CONNECT	6.1.6.1, 6.1.6.1.10	m	
7	CC-CONNECT-ACKnowledge	6.1.6.1, 6.1.6.1.17	m	
8	CC-RELEASE	6.1.6.1, 6.1.6.1.12, 6.1.6.1.21, 6.1.6.1.27	m	
9	CC-RELEASE-COMplete	6.1.6.1, 6.1.6.1.13, 6.1.6.1.14, 6.1.6.1.15, 6.1.6.1.16	m	
13	CC-NOTIFY	6.1.6.1, 6.1.4.2.2, 6.1.6.1.19	m	

A.3.1.2.2 Mobility management messages

Table A.25: ETS 300 476-4 [14] Table A.51 MM message receiving (P to F) supported

Item	MM message sending (P to F) Message name	Reference	Status	Support
1	ACCESS-RIGHTS-ACCEPT	5.4.2	x	
2	ACCESS-RIGHTS-REJECT	5.4.2	x	
8	AUTHENTICATION-REPLY	6.1.6.2, 6.1.6.2.3	m	
10	CIPHER-REJECT	6.1.6.2, 6.1.2.6	m	
12	CIPHER-SUGGEST	6.3.2.7.4.3, 6.1.2.9.5.3	c2501	
13	DETACH	6.1.6.2, 6.1.6.2.4	m	
14	IDENTITY-REPLY	6.1.6.2, 6.1.6.2.7	m	
16	KEY_ALLOCATE	5.4.2	x	
19	LOCATE-REQUEST	6.1.6.2, 6.1.6.2.1	m	
22	MM-INFO-REQUEST	6.1.6.2, 6.1.6.2.20, 6.1.6.2.23	c2502	
25	TEMPORARY-IDENTITY-ASSIGN-ACKNOWLEDGE	6.1.6.2, 6.1.6.2.5	m	
26	TEMPORARY-IDENTITY-ASSIGN-REJECT	6.1.6.2, 6.1.2.5	m	

c2501: IF A.20/15 THEN m ELSE i
c2502: IF A.20/13 THEN m ELSE i

Table A.26: ETS 300 476-4 [14] Table A.52 MM message sending (F to P) supported

Item	MM message receiving (F to P) Message name	Reference	Status	Support
9	AUTHENTICATE-REQUEST	6.1.6.1, 6.1.6.1.1	m	
11	CIPHER-REQUEST	6.1.6.1, 6.1.6.1.5	m	
15	IDENTITY-REQUEST	6.1.6.1, 6.1.6.1.3	m	
17	LOCATE-ACCEPT	6.1.6.1, 6.1.6.1.6	m	
18	LOCATE-REJECT	6.1.6.1, 6.1.6.1.7	m	
20	MM-INFO-ACCEPT	6.1.6.1, 6.1.6.1.26	c2601	
21	MM-INFO-REJECT	6.1.6.1, 6.1.6.1.28	c2601	
23	MM-INFO-SUGGEST	6.1.6.1, 6.1.6.1.2	m	
24	TEMPORARY-IDENTITY-ASSIGN	6.1.6.1, 6.1.6.1.4	m	

c2601: IF A.20/13 THEN m ELSE i

A.3.1.2.3 Link control entity messages

Table A.27: ETS 300 476-4 [14] Table A.126 LCE message receiving (P to F) supported

Item	LCE message sending (P to F) Message name	Reference	Status	Support
1	LCE-PAGE-RESPONSE	6.1.6.2, 6.1.6.2.2	m	

Table A.28: ETS 300 476-4 [14] Table A.127 LCE message sending (F to P) supported

Item	LCE message receiving (F to P) Message name	Reference	Status	Support
3	LCE-REQUEST-PAGE short	5.4.2, 6.1.3, 6.3.3	m	

A.3.2 Tables for FP DLC layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.3.3 Tables for FP MAC layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.3.4 Tables for FP PHL layer

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

A.3.5 Tables for FP application requirements

In addition to the requirement tables for GAP as defined in TBR 22 [25] no DECT/GSM specific requirement tables apply.

Annex B (informative):   Bibliography

1)   ETR 022 (1991): "Advanced Testing Methods (ATM); Vocabulary of terms used in communications protocols conformance testing".

2)   CEPT Recommendation T/SGT SF2 (89) 6/0: "Draft Recommendation T/SF Services and Facilities of Digital European Cordless Telecommunications".

3)   ETR 015: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Reference document".

4)   ETR 041: "Transmission and Multiplexing (TM); Digital European Cordless Telecommunications (DECT); Transmission aspects 3,1 kHz telephony Interworking with other networks".

5)   ETR 043: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Services and Facilities requirements specification".

6)   ETR 056: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); System description document".

History

Document history		
February 1997	Public Enquiry	PE 9724: 1997-02-14 to 1997-06-13