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**Digital Enhanced Cordless Telecommunications (DECT);  
Common Interface (CI) Test Case Library (TCL);  
Part 8: Test Suite Structure (TSS) and Test Purposes (TP) -  
Network (NWK) layer - Fixed radio Termination (FT)**

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## Foreword

This final draft second edition European Telecommunication Standard (ETS) has been produced by the Digital Enhanced Cordless Telecommunications (DECT) Project of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Voting phase of the ETSI standards approval procedure.

This ETS comprises nine parts, as follows:

- Part 1: "Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer";
- Part 2: "Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Portable radio Termination (PT)";
- Part 3: "Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Fixed radio Termination (FT)";
- Part 4: "Test Suite Structure (TSS) and Test Purposes (TP) - Data Link Control (DLC) layer";
- Part 5: "Abstract Test Suite (ATS) - Data Link Control (DLC) layer";
- Part 6: "Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Portable radio Termination (PT)";
- Part 7: "Abstract Test Suite (ATS) for Network (NWK) layer - Portable radio Termination (PT)";
- Part 8: "Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Fixed radio Termination (FT)";**
- Part 9: "Abstract Test Suite (ATS) for Network (NWK) layer - Fixed radio Termination (FT)".

<b>Proposed transposition dates</b>	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

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## 1 Scope

This European Telecommunication Standard (ETS) contains the test specification for the Digital Enhanced Cordless Telecommunications (DECT) (ETS 300 175 [1] to [8]).

The objective of this test specification is to provide a basis for approval tests for DECT equipment giving a high probability of air interface inter-operability between different manufacturer's DECT equipment. This test specification defines the Test Suite Structure (TSS) and Test Purposes (TP) for testing of the Network (NWK) layer at the Fixed radio Termination (FT).

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [13]) as well as the ETSI rules for conformance testing (ETS 300 406 [10]) are used as a basis for the test methodology.

Test specifications for the Physical layer (PHL) are provided in other DECT standards.

## 2 Normative references

This ETS 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 ETS 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: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".
- [2] ETS 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical layer (PHL)".
- [3] ETS 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".
- [4] ETS 300 175-4: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer".
- [5] ETS 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".
- [6] ETS 300 175-6: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".
- [7] ETS 300 175-7: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security features".
- [8] ETS 300 175-8: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech coding and transmission".
- [9] ETS 300 323-1: "Digital European Cordless Telecommunications (DECT) Public Access Profile (PAP) test specification Part 1: Overview".
- [10] ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [11] ETS 300 444: "Digital European Cordless Telecommunications (DECT); Generic Access Profile (GAP)".
- [12] ETS 300 497-3 (1996): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL); Part 3: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Fixed radio Termination (FT)".

- [13] ISO/IEC 9646-1 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts". (See also CCITT Recommendation X.290 (1991)).
- [14] ISO/IEC 9646-2 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification". (See also CCITT Recommendation X.291 (1991)).
- [15] 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).
- [16] TBR 6: "Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements".
- [17] TBR 10: "Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements; Telephony applications".
- [18] TBR 11 (1992): "Attachment requirements for terminal equipment for Digital European Cordless Telecommunications (DECT) Public Access Profile (PAP) applications".
- [19] TBR 22: "Attachment requirements for terminal equipment for Digital Enhanced Cordless Telecommunications (DECT) Generic Access Profile (GAP) applications".

### 3 Definitions, symbols and abbreviations

#### 3.1 Definitions

For the purposes of this ETS, the definitions given in ISO/IEC 9646-1 [13], ISO/IEC 9646-2 [14], ETS 300 175-1 [1], ETS 300 175-5 [5], ETS 300 175-6 [6] and ETS 300 175-7 [7] apply.

#### 3.2 Abbreviations

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

AC	Authentication Code
AR	Access Rights
AU	Authentication
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
CA	Capability
CC	Call Control
CI	Call Information
CISS	Call Independent Supplementary Services
CLMS	Connectionless Message Services
COMS	Connection Oriented Message Services
CR	Call Release
CTS	Conformance Testing Services
DECT	Digital Enhanced Cordless Telecommunication
FT	Fixed radio termination
IC	Incoming Call
ID	Identification
IPUI	International Portable User Identity
IUT	Implementation Under Test
KA	Key Allocation
LC	Link Control
LE	Connection oriented Link Establishment
LL	Connectionless Link control



LO	Location
LR	Connection oriented Link Release
LS	Connection oriented Link Suspend and resume
LT	Lower Tester
ME	Management Entity
MM	Mobility Management
MO	Connection Oriented Message Services
NWK	Network layer
OC	Outgoing Call
PARK	Portable Access Rights Key
PDU	Protocol Data Unit
PHL	Physical layer
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation Extra Information for Testing
PM	Packet Mode
PR	Parameter Retrieval
PT	Portable radio termination
RS	Call Related Supplementary Services
SC	Service Change
TP	Test Purposes
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UAK	User Authentication Key

## 4 Test Suite Structure (TSS)

### 4.1 TSS overview

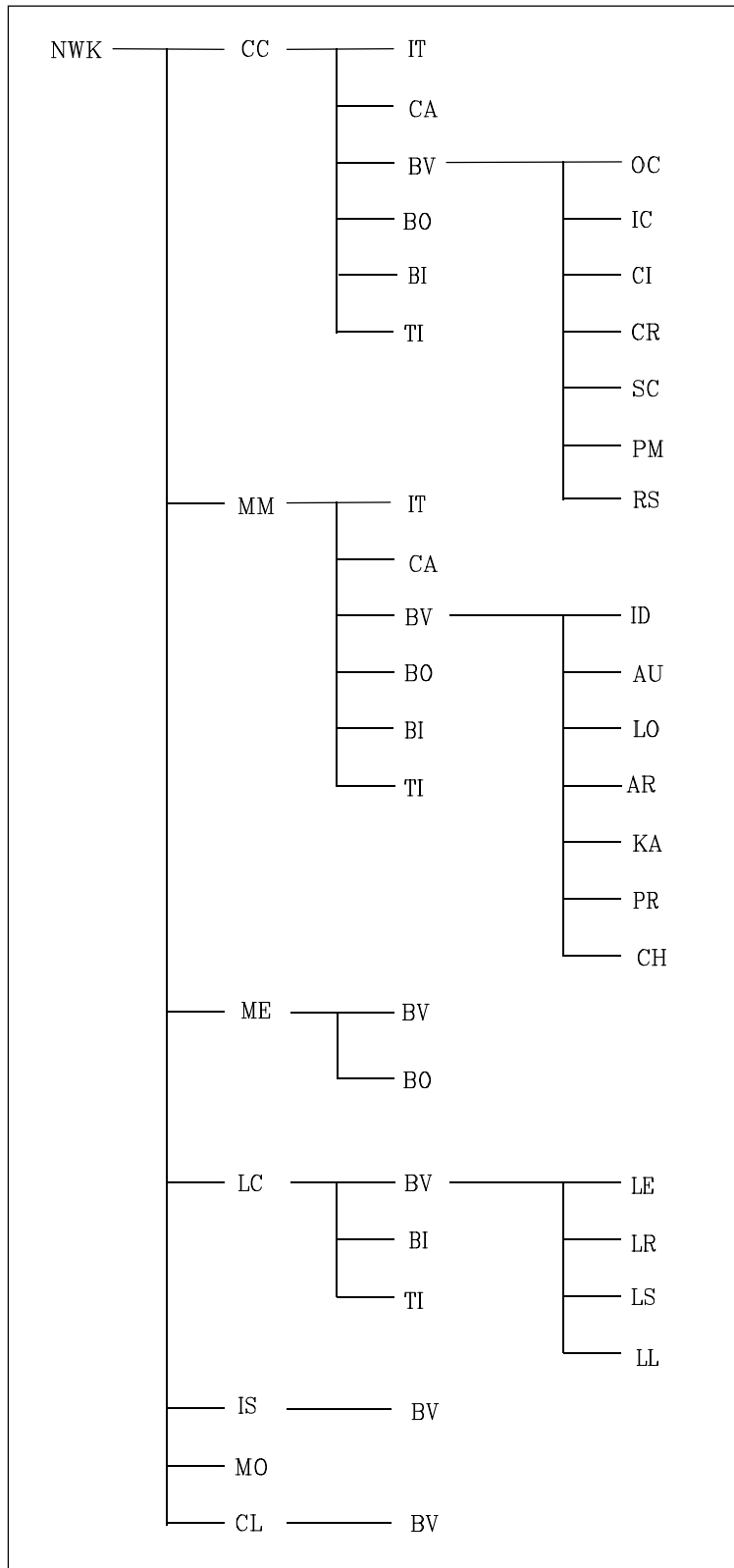


Figure 1: TSS

## **4.2 Test groups**

### **4.2.1 Protocol groups**

#### **4.2.1.1 Call Control (CC)**

Reference: ETS 300 175-5 [5], subclause 5.2 and clause 9

#### **4.2.1.2 Mobility Management (MM)**

Reference: ETS 300 175-5 [5], subclause 5.6 and clause 13.

#### **4.2.1.3 Lower layer Management Entity (ME)**

Reference: ETS 300 175-5 [5], clause 15.

#### **4.2.1.4 Link Control (LC)**

Reference: ETS 300 175-5 [5], subclause 5.7 and clause 14.

#### **4.2.1.5 Call Independent Supplementary Services (CISS)**

Reference: ETS 300 175-5 [5], subclauses 5.3 and 10.4.2.2.

#### **4.2.1.6 Connection Oriented Message Services (COMS)**

Reference: ETS 300 175-5 [5], subclause 5.4 and clause 11.

#### **4.2.1.7 Connectionless Message Services (CLMS)**

Reference: ETS 300 175-5 [5], subclause 5.5 and clause 12.

### **4.2.2 Main test groups**

#### **4.2.2.1 Basic Interconnection tests (IT)**

IT tests provide limited testing of an Implementation Under Test (IUT) in order to establish that there is sufficient conformance for possible interconnection without trying to perform thorough testing. In particular, only those test cases will be executed which will assure the sufficient interconnection between the IUT of the NWK layer and the test system exists, so that the rest of the test cases can then be put into execution.

#### **4.2.2.2 Capability tests (CA)**

CA tests provide limited testing that the observable capabilities of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the Protocol Implementation Conformance Statement / Protocol Implementation Extra Information for Testing (PICS/PIXIT). In particular, this test group can be regarded as a set of spot checks for all the capabilities of the IUT stated in the PICS/PIXIT. Scope of the test group is the observable capabilities of the IUT with respect to NWK layer connection, call control, and the mobility management.

#### **4.2.2.3 Valid Behaviour tests (BV)**

BV group tests an IUT in response to valid behaviour of the test system. "Valid" means that a test event is syntactically and contextually correct. All test cases in the valid behaviour group are intended to verify as thoroughly as possible the various functions of the protocol.

#### 4.2.2.4 Invalid Behaviour tests (BI)

BI group is intended to verify that the IUT is able to react properly in case an invalid protocol data unit (message) occurring. Invalid Protocol Data Unit (PDU) here means syntactically or semantically invalid test events generated by the test system. A syntactically or semantically invalid test event regardless of the current state is not allowed.

#### 4.2.2.5 Inopportune Behaviour tests (BO)

BO test group is intended to verify that the IUT is able to react properly in case an inopportune test event occurring. Such an event is syntactically correct, but occurs when it is not allowed.

#### 4.2.2.6 Timer expiry and counter mismatch tests (TI)

Different timers and counters are defined to supervise the various state transitions. This test subgroup is intended to verify that the IUT is reacting properly to an expiry of one of the timers or counters mismatch.

## 5 Test Purposes (TP)

Each test case is allocated directly under a defined TP.

### 5.1 Introduction

#### 5.1.1 TP definition conventions

The TP are defined following particular rules as shown in the table 1.

**Table 1: TP definition rules**

TP Id according to the TP naming conventions	Reference Initial condition Stimulus Expected behaviour
TP Id:	the TP Id is a unique identifier it shall be specified according to the TP naming conventions defined in the subclause below.
Reference:	the reference should contain the references of the subject to be validated by the actual TP (specification reference, clause, paragraph).
Condition:	the condition defines in which initial state the IUT has to be to apply the actual TP.
Stimulus:	the stimulus defines the test event to which the TP is related.
Expected behaviour:	definition of the events that are expected from the IUT to conform to the base specification.

#### 5.1.2 References

This subclause defines the use of references given in the TP. The structure provides the interrelationship with:

- the source ETS giving the clause/subclause reference;
- the profile ETS giving the clause/subclause reference; and
- the cross reference to the output of the Conformance Testing Services (CTS) 5 project (see annex A).

### 5.1.3 TP naming conventions

The identifier of the TP is built according to table 2:

**Table 2: TP naming convention**

TP/<rt>/<fm>/<x>/<s>/<nn>		
<rt> = type of radio termination	FT	Fixed radio Termination
<fm> = functional module	CC	Call Control
	MM	Mobility Management
	ME	Lower Layer Management Entity
	LC	Link Control Entity
	IS	Call Independent Supplementary Services
	MO	Connection Oriented Message Service
	CL	Connectionless Message Service
x = Type of testing	IT	Basic Interconnection Tests
	CA	Capability Tests
	BV	Valid Behaviour Tests
	BO	Inopportune Behaviour Tests
	BI	Invalid Behaviour Tests
	TI	Timer expiry and counter mismatch tests
s = test subgroup	OC	Outgoing Call establishment
	IC	Incoming Call establishment
	CI	Call Information
	CR	Call Release
	SC	Service Change
	PM	Packet Mode
	RS	Call Related Supplementary services
	ID	Identification
	AU	Authentication
	LO	Location
	AR	Access Rights
	KA	Key Allocation
	PR	Parameter Retrieval
	CH	Ciphering
	LE	Connection oriented Link Establishment
LR	Connection oriented Link Release	
LS	Connection oriented Link Suspend and resume	
LL	Connectionless Link control	
<nn> = sequential number	(01-99)	Test Purpose Number

## 5.2 CC test purposes

Test group objectives:

To check the behaviour of the CC module of the IUT.

Subgroups:

- IT;
- CA;
- BV;
- BO;
- BI;
- TI.

### 5.2.1 CC/IT test purposes

There are no test purposes defined for this group in this ETS.

### 5.2.2 CC/CA test purposes

There are no test purposes defined for this group in this ETS.

### 5.2.3 CC/BV test purposes

Subgroups:

- OC;
- IC;
- CI;
- CR;
- SC;
- PM;
- RS.

**5.2.3.1 CC/BV/OC test purposes**

Test subgroup objectives:

To check the IUT's behaviours to setup an outgoing call.

Test purposes:

TP/FT/CC/BV/OC-01	Reference: ETS 300 175-5 [5], subclauses 9.3.1.4 and 9.3.1.6, <b>ETS 300 444 [11], subclause 8.1, figure 1</b> Initial state: F-00 Verify that the IUT is able to perform a CC-state transition from state F-00 to state F-10 for an outgoing normal call, using the piece-wise method to transfer dialling information.
TP/FT/CC/BV/OC-02	Reference: ETS 300 175-5 [5], subclauses 9.3.1.4 and 9.3.1.6 Initial state: F-00 Verify that the IUT is able to perform a CC-state transition from state F-00 to state F-10 for an outgoing normal call set-up with en-block dialling in {CC-SETUP} message.
TP/FT/CC/BV/OC-03	Reference: ETS 300 175-5 [5], subclauses 9.3.1 Initial state: F-00 Verify that the IUT is able, prior to subscription, to perform a CC-state transition from state F-00 to state F-10 for an outgoing emergency call set-up with en-block dialling in {CC-SETUP} message.
TP/FT/CC/BV/OC-04	Reference: ETS 300 175-5 [5], subclauses 9.3.1 Initial state: F-00 Verify that the IUT is able, when it has a subscription record for the requesting PT, to perform a CC-state transition from the F-00 state to F-10 state for an outgoing emergency call set-up with en-block dialling in {CC-SETUP} message.
TP/FT/CC/BV/OC-05	Reference: ETS 300 175-5 [5], subclauses 9.3.1 Initial state: F-00 Verify that the IUT is able, prior to subscription, to perform a CC-state transition from state F-00 to state F-10 for an outgoing emergency call set-up with piece-wise dialling.

**5.2.3.2 CC/BV/IC test purposes**

Test subgroup objectives:

To check the IUT's behaviours to setup an incoming call.

Test purposes:

TP/FT/CC/BV/IC-01	Reference: ETS 300 175-5 [5], subclause 9.3.2, <b>ETS 300 444 [11], subclause 8.11, figure 28</b> Initial state: F-00 Verify that the IUT is able to perform an incoming call via the states F-06 and F-07 to the state F-10.
TP/FT/CC/BV/IC-02	Reference: ETS 300 175-5 [5], subclause 9.3.2. Initial state: F-00 Verify that the IUT is able to perform an incoming call via state F-06 directly to the state F-10.

## 5.2.3.3 CC/BV/CI test purposes

Test subgroup objectives:

To check the IUT's behaviours for information transfer.

Test purposes:

TP/FT/CC/BV/CI-01	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1, <b>ETS 300 444 [11], subclause 8.14</b></p> <p>Initial state: F-00</p> <p>Verify that the IUT is able to send the &lt;&lt;SIGNAL&gt;&gt; information element in case of incoming call to the PT. This information element can either be in the {CC-SETUP} or in successive {CC-INFO} message.</p>
TP/FT/CC/BV/CI-02	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-02</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "12"H (goto pulse), the IUT from that moment on transfers dialling information to the network simulator, using pulse (decadic) dialling (feature N.23 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-03	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-10</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "12"H (goto pulse), the IUT from that moment on transfers dialling information to the network simulator, using pulse (decadic) dialling (feature N.23 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-04	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-02</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "05H" (dialling pause), it sends a dialling pause to the network simulator (feature N.7 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-05	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-10</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "05H" (dialling pause), it sends a dialling pause to the network simulator (feature N.7 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-06	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-02</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "14H" (goto DTMF, defined tone length), the IUT from that moment on transfers dialling information to the network simulator, using DTMF with defined tone length (feature N.6 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-07	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-10</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "14H" (goto DTMF, defined tone length), the IUT from that moment on transfers dialling information to the network simulator, using DTMF with defined tone length (feature N.6 in ETS 300 444 [11]).</p>



TP/FT/CC/BV/CI-08	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-02</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "16H" (goto DTMF, infinite tone length), the IUT from that moment on transfers dialling information to the network simulator, using DTMF with infinite tone length (feature N.22 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-09	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-10</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing keypad-info "16H" (goto DTMF, infinite tone length), the IUT from that moment on transfers dialling information to the network simulator, using DTMF with infinite tone length (feature N.22 in ETS 300 444 [11]).</p>
TP/FT/CC/BV/CI-10	<p>Reference: ETS 300 175-5 [5], subclause 9.3.1.5 <b>ETS 300 444 [11], subclause 8.10, table 20</b></p> <p>Initial state: F-10</p> <p>Verify that when the IUT receives a {CC-INFO} message with a &lt;&lt;MULTI-KEYPAD&gt;&gt; information element containing the basic digits (0-9, star, hash mark), it transfers this information correctly to the network simulator (feature N.4 in ETS 300 444 [11]).</p>

**5.2.3.4 CC/BV/CR test purposes**

Test subgroup objectives:

To check the IUT's behaviours to release an outgoing and incoming call.

Test purposes:

TP/FT/CC/BV/CR-01	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-02 Verify that the IUT is able to perform an IUT initiated normal release.
TP/FT/CC/BV/CR-02	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-10 Verify that the IUT is able to perform an IUT initiated normal release.
TP/FT/CC/BV/CR-03	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-07 Verify that the IUT is able to perform an IUT initiated normal release.
TP/FT/CC/BV/CR-04	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-02 Verify that the IUT, after part of dialling information is sent, is able to perform a PT initiated normal release.
TP/FT/CC/BV/CR-05	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-10 Verify that the IUT is able to perform a PT initiated normal release.
TP/FT/CC/BV/CR-06	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7</b> Initial state: F-07 Verify that the IUT is able to perform a PT initiated normal release.
TP/FT/CC/BV/CR-07	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.8, figure 24</b> Initial state: F-07 Verify that the IUT is able to perform a PT initiated abnormal release.
TP/FT/CC/BV/CR-08	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.8, figure 24</b> Initial state: F-10 Verify that the IUT is able to perform a PT initiated abnormal release.
TP/FT/CC/BV/CR-09	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.8, figure 24</b> Initial state: F-06 Verify that the IUT is able to perform a PT initiated abnormal release.
TP/FT/CC/BV/CR-10	Reference: ETS 300 175-5 [5], subclause 14.2.7, <b>ETS 300 444 [11], subclause 8.9</b> Initial state: F-10 Verify that the IUT is able to perform a PT initiated partial release.

**5.2.3.5 CC/BV/SC test purposes**

There are no test purposes defined for this group in this ETS.

**5.2.3.6 CC/BV/PM test purposes**

There are no test purposes defined for this group in this ETS.

**5.2.3.7 CC/BV/RS test purposes**

Test subgroup objectives:

To check the IUT's behaviour during any call related procedures.

Test purposes:

TP/FT/CC/BV/RS-07	Reference: ETS 300 175-5 [5], subclause 10.3, <b>ETS 300 444 [11], subclause 8.10, table 20.</b> Initial state: F-10 To verify the IUT is able to transmit the <<calling party number>> information element in the {{CC-SETUP} message providing the PP with the calling party number information before accepting the call (feature N.30)
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**5.2.4 CC/BO test purposes**

Test group objectives:

To check the CC of the IUT in response to the messages that are syntactically correct but not allowed to occur in some states of the CC procedures.

Test purposes:

TP/FT/CC/BO-01	Reference: ETS 300 175-5 [5], subclause 17.4.1, <b>ETS 300 444 [11], subclause 6.9.4.</b> Initial state: F-02 Verify that the IUT ignores the unexpected message {CC-SETUP}
TP/FT/CC/BO-02	Reference: ETS 300 175-5 [5], subclause 9.5.3, <b>ETS 300 444 [11], subclause 8.7.2.1, figure 21.</b> Initial state: F-19 Verify that the IUT is able to react correctly on a release collision, in the sense that upon reception of a {CC-RELEASE} message in state F-19, no {CC-RELEASE-COM} message is sent back, and the call is cleared.

**5.2.5 CC/BI test purposes**

Test group objectives:

To check the Call Control module of the IUT in response to invalid messages.

Test purposes:

TP/FT/CC/BI-01	Reference: ETS 300 175-5 [5], subclause 17.6.1, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: F-00 Verify that the IUT sends a {CC-RELEASE-COM} message on receipt of a {CC-SETUP} message without a mandatory information element
TP/FT/CC/BI-02	Reference: ETS 300 175-5 [5], subclause 17.6.2, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: F-00 Verify that the IUT sends a {CC-RELEASE-COM} message on receipt of a {CC-SETUP} message containing a mandatory information element with invalid contents
TP/FT/CC/BI-03	Reference: ETS 300 175-5 [5], subclause 17.4.1, <b>ETS 300 444 [11], subclause 6.9.4.</b> Initial state: F-00 Verify that the IUT ignores an unrecognised message, constructed and a {CC-SETUP} but with one bit different in the <message type>

**5.2.6 CC/TI test purposes**

Test group objectives:

To verify that the IUT is reacting properly to an expiry of one of the timers or counters mismatch.

Test purposes:

TP/FT/CC/TI-01	Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.3.2.3,</b> Initial state: F-02 Verify that the IUT, after having started timer F-<CC.01>, sends a {CC-RELEASE} message when the timer expires after the defined time. The {CC-RELEASE} message should arrive within the allowed margin time of $\pm 5\%$
TP/FT/CC/TI-02	Reference: ETS 300 175-5 [5], subclause 9.3.1.5, <b>ETS 300 444 [11], subclause 8.3.2.3, figure 12</b> Initial state: F-02 Verify that the IUT is able to restart the timer F-<CC.01>, on receipt of a {CC-INFO} message
TP/FT/CC/TI-03	Reference: ETS 300 175-5 [5], subclause 9.5.1, <b>ETS 300 444 [11], subclause 8.7.1.2</b> Initial state: F-19 Verify that the IUT, after having started timer F-<CC.02>, sends a {CC-RELEASE-COM} message when the timer expires after the defined time. The {CC-RELEASE-COM} message should arrive within the allowed margin time of $\pm 5\%$
TP/FT/CC/TI-04	Reference: ETS 300 175-5 [5], subclause 9.3.2, <b>ETS 300 444 [11], subclause 8.12.1.1</b> Initial state: F-06 Verify that the IUT, after having started timer F-<CC.03>, sends a {CC-RELEASE-COM} message when the timer expires after the defined time. The {CC-RELEASE-COM} message should arrive within the allowed margin time of $\pm 5\%$

### 5.3 MM test purposes

Test group objectives:

To check the behaviour of the MM module of the IUT. Most test cases in this group are testing the MM while the CC is in null state or active state.

Subgroups:

- IT;
- CA;
- BV;
- BO;
- BI;
- TI.

#### 5.3.1 MM/IT test purposes

There are no test purposes defined for this group in this ETS.

#### 5.3.2 MM/CA test purposes

There are no test purposes defined for this group in this ETS.

#### 5.3.3 MM/BV test purposes

Subgroups:

- ID;
- AU;
- LO;
- AR;
- KA;
- PR;
- CH.

##### 5.3.3.1 MM/BV/ID test purposes

Test subgroup objectives:

To check the IUT's valid behaviour of identity request procedure.

Test purposes:

TP/FT/MM/BV/ID-01	Reference: ETS 300 175-5 [5], subclause 13.2.1, <b>ETS 300 444 [11], subclause 8.19</b> Initial state: Selected in PIXIT Verify that when the basic IUT initiated identity request procedure is invoked on the IUT, the IUT is able to perform this procedure correctly.
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## 5.3.3.2 MM/BV/AU test purposes

Test subgroup objectives:

To check the IUT's valid behaviour of the authentication procedure.

Test purposes:

TP/FT/MM/BV/AU-01	Reference: ETS 300 175-5 [5], subclause 13.3.1, <b>ETS 300 444 [11], subclause 8.21</b> Initial state: Selected in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of the authentication of PT procedure (PT has not stored ZAP value and service class information).
TP/FT/MM/BV/AU-02	Reference: ETS 300 175-5 [5], subclause 13.3.1, <b>ETS 300 444 [11], subclause 8.23, figure 49</b> Initial state: Selected in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of the procedure incrementing the ZAP value, during the authentication of PT procedure (PT has stored ZAP value and service class information). PT will authenticate IUT before answering.
TP/FT/MM/BV/AU-03	Reference: ETS 300 175-5 [5], subclause 13.3.2, <b>ETS 300 444 [11], subclause 8.22</b> Initial state: Selected in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of the authentication of user procedure (PT has not stored ZAP value and service class information).
TP/FT/MM/BV/AU-04	Reference: ETS 300 175-5 [5], subclause 13.3.3, <b>ETS 300 444 [11], subclause 8.20</b> Initial State: F-10 Verify that the IUT is able to perform the basic operation of the authentication of FT procedure.
TP/FT/MM/BV/AU-05	Reference: ETS 300 175-5 [5], subclause 13.3.3, <b>ETS 300 444 [11], subclause 8.20.2.1, figure 45</b> Initial State: F-00 Verify that the IUT rejects authentication of FT procedure if an authentication key is specified which is not supported by the FT.
TP/FT/MM/BV/AU-06	Reference: ETS 300 175-5 [5], subclause 13.3.3, <b>ETS 300 444 [11], subclause 8.20.2.1, figure 45</b> Initial state: Selected in PIXIT Verify that the IUT is capable to request storage of the DCK and successively use the stored DCK value for ciphering, when it is accepted by the PT.(PT has not stored ZAP value and service class information).

### 5.3.3.3 MM/BV/LO test purposes

Test subgroup objectives:

To check the IUT's valid behaviour of the location procedure.

Test purposes:

TP/FT/MM/BV/LO-01	<p>Reference: ETS 300 175-5 [5], subclause 13.4.1, <b>ETS 300 444 [11], subclause 8.25, figure 50</b></p> <p>Initial state: F-00</p> <p>Verify that the IUT is able to perform the basic operation of the location registration procedure, requested with an International Portable User Identity (IPUI) , when broadcast attributes bit a38 was set to 1, and still is 1.</p>
TP/FT/MM/BV/LO-02	<p>Reference: ETS 300 175-5 [5], subclause 13.4.1, <b>ETS 300 444 [11], subclause 8.25.2.1, figure 51</b></p> <p>Initial state: F-00</p> <p>Verify that the IUT sends back a {LOCATE_REJECT} message, after receiving a {LOCATE_REQUEST} message containing a portable identity on which it does not have a subscription record (IPUI is unknown), when broadcast attributes bit a38 was set to 1, and still is 1.</p>
TP/FT/MM/BV/LO-03	<p>Reference: ETS 300 175-5 [5], subclause 13.4.1, <b>ETS 300 444 [11], subclause 8.25, figure 50</b></p> <p>Initial state: F-00</p> <p>Verify that the IUT is able to perform the basic operation of the location registration procedure, requested with an IPUI, while the IUT performs a TPUI assignment in the {LOCATE_ACCEPT} message, when broadcast attributes bit a38 was set to 1, and still is 1.</p>
TP/FT/MM/BV/LO-05	<p>Reference: ETS 300 175-5 [5], subclause 13.7, <b>ETS 300 444 [11], subclause 8.26</b></p> <p>Initial state: Specified in PIXIT</p> <p>Verify that the IUT, after invocation, is able to perform the basic operation of the FT initiated parameter retrieval procedure as part of the location update procedure, when broadcast attributes bit a38 was set to 1, and still is 1 and the PT starts the location registration procedure upon receipt of the first {MM-INFO-SUGGEST} message.</p>
TP/FT/MM/BV/LO-06	<p>Reference: ETS 300 175-5 [5], subclause 13.7, <b>ETS 300 444 [11], subclause 8.26</b></p> <p>Initial state: F-00</p> <p>Verify that the IUT is able to perform the basic operation of the location registration procedure, requested with an IPUI , when broadcast attributes bit a38 was set to 1 during the locking of the IUT, and when it was changed to 0 afterward.</p> <p>NOTE: The phrase 'bit a38 was set to 1' means: The bit a38 had the value of 1 during the time the PT locked to the IUT.</p>
TP/FT/MM/BV/LO-07	<p>Reference: ETS 300 175-5 [5], subclause 13.7, <b>ETS 300 444 [11], subclause 8.26</b></p> <p>Initial state: Specified in PIXIT</p> <p>Verify that the IUT, after invocation, is able to perform the basic operation of the FT initiated parameter retrieval procedure as part of the location update procedure, when broadcast attributes bit a38 was set to 1, and still is 1 and the PT starts the location registration procedure upon receipt of the second (MM-INFO-SUGGEST) message.</p>

NOTE: The phrase "bit a38 was set to 1" means: The bit a38 had the value of 1 during the time the PT locked to the IUT.

## 5.3.3.4 MM/BV/AR test purposes

Test subgroup objectives:

To check the IUT's valid behaviour of the obtain access rights procedure.

Test purposes:

TP/FT/MM/BV/AR-01	<p>Reference: ETS 300 175-5 [5], subclause 13.5.1, <b>ETS 300 444 [11], subclause 8.27</b></p> <p>Initial state: No accessrights. Bit a44 shall be set in the IUT</p> <p>Verify that the IUT is able to perform the basic operation of the obtain access rights procedure, when the LT sends in the &lt;&lt;AUTH_TYPE&gt;&gt; information element the auth_key_type "AC", and the IUT uses Authentication Code (AC) for authentication. The IUT shall include the whole Portable Access Rights Key (PARK).</p>
TP/FT/MM/BV/AR-02	<p>Reference: ETS 300 175-5 [5], subclause 13.5.1, <b>ETS 300 444 [11], subclause 8.27, table 46</b></p> <p>Initial state: No accessrights. Bit a44 shall be set in the IUT</p> <p>Verify that the IUT is able to assign service class information as part of the basic obtaining access rights procedure.</p>
TP/FT/MM/BV/AR-03	<p>Reference: ETS 300 175-5 [5], 13.5.2, <b>ETS 300 444 [11], subclause 8.28</b></p> <p>Initial state: Specified in PIXIT</p> <p>Verify that the IUT, after invocation, is able to perform the basic operation of the FT initiated terminate access rights procedure, when the LT successfully authenticates the IUT.</p>
TP/FT/MM/BV/AR-06	<p>Reference: ETS 300 175-5 [5], subclause 13.5.1, <b>ETS 300 444 [11], subclause 8.27</b></p> <p>Initial state: No accessrights. Bit a44 has to be set in the IUT</p> <p>Verify that the IUT is able to perform the basic operation of the obtain access rights procedure, when the LT sends in the &lt;&lt;AUTH_TYPE&gt;&gt; information element the auth_key_type "UAK", and the IUT uses the User Authentication Key (UAK) for authentication. The IUT shall include the whole PARK.</p>
TP/FT/MM/BV/AR-07	<p>Reference: ETS 300 175-5 [5], subclause 13.5.1, <b>ETS 300 444 [11], subclause 8.27, table 46</b></p> <p>Initial state: No accessrights. Bit a44 has to be set in the IUT</p> <p>Verify that the IUT is able to assign zap field as part of the basic obtaining access rights procedure.</p>



**5.3.3.5 MM/BV/KA test purposes**

Test subgroup objectives:

To check the IUT's valid behaviour of the key allocation procedure.

Test purposes:

TP/FT/MM/BV/KA-01	Reference: ETS 300 175-5 [5], subclause 13.6, <b>ETS 300 444 [11], subclause 8.29</b> Initial state: Specified in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of the key allocation procedure.
TP/FT/MM/BV/KA-02	Reference: ETS 300 175-5 [5], subclause 13.6, <b>ETS 300 444 [11], subclause 8.29.2.4, figure 59</b> Initial state: Specified in PIXIT Verify that the IUT, after invocation of the key allocation procedure, if the authentication of PT as part of this procedure fails, returns an {AUTH-REJECT} message.

**5.3.3.6 MM/BV/PR test purposes**

Test subgroup objectives:

To check the IUT's valid behaviour of the parameter retrieval procedure.

Test purpose:

TP/FT/MM/BV/PR-01	Reference: ETS 300 175-5 [5], subclause 13.7 Initial state: Specified in PIXIT To check that IUT is able to operate the basic operation of the PT initiated parameter retrieval procedure.
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## 5.3.3.7 MM/BV/CH test purposes

Test subgroup objectives:

To check the IUT's valid behaviours of the ciphering procedure.

Test purposes:

TP/FT/MM/BV/CH-01	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.31</b> Initial state: F-00 Verify that the IUT is able to correctly perform the basic cipher switching procedure after the PT initiated cipher switching procedure requesting "cipher-on", while no ciphering is active.
TP/FT/MM/BV/CH-02	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.31</b> Initial state: F-00 Verify that the IUT is able to correctly perform the basic cipher request procedure after the PT initiated cipher switching procedure requesting "cipher-off", while ciphering is active.
TP/FT/MM/BV/CH-03	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.30</b> Initial state: Specified in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of FT initiated cipher switching procedure requesting "cipher-on", while no ciphering is active.
TP/FT/MM/BV/CH-04	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.30</b> Initial state: Specified in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of FT initiated cipher switching procedure requesting "cipher-off", while ciphering is active.
TP/FT/MM/BV/CH-05	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.31.2.1, figure 64</b> Initial state: F-00 Verify that the IUT rejects a cipher switching request from the PT when a {CIPHER-SUGGEST} message has been received, containing a not supported cipher key.
TP/FT/MM/BV/CH-08	Reference: ETS 300 175-7 [7], subclause 6.4.6 <b>ETS 300 444 [11], subclause 10.14</b> Initial state: Specified in PIXIT Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from clear mode to encrypt mode (FT initiated cipher-switching).
TP/FT/MM/BV/CH-09	Reference: ETS 300 175-7 [7], subclause 6.4.6 <b>ETS 300 444 [11], subclause 10.14</b> Initial state: F-00 Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from clear mode to encrypt mode (PT initiated cipher-switching).
TP/FT/MM/BV/CH-10	Reference: ETS 300 175-7 [7], subclause 6.4.7 <b>ETS 300 444 [11], subclause 10.15</b> Initial state: F-00 Check that the IUT responds rightly to a PT initiated intercell bearer handover procedure when encryption is enabled (PT initiated cipher-switching).

TP/FT/MM/BV/CH-11	Reference: ETS 300 175-7 [7], subclause 6.4.7 <b>ETS 300 444 [11], subclause 10.15</b> Initial state: F-00 Check that the IUT responds rightly to a PT initiated intracell bearer handover procedure when encryption is enabled (PT initiated cipher-switching).
TP/FT/MM/BV/CH-12	Reference: ETS 300 175-7 [7], subclause 6.4.7 <b>ETS 300 444 [11], subclause 10.15</b> Initial state: Specified in PIXIT Check that the IUT responds rightly to a PT initiated intercell bearer handover procedure when encryption is enabled (PT initiated cipher-switching).
TP/FT/MM/BV/CH-13	Reference: ETS 300 175-7 [7], subclause 6.4.6 <b>ETS 300 444 [11], subclause 10.14</b> Initial state: F-00 Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from encrypt mode to clear mode (PT initiated cipher-switching).
TP/FT/MM/BV/CH-14	Reference: ETS 300 175-7 [7], subclause 6.4.7 <b>ETS 300 444 [11], subclause 10.15</b> Initial state: Specified in PIXIT Check that the IUT responds rightly to a PT initiated intracell bearer handover procedure when encryption is enabled (FT initiated cipher-switching).
TP/FT/MM/BV/CH-15	Reference: ETS 300 175-5 [5], subclause 13.8 <b>ETS 300 444 [11], subclause 8.33</b> Initial state: Specified in PIXIT Verify that the IUT, after invocation, is able to perform the basic operation of FT initiated cipher switching procedure requesting "cipher-off", while ciphering is active.

#### 5.3.4 MM/BO test purposes

Test group objectives:

To check the MM of the IUT in response to the messages that are syntactically correct but not allowed to occur in some phase of The MM procedures.

Test purpose:

TP/FT/MM/BO-01	Reference: ETS 300 175-5 [5], subclause 17.4.4, <b>ETS 300 444 [11], subclause 13.1</b> Initial state: Specified in PIXIT Verify that the IUT ignores the unexpected message {IDENTITY-REPLY} as an answer to the FT initiated {CIPHER-REQUEST}
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**5.3.5 MM/BI test purposes**

Test group objectives:

To check the MM module of the IUT in response to invalid messages.

Test purposes:

TP/FT/MM/BI-02	Reference: ETS 300 175-5 [5], subclause 17.6.4, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: No accessrights. Bit a44 has to be set in the IUT Verify that the IUT, during the obtain access rights procedure, returns an {ACCESS-RIGHTS-REJECT} message, on receipt of an {ACCESS-RIGHTS-REQUEST} message missing the information element <<AUTH-TYPE>>.
TP/FT/MM/BI-03	Reference: ETS 300 175-5 [5], subclause 17.6.4, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: No accessrights. Bit a44 has to be set in the IUT Verify that the IUT, during the obtain access rights procedure, returns an {ACCESS-RIGHTS-REJECT} message, on receipt of an {ACCESS-RIGHTS-REQUEST} message containing the information element <<AUTH-TYPE>> with a length exceeding the maximum allowed length.

### 5.3.6 MM/TI test purposes

Test group objectives:

This test subgroup is intended to verify that the IUT is reacting properly to an expiry of one of the timers or counters mismatch.

Test purposes:

TP/FT/MM/TI-01	Reference: ETS 300 175-5 [5], subclause 13.2.1, <b>ETS 300 444 [11], subclause 8.19.2.2</b> Initial state: Specified in PIXIT Verify that the IUT is capable of completing the Identification of PT procedure at a point in time 10% before expiry of the timer F-<MM_ident.2>.
TP/FT/MM/TI-02	Reference: ETS 300 175-5 [5], subclause 13.3.1, <b>ETS 300 444 [11], subclause 8.21.2.2</b> Initial state: Specified in PIXIT Verify that the IUT is capable of completing the Authentication of PT procedure at a point in time 10% before expiry of the timer F-<MM_auth.1>.
TP/FT/MM/TI-03	Reference: ETS 300 175-5 [5], subclause 13.3.2, <b>ETS 300 444 [11], subclause 8.22.2.2.</b> Initial state: Specified in PIXIT Verify that the IUT is capable of completing the Authentication of User procedure at a point in time 10% before expiry of the timer F-<MM_auth.2>.
TP/FT/MM/TI-04	Reference: ETS 300 175-5 [5], subclause 13.5.2, <b>ETS 300 444 [11], subclause 8.28.2.2</b> Initial state: F-00 Verify that the IUT is capable of completing the FT Termination of access rights procedure at a point in time 10% before expiry of the timer F-<MM_access.2>.
TP/FT/MM/TI-05	Reference: ETS 300 175-5 [5], subclause 13.6, <b>ETS 300 444 [11], subclause 8.29.2.1</b> Initial state: Specified in PIXIT Verify that the IUT is capable of completing the FT Key allocation procedure at a point in time 10% before expiry of the timer F-<MM_key.1>.
TP/FT/MM/TI-06	Reference: ETS 300 175-5 [5], subclause 13.8, <b>ETS 300 444 [11], subclause 8.30.2.1</b> Initial state: Specified in PIXIT Verify that the IUT is capable of completing the FT initiated cipher-switching procedure at a point in time 10% before expiry of the timer F-<MM_cipher.1>.
TP/FT/MM/TI-07	Reference: ETS 300 175-5 [5], subclause 13.2.2, <b>ETS 300 444 [11], subclause 8.25</b> Initial state: F-00 Verify that the IUT, when during the location registration procedure with TPUI assignment, the timer F-<MM_ident.1> expires after the defined time, aborts the procedure, and thus allows a new location registration procedure to proceed.

#### 5.4 ME test purposes

Subgroups:

- BV;
- BO.

##### 5.4.1 ME/BV test purposes

Test group objective:

To check interleaving operation of MM entity and CC entity of the IUT.

Test purposes:

TP/FT/ME/BV-01	Reference: ETS 300 175-5 [5], subclause 15.2.1, <b>ETS 300 444 [11], subclause 6.9.6</b> Initial state: Specified in PIXIT Verify that the IUT is able to handle the authentication of FT request in parallel with an incoming call establishment.
TP/FT/ME/BV-02	Reference: ETS 300 175-5 [5], subclause 15.5, <b>ETS 300 444 [11], subclause 6.9.6</b> Initial state: Specified in PIXIT Verify that the IUT is able to handle an authentication of FT request, when it interrupts a user authentication procedure.
TP/FT/ME/BV-03	Reference: ETS 300 175-5 [5], subclause 15.5, <b>ETS 300 444 [11], subclause 6.9.6</b> Initial state: F-10 Verify that the IUT is able to handle an locate request , during an active CC call (state F-10)

##### 5.4.2 ME/BO test purposes

Test group objective:

To check the inopportune behaviour of the interleaving operation of MM entity and CC entity of the IUT.

Test purpose:

There are no test purposes defined for this group in this ETS.

#### 5.5 LC test purposes

Test group objectives:

To verify the behaviour of the LC entity of the IUT.

Subgroups:

- BV;
- BI;
- TI.

##### 5.5.1 LC/BV test purposes

Subgroups:

- LE;
- LR;
- LS;
- LL.

### 5.5.1.1 LC/BV/LE test purposes

Test group objective:

To check the IUT's valid behaviour of establishing connection oriented link procedure.

Test purposes:

TP/FT/LC/BV/LE-01	Reference: ETS 300 175-5 [5], subclause 14.2.1 and 14.2.3, <b>ETS 300 444 [11], subclause 8.32, figure 65</b> Initial state: F-00 Verify that the IUT is able to initiate the indirect (paged) FT-initiated link establishment procedure.
TP/FT/LC/BV/LE-02	Reference: ETS 300 175-5 [5], subclause 14.2.1 and 14.2.3, <b>ETS 300 444 [11], subclause 8.32.2.1, figure 66</b> Initial state: F-00 Verify that the IUT rejects the {LCE-PAGE-RESPONSE} with mismatching IPUI during indirect (paged) FT-initiated link establishment and releases the link.
TP/FT/LC/BV/LE-03	Reference: ETS 300 175-5 [5], subclause 14.2.1 and 14.2.3, <b>ETS 300 444 [11], subclause 8.32.2.1, figure 66</b> Initial state: F-00 Verify that the IUT is able to handle a PT initiated link establishment.

### 5.5.1.2 LC/BV/LR test purposes

Test group objective:

To check the IUT's valid behaviour of the connection oriented link release procedure.

Test purposes:

TP/FT/LC/BV/LR-01	Reference: ETS 300 175-5 [5], subclause 14.2.7, <b>ETS 300 444 [11], subclause 8.34</b> Initial state: F-00 Verify that the IUT is able to perform a normal PT initiated link release.
TP/FT/LC/BV/LR-02	Reference: ETS 300 175-5 [5], subclause 14.2.5, <b>ETS 300 444 [11], subclause 8.36</b> Initial state: F-00 Verify that the IUT is able to maintain the link for a specified time, before releasing it, after the termination of an MM procedure. No other entities are using the link
TP/FT/LC/BV/LR-03	Reference: ETS 300 175-5 [5], subclause 14.2.5, <b>ETS 300 444 [11], subclause 8.36</b> Initial state: F-10 Verify that the IUT is able to start the link release after the termination of a call.
TP/FT/LC/BV/LR-04	Reference: ETS 300 175-5 [5], subclause 14.2.5, <b>ETS 300 444 [11], subclause 8.36</b> Initial state: F-10 Verify that the IUT is able to maintain the link for a specified time, before releasing it, after a CC requested partial release has been agreed on, and no other entities are using the link

NOTE: In some cases a lower layer may be responsible for a link release

**5.5.1.3 LC/BV/LS test purposes**

Test subgroup objectives:

To check the IUT's valid behaviour of connection oriented link suspend and resume procedures.

Test purposes:

There are no test purposes defined for this group in this ETS.

**5.5.1.4 LC/BV/CL test purposes**

Test subgroup objectives:

To check the IUT's valid behaviour of connectionless link control procedures.

Test purposes:

There are no test purposes defined for this group in this ETS.

**5.5.2 LC/BI test purposes**

Test group objectives:

To check the LC entity of the IUT in response to invalid messages.

Test purposes:

TP/FT/LC/BI-01	Reference: ETS 300 175-5 [5], subclause 17.1, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: F-00 Verify that the IUT ignores a message containing a protocol discriminator value that indicates a service that is not supported by the IUT.
TP/FT/LC/BI-04	Reference: ETS 300 175-5 [5], subclause 17.3.1, <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: F-00 Verify that the IUT ignores an {AUTH-REQUEST} message containing an illegal transaction identifier.
TP/FT/LC/BI-05	Reference: ETS 300 175-5 [5], subclause 17.3.2.5 <b>ETS 300 444 [11], subclause 6.9.4</b> Initial state: Selected in PIXIT Verify that the IUT ignores an {IDENTITY-REPLY} message with a Transaction Identifier flag set illegally to "0", if the message was received during a FT-initiated identification of PT procedure.
TP/FT/LC/BI-07	Reference: ETS 300 175-5 [5], subclause 17.9, <b>ETS 300 444 [11], subclause 8.35</b> Initial state: F-10 Verify that the IUT, when the link fails during an active call, clears the call.



### 5.5.3 LC/TI test purposes

This test subgroup is intended to verify that the IUT is reacting properly to an expiry of one of the timers or counters mismatch.

TP/FT/LC/TI-02	Reference: ETS 300 175-5 [5], subclause 14.2.7, <b>ETS 300 444 [11], subclause 8.36.1.1</b> Initial state: F-00 Verify that the IUT, after termination of an MM procedure, maintains the link for a period of <LCE.02>. The link shall be released in the period (<LCE_02> - 1000) ms to 10500 ms.
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### 5.6 IS test purposes

Subgroups:

- BV.

#### 5.6.1 IS/BV test purposes

Test group objective:

To verify the behaviour of the IS entity of the IUT.

Test purposes:

TP/FT/IS/BV-01	Reference: ETS 300 175-5 [5], subclause 10.3 Initial state: F-00 To verify that the IUT sends back a <<Feature Indicate>>, upon reception of a set-up of a CISS procedure containing a <<Feature Activate>> information element.
TP/FT/IS/BV-02	Reference: ETS 300 175-5 [5], subclause 10.3 Initial state: F-00 To verify that the IUT sends back a <<Facility>> information element, upon reception of a set-up of a CISS procedure containing a <<Facility>> information element.
TP/FT/IS/BV-03	Reference: ETS 300 175-5 [5], subclause 10.3 Initial state: F-00 To verify that the IUT, after invocation, can set-up a CISS procedure <<Facility>> information element.

## 5.7 MO test purposes

There are no test purposes defined for this group in this ETS.

## 5.8 CL test purposes

Subgroups:

- BV.

### 5.8.1 CL/BV test purposes

Test group objectives:

To verify the behaviour of the CL entity of the IUT.

Test purposes:

TP/FT/CL/BV-01	Reference: ETS 300 175-5 [5], subclause 12.3.1 Initial state: F-00 To verify that the IUT, after invocation, is able to send a CLMS-FIXED message.
TP/FT/CL/BV-02	Reference: ETS 300 175-5 [5], subclause 14.2.1 and 14.2.3 Initial state: F-00 To verify that the IUT, after invocation, is able to send a CLMS-VARIABLE message.
TP/FT/CL/BV-03	Reference: ETS 300 175-5 [5], subclause 14.2.1 and 14.2.3 Initial state: F-00 To verify that the IUT is able to receive a CLMS-VARIABLE message.

## **Annex A (informative): Bibliography**

- 1) EWOS/ETSI Project Team No 5: "Project Report and Technical Report. OSI Conformance Testing Methodology and Procedures in Europe".
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- 5) ETR 015: "Digital Enhanced Cordless Telecommunications (DECT); Reference document".
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- 7) ETR 042 "Digital Enhanced Cordless Telecommunications (DECT); A Guide to DECT features that influence the traffic capacity and the maintenance of high radio link transmission quality, including the results of simulations"
- 8) ETR 043: "Digital Enhanced Cordless Telecommunications (DECT); Common interface; Services and Facilities requirements specification".
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## History

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