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Contents

Foreword

This European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

The DECT Test Specification multipart ETS comprises nine parts, as follows:

Part 1: "Part 1: Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer".

Part 2: "Part 2: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Portable radio Termination (PT)".

Part 3: "Part 3: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Fixed radio Termination (FT)".

Part 4: "Part 4: Test Suite Structure (TSS) and Test Purposes (TP) - Data Link Control (DLC) layer".
Part 5: "Part 5: Abstract Test Suite (ATS) - Data Link Control (DLC) layer".

Part 6: "Part 6: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Portable radio Termination (PT)".

Part 7: "Part 7: Abstract Test Suite (ATS) for Network (NWK) layer - Portable radio Termination (PT)".

Part 8: "Part 8: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Fixed radio Termination (FT)".

Part 9: "Part 9: Abstract Test Suite (ATS) for Network (NWK) layer - Fixed radio Termination (FT)".

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1 Scope

This European Telecommunication Standard (ETS) contains the Abstract Test Suite (ATS) to test the Network (NWK) layer, Fixed radio Termination (FT).

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. Part 9 of this test specification contains the Abstract Test Suite for testing of the NWK layer at the FT.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646) as well as the ETSI rules for conformance testing (protocol and profile conformance testing specifications, standardization methodology ETS 300 406) are used as basis for the test methodology.

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

Annex B provides the partial PIXIT proforma.

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 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 1: Overview".

[2] ETS 300 175-2 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 2: Physical layer".

[3] ETS 300 175-3 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 3: Medium access control layer".

[4] ETS 300 175-4 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 4: Data link control layer".

[5] ETS 300 175-5 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 5: Network layer".

[6] ETS 300 175-6 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 6: Identities and addressing".

[7] ETS 300 175-7 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 7: Security features".

[8] ETS 300 175-8 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 8: Speech coding and transmission".

[9] ETS 300 175-9 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 9: Public access profile".

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

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

[12] ETS 300 434: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) and Integrated Services Digital Network (ISDN) inter-working for end system configuration".

[13] ETS 300 331: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); DECT Authentication Module (DAM)".

[14] CCITT Recommendation G.726 (1991): "40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM)".

[15..20] Reserved values

[21] 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)).

[22] 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)).

[23] ISO/IEC 9646-3 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The tree and tabular combined notation". (See also CCITT Recommendation X.292 (1992)).

[24] ISO/IEC 9646-4 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 4: Test realisation". (See also CCITT Recommendation X.292 (1992)).

[25] ISO/IEC 9646-5 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process". (See also CCITT Recommendation X.292 (1992)).

[26] ISO/IEC 9646-6 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".

[27] ISO/IEC 9646-7 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation conformance statement".

[28] ISO 7498: "Information Processing Systems - Open Systems Interconnection - Basic Reference model".

[29] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[30] 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)".

[31..40] Reserved values

[41] I-ETS 300 176: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Approval test specification".

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

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

[44] TBR 11 (1992): "Radio Equipment and Systems (RES); Attachment requirements for terminal equipment for Digital European Cordless Telecommunications (DECT) Public Access Profile (PAP) applications".

[45] ETS 300 323 (1994): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Public Access Profile (PAP) test specification".

[46] ETS 300 476: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma".

[47] ETS 300 497: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL)".

[48] ETS 300 474: "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".

[49] ETS 300 494: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile Test Specification (PTS)".

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

3 Definitions, symbols and abbreviations

3.1 DECT definitions

For the purposes of this ETS, the definitions given in ISO/IEC 9646-1 [21], ISO/IEC 9646-2 [22], ETS 300 175-1 [1], ETS 300 175-5 [5], ETS 300 175-6 [6] and ETS 300 175-7 [7] apply.

3.2 DECT abbreviations

For the purposes of this ETS, the NWK layer abbreviations defined in ETS 300 175-5 [5] and the following abbreviations apply:

AC	Authentication Code
AR	Access Rights
AU	Authentication
CA	Capability
CC	Call Control
CCSM	Call Control State Machine
CI	Call Information
CH	Ciphering
CR	Call Release
CTS	Conformance Testing Services
DECT	Digital Enhanced Cordless Telecommunication
DLC	Data Link Control layer
ETSI	European Telecommunications Standards Institute
FT	Fixed radio termination
GAP	Generic Access Profile
IC	Incoming Call
ID	Identification
IPUI	International Portable User Identity
IPEI	International Portable Equipment Identity
KA	Key Allocation
LC	Link Control entity
LE	Connection oriented Link Establishment
LL	ConnectionLess Link control
LO	Location
LR	Connection oriented Link Release
LS	Connection oriented Link Suspend and resume
MAC	Medium Access Control layer
ME	Management Entity
ML	Connectionless Message Services
MM	Mobility Management
MO	Connection Oriented Message Services
NWK	Network layer
OC	Outgoing Call
PAP	Public Access Profile
PARK	Portable Access Rights Key
PM	Packet Mode
PR	Parameter Retrieval
PT	Portable radio termination
RPN	Radio Fixed Part Number
RS	Call Related Supplementary Services
SC	Service Change
UAK	User Authentication Key

3.3 ISO 9646 definitions

For the purposes of this ETS, the following ISO 9646 definitions apply:

Implementation Under Test (IUT)
System Under Test (SUT)
Abstract Test Suite (ATS)
Point of Control and Observation (PCO)
Protocol Implementation Conformance Statement (PICS)
Protocol Implementation eXtra Information for Testing (PIXIT)
Lower Tester (LT)
Upper Tester (UT)

3.4 ISO 9646 abbreviations

For the purposes of this ETS, the following ISO 9649 abbreviations apply:

ATS	Abstract Test Suite
ASP	Abstract Service Primitive
BI	Invalid Behaviour
BO	InOpportune Behaviour
BV	Valid Behaviour
CA	Capability tests
ETS	European Telecommunication Standard
ISO	International Organisation for Standardisation
IUT	Implementation Under Test
IWU	InterWorking Unit
LT	Lower Tester
PDU	Protocol Data Unit
PHL	Physical Layer
PICS	Protocol Implementation Conformance Statements
PIXIT	Protocol Implementation eXtra Information for Testing
SUT	System Under Test
TP	Test Purpose
TSO	Test Suite Operation
TSP	Test Suite Parameter
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4 Abstract Test Method (ATM)

This clause describes the ATM, the Point of Control and Observation (PCO) used to test the NWK layer of the FT.

4.1 ATM

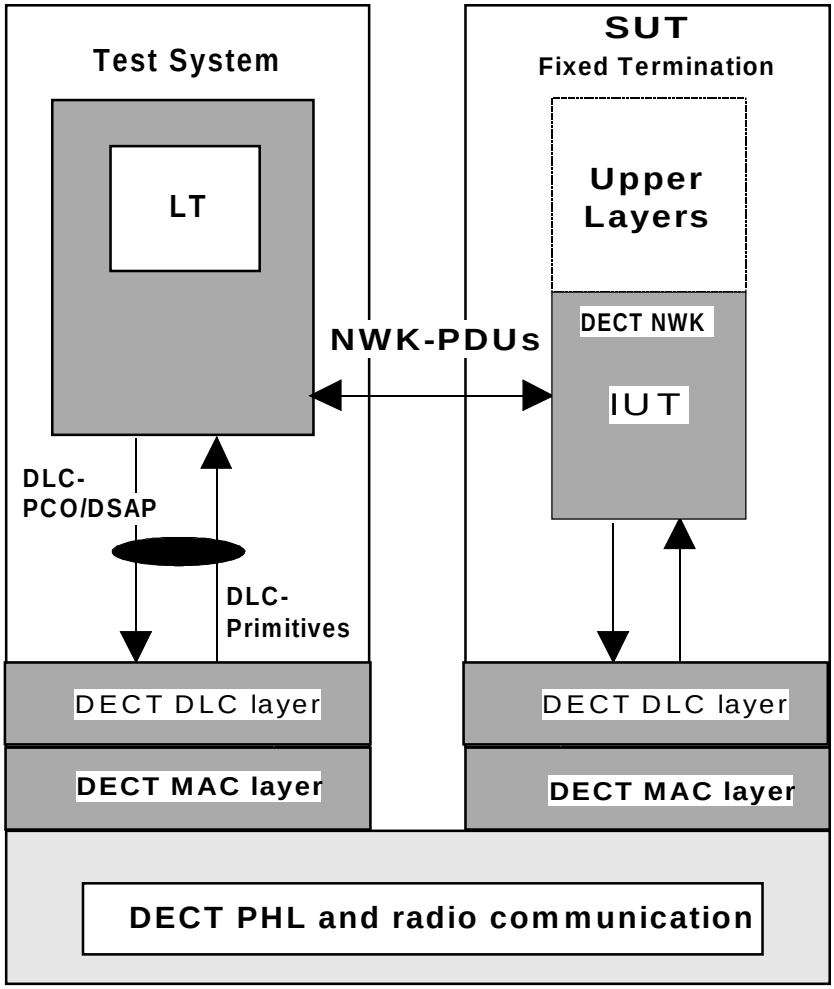

Figure 1: Remote Single Layer Test Method Embedded variant

LT1: a lower tester (LT1) is located in a remote DECT test system. It controls and observes the behaviour of the IUT.

DSAP: a unique DLC SAP is defined at the DECT interface and used to exchange service data of the NWK protocol.

PCO: the PCO for Network Layer testing is located on the DSAP. All test events at the PCO are specified in terms of DLC ASPs and NWK PDUs.

Upper layers/tester: no explicit upper tester (UT) exists in the test system. However, the SUT needs to carry out some UL functions to achieve some effects of test co-ordination procedures. Designing ATS, the capability of the IWU, such as PSTN, ISDN or GSM IWUs might be taken into account. An example of such controls could be to provoke restarting of the IUT through the Q interface.

4.2 DLC primitives

In this subclause the DSAP primitives are defined according to ETS 300 175-4 [4], subclause 8.3.2 (S-SAP primitives) and ETS 300 175-4 [4], subclause 8.3.3 (B-SAP primitives).

4.2.1 S-SAP primitives

Table 1: DL_DATA_IND primitive

ASP Declaration		
ASP NAME DL_DATA_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.3
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1

Table 2: DL_DATA_REQ primitive

ASP Declaration		
ASP NAME DL_DATA_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.3
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1

Table 3: DL_ENCRYPT_CNF primitive

ASP Declaration		
ASP NAME DL_ENCRYPT_CNF	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.8
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
encription_status	CIPHER_STATUS (INTEGER(0,1))	ETS 300 175-4 [4], subclause 8.3.1

Table 4: DL_ENCRYPT_IND primitive

ASP Declaration		
ASP NAME DL_ENCRYPT_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.8
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [4], subclause 8.3.1
encription_status	CIPHER_STATUS (INTEGER(0,1)	ETS 300 175-4 [4], subclause 8.3.1

Table 5: DL_ENCRYPT_REQ primitive

ASP Declaration		
ASP NAME DL_ENCRYPT_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.8
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [4], subclause 8.3.1
encription_status	CIPHER_STATUS (INTEGER(0,1)	ETS 300 175-4 [4], subclause 8.3.1

Table 6: DL_ENC_KEY_REQ primitive

ASP Declaration		
ASP NAME DL_ENC_KEY_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.7
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [4], 8.3.1
encription_key	ENCRYPTION_KEY (BITSTRING[64])	ETS 300 175-4 [4], 8.3.1

Table 7: DL_ESTABLISH_CNF primitive

ASP Declaration		
ASP NAME DL_ESTABLISH_CNF	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.1
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6

Table 8: DL_ESTABLISH_IND primitive

ASP Declaration		
ASP NAME DL_ESTABLISH_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.1
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
establish_mode	ESTABLISH_MODE (INTEGER(0,1,2)	ETS 300 175-4 [4], subclause 8.3.1
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER (INTEGER)	ETS 300 175-4 [4], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1

Table 9: DL_ESTABLISH_REQ primitive

ASP Declaration		
ASP NAME DL_ESTABLISH_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.1
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
establish_mode	ESTABLISH_MODE (INTEGER(0,1,2)	ETS 300 175-4 [4], subclause 8.3.1
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER (INTEGER)	ETS 300 175-4 [4], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1

Table 10: DL_ESTABLISH_RES primitive

ASP Declaration		
ASP NAME DL_ESTABLISH_RES	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.1
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6

Table 11: DL_RELEASE_CNF primitive

ASP Declaration		
ASP NAME DL_RELEASE_CNF	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.2
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1)	ETS 300 175-4 [4], subclause 8.3.1

Table 12: DL_RELEASE_IND primitive

ASP Declaration		
ASP NAME DL_RELEASE_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.2
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1)	ETS 300 175-4 [4], subclause 8.3.1

Table 13: DL_RELEASE_REQ primitive

ASP Declaration		
ASP NAME DL_RELEASE_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.2.2
Service control information		
Parameter name	**Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [4], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1)	ETS 300 175-4 [4], subclause 8.3.1

4.2.2 B-SAP primitives

Table 14: DL_BROADCAST_IND primitive

ASP Declaration		
ASP NAME DL_BROADCAST_IND	PCO TYPE B-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.3.1
Service control information		
Parameter name	**Type**	**Comments**
cluster_address_list	CLUSTER_ADDRESS_LIST (OCTETSTRING)	ETS 300 175-4 [4], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1
extended_message_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [4], subclause 8.3.1
error_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [4], subclause 8.3.1

Table 15: DL_BROADCAST_REQ primitive

ASP Declaration		
ASP NAME DL_BROADCAST_REQ	PCO TYPE B-SAP	COMMENTS ETS 300 175-4 [4], subclause 8.3.3.1
Service control information		
Parameter name	**Type**	**Comments**
cluster_address_list	CLUSTER_ADDRESS_LIST (OCTETSTRING)	ETS 300 175-4 [4], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [4], subclause 8.3.1
extended_message_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [4], subclause 8.3.1

4.3 TC execution sequence

The test cases can be executed in any order, there are no restrictions on this matter.

5 Untestable Test Purposes (TPs)

This clause gives a list of TPs which are not implemented in the ATS (annex A) due to the chosen ATM or other restrictions.

5.1 Control protocol

The following test purposes are not implemented in the ATS due to unknown reaction of the IUT after testing the TPs:

Table 16: Untestable TP's (1)

Test Purpose	Reference to ETS 300 4497-6
TP/FT/CC/BV/OC-06	
TP/FT/CC/BV/CI-11	
TP/FT/CC/BV/CI-12	
TP/FT/CC/BV/CR-12	
TP/FT/CC/BV/RS-01	
TP/FT/LC/TI-01	

6 ATS Conventions

The ATS conventions are intended to give a better understanding of the ATS but they describe also the conventions made for the development of the ATS. Thus for any later maintenance purposes or further development of the ATS the conventions described in this clause shall be considered.

The ATS conventions contain two clauses, the naming conventions and the implementation conventions. The naming conventions describe the structure of the naming of all ATS elements. The implementation conventions describe the functional structure of the ATS.

To define the ATS the guidelines of the documents ETS 300 406 [29] and ETR 141 were considered.

6.1 Naming conventions

6.1.1 Declarations part

This subclause describes the naming conventions chosen for the elements of the ATS declarations part. The following general rules apply:

- identifiers shall be written in lowercase;
- type declarations shall be written in uppercase;
- constraints shall be written with the first letter in uppercase, and the rest in lowercase.

Information elements are coded in the order from top to bottom and from right to left, in order to make the encoding and decoding easier.

6.1.1.1 Test suite type, ASP and PDU type definitions

The test suite type-definitions, the ASP type definitions and the PDU type definitions shall be written in uppercase. Identifier names of structured type definitions and of the ASP and PDU type definitions, shall be written in lowercase.

Types related to a certain higher layer entity shall commence with a protocol identifier to define which entity they belong to.

EXAMPLE 1: Call Control: cc e.g. CC_SETUP.

Id names of structured types which are used for invalid tests commence with "bi":

EXAMPLE 2: Bi_cc_setup_rx01.

6.1.1.2 Test Suite Operations (TSO) definitions

The TSO identifiers are composed of a string in uppercase letters starting by the string "TSO_" (e.g. TSO_INTEGER_TO_O_1).

6.1.1.3 Test Suite Parameter (TSP) declarations

The TSP identifiers are composed of a string in uppercase letters starting by the string "TSP_" (e.g. TSP_WINDOW_SIZE).

If the TSP references a PICS item, the letter "C" is added to the standard prefix (e.g. TSPC_PICS_ITEM_S23).

If the TSP references a PIXIT item, the letter "X" is added to the standard prefix (e.g. TSPX_PIXIT_ITEM_2).

Exception: If the TSP represents a system parameter or value, only the name defined in the specifications is used (e.g. V_S = send sequence variable).

Complete names as defined in the specifications are used.

6.1.1.4 Test Case Selection (TCS) expression definitions

The naming conventions for the TCS expression definitions use almost the same rules as the TSPs, except for the prefix that is "TCS_". Also they are logical combinations of the TSP definitions.

6.1.1.5 Test Suite Constant (TSC) declarations

The TSC identifiers are composed of a string in uppercase letters starting by the string "TSC_" (e.g. TSC_retry).

Exception: If the TSC represents a system parameter or value, only the name defined in the specifications is used (e.g. N250).

Complete names as defined in the specifications are used.

6.1.1.6 Test Suite Variable (TSV) declarations

The TSV identifiers are composed of a string in uppercase letters starting by the string "TSV_".

Complete names as defined in the specifications are used.

6.1.1.7 Test Case Variable (TCV) declarations

The TCV identifiers are composed of a string in uppercase letters starting by the string "TCV_".

EXAMPLE: TCV_crvalue.

Complete names as defined in the specifications are used.

6.1.1.8 Point of Control and Observation (PCO) declarations

The PCO identifiers are composed of two or four capital letters, beginning with "L", as there are only LTs.

EXAMPLE: LMAC represents a PCO on MAC interface as LT in the test equipment;
LDLC represents a PCO on DLC interface as LT in the test equipment.

6.1.1.9 Timer declarations

Two types of timers can be identified:

1) standardised:

- those defined in the standard, e.g. T302. They use exactly the same name as in the standard, beginning with a capital "T".

- As there is a tolerance margin accepted for these timers, three values are needed:

  - the maximum value allowed, which will use the suffix "_max";
  - the minimum value allowed, which will use the suffix "_min";
  - the value actually implemented, with no suffix;

EXAMPLE 1: T302_max, T302_min, and T302.

2) not standardised:

- those not defined in the standard, i.e. for execution use, e. g. a timer waiting for a response. These timers begin with the prefix "T_", followed by a string in capital letters.

EXAMPLE 2: T_RESP represents a timer for controlling the response time of the IUT.

6.1.1.10 ASP type definitions

The identifier of an ASP uses exactly the same name as the name defined in the specifications. It is written in uppercases, finishing by an underscore character ("_"), and three capital letters indicating whether it is a request, an indication, a response or a confirmation primitive.

EXAMPLE: DL-RELEASE_REQ for an ASP containing a layer 3 release request passed to layer 2;
MAC-CO_DATA_REQ for an ASP containing a layer 2b PDU passed to layer 2a.

6.1.1.11 PDU type definitions

The identifier of a PDU is given in a string in uppercase letters, representing the layer message.

EXAMPLE 1: rr for the Receive Ready layer 2 message;
disconnect for the DISCONNECT layer 3 message.

Where the message is a composite word, an underscore character ("_") appears in the string.

EXAMPLE 2: release_complete is the RELEASE COMPLETE layer 3 message.

Id names of PDUs commence with a protocol identifier to define which protocol they are belonging to. The following identifiers are used:

- Call Control: cc e.g. CC-SETUP.

Id names of PDUs which are used for invalid tests commence with "bi":

EXAMPLE 3: BI-CC-SETUP.

6.1.1.12 Alias definitions

These are used to make the sending and receiving of PDUs within ASPs more understandable when writing the dynamic part of the test suite. This is done by giving the ASP an alias. The alias name indicates the PDU carried by the ASP and whether it is sent or received by the tester.

The identifier of an alias consists of a string in capital letters indicating the message, followed by two lower case letters "r" or "s" indicating if the message should be sent or received by the tester.

6.1.2 Constraints part

This subclause describes the naming conventions chosen for the elements of the ATS constraints part.

Constraint identifiers commence with uppercase. The remaining part of the Id name is written in lowercase.

Identifier names of elements concerning the same subject have equivalent names in the Declaration and the Constraint part:

Declaration Part:	cc_setup;
Constraint Part:	Cc_setup.

The name of the modified constraint describes the particularity of the modified constraint:

EXAMPLE: Cc_setup_mand_only (modified Cc_setup with only the mandatory Information Elements).

If formal parameter lists are used, the variable names are written in lowercase. The variable name is the same as the name of the element it is representing.

Structured type constraints declarations are divided into:

- receive constraints:
  - the receive constraints are noted down as "name_rx*". The receive constraints are subdivided into:
    - receive base constraints:

      they are noted down as "name_rx_base";
    - receive special constraints:

      they are noted down as "name_rx_<extension>", where <extension> is a descriptive name (e.g. "Signal_rx_alerting_on");
- transmit constraints:
  - the transmit constraints are noted down as "name_tx_<extension>", where <extension> is a descriptive name. (e.g. "Signal_tx_alerting_off").

If a certain structured type constraint is valid for both receiving and transmitting, because it contains no wildcards, and the receiving constraint should exactly match, the constraint will be noted down as:

"<structured_type_name>_extention" Example: "Portable_id_ipui".

PDU Constraints Declarations are divided into:

- receive constraints:
    - the receive constraints are noted down as "name_rx*". The receive constraints are subdivided into:
        - receive base constraints:
        - they are noted down as "name_rx_base". They constrain all allowed values, and for the optional fields, the "IF_PRESENT" keyword is added;
        - receive special constraints:
            - they are noted down as "name_rx0n", where n is a sequence number;
- transmit constraints:
    - the transmit constraints are noted down as "name_tx", where n is a sequence number. They can be subdivided into:
        - transmit base constraints:
            - they are noted down as "name_tx_base". They constrain all mandatory fields to all allowed values in the standard, and they constrain all optional fields to "OMIT";
        - transmit special constraints:
            - they are noted down as "name_tx0n" where n is a sequence number. They shall not contain any wildcards.

Derived constraints shall not be more than 1 level deep. They shall only be derived directly from the base constraint.

The test suite is not ready yet to handle PDU's with empty information elements. For every receive constraint, also a information element constraint with an empty parameter list should be added.

6.1.3 Dynamic part

This subclause describes the naming conventions chosen for the elements of the ATS dynamic part.

6.1.3.1 Test Case (TC) identifier

The identifier of the TCs is built in the same way as for the TPs described in ETS 300 324-3 [3], subclause 5.1.1, with the exception that "TP" is replaced by "TC":

- TP identifier: TPCCBI-04;
- TC identifier: TCCCBI-04.

6.1.3.2 Test Step (TS) identifier

The TS identifier is built with two strings of capital letters joined by underscore character. The first string indicates the main function of the TS; e.g. PR for preamble, PO for postamble, CS for check state and STP for general step. The second string indicates the meaning of the step.

In some TCs, test steps as well as local trees can be used. To allow an easy distinguishing of them the following naming applies:

LTS_[local_tree_name] local tree;
STP_[test_step_name] test step.

6.1.3.3 Default identifier

The default identifiers begin with the prefix "DF_", followed by a string in capital letters.

6.1.3.4 General aspects

All verdict assignments are labelled. To allow an exact identification in which table the verdict was assigned, the following name convention is applied:

B	test Body
CS	Check State test steps
D	Default
E	Error handling test steps
PO	POstamble
PR	PReamble
S	test Step

Also combinations of labels are possible:

EXAMPLE: DPR --> label which is used in a default for preambles.

6.1.3.5 ATS abbreviations

These abbreviations are used to shorten identifier names:

ack	acknowledgement
auth	authentication
algo	algorithm
cc	call control
cfm	confirm
est	establish
ext	extension
id	identification
ind	indication
info	information
max	maximum
min	minimum
prop	proprietary
req	request
res	response

The following keywords will NOT be abbreviated in identifier names:

address(es);
attribute(s);
identity;
number(s);
character(s).

6.2 Implementation conventions

6.2.1 Declaration part

The comment line of single element TTCN tables (e.g. test suite constants) is used to give a reference where the format and content of the element is described in the relevant protocol specifications. Any particularity of the element format or content is described in the comment line.

The comment line in the header of multi element TTCN tables (e.g. ASPs) is used to reference to the protocol specification. The detailed comments are used to describe any particularity of the table.

In the ASP and PDU declarations, the comments column is used to identify if an element is mandatory or optional:

m: mandatory;
o: optional.

In the ASP and PDU declarations the comments column is further used to give information about the element value, in particular if the element contains a fixed spare value.

In tables where structure types are used the information element and the relevant structured type have always the same name, that allows to have the same structure as in the protocol standards is used to document the relation between information elements in a table and their specific description in an other clause of the protocol standard.

The following conventions apply to identifier names in the structured type definitions part:

- bits of bit sequences having a fixed value, meant to fill up the octet, are called fn, where n stands for the octet number;

- extension flags, will be called extn, where n stands for the octet number.

6.2.2 Constraint part

The ASPs and PDUs are defined in a way that all relevant element are parametrized. That improves the transparency of the constraints in the dynamic part, as all values which are relevant for the test are always present.

Generally no modified constraints are used, this allows an easier reuse and adaptation of constraints if they are reused in other DECT profile test specifications.

The Comment line of a constraint contains always the reference to the used specifications.

The detailed comments sector is used to describe any particularity of the table.

6.2.3 Dynamic part

Some TCs need a particular initialisation of the IUT environment conditions to run the actual test, e.g. for testing re-provisioning procedures. Such message sequence can be quite complicated and long. In cases where a Local Test Step (LTS) facilitates the TC structure, the preamble and the condition setting are described in a LTS called LTS_pre_step. All LTS_pre_steps are described in the detailed comment part of the TTCN table.

Some TCs need after the actual test a particular re-initialization of the IUT, e.g. after re-provisioning. Such message sequence can be quite complicated and long. In cases where a Local Test Step (LTS) facilitates the TC structure, the postamble and the re-initialization are described in a LTS called LTS_post_step. All LTS_post_steps are described in the detailed comment part of the TTCN table.

All events which are defined as a conformance requirements by the TP, cause a preliminary verdict PASS if the requirement is met.

All invalid events are handled in the default tree. FAIL verdicts are only assigned in the default tree.

The preamble, the test body and the postamble have different defaults, what allows a specific verdict handling, e.g. only INCONC verdicts are assigned in the preamble.

Test steps do not contain a default. That allows to apply them with no restrictions regarding the error handling.

All verdict assignments are labelled. According to ISO 9646-3 [23], annex E.2, labels should be written to the conformance log. This allows to identify were the test failed. To allow an exact identification in which table the verdict was assigned, the naming convention as described in subclause 6.1.3.3 is applied.

The labels of the same type are numbered sequentially if they are in the same TC, test step or default.

TPs which are listed in the untestable TP list in Clause 5, or which reference to an other TP, e.g. BV TPs which were already defined as CA TPs, are not considered in the ATS, thus these TC identifiers are missing in the ATS and the numbering of the TCs is not always continues.

6.2.4 Documentation

The Comment line of the TC or test step header contains a reference to the relevant protocol specification.

The Comment column of the dynamic behaviour part is used to number the test events which are relevant for the particular test or test operation.

Based on the numbering in the comment column all for the TC relevant events are described in the Detailed Comments part of each TTCN table.

Test procedures which cover a conformance requirement and lead to a preliminary or final verdict assignment are described as follows in the Detailed Comments part:

Expected event: a specific receive event is expected.

Expected behaviour: no event or a timer expiry is expected.

Expected status: the IUT is expected to be in a particular status.

Annex A (normative): Abstract test suite for NWK testing

The ATS is written in TTCN according to ISO/IEC 9646-3 [23].

As the ATS was developed on a separate TTCN tool the TTCN tables are not completely referenced in the contents table. The ATS itself contains a subclause Test Suite Overview which provides additional information and references about the ATS.

NOTE: According to ISO/IEC 9646-3 [23], in case of a conflict in interpretation of the operational semantics of TTCN.GR and TTCN.MP, the operational semantics of the TTCN.GR representation takes precedence.

A.1 The machine processable ATS (TTCN.MP)

The electronic form of the machine processable file (TTCN MP format) corresponding to this ATS is contained in an ASCII text file (DE104979.MP[1)]) associated with this ETS.

A.2 The graphical ATS (TTCN.GR)

The graphical ATS is provided in this annex on the following pages.

1) This file is located in a compressed archive file named 4979_e1.LZH. Other file formats are available on request.

I

Test Suite Overview

Test Suite Structure

Suite Name : NWK_FT
Standards Ref : ETS 300 175−5
PICS Ref : ETS 300 476−4
PIXIT Ref : ETS 300 497−9 Annex B
Test Method(s) : Remote Single Layer Embedded
Comments : This ATS is part of the DECT Common Interface Test Case Library (TCL) ETS 300 497.
This ATS is the TTCN part of ETS 300 497 Part 9, TCL NWK layer Fixed radio Termination (FT)

ETSI files reference: 497P9V04.MP, 497P9V04.PS (Excluding this Generic comments part, the files of this version are identical to the ITA V04 version files CINFT13.MP, and CINFT13.PS)

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
FT/	SENG_ft_testing	To check the behaviour of the NWK layer of the FT(IUT)	223
FT/CC/	SENG_cc_support	To check the IUT CC−state machine behaviour	223
FT/CC/BV/	SENG_cc_support	To tests the CC entity of the IUT in response to syntactically and contextual correct behaviour of the test system	223
FT/CC/BV/OC/	SENG_outgoing_call	To check the IUT's behaviours to setup an outgoing call	223
FT/CC/BV/IC/	SENG_incoming_call	To check the IUT's behaviours to setup an incoming call	231
FT/CC/BV/CI/	SENG_cc_support	To check the IUT's behaviour in information transfer procedures	233
FT/CC/BV/CR/	SENG_cc_support	To check the IUT's behaviours to release an outgoing/incoming call	241
FT/CC/RS/	SENG_crss_support	To check the IUT's behaviour during call related supplementary service procedures	247
FT/CC/BO/	SENG_cc_support	To check the behaviour of the CC entity of the IUT in response to the messages that are syntactically correct but not allowed to occur in some states of the CC procedures	248
FT/CC/BI/	SENG_cc_support	To check the behaviour of the CC entity of the IUT in response to invalid messages	250
FT/CC/TI/	SENG_cc_support	To verify that the IUT CC timers are with correct values and the IUT is reacting properly to the expiry of a timer	254
FT/MM/	SENG_mm_support	To check the behaviour of the Mobility Management entity of the IUT	258
FT/MM/BV/	SENG_mm_support	To tests the MM entity of the IUT in response to syntactically and contextual correct behaviour of the test system	258
FT/MM/BV/ID/	SENG_identity_procs	To check the IUT's behaviour concerning identity procedures	258
FT/MM/BV/AU/	SENG_auth_procs	To check the IUT's behaviour concerning the authentication procedures	259
FT/MM/BV/LO/	SENG_location_procs	To check the IUT's behaviour concerning the location procedures	265

Continued on next page

Continued from previous page

Test Suite Structure

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
FT/MM/BV/AR/	SENG_access_rights_procs	To check the IUT's behaviour concerning the access rights procedures	270
FT/MM/BV/KA/	SENG_key_allocat_proc	To check the IUT's behaviour concerning the key allocation procedure	275
FT/MM/BV/CH/	SENG_ciphering_procs	To check the IUT's behaviour concerning the ciphering related procedures	279
FT/MM/BO/	SENG_mm_support	To check the IUT behaviour in response to the messages that are syntactically correct but not allowed to occur in some phase of the MM procedures	284
FT/MM/BI/	SENG_mm_support	To check the IUT in response to invalid MM messages	285
FT/MM/TI/	SENG_mm_support	To verify that the IUT MM timers are with correct values and the IUT is reacting properly to the expiry of a timer	288
FT/ME/	SENG_mgt_support	To check the behaviour of the LLME of the IUT	295
FT/ME/BV/	SENG_mgt_support	To tests the LLME of the IUT in response to syntactically and contextual correct behaviour of the test system	295
FT/ME/BO/	SENG_mgt_support	To check the IUT behaviour in response to the messages that are syntactically correct but not allowed to occur in some phase of the LLME managed procedures	299
FT/LC/	SENG_lce_support	To check the behaviour of the LCE of the IUT	300
FT/LC/BV/	SENG_lce_support	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system	300
FT/LC/BV/LE/	SENG_lce_co	To check the IUT's behaviour concerning the connection oriented link establishment procedures	300
FT/LC/BV/LR/	SENG_lce_co	To check the IUT's behaviour concerning the connection oriented link release procedures	301
FT/LC/BI/	SENG_lce_support	To check the IUT in response to invalid LCE messages	305
FT/LC/TI/	SENG_lce_support	To verify that the IUT LCE timers are with correct values and the IUT is reacting properly to the expiry of a timer	309

Detailed Comments :

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/CC/BV/OC/	TC_FT_CC_BV_OC_01	SENC_piecewise	Outgoing normal call; F−00 to F−10; piece−wise dialling	223
FT/CC/BV/OC/	TC_FT_CC_BV_OC_02	SENC_enblock	Outgoing call; F−00−>F−10; en−block dialling in {CC−SETUP}	225
FT/CC/BV/OC/	TC_FT_CC_BV_OC_03	SENC_emerg_call	Prior to subscription; F−00−>F−10; en−block dialling in {CC−SETUP}	226
FT/CC/BV/OC/	TC_FT_CC_BV_OC_04	SENC_emerg_call	Emergency call ; with subscription; F−00, F−00−>F−10; en−block dialling in {CC−SETUP}	227
FT/CC/BV/OC/	TC_FT_CC_BV_OC_05	SENC_emerg_call_piecewise	Outgoing call; F−00, F−01, F−02, F−10; piecewise dialling in F−02	229
FT/CC/BV/IC/	TC_FT_CC_BV_IC_01	SENC_normal_in_call	Incoming call; F−00, F−06, F−07 to F−10	231
FT/CC/BV/IC/	TC_FT_CC_BV_IC_02	SENC_normal_in_call	Incoming call; F−06 directly to the state F−10.	232
FT/CC/BV/CI/	TC_FT_CC_BV_CI_01	SENC_normal_in_call	Incoming call; <<Signal>> either in {CC−SETUP} or in {CC−INFO}	233
FT/CC/BV/CI/	TC_FT_CC_BV_CI_02	SENC_go_pulse	Outgoing normal call; F−02; {CC−INFO}, <<Multi keypad>>, "Go to pulse" handling	234
FT/CC/BV/CI/	TC_FT_CC_BV_CI_04	SENC_dialling_pause	Outgoing normal call; F−02; {CC−INFO}, <<Multi keypad>>, "dialling pause" handling	235
FT/CC/BV/CI/	TC_FT_CC_BV_CI_05	SENC_dialling_pause	Outgoing normal call; F−10; {CC−INFO}, <<Multi keypad>>, "Dialling pause" handling	236
FT/CC/BV/CI/	TC_FT_CC_BV_CI_06	SENC_go_dtmf_dl	Outgoing normal call; F−02; {CC−INFO}, <<Multi keypad>>, "Go to DTMF defined tone length" handling	237
FT/CC/BV/CI/	TC_FT_CC_BV_CI_07	SENC_go_dtmf_dl	Outgoing normal call; F−10; {CC−INFO}, <<Multi keypad>>, "Go to DTMF defined tone length" handling	238
FT/CC/BV/CI/	TC_FT_CC_BV_CI_08	SENC_go_dtmf_il	Outgoing normal call; F−02; {CC−INFO}, <<Multi keypad>>, "Go to DTMF infinite tone length" handling	239
FT/CC/BV/CI/	TC_FT_CC_BV_CI_09	SENC_go_dtmf_il	Outgoing normal call; F−10; {CC−INFO}, <<Multi keypad>>, "Go to DTMF infinite tone length" handling	240

Continued on next page

Continued from previous page

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/CC/BV/CI/	TC_FT_CC_BV_CI_10	SENC_basic_digits	Outgoing normal call; F−10; {CC−INFO], <<Multi keypad>>, "0−9, star, hash mark" handling	241
FT/CC/BV/CR/	TC_FT_CC_BV_CR_01	SENC_normal_out_call	Outgoing normal call; F−02; IUT initiated normal release	241
FT/CC/BV/CR/	TC_FT_CC_BV_CR_02	SENC_normal_out_call	F−10; IUT initiated normal release	242
FT/CC/BV/CR/	TC_FT_CC_BV_CR_03	SENC_normal_in_call	Incoming call; F−07; IUT initiated normal release	242
FT/CC/BV/CR/	TC_FT_CC_BV_CR_04	SENC_piecewise	Outgoing call; F−02; PT initiated normal release	243
FT/CC/BV/CR/	TC_FT_CC_BV_CR_05	SENC_normal_out_call	F−10; PT initiated normal release	243
FT/CC/BV/CR/	TC_FT_CC_BV_CR_06	SENC_normal_in_call	Incoming call; F−07; PT initiated normal release	244
FT/CC/BV/CR/	TC_FT_CC_BV_CR_07	SENC_normal_in_call	Incoming call; F−07; PT initiated abnormal release	244
FT/CC/BV/CR/	TC_FT_CC_BV_CR_08	SENC_normal_out_call	F−10; PT initiated abnormal release	245
FT/CC/BV/CR/	TC_FT_CC_BV_CR_09	SENC_normal_in_call	Incomming normal call; F−06; PT initiated abnormal release	245
FT/CC/BV/CR/	TC_FT_CC_BV_CR_10	SENC_partial_release	F−10; PT initiated partial release	246
FT/CC/RS/	TC_FT_CC_BV_RS_07	SENC_clip	Incoming call; T−00; {CC−SETUP}, <<Calling party number>> provision (CLIP support)	247
FT/CC/BO/	TC_FT_CC_BO_01	SENC_out_piecewise_dtmf_dl_pulse	F−10; unexpected {CC−ALERTING}	248
FT/CC/BO/	TC_FT_CC_BO_02	SENC_normal_out_call	F−19; receipt of {CC−RELEASE}; release collisions handling	249
FT/CC/BI/	TC_FT_CC_BI_01	SENC_normal_out_call	F−00; {CC−SETUP} mandatory I.E. missing; answer upon with {CC−RELEASE−COM]	250
FT/CC/BI/	TC_FT_CC_BI_02	SENC_normal_out_call	F−00; {CC−SETUP} wrong mandatory I.E.; answer upon with {CC−RELEASE−COM]	251
FT/CC/BI/	TC_FT_CC_BI_03	SENC_normal_out_call	F−00; {CC−SETUP}−like message, non {CC−SETUP} unrecognised message type; ignore	252
FT/CC/BI/	TC_FT_CC_BI_04	SENC_normal_out_call	F−00; to short message to contain the complete <<Message type>>; ignore	253
FT/CC/TI/	TC_FT_CC_TI_01	SENC_normal_out_call	Outgoing call; F−02; timer F−<CC.01> expiry (± 5% margin); IUT sends {CC−RELEASE}	254

Continued on next page

Continued from previous page

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/CC/TI/	TC_FT_CC_TI_02	SENC_normal_out_call	Outgoing call; F−02; restart of timer F−<CC.01> on receipt of {CC−INFO}	255
FT/CC/TI/	TC_FT_CC_TI_03	SENC_normal_out_call	Outgoing call; F−19; timer F−<CC.02> expiry (± 5% margin); IUT sends {CC−RELEASE−COM} of IUT−Timer T_F_CC_02 in state F_19.	256
FT/CC/TI/	TC_FT_CC_TI_04	SENC_normal_in_call	Outgoing call; F−06; timer F−<CC.03> expiry (± 5% margin); IUT sends {CC−RELEASE−COM}	257
FT/MM/BV/ID/	TC_FT_MM_BV_ID_01	SENC_identification	Identity request procedure; IUT initiated	258
FT/MM/BV/AU/	TC_FT_MM_BV_AU_01	SENC_pt_auth	Authentication of PT; PT has no stored ZAP value and service class info	259
FT/MM/BV/AU/	TC_FT_MM_BV_AU_02	SENC_zap_ft_auth	Authentication of PT; ZAP increment; PT has stored ZAP value and service class info; PT authenticates FT before answering	260
FT/MM/BV/AU/	TC_FT_MM_BV_AU_03	SENC_user_auth	Authentication of user; PT has no stored ZAP value and service class info	261
FT/MM/BV/AU/	TC_FT_MM_BV_AU_04	SENC_ft_auth	Authentication of FT	262
FT/MM/BV/AU/	TC_FT_MM_BV_AU_05	SENC_ft_auth	Authentication of FT; Unsupported key requested; IUT rejects	263
FT/MM/BV/AU/	TC_FT_MM_BV_AU_06	SENC_ft_and_pt_cipher_on	Authentication of PT; store DCK ; PT has no stored ZAP value and service class info	264
FT/MM/BV/LO/	TC_FT_MM_BV_LO_01	SENC_location_reg	Location registration; a38=1 at locking and at the beginning of the procedure; request with IPUI	265
FT/MM/BV/LO/	TC_FT_MM_BV_LO_02	SENC_location_reg	Location registration; a38=1 at locking and at the beginning of the procedure; request with unknown IPUI; reject	266
FT/MM/BV/LO/	TC_FT_MM_BV_LO_03	SENC_location_reg	Location registration; a38=1 at locking and at the beginning of the procedure; request with IPUI; IUT assigns TPUI	267
FT/MM/BV/LO/	TC_FT_MM_BV_LO_05	SENC_location_update	Location update; a38=1 at locking; {MM−INFO−SUGGEST};	268

Continued on next page

Continued from previous page

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/MM/BV/LO/	TC_FT_MM_BV_LO_06	SENC_location_reg	Location registration; a38=1 at locking; a38=0 at the beginning of the procedure; request with IPUI	269
FT/MM/BV/AR/	TC_FT_MM_BV_AR_01	SENC_access_rights	Obtain access rights; both sides use AC; IUT sends the whole PARK	270
FT/MM/BV/AR/	TC_FT_MM_BV_AR_02	SENC_service_class	Obtain access rights; service class assign	271
FT/MM/BV/AR/	TC_FT_MM_BV_AR_03	SENC_ft_terminate_ar	Terminate access rights; IUT(FT) initiated; PT authenticates FT	272
FT/MM/BV/AR/	TC_FT_MM_BV_AR_06	SENC_access_rights_uak	Obtain access rights; both sides use UAK; IUT sends the whole PARK	273
FT/MM/BV/AR/	TC_FT_MM_BV_AR_07	SENC_zap	Obtain access rights; ZAP value assign	274
FT/MM/BV/KA/	TC_FT_MM_BV_KA_01	SENC_key_allocate	Key allocate; IUT initiated	275
FT/MM/BV/KA/	TC_FT_MM_BV_KA_02	SENC_key_allocate	Key allocate; IUT initiated; "implicit PT authentication" failure; IUT rejects	277
FT/MM/BV/KA/	TC_FT_MM_BV_KA_03	SENC_key_allocate	Key allocate; IUT initiated; PT rejects; IUT keeps AC	278
FT/MM/BV/CH/	TC_FT_MM_BV_CH_01	SENC_pt_cipher_on	Cipher switching; PT initiated; "cipher−off" to "cipher−on"	279
FT/MM/BV/CH/	TC_FT_MM_BV_CH_02	SENC_pt_cipher_off	Cipher switching; PT initiated; "cipher−on" to "cipher−off"	280
FT/MM/BV/CH/	TC_FT_MM_BV_CH_03	SENC_ft_cipher_on	Cipher switching; IUT(FT) initiated; "cipher−off" to "cipher−on"	281
FT/MM/BV/CH/	TC_FT_MM_BV_CH_04	SENC_ft_cipher_off	Cipher switching; IUT(FT) initiated; "cipher−on" to "cipher−off"	282
FT/MM/BV/CH/	TC_FT_MM_BV_CH_05	SENC_pt_cipher_on	Cipher switching; PT initiated with "unsupported cipher key"; IUT rejects	283
FT/MM/BO/	TC_FT_MM_B0_01	SENC_pt_cipher_on_ident	Cipher switching; IUT(FT) initiated; ignoring unexpected {IDENTITY−REPLY}	284
FT/MM/BI/	TC_FT_MM_BI_01	SENC_identification	Authentication request; PT sends unrecognised message; IUT ignores	285
FT/MM/BI/	TC_FT_MM_BI_02	SENC_access_rights	Obtain access rights; {ACCESS−RIGHTS−REQUEST} missing <<Auth type>>; IUT sends {ACCESS−RIGHTS−REQUEST}	286

Continued on next page

Continued from previous page

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/MM/BI/	TC_FT_MM_BI_03	SENC_access_rights	Obtain access rights; {ACCESS−RIGHTS−REQUEST} contains <AUTH_TYPE>> exceeding max. length. Reject	287
FT/MM/TI/	TC_FT_MM_TI_01	SENC_loc_reg_identif	Identity request; just before timer F−<MM_ident.2> expiry (− 10% margin)	288
FT/MM/TI/	TC_FT_MM_TI_02	SENC_pt_auth_loc	Authentication of PT; just before timer F−<MM_auth.1> expiry (− 10% margin)	289
FT/MM/TI/	TC_FT_MM_TI_03	SENC_user_auth_loc	Authentication of user; just before timer F−<MM_auth.2> expiry (− 10% margin)	290
FT/MM/TI/	TC_FT_MM_TI_04	SENC_ft_term_ar_loc	Terminate access rights; IUT(FT) initiated; just before timer F−<MM_access.2> expiry (− 10% margin)	291
FT/MM/TI/	TC_FT_MM_TI_05	SENC_key_alloc_loc	Key allocation; just before timer F−<MM_key.1> expiry (− 10% margin)	292
FT/MM/TI/	TC_FT_MM_TI_06	SENC_ft_cipher_on_loc	Cipher switching; IUT(FT) initiated; just before timer F−<MM_cipher.1> expiry (− 10% margin)	293
FT/MM/TI/	TC_FT_MM_TI_07	SENC_location_reg	Location registration with TPUI assignment; timer F−<MM_ident.1> expiry (+ 5% margin)	294
FT/ME/BV/	TC_FT_ME_BV_01	SENC_in_call_ft_auth	Incoming call and authentication of FT handled in parallel	295
FT/ME/BV/	TC_FT_ME_BV_02	SENC_user_auth_ft_auth	Authentication of user interrupted by Authentication of FT	297
FT/ME/BV/	TC_FT_ME_BV_03	SENC_out_call_loc_reg	CC call and location registration in parallel	298
FT/ME/BO/	TC_FT_ME_B0_01	SENC_pt_auth_loc	Authentication of PT; Ignoration of {LOCATE−REQUEST} (lower priority)	299
FT/LC/BV/LE/	TC_FT_LC_BV_LE_01	SENC_link_co_ft_indir	Indirect IUT(FT) link establishment procedure; correct PT answer	300
FT/LC/BV/LE/	TC_FT_LC_BV_LE_02	SENC_link_co_ft_indir	Indirect IUT(FT) link establishment procedure; {LCE−PAGE−RESPONSE} with mismatching IPUI; IUT rejects and release the link.	300
FT/LC/BV/LE/	TC_FT_LC_BV_LE_03	SENC_link_co_pt	Direct PT initiated link establishment procedure	301

Continued on next page

Continued from previous page

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
FT/LC/BV/LR/	TC_FT_LC_BV_LR_01	SENC_link_co_pt	Link exists; PT initiated "normal" link release	301
FT/LC/BV/LR/	TC_FT_LC_BV_LR_02	SENC_link_rel_maintain_mm	Link exists; MM entity ceases to use the link; no other entity uses the link; IUT maintains the link <LCE.02> time	302
FT/LC/BV/LR/	TC_FT_LC_BV_LR_03	SENC_link_co_pt_cc	Link exists; CC call is terminated; FT initiated link release	303
FT/LC/BV/LR/	TC_FT_LC_BV_LR_04	SENC_link_rel_maintain_cc	Link exists; CC entity ceases to use the link partial release agreed; no other entity uses the link; IUT maintains the link <LCE.02> time.	304
FT/LC/BI/	TC_FT_LC_BI_01	SENC_pd_ti	Protocol discriminator value error − unsupported service; IUT ignores	305
FT/LC/BI/	TC_FT_LC_BI_04	SENC_ft_auth	{AUTH−REQUEST} with illegal transaction id.; ignore	306
FT/LC/BI/	TC_FT_LC_BI_05	SENC_identification	Identity request procedure; {IDENTITY−REPLY} with transaction id. flag='0'; ignore	307
FT/LC/BI/	TC_FT_LC_BI_07	SENC_link_co_pt_cc	F−10; link fails; IUT clears the call	308
FT/LC/TI/	TC_FT_LC_TI_02	SENC_link_rel_maintain_mm	MM ceases to use the link; no other entity uses the link; timer <LCE.02> expiry (± 5% margin)	309
FT/LC/TI/	TC_FT_LC_TI_03	SENC_link_co_ft_indir	Indirect IUT(FT) initiated link establishment; no answer; timer <LCE.03> expiry (± 5% margin)	310

Detailed Comments :

Test Step Index

Continued on next page

Continued from previous page

Test Step Index

Test Step Group Reference	Test Step Id	Description	Page Nr
Teststeps/LC/	STP_handle_indirect_link_est		340
Teststeps/LC/	STP_initialise_tf		340
Teststeps/LC/	STP_release_link		341
Postambles/	PO_normal_release		341
Postambles/	PO_release_link		342
Postambles/	PO_terminate		342

Detailed Comments :

Default Index

Detailed Comments :

II

Declarations Part

Simple Type Definitions		
Type Name	**Type Definition**	**Comments**
BIT_1	BITSTRING[1]	GENERAL SIMPLE TYPE DEFINITIONS:
BIT_2	BITSTRING[2]	
BIT_3	BITSTRING[3]	
BIT_4	BITSTRING[4]	
BIT_5	BITSTRING[5]	
BIT_6	BITSTRING[6]	
BIT_7	BITSTRING[7]	
BIT_8	BITSTRING[8]	
BIT_16	BITSTRING[16]	
BIT_24	BITSTRING[24]	
BIT_32	BITSTRING[32]	
BIT_40	BITSTRING[40]	
BIT_64	BITSTRING[64]	
BIT_128	BITSTRING[128]	
DECTCHAR_4	HEXSTRING('0'H,'1'H,'2'H,'3'H,'4'H, '5'H,'6'H,'7'H,'8'H,'9'H,'B'H)	This refers to the standard 4 bit DECT charcter set. Refer to ETS 300 175−5 [5], subclause D.3
DECTCHAR_8	OCTETSTRING[1]	This refers to the standard 8 bit DECT charcter set. Some DECT characters have a special meaning. Refer to ETS 300 175−5 [5], subclause D.2
DECT_1	OCTETSTRING[1]	
DECT_2	OCTETSTRING[2]	
DECT_3	OCTETSTRING[3]	
DECT_1_253	OCTETSTRING[1 .. 253]	
DECT_1_254	OCTETSTRING[1 .. 254]	
DECT_1_255	OCTETSTRING[1 .. 255]	
INT_8	INTEGER(0 .. 255)	
INT_16	INTEGER(0 .. 65535)	
HEX_1	HEXSTRING[1]	Hexstrings shall only be used when the length of the string is odd.
HEX_3	HEXSTRING[3]	
HEX_5	HEXSTRING[5]	
HEX_7	HEXSTRING[7]	
OCT_1	OCTETSTRING[1]	
OCT_2	OCTETSTRING[2]	
OCT_4	OCTETSTRING[4]	
OCT_7	OCTETSTRING[7]	
OCT_8	OCTETSTRING[8]	
OCT_12	OCTETSTRING[12]	
OCT_14	OCTETSTRING[14]	
OCT_1_13	OCTETSTRING[1 .. 13]	
OCT_1_14	OCTETSTRING[1 .. 14]	
OCT_1_16	OCTETSTRING[1 .. 16]	
OCT_1_20	OCTETSTRING[1 .. 20]	
OCT_1_254	OCTETSTRING[1 .. 254]	

Continued on next page

Continued from previous page

Simple Type Definitions		
Type Name	**Type Definition**	**Comments**
OCT_1_255	OCTETSTRING[1 .. 255]	
		SPECIFIC SIMPLE TYPE DEFINITIONS:
CCSTATE_TYPE	INTEGER(0, 1, 2, 3, 4, 6, 7, 10, 19)	Used in PR_select_state
CIPHER_STATUS	INTEGER(0, 1)	Used in DL_ENCRYPT primitive
CLUSTER_ADDRESS_LIST	OCTETSTRING	Used in DL_BROADCAST primitive
CONNECTION_IDENTITIES	OCTETSTRING	Used in DL_ENCRYPT primitive
CPN_LENGTH_TYPE	INTEGER(1 .. 14)	Type for length of called party number
DATA_LINK_ENDPOINT_IDENTIFIER	INTEGER	Nr of bits to be specified by test system manufacturer.
ENCRYPTION_KEY	BITSTRING[64]	Used in DL_ENC_KEY primitive
ESTABLISH_MODE	INTEGER(0, 1, 2)	Used in DL_ESTABLISH primitive
FIXED_ID_VALUE_TYPE	BITSTRING[32..40]	The FIXED_ID_VALUE_TYPE is a type for the value of the PARK. The length of the PARK value shall be 4 or 5 octets
MESSAGE_TYPE	OCT_1	ETS 300 175−5 [5], subclause 7.4
MESSAGE_TYPE_SHORT	BITSTRING[4]	Used in TC_PT_CC_BI_04, where a too short, message type ie is sent.
MMPROC_TYPE	INTEGER(0 .. 10)	Used in PR_select_state
LCE_HEADER	HEX_1	ETS 300 175−5 [5], subclause 8.2
PARK_LENGTH_TYPE	INTEGER(0 .. 36)	For the number of significant bits in PARK
PORT_ID_VALUE_TYPE	BITSTRING[8 .. 104]	The PORT_ID_VALUE_TYPE is a type for the value of the portable_id. It is NOT the portable_id type. The value of the portable_id can lie between 1 and 13 octets
RADIO_FIXED_PART_NUMBER	INTEGER	Used in DL_ESTABLISH primitive
RELEASE_MODE	INTEGER(0, 1)	Used in DL_RELEASE primitive
TRANS_FLAG	INTEGER(0, 1)	Used n transaction flag definition
Detailed Comments :		

Structured Type Definition		
Type Name : ALLOCATION_TYPE		
Comments : ETS 300 175−5 [5], subclause 7.7.2		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
auth_algo_id	OCT_1	
ac_number	BIT_4	
uak_number	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : ALPHANUMERIC		
Comments : ETS 300 175−5 [5], subclause 7.7.3		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
character_set	BIT_3	
odd_even	BIT_1	
character_type	BIT_3	
f3	BIT_1	’0’
list_of_characters	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : AUTH_TYPE		
Comments : ETS 300 175−5 [5], subclause 7.7.4		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
auth_algo_id	OCT_1	
prop_algo_id	OCT_1	
auth_key_number	BIT_4	
auth_key_type	BIT_4	
cipher_key_number	BIT_4	
upc	BIT_1	
txc	BIT_1	
f5	BIT_1	’0’
inc	BIT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : BASIC_SERVICE		
Comments : ETS 300 175−5 [5], subclause 7.6.4		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
basic_service	BIT_4	
call_class	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : CALL_ATTRIBUTES		
Comments : ETS 300 175−5 [5], subclause 7.7.5		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
network_layer_attributes	BIT_5	
coding_standard	BIT_2	
f3	BIT_1	’1’B
c_plane_routing	BIT_4	
c_plane_class	BIT_3	
f4	BIT_1	’1’B
lu_id	BIT_5	
u_plane_symmetry	BIT_2	
ext5	BIT_1	
lu_id_f_p	BIT_5	
f5a	BIT_3	’100’
u_plane_frame_type	BIT_4	
u_plane_class	BIT_3	
ext6	BIT_1	
u_plane_frame_type_f_p	BIT_4	
u_plane_class_f_p	BIT_3	
f6a	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : CALL_ID		
Comments : ETS 300 175−5 [5], subclause 7.7.6		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
pd	BIT_4	
tv	BIT_3	
tf	BIT_1	
extended_transaction_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLED_PARTY_NUMBER **Comments :** ETS 300 175 [5], subclause 7.7.7		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
numbering_plan_id	BIT_4	
number_type	BIT_3	
f3	BIT_1	’1’
called_party_address	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLED_PARTY_SUBADDRESS **Comments :** ETS 300 175 [5], subclause 7.7.8		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
spare	BIT_3	’000’
o_e	BIT_1	
subaddress_type	BIT_3	
f3	BIT_1	’1’
subaddress_info	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLING_PARTY_NUMBER **Comments :** ETS 300 175−5 [5], subclause 7.7.9		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
numbering_plan_id	BIT_4	
number_type	BIT_3	
ext3	BIT_1	
screening_indicator	BIT_2	
spare	BIT_3	’000’
presentation_indicator	BIT_2	
f3a	BIT_1	’1’
calling_party_address	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CIPHER_INFO		
Comments : ETS 300 175−5 [5], subclause 7.7.10		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
cipher_algo_id	BIT_7	
y_n	BIT_1	
prop_algo_id	OCT_1	
cipher_key_number	BIT_4	
cipher_key_type	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : CONNECTION_ATTRIBUTES		
Comments : ETS 300 175−5 [5], subclause 7.7.11		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
connection_id	BIT_4	
symmetry	BIT_3	
f3	BIT_1	’1’B
target_bearers_p_f	BIT_5	
f4	BIT_2	’00’
ext4	BIT_1	
min_bearers_p_f	BIT_5	
f4a	BIT_2	’01’
ext4a	BIT_1	
target_bearers_f_p	BIT_5	
f4b	BIT_2	’10’
ext4b	BIT_1	
min_bearers_f_p	BIT_5	
f4c	BIT_3	’111’
mac_service	BIT_4	
slot_size	BIT_3	
ext5	BIT_1	
mac_service_f_p	BIT_4	
f5a	BIT_4	’1000’
mac_packet_lifetime	BIT_4	
cf_channel_attributes	BIT_3	
ext6	BIT_1	
mac_packet_lifetime_f_p	BIT_4	
cf_channel_attributes_f_p	BIT_3	
f6a	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : CONNECTION_ID		
Comments : ETS 300 175−5 [5], subclause 7.7.12		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
u_and_c_id	OCT_1_255	max number of connections
Detailed Comments :		

Structured Type Definition		
Type Name : DELIMITER_REQUEST		
Comments : ETS 300 175−5 [5], subclause 7.6.2		
Element Name	**Type Definition**	**Comments**
delimiter_request	OCT_1	'10100010'
Detailed Comments :		

Structured Type Definition		
Type Name : DURATION		
Comments : ETS 300 175−5 [5], subclause 7.7.13		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
time_limits	BIT_4	
lock_limits	BIT_3	
ext3	BIT_1	
time_duration	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : END_TO_END_COMPATIBILITY **Comments :** ETS 300 175−5 [5], subclause 7.7.14		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
user_rate	BIT_5	
negotiation	BIT_1	
s_a	BIT_1	
ext3	BIT_1	
v110_x30_service	BIT_7	
ext3a	BIT_1	
parity	BIT_3	
data_bits	BIT_2	
stop_bits	BIT_2	
ext3b	BIT_1	
modem_type	BIT_6	
duplex	BIT_1	
f3c	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : ESCAPE_FOR_EXTENSION **Comments :** ETS 300 175−5 [5], subclause 7.7.1		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
info_element_id	BIT_7	
f3	BIT_1	’1’
content_info_element	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : ESCAPE_TO_PROPRIETARY **Comments :** ETS 300 175−5 [5], subclause 7.7.1 (second edition: 7.7.45)		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
discriminator_type	BIT_7	
f3	BIT_1	’1’
discriminator	OCT_2	
contents	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : FACILITY		
Comments : ETS 300 175−5 [5], subclause 7.7.15		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
service_discriminator	BIT_5	
f3	BIT_3	’100’
component	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : FEATURE_ACTIVATE		
Comments : ETS 300 175−5 [5], subclause 7.7.16		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
feature	BIT_7	
ext3	BIT_1	
parameter	BIT_7	
f3a	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : FEATURE_INDICATE		
Comments : ETS 300 175−5 [5], subclause 7.7.17		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
feature	BIT_7	
ext3	BIT_1	
parameter	BIT_7	
f3a	BIT_1	’1’
status_indicator	OCT_1	
component	DECT_1_253	
Detailed Comments :		

Structured Type Definition		
Type Name : FIXED_ID		
Comments : ETS 300 175−5 [5], subclause 7.7.18		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	’1’
length_of_id_value	BIT_7	
f4	BIT_1	’1’
id_value	FIXED_ID_VALUE_TYPE	1)
Detailed Comments : 1) The FIXED_ID_VALUE_TYPE refers to the type of the id_value The id_value can consist of: − ARI (ARC + ARD) − ARI (ARC + ARD) + RPN − PARK		

Structured Type Definition		
Type Name : IDENTITY_TYPE		
Comments : ETSI 300 175−5 [5], subclause 7.7.19		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
id_group	BIT_4	
space	BIT_3	’000’
f3	BIT_1	’1’
type	BIT_7	
f4	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : INFO_TYPE		
Comments : ETS 300 175−5 [5], subclause 7.7.20		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
info_parameter	OCT_1_13	
Detailed Comments :		

Structured Type Definition

Type Name : IWU_ATTRIBUTES

Comments : ETS 300 175−5 [5], subclause 7.7.21

Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
info_transfer_capability	BIT_5	
coding_standard	BIT_2	
f3	BIT_1	’1’B
external_connection_type	BIT_4	
negotiation_indicator	BIT_3	
f4	BIT_1	’1’B
info_transfer_rate	BIT_5	
trans_mode	BIT_2	
ext5	BIT_1	
rate_multiplier	BIT_5	
unit_rate	BIT_2	
ext5a	BIT_1	
establishment	BIT_2	
configuration	BIT_2	
structure	BIT_3	
ext5b	BIT_1	
info_transfer_rate_d_o	BIT_5	
symmetry	BIT_2	
ext5c	BIT_1	
rate_multiplier_d_o	BIT_5	
unit_rate_d_o	BIT_2	
f5d	BIT_1	’1’
user_protocol_id	BIT_5	
f6	BIT_2	’00’
ext6	BIT_1	
l3_protocol_id	BIT_5	
f7	BIT_2	’11’
ext7	BIT_1	
l2_protocol_id	BIT_5	
f8	BIT_2	’10’
ext8	BIT_1	

Detailed Comments :

Structured Type Definition		
Type Name : IWU_PACKET		
Comments : ETS 300 175−5 [5], subclause 7.7.22		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
l2_protocol_id	BIT_5	
f3	BIT_1	’0’
s_r	BIT_1	
ext3	BIT_1	
l3_protocol_id	BIT_5	
f3a	BIT_3	’111’
info	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : IWU_TO_IWU		
Comments : ETS 300 175−5 [5] (second edition), subclause 7.7.23		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
protocol_discriminator	BIT_6	
s_r	BIT_1	
f3	BIT_1	’1’
contents	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : KEY		
Comments : ETS 300 175−5 [5], subclause 7.7.24		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
key_type	OCT_1	
key_data	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : LOCATION_AREA		
Comments : ETS 300 175−5 [5], subclause 7.7.25		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
location_area_level	BIT_6	
li_type	BIT_2	
spare	BIT_4	'1111' if GSM loc. info is not included
eli_type	BIT_4	
extended_location_information	OCT_7	
Detailed Comments :		

Structured Type Definition		
Type Name : MULTI_DISPLAY		
Comments : ETS 300 175−5 [5], subclause 7.7.26		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
display_info	DECT_1_255	
Detailed Comments :		

Structured Type Definition		
Type Name : MULTI_KEYPAD		
Comments : ETS 300 175−5 [5], subclause 7.7.27		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
keypad_info	DECT_1_255	
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_ASSIGNED_ID **Comments :** ETS 300 175−5 [5], subclause 7.7.28		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	’1’
id_length	BIT_7	
f4	BIT_1	’1’
value	OCT_1_16	4 octet GSM TMSI has to be supported
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_HEADER **Comments :** ETS 300 175−5 [5], subclause 7.1, 7.2, 7.3		
Element Name	**Type Definition**	**Comments**
protocol_discriminator	BIT_4	
transaction_value	BIT_3	
transaction_flag	BIT_1	
ext_transaction_flag	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_PARAMETER **Comments :** ETS 300 175−5 [5], subclause 7.7.29		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
discriminator	BIT_8	
data_field	OCT_1_254	for GSM handover ref.− 1 octet
Detailed Comments :		

Structured Type Definition		
Type Name : PORTABLE_ID		
Comments : ETS 300 175−5 [5], subclause 7.7.30		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	'1'
length_of_id_value	BIT_7	
f4	BIT_1	'1'
id_value	PORT_ID_VALUE_TYPE	1)
Detailed Comments : 1) The PORT_ID_VALUE_TYPE refers to the type of the id_value The id_value can consist of: − IPUI (S, O, T, P, Q, U, R), − IPEI, − TPUI		

Structured Type Definition		
Type Name : PROGRESS_INDICATOR		
Comments : ETS 300 175−5 [5], subclause 7.7.31		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
location	BIT_4	
coding_standard	BIT_3	
f3	BIT_1	'1'
progress_description	BIT_7	
f4	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : RAND		
Comments : ETS 300 175−5 [5], subclause 7.7.31		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
field	BIT_64	for DSAA : BITSTRING [64]
Detailed Comments :		

Structured Type Definition		
Type Name : RATE_PARAMETERS		
Comments : ETS 300 175−5 [5], subclause 7.7.33		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
class_of_service	BIT_4	
interleaving	BIT_1	
symmetry	BIT_2	
f3	BIT_1	’1’
channel1_arrangement_ptof	BIT_4	
channel1_rate_ptof	BIT_3	
ext4	BIT_1	
channel1_arrangement_ftop	BIT_4	
channel1_rate_ftop	BIT_3	
f4a	BIT_1	’1’
channel2_arrangement_ptof	BIT_4	
channel2_rate_ptof	BIT_3	
ext5	BIT_1	
channel2_arrangement_ftop	BIT_4	
channel2_rate_ftop	BIT_3	
f5a	BIT_1	’1’
channel3_arrangement_ptof	BIT_4	
channel3_rate_ptof	BIT_3	
ext6	BIT_1	
channel3_arrangement_ftop	BIT_4	
channel3_rate_ftop	BIT_3	
f6a	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : REJECT_REASON		
Comments : ETS 300 175−5 [5], subclause 7.7.34		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
reason	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : RELEASE_REASON		
Comments : ETS 300 175−5 [5], subclause 7.6.7		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
reason	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : REPEAT_INDICATOR		
Comments : ETS 300 175−5 [5], subsclause 7.6.3		
Element Name	**Type Definition**	**Comments**
repeat_indicator	HEX_1	
f1	BIT_4	'1101'
Detailed Comments :		

Structured Type Definition		
Type Name : RES		
Comments : ETS 300 175−5 [5], subclause 7.7.35		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
field	BIT_32	for DSAA: BITSTRING [32]
Detailed Comments :		

Structured Type Definition		
Type Name : RS		
Comments : ETS 300 175−5 [5], subclause 7.7.36		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
field	BIT_64	for DSAA : BITSTRING [64]
Detailed Comments :		

Structured Type Definition		
Type Name : SEGMENTED_INFO **Comments :** ETS 300 175−5 [5], subclause 7.7.37		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
number_of_segments_remaining	BIT_7	
f_bit	BIT_1	
segmented_element_type	BIT_7	
f4	BIT_1	’0’
Detailed Comments :		

Structured Type Definition		
Type Name : SENDING_COMPLETE **Comments :** ETS 300 175−5 [5], subclause 7.6.2		
Element Name	**Type Definition**	**Comments**
sending_complete	OCT_1	’10100001’
Detailed Comments :		

Structured Type Definition		
Type Name : SERVICE_CHANGE_INFO **Comments :** ETS 300 175−5 [5], subclause 7.7.38		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
change_mode	BIT_4	
master_coding	BIT_1	
coding_standard	BIT_2	
ext3	BIT_1	
extended_change_mode	BIT_7	
f3a	BIT_1	’1’
b_attributes	BIT_3	
reset_coding	BIT_1	
a_attributes	BIT_3	
f4	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : SERVICE_CLASS		
Comments : ETS 300 175−5 [5], subclause 7.7.39		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
service_class_field	BIT_8	
Detailed Comments :		

Structured Type Definition		
Type Name : SETUP_CAPABILITY		
Comments : ETS 300 175−5 [5], subclause 7.7.40		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
page	BIT_2	
setup	BIT_2	
f3	BIT_3	’000’
ext3	BIT_1	
profile_indicator	BIT_3	
f3a	BIT_5	’10000’
Detailed Comments :		

Structured Type Definition		
Type Name : SHORT_FORMAT_ADDRESS		
Comments : ETS 300 175−5 [5], subclause 8.2.1		
Element Name	**Type Definition**	**Comments**
w	BIT_1	
f1	HEX_1	xxxx
tpui_address	BIT_16	
Detailed Comments :		

Structured Type Definition		
Type Name : SIGNAL		
Comments : ETS 300 175−5 [5], subclause 7.6.8		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
signal_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : SINGLE_DISPLAY **Comments :** ETS 300 175−5 [5], subclause 7.6.5		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
display_info	DECT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : SINGLE_KEYPAD **Comments :** ETS 300 175−5 [5], subclause 7.6.6		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
keypad_info	DECT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TERMINAL_CAPABILITY		
Comments : ETS 300 175−5 [5], (second edition), subclause 7.7.41		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
display_capability	BIT_4	
tone_capability	BIT_3	
ext3	BIT_1	
a_vol	BIT_2	
n_rej	BIT_2	
echo_param	BIT_3	
ext3b	BIT_1	
slot_type_capability	BIT_7	
ext3c	BIT_1	
number_of_stored_display_chars_ms	BIT_7	
ext3d	BIT_1	
number_of_stored_display_chars_ls	BIT_7	
ext3e	BIT_1	
number_of_lines_in_display	BIT_7	
ext3f	BIT_1	
number_of_characters_per_line	BIT_7	
ext3g	BIT_1	
scrolling_behaviour_field	BIT_7	
ext3h	BIT_1	
profile_indicator_1	BIT_7	
ext4	BIT_1	
profile_indicator_2	BIT_7	
ext4a	BIT_1	
control_codes	BIT_3	
spare	BIT_4	’0000’
ext5	BIT_1	
esc_to_8_bit_cs	BIT_7	
ext5a	BIT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TEST_HOOK_CONTROL		
Comments : ETS 300 175−5 [5],subclause 7.6.10		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
hook_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TIMER_RESTART		
Comments : ETS 300 175−5 [5],subclause 7.6.9		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
restart_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TRANSIT_DELAY		
Comments : ETS 300 175−5 [5], subclause 7.7.42		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
forward_delay	BIT_6	
f3	BIT_2	’10’
backward_delay	BIT_6	
f4	BIT_2	’10’
Detailed Comments :		

Structured Type Definition		
Type Name : WINDOW_SIZE		
Comments : ETS 300 175−5 [5], subclause 7.7.43		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
forward_value	BIT_7	
f3	BIT_1	’1’
backward_value	BIT_7	
f4	BIT_1	’1’
Detailed Comments :		

Structured Type Definition		
Type Name : ZAP_FIELD		
Comments : ETS 300 175−5 [5], subclause 7.7.44		
Element Name	**Type Definition**	**Comments**
iei	OCT_1	
length	OCT_1	
contents	BIT_4	
f3	BIT_4	’0000’
Detailed Comments :		

Test Suite Operation Definition	
Operation Name	: TSO_cinft_algosb1_a1(rand,rs : BIT_64; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A1 for FP Authentication processes.
Description	
k,ks:INTEGER128BIT (k:=algoB1(uak_ac)) (ks:=algoA11(rs,k)) algoA12(ks,rand)	
Detailed Comments	: algoB1( ) as per ETS 300 175−7.[7] algoA11( ) and algoA12( ) as per DECT Standard Authentication Algorithm − DSSA. See Annex H of ETS 300 175−7

Test Suite Operation Definition	
Operation Name	: TSO_cinft_algosb2_a1(rand, rs : BIT_64; uak : BIT_128; upi : BIT_32)
Result Type	: BITSTRING
Comments	: authentication key selection algorithm B2 followed by authentication algorithms A1 for PP user authentication processes.
Description	
k,ks:INTEGER128BIT (k:=algoB2(uak,upi)) (ks:=algoA11(rs,k)) algoA12(ks,rand)	
Detailed Comments	: algoB2( ) as per ETS 300 175−7.[7] algoA11( ) and algoA12( ) as per DECT Standard Authentication Algorithm − DSSA. See Annex H of ETS 300 175−7

Test Suite Operation Definition	
Operation Name	: TSO_cinft_algosb1_a2(rand, rs : BIT_64; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A2 for FP Authentication processes.
Description	
k,ks':INTEGER128BIT (k:=algoB1(uak_ac)) (ks':=algoA21(rs,k)) algoA22(ks',rand)	
Detailed Comments	: algoB1( ) as per ETS 300 175−7 [7]. algoA21( ) and algoA22( ) as per DECT Standard Authentication Algorithm − DSSA. See Annex H of ETS 300 175−7

Test Suite Operation Definition	
Operation Name	: TSO_cinft_algosb1_a21(rs : BIT_64; ac : BITSTRING)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithm A21 of FP Authentication processes. Used to generate ks' which is the allocated key− UAK.
Description	
k :INTEGER128BIT (k:=algoB1(ac)) algoA21(rs,k)	
Detailed Comments	: algoB1( ) as per ETS 300 175−7 [7] algoA21( ) as per DECT Standard Authentication Algorithm − DSSA. See Annex H of ETS 300 175−7

Test Suite Operation Definition	
Operation Name	: TSO_cinft_algos_dck_b1_a1(rand,rs:BIT_64; uak_ac:BIT_128)
Result Type	: BIT_64
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A1. Used to calculate the derived ciphering key.
Description	
k,ks:INTEGER128BIT (k:=algoB1(uak_ac)) (ks:=algoA11(rs,k)) dck_algoA12(ks,rand)	
Detailed Comments	: algoB1( ) as per ETS 300 175−7.[7] algoA11( ) and dck_algoA12( ) as per DECT Standard Authentication Algorithm − DSSA. See Annex H of ETS 300 175−7

Test Suite Operation Definition	
Operation Name	: TSO_assign_tpui(tpui : PORT_ID_VALUE_TYPE; length : OCT_1)
Result Type	: BOOLEAN
Comments	: To pass an assigned TPUI to the testsystem, and consequently also to the PMID. In successive communication, an assigned PMID will be used. SBH 95.06.08
Description	
Pass the assigned TPUI with the specified length to the testsystem. Use an assigned PMID in successive communication. The result type indicates success or failure.	
Detailed Comments	:

Test Suite Operation Definition	
Operation Name	: TSO_cinft_bitstr_dec(bitstr : BITSTRING)
Result Type	: BITSTRING
Comments	: Returns a modified variable based on the valid variable in the bitstring bitstr.
Description	
L, bitstr_int:INTEGER (L := LENGTH_OF(bitstr)) (bitstr_int := BIT_TO_INT(bitstr)) (bitstr_int := bitstr_int − 1) (bitstr := INT_TO_BIT(bitstr_int, L))	
Detailed Comments	:

Test Suite Operation Definition	
Operation Name	: TSO_cinft_bitstr_inc(bitstr : BITSTRING)
Result Type	: BITSTRING
Comments	: Returns a modified variable based on the valid variable in the bitstring bitstr.
Description	
L, bitstr_int:INTEGER (L := LENGTH_OF(bitstr)) (bitstr_int := BIT_TO_INT(bitstr)) (bitstr_int := bitstr_int + 1) (bitstr := INT_TO_BIT(bitstr_int, L))	
Detailed Comments	:

Test Suite Operation Definition	
Operation Name	: TSO_cinft_calculate_w_from_TPUI(tpui: BIT_16)
Result Type	: BIT_1
Comments	: To calculate the value of IE 'w' for short format messages acc. to ETS 300 175−5, clause 8.2.1, depending on the TPUI address.
Description	
If the TPUI address is derived from an assigned TPUI the result is '1'B, if the TPUI address is derived from a default TPUI the result is '0'B.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_check_basic_digits
Result Type	: BOOLEAN
Comments	: To check if Network simulator(analyser) has received the basic dialled digit(s).
Description	
TSO_nw_check_basic_digits is a test suite operation which return a BOOLEAN value to the calling tree. The test personnel has to check the network simulator (analyser) if the digit(s) coming from the FT is/are the same as the one(s) which has/have been sent by the LT (PT). If it is the same digit(s) then TSO_nw_check_basic_digits shall be equal to TRUE, Otherwise it shall be assigned to FALSE. TSO_nw_check_basic_digits = TRUE , when the network analyser receives the same digit(s) as the LT has sent TSO_nw_check_basic_digits = FALSE , when the network analyser receives the same digit(s) as the LT has sent The digits that are sent by the LT, are the digits *, #, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_check_dtmf_defined
Result Type	: BOOLEAN
Comments	: To check if FT sends DTMF, defined tone length.
Description	
TSO_check_dtmf_defined is a test suite operation which return a BOOLEAN value to the calling tree. The test personnel has to check the network simulator, if the digit(s) coming from the FT is DTMF, defined tone length or pulse. If it is DTMF then TSO_check_dtmf_defined shall be equal to TRUE, Otherwise it shall be assigned to FALSE. TSO_check_dtmf_defined = TRUE , when FT sends DTMF, defined tone length TSO_check_dtmf_defined = FALSE , when FT does not send DTMF, defined tone length	
Detailed Comments :	

Test Suite Operation Definition

Operation Name : TSO_check_dtmf_infinite

Result Type : BOOLEAN

Comments : To check if FT sends DTMF, infinite tone length

Description

TSO_check_dtmf_defined is a test suite operation which return a BOOLEAN value to the calling tree. The test personnel has to check the network simulator, if the digit(s) coming from the FT is DTMF, infinite tone length or pulse. If it is DTMF then TSO_check_dtmf_defined shall be equal to TRUE, Otherwise it shall be assigned to FALSE.

TSO_nw_check_dtmf_inifinite = TRUE , when FT sends DTMF, infinite tone length.
TSO_nw_check_dtmf_inifinite = FALSE , when FT does not send DTMF, infinite tone length.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_cinft_check_link_present

Result Type : BOOLEAN

Comments : To check if a link between the IUT and the LT is present.

Description

TSO_cinft_check_link_present is an operation to detect if a layer 2 link is still present. The result of the operation is a boolean value which indicates the condition of the link.

TSO_cinft_check_link_present = TRUE, when a link between the LT and the IUT is present.
TSO_cinft_check_link_present = FALSE, when NO link between the LT and the IUT is present.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_pause

Result Type : BOOLEAN

Comments : To check if FT sends a pause.

Description

TSO_check_pause is a test suite operation which return a BOOLEAN value to the calling tree. The test personnel has to check the network simulator (analyser) if its possible to see a pause between the 4rd and the 5th digit. If it is a pause then TSO_check_pause shall be equal to TRUE, Otherwise it shall be assigned to FALSE.

TSO_check_pause = TRUE , when FT sends a pause (between the 4rd and the 5th digit)
TSO_check_pause = FALSE , when FT sends a pause (between the 4rd and the 5th digit)

Detailed Comments :

Test Suite Operation Definition
Operation Name : TSO_check_pulse
Result Type : BOOLEAN
Comments : To check, if FT has switched to pulse dialling.
Description
TSO_check_pulse is a test suite operation which return a BOOLEAN value to the calling tree. The test personnel has to check the network simulator (analyser) if the digit(s) coming from the FT is DTMF or pulse. If it is pulse then TSO_check_pulse shall be equal to TRUE, otherwise it shall be assigned to FALSE. TSO_check_pulse = TRUE , when FT sends pulse TSO_check_pulse = FALSE , when FT sends DTMF
Detailed Comments :

Test Suite Operation Definition
Operation Name : TSO_cinft_check_u_plane(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)
Result Type : BOOLEAN
Comments : To check if U−plane is present.
Description
TSO_cinft_check_u_plane is an operation to detect the U−plane connection of the specified dlei. The acoustical path will be checked in both directions by two tone generators. The result of the operation is a boolean valuewhich indicates the condition of the U_plane. TSO_cinft_check_u_plane = TRUE, when U_plane is connected. TSO_cinft_check_u_plane = FALSE, when U_plane is not connected.
Detailed Comments :

Test Suite Operation Definition
Operation Name : TSO_cinft_convert_ac_to_bitstring(param : OCT_4)
Result Type : BIT_32
Comments : To convert the value of the AC, into a bitstring, exactly as specified in ETS 300 444, subclause 14.2
Description
Convert the decimal AC value (max 8 digits) into a 32 bit bitstring, as specified in ETS 300 444, subclause 14.2.
Detailed Comments :

Test Suite Operation Definition	
Operation Name	: TSO_cinft_convert_upi_to_bitstring(param : OCT_4)
Result Type	: BIT_32
Comments	: To convert the value of the UPI, into a bitstring, exactly as specifiedue in ETS 300 444, subclause 8.25
Description	
Convert the decimal UPI value (max 8 digits) into a 32 bit bitstring, as specified in ETS 300 444, subclause 8.25.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_delete_tpui
Result Type	: BOOLEAN
Comments	: To delete tha assigned TPUI from the testsystem, and consequently also the PMID. In successive communication, a default PMID will be used.
Description	
Delete the assigned TPUI from the testsystem. Use default PMID is successive communication.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinft_fixed_id_length(param : BIT_7)
Result Type	: OCT_1
Comments	: Compute the real length of the Fixed Identity ie.
Description	
IF param = 31 THEN return (4 + 2) /* PARK B,C,D 31 bits long */ ELSE return (5 + 2) /* PARK A 36 bits long */	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinft_fixed_id_park(value : FIXED_ID_VALUE_TYPE; length : BIT_7)
Result Type	: FIXED_ID_VALUE_TYPE
Comments	: To fill the id_value field of a FIXED_ID information element according to the parametrised PARK.
Description	
IF ((length = 31) THEN /* the PARK is PARK B,C, or D 31 bits long */ return ('0'B followed by value) /* 32 bits adjust */ ELSE /* the PARK is PARK A 36 bits long */ return ('0'B followed by value followed by '000'B) /* 40 bits adjust */	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinft_portable_id_ipui(value : PORT_ID_VALUE_TYPE; length : BIT_7)
Result Type	: PORT_ID_VALUE_TYPE
Comments	: To fill the id_value field of a PORTABLE_ID information element according to the parametrised IPUI.

Description

```
IF ((length MOD 8) # 0) THEN
   extract the four fist bits of value into IPUI type
   IF (IPUI type is O ('0001'B) or P ('0010'B)) THEN   /* the IPUI is binary coded */
      return (value followed by '0000'B)
   ELSE                          /*  IPUI type is S, T, Q, U R − the IPUI is BCD coded */
      return (value followed by '1111'B)
ELSE
   return (value)
```

Detailed Comments :

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinft_portable_id_length(param : BIT_7)
Result Type	: OCT_1
Comments	: Compute the real length of the Portable Identity ie.

Description

```
IF param MOD 8 # 0 THEN return ((param / 8) + 3)
ELSE                       return ((param / 8) + 2)
```

Detailed Comments :

Test Suite Operation Definition	
Operation Name	: TSO_get_one_digit(digit_string : OCT_1_14; n : INTEGER)
Result Type	: DECT_1
Comments	: To get the n'th digit from a character string.

Description

TSO_get_one_digit(digit_string, n)

Returns the n'th character value from a character digit_string. The digit_string can be e.g. called_party_number.

e.g.:

```
   TSPX_called_nr:= 514411;
    n := 0;
   =>
      TSO_get_one_digit(TSPX_called_nr, 0) = 5
```

Detailed Comments : As the definition of an array is not possible in TTCN, this operator simulates an array.

Test Suite Operation Definition	
Operation Name	: TSO_cinft_int_to_oct_1(param : INT_8)
Result Type	: OCT_1
Comments	: This operator will convert an integer value, not higher than 255 (8 bits) into an octetstring of 1. The coding will be the natural binary value, unsigned.
Description	
Convert an integer value, not higher than 255 (8 bits) into an octetstring of 1. The coding will be the natural binary value, unsigned.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinft_lowest(nb:INTEGER;string:BITSTRING)
Result Type	: BITSTRING
Comments	: Extracting of the "nb" lowest bits of the string "string".
Description	
This test suite operation extracts the "nb" lowest bits of the bitstring passed in parameter. ex: TSO_cinft_lowest(4,'0101010101011100'B) return '1100'B	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_revoke_accessrights_of_pt
Result Type	: BOOLEAN
Comments	: To revoke the accessrights of the PT (LT), by means of a proprietary management command.
Description	
The testpersonnel will perform an action on the FT, or on a related management application, in order to revoke the accessrights of the PT (LT). This will be done without using the terminate accessrights procedure. The result of the operation will be TRUE, assuming that the operation has been completed successfully.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinft_set_bit_a38(param : INT_8)
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bit a 38. The parameter indicates the value that the bit shall get.
Description	
The value of bit a38 will be given the value indicated in the parameter. The result of the operation will be TRUE, assuming that the operation has been completed successfully.	
Detailed Comments :	

Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPC_cc_support	BOOLEAN	PICS Item A.12/1	Is CC entity supported ?
TSPC_ciss_support	BOOLEAN	PICS Item A.12/2	Is CISS entity supported ?
TSPC_coms_support	BOOLEAN	PICS Item A.12/3	Is COMS entity supported ?
TSPC_clms_support	BOOLEAN	PICS Item A.12/4	Is CLMS entity supported ?
TSPC_mm_support	BOOLEAN	PICS Item A.12/5	Is MM entity supported ?
TSPC_lce_support	BOOLEAN	PICS Item A.12/6	Is LCE entity supported ?
TSPC_basic_digits	BOOLEAN	PICS Item A.13/5	Is CC feature Dialled basic digits supported ?
TSPC_emerg_call	BOOLEAN	PICS Item A.13/10	Is CC feature Emergency service access request supported ?
TSPC_go_dtmf_il	BOOLEAN	PICS Item A.13/13	Is CC feature Go to DTMF (infinite tone length) supported ?
TSPC_go_dtmf_dl	BOOLEAN	PICS Item A.13/14	Is CC feature Go to DTMF (defined tone length) supported ?
TSPC_go_pulse	BOOLEAN	PICS Item A.13/15	Is CC feature Go to Pulse supported ?
TSPC_incoming_call	BOOLEAN	PICS Item A.13/17	Is CC feature Incoming call supported ?
TSPC_outgoing_call	BOOLEAN	PICS Item A.13/21	Is CC feature Outgoing Call supported ?
TSPC_partial_release	BOOLEAN	PICS Item A.13/23	Is CC feature Partial release supported ?
TSPC_dialling_pause	BOOLEAN	PICS Item A.13/24	Is CC feature Dialling pause supported ?
TSPC_ft_cipher_on	BOOLEAN	PICS Item A.14/4	Is MM feature Encryption activation FT initiated supported ?
TSPC_pt_cipher_on	BOOLEAN	PICS Item A.14/5	Is MM feature Encryption activation PT initiated supported ?
TSPC_ft_cipher_off	BOOLEAN	PICS Item A.14/6	Is MM feature Encryption deactivation FT initiated supported ?
TSPC_pt_cipher_off	BOOLEAN	PICS Item A.14/7	Is MM feature Encryption deactivation PT initiated supported ?
TSPC_identification	BOOLEAN	PICS Item A.14/8	Is MM feature Identification of PP supported ?
TSPC_location_registr	BOOLEAN	PICS Item A.14/10	Is MM feature Location registration supported ?
TSPC_location_deregistr	BOOLEAN	PICS Item A.14/11	Is MM feature Location deregistration supported ?
TSPC_key_allocat_proc	BOOLEAN	PICS Item A.14/13	Is MM feature On air key allocation supported ?
TSPC_access_rights	BOOLEAN	PICS Item A.14/16	Is MM feature On air subscription registration supported ?
TSPC_link_rel_maintain_mm	BOOLEAN	PICS Item A.14/22	Is MM feature Partial release supported ?
TSPC_clip	BOOLEAN	PICS Item A.15/8	Is SS feature CLIP supported ?

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPC_fkm_prot_cost_info	BOOLEAN	PICS Item A.15/17	Is SS feature Cost information supported ?
TSPC_fkm_prot_queue_mgt	BOOLEAN	PICS Item A.15/32	Is SS feature Queue management supported ?
TSPC_lce_co	BOOLEAN	PICS Item A.16/1	Is LCE feature: Connection oriented link control supported?
TSPC_lce_cl	BOOLEAN	PICS Item A.16/2	Is LCE feature: Connectionless link control supported ?
TSPC_identity_procs	BOOLEAN	PICS Item A.19/1	Is MM procedure: Identification of PP supported ?
TSPC_temp_id_assign	BOOLEAN	PICS Item A.19/2	Is MM procedure: Temporary identity assignment supported ?
TSPC_pt_auth	BOOLEAN	PICS Item A.19/3	Is MM procedure: Authentication of PT supported ?
TSPC_user_auth	BOOLEAN	PICS Item A.19/4	Is MM procedure: Authentication of user supported ?
TSPC_ft_auth	BOOLEAN	PICS Item A.19/5	Is MM procedure: Authentication of FT supported ?
TSPC_location_reg	BOOLEAN	PICS Item A.19/6	Is MM procedure: Location registration supported ?
TSPC_location_update	BOOLEAN	PICS Item A.19/8	Is MM procedure: Location update supported ?
TSPC_access_rights_procs	BOOLEAN	PICS Item A.19/9	Is MM procedure: Obtain access rights supported ?
TSPC_pt_terminate_ar	BOOLEAN	PICS Item A.19/10	Is MM procedure: PT terminate access rights supported ?
TSPC_ft_terminate_ar	BOOLEAN	PICS Item A.19/11	Is MM procedure: FT terminate access rights supported ?
TSPC_para_retr_pt	BOOLEAN	PICS Item A.19/13	Is MM procedure: PT init parameter retrieval supported ?
TSPC_zap	BOOLEAN	PICS Item A.19/17	Is MM procedure: ZAP increment supported ?
TSPC_store_dck	BOOLEAN	PICS Item A.19/18	Is MM procedure: DCK storing supported ?
TSPC_service_class	BOOLEAN	PICS Item A.19/20	Is MM procedure: Service class management supported ?
TSPC_clms_fixed	BOOLEAN	PICS Item A.22/1	Is CLMS fixed procedure supported ?
TSPC_clms_variable	BOOLEAN	PICS Item A.22/2	Is CLMS variable procedure supported ?
TSPC_link_estab_co_pt	BOOLEAN	PICS Item A.23/1	Is LCE procedure: PT direct link establishment supported ?

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPC_link_estab_co_ft_indir	BOOLEAN	PICS Item A.23/2	Is LCE procedure: FT indirect link establishment supported ?
TSPC_link_release	BOOLEAN	PICS Item A.23/7	Is LCE procedure: link release supported ?
TSPC_link_rel_maintain_cc	BOOLEAN	PICS Item A.23/8	Is LCE procedure: link partial release supported ?
TSPC_mm_priority_mgt	BOOLEAN	PICS Item A.24/5	Is MGT procedure: MM priority scheme supported ?
TSPC_mm_cc_interl_mgt	BOOLEAN	PICS Item A.24/6	Is MGT procedure: MM and CC coexistance supported ?
TSPC_enblock	BOOLEAN	PICS Item A.27/30	Is the called party number ie of the CC−SETUP message supported ?
TSPX_access_rights_uak	BOOLEAN	PIXIT Question B.7.16	Is the authencation key UAK supported ?
TSPX_dlei_value	DATA_LINK_ENDPOINT_IDENTIFIER	PIXIT Question B.8.4	Value of data link endpoint identifier to be used in the testsystem (local testsystem matter)
TSPX_ipei_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.5	Value of IPEI (IPUI−N) to be sent to the FT (IUT) (before subscription). 36 bits value is required.
TSPX_complete_fixed_id_ari_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.2	Value of fixed_id to be used in case of ARI.
TSPX_ari_length_indicator	INTEGER	PIXIT Question B.8.12	Number of significant bitts of the ARI value.
TSPX_complete_fixed_id_ari_rpn_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.3	Value of fixed_id to be used in case of ARI + RPN
TSPX_called_party_number	OCT_1_14	PIXIT Question B.8.13	The called party number to be dialled by the PT (LT) in oder to get connection to the network. For practical reasons, the number is limited to 14 digits,
TSPX_calling_party_number	OCT_1_14	PIXIT Question B.8.15	The calling party number to be provided by the IUT. For practical reasons, the number is limited to 14 digits,
TSPX_emergency_cpn	OCT_1_14	PIXIT Question B.8.14	The emergency called party number to be dialled by the PT (LT) in oder to get connection to the network. For practical reasons, the number is limited to 14 digits,
TSPX_decimal_ac_value	OCT_4	PIXIT Question B.8.1	Value of AC to be used. The AC will be entered as maximal 8 decimal digits. The AC to bitstring mapping will be done with operator TSO_cinft_convert_ac_to_bitstring.

Continued on next page

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPX_decimal_upi_value	OCT_4	PIXIT Question B.8.10	Value of UPI to be used. The UPI will be entered as maximal 8 decimal digits. The UPI to bitstring mapping will be done with operator TSO_cinft_convert_upi_to_ bitstring.
TSPX_ipui_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.6	Value of IPUI to be used by the PT (LT) (after subscription). the four first bits represent the type of IPUI. The following bits are the IPUI coded in BCD or in Binary depending on the type.
TSPX_location_area_level	BIT_6	PIXIT Question B.8.7	The location area level that is going to be used.
TSPX_mmproc_arte_ccstate	CCSTATE_TYPE	PIXIT Question B.7.1	Indicates the FT cc state, the accessrights terminate request testcases shall be tested in.
TSPX_mmproc_aupt_ccstat e	CCSTATE_TYPE	PIXIT Question B.7.2	Indicates the FT cc state, the authentication of PT testcases shall be tested in.
TSPX_mmproc_auus_ccstat e	CCSTATE_TYPE	PIXIT Question B.7.3	Indicates the FT cc state, the authentication of user testcases shall be tested in.
TSPX_mmproc_cift_ccstate	CCSTATE_TYPE	PIXIT Question B.7.4	Indicates the FT cc state, the FT init. ciphering testcases shall be tested in.
TSPX_mmproc_idpt_ccstate	CCSTATE_TYPE	PIXIT Question B.7.5	Indicates the FT cc state, the id. of PT testcases shall be tested in.
TSPX_mmproc_keal_ccstate	CCSTATE_TYPE	PIXIT Question B.7.7	Indicates the FT cc state, the key allocation testcases shall be tested in.
TSPX_nr_of_digits_in_cpn	CPN_LENGTH_TYPE	PIXIT Question B.7.15	This parameter is related to parameter TSPX_called_party_number. It specifies the actual number of digits present in the cpn.
TSPX_mmproc_loup_ccstate	CCSTATE_TYPE	PIXIT Question B.7.6	Indicates the FT cc state, the location update testcases shall be tested in.
TSPX_mmproc_arte_invoke	MMPROC_TYPE	PIXIT Question B.7.8	Indicates the way of invokating the accessrights terminate request procedure.
TSPX_mmproc_aupt_invoke	MMPROC_TYPE	PIXIT Question B.7.9	Indicates the way of invokating the authentication of PT proc.
TSPX_mmproc_auus_invoke	MMPROC_TYPE	PIXIT Question B.7.10	Indicates the way of invokating the authentication of user proc.
TSPX_mmproc_cift_invoke	MMPROC_TYPE	PIXIT Question B.7.11	Indicates the way of invokating the FT init. ciphering procedure.

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Test Suite Parameter Declarations

Parameter Name	Type	PICS/PIXIT Ref	Comments
TSPX_mmproc_idpt_invoke	MMPROC_TYPE	PIXIT Question B.7.12	Indicates the way of invokating the id. of PT procedure.
TSPX_mmproc_keal_invoke	MMPROC_TYPE	PIXIT Question B.7.14	Indicates the way of invokating the key allocation procedure.
TSPX_mmproc_loup_invoke	MMPROC_TYPE	PIXIT Question B.7.13	Indicates the way of invokating the location update request procedure.
TSPX_complete_fixed_id_park_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.8	Value of fixed_id to be used in case of PARK.
TSPX_park_length_indicator	INTEGER	PIXIT Question B.8.11	Number of significant bitts of the PARK value. (PLI)
TSPX_complete_fixed_id_park_value_2	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.16	Value of fixed_id to be used in case of a second PARK
TSPX_park_length_indicator_2	INTEGER	PIXIT Question B.8.17	Number of significant bitts of the PARK value 2. (PLI)
TSPX_tpui_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.9	Value of TPUI to be used by the PT (LT). 20 bits value is required.

Detailed Comments : The PIXIT parameters TSPX_mmproc_xxxx_ccstate can be used to specify the CC state, the IUT shall be in, when a certain MM procedure is tested.

The PIXIT parameters TSPX_mmproc_xxxx_invoke can be used to specify the means of invokation of a certain MM procedure. If the paramter is 0, a standard implicit send statement is used. In other cases, a manufacturer specific protocol invocation can be specified.

Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENG_access_rights_procs	TSPC_mm_support AND TSPC_access_rights_procs	SELECTION EXPRESSION NAMES FOR TESTGROUPS: Are access rights procedures supported.
SENG_auth_procs	TSPC_mm_support AND TSPC_pt_auth AND TSPC_user_auth AND TSPC_ft_auth	Are authentication procedures supported.
SENG_cc_support	TSPC_cc_support	Is Call Control supported.
SENG_ciphering_procs	TSPC_mm_support AND (TSPC_pt_cipher_on OR TSPC_pt_cipher_off)	Are ciphering related procedures supported.
SENG_ciss_support	TSPC_ciss_support	Are Call Independent Supplementary Services supported.
SENG_clms_support	TSPC_ciss_support	Is ConnectionLess Message Service supported.
SENG_crss_support	TSPC_cc_support AND TSPC_incoming_call AND TSPC_clip	Are Call Related Supplementary Services supported.
SENG_ft_testing	TRUE	Are we testing the FT
SENG_identity_procs	TSPC_mm_support AND TSPC_identity_procs	Are identity procedures supported.
SENG_incoming_call	TSPC_cc_support AND TSPC_incoming_call	Is incoming call establishment, maintenance and release supported.
SENG_key_allocat_proc	TSPC_mm_support AND TSPC_key_allocat_proc	TSPC_mm_support AND TSPC_key_allocat_proc.
SENG_lce_co	TSPC_lce_support AND TSPC_lce_co	Are connection oriented link establishment, maintenance and release supported.
SENG_lce_support	TSPC_lce_support	Is Link Control Entity supported.
SENG_location_procs	TSPC_mm_support AND TSPC_location_registr AND TSPC_location_deregistr	Are location procedures supported.
SENG_mgt_support	TSPC_cc_support AND TSPC_mm_support AND TSPC_mm_cc_interl_mgt AND TSPC_mm_priority_mgt	Are management of MM procedures and coexistance of MM and CC procedures supported.
SENG_mm_support	TSPC_mm_support	Is Mobility Management supported.
SENG_outgoing_call	TSPC_cc_support AND TSPC_outgoing_call	Is outgoing call establishment, maintenance and release supported.
SENC_access_rights	TSPC_mm_support AND TSPC_access_rights	Is obtain access rights procedure supported.
SENC_access_rights_uak	TSPC_mm_support AND TSPC_access_rights AND TSPX_access_rights_uak	Is obtain access rights procedure containing UAK supported.
SENC_basic_digits	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_basic_digits	Is sending/receiving basic digits supported.
SENC_clip	TSPC_cc_support AND TSPC_incoming_call AND TSPC_clip	Is CLIP call related supplementary service supported.
SENC_clms_fixed	TSPC_clms_support AND TSPC_clms_fixed	Is CLMS fixed message exchange supported.
SENC_clms_variable	TSPC_clms_support AND TSPC_clms_variable	Is CLMS variable message exchange supported.

Continued on next page

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_dialling_pause	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_dialling_pause	Is sending/receiving "Dialling pause" supported.
SENC_emerg_call	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_emerg_call	Is emergence outgoing call establishment, maintenance and release supported.
SENC_emerg_call_piecewise	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_emerg_call AND NOT TSPC_enblock	Is emergence outgoing call establishment, maintenance and release supported with piececewise (overlap sending optional states).
SENC_enblock	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_enblock	Is sending the called party number in enblock way (in a <<Called−party−number>> I.E.) supported
SENC_fkm_prot_cost_info_crss	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_fkm_prot_cost_info	Is cost information call related supplementary service supported.
SENC_fkm_prot_queue_mgt_crss	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_fkm_prot_queue_mgt	Is queue management call related supplementary service supported.
SENC_ft_auth	TSPC_mm_support AND TSPC_ft_auth	Is authentication of FT procedure supported.
SENC_ft_cipher_off	TSPC_mm_support AND TSPC_ft_cipher_off	Is FT initiated cipher off procedure supported.
SENC_ft_cipher_on	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_ft_cipher_on	Is FT initiated cipher on procedure supported.
SENC_ft_and_pt_cipher_on	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_ft_cipher_on AND TSPC_pt_cipher_on	Are PT and FT initiated cipher on procedures supported.
SENC_ft_cipher_on_loc	TSPC_mm_support AND TSPC_ft_cipher_on AND TSPC_location_reg	Are FT cipher on and location registration procedure supported.
SENC_ft_term_ar_ft_auth	TSPC_mm_support AND TSPC_ft_terminate_ar AND TSPC_ft_auth	Is authentication during FT initiated terminate access rights procedure supported.
SENC_ft_terminate_ar	TSPC_mm_support AND TSPC_ft_terminate_ar	Is FT initiated terminate access rights procedure supported.
SENC_ft_term_ar_loc	TSPC_mm_support AND TSPC_ft_terminate_ar AND TSPC_location_reg	Are FT terminate access rights and location registration procedure supported.
SENC_go_dtmf_dl	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_dtmf_dl	Is sending/receiving "Go to DTMF − defined tone length" supported.
SENC_go_dtmf_il	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_dtmf_il	Is sending/receiving "Go to DTMF − indefinite tone length" supported.
SENC_go_pulse	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_pulse	Is sending/receiving "Go to pulse" supported.
SENC_identification	TSPC_mm_support AND TSPC_identification	Is identification of PT procedure supported.

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Test Case Selection Expression Definitions

Expression Name	Selection Expression	Comments
SENC_in_call_ft_auth	TSPC_mm_support AND TSPC_cc_support AND TSPC_incoming_call AND TSPC_ft_auth	Is handling coexistence of CC (incoming call) and MM (FT authentication) procedures supported.
SENC_key_allocate	TSPC_mm_support AND TSPC_key_allocat_proc	Is key allocation procedure supported.
SENC_key_alloc_loc	TSPC_mm_support AND TSPC_key_allocat_proc AND TSPC_location_reg	Are key allocation and location registration procedure supported.
SENC_link_co_ft_indir	TSPC_lce_support AND TSPC_link_estab_co_ft_indir AND TSPC_link_release	Are connection oriented indirect FT initiated link establishment and link release procedures supported.
SENC_link_co_pt	TSPC_lce_support AND TSPC_link_estab_co_pt AND TSPC_link_release	Are connection oriented direct PT initiated link establishment and link release procedures supported.
SENC_link_co_pt_cc	TSPC_lce_support AND TSPC_cc_support AND TSPC_link_estab_co_pt AND TSPC_link_release	Are connection oriented direct PT initiated link establishment, outgoing call establishment and link release procedures supported.
SENC_link_rel_maintain_cc	TSPC_lce_support AND TSPC_link_rel_maintain_cc AND TSPC_partial_release	Is maintenance of link and partial release procedures supported.
SENC_link_rel_maintain_mm	TSPC_lce_support AND TSPC_link_rel_maintain_mm	Is maintenance of link supported after accomplishing of a MM transaction.
SENC_loc_reg_identif	TSPC_mm_support AND TSPC_location_reg AND TSPC_identification	Are location registration and identification procedures supported.
SENC_location_reg	TSPC_mm_support AND TSPC_location_reg	Is location registration procedure supported.
SENC_location_update	TSPC_mm_support AND TSPC_location_reg AND TSPC_location_update	Is location update procedure supported.
SENC_mm_general	TSPC_mm_support	Is any MM procedure supported.
SENC_normal_in_call	TSPC_cc_support AND TSPC_incoming_call	Is normal incoming call establishment, maintenance and release supported.
SENC_normal_out_call	TSPC_cc_support AND TSPC_outgoing_call	Is normal outgoing call establishment, maintenance and release supported.
SENC_out_call_loc_reg	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_location_reg	Is handling coexistence of CC (outgoing call) and MM (location registration) procedures supported.
SENC_out_piecewise_dtmf_dl_pulse	TSPC_cc_support AND TSPC_outgoing_call AND NOT TSPC_enblock AND TSPC_go_dtmf_dl AND TSPC_go_pulse	Are sending/receiving "Go to DTMF − defined tone length" and "Go to pulse" supported for outgoing call in overlap sending optional states.
SENC_para_retr_pt	TSPC_mm_support AND TSPC_para_retr_pt	Is PT initiated parameter retrieval procedure supported.
SENC_partial_release	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_link_rel_maintain_cc AND TSPC_partial_release	Is partial release requested by the CC entity supported.
SENC_pd_ti	TSPC_lce_support	Is management of protocol discriminator and transaction identifier supported.

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_piecewise	TSPC_cc_support AND TSPC_outgoing_call AND NOT TSPC_enblock	Is sending the called party number in piecewise way (in a <<Keypad>> I.E.) supported
SENC_pt_auth	TSPC_mm_support AND TSPC_pt_auth	Is authentication of PT procedure supported.
SENC_pt_auth_loc	TSPC_mm_support AND TSPC_pt_auth AND TSPC_location_reg	Are PT authentication and location registration procedure supported.
SENC_pt_cipher_off	TSPC_mm_support AND TSPC_pt_cipher_off	Is PT initiated cipher off procedure supported.
SENC_pt_cipher_on	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_pt_cipher_on	Is PT initiated cipher on procedure supported.
SENC_pt_cipher_on_ident	TSPC_mm_support AND TSPC_pt_cipher_on AND TSPC_identification	Are PT cipher on and identification of PT procedures supported.
SENC_pt_terminate_ar	TSPC_mm_support AND TSPC_pt_terminate_ar	Is PT initiated terminate access rights procedure supported.
SENC_service_class	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_service_class	Is assigning and indicating service class supported.
SENC_temp_id_assign	TSPC_mm_support AND TSPC_temp_id_assign	Is temporary identity assign procedure supported.
SENC_temp_id_loc	TSPC_mm_support AND TSPC_temp_id_assign AND TSPC_location_reg	Are temporary identity assign and location registration procedure supported.
SENC_user_auth	TSPC_mm_support AND TSPC_user_auth	Is user authentication procedure supported.
SENC_user_auth_ft_auth	TSPC_mm_support AND TSPC_user_auth AND TSPC_ft_auth	Is priority scheme for handling interrupting MM procedures (user authentication and FT authentication) supported.
SENC_user_auth_loc	TSPC_mm_support AND TSPC_user_auth AND TSPC_location_reg	Are user authentication and location registration procedure supported.
SENC_zap	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_zap	Is assigning and incrementing ZAP field supported.
SENC_zap_ft_auth	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_zap AND TSPC_ft_auth	Is authentication of FT during incrementing ZAP field supported.
Detailed Comments :		

Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_iei_allocation_type	OCT_1	'0B'O	ETS 300 175−5 [5] , subclause 7.6.1 and 7.7.1 Information element identifier coding:
TSC_iei_alphanumeric	OCT_1	'76'O	
TSC_iei_auth_type	OCT_1	'0A'O	
TSC_iei_basic_service	OCT_1	'E0'O	
TSC_iei_call_attributes	OCT_1	'13'O	
TSC_iei_call_id	OCT_1	'1A'O	
TSC_iei_called_party_number	OCT_1	'70'O	
TSC_iei_called_party_subaddress	OCT_1	'71'O	
TSC_iei_calling_party_number	OCT_1	'6C'O	
TSC_iei_cipher_info	OCT_1	'19'O	
TSC_iei_connection_attributes	OCT_1	'17'O	
TSC_iei_connection_id	OCT_1	'1B'O	
TSC_iei_delimiter_request	OCT_1	'A2'O	
TSC_iei_duration	OCT_1	'72'O	
TSC_iei_end_to_end_compatibility	OCT_1	'64'O	
TSC_iei_error_flag_on	BIT_1	'1'B	
TSC_iei_error_flag_off	BIT_1	'0'B	
TSC_iei_escape_to_extension	OCT_1	'7F'O	
TSC_iei_escape_to_proprietary	OCT_1	'7B'O	
TSC_iei_facility	OCT_1	'1C'O	
TSC_iei_feature_activate	OCT_1	'38'O	
TSC_iei_feature_indicate	OCT_1	'39'O	
TSC_iei_fixed_id	OCT_1	'06'O	
TSC_iei_identity_type	OCT_1	'02'O	
TSC_iei_info_type	OCT_1	'01'O	
TSC_iei_iwu_attributes	OCT_1	'12'O	
TSC_iei_iwu_to_iwu	OCT_1	'77'O	
TSC_iei_iwu_packet	OCT_1	'7A'O	
TSC_iei_key	OCT_1	'56'O	
TSC_iei_location_area	OCT_1	'07'O	
TSC_iei_multi_display	OCT_1	'28'O	
TSC_iei_multi_keypad	OCT_1	'2C'O	
TSC_iei_network_assigned_id	OCT_1	'09'O	
TSC_iei_network_parameter	OCT_1	'41'O	
TSC_iei_portable_id	OCT_1	'05'O	
TSC_iei_progress_indicator	OCT_1	'1E'O	
TSC_iei_rand	OCT_1	'0C'O	
TSC_iei_rate_parameters	OCT_1	'65'O	
TSC_iei_reject_reason	OCT_1	'60'O	

Continued on next page

Continued from previous page

Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_iei_release_reason	OCT_1	'E2'O	
TSC_iei_repeat_indicator_non_prioritised	HEX_1	'1'H	
TSC_iei_repeat_indicator_prioritised	HEX_1	'2'H	
TSC_iei_res	OCT_1	'0D'O	
TSC_iei_rs	OCT_1	'0E'O	
TSC_iei_sending_complete	OCT_1	'A1'O	
TSC_iei_segmented_info	OCT_1	'75'O	
TSC_iei_service_change_info	OCT_1	'16'O	
TSC_iei_service_class	OCT_1	'54'O	
TSC_iei_setup_capability	OCT_1	'62'O	
TSC_iei_single_display	OCT_1	'E8'O	
TSC_iei_single_keypad	OCT_1	'E9'O	
TSC_iei_signal	OCT_1	'E4'O	
TSC_iei_terminal_capability	OCT_1	'63'O	
TSC_iei_test_hook_control	OCT_1	'E6'O	
TSC_iei_timer_restart	OCT_1	'E5'O	
TSC_iei_transit_delay	OCT_1	'66'O	
TSC_iei_window_size	OCT_1	'67'O	
TSC_iei_zap_field	OCT_1	'52'O	
			ETS 300 175−5 [5], subclause 7.4 Message type coding:
TSC_mt_cc_alerting	MESSAGE_TYPE	'01'O	
TSC_mt_cc_call_proc	MESSAGE_TYPE	'02'O	
TSC_mt_cc_setup	MESSAGE_TYPE	'05'O	
TSC_mt_cc_connect	MESSAGE_TYPE	'07'O	
TSC_mt_cc_setup_ack	MESSAGE_TYPE	'0D'O	
TSC_mt_cc_connect_ack	MESSAGE_TYPE	'0F'O	
TSC_mt_cc_service_change	MESSAGE_TYPE	'20'O	
TSC_mt_cc_service_accept	MESSAGE_TYPE	'21'O	
TSC_mt_cc_service_reject	MESSAGE_TYPE	'23'O	
TSC_mt_cc_release	MESSAGE_TYPE	'4D'O	
TSC_mt_cc_release_com	MESSAGE_TYPE	'5A'O	
TSC_mt_iwu_info	MESSAGE_TYPE	'60'O	
TSC_mt_cc_notify	MESSAGE_TYPE	'6E'O	
TSC_mt_cc_info	MESSAGE_TYPE	'7B'O	
TSC_mt_cc_short	MESSAGE_TYPE_SHORT	'0101'B	
TSC_mt_lce_page_response	MESSAGE_TYPE	'71'O	
TSC_mt_lce_page_reject	MESSAGE_TYPE	'72'O	
TSC_mt_hold	MESSAGE_TYPE	'24'O	
TSC_mt_hold_ack	MESSAGE_TYPE	'28'O	
TSC_mt_hold_reject	MESSAGE_TYPE	'30'O	
TSC_mt_retrieve	MESSAGE_TYPE	'31'O	
TSC_mt_retrieve_ack	MESSAGE_TYPE	'33'O	

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Continued from previous page

Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_mt_retrieve_reject	MESSAGE_TYPE	’37’O	
TSC_mt_facility	MESSAGE_TYPE	’52’O	
TSC_mt_auth_request	MESSAGE_TYPE	’40’O	
TSC_mt_auth_reply	MESSAGE_TYPE	’41’O	
TSC_mt_key_allocate	MESSAGE_TYPE	’42’O	
TSC_mt_auth_reject	MESSAGE_TYPE	’43’O	
TSC_mt_access_rights_request	MESSAGE_TYPE	’44’O	
TSC_mt_access_rights_accept	MESSAGE_TYPE	’45’O	
TSC_mt_access_rights_reject	MESSAGE_TYPE	’47’O	
TSC_mt_access_rights_term_request	MESSAGE_TYPE	’48’O	
TSC_mt_access_rights_term_accept	MESSAGE_TYPE	’49’O	
TSC_mt_access_rights_term_reject	MESSAGE_TYPE	’4B’O	
TSC_mt_cipher_request	MESSAGE_TYPE	’4C’O	
TSC_mt_cipher_suggest	MESSAGE_TYPE	’4E’O	
TSC_mt_cipher_reject	MESSAGE_TYPE	’4F’O	
TSC_mt_mm_info_request	MESSAGE_TYPE	’50’O	
TSC_mt_mm_info_accept	MESSAGE_TYPE	’51’O	
TSC_mt_mm_info_suggest	MESSAGE_TYPE	’52’O	
TSC_mt_mm_info_reject	MESSAGE_TYPE	’53’O	
TSC_mt_locate_request	MESSAGE_TYPE	’54’O	
TSC_mt_locate_accept	MESSAGE_TYPE	’55’O	
TSC_mt_detach	MESSAGE_TYPE	’56’O	
TSC_mt_locate_reject	MESSAGE_TYPE	’57’O	
TSC_mt_identity_request	MESSAGE_TYPE	’58’O	
TSC_mt_identity_reply	MESSAGE_TYPE	’59’O	
TSC_mt_temporary_id_assign	MESSAGE_TYPE	’5C’O	
TSC_mt_temporary_id_assign_ack	MESSAGE_TYPE	’5D’O	
TSC_mt_temporary_id_assign_reject	MESSAGE_TYPE	’5F’O	
TSC_mt_unrec	MESSAGE_TYPE	’04’O	unrecognised message type used for CC and MM
			Protocol discriminator coding:
TSC_pd_lce	BIT_4	’0000’B	
TSC_pd_cc	BIT_4	’0011’B	
TSC_pd_ciss	BIT_4	’0100’B	
TSC_pd_mm	BIT_4	’0101’B	
TSC_pd_coms	BIT_4	’0111’B	
			Establish mode coding:
TSC_em_class_a	ESTABLISH_MODE	0	

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_em_class_b	ESTABLISH_MODE	1	
TSC_em_class_u	ESTABLISH_MODE	2	
			Release mode coding:
TSC_rm_normal	RELEASE_MODE	0	
TSC_rm_abnormal	RELEASE_MODE	1	
			Cipher status coding:
TSC_cs_disabled	CIPHER_STATUS	0	
TSC_cs_enabled	CIPHER_STATUS	1	
			Lce_header coding: ETS 300 444, subclause 8.35
TSC_lce_hdr_cc	LCE_HEADER	'4'H	This LCE header is used when MAC U−plane services are required
TSC_lce_hdr_mm	LCE_HEADER	'0'H	This LCE header is used when only C−plane is required:
			OTHER CONSTANTS:
TSC_id_group_portable	BIT_4	'0000'B	id_group: portable
TSC_iut_originated	TRANS_FLAG	0	
TSC_lt_originated	TRANS_FLAG	1	
TSC_string_1234	OCT_4	'31323334'O	Standard characters used for display on the PT.
TSC_string_basic_digits	OCT_12	'232A30313233343536373839'O	basic dialled digits: *, #, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
TSC_rand	BIT_64	'0000000000000000000000000000000000000000000000000000000000000111'B	Value of 64 bit rand used
TSC_rs	BIT_64	'0000000000000000000000000000000000000000000000000000000000001111'B	Value of 64 bit rs used
TSC_fixed_id_length_ari	OCT_1	TSO_fill_cinft_fixed_id_length(TSC_ari_length)	Fixed_id ie: −−−−−−−−− ie length: −−−−−− in case of ARI type.
TSC_fixed_id_length_ari_rpn	OCT_1	'07'O	in case of ARI + RPN type.
TSC_fixed_id_length_park	OCT_1	TSO_fill_cinft_fixed_id_length(TSC_park_length)	for the first PARK
TSC_fixed_id_length_park2	OCT_1	TSO_fill_cinft_fixed_id_length(TSC_park2_length)	for the second PARK
TSC_ari_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_complete_fixed_id_ari_value),7)	id_value length: −−−−−−−−−− in case of ARI.
TSC_ari_rpn_length	BIT_7	'0101000'B	in case of ARI + RPN

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Test Suite Constant Declarations

Constant Name	Type	Value	Comments
TSC_park_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_complete_fixed_id_park_value),7)	for the first PARK (31 or 36 bits long)
TSC_park2_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_complete_fixed_id_park_value_2),7)	for the second PARK (31 or 36 bits long)
TSC_ari_complete_value	FIXED_ID_VALUE_TYPE	TSO_fill_cinft_fixed_id_park(TSPX_complete_fixed_id_ari_value,TSC_ari_length)	Identity value: −−−−−−−−− in case of ARI
TSC_arirpn_complete_value	FIXED_ID_VALUE_TYPE	INT_TO_BIT(BIT_TO_INT(TSPX_complete_fixed_id_ari_rpn_value), 40)	in case of ARI + RPN
TSC_park_complete_value	FIXED_ID_VALUE_TYPE	TSO_fill_cinft_fixed_id_park(TSPX_complete_fixed_id_park_value,TSC_park_length)	in case of PARK 1
TSC_park2_complete_value	FIXED_ID_VALUE_TYPE	TSO_fill_cinft_fixed_id_park(TSPX_complete_fixed_id_park_value_2,TSC_park2_length)	in case of PARK 2
TSC_port_id_length_ipei	OCT_1	'07'O	Portable_id ie: −−−−−−−−− ie length: −−−−−− in case of IPEI type
TSC_port_id_length_ipui	OCT_1	TSO_fill_cinft_portable_id_length(TSC_ipui_length)	in case of IPUI type
TSC_port_id_length_tpui	OCT_1	'05'O	in case of TPUI type
TSC_ipei_length	BIT_7	'0101000'B	id_value length: −−−−−−−−−− in case of IPEI (alway 40 bits)
TSC_ipui_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_ipui_value),7)	in case of IPUI
TSC_tpui_length	BIT_7	'0010100'B	in case of TPUI (alway 20 bits)
TSC_ipei_complete_value	PORT_ID_VALUE_TYPE	INT_TO_BIT(BIT_TO_INT(TSPX_ipei_value), 40)	Identity value: −−−−−−−−− in case of IPEI or IPUI−N (36 bits IPEI leading by '0000'B)
TSC_ipui_complete_value	PORT_ID_VALUE_TYPE	TSO_fill_cinft_portable_id_ipui(TSPX_ipui_value,TSC_ipui_length)	in case of IPUI
TSC_tpui_complete_value	PORT_ID_VALUE_TYPE	INT_TO_BIT(BIT_TO_INT(TSPX_tpui_value), 24)	in case of TPUI (20 bits TPUI leading by '0000'B)

Detailed Comments :

Test Suite Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TSV_dck_value	BIT_64	INT_TO_BIT(0, 64)	Derived cipher key to be used by the LT.
TSV_uak	BIT_128	INT_TO_BIT(0, 128)	UAK value. Used for all testcases.
TSV_ft_authentication_pending	BOOLEAN	FALSE	TRUE in case of FT authentication pending
Detailed Comments :			

Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TCV_pdu_acrght_accept	ACCESS_RIGHTS_ACCEPT		PDU VARIABLES: Used to temporarily store a received ACRGHT_ACCEPT PDU
TCV_pdu_acrght_request	ACCESS_RIGHTS_REQUEST		Used to temporarily store a received ACRGHT_REQUEST PDU
TCV_pdu_auth_reply	AUTH_REPLY		Used to temporarily store a received AUTH_REPLY PDU
TCV_pdu_auth_request	AUTH_REQUEST		Used to temporarily store a received AUTH_REQUEST PDU
TCV_pdu_cc_info	CC_INFO		Used to temporarily store a received CC_INFO PDU
TCV_pdu_cc_setup	CC_SETUP		Used to temporarily store a received CC_SETUP PDU
TCV_pdu_identy_request	IDENTITY_REQUEST		Used to temporarily store a received IDENTITY_REQUEST PDU
TCV_pdu_key_allocate	KEY_ALLOCATE		Used to temporarily store a received KEY ALLOCATE PDU
TCV_pdu_locate_accept	LOCATE_ACCEPT		Used to temporarily store a received LOCATE_ACCEPT PDU INFORMATION ELEMENT VARIABLES:
TCV_pdu_locate_req	LOCATE_REQUEST		Used to temporarily store a received LOCATE_REQUEST PDU INFORMATION ELEMENT VARIABLES:
TCV_ie_auth_type	AUTH_TYPE		Used to temporarily store the AUTH_TYPE ie OTHER VARIABLES:
TCV_cc_iut_tf	BIT_1	’0’B	Transaction flag for cc messages received from IUT
TCV_cc_lt_tf	BIT_1	’1’B	Transaction flag for cc messages sent to IUT
TCV_cc_state	CCSTATE_TYPE	0	Used in PR_select_state
TCV_cc_tv	BIT_3	’000’B	Transaction value for CC
TCV_count	INT_8	0	General counter
TCV_id_group	BIT_4	’0000’B	Id_group used in Identity request procedure.
TCV_id_type	BIT_7	’0000’B	Id_type used in Identity request procedure.
TCV_port_id_length_tpui	OCT_1	’00’O	Length of the portable_id in case of TPUI, when received in a locate accept msg.

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Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TCV_rand	BIT_64	INT_TO_BIT(0, 64)	value of rand
TCV_result	BOOLEAN	FALSE	General BOOLEAN variable
TCV_res_rx	BIT_32	INT_TO_BIT(0, 32)	value of received res
TCV_res_rx_u	BIT_32	INT_TO_BIT(0, 32)	value of received res during the user authentication
TCV_res_tx	BIT_32	INT_TO_BIT(0, 32)	value of transmitted res
TCV_res_tx_u	BIT_32	INT_TO_BIT(0, 32)	value of transmitted res during the user authentication
TCV_rs	BIT_64	INT_TO_BIT(0, 64)	value of rs
TCV_xres	BIT_32	INT_TO_BIT(0, 32)	value calculated res
Detailed Comments :			

PCO Declarations			
PCO Name	**PCO Type**	**Role**	**Comments**
DLB	B_SAP	LT	1)
DLS	S_SAP	LT	2)
Detailed Comments : 1) SAP for Broadcast services 2) SAP for connection oriented services			

Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T_P_CC_01	20 * (1000 + 0)	ms	PROTOCOL TIMERS RUNNING IN THE PT (LT): Overlap sending timer.
T_P_CC_02	36 * (1000 + 0)	ms	CC release timer (changed to 36 seconds in version 2 of ETS 300 175−5 [5])
T_P_CC_03	20 * (1000 + 0)	ms	CC setup timer.
T_P_CC_04	100 * (1000 + 0)	ms	CC completion timer
T_P_CC_05	10 * (1000 + 0)	ms	CC connect timer
T_P_MM_access_1	60 * (1000 + 0)	ms	Access rights request timer
T_P_MM_access_2	10 * (1000 + 0)	ms	Access rights terminate timer
T_P_MM_auth_1	10 * (1000 + 0)	ms	FT initiated PT authentication timer
T_P_MM_cipher_2	10 * (1000 + 0)	ms	PT cipher−switching timer
T_P_MM_locate_1	20 * (1000 + 0)	ms	Location timer
T_P_LCE_01	5 * (1000 + 0)	ms	Link release timer
T_P_LCE_02	10 * (1000 + 0)	ms	Link maintain timer
T_P_LCE_04	5 * (1000 + 0)	ms	Link suspend and resume timer TIMERS USED FOR TESTING PROTOCOL TIMERS RUNNING IN THE FT (IUT):
T_F_CC_01_max	20 * (1000 + 50)	ms	For testing CC release timer. 5% bigger than T_P_CC_01.
T_F_CC_01_min	20 * (1000 − 100)	ms	For testing CC release timer. 10% smaller than T_P_CC_01.
T_F_CC_01_half	20 * (1000 − 500)	ms	50 % of T_F_CC_01. For testing restart of T_F_CC_01.
T_F_CC_02_max	36 * (1000 + 50)	ms	For testing CC release timer. 5% bigger than T_P_CC_02.
T_F_CC_02_min	36 * (1000 − 100)	ms	For testing CC release timer. 10% smaller than T_P_CC_02.
T_F_CC_03_max	20 * (1000 + 50)	ms	For testing CC setup timer. 5% bigger than T_P_CC_03.
T_F_CC_03_min	20 * (1000 − 100)	ms	For testing CC setup timer. 10% smaller than T_P_CC_03.
T_F_LCE_02_max	10 * (1000 + 50)	ms	For testing link maintain timer in the FT. 5% bigger than T_P_LCE_02
T_F_LCE_02_min	10 * (1000 − 100)	ms	For testing link maintain timer in the FT. 10% smaller than T_P_LCE_02

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Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T_F_LCE_03_max	3 * (1000 + 50)	ms	For testing link maintain timer in the FT. 5% bigger than T_P_LCE_03
T_F_LCE_03_min	3 * (1000 − 100)	ms	For testing link maintain timer in the FT. 10% smaller than T_P_LCE_03
T_F_MM_access_2_min	10 * (1000 − 100)	ms	For testing access rights timer. 10% smaller than T_P_MM_access_2
T_F_MM_access_2_max	10 * (1000 + 50)	ms	For testing access rights timer. 5% bigger than T_P_MM_access_2
T_F_MM_auth_1_min	10 * (1000 − 100)	ms	For testing auth 1 timer. 10% smaller than T_P_MM_auth_1
T_F_MM_auth_1_max	10 * (1000 + 50)	ms	For testing auth 1 timer. 5% smaller than T_P_MM_auth_1
T_F_MM_auth_2_min	100 * (1000 − 100)	ms	For testing auth 2 timer. 10% bigger than T_P_MM_auth_2
T_F_MM_auth_2_max	100 * (1000 + 50)	ms	For testing auth 2 timer. 5% bigger than T_P_MM_auth_2
T_F_MM_cipher_1_min	10 * (1000 − 100)	ms	For testing cipher timer. 10% smaller than T_P_MM_cipher_1
T_F_MM_cipher_1_max	10 * (1000 + 50)	ms	For testing cipher timer. 5% bigger than T_P_MM_cipher_1
T_F_MM_ident_1_max	10 * (1000 + 50)	ms	For testing ident 1 timer. 5% bigger than T_P_MM_ident_1
T_F_MM_ident_2_min	10 * (1000 − 100)	ms	For testing ident 2 timer. 10% smaller than T_P_MM_ident_1
T_F_MM_ident_2_max	10 * (1000 + 50)	ms	For testing ident 2 timer. 5% bigger than T_P_MM_ident_1
T_F_MM_key_1_min	10 * (1000 − 100)	ms	For testing key 1timer. 10% smaller than T_P_MM_key_1
T_F_MM_key_1_max	10 * (1000 + 50)	ms	For testing key 1timer. 5% bigger than T_P_MM_key_1
			OTHER TIMERS RUNNING IN THE PT (LT):
T_CIPHER_SWITCH	20000	ms	Ciphering switching time. It is to start with sending of DL_ENCRYPT_REQ and to stop with receiving of DL_ENCRYPT_IND.
T_DLC_RESPONSE	4000	ms	Guards the time between a direct link establish request, and the confirm from the DLC layer, or between a link release request and the confirm from the DLC

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Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T_USER_INVOKE	30000	ms	Guards the user invokation time of an operation requested by an implicit send statement.
T_RELEASE_DELAY	4000	ms	Before terminating the testcase with a normal release or a release_link, this timer is started, in order to catch any strange behaviour of the IUT
Detailed Comments : All protocol timers are defined 5 % higher than their standard value, in order to deal with delays caused by the testequipment.			

ASP Type Definition		
ASP Name : DL_BROADCAST_IND **PCO Type :** B_SAP **Comments :** ETS 300 175−4 [5], 8.3.3.1		
Parameter Name	**Parameter Type**	**Comments**
cluster_address_list	CLUSTER_ADDRESS_LIST	
message_unit	PDU	
extended_message_flag	BIT_1	'1'B means extended frame format shall be used, see ETS 300 175−4 [4], subclause 6.2.2
error_flag	BIT_1	'1'B means CRC error occurred in MAC−PAGE−ind primitive
Detailed Comments : This primitive is not used in PT testing. The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_BROADCAST_REQ **PCO Type :** B_SAP **Comments :** ETS 300 175−4 [5], 8.3.3.1		
Parameter Name	**Parameter Type**	**Comments**
cluster_address_list	CLUSTER_ADDRESS_LIST	
message_unit	PDU	
extended_message_flag	BIT_1	'1'B means extended frame format shall be used, see ETS 300 175−4 [4], subclause 6.2.2
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_DATA_IND **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.3		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_DATA_REQ **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.3		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ENCRYPT_CFM **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.8		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
encryption_status	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENCRYPT_IND **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.8		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_status	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENCRYPT_REQ **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.8		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_command	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENC_KEY_REQ **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.7		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_key	ENCRYPTION_KEY	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ESTABLISH_CFM **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.1		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
Detailed Comments : This primitive is not used in PT testing, because only the indirect link establishment method is used.		

ASP Type Definition		
ASP Name : DL_ESTABLISH_IND **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.1		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
establish_mode	ESTABLISH_MODE	
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ESTABLISH_REQ **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [4], subclause 8.3.2.1		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
establish_mode	ESTABLISH_MODE	
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER	
message_unit	PDU	
Detailed Comments : For now this primitive is not used in PT testing, because only the indirect link establishment method is used. The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ESTABLISH_RES **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.1		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_CFM **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], 8.3.2.2		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier release_mode	DATA_LINK_ENDPOINT_IDENTIFIER RELEASE_MODE	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_IND **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.2		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier release_mode	DATA_LINK_ENDPOINT_IDENTIFIER RELEASE_MODE	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_REQ **PCO Type :** S_SAP **Comments :** ETS 300 175−4 [5], subclause 8.3.2.2		
Parameter Name	**Parameter Type**	**Comments**
data_link_endpoint_identifier release_mode	DATA_LINK_ENDPOINT_IDENTIFIER RELEASE_MODE	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_ACCEPT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.1		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
repeat_indicator	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
auth_type	AUTH_TYPE	
cipher_info	CIPHER_INFO	
zap_field	ZAP_FIELD	
service_class	SERVICE_CLASS	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.2		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.3		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
auth_type	AUTH_TYPE	
cipher_info	CIPHER_INFO	
setup_capability	SETUP_CAPABILITY	
terminal_capability	TERMINAL_CAPABILITY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_ACCEPT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.4		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.5		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.6		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
repeat_indicator	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.7		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator	REPEAT_INDICATOR	
auth_type	AUTH_TYPE	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REPLY **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.8		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
res	RES	
rs	RS	
zap_field	ZAP_FIELD	
service_class	SERVICE_CLASS	
key	KEY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.9		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
auth_type	AUTH_TYPE	
rand	RAND	
res	RES	
rs	RS	
cipher_info	CIPHER_INFO	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : BI_CC_SHORT_MESSAGE **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 17.2		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type_short	MESSAGE_TYPE_SHORT	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_ALERTING **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.5		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
terminal_capability	TERMINAL_CAPABILITY	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CALL_PROC **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.4		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CONNECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.6		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
terminal_capability	TERMINAL_CAPABILITY	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CONNECT_ACK **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.7		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_INFO **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.2		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
multi_keypad	MULTI_KEYPAD	
single_keypad	SINGLE_KEYPAD	
signal	SIGNAL	
feature_activate	FEATURE_ACTIVATE	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
called_party_number	CALLED_PARTY_NUMBER	
called_party_subaddress	CALLED_PARTY_SUBADDRESS	
sending_complete	SENDING_COMPLETE	
test_hook_control	TEST_HOOK_CONTROL	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_NOTIFY **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5],subclause 6.3.2.13		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
timer_restart	TIMER_RESTART	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_OUT_OF_SCOPE **PCO Type :** S_SAP **Comments :** For any CC PDU which is out of scope acc. to ETS 300 444		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_RELEASE **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5],subclause 6.3.2.8		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
release_reason	RELEASE_REASON	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_RELEASE_COM **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5],subclause 6.3.2.9		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
release_reason	RELEASE_REASON	
identity_type	IDENTITY_TYPE	
location_area	LOCATION_AREA	
iwu_attributes	IWU_ATTRIBUTES	
facility	FACILITY	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SERVICE_CHANGE **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5],subclause 6.3.2.10		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
service_change_info	SERVICE_CHANGE_INFO	
repeat_indicator	REPEAT_INDICATOR	
connection_attributes	CONNECTION_ATTRIBUTES	
connection_id	CONNECTION_ID	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SETUP **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.1		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
basic_service	BASIC_SERVICE	
iwu_attributes	IWU_ATTRIBUTES	
repeat_indicator_1	REPEAT_INDICATOR	
call_attributes	CALL_ATTRIBUTES	
repeat_indicator_2	REPEAT_INDICATOR	
connection_attributes	CONNECTION_ATTRIBUTES	
cipher_info	CIPHER_INFO	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
multi_keypad	MULTI_KEYPAD	
single_keypad	SINGLE_KEYPAD	
signal	SIGNAL	
feature_activate	FEATURE_ACTIVATE	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
terminal_capability	TERMINAL_CAPABILITY	
end_to_end_compatability	END_TO_END_COMPATIBILITY	
rate_parameters	RATE_PARAMETERS	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
calling_party_number	CALLING_PARTY_NUMBER	
called_party_number	CALLED_PARTY_NUMBER	
called_party_subaddress	CALLED_PARTY_SUBADDRESS	
sending_complete	SENDING_COMPLETE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SETUP_ACK **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.2.3		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
delimiter_request	DELIMITER_REQUEST	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.10		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator	REPEAT_INDICATOR	
cipher_info	CIPHER_INFO	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.11		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
cipher_info	CIPHER_INFO	
call_identity	CALL_ID	
connection_identity	CONNECTION_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_SUGGEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.12		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
cipher_info	CIPHER_INFO	
call_identity	CALL_ID	
connection_identity	CONNECTION_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : CISS_ANY_PDU **PCO Type :** S_SAP **Comments :** For any CISS PDU, which is out of scope acc. to ETS 300 444		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : COMS_ANY_PDU **PCO Type :** S_SAP **Comments :** For any COMS PDU, which is out of scope acc. to ETS 300 444		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : DETACH **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.13		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : IDENTITY_REPLY **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.14		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator_1	REPEAT_INDICATOR	
portable_id	PORTABLE_ID	
repeat_indicator_2	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
repeat_indicator_3	REPEAT_INDICATOR	
network_assigned_id	NETWORK_ASSIGNED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : IDENTITY_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.15		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator	REPEAT_INDICATOR	
identity_type	IDENTITY_TYPE	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : KEY_ALLOCATE **PCO Type :** B_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.16		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
allocation_type	ALLOCATION_TYPE	
rand	RAND	
rs	RS	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_ACCEPT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.17		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.18		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.19		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
cipher_info	CIPHER_INFO	
setup_capability	SETUP_CAPABILITY	
terminal_capability	TERMINAL_CAPABILITY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_ACCEPT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.20		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.21		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_REQUEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.22		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_SUGGEST **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.23		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_OUT_OF_SCOPE **PCO Type :** S_SAP **Comments :** For any MM PDU which is out of scope acc. to ETS 300 444		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.24		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN_ACK **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.25		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN_REJECT **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.26		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_PAGE_RESPONSE **PCO Type :** B_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.7.1		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
cipher_info	CIPHER_INFO	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_PAGE_REJECT **PCO Type :** B_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.7.2		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_REQUEST_PAGE **PCO Type :** B_SAP **Comments :** ETS 300 175−5 [5], subclause 6.4.2		
Field Name	**Field Type**	**Comments**
lce_header	LCE_HEADER	
short_format_address	SHORT_FORMAT_ADDRESS	
Detailed Comments : Long format messages not supported in ETS 300 444		

III

Constraints Part

Structured Type Constraint Declaration		
Constraint Name : Allocation_type_rx_base		
Structured Type : ALLOCATION_TYPE		
Derivation Path :		
Comments : The basic receive constraint for the ALLOCATION_TYPE ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_allocation_type	
length	'02'O	
auth_algo_id	?	
ac_number	?	
uak_number	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Allocation_type_rx_dsaa		
Structured Type : ALLOCATION_TYPE		
Derivation Path : Allocation_type_rx_base.		
Comments : A receive constraint for the allocation type ie, specifying the DECT standard Authentication Algorithm to be used.		
Element Name	**Element Value**	**Comments**
auth_algo_id	'01'O	DECT standard auth. algorithm 1
ac_number	'1000'B	related to active IPUI/PARK pair
uak_number	'1000'B	related to active IPUI/PARK pair
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Allocation_type_rx_empty		
Structured Type : ALLOCATION_TYPE		
Derivation Path :		
Comments : The basic receive constraint for the ALLOCATION_TYPE ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_allocation_type	
length	'00'O	
auth_algo_id	OMIT	
ac_number	OMIT	
uak_number	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_base		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : The basic receive constraint for the AUTH_TYPE ie. DSAA is mandated.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	?	
auth_key_type	('0001'B, '0011'B, '0100'B)	UAK UPI AC
cipher_key_number	?	
upc	?	
txc	?	
f5	'0'B	
inc	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_dck_no_zap		
Structured Type : AUTH_TYPE		
Derivation Path : Auth_type_rx_base.		
Comments : This constraint implies DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UAK.		
Element Name	**Element Value**	**Comments**
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'1000'B	
upc	'1'B	DCK stored
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Auth_type_rx_ac
Structured Type : AUTH_TYPE
Derivation Path : Auth_type_rx_base.
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used. AC

Element Name	Element Value	Comments
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’0100’B	AC
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
inc	’0’B	No ZAP increment

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Auth_type_rx_no_dck_no_zap
Structured Type : AUTH_TYPE
Derivation Path : Auth_type_rx_base.
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used

Element Name	Element Value	Comments
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’0001’B	UAK
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
inc	’0’B	No ZAP increment

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Auth_type_rx_no_dck_zap
Structured Type : AUTH_TYPE
Derivation Path : Auth_type_rx_base.
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used

Element Name	Element Value	Comments
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’0001’B	UAK
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
inc	’1’B	ZAP increment

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_empty		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : The basic receive constraint for the AUTH_TYPE ie. DSAA is mandated.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	’00’O	
auth_algo_id	OMIT	
prop_algo_id	OMIT	
auth_key_number	OMIT	
auth_key_type	OMIT	
cipher_key_number	OMIT	
upc	OMIT	
txc	OMIT	
f5	OMIT	
inc	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_ac		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used. Authentication key type specifies AC.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	’03’O	
auth_algo_id	’01’O	DSAA
prop_algo_id	OMIT	
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’0100’B	AC
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
txc	’0’B	
f5	’0’B	
inc	’0’B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Auth_type_tx_no_dck_zap
Structured Type : AUTH_TYPE
Derivation Path :
Comments : This constraint implies no DCK storage and ZAP incremented by one. Standard DSAA is used, and authentication is based on UAK.

Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'1'B	ZAP increment

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Auth_type_tx_no_dck_no_zap
Structured Type : AUTH_TYPE
Derivation Path :
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used. Authentication key type specifies UAK

Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_auth_key_not_supp		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	’03’O	
auth_algo_id	’01’O	DSAA
prop_algo_id	OMIT	
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’1111’B	reserved (not supported by the IUT)
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
txc	’0’B	
f5	’0’B	
inc	’0’B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_upi		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : A receive constraint for the auth_type ie, specifying no DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UPI.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	’03’O	
auth_algo_id	’01’O	DSAA
prop_algo_id	OMIT	
auth_key_number	’1000’B	related to IPUI/PARK pair
auth_key_type	’0011’B	UPI
cipher_key_number	’0000’B	
upc	’0’B	No DCK stored
txc	’0’B	
f5	’0’B	
inc	’0’B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_rx_base		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : ETS 300 444, subclause 8.2, subclause 8.20. Basic speech default setup attributes are used		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	’0000’B	basic speech default setup attributes
call_class	(’1000’B, ’1001’B)	normal or internal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_tx_default		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : ETS 300 444, subclause 8.2, subclause 8.20		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	’0000’B	default setup attributes
call_class	’1000’B	normal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_tx_emergency		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : ETS 300 125[5], subclause 7.6.4		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	’0000’B	default setup attributes
call_class	’1010’B	emergency call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_tx_invalid		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : ETS 300 444, subclause 8.2, subclause 8.20		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	'0000'B	default setup attributes
call_class	'1111'B	reserved value
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Bi_auth_type_tx_length_exceed		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used. Authentication key type contains the value for AC. Length exceeding the maximum allowed size.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	'FF'O	Length too long
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0100'B	AC
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Bi_network_header_mm_ori
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of mm messages sent from originating side, containing an illegal transaction value.

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_mm	
transaction_value	’001’B	Illegal value for MM
transaction_flag	’0’B	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Call_attributes_rx_base
Structured Type : CALL_ATTRIBUTES
Derivation Path :
Comments : ETS 300 175−5, subclause 7.7.5

Element Name	Element Value	Comments
iei	TSC_iei_call_attributes	
length	?	
network_layer_attributes	?	
coding_standard	’00’B	DECT standard coding
f3	’1’B	
c_plane_routing	?	
c_plane_class	?	
f4	’1’B	
lu_id	?	
u_plane_symmetry	?	
ext5	?	
lu_id_f_p	?	
f5a	’100’B	’100’
u_plane_frame_type	?	
u_plane_class	?	
ext6	?	
u_plane_frame_type_f_p	?	
u_plane_class_f_p	?	
f6a	’1’B	’1’

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Call_attributes_rx_empty		
Structured Type : CALL_ATTRIBUTES		
Derivation Path :		
Comments : ETS 300 175−5, subclause 7.7.5		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_call_attributes	
length	'00'O	
network_layer_attributes	OMIT	
coding_standard	OMIT	
f3	OMIT	
c_plane_routing	OMIT	
c_plane_class	OMIT	
f4	OMIT	
lu_id	OMIT	
u_plane_symmetry	OMIT	
ext5	OMIT	
lu_id_f_p	OMIT	
f5a	OMIT	
u_plane_frame_type	OMIT	
u_plane_class	OMIT	
ext6	OMIT	
u_plane_frame_type_f_p	OMIT	
u_plane_class_f_p	OMIT	
f6a	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Call_id_rx_base		
Structured Type : CALL_ID		
Derivation Path :		
Comments : The basic receive constraint for the CALL_ID ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_call_id	
length	('01'O, '02'O)	
pd	?	
tv	?	
tf	?	
extended_transaction_value	? IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Call_id_rx_empty
Structured Type : CALL_ID
Derivation Path :
Comments : The basic receive constraint for the CALL_ID ie.

Element Name	Element Value	Comments
iei	TSC_iei_call_id	
length	'00'O	
pd	OMIT	
tv	OMIT	
tf	OMIT	
extended_transaction_value	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Called_party_number_rx_base
Structured Type : CALLED_PARTY_NUMBER
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_called_party_number	
length	COMPLEMENT('00'O)	
numbering_plan_id	'0000'B	Unknown
number_type	'000'B	Unknown
f3	'1'B	
called_party_address	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Called_party_number_rx_empty
Structured Type : CALLED_PARTY_NUMBER
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_called_party_number	
length	'00'O	
numbering_plan_id	OMIT	
number_type	OMIT	
f3	OMIT	
called_party_address	OMIT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Called_party_subaddress_rx_base		
Structured Type : CALLED_PARTY_SUBADDRESS		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_called_party_subaddress	
length	COMPLEMENT('00'O)	
spare	'000'B	
o_e	?	
subaddress_type	'0?0'B	
f3	'1'B	
subaddress_info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_subaddress_rx_empty		
Structured Type : CALLED_PARTY_SUBADDRESS		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_called_party_subaddress	
length	'00'O	
spare	OMIT	
o_e	OMIT	
subaddress_type	OMIT	
f3	OMIT	
subaddress_info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Calling_party_number_rx_base		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments : The basic receive constraint for the CALLING_PARTY_NUMBER ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_calling_party_number	
length	COMPLEMENT('00'O)	
numbering_plan_id	('?00?'B, '0011'B)	
number_type	COMPLEMENT('1?1'B)	
ext3	?	
screening_indicator	? IF_PRESENT	
spare	'000'B	
presentation_indicator	COMPLEMENT('11'B) IF_PRESENT	
f3a	'1'B IF_PRESENT	
calling_party_address	TSPX_calling_party_number	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Calling_party_number_rx_empty		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments : The basic receive constraint for the CALLING_PARTY_NUMBER ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_calling_party_number	
length	'00'O	
numbering_plan_id	OMIT	
number_type	OMIT	
ext3	OMIT	
screening_indicator	OMIT	
spare	OMIT	
presentation_indicator	OMIT	
f3a	OMIT	
calling_party_address	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_number_tx_pixit		
Structured Type : CALLED_PARTY_NUMBER		
Derivation Path :		
Comments : A send constraint for the called party number, specifying the actual number, as it is specified in the PIXIT.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_called_party_number	
length	TSO_cinft_int_to_oct_1(TSPX_nr_of _digits_in_cpn)	
numbering_plan_id	’0000’B	Unknown
number_type	’000’B	Unknown
f3	’1’B	
called_party_address	TSPX_called_party_number	PIXIT parameter
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_number_tx_emergency		
Structured Type : CALLED_PARTY_NUMBER		
Derivation Path :		
Comments : A send constraint for the called party number, specifying the actual emergency number, as it is specified in the PIXIT.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_called_party_number	
length	TSO_cinft_int_to_oct_1(TSPX_nr_of _digits_in_cpn)	
numbering_plan_id	’0000’B	Unknown
number_type	’000’B	Unknown
f3	’1’B	
called_party_address	TSPX_emergency_cpn	PIXIT parameter
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Cipher_info_rx_base
Structured Type : CIPHER_INFO
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	(’02’O, ’03’O)	
cipher_algo_id	(’0000001’B , ’1111111’B)	DECT standard cipher algorithm OR Escape to proprietary algorithm id
y_n	?	
prop_algo_id	? IF_PRESENT	
cipher_key_number	?	
cipher_key_type	(’1001’B, ’1010’B)	’Derived’ or ’Static’

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_dsca_disable
Structured Type : CIPHER_INFO
Derivation Path : Cipher_info_rx_base.
Comments : A receive/send constraint for the cipher info ie, specifying DECT standard cipher algorithm, ciphering disable, cipher key type DCK.

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	’02’O	
cipher_algo_id	’0000001’B	DECT standard cipher algorithm
y_n	’0’B	disable ciphering
prop_algo_id	OMIT	
cipher_key_number	’1000’B	
cipher_key_type	’1001’B	DCK

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_dsca_enable
Structured Type : CIPHER_INFO
Derivation Path : Cipher_info_rx_base.
Comments : A receive/send constraint for the cipher info ie, specifying DECT standard cipher algorithm, ciphering enable, cipher key type DCK.

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'02'O	
cipher_algo_id	'0000001'B	DECT standard cipher algorithm
y_n	'1'B	enable ciphering
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	DCK

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_rx_empty
Structured Type : CIPHER_INFO
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'00'O	
cipher_algo_id	OMIT	
y_n	OMIT	
prop_algo_id	OMIT	
cipher_key_number	OMIT	
cipher_key_type	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_key_false
Structured Type : CIPHER_INFO
Derivation Path : Cipher_info_rx_base.
Comments : A receive/send constraint for the cipher info ie, specifying DECT standard cipher algorithm, ciphering enable, cipher key type is not supported.

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'02'O	
cipher_algo_id	'0000001'B	DECT standard cipher algorithm
y_n	'1'B	enable ciphering
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1111'B	Not supported key

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_unacceptable
Structured Type : CIPHER_INFO
Derivation Path : Cipher_info_rx_base.
Comments : A receive/send constraint for the cipher info ie, specifying an unacceptable ciphering algorithm.

Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'02'O	
cipher_algo_id	'0101011'B	Unacceptable value
y_n	'1'B	enable ciphering
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	DCK

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Connection_id_rx_base		
Structured Type : CONNECTION_ID		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_connection_id	
length	COMPLEMENT('00'O)	
u_and_c_id	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Connection_id_rx_empty		
Structured Type : CONNECTION_ID		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_connection_id	
length	'00'O	
u_and_c_id	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Delimeter_request_rx_base		
Structured Type : DELIMITER_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the DELIMITER_REQUEST ie.		
Element Name	**Element Value**	**Comments**
delimiter_request	'A2'O	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Duration_rx_base
Structured Type : DURATION
Derivation Path :
Comments : ETS 300 175−5, subclause 7.7.13

Element Name	Element Value	Comments
iei	TSC_iei_duration	
length	('01'O, '02'O)	
time_limits	?	
lock_limits	?	
ext3	?	
time_duration	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Duration_rx_empty
Structured Type : DURATION
Derivation Path :
Comments : ETS 300 175−5, subclause 7.7.13

Element Name	Element Value	Comments
iei	TSC_iei_duration	
length	'00'O	
time_limits	OMIT	
lock_limits	OMIT	
ext3	OMIT	
time_duration	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Facility_rx_base
Structured Type : FACILITY
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_facility	
length	COMPLEMENT('00'O)	
service_discriminator	'10001'B	Discriminator for supplementary service applications
f3	'100'B	
component	?	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Facility_rx_empty		
Structured Type : FACILITY		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_facility	
length	'00'O	
service_discriminator	OMIT	
f3	OMIT	
component	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Feature_indicate_rx_base		
Structured Type : FEATURE_INDICATE		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.7.17		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_feature_indicate	
length	?	
feature	?	
ext3	'1'B	
parameter	?	
f3a	'1'B	
status_indicator	?	
component	?	DECT_1_253
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Feature_indicate_rx_empty		
Structured Type : FEATURE_INDICATE		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.7.17		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_feature_indicate	
length	’00’O	
feature	OMIT	
ext3	OMIT	
parameter	OMIT	
status_indicator	OMIT	
component	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_rx_base		
Structured Type : FIXED_ID		
Derivation Path :		
Comments : The basic constraint for the Fixed_id iei		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_fixed_id	
length	(’03’O, ’04’O, ’05’O, ’06’O, ’07’O, ’08’O, ’09’O, ’0A’O, ’0B’O)	
type	?	
f3	’1’B	
length_of_id_value	?	
f4	’1’B	
id_value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_rx_empty		
Structured Type : FIXED_ID		
Derivation Path :		
Comments : The basic constraint for the Fixed_id iei		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_fixed_id	
length	'00'O	
type	OMIT	
f3	OMIT	
length_of_id_value	OMIT	
f4	OMIT	
id_value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_ari		
Structured Type : FIXED_ID		
Derivation Path :		
Comments : A constraint for the fixed_id with an ARI + RPN. The actual value of the ARI+RPN is given as a PIXIT parameter. This constraint can be used for rx and tx.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_fixed_id	
length	TSC_fixed_id_length_ari	
type	'0000000'B	ARI
f3	'1'B	
length_of_id_value	INT_TO_BIT((TSPX_ari_length_indicator+1), 7)	
f4	'1'B	
id_value	TSC_ari_complete_value	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Fixed_id_ari_rpn
Structured Type : FIXED_ID
Derivation Path :
Comments : A constraint for the fixed_id with an ARI + RPN. The actual value of the ARI+RPN is given as a PIXIT parameter. This constraint can be used for rx and tx.

Element Name	Element Value	Comments
iei	TSC_iei_fixed_id	
length	TSC_fixed_id_length_ari_rpn	
type	’0000001’B	ARI + RPN
f3	’1’B	
length_of_id_value	TSC_ari_rpn_length	
f4	’1’B	
id_value	TSC_arirpn_complete_value	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Fixed_id_park
Structured Type : FIXED_ID
Derivation Path :
Comments : A constraint for the fixed_id with a PARK. The actual value of the PARK is given as a PIXIT parameter. This constraint can be used for rx and tx.

Element Name	Element Value	Comments
iei	TSC_iei_fixed_id	
length	TSC_fixed_id_length_park	
type	’0100000’B	PARK
f3	’1’B	
length_of_id_value	INT_TO_BIT((TSPX_park_length_indicator+1), 7)	
f4	’1’B	
id_value	TSC_park_complete_value	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Identity_type_rx_base
Structured Type : IDENTITY_TYPE
Derivation Path :
Comments : ETSI 300 175−5 [5], subclause 7.7.19

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'02'O	
id_group	?	
space	'000'B	
f3	'1'B	
type	?	
f4	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Identity_type_rx_empty
Structured Type : IDENTITY_TYPE
Derivation Path :
Comments : ETSI 300 175−5 [5], subclause 7.7.19

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'00'O	
id_group	OMIT	
space	OMIT	
f3	OMIT	
type	OMIT	
f4	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Identity_type_ipui
Structured Type : IDENTITY_TYPE
Derivation Path : Identity_type_rx_base.
Comments : A derived receive constraint for the IDENTITY_TYPE ie, specifying the portable id with the IPUI

Element Name	Element Value	Comments
id_group	'0000'B	portable id
type	'0000000'B	IPUI

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Info_type_rx_base
Structured Type : INFO_TYPE
Derivation Path :
Comments : The basic receive constraint for the INFO_TYPE PDU.

Element Name	Element Value	Comments
iei	TSC_iei_info_type	
length	'01'O	
info_parameter	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Info_type_rx_empty
Structured Type : INFO_TYPE
Derivation Path :
Comments : The basic receive constraint for the INFO_TYPE PDU.

Element Name	Element Value	Comments
iei	TSC_iei_info_type	
length	'00'O	
info_parameter	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Info_type_rx_locate_suggest
Structured Type : INFO_TYPE
Derivation Path :
Comments : A receive constraint for the info type ie, specifying info−parameter 'locate_suggest'

Element Name	Element Value	Comments
iei	TSC_iei_info_type	
length	'01'O	
info_parameter	'00'O	1)

Detailed Comments : 1) specifies 'locate suggest', and 'ext' as 0

Structured Type Constraint Declaration		
Constraint Name : Iwu_packet_rx_base		
Structured Type : IWU_PACKET		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_iwu_packet	
length	COMPLEMENT('00'O)	
l2_protocol_id	('0000?'B, '00?10'B, '00111'B, '01?00'B, '10001'B, '10?10'B)	
f3	'0'B	
s_r	?	
ext3	?	
l3_protocol_id	('000?0'B , '0011?'B, '0100?'B, '01010'B , '10010'B) IF_PRESENT	
f3a	'111'B IF_PRESENT	
info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Iwu_packet_rx_empty		
Structured Type : IWU_PACKET		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_iwu_packet	
length	'00'O	
l2_protocol_id	OMIT	
f3	OMIT	
s_r	OMIT	
ext3	OMIT	
l3_protocol_id	OMIT	
f3a	OMIT	
info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Iwu_attributes_rx_base
Structured Type : IWU_ATTRIBUTES
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_iwu_attributes	
length	COMPLEMENT('00'O)	
info_transfer_capability	('00000'B, '01000'B, '01001'B, '10000'B, '10001'B, '10100'B, '11000'B)	
coding_standard	'00'B	
f3	'1'B	
external_connection_type	('0000'B, '0001'B, '0010'B, '0011'B, '0100'B, '1000'B)	
negotiation_indicator	('000'B, '100'B)	
f4	'1'B	
info_transfer_rate	('00000'B, '0101?'B, '1000?'B, '10011'B , '1111?'B) IF_PRESENT	
trans_mode	COMPLEMENT('01'B)	
ext5	? IF_PRESENT	
rate_multiplier	'0????'B IF_PRESENT	
unit_rate	COMPLEMENT('00'B) IF_PRESENT	
ext5a	? IF_PRESENT	
establishment	'00'B IF_PRESENT	
configuration	'00'B IF_PRESENT	
structure	('00?'B, '100'B, '111'B) IF_PRESENT	
ext5b	? IF_PRESENT	
info_transfer_rate_d_o	('00000'B, '0101?'B, '1000?'B, '10011'B , '1111?'B) IF_PRESENT	
symmetry	COMPLEMENT('01'B) IF_PRESENT	
ext5c	? IF_PRESENT	
rate_multiplier_d_o	'0????'B IF_PRESENT	
unit_rate_d_o	COMPLEMENT('00'B) IF_PRESENT	
f5d	'1'B IF_PRESENT	
user_protocol_id	('00???'B , '0100?'B, '1000?'B, '11000'B) IF_PRESENT	

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Structured Type Constraint Declaration		
Element Name	**Element Value**	**Comments**
f6	’00’B IF_PRESENT	
ext6	? IF_PRESENT	
l3_protocol_id	(’000?0’B , ’0011?’B , ’0100?’B , ’01010’B , ’10010’B) IF_PRESENT	
f7	’11’B IF_PRESENT	
ext7	? IF_PRESENT	
l2_protocol_id	(’0000?’B, ’00?10’B, ’00111’B, ’01?00’B, ’10001’B, ’10?10’B) IF_PRESENT	
f8	’11’B IF_PRESENT	
ext8	? IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Iwu_attributes_rx_empty
Structured Type : IWU_ATTRIBUTES
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_iwu_attributes	
length	'00'O	
info_transfer_capability	OMIT	
coding_standard	OMIT	
f3	OMIT	
external_connection_type	OMIT	
negotiation_indicator	OMIT	
f4	OMIT	
info_transfer_rate	OMIT	
trans_mode	OMIT	
ext5	OMIT	
rate_multiplier	OMIT	
unit_rate	OMIT	
ext5a	OMIT	
establishment	OMIT	
configuration	OMIT	
structure	OMIT	
ext5b	OMIT	
info_transfer_rate_d_o	OMIT	
symmetry	OMIT	
ext5c	OMIT	
rate_multiplier_d_o	OMIT	
unit_rate_d_o	OMIT	
f5d	OMIT	
user_protocol_id	OMIT	
f6	OMIT	
ext6	OMIT	
l3_protocol_id	OMIT	
f7	OMIT	
ext7	OMIT	
l2_protocol_id	OMIT	
f8	OMIT	
ext8	OMIT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Iwu_to_iwu_rx_base		
Structured Type : IWU_TO_IWU		
Derivation Path :		
Comments : ETS 300 175−5 [5], second edition, subclause 7.7.23		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_iwu_to_iwu	
length	COMPLEMENT('00'O)	
protocol_discriminator	('00000?'B, '000010'B, '000100'B, '000101'B, '000111'B, '00100?'B, '01000?'B, '111111'B)	CCITT Q.931 (I.451), partial message
s_r	?	
f3	'1'B	
contents	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Iwu_to_iwu_rx_empty		
Structured Type : IWU_TO_IWU		
Derivation Path :		
Comments : ETS 300 175−5 [5], second edition, subclause 7.7.23		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_iwu_to_iwu	
length	'00'O	
protocol_discriminator	OMIT	
s_r	OMIT	
f3	OMIT	
contents	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration			
Constraint Name : Location_area_rx_base			
Structured Type : LOCATION_AREA			
Derivation Path :			
Comments :			
Element Name	**Element Value**		**Comments**
iei	TSC_iei_location_area		
length	('01'O, '02'O, '08'O)		
location_area_level	TSPX_location_area_level		LAL to be specified in PIXIT.
li_type	('01'B, '10'B, '11'B)		
spare	'1111'B	IF_PRESENT	if GSM loc. info is not included
eli_type	('0111'B, '1111'B)	IF_PRESENT	
extended_location_information	?	IF_PRESENT	
Detailed Comments :			

Structured Type Constraint Declaration		
Constraint Name : Location_area_rx_empty		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_location_area	
length	'00'O	
location_area_level	OMIT	
li_type	OMIT	
spare	OMIT	
eli_type	OMIT	
extended_location_information	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Location_area_tx_lal_only		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments : ETSI 300 175−5 [5], subclause 7.7.25		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_location_area	
length	'01'O	
location_area_level	TSPX_location_area_level	LAL to be specified in PIXIT.
li_type	'01'B	only LAL included
spare	OMIT	
eli_type	OMIT	
extended_location_information	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_display_rx_base		
Structured Type : MULTI_DISPLAY		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.7.26		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_display	
length	COMPLEMENT('00'O)	
display_info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_display_rx_empty		
Structured Type : MULTI_DISPLAY		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.7.26		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_display	
length	'00'O	
display_info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_basic		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying the basic dialled digits.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	'12'O	
keypad_info	TSC_string_basic_digits	Contains the basic dialled digits: *, #, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_dtmf_defined		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying dtmf with defined tone length.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	'01'O	
keypad_info	'14'O	1)
Detailed Comments : 1) goto DTMF, defined tone length		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_dtmf_infinite		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, containing 'goto DTMF, infinite tone length'		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	'01'O	
keypad_info	'16'O	1)
Detailed Comments : 1) goto DTMF, infinite tone length		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_internal		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying internal call.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	’01’O	
keypad_info	’17’O	1)
Detailed Comments : 1) contains keypad−info ’17H’ (internal call)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_param(param : DECT_1)		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, with a parameterized digit in the keypad−info.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	’01’O	
keypad_info	param	1)
Detailed Comments : 1) The actual keypad info is transferred with a parameter.		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_pause		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying ’dialling pause’.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	’01’O	
keypad_info	’05’O	1)
Detailed Comments : 1) contains keypad−info ’05H’ (dialling pause)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_pulse		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying 'goto pulse'		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	'01'O	
keypad_info	'12'O	1)
Detailed Comments : 1) contains keypad−info '12H' (goto pulse)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_tx_1234		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : A send constraint for the MULTI_KEYPAD ie, specifying a character string containing the digits 1 to 4.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_multi_keypad	
length	'04'O	
keypad_info	TSC_string_1234	1)
Detailed Comments : 1) A string containing the digits 1 to 4		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_rx_base		
Structured Type : NETWORK_ASSIGNED_ID		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_network_assigned_id	
length	COMPLEMENT('00'O)	
type	('1110100'B, '1111111'B)	
f3	'1'B	
id_length	?	
f4	'1'B	
value	?	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Network_assigned_id_rx_empty
Structured Type : NETWORK_ASSIGNED_ID
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_network_assigned_id	
length	'00'O	
type	OMIT	
f3	OMIT	
id_length	OMIT	
f4	OMIT	
value	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_cc_iut(tv_ : BIT_3; tf_ : BIT_1)
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of cc messages sent by the IUT

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_cc_iut_any_tv(tf_ : BIT_1)
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of cc messages sent by the IUT. This constraint is used to receive CC−SETUP messages. It does not put a constraint on the transaction value. This TV will be assigned after receiving the CC−SETUP message.

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	*	
transaction_flag	tf_	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_cc_lt(tv_ : BIT_3; tf_ : BIT_1)
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of cc messages sent by the LT

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_ciss_any_tf
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of coms messages sent by the IUT

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_ciss	
transaction_value	?	
transaction_flag	?	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_coms_any_tf
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of coms messages sent by the IUT

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_coms	
transaction_value	?	
transaction_flag	?	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Network_header_lce_ori		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of lce messages from initiating party		
Element Name	**Element Value**	**Comments**
protocol_discriminator	TSC_pd_lce	
transaction_value	’000’B	
transaction_flag	’0’B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_lce_dest		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of lce messages from non initiating party		
Element Name	**Element Value**	**Comments**
protocol_discriminator	TSC_pd_lce	
transaction_value	’000’B	
transaction_flag	’1’B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_mm_ori		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of mm messages from initiating party		
Element Name	**Element Value**	**Comments**
protocol_discriminator	TSC_pd_mm	
transaction_value	’000’B	
transaction_flag	’0’B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Network_header_mm_dest
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of mm messages from non initiating party

Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_mm	
transaction_value	'000'B	
transaction_flag	'1'B	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_unsupported(tv_ : BIT_3; tf_ : BIT_1)
Structured Type : NETWORK_HEADER
Derivation Path :
Comments : The constraint for the network header in case of cc messages sent by the LT. The protocol discriminator contains the value '1000'B, which will not be supported by the IUT.

Element Name	Element Value	Comments
protocol_discriminator	'1000'B	Unsupported value
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_parameter_rx_base
Structured Type : NETWORK_PARAMETER
Derivation Path :
Comments : ETS 300 175−5 [5], subclause 7.7.29

Element Name	Element Value	Comments
iei	TSC_iei_network_parameter	
length	?	
discriminator	?	
data_field	?	for GSM handover ref.− 1 octet

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Network_parameter_rx_empty		
Structured Type : NETWORK_PARAMETER		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.7.29		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_network_parameter	
length	’00’O	
discriminator	OMIT	
data_field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_rx_base		
Structured Type : PORTABLE_ID		
Derivation Path :		
Comments : The basic receive constraint of the PORTABLE_ID ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_portable_id	
length	(’03’O, ’04’O, ’05’O, ’06’O, ’07’O, ’08’O, ’09’O, ’0A’O, ’0B’O, ’0C’O, ’0D’O, ’0E’O, ’0F’O)	
type	?	
f3	’1’B	
length_of_id_value	?	
f4	’1’B	
id_value	?	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Portable_id_empty
Structured Type : PORTABLE_ID
Derivation Path : Portable_id_rx_base.
Comments : A derived constraint for the portable id ie, containing and empty id value, used when in the locate accept message, no TPUI is to be assigned.

Element Name	Element Value	Comments
length	'00'O	
type	OMIT	
f3	OMIT	
length_of_id_value	OMIT	
f4	OMIT	
id_value	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Portable_id_ipui
Structured Type : PORTABLE_ID
Derivation Path : Portable_id_rx_base.
Comments : The actual value of the IPUI (to be used after subcsription) is given as a PIXIT parameter. This constraint can be used for rx and tx.

Element Name	Element Value	Comments
length	TSC_port_id_length_ipui	
type	'0000000'B	IPUI type
length_of_id_value	TSC_ipui_length	
id_value	TSC_ipui_complete_value	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Portable_id_ipui_unknown
Structured Type : PORTABLE_ID
Derivation Path : Portable_id_rx_base.
Comments : The value of the portable id for 'unknown IPUI', specifying '0' as the IPUI value. This constraint can be used for rx and tx.

Element Name	Element Value	Comments
length	TSC_port_id_length_ipui	
type	'0000000'B	IPUI type
length_of_id_value	TSC_ipui_length	
id_value	INT_TO_BIT(0, BIT_TO_INT(TSC_ipui_length))	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Portable_id_tpui
Structured Type : PORTABLE_ID
Derivation Path : Portable_id_rx_base.
Comments : A derived send/receive constraint for the portable_id, containing a the TPUI, as specified in the PIXIT

Element Name	Element Value	Comments
length	TSC_port_id_length_tpui	
type	'0100000'B	TPUI type
length_of_id_value	TSC_tpui_length	
id_value	TSC_tpui_complete_value	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Portable_id_ipei
Structured Type : PORTABLE_ID
Derivation Path : Portable_id_rx_base.
Comments : A derived send constraint of the PORTABLE_ID ie.

Element Name	Element Value	Comments
length	TSC_port_id_length_ipei	
type	'0010000'B	IPEI type
length_of_id_value	TSC_ipei_length	
id_value	TSC_ipei_complete_value	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_rx_base		
Structured Type : PROGRESS_INDICATOR		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_progress_indicator	
length	'02'O	
location	('0000'B, '0001'B, '0010'B, '0100'B, '0101'B, '1010'B, '1111'B)	
coding_standard	'??0'B	
f3	'1'B	
progress_description	('0000001'B, '0000010'B, '0000011'B, '0000100'B, '0001000'B, '0001001'B)	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_rx_empty		
Structured Type : PROGRESS_INDICATOR		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_progress_indicator	
length	'00'O	
location	OMIT	
coding_standard	OMIT	
f3	OMIT	
progress_description	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_rx_patt_avail		
Structured Type : PROGRESS_INDICATOR		
Derivation Path : Progress_indicator_rx_base.		
Comments : A receive constraint for the progress_indicator i.e, saying: inband information or appropriate pattern now available.		
Element Name	**Element Value**	**Comments**
progress_description	’0001000’B	inband information or appropriate pattern now available.
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rand_rx_base		
Structured Type : RAND		
Derivation Path :		
Comments : The basic receive constraint for the RAND ie		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rand	
length	?	
field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rand_rx_empty		
Structured Type : RAND		
Derivation Path :		
Comments : The basic receive constraint for the RAND ie		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rand	
length	’00’O	
field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Rand_tx_64_bit
Structured Type : RAND
Derivation Path :
Comments : A send constraint for the RAND structured type

Element Name	Element Value	Comments
iei	TSC_iei_rand	
length	'08'O	64 bits
field	TSC_rand	Use a 64 bit rand, defined as a constant

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Reject_reason_rx_base
Structured Type : REJECT_REASON
Derivation Path :
Comments : The basic receive constraint for reject reason

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	'01'O	
reason	?	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration

Constraint Name : Reject_reason_rx_empty
Structured Type : REJECT_REASON
Derivation Path :
Comments : The basic receive constraint for reject reason

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	'00'O	
reason	OMIT	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration		
Constraint Name : Release_reason_rx_base		
Structured Type : RELEASE_REASON		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_release_reason	
reason	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Release_reason_partial_release		
Structured Type : RELEASE_REASON		
Derivation Path :		
Comments : A send constraint for the release reason constraint, containing reason ’15’O (partial release)		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_release_reason	
reason	’15'O	partial release
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Repeat_indicator_rx_base		
Structured Type : REPEAT_INDICATOR		
Derivation Path :		
Comments : The basic receive constraint for the REPEAT_INDICATOR ie, non prioritised list or prioritised list		
Element Name	**Element Value**	**Comments**
repeat_indicator	(TSC_iei_repeat_indicator_non_prioritised, TSC_iei_repeat_indicator_prioritised)	
f1	’1101’B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_rx_base		
Structured Type : RES		
Derivation Path :		
Comments : The basic receive constraint for the RES ie		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_res	
length	?	
field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_rx_empty		
Structured Type : RES		
Derivation Path :		
Comments : The basic receive constraint for the RES ie		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_res	
length	'00'O	
field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_tx(res_field : BIT_32)		
Structured Type : RES		
Derivation Path :		
Comments : The basic send constraint for the RES ie. This actual value for the field will be passed through a param. constraint.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_res	
length	'04'O	32 bits
field	res_field	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rs_rx_base		
Structured Type : RS		
Derivation Path :		
Comments : A basic receive constraint for the RS structured type		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rs	
length	?	
field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rs_rx_empty		
Structured Type : RS		
Derivation Path :		
Comments : A basic receive constraint for the RS structured type		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rs	
length	’00’O	
field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Sending_complete		
Structured Type : SENDING_COMPLETE		
Derivation Path :		
Comments : The constraint for the SENDING COMPLETE ie.		
Element Name	**Element Value**	**Comments**
sending_complete	’A1’O	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Service_change_info_rx_base
Structured Type : SERVICE_CHANGE_INFO
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_service_change_info	
length	('02'O, '03'O)	
change_mode	('000?'B, '0010'B, '01?0'B, '100?'B, '1111'B)	
master_coding	?	
coding_standard	'00'B	
ext3	?	
extended_change_mode	? IF_PRESENT	
f3a	'1'B IF_PRESENT	
b_attributes	('000'B, '010'B, '011'B)	
reset_coding	?	
a_attributes	('000'B, '010'B, '011'B)	
f4	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Service_change_info_rx_empty
Structured Type : SERVICE_CHANGE_INFO
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_service_change_info	
length	'00'O	
change_mode	OMIT	
master_coding	OMIT	
coding_standard	OMIT	
ext3	OMIT	
extended_change_mode	OMIT	
f3a	OMIT	
b_attributes	OMIT	
reset_coding	OMIT	
a_attributes	OMIT	
f4	OMIT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Service_class_base		
Structured Type : SERVICE_CLASS		
Derivation Path :		
Comments : The basic receive constraint for SERVICE_CLASS		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_service_class	
length	'01'O	
service_class_field	('00000001'B, '00000010'B, '00000011'B, '00000100'B, '00000101'B, '00000110'B)	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_class_empty		
Structured Type : SERVICE_CLASS		
Derivation Path :		
Comments : The basic receive constraint for SERVICE_CLASS		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_service_class	
length	'00'O	
service_class_field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_class_international		
Structured Type : SERVICE_CLASS		
Derivation Path : Service_class_base.		
Comments : A send/receive constraint for the service class ie, specifying that international calls are allowed.		
Element Name	**Element Value**	**Comments**
service_class_field	'00000101'B	International calls allowed.
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Short_frm_addr		
Structured Type : SHORT_FORMAT_ADDRESS		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
w	TSO_cinft_calculate_w_from_TPUI(TSPX_tpui_value)	
f1	’0’H	
tpui_address	TSO_cinft_lowest(16, TSPX_tpui_value)	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Signal_rx_base		
Structured Type : SIGNAL		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.6.8.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_signal	
signal_value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Signal_rx_alerting		
Structured Type : SIGNAL		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.6.8.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_signal	
signal_value	’40’O	Alerting on
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Single_display_rx_base		
Structured Type : SINGLE_DISPLAY		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.6.5. Only in FT to PT.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_single_display	
display_info	?	Only DECT character 1 Octet
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Single_keypad_rx_base		
Structured Type : SINGLE_KEYPAD		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.6.6		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_single_keypad	
keypad_info	?	Only DECT character 1 Octet
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Terminal_capability_tx_gap
Structured Type : TERMINAL_CAPABILITY
Derivation Path :
Comments : The basic send constraint for the terminal capability ie. SBH 95.06.08

Element Name	Element Value	Comments
iei	TSC_iei_terminal_capability	
length	'03'O	
display_capability	'0100'B	Alphanumeric display
tone_capability	'100'B	Complete DECT tones supported
ext3	'1'B	
a_vol	OMIT	
n_rej	OMIT	
echo_param	OMIT	
ext3b	OMIT	
slot_type_capability	OMIT	
ext3c	OMIT	
number_of_stored_display_chars_ms	OMIT	
ext3d	OMIT	
number_of_stored_display_chars_ls	OMIT	
ext3e	OMIT	
number_of_lines_in_display	OMIT	
ext3f	OMIT	
number_of_characters_per_line	OMIT	
ext3g	OMIT	
scrolling_behaviour_field	OMIT	
ext3h	OMIT	
profile_indicator_1	'0000010'B	GAP/PAP supported
ext4	'1'B	
profile_indicator_2	OMIT	
ext4a	OMIT	
control_codes	'100'B	All control codes
spare	'000'B	
ext5	'1'B	
esc_to_8_bit_cs	OMIT	
ext5a	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Test_hook_contr_rx_base
Structured Type : TEST_HOOK_CONTROL
Derivation Path :
Comments : ETS 300 175−5 [5], subclause 7.6.10

Element Name	Element Value	Comments
iei	TSC_iei_test_hook_control	
hook_value	?	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Timer_restart_rx_base		
Structured Type : TIMER_RESTART		
Derivation Path :		
Comments : ETS 300 175−5 [5], subclause 7.6.9		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_timer_restart	
restart_value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Transit_delay_rx_base		
Structured Type : TRANSIT_DELAY		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_transit_delay	
length	’02’O	
forward_delay	?	
f3	’10’B	
backward_delay	?	
f4	’10’B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Transit_delay_rx_empty		
Structured Type : TRANSIT_DELAY		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_transit_delay	
length	’00’O	
forward_delay	OMIT	
f3	OMIT	
backward_delay	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Window_size_rx_base		
Structured Type : WINDOW_SIZE		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_window_size	
length	'02'O	
forward_value	?	
f3	'1'B	
backward_value	?	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Window_size_rx_empty		
Structured Type : WINDOW_SIZE		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_window_size	
length	'00'O	
forward_value	OMIT	
f3	OMIT	
backward_value	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_rx_base		
Structured Type : ZAP_FIELD		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_zap_field	
length	'01'O	
contents	?	
f3	'0000'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_rx_empty		
Structured Type : ZAP_FIELD		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_zap_field	
length	'00'O	
contents	OMIT	
f3	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_zap_one		
Structured Type : ZAP_FIELD		
Derivation Path :		
Comments : A send constraint for the zap field ie, specifying a zap value of 1.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_zap_field	
length	'01'O	
contents	'0001'B	zap value 1
f3	'0000'B	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_brc_ind(nwk_pdu : PDU)		
ASP Type : DL_BROADCAST_IND		
Derivation Path :		
Comments : This constraint contains a PDU		
Parameter Name	**Parameter Value**	**Comments**
cluster_address_list	OMIT	
message_unit	nwk_pdu	
extended_message_flag	'0'B	Short paging
error_flag	(TSC_iei_error_flag_on, TSC_iei_error_flag_off)	'1'B means CRC error occurred in MAC−PAGE−ind primitive
Detailed Comments : This primitive is not used in PT testing. The message unit length information element is not used in this primitive		

ASP Constraint Declaration		
Constraint Name : Dl_data_ind(nwk_pdu : PDU)		
ASP Type : DL_DATA_IND		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
message_unit	nwk_pdu	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_data_req(nwk_pdu : PDU)		
ASP Type : DL_DATA_REQ		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
message_unit	nwk_pdu	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_enc_cfm(param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_CFM		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
encryption_status	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_enc_ind(param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_IND		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
connection_identities	? IF_PRESENT	
encryption_status	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_enc_req(param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_REQ		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
connection_identities	OMIT	
encryption_command	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_enc_key_req(param : ENCRYPTION_KEY)		
ASP Type : DL_ENC_KEY_REQ		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
connection_identities	OMIT	
encryption_key	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_est_cfm		
ASP Type : DL_ESTABLISH_CFM		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_est_req_no_pdu		
ASP Type : DL_ESTABLISH_REQ		
Derivation Path :		
Comments : This constraint does not contain a PDU. The dlei value will be specified in the PIXIT.		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
establish_mode	TSC_em_class_a	
radio_fixed_part_number	OMIT	
message_unit	OMIT	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_est_req_pdu(nwk_pdu : PDU)		
ASP Type : DL_ESTABLISH_REQ		
Derivation Path :		
Comments : This constraint for the DL_ESTABLISH_REQ contains a PDU.		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
establish_mode	TSC_em_class_a	
radio_fixed_part_number	OMIT	
message_unit	nwk_pdu	
Detailed Comments : For now this primitive is used in FT testing only. The message unit length information element is not used in this primitive		

ASP Constraint Declaration		
Constraint Name : Dl_rel_cfm		
ASP Type : DL_RELEASE_CFM		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
release_mode	(TSC_rm_normal, TSC_rm_abnormal)	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_rel_ind		
ASP Type : DL_RELEASE_IND		
Derivation Path :		
Comments : The constraint for the DL_RELEASE_IND ASP		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
release_mode	(TSC_rm_normal, TSC_rm_abnormal)	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_rel_req(param : RELEASE_MODE)		
ASP Type : DL_RELEASE_REQ		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	TSPX_dlei_value	
release_mode	param	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Access_rights_accept_rx_base
PDU Type : ACCESS_RIGHTS_ACCEPT
Derivation Path :
Comments : The basic receive constraint for the access rights_accept message. Only one fixed_id will be included. No ZAP field and Service class are stored

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_accept	M
portable_id	Portable_id_rx_base	M (t.b.s. in derived constraint)
repeat_indicator	OMIT	N
fixed_id	Fixed_id_rx_base	M (t.b.s. in derived constraint)
location_area	(Location_area_rx_base, Location_area_rx_empty) IF_PRESENT	O
auth_type	(Auth_type_rx_base, Auth_type_rx_empty) IF_PRESENT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
zap_field	(Zap_field_rx_base, Zap_field_rx_empty) IF_PRESENT	O
service_class	(Service_class_base, Service_class_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Access_rights_accept_rx01
PDU Type : ACCESS_RIGHTS_ACCEPT
Derivation Path : Access_rights_accept_rx_base.
Comments : A derived receive constraint for the access rights_accept message, specifying the fixed_id as type PARK.

Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_rx02		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_rx_base.		
Comments : A derived receive constraint for the access rights_accept message, specifying the fixed_id as type PARK and the <<service class>>ie with any value.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
service_class	Service_class_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_rx03		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_rx_base.		
Comments : A derived receive constraint for the access rights_accept message, specifying the fixed_id as type PARK and the <<zap filed>>ie with any value.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
zap_field	Zap_field_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_reject_rx_base		
PDU Type : ACCESS_RIGHTS_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the access rights_reject message.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_request	M
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
duration	(Duration_rx_base, Duration_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_tx_base		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path :		
Comments : The basic send constraint for the access rights_request message.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_request	M
portable_id	OMIT	M (t.b.s. in derived constraint)
auth_type	OMIT	M (t.b.s. in derived constraint) (O in version 2 of ETS 300 175)
cipher_info	OMIT	O
setup_capability	OMIT	O (new in version 2 of ETS 300 175)
terminal_capability	OMIT	M (t.b.s. in derived constraint) (O in version 2 of ETS 300 175)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_tx01		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_tx_base.		
Comments : A derived send constraint, with auth_key_type referring to UAK and portable is referring to the IPUI−N		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	IPUI−N
auth_type	Auth_type_tx_no_dck_no_zap	related UAK, IPUI
terminal_capability	Terminal_capability_tx_gap	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_tx02		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_tx_base.		
Comments : A derived send constraint, with auth_key_type referring to AC and portable is referring to the IPUI−N.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	IPUI−N
auth_type	Auth_type_tx_ac	AC, No ZAP, No DCK, DSAA
terminal_capability	Terminal_capability_tx_gap	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_tx03		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_tx_base.		
Comments : A derived send constraint, with auth_key_type referring to UAK and portable is referring to the IPUI−N		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	IPUI−N
auth_type	OMIT	missing
terminal_capability	Terminal_capability_tx_gap	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_tx04		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_tx_base.		
Comments : A derived send constraint, with an auth_key of which the length exceeds the maximum value.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	IPUI−N
auth_type	Bi_auth_type_tx_length_exceed	length exceeding the maximum allowed size.
terminal_capability	Terminal_capability_tx_gap	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_accept_rx_base		
PDU Type : ACCESS_RIGHTS_TERM_ACCEPT		
Derivation Path :		
Comments : The basic receive constraint for the ACCESS_RIGHTS_TERM_ACCEPT PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_term_accept	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_acc_tx_base		
PDU Type : ACCESS_RIGHTS_TERM_ACCEPT		
Derivation Path :		
Comments : The basic send constraint for the ACCESS_RIGHTS_TERM_ACCEPT PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_term_accept	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_req_rx_base		
PDU Type : ACCESS_RIGHTS_TERM_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the ACCESS_RIGHTS_TERM_REQUEST PDU. Only one fixed id will be included.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_term_request	M
portable_id	Portable_id_rx_base	M
repeat_indicator	Repeat_indicator_rx_base IF_PRESENT	O
fixed_id	Fixed_id_rx_base	M
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_request_tx_base		
PDU Type : ACCESS_RIGHTS_TERM_REQUEST		
Derivation Path :		
Comments : The basic send constraint for the ACCESS_RIGHTS_TERM_REQUEST PDU. Only one fixed id will be included.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_term_request	M
portable_id	OMIT	M (t.b.s. in derived constraint)
repeat_indicator	OMIT	O
fixed_id	OMIT	M (t.b.s. in derived constraint)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reject_rx_base		
PDU Type : AUTH_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the authenticate reject PDU, for PT initiated FT authentication. Only one auth_type will be used.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reject	M
repeat_indicator	Repeat_indicator_rx_base IF_PRESENT	O
auth_type	(Auth_type_rx_base, Auth_type_rx_empty) IF_PRESENT	O
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reject_tx_base		
PDU Type : AUTH_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the authenticate reject PDU, for FT initiated PT authentication. Only one auth_type will be used.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reject	M
repeat_indicator	OMIT	O
auth_type	OMIT	O
reject_reason	OMIT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Auth_reply_rx_base
PDU Type : AUTH_REPLY
Derivation Path :
Comments : The basic receive constraint for the AUTH_REPLY message (FT−>PT)

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reply	M
res	Res_rx_base	M
rs	(Rs_rx_base, Rs_rx_empty)	M
zap_field	OMIT	N
service_class	OMIT	N
key	OMIT	N
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_reply_rx01
PDU Type : AUTH_REPLY
Derivation Path : Auth_reply_rx_base.
Comments : The basic receive constraint for the AUTH_REPLY message (FT−>PT), in case it is received during the key allocation procedure.

Field Name	Field Value	Comments
network_header	Network_header_mm_ori	
rs	(Rs_rx_base, Rs_rx_empty) IF_PRESENT	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_reply_tx_base(res_field : BIT_32)
PDU Type : AUTH_REPLY
Derivation Path :
Comments : The basic send constraint for the AUTH_REPLY message(PT−>FT)

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reply	M
res	Res_tx(res_field)	M
rs	OMIT	N
zap_field	OMIT	O
service_class	OMIT	O
key	OMIT	O
iwu_to_iwu	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx01(res_field : BIT_32)		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : The derived send constraint for the AUTH_REPLY message(PT−>FT)		
Field Name	**Field Value**	**Comments**
res	Res_tx(res_field)	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx02(res_field : BIT_32)		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the presence of zap field and service class. The zap field should have the value 1.		
Field Name	**Field Value**	**Comments**
res	Res_tx(res_field)	
zap_field	Zap_field_zap_one	
service_class	Service_class_international	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_ka_tx_base(res_field : BIT_32)		
PDU Type : AUTH_REQUEST		
Derivation Path :		
Comments : The basic constraint for the authenticate request PDU, used in case of key allocation. (It has a parameterised res constraint).		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_auth_request	M
auth_type	OMIT	M (t.b.s. in derived constraint)
rand	OMIT	M (t.b.s. in derived constraint)
res	Res_tx(res_field)	O (used in case of Key allocate)
rs	OMIT	N
cipher_info	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Auth_request_ka_tx01(res_field : BIT_32)
PDU Type : AUTH_REQUEST
Derivation Path : Auth_request_ka_tx_base.
Comments : The derived constraint for the authenticate request PDU, for PT initiated FT authentication, during the key allocation procedure.

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	
auth_type	Auth_type_tx_no_dck_no_zap	
rand	Rand_tx_64_bit	
res	Res_tx(res_field)	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_request_rx_base
PDU Type : AUTH_REQUEST
Derivation Path :
Comments : The basic receive constraint for the authenticate request PDU, for FT initiated PT authentication

Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_auth_request	M
auth_type	Auth_type_rx_base	M
rand	Rand_rx_base	M
res	OMIT	N
rs	(Rs_rx_base, Rs_rx_empty) IF_PRESENT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_request_rx01
PDU Type : AUTH_REQUEST
Derivation Path : Auth_request_rx_base.
Comments : The derived receive constraint for the authenticate request PDU, for FT initiated PT authentication, based on the UAK.

Field Name	Field Value	Comments
auth_type	Auth_type_rx_no_dck_no_zap	1)
rand	Rand_rx_base	
rs	Rs_rx_base	2)

Detailed Comments : 1) auth_type specifies no dck to be stored, zap value not increased. UAK
2) The <<rs>>ie is mandatory, when a DECT standard authentication algorithm is used.

PDU Constraint Declaration		
Constraint Name : Auth_request_rx02		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : The derived receive constraint for the authenticate request PDU, for FT initiated PT authentication		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_rx_no_dck_zap	1)
rand	Rand_rx_base	
rs	Rs_rx_base	2)
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value shall be increased. 2) The <<rs>>ie is mandatory, when a DECT standard authentication algorithm is used.		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx03		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : The derived receive constraint for the authenticate request PDU, for FT initiated user authentication		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_rx_upi	1)
rand	Rand_rx_base	
rs	Rs_rx_base	2)
Detailed Comments : 1) auth_type specifies DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UPI. 2) The <<rs>>ie is mandatory, when a DECT standard authentication algorithm is used.		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx04		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : The derived receive constraint for the authenticate request PDU, for FT initiated PT authentication		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_rx_dck_no_zap	1)
rand	Rand_rx_base	
rs	Rs_rx_base	2)
Detailed Comments : 1) auth_type specifies dck to be stored, zap value not increased. 2) The <<rs>>ie is mandatory, when a DECT standard authentication algorithm is used.		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx05		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : The derived receive constraint for the authenticate request PDU, for FT initiated PT authentication, based on the AC		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_rx_ac	1)
rand	Rand_rx_base	
rs	Rs_rx_base	2)
Detailed Comments : 1) auth_type specifies AC type, dck not to be stored and zap value not increased. 2) The <<rs>>ie is mandatory, when a DECT standard authentication algorithm is used.		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx_base		
PDU Type : AUTH_REQUEST		
Derivation Path :		
Comments : The basic constraint for the authenticate request PDU, for PT initiated FT authentication		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_auth_request	M
auth_type	OMIT	M (t.b.s. in derived constraint)
rand	OMIT	M (t.b.s. in derived constraint)
res	OMIT	O
rs	OMIT	N
cipher_info	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx01		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : The derived constraint for the authenticate request PDU, for PT initiated FT authentication		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_no_dck_no_zap	
rand	Rand_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx02		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : The derived constraint for the authenticate request PDU, for PT initiated FT authentication, with an authentication key which is not supported by the FT.		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_auth_key_not_supp	1)
rand	Rand_tx_64_bit	
Detailed Comments : 1) Authentication key is not supported		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx03		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : The derived constraint for the authenticate request PDU, for PT initiated FT authentication, during the key allocation procedure.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	
auth_type	Auth_type_tx_ac	
rand	Rand_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx04		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived constraint for the authenticate request PDU, for PT initiated FT authentication, but with an illegal transaction identifier value.		
Field Name	**Field Value**	**Comments**
network_header	Bi_network_header_mm_ori	Contains illegal TV
auth_type	Auth_type_tx_no_dck_no_zap	
rand	Rand_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Auth_request_tx05 (res_field:BIT_32)
PDU Type : AUTH_REQUEST
Derivation Path :
Comments : The constraint for the authenticate request PDU, for PT initiated FT authentication, during the key allocation procedure.

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_request	M
auth_type	Auth_type_tx_ac	M
rand	Rand_tx_64_bit	M
res	Res_tx (res_field)	O
rs	OMIT	N
cipher_info	OMIT	O
iwu_to_iwu	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Bi_auth_reply_tx(res_field : BIT_32)
PDU Type : AUTH_REPLY
Derivation Path : Auth_reply_tx_base.
Comments : The derived send constraint for the AUTH_REPLY message (PT−>FT), containing an unrecognizable message type.

Field Name	Field Value	Comments
message_type	TSC_mt_unrec	unreconizable message type
res	Res_tx(res_field)	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Bi_cc_short_tx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : BI_CC_SHORT_MESSAGE
Derivation Path :
Comments : This constraint for the CC_SETUP PDU contains a too short <<message type>>ie.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type_short	TSC_mt_cc_short	1)

Detailed Comments : 1) too short message type

PDU Constraint Declaration		
Constraint Name : Bi_cc_unrec_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : This constraint for the CC_SETUP PDU contains in <<message type>>ie wrong value.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_unrec	Unrecognised value.
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Bi_mm_unrec_tx_base		
PDU Type : IDENTITY_REQUEST		
Derivation Path :		
Comments : The basic send constraint for testing the behaviour of the IUT, if an unrecognised message is sent.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_unrec	M (unrecognised message type)
repeat_indicator	OMIT	N
identity_type	OMIT	M (t.b.s. in derived constraint)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_reject_rx_base		
PDU Type : CIPHER_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the CIPHER_REJECT PDU. Only one cipher info ie is assumed to be present.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_cipher_reject	M
repeat_indicator	OMIT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_rx_base		
PDU Type : CIPHER_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the CIPHER_REQUEST PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_cipher_request	M
cipher_info	Cipher_info_rx_base	M (t.b.s. in derived constraint)
call_identity	(Call_id_rx_base, Call_id_rx_empty) IF_PRESENT	O
connection_identity	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_rx01		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_rx_base.		
Comments : A derived receive constraint for the CIPHER_REQUEST PDU., specifying ciphering on with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_dsca_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_rx02		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_rx_base.		
Comments : A derived receive constraint for the CIPHER_REQUEST PDU., specifying ciphering off with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_dsca_disable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_tx_base		
PDU Type : CIPHER_SUGGEST		
Derivation Path :		
Comments : The basic send constraint for the CIPHER_SUGGEST PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_cipher_suggest	M
cipher_info	OMIT	M
call_identity	OMIT	O
connection_identity	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_tx01		
PDU Type : CIPHER_SUGGEST		
Derivation Path : Cipher_suggest_tx_base.		
Comments : A derived send constraint for the CIPHER_SUGGEST PDU, specifying the cipher−info ie with ciphering enable.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_dsca_enable	1)
Detailed Comments : 1) Cipher_info_dsca_enable specifies: DECT standard cipher algorithm, ciphering enable, cipher key type DCK.		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_tx02		
PDU Type : CIPHER_SUGGEST		
Derivation Path : Cipher_suggest_tx_base.		
Comments : A derived send constraint for the CIPHER_SUGGEST PDU, specifying the cipher−info ie with ciphering disable.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_dsca_disable	1)
Detailed Comments : 1) Cipher_info_dsca_enable specifies: DECT standard cipher algorithm, ciphering disable, cipher key type DCK.		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_tx03		
PDU Type : CIPHER_SUGGEST		
Derivation Path : Cipher_suggest_tx_base.		
Comments : A derived send constraint for the CIPHER_SUGGEST PDU, specifying the cipher−info ie with a not supported key.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_key_false	1)
Detailed Comments : 1) Cipher_info_key_false specifies cipher info with a not supported key.		

PDU Constraint Declaration		
Constraint Name : Cc_alerting_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_ALERTING		
Derivation Path :		
Comments : The basic receive constraint for the cc_alerting PDU, for outgoing call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_alerting	M
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175−5 [5])
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
signal	Signal_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
terminal_capability	OMIT	N
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_alerting_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_ALERTING		
Derivation Path :		
Comments : The basic send constraint for the cc_alerting PDU, for incomming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_alerting	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O (version 2 of ETS 300 175−5 [5])
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
signal	OMIT	N
feature_indicate	OMIT	N
terminal_capability	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_call_proc_rx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_CALL_PROC
Derivation Path :
Comments : A basic receive constraint for the cc_call_proceeding PDU, for outgoing call

Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_call_proc	M
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
signal	Signal_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_connect_rx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_CONNECT
Derivation Path :
Comments : The basic receive constraint for the cc_connect PDU, for outgoing call.

Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_connect	M
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
signal	Signal_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
terminal_capability	OMIT	N
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_connect_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CONNECT		
Derivation Path :		
Comments : The basic send constraint for the cc_connect PDU, for incomming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_connect	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
signal	OMIT	N
feature_indicate	OMIT	N
terminal_capability	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_connect_ack_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CONNECT_ACK		
Derivation Path :		
Comments : A basic receive constraint for the cc_connect_ack PDU, for incoming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_connect_ack	M
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_base) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_info_rx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_INFO
Derivation Path :
Comments : The basic receive constraint for the cc_info PDU, for either outgoing or incoming call

Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_info	M
location_area	OMIT	N
network_assigned_id	OMIT	N
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	Signal_rx_base IF_PRESENT	O
feature_activate	OMIT	N
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
network_parameter	OMIT	N
called_party_number	(Called_party_number_rx_base, Called_party_number_rx_empty) IF_PRESENT	O
called_party_subaddress	(Called_party_subaddress_rx_base, Called_party_subaddress_rx_empty) IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
test_hook_control	Test_hook_contr_rx_base IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_info_rx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_rx_base.		
Comments : The derived receive constraint for the cc_info PDU, for either outgoing or incoming call containing the <<signal>>ie. The parameter indicates whether the CC_INFO is sent by the originating or the destination party.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
signal	Signal_rx_base	values:= { 40H−47H, 48H, 4FH }
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path :		
Comments : The basic send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_info	M
location_area	OMIT	O
network_assigned_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	OMIT	O
single_keypad	OMIT	O
signal	OMIT	N
feature_activate	OMIT	O
feature_indicate	OMIT	N
network_parameter	OMIT	N
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
test_hook_control	OMIT	N
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for outgoing call , specifying a muliti−keypad ie, containing the basic dialled digits.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_basic	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx02(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for outgoing call with the 'keypad'ie containing goto pulse.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_pulse	Goto pulse
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx03(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for outgoing call with the 'keypad'ie containing dialling pause		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_pause	Dialling pause
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx04(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for outgoing call with the 'keypad'ie containing goto DTMF, defined tone length.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_dtmf_defined	goto DTMF, defined tone length
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx05(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for outgoing call with the 'keypad'ie containing goto goto DTMF, infinite tone length.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_dtmf_infinite	goto DTMF, inifinite tone length
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_info_tx06(tv_ : BIT_3; tf_ : BIT_1; param : DECT_1)
PDU Type : CC_INFO
Derivation Path :
Comments : A second base constraint for the CC_INFO PDU, for either outgoing or incoming call, specifying a parametarized digit in the multi−keypad ie.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_info	M
location_area	OMIT	O
network_assigned_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	Multi_keypad_tx_param(param)	O
single_keypad	OMIT	O
signal	OMIT	N
feature_activate	OMIT	O
feature_indicate	OMIT	N
network_parameter	OMIT	N
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
test_hook_control	OMIT	N
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_info_tx07(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_INFO
Derivation Path : Cc_info_tx_base.
Comments : A derived send constraint for the cc_info PDU, for outgoing call , specifying a muliti−keypad ie, containing the digits 1 to 4.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_keypad	Multi_keypad_tx_1234	

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_notify_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_NOTIFY		
Derivation Path :		
Comments : The base receive constraint for the cc_notify PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_notify	M
timer_restart	Timer_restart_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_out_of_scope_pdu_rx(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_OUT_OF_SCOPE		
Derivation Path :		
Comments : For any CC PDU which is out of scope acc. to ETS 300 444		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	
message_type	(TSC_mt_iwu_info, TSC_mt_cc_service_change, TSC_mt_cc_service_accept, TSC_mt_cc_service_reject, TSC_mt_facility, TSC_mt_hold, TSC_mt_hold_ack, TSC_mt_hold_reject, TSC_mt_retrieve, TSC_mt_retrieve_ack, TSC_mt_retrieve_reject)	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path :		
Comments : The basic receive constraint for the cc_release PDU, for either outgoing or incoming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_release	M
release_reason	Release_reason_rx_base IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175−5 [5])
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path :		
Comments : The basic send constraint for the cc_release PDU, for either outgoing or incoming call.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_release	M
release_reason	OMIT	O
facility	OMIT	N
progress_indicator	OMIT	O (version 2 of ETS 300 175−5 [5])
multi_display	OMIT	N
single_display	OMIT	N
feature_indicate	OMIT	N
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path : Cc_release_tx_base.		
Comments : The derived send constraint for the cc_release PDU, for either outgoing or incoming call with <<release reason>>ie containing partial release.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
release_reason	Release_reason_partial_release	Partial release
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path :		
Comments : The basic receive constraint for the cc_release_com PDU, for either outgoing or incoming call NOT COMPLETED		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_release_com	M
release_reason	Release_reason_rx_base IF_PRESENT	O
identity_type	(Identity_type_rx_base, Identity_type_rx_empty) IF_PRESENT	O
location_area	(Location_area_rx_base, Location_area_rx_empty) IF_PRESENT	O
iwu_attributes	(Iwu_attributes_rx_base, Iwu_attributes_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175−5 [5])
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
network_parameter	(Network_parameter_rx_base, Network_parameter_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path :		
Comments : The basic send constraint for the cc_release_com PDU, for either outgoing or incoming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_release_com	M
release_reason	OMIT	O
identity_type	OMIT	N
location_area	OMIT	N
iwu_attributes	OMIT	O
facility	OMIT	O (version 2 of ETS 300 175−5 [5])
multi_display	OMIT	N
single_display	OMIT	N
feature_indicate	OMIT	N
network_parameter	OMIT	N
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_service_change_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SERVICE_CHANGE		
Derivation Path :		
Comments : The basic receive constraint for the cc_service_change PDU, for either incoming call or outgoing call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_service_change	M
portable_id	Portable_id_rx_base	M
service_change_info	Service_change_info_rx_base	M
repeat_indicator	*	O
connection_attributes	*	O
connection_id	*	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_service_change_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SERVICE_CHANGE		
Derivation Path :		
Comments : The basic send constraint for the cc_service_change PDU, for either incoming call or outgoing call (to be completed)		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	
message_type	TSC_mt_cc_service_change	
portable_id	OMIT	
service_change_info	OMIT	
repeat_indicator	OMIT	
connection_attributes	OMIT	
connection_id	OMIT	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_rx_base(tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path :
Comments : The basic receive constraint for the cc_setup PDU, for incoming call. Note that the Network header constraint allows any TV to occur. The TV value will be assigned in the testcase.

Field Name	Field Value	Comments
network_header	Network_header_cc_iut_any_tv(tf_)	M
message_type	TSC_mt_cc_setup	M
portable_id	Portable_id_rx_base	M
fixed_id	Fixed_id_rx_base	M
basic_service	Basic_service_rx_base	M The Basic_service_rx_base constraint will specify 'default attribtues', so Iwu_attributes and call attributes and end_to_end_compatibility are not allowed.
iwu_attributes	OMIT	O (default attributes)
repeat_indicator_1	OMIT	O (default attributes)
call_attributes	OMIT	O (default attributes)
repeat_indicator_2	OMIT	O (default attributes)
connection_attributes	OMIT	O (only in advanced MAC connections)
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
connection_id	OMIT	O (only in advanced MAC connections)
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	Signal_rx_base IF_PRESENT	O
feature_activate	OMIT	N
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
network_parameter	OMIT	N
terminal_capability	OMIT	N
end_to_end_compatability	OMIT	O (default attributes)
rate_parameters	OMIT	O (data services only)
transit_delay	OMIT	O (data services only)
window_size	OMIT	O (data services only)
calling_party_number	(Calling_party_number_rx_base, Calling_party_number_rx_empty) IF_PRESENT	O

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PDU Constraint Declaration		
Field Name	**Field Value**	**Comments**
called_party_number	(Called_party_number_rx_base, Called_party_number_rx_empty) IF_PRESENT	O
called_party_subaddress	(Called_party_subaddress_rx_base, Called_party_subaddress_rx_empty) IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx01(tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A receive constraint for the cc_setup PDU, for incomming call.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx03(tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A derived constraint for the cc_setup PDU, for incomming call with <<signal>>ie containing alerting.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_rx_base	1)
signal	Signal_rx_alerting	
Detailed Comments : 1) The Basic_service_rx_base constraint will specify 'default attribtues', so Iwu_attributes and call attributes are not allowed.		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx04(tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A receive constraint for the cc_setup PDU, for incoming call, specifying a calling party number ie to be present.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
calling_party_number	Calling_party_number_rx_base	
sending_complete	Sending_complete	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx05(tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A receive constraint for the cc_setup PDU, for incoming call.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
signal	OMIT	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_tx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path :
Comments : The basic send constraint for the cc_setup PDU, for outgoing call.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_setup	M
portable_id	OMIT	M (t.b.s. in derived constraint)
fixed_id	OMIT	M (t.b.s. in derived constraint)
basic_service	OMIT	M (t.b.s. in derived constraint)
iwu_attributes	OMIT	O
repeat_indicator_1	OMIT	O
call_attributes	OMIT	O
repeat_indicator_2	OMIT	O
connection_attributes	OMIT	O
cipher_info	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	OMIT	O
single_keypad	OMIT	O
signal	OMIT	N
feature_activate	OMIT	O
feature_indicate	OMIT	N
network_parameter	OMIT	O
terminal_capability	OMIT	O
end_to_end_compatability	OMIT	O
rate_parameters	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
calling_party_number	OMIT	O
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for outgoing call. No called party number included.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	1)
Detailed Comments : 1) The Basic_service_tx_default constraint specifies 'basic speech default attribtues', so lwu_attributes, call attributes and end_to_end_compatibility are not allowed.		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx02(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for outgoing call with a called party number.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	1)
called_party_number	Called_party_number_tx_pixit	
sending_complete	Sending_complete	
Detailed Comments : 1) The Basic_service_tx_default constraint specifies 'basic speech default attribtues', so lwu_attributes, call attributes and end_to_end_compatibility are not allowed.		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx03(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for outgoing call with a called party number and the <<basic_service'>>ie containing emergency call. Portable type is IPEI		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipei	IPEI type
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_emergency	emergency call
called_party_number	Called_party_number_tx_emergency	
sending_complete	Sending_complete	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_tx04(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path : Cc_setup_tx_base.
Comments : A derived send constraint for the cc_setup PDU, for outgoing call with a called party number and the <<basic_service'>>ie containing emergency call. Portable type is IPUI

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	IPUI type
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_emergency	emergency call
called_party_number	Called_party_number_tx_emergency	
sending_complete	Sending_complete	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_setup_tx05(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path : Cc_setup_tx_base.
Comments : A derived send constraint for the cc_setup PDU, for outgoing call with the <<basic_service>>ie containing emergency call.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipei	IPEI type
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_emergency	emergency call

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_setup_tx06(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path : Cc_setup_tx_base.
Comments : A derived send constraint for the cc_setup PDU, for outgoing call, specifying a <<multi−keypad>> ie with 'goto−pulse'

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
multi_keypad	Multi_keypad_tx_pulse	Goto pulse

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx08(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint used for testing the behaviour of the IUT in case of an invalid message send. This constraint for the CC_SETUP PDU, has the mandatory information element 'basic_service' missing.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx09(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint used for testing the behaviour of the IUT in case of an invalid message send. This constraint for the CC_SETUP PDU contains a mandatory <<basic_service>> with invalid value.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_invalid	call class = 111 (reserved value)
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx11(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for incoming call, specifying a protocol discriminator value that is not supported by the IUT.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_unsupported(tv_, tf_)	
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_ack_rx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP_ACK
Derivation Path :
Comments : The basic receive constraint for the cc_setup_ack PDU, for outgoing call. No progress indicator included

Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_setup_ack	M
info_type	(Info_type_rx_base, Info_type_rx_empty) IF_PRESENT	O
portable_id	(Portable_id_ipui , Portable_id_empty) IF_PRESENT	O
fixed_id	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
location_area	(Location_area_rx_base, Location_area_rx_empty) IF_PRESENT	O
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O
multi_display	(Multi_display_rx_base, Multi_display_rx_empty) IF_PRESENT	O
single_display	Single_display_rx_base IF_PRESENT	O
signal	Signal_rx_base IF_PRESENT	O
feature_indicate	(Feature_indicate_rx_base, Feature_indicate_rx_empty) IF_PRESENT	O
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
delimiter_request	Delimeter_request_rx_base IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_setup_ack_rx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP_ACK		
Derivation Path : Cc_setup_ack_rx_base.		
Comments : A derived receive constraint for the cc_setup_ack PDU, for outgoing call with the "progress indicator"ie containing inband information or appropriate pattern now available.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut(tv_, tf_)	M
progress_indicator	Progress_indicator_rx_patt_avail	inband information or appropriate pattern now available.
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Ciss_any_pdu_rx		
PDU Type : CISS_ANY_PDU		
Derivation Path :		
Comments : The basic receive constraint for any CISS PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_ciss_any_tf	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Coms_any_pdu_rx		
PDU Type : COMS_ANY_PDU		
Derivation Path :		
Comments : The basic receive constraint for any COMS PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_coms_any_tf	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx_base		
PDU Type : IDENTITY_REPLY		
Derivation Path :		
Comments : The basic send constraint for the IDENTITY_REPLY PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_identity_reply	M
repeat_indicator_1	OMIT	O
portable_id	OMIT	O
repeat_indicator_2	OMIT	O
fixed_id	OMIT	O
repeat_indicator_3	OMIT	O
network_assigned_id	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx01		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx02		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipei	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx03		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU, specifying a TPUI		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_tpui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx04		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU, specifying a PARK		
Field Name	**Field Value**	**Comments**
fixed_id	Fixed_id_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx05		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : A derived send constraint for the IDENTITY_REPLY PDU, specifying a fixed id with an ARI		
Field Name	**Field Value**	**Comments**
fixed_id	Fixed_id_ari	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx06		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU, specifying a fixed id ARI + RPN		
Field Name	**Field Value**	**Comments**
fixed_id	Fixed_id_ari_rpn	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_tx07		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_tx_base.		
Comments : The derived send constraint for the IDENTITY_REPLY PDU, specifying the portable id IPUI, but with the Transaction Identifier flag set illegally to '0',		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	1)
portable_id	Portable_id_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_rx_base		
PDU Type : IDENTITY_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the IDENTITY_REQUEST PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_identity_request	M
repeat_indicator	OMIT	O
identity_type	Identity_type_rx_base	M (t.b.s. in derived constraint)
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_rx01		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_rx_base.		
Comments : A derived receive constraint for the IDENTITY_REQUEST PDU, specifying a portable id, IPUI request.		
Field Name	**Field Value**	**Comments**
identity_type	Identity_type_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Key_allocate_rx_base		
PDU Type : KEY_ALLOCATE		
Derivation Path :		
Comments : The basic receive constraint for the KEY_ALLOCATE PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_key_allocate	M
allocation_type	Allocation_type_rx_base	M (t.b.s. in derived constraint)
rand	Rand_rx_base	M (t.b.s. in derived constraint)
rs	Rs_rx_base	M (t.b.s. in derived constraint)
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Key_allocate_rx01		
PDU Type : KEY_ALLOCATE		
Derivation Path : Key_allocate_rx_base.		
Comments : A derived receive constraint for the KEY_ALLOCATE PDU, spcifying DSAA in the allocation type.		
Field Name	**Field Value**	**Comments**
allocation_type	Allocation_type_rx_dsaa	
rand	Rand_rx_base	
rs	Rs_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_response_tx_base		
PDU Type : LCE_PAGE_RESPONSE		
Derivation Path :		
Comments : The basic send constraint for the lce_page_response PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_lce_dest	M
message_type	TSC_mt_lce_page_response	M
portable_id	OMIT	M (t.b.s. in derived constraint)
fixed_id	OMIT	O
network_assigned_id	OMIT	O
cipher_info	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_response_tx01		
PDU Type : LCE_PAGE_RESPONSE		
Derivation Path : Lce_page_response_tx_base.		
Comments : The basic send constraint for the lce_page_response PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_lce_dest	
message_type	TSC_mt_lce_page_response	
portable_id	Portable_id_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_response_tx02		
PDU Type : LCE_PAGE_RESPONSE		
Derivation Path : Lce_page_response_tx_base.		
Comments : A derived send constraint for the lce_page_response PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_lce_dest	
message_type	TSC_mt_lce_page_response	
portable_id	Portable_id_ipui_unknown	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_reject_rx_base		
PDU Type : LCE_PAGE_REJECT		
Derivation Path :		
Comments : The basic send constraint for the lce_page_response PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_lce_ori	M
message_type	TSC_mt_lce_page_reject	M
portable_id	Portable_id_ipui	M
fixed_id	Fixed_id_rx_base IF_PRESENT	O
reject_reason	Reject_reason_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_request_page_rx_base(param : LCE_HEADER)		
PDU Type : LCE_REQUEST_PAGE		
Derivation Path :		
Comments : The basic constraint for the LCE_REQUEST_PAGE message The parameter indicates paging for CC services (with U−plane) or MM services (only C−plane)		
Field Name	**Field Value**	**Comments**
lce_header	param	M
short_format_address	Short_frm_addr IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_rx_base		
PDU Type : LOCATE_ACCEPT		
Derivation Path :		
Comments : The basic receive constraint for the LOCATE_ACCEPT PDU. An empty Portable id is present, no TPUI assignment is done.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_locate_accept	M
portable_id	Portable_id_rx_base	M (t.b.s. in derived constraint)
location_area	Location_area_rx_base	M (t.b.s. in derived constraint)
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
duration	(Duration_rx_base, Duration_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_rx01		
PDU Type : LOCATE_ACCEPT		
Derivation Path : Locate_accept_rx_base.		
Comments : A derived receive constraint for the LOCATE_ACCEPT PDU. It can be with or without TPUI assignment. (empty portable_id)		
Field Name	**Field Value**	**Comments**
portable_id	(Portable_id_empty, Portable_id_tpui)	1)
location_area	Location_area_tx_lal_only	
Detailed Comments : 1) Either with or without TPUI assignment		

PDU Constraint Declaration		
Constraint Name : Locate_reject_rx_base		
PDU Type : LOCATE_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the LOCATE_REJECT PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_locate_reject	M
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
duration	(Duration_rx_base, Duration_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_tx_base		
PDU Type : LOCATE_REQUEST		
Derivation Path :		
Comments : The basic send constraint for the locate_request PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_locate_request	M
portable_id	Portable_id_ipui	M
fixed_id	Fixed_id_ari_rpn	M
location_area	Location_area_tx_lal_only	M
network_assigned_id	OMIT	O
cipher_info	OMIT	O
setup_capability	OMIT	O
terminal_capability	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_tx01		
PDU Type : LOCATE_REQUEST		
Derivation Path : Locate_request_tx_base.		
Comments : A derived send constraint for the locate_request PDU.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_ari_rpn	
location_area	Location_area_tx_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_tx02		
PDU Type : LOCATE_REQUEST		
Derivation Path : Locate_request_tx_base.		
Comments : A derived send constraint for the locate_request PDU with the <<portable id>>ie containig unknown IPUI.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui_unknown	
fixed_id	Fixed_id_ari_rpn	
location_area	Location_area_tx_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Mm_info_suggest_rx_base		
PDU Type : MM_INFO_SUGGEST		
Derivation Path :		
Comments : The basic send constraint for the MM_INFO_SUGGEST PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_mm_info_suggest	M
info_type	Info_type_rx_locate_suggest	M (t.b.s. in derived constraint)
fixed_id	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
location_area	(Location_area_rx_base, Location_area_rx_empty) IF_PRESENT	O
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
network_parameter	(Network_parameter_rx_base, Network_parameter_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Mm_out_of_scope_pdu_rx		
PDU Type : MM_OUT_OF_SCOPE		
Derivation Path :		
Comments : For any MM PDU which is out of scope acc. to ETS 300 444		
Field Name	**Field Value**	**Comments**
network_header	(Network_header_mm_dest, Network_header_mm_ori)	
message_type	(TSC_mt_mm_info_request, TSC_mt_mm_info_accept, TSC_mt_mm_info_reject, TSC_mt_detach, TSC_mt_temporary_id_assign)	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_ack_tx_base		
PDU Type : TEMPORARY_ID_ASSIGN_ACK		
Derivation Path :		
Comments : The basic constraint for the TEMPORARY_ID_ASSIGN_ACK PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_temporary_id_assign_ack	M
Detailed Comments :		

IV

Dynamic Part

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_OC_01

Group : FT/CC/BV/OC/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
The CC−SETUP message does not contain a called party number.
The called party number information is saved in TSPX_called_party_number
ETS 300 175−5 [5], subclauses 9.3.1.4 and 9.3.1.6 − ETS 300 444 [10], subclause 8.1 figure 1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			1)
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			3)
5		DLS ! DL_DATA_REQ (TCV_cc_tv := ’000’B)	Dl_data_req (Cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_setup_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
7		START T_P_CC_04			
8		+STP_send_called_party_number(TSPX_nr_of_digits_in_cpn)			5)
9	B2	DLS ? DL_DATA_IND	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	6)
10	B3	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	7)
11		+STP_invoke_cc_connect			
12	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	8)
13		+STP_check_u_plane(TSPX_dlei_value)			9)
14		+PO_normal_release			
15	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	8)
16		+STP_check_u_plane(TSPX_dlei_value)			9)
17		+PO_normal_release			

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Test Case Dynamic Behaviour

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
18	B6	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	7)
19		+STP_invoke_cc_connect			
20	B7	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	8)
21		+STP_check_u_plane(TSPX_dlei_value)			9)
22		+PO_normal_release			
23	B8	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	10)
24		+STP_check_u_plane(TSPX_dlei_value)			
25		+PO_normal_release			
26	B9	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	10)
27		+STP_check_u_plane(TSPX_dlei_value)			
28		+PO_normal_release			

Detailed Comments :
1) Start a PT initiated direct link establishment.
2) Send CC−SETUP, without called party number.
3) Initialise the transaction flag to 'LT originated'
4) Wait for the CC−SETUP−ACK to arrive.
5) This teststep sends the called party number to the IUT, in successive CC−INFO's, containting a multi−keypad uie with one digit. The actual called party number is specified in the PIXIT.
6) Send CC−CALL−PROC.
7) Send CC−ALERTING.
8) Send CC−CONNECT.
9) Check U−plane connection
10) The FT can also send back CC−CONNECT right away.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_OC_02

Group : FT/CC/BV/OC/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclauses 9.3.1.4 and 9.3.1.6
NO GAP!

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		START T_P_CC_04			
8	B2	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
9		+STP_invoke_cc_connect			
10	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
11		+STP_check_u_plane(TSPX_dlei_value)			
12		+PO_normal_release			
13	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
14		+STP_check_u_plane(TSPX_dlei_value)			
15		+PO_normal_release			
16	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
17		+STP_check_u_plane(TSPX_dlei_value)			
18		+PO_normal_release			

Detailed Comments : 1) Cc_Setup with 'calling_party_number''ie

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_OC_03

Group : FT/CC/BV/OC/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclauses 9.3.1
NO GAP!

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx03(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		START T_P_CC_04			
8	B2	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
9		+STP_invoke_cc_connect			
10	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
11		+STP_check_u_plane(TSPX_dlei_value)			
12		+PO_normal_release			
13	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
14		+STP_check_u_plane(TSPX_dlei_value)			
15		+PO_normal_release			
16	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
17		+STP_check_u_plane(TSPX_dlei_value)			
18		+PO_normal_release			

Detailed Comments : 1) Cc_Setup with a <<calling_party_number>>ie, a portable_id>>ie containing ipei−type and an <<basic_service'>>ie containing emergency call.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_OC_04

Group : FT/CC/BV/OC/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclauses 9.3.1
NO GAP!

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		START T_P_CC_04			
8	B2	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
9		+STP_invoke_cc_connect			
10	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
11		+STP_check_u_plane(TSPX_dlei_value)			
12		+PO_normal_release			
13	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
14		+STP_check_u_plane(TSPX_dlei_value)			
15		+PO_normal_release			
16	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
17		+STP_check_u_plane(TSPX_dlei_value)			
18		+PO_normal_release			
19		START T_P_CC_04			

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Test Case Dynamic Behaviour
Detailed Comments : 1) Cc_Setup with a <<calling_party_number>>ie, a portable_id>>ie containing ipui−type and an <<basic_service'>>ie containing emergency call.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_OC_05

Group : FT/CC/BV/OC/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
NO GAP!
The cc_setup message contains emergency call but doesn't contain a called party number.
The TSPX_nr_of_digits_in_cpn parameter really defines the number of cc_info messages containing multi−keypad information elements that are going to be send. The keypad information are to be saved in TSPX_multi_keypad_value_n[max=14].
ETS 300 175−5 [5], subclauses 9.3.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx05(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_setup_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		START T_P_CC_04			
8		+STP_send_called_party_number(TSPX_nr_of_digits_in_cpn)			2)
9	B2	DLS ? DL_DATA_IND	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
10	B3	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
11		+STP_invoke_cc_connect			
12	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
13		+STP_check_u_plane(TSPX_dlei_value)			
14		+PO_normal_release			
15	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
16		+STP_check_u_plane(TSPX_dlei_value)			
17		+PO_normal_release			

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Continued from previous page

Test Case Dynamic Behaviour

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
18	B6	DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
19		+STP_invoke_cc_connect			
20	B7	DLS ? DL_DATA_IND CANCEL T_P_CC_04, CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
21		+STP_check_u_plane(TSPX_dlei_value)			
22		+PO_normal_release			
23	B8	DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
24		+STP_check_u_plane(TSPX_dlei_value)			
25		+PO_normal_release			
26	B9	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
27		+STP_check_u_plane(TSPX_dlei_value)			
28		+PO_normal_release			

Detailed Comments : 1) CC−SETUP PDU contains Basic service for emergency call.
2) This teststep sends the called party number to the IUT, in successive CC−INFO's, containting a multi−keypad uie with one digit. The actual called party number is specified in the PIXIT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_IC_01

Group : FT/CC/BV/IC/

Purpose : Verify that the IUT is able to perform an incoming call via the states F−06 and F−07 to the state F−10.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 9.3.2 − ETS 300 444 [10], subclause 8.11

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			
4		+STP_initialise_tf(TSC_iut_originated)			
5	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value) CANCEL T_USER_INVOKE	Dl_data_ind(Cc_setup_rx05(TCV_cc_iut_tf))	(PASS)	1)
6		DLS ! DL_DATA_REQ	Dl_data_req(Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
7	B2	DLS ? DL_DATA_IND	Dl_data_ind(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
8		DLS ! DL_DATA_REQ START T_P_CC_05	Dl_data_req(Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
9	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_05	Dl_data_ind(Cc_connect_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
10		+STP_check_u_plane(TSPX_dlei_value)			
11		+PO_normal_release			
12	B4	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value) CANCEL T_USER_INVOKE	Dl_data_ind(Cc_setup_rx03(TCV_cc_iut_tf))	(PASS)	3)
13		+STP_initialise_tf(TSC_iut_originated)			
14		DLS ! DL_DATA_REQ	Dl_data_req(Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		

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Test Case Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
15		DLS ! DL_DATA_REQ START T_P_CC_05	Dl_data_req(Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
16	B5	DLS ? DL_DATA_IND CANCEL T_P_CC_05	Dl_data_ind(Cc_connect_ack_rx_base (TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
17		+STP_check_u_plane(TSPX_dlei_value)			
18		+PO_normal_release			
Detailed Comments : 1) Cc_Setup without <<signal>>ie can be received. 2) Cc_Info with <<signal>>ie is expected. 3) Cc_Setup with <<signal>>ie can be received.					

Test Case Dynamic Behaviour					
Test Case Name	: TC_FT_CC_BV_IC_02				
Group	: FT/CC/BV/IC/				
Purpose	: Verify that the IUT is able to perform an incoming call via state F−06 directly to the state F−10.				
Configuration	:				
Default	: DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events				
Comments	: Initial state: F−00 ETS 300 175−5 [5], subclause 9.3.2				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+PR_goto_f06			1)
2		DLS ! DL_DATA_REQ START T_P_CC_05	Dl_data_req(Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_05	Dl_data_ind(Cc_connect_ack_rx_base (TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
4		+STP_check_u_plane(TSPX_dlei_value)			
5		+PO_normal_release			
Detailed Comments : 1) Cc_Setup with <<signal>>ie. 2) The behaviour is valid according to ETS 300 175[5], but NOT according to the interworking in ETS 300 444[10] figure 29.					

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_01

Group : FT/CC/BV/CI/

Purpose : Verify that the IUT is able to send the <<signal>> 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 9.3.1 − ETS 300 444 [10], subclause 8.14

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			
4		+STP_initialise_tf(TSC_iut_originated)			
5	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	Dl_data_ind(Cc_setup_rx03(TCV_cc_iut_tf))	(PASS)	1)
6		+PO_normal_release			2)
7	B2	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	Dl_data_ind(Cc_setup_rx05(TCV_cc_iut_tf))	(PASS)	3)
8	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind (Cc_setup_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
9		START T_P_CC_04			
10		DLS ? DL_DATA_IND CANCEL T_P_CC_01	Dl_data_ind(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
11		+PO_normal_release			5)

Detailed Comments : 1) CC−SETUP with <<signal>> ie is received.
2) Test passes. Release call
3) CC−SETUP without <<signal>> ie is received.
4) CC−INFO with <<signal>> ie is recieved
5) Test passes. Release call

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_02

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		DLS ! DL_DATA_REQ CANCEL T_P_CC_04	Dl_data_req(Cc_info_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_pulse			
5		+PO_normal_release			3)

Detailed Comments : 1) Cc_info with <<multi_keypad>>ie containing goto pulse is to send.
2) Now send the digits 1 to 4, in order to check if the network has correctly switched to pulse dialling.
3) Perform a normal release.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_04

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> information element containing keypad−info '05H' (dialling pause), it sends a dialling pause to the network simulator (feature N.7 in ETS 300 444).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		DLS ! DL_DATA_REQ CANCEL T_P_CC_04	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx03(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		3)
5		+STP_check_pause			4)
6		+PO_normal_release			

Detailed Comments : 1) Send the digits 1 to 4 to the IUT
2) Send a pause digit
3) Again, send the digits 1 to 4 to the IUT.
4) Check that the pause digit is received by the network simulator.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_05

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> information element containing keypad−info '05H' (dialling pause), it sends a dialling pause to the network simulator (feature N.7 in ETS 300 444).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx03(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		3)
5		+STP_check_pause			4)
6		+PO_normal_release			

Detailed Comments : 1) Send the digits 1 to 4 to the IUT
2) Send a pause digit
3) Again, send the digits 1 to 4 to the IUT.
4) Check the network simulator of the pause digits is received.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_06

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		DLS ! DL_DATA_REQ CANCEL T_P_CC_04	Dl_data_req(Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_dtmf_defined			
5		+PO_normal_release			3)

Detailed Comments : 1) Cc_info with <<multi_keypad>>ie containing dtmf defined tone length.
2) Now send the digits 1 to 4, in order to check if the network has correctly switched to dtmf dialling.
3) Perform a normal release.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_07

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2	B1	DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))	(PASS)	1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_dtmf_defined			
5		+PO_normal_release			3)

Detailed Comments : 1) Cc_info with <<multi_keypad>>ie containing dtmf defined tone length.
2) Now send the digits 1 to 4, in order to check if the network has correctly switched to dtmf dialling.
3) Perform a normal release.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_08

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		DLS ! DL_DATA_REQ CANCEL T_P_CC_04	Dl_data_req(Cc_info_tx05(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_dtmf_infinite			
5		+PO_normal_release			3)

Detailed Comments : 1) Cc_info with <<multi_keypad>>ie containing dtmf infinite tone length.
2) Now send the digits 1 to 4, in order to check if the network has correctly switched to dtmf dialling.
3) Perform a normal release.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_09

Group : FT/CC/BV/CI/

Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx05(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_dtmf_infinite			
5		+PO_normal_release			3)

Detailed Comments : 1) Cc_info with <<multi_keypad>>ie containing dtmf infinite tone length.
2) Now send the digits 1 to 4, in order to check if the network has correctly switched to dtmf dialling.
3) Perform a normal release.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CI_10
Group : FT/CC/BV/CI/
Purpose : Verify that when the IUT receives a {CC−INFO} message with a <<MULTI−KEYPAD>> 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).
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_basic_digits			3)
5		+PO_normal_release			

Detailed Comments : 1) Go To DTMF
2) Cc_info_tx01 specifies a multi−keypad ie, containing the basic digits.
3) Check if the baisc dialled digits are transferred correctly to the network simulator

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_01
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform an IUT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		CANCEL T_P_CC_04			
3		+STP_cc_release_normal (TSC_iut_originated)			1)
4		+PO_release_link			

Detailed Comments : 1) Call_Release is required by the IUT

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_02
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform an IUT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175[5], subclause 9.5.1
ETS 300 444[10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2	B1	+STP_cc_release_normal(TSC_iut_originated)			1)
3		+PO_release_link			

Detailed Comments : 1) Call is established by PT and Call_Release is required by the FT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_03
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform an IUT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−07
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f07			
2		+STP_cc_release_normal (TSC_iut_originated)			1)
3		+PO_release_link			

Detailed Comments : 1) Call is established by the IUT and Call Release is required by the IUT also.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_04
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT, after part of dialling information is sent, is able to perform a PT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		CANCEL T_P_CC_04			
3		+STP_send_called_party_number(TSPX_nr_of_digits_in_cpn − 1)			
4		+STP_cc_release_normal (TSC_lt_originated)			1)
5		+PO_release_link			

Detailed Comments : 1) Call is established by PT and Call_Release is required by the PT, also.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_05
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform a PT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2	B1	+STP_cc_release_normal(TSC_lt_originated)			
3		+PO_release_link			

Detailed Comments : 1) Call is established by PT and Call_Release is required by the PT also.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_06
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform a PT initiated normal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−07
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f07			
2		+STP_cc_release_normal (TSC_lt_originated)			1)
3		+PO_release_link			

Detailed Comments : 1) Call is established by the IUT and Call_Release is required by the PT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_07
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform a PT initiated abnormal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−07
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f07			
2		CANCEL T_P_CC_01			
3		+STP_cc_release_abnormal			1)
4		+PO_release_link			

Detailed Comments : 1) Call is established by IUT and call release is required by the LT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_08
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform an PT initiated abnormal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2	B1	+STP_cc_release_abnormal			
3		+PO_release_link			

Detailed Comments : 1) Call release is required by the LT

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_09
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform an PT initiated abnormal release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−06
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.8

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f06			
2		CANCEL T_P_CC_03			
3		+STP_cc_release_abnormal			1)
4		+PO_release_link			

Detailed Comments : 1) Call release is initiated by the LT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_CR_10
Group : FT/CC/BV/CR/
Purpose : Verify that the IUT is able to perform a PT initiated partial release.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 14.2.7 − ETS 300 444 [10], subclaus 8.9

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2		+STP_cc_release_partial (TSC_lt_originated)			1)
3		+STP_check_link_present			2)
4	B1	[TCV_result = TRUE]		(PASS)	
5		+PO_release_link			
6	B2	[TCV_result = FALSE]		(FAIL)	
7		+PO_release_link			

Detailed Comments : 1) CC−RELEASE containing RELEASE−REASON with release reason code '15'H (partial release) shall be sent.
2) After a partial release, the link should remain in place. This is tested with STP_check_link_present.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BV_RS_07

Group : FT/CC/RS/

Purpose : To verify the IUT is able to transmit the <<calling party number>> informatin element in the {{CC−SETUP} message providing the PP with the calling party number information before accepting the call (feature N.30).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 10.3 − ETS 300 323−1[44], subclause 6.3.3.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			
4	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	Dl_data_ind(Cc_setup_rx04(TCV_cc_iut_tf))	(PASS)	1)
5		+STP_cc_release_normal (TSC_iut_originated)			2)

Detailed Comments : 1) cc_setup with <<calling_party_number>> ie is expected.
2) Call is established by PT and Call_Release is required by the FT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BO_01

Group : FT/CC/BO/

Purpose : Verify that the IUT ignores the unexpected message {CC−SETUP).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
After receiving of the Cc_Info_tx04 message the IUT shall to switch to dtmf, defined tone length.
The IUT may not change this mode after receiving an unexpected message Cc_setup with <<keypad>>ie containing go to pulse. This requirement shall be tested in STP_check_dtmf_defined.
ETS 300 175−5 [5], subclause 17.4.1 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		DLS ! DL_DATA_REQ CANCEL T_P_CC_04	Dl_data_req(Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req(Cc_setup_tx06(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_send_called_party_number(TSPX_nr_of_digits_in_cpn)			
5		+STP_check_dtmf_defined			3)
6		+PO_normal_release			4)

Detailed Comments : 1) CC−INFO with <<multi_keypad>>ie containing defined tone length.
2) CC−SETUP with <<keypad>>ie containing go to pulse. The TI−Value in this CC−SETUP shall contain the same value as in the CC−SETUP used in PR_goto_f02.
3) The influence of the unexpected CC−SETUP is checked.
4) Release the call

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BO_02

Group : FT/CC/BO/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−19
ETS 300 175−5 [5], subclause 9.5.3 − ETS 300 444 [10], subclause 8.7.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f19			
2		DLS ! DL_DATA_REQ START T_P_CC_02, CANCEL T_P_CC_04	Dl_data_req(Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		1)
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	2)
4		+PO_release_link			
5	B2	? TIMEOUT T_P_CC_02		(PASS)	3)
6		+PO_release_link			

Detailed Comments : 1) Release Collision
2) IUT sent back a CC_RELEASE_COM. Test fails.
3) No CC_RELEASE−COM message received from IUT, test ok

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BI_01

Group : FT/CC/BI/

Purpose : Verify that the IUT sends a {CC−RELEASE−COM} message.on receipt of a {CC−SETUP} message without a mandatory information element.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
The mandatory information element that is missing, is 'basic service'.
ETS 300 175−5 [5], subclause 17.6.1 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		+STP_initialise_tf(TSC_lt_originated)			
4		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx08(TCV_cc_tv, TCV_cc_lt_tf))		1)
5		START T_P_CC_03			
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		+PO_release_link			

Detailed Comments : 1) In Cc_setup_tx08, there is the mandatory ie <<basic service>> missing.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BI_02

Group : FT/CC/BI/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
The mandatory ie <<basic service>> of Cc_Setup contains an invalid value.
ETS 300 175−5 [5], subclause 17.6.2 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		+STP_initialise_tf(TSC_lt_originated)			
4		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx09(TCV_cc_tv, TCV_cc_lt_tf))		1)
5		START T_P_CC_03			
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		+PO_release_link			

Detailed Comments : 1) Cc_setup_tx09 with mandatory ie <<basic service>> containing invalid value.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BI_03

Group : FT/CC/BI/

Purpose : Verify that the IUT ignores an unrecognised message, constructed and a {CC−SETUP} but with one bit different in the <message type>.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 17.4.1 − ETS 300 444 [10], subclause 6.9.4
Cc_Setup contains wrong message type.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		DLS ! DL_DATA_REQ (TCV_cc_tv := ’000’B)	Dl_data_req (Bi_cc_unrec_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		1)
4		START T_P_CC_03			
5	B1	? TIMEOUT T_P_CC_03		(PASS)	2)
6	PO1	+PR_goto_f10			
7		+STP_cc_release_normal(TSC_lt_originated)			
8		+PO_release_link			

Detailed Comments : 1) LT sends a {CC−SETUP} message with wrong <<message type>>
2) There is no answer from IUT expected.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_BI_04

Group : FT/CC/BI/

Purpose : Verify that the IUT ignores a message that is too short to contain a complete message type info element.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 17.2 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Bi_cc_short_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		1)
4		START T_P_CC_03			
5	B1	? TIMEOUT T_P_CC_03		(PASS)	2)
6	PO1	+PR_goto_f10			
7		+STP_cc_release_normal(TSC_lt_originated)			
8		+PO_release_link			

Detailed Comments : 1) LT sends a {CC−SETUP} message with too short <<message type>>ie.
2) There is no answer from IUT expected.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_TI_01

Group : FT/CC/TI/

Purpose : 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 +− 5%.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.3.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		START T_F_CC_01_min, START T_F_CC_01_max, CANCEL T_P_CC_04			
3	B1	? TIMEOUT T_F_CC_01_min		(PASS)	1)
4	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_01_max	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
5		+PO_release_link			
6	B3	? TIMEOUT T_F_CC_01_max		(FAIL)	2)
7		+STP_cc_release_abnormal			3)
8		+PO_release_link			

Detailed Comments : 1) There is no Cc_release expected, before the Timer CC_01 has been expired.
2) The IUT shall send a Cc_release immediately after expiring of T_F_CC_01. The different between T_FF_CC_01_min and T_FF_CC_1_max is for the transmission time.
3) Abnormal Call_Release is required by the PT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_TI_02
Group : FT/CC/TI/
Purpose : Verify that the IUT is able to restart the timer F−<CC.01>, on receipt of a {CC−INFO} message.
Configuration :
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−02
ETS 300 175−5 [5], subclause 9.3.1.5 − ETS 300 444 [10], subclause 8.3.2.3, figure 12

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		START T_F_CC_01_half, CANCEL T_P_CC_04			
3	B1	? TIMEOUT T_F_CC_01_half		(PASS)	1)
4		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx07(TCV_cc_tv, TCV_cc_lt_tf))		2)
5		START T_F_CC_01_min, START T_F_CC_01_max			
6	B3	? TIMEOUT T_F_CC_01_min		(PASS)	3)
7	B4	DLS ? DL_DATA_IND CANCEL T_F_CC_01_max	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
8		+PO_release_link			
9	B5	? TIMEOUT T_F_CC_01_max		(FAIL)	4)
10		+STP_cc_release_abnormal			5)
11		+PO_release_link			

Detailed Comments : 1) Wait 50 % of T_F_CC_01 in the state F_02.
2) Cc_info with <<multi_keypad>>ie containing 4 digits, in order to restart the IUT timer T_F_CC_01.
3) There is no Cc_release expected, before the Timer CC_01 has been expired.
4) The IUT shall send a Cc_release immediately after expiring of T_F_CC_01. The different between T_FF_CC_01_min and T_FF_CC_1_max is for the transmission time.
5) Abnormal Call_Release is required by the PT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_TI_03

Group : FT/CC/TI/

Purpose : 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 +− 5%.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−19
ETS 300 175−5 [5], subclause 9.5.1 − ETS 300 444 [10], subclause 8.7.1.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f19			
2		CANCEL T_P_CC_04, START T_F_CC_02_min, START T_F_CC_02_max			
3	B1	? TIMEOUT T_F_CC_02_min		(PASS)	1)
4	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_02_max	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
5		+PO_release_link			
6	B3	? TIMEOUT T_F_CC_02_max		(FAIL)	2)
7		+STP_cc_release_abnormal			3)
8		+PO_release_link			

Detailed Comments : 1) There is no Cc_release expected, before the Timer CC_02 has been expired.
2) The IUT shall send a Cc_release immediately after expiring of T_F_CC_02. The different between T_FF_CC_02_min and T_FF_CC_2_max is for the transmission time.
3) Abnormal Call_Release is required by the PT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_CC_TI_04

Group : FT/CC/TI/

Purpose : 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 +− 5%.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−06
ETS 300 175−5 [5], subclause 9.3.2 − ETS 300 444 [10], subclause 8.12.1.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f06			
2		START T_F_CC_03_min, START T_F_CC_03_max			
3	B1	? TIMEOUT T_F_CC_03_min		(PASS)	1)
4	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_03_max	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
5		+PO_release_link			
6	B3	? TIMEOUT T_F_CC_03_max		(FAIL)	2)
7		+STP_cc_release_abnormal			3)
8		+PO_release_link			

Detailed Comments : 1) There is no Cc_release_com expected, before the Timer CC_03 has been expired.
2) The IUT shall send a Cc_release immediately after expiring of T_F_CC_03. The different between T_FF_CC_03_min and T_FF_CC_3_max is for the transmission time.
3) Abnormal Call_Release is required by the PT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_ID_01

Group : FT/MM/BV/ID/

Purpose : Verify that when the basic IUT initiated identity request procedure.is invoked on the IUT, the IUT is able to perform this procedure correctly.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
ETS 300 175−5 [5], subclause 13.2.1 − ETS 300 444 [10], subclause 8.22

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_idpt_ccstate)			
2		+STP_invoke_identity_req			1)
3	B1	DLS ? DL_DATA_IND(TCV_pdu_identy_request := DL_DATA_IND.message_unit, TCV_id_group := TCV_pdu_identy_request. identity_type.id_group, TCV_id_type := TCV_pdu_identy_request. identity_type.type) CANCEL T_USER_INVOKE	Dl_data_ind(Identity_request_rx_base)	(PASS)	2)
4		+STP_handle_identity_request			3)
5		+PO_release_link			

Detailed Comments : 1) Invoke Identity request message.
2) Receive Identy Request message and save the values of the relevant ies.
3) Send the correct Identy Reply message.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_01

Group : FT/MM/BV/AU/

Purpose : 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
Note that the result of the PT authentication is not tested in this testcase.
ETS 300 175−5 [5], subclause 13.3.1 − ETS 300 444 [10], subclause 8.24

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx01)	(PASS)	2)
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak))			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		3)
6		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Authentication on UAK mandated, so UAK has to be present beforehand.
3) Copy calculated res field into reply message.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_02

Group : FT/MM/BV/AU/

Purpose : 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.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
Note that the result of the PT authententication is not tested in this testcase.
ETS 300 175−5 [5], subclause 13.3.1 − ETS 300 444 [10], subclause 8.24

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_auth_with_zap			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx02)	(PASS)	2)
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak), TSV_dck_value := TSO_cinft_algos_dck_b1_a1(TCV_rand, TCV_rs, TSV_uak))			
5		+STP_perform_ft_authentication(Auth _request_tx01,Auth_reply_rx_base)			
6		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx02(TCV_res_tx))		3)
7		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) ZAP increment bit shall be set to 1.
3) Copy calculated res field into reply message. The Auth_reply message contains the incremented ZAP value.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_03

Group : FT/MM/BV/AU/

Purpose : 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
Note that the result of the user authententication is not tested in this testcase.
ETS 300 175−5 [5], subclause 13.3.2 − ETS 300 444 [10], subclause 8.25

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_auus_ccstate)			1)
2		+STP_invoke_user_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx03)	(PASS)	2)
4		(TCV_res_tx_u := TSO_cinft_algosb2_a1(TCV_rand, TCV_rs, TSV_uak, TSO_cinft_convert_upi_to_bitstring(TSPX_decimal_upi_value)))			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		3)
6		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Authentication is based on UPI. ZAP increment bit shall not be set to 1.
3) Copy calculated upi_res field into reply message.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_04
Group : FT/MM/BV/AU/
Purpose : Verify that the IUT is able to perform the basic operation of the authentication of FT procedure.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : ETS 300 175−5 [5], subclause 13.3.3 − ETS 300 444 [10], subclause 8.23

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_auth_1			1)
4		(TSV_ft_authentication_pending := TRUE)			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx01)		
6	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(PASS)	2)
7		(TSV_ft_authentication_pending := FALSE)			
8		(TCV_xres := TSO_cinft_algosb1_a2(TSC_rand , TSC_rs, TSV_uak))			3)
9	B2	[TCV_xres = TCV_res_rx]		(PASS)	
10		+PO_release_link			
11	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
12		+PO_release_link			

Detailed Comments : 1) Start timer and initiated FT authentication.
2) Receive reply message
4) Calculate and check the received res value.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_05

Group : FT/MM/BV/AU/

Purpose : Verify that the IUT rejects authentication of FT procedure if an authentication key is specified which is not supported by the FT.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial State: F−00
ETS 300 175−5 [5], subclause 13.3.3 − ETS 300 444 [10], subclause 8.23.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_auth_1			1)
4		(TSV_ft_authentication_pending := TRUE)			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx02)		
6	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reject_rx_base)	(PASS)	2)
7		(TSV_ft_authentication_pending := FALSE)			
8		+PO_release_link			
9	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(FAIL)	3)
10		(TSV_ft_authentication_pending := FALSE)			
11		+PO_release_link			

Detailed Comments : 1) Start timer and initiate FT authentication. Authentication key will not be supported by FT.
2) Receive the authenticate reject message
3) Authenticate reply message received: testcase fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AU_06

Group : FT/MM/BV/AU/

Purpose : 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).

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
ETS 300 175−5 [5], subclause 13.3.3 − ETS 300 444 [10], subclause 8.23.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx04)	(PASS)	2)
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak), TSV_dck_value := TSO_cinft_algos_dck_b1_a1(TSC_rand, TSC_rs, TSV_uak))			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		3)
6		+STP_perform_pt_init_ciphering_on			4)
7		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Auth_type specifies dck to be stored, zap value not increased.
3) The IUT shall use the saved DCK for ciphering.
4) Switch on ciphering

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_LO_01

Group : FT/MM/BV/LO/

Purpose : 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, and still is 1.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.4.1 − ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_locate_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	2)
6	B2	[TCV_port_id_length_tpui = '00'O]		(PASS)	3)
7		+PO_release_link			
8	B3	[TCV_port_id_length_tpui <> '00'O]		(PASS)	4)
9		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
10		+PO_release_link			

Detailed Comments : 1) Send a LOCATE−REQUEST message
2) Reveive the LOCATE−ACCEPT message. A possible interrupting PT authentication is handled in DF_handle_mm_events. Store length of received portable id.
3) If length = 0, no TPUI assignment is done
4) If length <> 0, TPUI assignment is done, send back TPUI assign acknowledge.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_LO_02

Group : FT/MM/BV/LO/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.4.1 − ETS 300 444 [10], subclause 8.28.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_locate_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx02)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_reject_rx_base)	(PASS)	2)
6		+PO_release_link			
7	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(FAIL)	3)
8		+PO_release_link			

Detailed Comments : 1) Send a location update req message with the <<portable id>>ie containing unknown IPUI.
2) Receive the LOCATE−REJECT message
3) If a LOCATE−ACCEPT follows, test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_LO_03

Group : FT/MM/BV/LO/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
This Testcase can be executed, if the IUT supports TPUI assignment, and actually does perform TPUI assignment in this case.
ETS 300 175−5 [5], subclause 13.4.1 − ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_locate_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	2)
6	B2	[TCV_port_id_length_tpui = '00'O]		(FAIL)	3)
7		+PO_release_link			
8	B3	[TCV_port_id_length_tpui <> '00'O]		(PASS)	4)
9		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
10		+PO_release_link			

Detailed Comments : 1) Send a LOCATE−REQUEST message
2) Reveive the LOCATE−ACCEPT message. A possible interrupting PT authentication is handled in DF_handle_mm_events. Store length of received portable id.
3) If length = 0, no TPUI assignment is done. Test fails
4) If length <> 0, TPUI assignment is done, send back TPUI assign acknowledge. Test passes

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_LO_05

Group : FT/MM/BV/LO/

Purpose : 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. The portable id will contain an IPUI.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
Broadcast attribute a38 is set to 1.
ETS 300 175−5 [5], subclause 13.7 − ETS 300 444 [10], subclause 8.29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_loup_ccstate)			
2		+STP_invoke_location_update			1)
3		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Mm_info_suggest_rx_base)		
4		START T_P_MM_locate_1			
5		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		2)
6	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	3)
7	B2	[TCV_port_id_length_tpui = '00'O]		(PASS)	4)
8		+PO_release_link			
9	B3	[TCV_port_id_length_tpui <> '00'O]		(PASS)	5)
10		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
11		+PO_release_link			

Detailed Comments : 1) Mm_info_suggest message is expected.
2) Send a location update req message with an IPUI.
3) Receive Locate_Update_Accept message with <<portable_id>>ie containing tpui or not.
4) In case of empty tpui, LT shall not send a temporary_id_assign_ack.
5) In case of tpui, LT shall send a temporary_id_assign_ack.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_LO_06

Group : FT/MM/BV/LO/

Purpose : Verify that the IUT is able to perform the basic operation of the location registration procedure, requested with an IPUI , when broadcast attributes bit aV38 was set to 1 during the locking of the IUT, and when it was changed to 0 afterward.
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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
Broadcast attribute a38 is set to 1.
ETS 300 175−5 [5], subclause 13.7 − ETS 300 444 [10], subclause 8.29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_set_bit_a38(1)			1)
3		+STP_direct_link_establishment			
4		+STP_set_bit_a38(0)			2)
5		START T_P_MM_locate_1			
6		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		3)
7	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	4)
8		[TCV_port_id_length_tpui = '00'O]			5)
9		+PO_release_link			
10		[TCV_port_id_length_tpui <> '00'O]			6)
11		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
12		+PO_release_link			

Detailed Comments : 1) Set the bit_a38 to 1 according to ETS 300 444 [10], subclauses 13.2−13.5
2) Set the bit_a38 to 0 according to ETS 300 444 [10], subclauses 13.2−13.5
3) Send a location update req message with an IPUI.
4) Receive Locate_Update_Accept message with <<portable_id>>ie containing tpui or not.
5) In case of empty tpui, LT shall not send a temporary_id_assign_ack.
6) In case of tpui, LT shall send a temporary_id_assign_ack.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AR_01

Group : FT/MM/BV/AR/

Purpose : Verify that the IUT is able to perform the basic operation of the obtain access rights procedure, when the LT sends in the <<AUTH_TYPE>> information element the auth_key_type 'AC', and the IUT uses AC for authentication. The IUT shall include the whole PARK.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: No accessrights
A possible intermediate key allocation is handled in DF_handle_mm_events
ETS 300 175−5 [5], subclause 13.5.1 − ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 02)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_accept_rx 01)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) LT sends a Access rigths req message with the <<authentication type>>ie containing AC−value.
2) IUT shall use Access rigths accept message with the <<fixed_id>>ie containing whole park.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AR_02

Group : FT/MM/BV/AR/

Purpose : Verify that the IUT is able to assign service class information as part of the basic obtaining accessrights procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: No accessrights
IUT must support the feature N.14 for this test.
A possible intermediate key allocation is handled in DF_handle_mm_events.
ETS 300 175−5 [5], subclause 13.5.1 − ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 02)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_accept_rx 02)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) LT sends a Access rigths req message with the <<authentication type>>ie containing AC−value.
2) IUT shall use Access rigths accept message with the <<fixed_id>>ie containing whole park and service_class information.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AR_03

Group : FT/MM/BV/AR/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], 13.5.2 − ETS 300 444 [10], subclause 8.31

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_arte_ccstate)			1)
2		+STP_invoke_access_term_req			
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Access_rights_term_req_ rx_base)	(PASS)	2)
4		+STP_perform_ft_authentication(Auth_r equest_tx01,Auth_reply_rx_base)			3)
5		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_term_acc_ tx_base)		4)
6		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Invoke and receive the access terminate request.
3) Perform FT authentication.
4) If this succeeds, send accessrights terminate accept

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AR_06

Group : FT/MM/BV/AR/

Purpose : Verify that the IUT is able to perform the basic operation of the obtain access rights procedure, when the LT sends in the <<AUTH_TYPE>> information element the auth_key_type 'UAK', and the IUT uses UAK for authentication. The IUT shall include the whole PARK.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: No accessrights
ETS 300 175−5 [5], subclause 13.5.1 − ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 01)		1)
5	S1	DLS ? DL_DATA_IND (TCV_result := TRUE) CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_accept_rx 01)	(PASS)	2)
6		+STP_invoke_pt_authentication			
7	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx01)	(PASS)	3)
8		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak), TSV_dck_value := TSO_cinft_algos_dck_b1_a1(TSC_rand, TSC_rs, TSV_uak))			
9		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx02(TCV_res_tx))		
10		+PO_release_link			

Detailed Comments :
1) Access_rights_request contains request for portable_id with IPUI and the <<authentication type>>ie containing auth_key_type UAK.
2) Access_rights_accept contains requested portable id, implying IUT has still accessrights.
3) Receive Authentication Request with the <<auth_type>>ie containing no dck to be stored, zap value not increased and UAK.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_AR_07
Group : FT/MM/BV/AR/
Purpose : Verify that the IUT is able to assign zap field as part of the basic obtaining accessrights procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
IUT shall support the feature N.16.
A possible intermediate key allocation is handled in DF_handle_mm_events
ETS 300 175−5 [5], subclause 13.5.1 − ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 02)		1)
5	B1	DLS ? DL_DATA_IND (TCV_result := TRUE) CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_accept_rx 03)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) LT sends a Access rigths req message with the <<authentication type>>ie containing AC−value.
2) IUT shall use Access rigths accept message with the <<fixed_id>>ie containing whole park and zap field information.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_KA_01

Group : FT/MM/BV/KA/

Purpose : Verify that the IUT, after invocation, is able to perform the basic operation of the key allocation procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 13.6 − ETS 300 444 [10], subclause 8.32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_keal_ccstate)			
2		+STP_invoke_key_allocate			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_key_allocate := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_key_allocate.rand.field, TCV_rs := TCV_pdu_key_allocate.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Key_allocate_rx01)	(PASS)	1)
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			
5		START T_P_MM_auth_1			
6		(TSV_ft_authentication_pending := TRUE)			
7		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx05(TCV_res_tx))		2)
8	B2	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx01)	(PASS)	3)
9		(TSV_ft_authentication_pending := FALSE)			
10		(TCV_xres := TSO_cinft_algosb1_a2(TSC_rand, TSC_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)), TSV_uak := TSO_cinft_algosb1_a21(TSC_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			
11	B3	[TCV_xres = TCV_res_rx]		(PASS)	4)
12		+PO_release_link			
13	B4	[TCV_xres <> TCV_res_rx]		(FAIL)	
14		+PO_release_link			

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Test Case Dynamic Behaviour
Detailed Comments : 1) Key allocate message with the <<allocation type>>ie, specifying the DECT standard Authentication Algorithm to be used. 2) Send Authentication Request message with the calculated res and <<authentication type>>ie containing AC. 3) Receive Authentication Reply message with the <<res>>ie, which to be calculated by <<rand>>ie and <<res>>ie. 4) Check received res with calculated res.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_KA_02

Group : FT/MM/BV/KA/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 13.6 − ETS 300 444 [10], subclause 8.32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_keal_ccstate)			
2		+STP_invoke_key_allocate			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_key_allocate := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_key_allocate.rand.field, TCV_rs := TCV_pdu_key_allocate.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Key_allocate_rx01)	(PASS)	1)
4		(TCV_res_tx := TSO_cinft_bitstr_inc(TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value))))			2)
5		START T_P_MM_auth_1			
6		(TSV_ft_authentication_pending := TRUE)			
7		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_ka_tx01(TCV_res_tx))		3)
8	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reject_rx_base)	(PASS)	4)
9		(TSV_ft_authentication_pending := FALSE)			
10		+PO_release_link			
11	B3	DLS ? DL_DATA_IND CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx01)	(FAIL)	5)
12		(TSV_ft_authentication_pending := FALSE)			
13		+PO_release_link			

Detailed Comments : 1) Key allocate message with the <<allocation type>>ie, specifying the DECT standard Authentication Algorithm to be used.
2) Calculate an auth_reply with a wrong res value.
3) Send Authentication Request message with not the calculated res to initiate an authentication reject.
4) Receive Authentication Reject. Test passes
5) If a reply is received, test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_KA_03

Group : FT/MM/BV/KA/

Purpose : Verify that the IUT retains the AC, if the PT rejects the key allocation procedure. A successive PT initiated FT authentication based on the AC, shall then succeed.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.6 − ETS 300 444 [10], subclause 8.32.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_keal_ccstate)			
2		+STP_invoke_key_allocate			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_key_allocate := DL_DATA_IND.message_unit) CANCEL T_USER_INVOKE	Dl_data_ind(Key_allocate_rx01)	(PASS)	1)
4		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reject_tx_base)		2)
5		+STP_perform_ft_authentication(Auth _request_tx03, Auth_reply_rx_base)			3)
6		+PO_release_link			

Detailed Comments : 1) Key allocate message with the <<allocation type>>ie, specifying the DECT standard Authentication Algorithm to be used.
2) Send Authentication Reject message to reject the key allocation procedure.
3) A PT initiated FT authentication based on the AC is attempted.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_CH_01

Group : FT/MM/BV/CH/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.34

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx01)		1)
4		START T_P_MM_cipher_2			
5	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_request_rx01)	(PASS)	2)
6		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		3)
7		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		4)
8	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)	(PASS)	5)
9		+PO_release_link			
10	B3	DLS ? DL_DATA_IND	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	6)
11		+PO_release_link			

Detailed Comments : 1) Send message with request to switch ciphering on.
2) Wait for Cipher Request
3) Pass dck value to DLC.
4) Start ciphering in LT
5) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
6) The ciphering request was rejected by the IUT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_CH_02

Group : FT/MM/BV/CH/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.34

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		+STP_perform_pt_init_ciphering_on			1)
4		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx02)		2)
5		START T_P_MM_cipher_2			
6	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_request_rx02)	(PASS)	3)
7		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_disabled)		4)
8	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_disabled)	(PASS)	5)
9		+PO_release_link			
10	B3	DLS ? DL_DATA_IND	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	6)
11		+PO_release_link			

Detailed Comments : 1) First switch ciphering on.
2) Send message with request to switch ciphering off.
3) Wait for Cipher Request
4) Stop ciphering in LT
5) Wait for the DL_ENCRYPT_IND with ciphering status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
6) The ciphering request was rejected by the IUT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_CH_03

Group : FT/MM/BV/CH/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.33

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cift_ccstate)			1)
2		+STP_invoke_ft_init_ciphering_on			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cipher_request_rx01)	(PASS)	2)
4		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck _value)		3)
5		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		4)
6	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)	(PASS)	5)
7		+PO_release_link			

Detailed Comments : 1) To invoke the FT to initiate ciphering on.
2) Wait for Cipher Request with <<cipher_info>>ie containing ciphering on.
3) Pass dck value to DLC.
4) Start ciphering in LT
5) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_CH_04

Group : FT/MM/BV/CH/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.33

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cift_ccstate)			1)
2		+STP_perform_pt_init_ciphering_on			2)
3		+STP_invoke_ft_init_ciphering_off			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cipher_request_rx02)	(PASS)	2)
5		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_disabled)		3)
6	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_disabled)	(PASS)	
7		+PO_release_link			

Detailed Comments : 1) Select the state appropriate for testing of ft initiated ciphering.
2) To execute the PT initiated ciphering procedure, in order to switch on ciphering.
3) To invoke the FT initiated ciphering procedure, in order to switch off ciphering.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BV_CH_05

Group : FT/MM/BV/CH/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.34.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx03)		1)
4		START T_P_MM_cipher_2			
5	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_reject_rx_base)	(PASS)	2)
6		+PO_release_link			
7	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_request_rx01)	(FAIL)	3)
8		+PO_release_link			

Detailed Comments : 1) Send CIPHER−SUGGEST message with a not supported cipher key.
2) CIPHER−REJECT received. Test passes.
3) CIPHER REQUEST received. Test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_B0_01

Group : FT/MM/BO/

Purpose : Verify that the IUT ignores the unexpected message {IDENITY−REPLY} as an answer to the FT initiated {CIPHER−REQUEST}.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 17.4.4 − ETS 300 444 [10], subclause 13.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cift_ccstate)			
2		+STP_invoke_ft_init_ciphering_off			1)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cipher_request_rx01)	(PASS)	2)
4		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx01)		3)
5		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		4)
6		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		5)
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)	(PASS)	6)

Detailed Comments : 1) To invoke the FT to initiate ciphering on.
2) Wait for Cipher Request with <<cipher_info>>ie containing ciphering on.
3) Send a unexpected message.
4) Continue the ciphering procedure with passing of dck value to DLC.
5) Start ciphering in LT
6) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BI_01

Group : FT/MM/BI/

Purpose : Verify that the IUT ignores a message with an unrecognized message type, if the message was received during a FT initiated authentication of PT procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
The way it shall be tested if the reply message is ignored or not, is to start the PT initiated location registration procedure. If an answer is received on the locate request, we know that the IUT is no longer waiting for the response of the authentication request, and has thus accepted the false reply message. Test fails.
ETS 300 175−5 [5], subclause 17.4.4 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx01)	(PASS)	
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak), TSV_dck_value := TSO_cinft_algos_dck_b1_a1(TSC_rand, TSC_rs, TSV_uak))			
5		DLS ! DL_DATA_REQ	Dl_data_req(Bi_auth_reply_tx(TCV_res_tx))		2)
6		START T_P_MM_locate_1			
7		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		3)
8	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(FAIL)	4)
9		+PO_release_link			
10	B3	? TIMEOUT T_P_MM_locate_1		(PASS)	5)
11		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Send a reply with an unrecognizable message type.
3) Now start a location registration procedure.
4) If IUT reacts to that: test fails, because it should still be waiting for a correct identity reply.
5) If IUT does not react: test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BI_02

Group : FT/MM/BI/

Purpose : Verify that the IUT, during the obtain accessrights procedure, returns an {ACCESS−RIGHTS−REJECT} message, on receipt of an {ACCESS−RIGHTS−REQUEST} message missing the information element <<AUTH−TYPE>>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: No accessrights
ETS 300 175−5 [5], subclause 17.6.4 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 03)		1)
5	S1	DLS ? DL_DATA_IND (TCV_result := TRUE) CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_reject_rx_ base)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) Send Access rights request message with missing <<auth type>>ie.
2) Execute successful access rigths procedure.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_BI_03

Group : FT/MM/BI/

Purpose : Verify that the IUT, during the obtain accessrights 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : ETS 300 175−5 [5], subclause 17.6.4 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_f00_no_acrght			
2		+STP_direct_link_establishment			
3		START T_P_MM_access_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx 04)		1)
5	S1	DLS ? DL_DATA_IND (TCV_result := TRUE) CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_reject_rx_ base)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) Send Access rights request message with containing the information element <<AUTH−TYPE>> with a length exceeding the maximum allowed length.
2) Execute successful access rigths procedure.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_01

Group : FT/MM/TI/

Purpose : Verify that the IUT is capable of completing the Identitication of PT procedure at a point in time 10% before expiry of the timer F−<MM_ident.2>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT.
A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.2.1 − ETS 300 444 [10], subclause 8.22

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_idpt_ccstate)			
2		+STP_invoke_identity_req			1)
3		DLS ? DL_DATA_IND(TCV_pdu_identy_request := DL_DATA_IND.message_unit, TCV_id_group := TCV_pdu_identy_request. identity_type.id_group, TCV_id_type := TCV_pdu_identy_request. identity_type.type) CANCEL T_USER_INVOKE, START T_F_MM_ident_2_min	Dl_data_ind(Identity_request_rx_base)	(PASS)	2)
4		? TIMEOUT T_F_MM_ident_2_min		(PASS)	
5		+STP_handle_identity_request			3)
6		+STP_perform_locate_request(Locate_request_tx01, Locate_accept_rx01)			4)
7		+PO_release_link			

Detailed Comments : 1) Invoke Identity request message.
2) Receive Identy Request message and save the values of the relevant ies.
3) Send the correct Identy Reply message.
4) Execute successful location registration procedure.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_02

Group : FT/MM/TI/

Purpose : Verify that the IUT is capable of completing the Authentification of PT procedure at a point in time 10% before expiry of the timer F−<MM_auth.1>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.3.1 − ETS 300 444 [10], subclause 8.24

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE, START T_F_MM_auth_1_min	Dl_data_ind(Auth_request_rx01)	(PASS)	2)
4		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak))			
5		? TIMEOUT T_F_MM_auth_1_min		(PASS)	
6		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		3)
7		+STP_perform_locate_request (Locate_request_tx01, Locate_accept_rx01)			
8		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Authentication on UAK mandated, so UAK has to be present beforehand.
3) Copy calculated res field into reply message.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_03

Group : FT/MM/TI/

Purpose : 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>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.3.2 − ETS 300 444 [10], subclause 8.25

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_auus_ccstate)			1)
2		+STP_invoke_user_authentication			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE, START T_F_MM_auth_2_min	Dl_data_ind(Auth_request_rx03)	(PASS)	2)
4		(TCV_res_tx_u := TSO_cinft_algosb2_a1(TCV_rand, TCV_rs, TSV_uak, TSO_cinft_convert_upi_to_bitstring(TSPX_decimal_upi_value)))			
5		? TIMEOUT T_F_MM_auth_2_min		(PASS)	
6		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		3)
7		+STP_perform_locate_request (Locate_request_tx01, Locate_accept_rx01)			4)
8		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) Waiting for user authentication, based on UPI.
3) Auth reply message for the user authentication.
4) Try to execute the location request procedure successfuly.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_04

Group : FT/MM/TI/

Purpose : 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>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.5.2 − ETS 300 444 [10], subclause 8.31

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_arte_ccstate)			
2		+STP_invoke_access_term_req			
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, START T_F_MM_access_2_min	Dl_data_ind(Access_rights_term_req_ rx_base)	(PASS)	
4		+STP_perform_ft_authentication(Auth_r equest_tx01,Auth_reply_rx_base)			
5		? TIMEOUT T_F_MM_access_2_min		(PASS)	
6		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_term_acc_ tx_base)		
7		+STP_perform_locate_request (Locate_request_tx01, Locate_accept_rx01)			
8		+PO_release_link			

Detailed Comments :

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_05

Group : FT/MM/TI/

Purpose : Verify that the IUT is capable of completing the Key allocation procedure at a point in time 10% before expiry of the timer F−<MM_key.1>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.6 − ETS 300 444 [10], subclause 8.32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_keal_ccstate)			
2		+STP_invoke_key_allocate			
3	B1	DLS ? DL_DATA_IND (TCV_pdu_key_allocate := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_key_allocate.rand.field, TCV_rs := TCV_pdu_key_allocate.rs.field) CANCEL T_USER_INVOKE, START T_F_MM_key_1_min	Dl_data_ind(Key_allocate_rx01)	(PASS)	1)
4		? TIMEOUT T_F_MM_key_1_min		(PASS)	
5		+LTS_auth_req			
		LTS_auth_req			
6		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			
7		START T_P_MM_auth_1			
8		(TSV_ft_authentication_pending := TRUE)			
9		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx05(TCV_res_tx))		2)
10	B2	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx01)	(PASS)	3)
11		(TSV_ft_authentication_pending := FALSE)			
12		(TCV_xres := TSO_cinft_algosb1_a2(TSC_rand, TSC_rs, TSO_cinft_convert_ac_to_bitstring (TSPX_decimal_ac_value)), TSV_uak := TSO_cinft_algosb1_a21(TSC_rs, TSO_cinft_convert_ac_to_bitstring (TSPX_decimal_ac_value)))			
13	B3	[TCV_xres = TCV_res_rx]		(PASS)	4)
14		+PO_release_link			
15	B4	[TCV_xres <> TCV_res_rx]		(FAIL)	

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Test Case Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
16		+PO_release_link			

Detailed Comments : 1) Key allocate message with the <<allocation type>>ie, specifying the DECT standard Authentication Algorithm to be used.
2) Send Authentication Request message with the calculated res and <<authentication type>>ie containing AC.
3) Receive Authentication Reply message with the <<res>>ie, which to be calculated by <<rand>>ie and <<res>>ie.
4) Check received res with calculated res.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_06

Group : FT/MM/TI/

Purpose : 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>.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175−5 [5], subclause 13.8 − ETS 300 444 [10], subclause 8.33

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cift_ccstate)			1)
2		+STP_invoke_ft_init_ciphering_off			2)
3		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		3)
4	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, START T_F_MM_cipher_1_min	Dl_data_ind(Cipher_request_rx01)	(PASS)	4)
5		? TIMEOUT T_F_MM_cipher_1_min		(PASS)	
6		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		5)
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)	(PASS)	6)
8		+PO_release_link			

Detailed Comments : 1) Select the state appropriate for testing of ft initiated ciphering.
2) Invoke the FT initiated ciphering procedure.
3) Pass the dck value to DLC.
4) Wait for Cipher Request with <<cipher_info>>ie containing ciphering on.
5) Start ciphering in LT
6) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_MM_TI_07

Group : FT/MM/TI/

Purpose : 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.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
In order for this testcase to be successfully excuted, the IUT should assign a TPUI in the {LOCATE−ACCEPT} message
ETS 300 175−5 [5], subclause subclause 13.2.2 − ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_locate_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_req := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_req.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	2)
6		[TCV_port_id_length_tpui = '00'O]		(I)	3)
7		+PO_release_link			
8		[TCV_port_id_length_tpui <> '00'O]			4)
9		START T_F_MM_ident_1_max			
10		? TIMEOUT T_F_MM_ident_1_max		(PASS)	
11		+STP_perform_locate_request(Locate_request_tx01, Locate_accept_rx01)			5)
12		+PO_release_link			

Detailed Comments : 1) Send a location update req message with an TPUI.
2) Receive Locate_Update_Accept message with <<portable_id>>ie containing tpui or not.
3) In case of empty tpui, test result is inconclusive.
4) In case of tpui assignment, LT initiates a new location registration after expiry of the maximal value for timer T_F_MM_ident_1.
5) Result of the test depends on the succeeding of this procedure.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_ME_BV_01

Group : FT/ME/BV/

Purpose : Verify that the IUT is able to handle the authentication of FT request in parallel with an incoming call establishment.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 15.2.1
ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			
4		+STP_initialise_tf(TSC_iut_originated)			
5	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	Dl_data_ind(Cc_setup_rx05(TCV_cc_iut_tf))	(PASS)	1)
6		START T_P_MM_auth_1			
7		(TSV_ft_authentication_pending := TRUE)			
8		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx01)		2)
9		DLS ! DL_DATA_REQ	Dl_data_req(Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		3)
10		START T_P_CC_05			
11		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
12	B2	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(PASS)	4)
13		(TSV_ft_authentication_pending := FALSE)			
14	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_05	Dl_data_ind(Cc_connect_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	5)
15		+PO_release_link			
16	B4	DLS ? DL_DATA_IND CANCEL T_P_CC_05	Dl_data_ind(Cc_connect_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	5)

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Test Case Dynamic Behaviour

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
17	B5	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(PASS)	4)
18		(TSV_ft_authentication_pending := FALSE)			
19		+PO_release_link			

Detailed Comments :
1) LT sends CC−SETUP−REQ to IUT.
2) LT requests authentication of FT.
3) LT sends CC−ALERT to IUT.
4) IUT handles authentication reply.
5) IUT handles incoming call establishment.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_ME_BV_02

Group : FT/ME/BV/

Purpose : Verify that the IUT is able to handle an authentication of FT request, when it interrupts a user authentication procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETS 300 175−5 [5], subclause 15.5
ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_auus_ccstate)			
2		+STP_invoke_user_authentication			
3		+STP_handle_indirect_link_est			
4	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx03)	(PASS)	1)
5		START T_P_MM_auth_1			
6		(TSV_ft_authentication_pending := TRUE)			
7		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx01)		2)
8	B2	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(PASS)	3)
9		(TSV_ft_authentication_pending := FALSE)			
10		(TCV_res_tx_u := TSO_cinft_algosb2_a1(TCV_rand, TCV_rs, TSV_uak, TSO_cinft_convert_upi_to_bit string(TSPX_decimal_upi_value)))			
11		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx_u))		4)
12		+PO_release_link			

Detailed Comments : 1) Waiting for user authentication, based on UPI.
2) LT requests authentication of FT procedure.
3) Testcase passes, if IUT is able to handle the Authentication of FT correctly.
4) LT terminates user authentication procedure.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_ME_BV_03
Group : FT/ME/BV/
Purpose : Verify that the IUT is able to handle a locate request during an active CC call (state F−10).
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: F−10
ETS 300 175−5 [5], subclause 15.5
ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			
2		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		1)
3	B1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	2)
4		[TCV_port_id_length_tpui = '00'O]			3)
5		+PO_normal_release			
6		[TCV_port_id_length_tpui <> '00'O]			4)
7		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
8		+PO_normal_release			

Detailed Comments : 1) LT sends LOCATE−REQUEST during state F10.
2) Testcase passes, if IUT is able return the LOCATE_ACCEPT message.
3) FT does not perform TPUI assignment.
4) FT does perform TPUI assignment.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_ME_B0_01

Group : FT/ME/BO/

Purpose : Verify that the IUT ignores a MM message with a lower priority (a {LOCATE_REQUEST} message) after the IUT (after invocation) has initiated the authentication of PT procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Specified in PIXIT
ETSI 300 175−5 [5], subclause 17.4.4 − ETS 300 444 [10], subclause 13.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_aupt_ccstate)			1)
2		+STP_invoke_pt_authentication			
3		+STP_handle_indirect_link_est			
4	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx01)	(PASS)	2)
5		START T_P_MM_locate_1			
6		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		3)
7	B2	? TIMEOUT T_P_MM_locate_1		(PASS)	4)
8		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
2) IUT initiates authentication of PT procedure.
3) LT interrupts procedure with the attempt to initiate a lower priority procedure.
4) Testcase passes, if IUT ignores the LOCATE−REQUEST from the LT.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LE_01
Group : FT/LC/BV/LE/
Purpose : Verify that the IUT is able to initiate the indirect (paged) FT−initiated link establishment procedure.
Configuration :
Default : DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 14.2.1 and 14.2.3 − ETS 300 444 [10], subclause 8.35

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			1)
4		+PO_release_link			

Detailed Comments : 1) A n indirect link establishment is processed. Test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LE_02
Group : FT/LC/BV/LE/
Purpose : Verify that the IUT rejects the {LCE−PAGE−RESPONSE} with mismatching IPUI during indirect (paged) FT−initiated link establishment and releases the link.
Configuration :
Default : DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 14.2.1 and 14.2.3 − ETS 300 444 [10], subclause 8.35

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3	B1	DLB? DL_BROADCAST_IND	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))	(PASS)	1)
4		DLS ! DL_ESTABLISH_REQ CANCEL T_USER_INVOKE, START T_RELEASE_DELAY	Dl_est_req_pdu(Lce_page_response_tx02)		2)
5	B2	DLS ? DL_DATA_IND CANCEL T_RELEASE_DELAY	Dl_data_ind(Lce_page_reject_rx_base)	(PASS)	3)
6		+PO_release_link			
7	B3	? TIMEOUT T_RELEASE_DELAY		(FAIL)	4)
8		+PO_release_link			

Detailed Comments : 1) A DL_BROADCAST_IND is received, containing a LCE−REQUEST−PAGE PDU.
2) An LCE−PAGE−RESPONSE is sent, containing an unknown IPUI. A timer is started in order to wait for the expected link release.
3) A reject indication is received.
4) No reject indication is received: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LE_03
Group : FT/LC/BV/LE/
Purpose : Verify that the IUT is able to handle a PT initiated link establishment.
Configuration :
Default : DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 14.2.1 and 14.2.3 − ETS 300 444 [10], subclause 8.36

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			1)
3		+PO_release_link			

Detailed Comments : 1) Start direct link establishment.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LR_01
Group : FT/LC/BV/LR/
Purpose : Verify that the IUT is able to perform a normal PT initiated link release.
Configuration :
Default : DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 14.2.7 − ETS 300 444 [10], subclause 8.37

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			1)
3		DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_normal)		2)
4	B1	DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm	(PASS)	3)
5		+PO_terminate			
6	B2	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind	(PASS)	4)
7		+PO_terminate			

Detailed Comments : 1) First start a link establishment
2) Then send a link release reuest
3) Wait for the confirm of the lower layer.
4) A release indication mean: release collision.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LR_02

Group : FT/LC/BV/LR/

Purpose : 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.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
in this testcase it is assumed that no other entities are using the link.
ETS 300 175−5 [5], subclause 14.2.5 − ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			1)
3		+STP_perform_locate_request (Locate_request_tx01, Locate_accept_rx01)			
4		START T_F_LCE_02_min			3)
5		? TIMEOUT T_F_LCE_02_min			4)
6	B1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	
7		+PO_terminate			
8	B2	DLS ? DL_RELEASE_IND	Dl_rel_ind	(FAIL)	5)
9		+PO_terminate			

Detailed Comments : 1) Try to establish a direct link.
2) Execute an MM procedure. In this case: Location registration
3) After completion: start timer T_P_LCE_02_min, being 5% smaller than the actual value.
4) When this timer expires: accept a DL_RELEASE_IND. Test passes
5) If the DL_RELEASE_IND comes sooner: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LR_03

Group : FT/LC/BV/LR/

Purpose : Verify that the IUT is able to start the link relase after the termination of a call.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
in this testcase it is assumed that no other entities are using the link.
ETS 300 175−5 [5], subclause 14.2.5 − ETS 300 444 [10], subclause 8.37

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			1)
2		DLS ! DL_DATA_REQ START T_P_CC_02, CANCEL T_P_CC_04	Dl_data_req(Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4	B2	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	4)
5		+PO_terminate			
6	B3	DLS ? DL_RELEASE_IND CANCEL T_P_CC_02	Dl_rel_ind	(FAIL)	5)
7		+PO_terminate			

Detailed Comments : 1) Start an outgoing call.
2) Start a normal release
3) Receive the CC−RELEASE−COM. Timeout of timer T_P_CC_02 is handled in DF_handle_any_timeout,
4) Wait for the DL_RELEASE_IND. Test passes
5) If the DL_RELEASE_IND comes too soon: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BV_LR_04

Group : FT/LC/BV/LR/

Purpose : 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.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−02
in this testcase it is assumed that no other entities are using the link.
ETS 300 175−5 [5], subclause 14.2.7 − ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			1)
2		DLS ! DL_DATA_REQ START T_P_CC_02, CANCEL T_P_CC_04	Dl_data_req(Cc_release_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_02, START T_F_LCE_02_min	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4	B2	DLS ? DL_RELEASE_IND CANCEL T_F_LCE_02_min	Dl_rel_ind	(FAIL)	4)
5		+PO_terminate			
6		? TIMEOUT T_F_LCE_02_min			
7	B3	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	5)
8		+PO_terminate			

Detailed Comments : 1) Start an incoming call.
2) Request for a partial release
3) Receive the CC−RELEASE−COM. Timeout of timer T_P_CC_02 is handled in DF_handle_any_timeout. Start guard timer T_F_LCE_02_min, guarding the partial release time.
4) If the DL_RELEASE_IND comes before the timer expires: test fails.
5) After expiry of the timer, wait for the DL_RELEASE_IND. Test passes

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BI_01

Group : FT/LC/BI/

Purpose : Verify that the IUT ignores a message containing a protocol discriminator value that indicates a service that is not supported by the IUT.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: F−00
ETS 300 175−5 subclause 17.1 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			1)
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req(Cc_setup_tx11(TCV_cc_tv, TCV_cc_lt_tf))		2)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	3)
7		+PO_normal_release			
8	B2	? TIMEOUT T_P_CC_03		(PASS)	4)
9		+PO_release_link			

Detailed Comments : 1) Initialise the transaction id flag to be used in the communication.
2) Send a CC_SETUP with a protocol discriminator that is not supported by the IUT.
3) If IUT sends back CC−ALERT, test fails, because the message should be ignored.
4) Test passes if timer times out.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BI_04
Group : FT/LC/BI/
Purpose : Verify that the IUT ignores an {AUTH−REQUEST} message containing an illegal transaction identifier.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: F−00
ETS 300 175−5 [5], subclause 17.3.1 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_MM_auth_1			
4		(TSV_ft_authentication_pending := TRUE)			
5		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx04)		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx_base)	(FAIL)	2)
7		(TSV_ft_authentication_pending := FALSE)			
8		+PO_release_link			
9	B2	? TIMEOUT T_P_MM_auth_1		(PASS)	3)
10		(TSV_ft_authentication_pending := FALSE)			
11		+PO_release_link			

Detailed Comments : 1) Send an auhenticate request, with an illegal transaction value.
2) If the reply follows, the test fails.
3) If nothing happens, test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BI_05

Group : FT/LC/BI/

Purpose : 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−intiated identification of PT procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: Selected in PIXIT
We will assume in this testcase that the identity request specifies a portable id with IPUI.
The way it shall be tested if the reply message is ignored or not, is to start the PT initiated location registration procedure. If an answer is received on the locate request, we know that the IUT is no longer waiting for the response of the identity request, and has thus accepted the false reply message. Test fails.
ETS 300 175−5 [5], subclause 17.3.2.5 − ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_idpt_ccstate)			1)
2		+STP_invoke_identity_req			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Identity_request_rx01)	(PASS)	3)
4		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx07)		4)
5		START T_P_MM_locate_1			
6		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		5)
7	B2	DLS ? DL_DATA_IND CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(FAIL)	6)
8		+PO_release_link			
9	B3	? TIMEOUT T_P_MM_locate_1		(PASS)	7)
10		+PO_release_link			

Detailed Comments : 1) Goto the state, specified in the PIXIT to initiate an identity request from.
2) Invoke an identity request. For this test, it needs to be a portable id IPUI request.
3) Receive the request.
4) Send back an identity reply with a Transaction Identifier flag set illegally to '0',
5) Now start a location registration procedure.
6) If IUT reacts to that: test fails, because it should still be waiting for a correct identity reply.
7) If IUT does not react: test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_BI_07

Group : FT/LC/BI/

Purpose : Verify that the IUT, when the link fails during an active call, will clear the call.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−10
An active call will be set up. After this, the link is released. After this, the link is restored again. It is checked if the call is cleared, by sending a CC−RELEASE message. If the call is still active, a CC_RELEASE−COM is sent back. If the call is no longer active, the CC−RELEASE will be ignored.
ETS 300 175−5 [5], subclause 14 − ETS 300 444 [10], subclause 8.34

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f10			1)
2		+STP_release_link			2)
3		+STP_direct_link_establishment			3)
4		DLS ! DL_DATA_REQ START T_P_CC_02	Dl_data_req(Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		4)
5	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	5)
6		+PO_release_link			
7	B2	? TIMEOUT T_P_CC_02		(PASS)	6)
8		+PO_release_link			

Detailed Comments : 1) Goto state F−10
2) Send a link release request, and wait for the confirm.
3) Re−establish link, by sending an indirect link establish request (paging)
4) Send a CC−RELEASE.
5) A CC−RELEASE−COM is received back, meaning that the call is not cleared.
6) Timer T_P_CC_02 times out, meaning the CC−RELEASE has been ignored. No active CC call was thus present. Test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_TI_02

Group : FT/LC/TI/

Purpose : Verify that the IUT, after termination of an MM procedure, maintains the link for a period of <LCE.02>. +− 5%.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: F−00
in this testcase it is assumed that no other entities are using the link.
ETS 300 175−5 [5], subclause 14.2.7 − ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			1)
3		+STP_perform_locate_request(Locate_request_tx01, Locate_accept_rx01)			2)
4		START T_F_LCE_02_min, START T_F_LCE_02_max			3)
5		? TIMEOUT T_F_LCE_02_min			4)
6	B1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	
7		+PO_terminate			
8	B2	? TIMEOUT T_F_LCE_02_max		(FAIL)	5)
9		+PO_terminate			
10	B3	DLS ? DL_RELEASE_IND	Dl_rel_ind	(FAIL)	6)
11		+PO_terminate			

Detailed Comments : 1) Try to establish a direct link.
2) Execute an MM procedure. In this case: Location registration.
3) After completion: start timer T_F_LCE_02_min, being 5% smaller than the actual value, and timer T_F_LCE_02_max, being 5% bigger than the actual value,
4) When the min timer expires: accept a DL_RELEASE_IND. Test passes.
5) If the max timer expires, it has taken too long, Test fails.
5) If the DL_RELEASE_IND comes sooner than the expiry of the min timer: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_FT_LC_TI_03

Group : FT/LC/TI/

Purpose : Verify that the IUT during indirect link establishment, retransmits the {LCE_PAGE_REQUEST} message after a period of <LCE.03> +− 5%

Configuration :

Default : DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 14.2.3 − ETS 300 444 [10], subclause 8.35.1.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3	B1	DLB? DL_BROADCAST_IND START T_F_LCE_03_min, START T_F_LCE_03_max	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))	(PASS)	1)
4	B2	DLB ? DL_BROADCAST_IND CANCEL T_F_LCE_03_min, CANCEL T_F_LCE_03_max	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))	(FAIL)	2)
5		+PO_release_link			
6		? TIMEOUT T_F_LCE_03_min			
7	B3	DLB ? DL_BROADCAST_IND CANCEL T_F_LCE_03_max	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))	(PASS)	3)
8		+PO_release_link			
9	B4	? TIMEOUT T_F_LCE_03_max		(FAIL)	4)
10		+PO_release_link			

Detailed Comments : 1) LT waits for DL_BROADCAST_IND from IUT. If it arrives, guard timers are started.
2) If the next broadcast message is received before the minimal timer times out: test fails.
3) If the next broadcast message is received after the minimal timer: test passes
4) If the next broadcast message comes too late: test fails.

Test Step Dynamic Behaviour

Test Step Name : PR_f00_no_acrght

Group : Preambles/

Objective : To revoke the accessrights of the IUT, as a preamble to testing the obtain accessrights procedures and the location registration after obtain accessrights procedures.
If the PT (LT) still has accessrights to the FT (IUT), these accessrights will be revoked. However, no use is made of the PT initiated terminate accessrights procedure, because most FT's will not support this feature. Instead, the accessrights of the PT (LT) will be revoked in a proprietary way.

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_unexpected_events

Comments : Check the accessrights. If accessrights are available, revoke them.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_check_accessrights			
2		[TCV_result = FALSE]			
3		+STP_release_link			1)
4		[TCV_result = TRUE]			2)
5		+STP_revoke_accessrights_of_pt			
6		+STP_release_link			3)

Detailed Comments : 1) No accessrights available: release link
2) accessrights are still available: revoke them (use proprietary way)
3) release link.

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f00

Group : Preambles/

Objective : To bring the IUT in state F−00 (null).

Default :

Comments : This is done by calling teststep PR_stable_state
Postcondition: No link exists.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_stable_state			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f01
Group : Preambles/
Objective : To bring the IUT in state F−01 (Call Initiated).
Default :
Comments : Initial state: F−00
Postcondition: Timer T_P_CC_03 is running

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f02
Group : Preambles/
Objective : To bring the IUT in state F−02 (Overlap Sending).
Default :
Comments : Initial state: F−00
Postcondition: timer T_P_CC_O4 is running.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f01			
2	PR1	DLS ? DL_DATA_IND CANCEL T_P_CC_03, START T_P_CC_04	Dl_data_ind (Cc_setup_ack_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	1)

Detailed Comments : 1) Receive a CC−SETUP−ACK

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f06
Group : Preambles/
Objective : To bring the IUT in state F−06 (Call Present).
Default :
Comments : Initial state: F−00

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_invoke_incoming_call			
3		+STP_handle_indirect_link_est			
4		+STP_initialise_tf(TSC_iut_originated)			
5	PR1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value) CANCEL T_USER_INVOKE	Dl_data_ind(Cc_setup_rx01(TCV_cc_iut_tf))	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f07
Group : Preambles/
Objective : To bring the IUT in state F−07(Call Received).
Default :
Comments : Initial state: F−00
Postcondition: Timer T_F_CC_01 is running

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f06			
2		DLS ! DL_DATA_REQ START T_P_CC_01	Dl_data_req(Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f10
Group : Preambles/
Objective : To bring the IUT in state F−10(Active) with a PT initiated call establishment.
Default :
Comments : Initial state: F−00

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f00			
2		+STP_direct_link_establishment			
3		START T_P_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
6		DLS ? DL_DATA_IND CANCEL T_P_CC_03, START T_P_CC_04	Dl_data_ind (Cc_call_proc_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
7		DLS ? DL_DATA_IND	Dl_data_ind(Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
8		+STP_invoke_cc_connect			
9		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
10		+STP_check_u_plane(TSPX_dlei_value)			
11		DLS ? DL_DATA_IND CANCEL T_P_CC_04	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
12		+STP_check_u_plane(TSPX_dlei_value)			
13		DLS ? DL_DATA_IND CANCEL T_P_CC_03	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
14		+STP_check_u_plane(TSPX_dlei_value)			

Detailed Comments : 1) Cc_Setup with 'calling_party_number''ie
2) use of T_P_CC_04 is optional

Test Step Dynamic Behaviour

Test Step Name : PR_goto_f19

Group : Preambles/

Objective : To bring the IUT in state F−19 (Release Pending) with a FT initiated call release.

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: F−00

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_f02			
2		+STP_invoke_normal_release			
3	PR1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_select_state(param : CCSTATE_TYPE)

Group : Preambles/

Objective : To select a certain initial (CC) state to go to, as a preamble to the test of a FT initiated MM procedure. The input parameter indicates the required CC state for a certain MM procedure that is going to be tested.
If the selected state is F−00, then the teststep initiates link establishment.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : See also ETS 300 444 [10], subclause 6.9.6, table 9

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = 0]			
2		+PR_goto_f00			
3		+STP_direct_link_establishment			1)
4		[param = 1]			
5		+PR_goto_f01			
6		[param = 2]			
7		+PR_goto_f02			
8		CANCEL T_P_CC_04			
9		[param = 6]			
10		+PR_goto_f06			
11		[param = 7]			
12		+PR_goto_f07			
13		[param = 10]			
14		+PR_goto_f10			
15		[param = 19]			
16		+PR_goto_f19			
17		[(param = 3) OR (param = 4) OR (param = 5) OR (param = 8) OR (param = 9) OR ((param > 10) AND (param <19)) OR (param > 19)]		(I)	param outside range
18		+PO_terminate			

Detailed Comments : 1) Initiate link establishment

Test Step Dynamic Behaviour

Test Step Name : PR_stable_state

Group : Preambles/

Objective : To place the IUT in a stable state, which is defined as follows:
− All identities needed by the PT (LT) to access the IUT are available: Accessrights granted, UAK assigned, TPUI assigned, DCK stored.
− CC state F−00
− No link established
− LT (PT) is locked to the FT (IUT)

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : It is assumed that when the LT locked to the tester, the higher layer broadcast bits A44 and A38 are both set to 1, thus enabling both obtaining accessrights and location registration.
The teststep STP_init_broadcast_bits will initialise the relevant broadcast bits and the location area.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_check_accessrights			
2	PR1	[TCV_result = FALSE]		(PASS)	1)
3		+STP_perform_accessrights_request (Access_rights_request_tx02, Access_rights_accept_rx01)			
4		+STP_perform_locate_request (Locate_request_tx01, Locate_accept_rx01)			
5		+STP_release_link			
6	PR2	[TCV_result = TRUE]		(PASS)	2)

Detailed Comments : 1) Accessrights are not (or no longer) availabe. Invoke accessrightsprocedure
2) Accessrights still available

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_abnormal

Group : Teststeps/CC/

Objective : To initiate the abnormal cc release procedure , initiated and the LT side.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Postcondition: IUT enters the T−00 state

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
2	S1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_normal(param : TRANS_FLAG)

Group : Teststeps/CC/

Objective : To initiate the cc release procedure at the IUT side or LT side.
The parameter indicates the side which shall initate the call release.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Precondition: No timer is running.
Postcondition: IUT enters the T−00 state The link is not yet released.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_lt_originated]			1)
2		DLS ! DL_DATA_REQ START T_P_CC_02	Dl_data_req(Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
3	S1	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_P_CC_02	Dl_rel_ind	(I)	2)
5		[param = TSC_iut_originated]			3)
6		+STP_invoke_normal_release			
7	S3	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
9	S4	DLS ? DL_RELEASE_IND CANCEL T_USER_INVOKE	Dl_rel_ind	(I)	2)
10	S5	[(param <> TSC_lt_originated) AND (param <> TSC_iut_originated)]		(I)	
11		+PO_release_link			

Detailed Comments : 1) Release is to be initiated by the LT
2) DL_REL_IND received. Result of the test is Inconclusive
3) Release is to be initiated by the IUT

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_partial(param : TRANS_FLAG)

Group : Teststeps/CC/

Objective : To initiate the partial cc release procedure at the IUT side or LT side.
The parameter indicates the side which shall initate the partial release.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Precondition: No timer is running.
Postcondition: IUT enters the T−00 state The link is not yet released.

TO BE COMPLETED

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_lt_originated]			1)
2		DLS ! DL_DATA_REQ START T_P_CC_02	Dl_data_req(Cc_release_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	S1	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_P_CC_02	Dl_rel_ind	(I)	
5		[param = TSC_iut_originated]			3)
6		+STP_invoke_partial_release			
7	S3	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
9	S4	DLS ? DL_RELEASE_IND CANCEL T_USER_INVOKE	Dl_rel_ind	(FAIL)	5)
10	S5	[(param <> TSC_lt_originated) AND (param <> TSC_iut_originated)]		(I)	
11		+PO_release_link			

Detailed Comments : 1) Release is to be initiated by the IUT
2) cc_release_tx01 contains release−reason with release reason code ’15’H (partial release)
3) Release is to be initiated by the LT
4) cc_release_rx_base does not put any constraint on the release reason, because release reasons are optional in ETS 300 444.
5) The link should be maintained after a partial release.
6) An error in calling this teststep has been made.

Test Step Dynamic Behaviour

Test Step Name : STP_check_u_plane(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)
Group : Teststeps/CC/
Objective : To check if the U−plane between the IUT and LT is in place.
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_cinft_check_u_plane(dlei)))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_cc_connect
Group : Teststeps/CC/
Objective : To invoke a CC−CONNECT message to be sent by the IUT
Default : DF_handle_unexpected_events
Comments : Invocation method acc. to Pixit question ????

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_incoming_call
Group : Teststeps/CC/
Objective : To invoke the IUT to initiate a normal incoming call setup, while in state F−00.
See PIXIT Question B.9.7
Default :
Comments : Postcondition: Timer T_USER_INVOKE is started. It will be cancelled when the link is established.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_BROADCAST_IND>	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))		1)
2		START T_USER_INVOKE			

Detailed Comments : 1) A broadcast message is expected, containing the LCE−REQUEST−PAGE PDU.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_normal_release
Group : Teststeps/CC/
Objective : To invoke the IUT to go on hook, thus initiating a normal release, while in any cc state.
See PIXIT Question B.9.9
Default :
Comments : A dl_data_indication is to be expected, containing a CC_RELEASE message.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_partial_release
Group : Teststeps/CC/
Objective : To invoke the IUT to initiate a partial release.
See PIXIT Question B.9.12
Default :
Comments : A precondition to the execution of this teststep is, that a link exists between the lt and the iut.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			

Detailed Comments : 1) cc_release_rx_base does not put any constraint on the release reason, because release reasons are optional in ETS 300 444.

Test Step Dynamic Behaviour

Test Step Name : STP_check_dtmf_defined
Group : Teststeps/CC/
Objective : To check, if the IUT has switched to defined tone length.
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_dtmf_defined()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_dtmf_infinite
Group : Teststeps/CC/
Objective : To check, if the IUT has switched to DTMF, infinite tone length.
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result :=(TSO_check_dtmf_infinite()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_basic_digits
Group : Teststeps/CC/
Objective : To check the correct transmission of the basic digits sent by the LT. The result of the operation TSO_check_basic_digits is stored in the testsuitevariable TCV_result.
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_basic_digits()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_pause
Group : Teststeps/CC/
Objective : To verify that the FT has sent a dialling pause.
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_pause()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_pulse
Group : Teststeps/CC/
Objective : To observe, if the IUT has switched on to pulse dialling.
A precondition for this teststep is that first some digits are sent to the IUT.
These digits will be passed to the network simulator, where they will be received in pulse dialling form.
Default :
Comments : The result of the operation will be assigned to the testcase variable TCV_result.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_pulse()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_send_called_party_number(nr_of_digits : CPN_LENGTH_TYPE)
Group : Teststeps/CC/
Objective : To send the called party number present in the PIXIT parameter 'TSPX_called_party_number' to the IUT. The called party number information will be sent in successive CC−INFO PDU's, each containing a multi−keypad ie with one digit.
Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : The number of digits in the called party number is indicated by the parameter TSPX_nr_of_digits_in_cpn.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_count := 0)			
2		REPEAT LTS_send_one_digit UNTIL [TCV_count = nr_of_digits] LTS_send_one_digit			Local Tree:
3		DLS ! DL_DATA_REQ (TCV_count := TCV_count + 1) START T_P_CC_01	Dl_data_req (Cc_info_tx06(TCV_cc_tv, TCV_cc_lt_tf, TSO_get_one_digit(TSPX_called_party_number, TCV_count)))		

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_assign_tpui(tpui_value : PORT_ID_VALUE_TYPE; tpui_length : OCT_1)

Group : Teststeps/MM/

Objective : To pass the assigned TPUI to the testystem. In successive communication, an assigned TPUI will be used, and thus, an assigned PMID.

Default : DF_handle_unexpected_events

Comments : A call is made to the testsuite operator TSO_assign_tpui. The result of the operation is a BOOLEAN, which is taken to be TRUE. SBH 95.06.08

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_assign_tpui(tpui_value, tpui_length))			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_accessrights

Group : Teststeps/MM/

Objective : To test whether or not the IUT has granted accessrights to the lower tester.
The way to test this shall be to attempt an PT initiated link establishment and to perform a location registration. If the link establishment AND the location registration request succeeds, it is assumed that the IUT has granted accessrights to the LT.

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A precondition to this test is that the IUT shall be in state F−00.
A postcondition is that the IUT is also in state F−00

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_direct_link_establishment			
2		START T_P_MM_locate_1			
3		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		
4	S2	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length, TCV_result := TRUE) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)	(PASS)	
5	S3	[TCV_port_id_length_tpui = '00'O]			
6		+STP_release_link			
7	S4	[TCV_port_id_length_tpui <> '00'O]			
8		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		
9		+STP_release_link			
10		+STP_assign_tpui(TCV_pdu_locate_accept.portable_id.id_value, TCV_port_id_length_tpui)			
11	S5	DLS ? DL_DATA_IND(TCV_result := FALSE) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_reject_rx_base)	(PASS)	
12		+STP_release_link			
13	S6	? TIMEOUT T_P_MM_locate_1 (TCV_result := FALSE)			
14		+STP_release_link			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_delete_tpui

Group : Teststeps/MM/

Objective : To delete the assigned TPUI from the testystem. In successive communication, a default TPUI will be used, and thus, a default PMID.

Default : DF_handle_unexpected_events

Comments : A call is made to the testsuite operator TSO_delete_tpui. The result of the operation is a BOOLEAN, which is taken to be TRUE. The result type indicates success or failure.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_delete_tpui())			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_handle_identity_request

Group : Teststeps/MM/

Objective : To send the correct Identity Reply message dependent on id_group and id_type.

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : This teststep supports only following identies:
Id_Group: Portable Id AND Id_Type: IPUI
Id_Group: Portable Id AND Id_Type: IPEI
Id_Group: Portable Id AND Id_Type: TPUI
Id_Group: Fixed Id AND Id_Type: ARI
Id_Group: Fixed Id AND Id_Type: ARI
Id_Group: Fixed Id AND Id_Type: PARK
Other combinations are to be implemented, if they are needed.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0000000’B)]		(PASS)	1)
2		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx01)		
3		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0010000’B)]		(PASS)	2)
4		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx02)		
5		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0100000’B)]		(PASS)	3)
6		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx03)		
7		[(TCV_id_group = ’0001’B) AND (TCV_id_type = ’1110100’B)]		(I)	4)
8		+PO_release_link			
9		[(TCV_id_group = ’0100’B) AND (TCV_id_type = ’0000000’B)]		(PASS)	5)
10		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx05)		
11		[(TCV_id_group = ’0100’B) AND (TCV_id_type = ’0000001’B)]		(PASS)	6)
12		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx06)		
13		[(TCV_id_group = ’0100’B) AND (TCV_id_type = ’0100000’B)]		(PASS)	7)
14		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx04)		

Detailed Comments : 1) Id_Group: Portable Id AND Id_Type: IPUI
Send Identity Reply with <<portable_id>>ie containing ipui.
1) Id_Group: Portable Id AND Id_Type: IPEI
Send Identity Reply with <<portable_id>>ie contaning ipei.
3) Id_Group: Portable Id AND Id_Type: TPUI
Send Identity Reply with <<portable_id>>ie contaning tpui
4) Id_Group: Network Assigned Id AND Id_Type: GSM TMSI
Not implemented.
5) Id_Group: Fixed Id AND Id_Type: ARI
Send Identity Reply with <<fixed_id>>ie contaning ari.
6) Id_Group: Fixed Id AND Id_Type: ARI + Radio fixed part nr.
Send Identity Reply with <<fixed_id>>ie containing ari.

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Test Step Dynamic Behaviour
Detailed Comments : ... 7) Id_Group: Fixed Id AND Id_Type: PARK Send Identity Reply with <<fixed_id>>ie containing park.

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_access_term_req					
Group : Teststeps/MM/					
Objective : To invoke the FT initiated terminate access rights procedure. See PIXIT Question B.9.1 and PIXIT Question B.7.8					
Default : DF_handle_unexpected_events					
Comments : The PIXIT parameter TSPX_mmproc_arte_invoke (See PIXIT Question B.7.8), specifies the way the accessrights terminate procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0). If the value of this parameter is set to 0, PIXIT Question B.9.1 specifies the way to invoke the procedure (NOT using protocol stimuli).					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		[TSPX_mmproc_arte_invoke = 0]			
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Access_rights_term_req_rx _base)		1)
3		START T_USER_INVOKE			
4		[TSPX_mmproc_arte_invoke <> 0]			2)
Detailed Comments : 1) Invoke the accessrights terminate procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. 2) t.b.s					

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_pt_authentication
Group : Teststeps/MM/
Objective : To invoke the FT initiated PT authentication procedure
See PIXIT Question B.9.2 and PIXIT Question B.7.9
Default : DF_handle_unexpected_events
Comments : The PIXIT parameter TSPX_mmproc_aupt_invoke (See PIXIT Question B.7.9), specifies the way the authentication of PT procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.2 specifies the way to invoke the procedure (NOT using protocol stimuli).

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_aupt_invoke = 0]			
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Auth_request_rx01)		1)
3		START T_USER_INVOKE			
4		[TSPX_mmproc_aupt_invoke <> 0]			
5		START T_P_MM_locate_1			
6		DLS ! DL_DATA_REQ	Dl_data_req(Locate_request_tx01)		2)

Detailed Comments : 1) Invoke the authentication of PT procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used.
2) Use location registration to invoke authentication of PT.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_pt_auth_with_zap
Group : Teststeps/MM/
Objective : To invoke the FT initiated PT authentication procedure
Default :
Comments : A dl_data_indication is to be expected, containing an AUTH_REQUEST message with the <<
The AUTH_REQ message shall contain the <<auth_type>>ie with ZAP_increment bit set to 1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Auth_request_rx02)		1)
2		START T_USER_INVOKE			

Detailed Comments : 1) ZAP increment bit shall be set to 1.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_user_authentication

Group : Teststeps/MM/

Objective : To invoke the FT initiated user authentication procedure
See PIXIT Question B.9.3 and PIXIT Question B.7.10

Default : DF_handle_unexpected_events

Comments : The PIXIT parameter TSPX_mmproc_auus_invoke (See PIXIT Question B.7.10), specifies the way the authentication of user procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.3 specifies the way to invoke the procedure (NOT using protocol stimuli).

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_auus_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Auth_request_rx03)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_auus_invoke <> 0]			
5		+PR_select_state (TSPX_mmproc_auus_ccstate)			
6		+STP_initialise_tf(TSC_lt_originated)			
7		DLS ! DL_DATA_REQ (TCV_cc_tv := ’000’B)	Dl_data_req (Cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		2)

Detailed Comments : 1) Invoke the authentication of user procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used.
2) Usually, for outgoing call, FT has to authenticate the user.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_ft_init_ciphering_off

Group : Teststeps/MM/

Objective : To invoke the FT to initiate ciphering off
See PIXIT Question B.9.5 and PIXIT Question B.7.11

Default : DF_handle_unexpected_events

Comments : The PIXIT parameter TSPX_mmproc_cift_invoke (See PIXIT Question B.7.11), specifies the way the FT initiated cipher switching procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.5 specifies the way to invoke the procedure (NOT using protocol stimuli). In this case a dl_data_ind is expected, containing a CIPHER−REQUEST PDU.
If the value of this paramter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_cift_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Cipher_request_rx02)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_cift_invoke <> 0]			
5		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx02)		2)
6		START T_USER_INVOKE			

Detailed Comments : 1) Invoke the FT inititated cipher switching procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. Ciphering request message with the <<cipher_info>>ie containing ciphering off is expected.
2) Send message with request to switch ciphering off.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_ft_init_ciphering_on

Group : Teststeps/MM/

Objective : To invoke the FT to initiate ciphering on
See PIXIT Question B.9.6 and PIXIT Question B.7.11

Default : DF_handle_unexpected_events

Comments : The PIXIT parameter TSPX_mmproc_cift_invoke (See PIXIT Question B.7.11), specifies the way the FT initiated cipher switching procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.6 specifies the way to invoke the procedure (NOT using protocol stimuli). In this case a dl_data_ind is expected, containing a CIPHER−REQUEST PDU.
If the value of this paramter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_cift_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Cipher_request_rx01)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_cift_invoke <> 0]			
5		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx01)		2)
6		START T_USER_INVOKE			

Detailed Comments : 1) Invoke the FT inititated cipher switching procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. Ciphering request message with the <<cipher_info>>ie containing ciphering on is expected.
2) Send message with request to switch ciphering on.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_identity_req

Group : Teststeps/MM/

Objective : To invoke the FT to initiate identity request.
See PIXIT Question B.9.8 and PIXIT Question B.7.12

Default : DF_handle_unexpected_events

Comments : The PIXIT parameter TSPX_mmproc_idpt_invoke (See PIXIT Question B.7.12), specifies the way the identification of PT procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.8 specifies the way to invoke the procedure (NOT using protocol stimuli).

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_idpt_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Identity_request_rx_base)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_idpt_invoke <> 0]			2)

Detailed Comments : 1) Invoke the identification of PT procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used.
2) t.b.s

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_key_allocate

Group : Teststeps/MM/

Objective : To invoke a key allocation procedure initiated by the FT side.
See PIXIT Question B.9.10 and PIXIT Question B.7.14

Default : DF_handle_unexpected_events

Comments : The PIXIT parameter TSPX_mmproc_keal_invoke (See PIXIT Question B.7.14), specifies the way the key allocation procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.10 specifies the way to invoke the procedure (NOT using protocol stimuli).
If the value of this parameter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the procedure.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_keal_invoke = 0]			
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Key_allocate_rx01)		1)
3		START T_USER_INVOKE			
4		[TSPX_mmproc_keal_invoke <> 0]			
5		+PR_f00_no_acrght			
6		+STP_direct_link_establishment			
7		START T_P_MM_access_1			
8		DLS ! DL_DATA_REQ	Dl_data_req(Access_rights_request_tx02)		2)

Detailed Comments : 1) Invoke the key allocation procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used.
2) Use accessrights request to invoke key allocation.

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_location_update
Group : Teststeps/MM/
Objective : To initiate the FT initiated location update procedure.
See PIXIT Question B.9.11 and PIXIT Question B.7.13
Default :
Comments : The PIXIT parameter TSPX_mmproc_loup_invoke (See PIXIT Question B.7.13), specifies the way the location update procedure will be invoked. This can either be in a propriatary manner (value is 0), or by means of a protocol stimulus (value !=0).
If the value of this parameter is set to 0, PIXIT Question B.9.11 specifies the way to invoke the procedure (NOT using protocol stimuli).

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_loup_invoke = 0]			
2		<IUT ! DL_DATA_IND>	Dl_data_ind(Mm_info_suggest_rx_base)		1)
3		START T_USER_INVOKE			
4		[TSPX_mmproc_loup_invoke <> 0]			2)
5		+STP_release_link			3)
6		+STP_delete_tpui			4)
7		+PR_select_state (TSPX_mmproc_loup_ccstate)			
8		+STP_initialise_tf(TSC_lt_originated)			
9		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req (Cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		5)

Detailed Comments : 1) Invoke the location update procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used.
2) Perform call setup with default PMID, in order to invoke location update
3) Release link, in order to restart link with default PMID.
4) assigned TPUI is deleted.
5) Send call setup with default PMID.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_accessrights_request(param_tx : PDU; param_rx : PDU)
Group : Teststeps/MM/
Objective : To perform an access rights request procedure, and handle the results.
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : param_tx is an input parameter specifying the constraints for the accessrights request.
param_rx is an output parameter, specifying the constraint for the accessrights accept.
A precondition to this test is that the IUT shall be in state F−00 with established L2−link.
See ETS 300 175[5] subclause 13.5.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_P_MM_access_1			
2		DLS ! DL_DATA_REQ	Dl_data_req(param_tx)		
3	S1	DLS ? DL_DATA_IND CANCEL T_P_MM_access_1	Dl_data_ind(param_rx)	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_perform_ft_authentication(param_tx : PDU; param_rx : PDU)

Group : Teststeps/MM/

Objective : A general teststep for performing FT authentication.

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : param_tx is an input parameter specifying the constraints for the authentication request.
param_rx is an output parameter, specifying the constraint for the authentication reply.
A precondition to this teststep, is that a valid uak is present in the testsuite variable TSV_uak. Also, a link has to be present.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TSV_ft_authentication_pending := TRUE)			
2		START T_P_MM_auth_1			1)
3		DLS ! DL_DATA_REQ	Dl_data_req(param_tx)		2)
4	S1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(param_rx)	(PASS)	3)
5		(TSV_ft_authentication_pending := FALSE)			
6		(TCV_xres := TSO_cinft_algosb1_a2(TSC_rand, TSC_rs, TSV_uak))			4)
7	S2	[TCV_xres = TCV_res_rx]		(PASS)	
8	S3	[TCV_xres <> TCV_res_rx]		(FAIL)	

Detailed Comments : 1) Start timer.
2) Send authentication request, with param_tx
3) Receive authentication reply with param_rx. Store received res in TCV_res_rx.
4) Check if received res value matches calculated res value. Also, calculate a possible derived ciphering key (Only used if the auth_request constraint specifies upc = 1)

Test Step Dynamic Behaviour

Test Step Name : STP_perform_locate_request(param_tx : PDU; param_rx : PDU)

Group : Teststeps/MM/

Objective : A general teststep for performing location registration

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : param_tx is an input parameter specifying the constraints for the authentication request.
param_rx is an output parameter, specifying the constraint for the authentication reply.
A precondition to this test is that the IUT shall be in state F−00 with established L2−link.
See ETS 300 175[5] subclause 13.4.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_P_MM_locate_1			
2		DLS ! DL_DATA_REQ	Dl_data_req(param_tx)		1)
3	S1	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(param_rx)	(PASS)	2)
4		[TCV_port_id_length_tpui = '00'O]			3)
5		[TCV_port_id_length_tpui <> '00'O]			4)
6		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_assign_ack_tx_base)		

Detailed Comments : 1) Send a location registration message
2) Receive Locate accept message.
3) In case of empty tpui, LT shall not send a temporary_id_assign_ack.
4) In case of tpui, LT shall send a temporary_id_assign_ack.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_pt_init_ciphering_off

Group : Teststeps/MM/

Objective : To execute the PT initiated ciphering procedure, in order to switch off ciphering.

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx02)		1)
2		START T_P_MM_cipher_2			
3	S1	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_request_rx02)	(PASS)	2)
4		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_disabled)		3)
5	S2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_disabled)	(PASS)	4)
6	S3	DLS ? DL_DATA_IND	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	5)

Detailed Comments : 1) Send message with request to switch ciphering off.
2) Wait for Cipher Request
3) Stop ciphering in LT
4) Wait for the DL_ENCRYPT_IND with ciphering status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
5) The ciphering request was rejected by the IUT.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_pt_init_ciphering_on

Group : Teststeps/MM/

Objective : To execute the PT initiated ciphering procedure, in order to switch on ciphering.

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_suggest_tx01)		1)
2		START T_P_MM_cipher_2			
3	S1	DLS ? DL_DATA_IND CANCEL T_P_MM_cipher_2	Dl_data_ind(Cipher_request_rx01)	(PASS)	2)
4		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		3)
5		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		4)
6	S2	DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)	(PASS)	5)
7	S3	DLS ? DL_DATA_IND	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	6)

Detailed Comments : 1) Send message with request to switch ciphering on.
2) Wait for Cipher Request
3) Pass dck value to DLC.
4) Start ciphering in LT
5) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
6) The ciphering request was rejected by the IUT.

Test Step Dynamic Behaviour

Test Step Name : STP_revoke_accessrights_of_pt

Group : Teststeps/MM/

Objective : To revoke the accessrights of the PT (LT), by means of a proprietary management command.

Default : DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A situation must be created where the FT(IUT) is ready to accept an accessrights procedure of the PT (LT). This implies that a possibly existing previous accessrights information and identities must be cleared. This shall be done without using the terminate accessrights procedure. The actual revoking is performed by the teststep TSO_reveok_accessrights_of_pt.
The result of the operation is considered to be TRUE.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_revoke_accessrights_of_pt())			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_set_bit_a38(param : INT_8)
Group : Teststeps/MM/
Objective : The set the value of the broadcasted "higher layer capabilities" bit a 38. The parameter indicates the value that the bit shall get.
Default : DF_handle_unexpected_events
Comments : The testsuite operator TSO_cinft_set_bit_a38 will do the job.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_cinft_set_bit_a38(param))			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_link_present
Group : Teststeps/LC/
Objective : To test if a link is present between the iut and the lt.
Default : DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : The boolean variable TCV_result contains the result of the test. If it is TRUE, a link is still present, if it is FALSE, no link is present.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_cinft_check_link_present()))			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_direct_link_establishment
Group : Teststeps/LC/
Objective : To establish a link, initiated by the PT, using the direct link establishment procedure as described in ETS 300 444, subclause 8.36
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Precondition: Timer T_DLC_RESPONSE is started. Its timeout is handled in DF_handle_any_timeout.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_ESTABLISH_REQ START T_DLC_RESPONSE	Dl_est_req_no_pdu		
2	S1	DLS ? DL_ESTABLISH_CFM CANCEL T_DLC_RESPONSE	Dl_est_cfm	(PASS)	
3	S2	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind	(FAIL)	
4		+PO_terminate			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_handle_indirect_link_est

Group : Teststeps/LC/

Objective : To handle the indirect link establishment, initiated by the IUT.

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events,
DF_handle_paging

Comments : Precondition: Timer T_USER_INVOKE is started. After the link establishment, the timer is cancelled.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLB ? DL_BROADCAST_IND	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))	(PASS)	1)
2		DLS ! DL_ESTABLISH_REQ	Dl_est_req_pdu(Lce_page_response_tx01)		2)
3	S2	DLS ? DL_ESTABLISH_CFM CANCEL T_USER_INVOKE	Dl_est_cfm	(PASS)	
4	S3	DLB ? DL_BROADCAST_IND	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_mm))	(PASS)	3)
5		DLS ! DL_ESTABLISH_REQ	Dl_est_req_pdu(Lce_page_response_tx01)		2)
6	S4	DLS ? DL_ESTABLISH_CFM CANCEL T_USER_INVOKE	Dl_est_cfm	(PASS)	

Detailed Comments : 1) A broadcast message is received, with an LCE−REQUEST−PAGE PDU for CC services.
2) An LCE_PAGE_RESPONSE is sent back to the IUT.
3) A broadcast message is received, with an LCE−REQUEST−PAGE PDU for MM services.

Test Step Dynamic Behaviour

Test Step Name : STP_initialise_tf(param : TRANS_FLAG)

Group : Teststeps/LC/

Objective : To initialise the transaction flag used in the network header of the CC messages

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_iut_originated]			
2		(TCV_cc_iut_tf := '0'B, TCV_cc_lt_tf := '1'B)			
3		[param = TSC_lt_originated]			
4		(TCV_cc_iut_tf := '1'B, TCV_cc_lt_tf := '0'B)			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_release_link

Group : Teststeps/LC/

Objective : To initiate the link release procedure. A DL_RELEASE_REQ is sent, and the DL_RELEASE_CFM is waited for.

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : It could happen that no link is present whe this teststep is called.
Timeout of timer T_LCE_01 is handled in DF_handle_any_timeout, which is attached through the testcase.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_normal)		
2	S1	DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm	(PASS)	
3	S2	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind	(PASS)	1)

Detailed Comments : 1) This receive statement captures release collision.

Test Step Dynamic Behaviour

Test Step Name : PO_normal_release

Group : Postambles/

Objective : To perform a normal release, initiated by the LT, and to release the link. A final verdict is assigned.

Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Expiry of timer T_F_CC_02 is handled in default DF_handle_cc_timeout
Before terminating the testcase, time T_RELEASE_DELAY seconds is waited, in order to catch any strange behaviour of the IUT, and act upon it.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_RELEASE_DELAY			
2	PO1	? TIMEOUT T_RELEASE_DELAY		(PASS)	
3		+STP_cc_release_normal (TSC_lt_originated)			
4		+STP_release_link			
5	PO2	CANCEL		R	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PO_release_link
Group : Postambles/
Objective : To perform a link release procedure, initiated by the LT. A final verdict is assigned.
Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Before terminating the testcase and releaseing the link, a time T_RELEASE_DELAY seconds is waited, in order to catch any strange behaviour of the IUT, and act upon it.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_RELEASE_DELAY			
2	PO1	? TIMEOUT T_RELEASE_DELAY		(PASS)	
3		+STP_release_link			
4	PO2	CANCEL		R	
5	S2	DLS ? DL_RELEASE_IND CANCEL T_RELEASE_DELAY	Dl_rel_ind	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PO_terminate
Group : Postambles/
Objective : To terminate the testcase, in case no link is present. A final verdict is assigned.
Default : DF_handle_cc_timeout,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_mm_invokation,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Before terminating the testcase, time T_RELEASE_DELAY seconds is waited, in order to catch any strange behaviour of the IUT, and act upon it.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_RELEASE_DELAY			
2	PO1	? TIMEOUT T_RELEASE_DELAY		(PASS)	
3	PO2	CANCEL		R	

Detailed Comments :

Default Dynamic Behaviour

Default Name : DF_handle_any_timeout
Group :
Objective : To handle a timeout of any of the timers started in a testcase, and FAIL the testcase
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_USER_INVOKE		(FAIL)	
2		+DFLTS_cc_release_abnormal			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_P_LCE_01		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_CIPHER_SWITCH		(FAIL)	
8		+DFLTS_release_link			
9	D6	CANCEL		R	
10	D7	? TIMEOUT T_DLC_RESPONSE		(FAIL)	
11	D8	CANCEL		R	
12	D9	? TIMEOUT		(FAIL)	1)
13		+DFLTS_cc_release_abnormal			
14	D10	CANCEL		R	
		DFLTS_cc_release_abnormal			
15		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
16	DS11	DLS ? DL_RELEASE_IND	Dl_rel_ind		
17	DS12	DLS ? OTHERWISE		(FAIL)	
18		+DFLTS_release_link			
19	DS13	CANCEL		R	
		DFLTS_release_link			
20		DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_abnormal)		
21	DS14	DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm		
22	DS15	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind		2)
23	DS16	? TIMEOUT T_P_LCE_01		(FAIL)	
24	DS17	DLS ? OTHERWISE		(FAIL)	3)
25	DS18	CANCEL		R	

Detailed Comments : 1) Catch all timeouts
2) This receive statement captures release collision.
3) A general otherwise captures invalid behaviour

Default Dynamic Behaviour

Default Name : DF_handle_cc_events
Group :
Objective : To handle any other cc event, and to return to the testcase.
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	DLS ? DL_DATA_IND	Dl_data_ind(Cc_info_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	1)
2		RETURN			

Detailed Comments : 1) Handle CC_INFO, and return to the testcase

Default Dynamic Behaviour

Default Name : DF_handle_cc_timeout
Group :
Objective : To handle a timeout of any of the CC timers started in a testcase, and fail the testcase
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_P_CC_01		(FAIL)	
2		+DFLTS_cc_release_normal			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_P_CC_02		(FAIL)	
5		+DFLTS_cc_release_abnormal			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_P_CC_03		(FAIL)	
8		+DFLTS_cc_release_abnormal			
9	D6	CANCEL		R	
10	D7	? TIMEOUT T_P_CC_04		(I)	Implementation of this timer is optional
11		+DFLTS_cc_release_abnormal			
12	D8	CANCEL		R	
		DFLTS_cc_release_normal			
13		DLS ! DL_DATA_REQ START T_P_CC_02	Dl_data_req(Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
14	DS9	DLS ? DL_DATA_IND CANCEL T_P_CC_02	Dl_data_ind(Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
15		+DFLTS_release_link			
16	DS10	DLS ? DL_RELEASE_IND CANCEL T_P_CC_02	Dl_rel_ind		
17	DS11	? TIMEOUT T_P_CC_02		(I)	
18		+DFLTS_cc_release_abnormal			
19	DS12	DLS ? OTHERWISE		(FAIL)	
20		+DFLTS_release_link			
21	DS13	CANCEL		R	
		DFLTS_cc_release_abnormal			
22		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
23	DS14	DLS ? DL_RELEASE_IND	Dl_rel_ind		
24	DS15	DLS ? OTHERWISE		(FAIL)	
25		+DFLTS_release_link			
26	DS16	CANCEL		R	
		DFLTS_release_link			
27		DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_abnormal)		
28	DS17	DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm		
29	DS18	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind		1)
30	DS19	? TIMEOUT T_P_LCE_01		(FAIL)	
31	DS20	DLS ? OTHERWISE		(FAIL)	2)

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Default Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
32	DS21	CANCEL		R	
Detailed Comments : 1) This receive statement captures release collision. 2) A general otherwise captures invalid behaviour					

Default Dynamic Behaviour

Default Name : DF_handle_mm_events
Group :
Objective : To handle intervening MM procedures, during CC or MM testcases
Comments : The procedure is handled, and afterwards control is passed back to the testcase

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+DFLTS_handle_access_term_request			
2		RETURN			
3		+DFLTS_handle_ft_init_ciphering_on			
4		RETURN			
5		+DFLTS_handle_identity_request			
6		RETURN			
7		+DFLTS_handle_key_allocate			
8		RETURN			
9		+DFLTS_handle_location_update			
10		RETURN			
11		+DFLTS_handle_pt_authentication			
12		RETURN			
13		+DFLTS_handle_user_authentication			
14		RETURN			
		DFLTS_handle_access_term_request			
15	DS1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Access_rights_term_req_rx _base)	(I)	1)
		DFLTS_handle_ft_init_ciphering_on			
16	DS2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cipher_request_rx01)		2)
17		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		3)
18		DLS ! DL_ENCRYPT_REQ START T_CIPHER_SWITCH	Dl_enc_req(TSC_cs_enabled)		4)
19		DLS ? DL_ENCRYPT_IND CANCEL T_CIPHER_SWITCH	Dl_enc_ind(TSC_cs_enabled)		5)
		DFLTS_handle_identity_request			
20	DS3	DLS ? DL_DATA_IND(TCV_pdu_identy_request := DL_DATA_IND.message_unit, TCV_id_group := TCV_pdu_identy_request. identity_type.id_group, TCV_id_type := TCV_pdu_identy_request.identity_type.type)	Dl_data_ind(Identity_request_rx_base)		
21		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0000000’B)]			6)
22		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx01)		
23		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0010000’B)]			7)
24		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx02)		
25		[(TCV_id_group = ’0000’B) AND (TCV_id_type = ’0100000’B)]			8)
26		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx03)		

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Default Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
27	DS4	[(TCV_id_group = '0001'B) AND (TCV_id_type = '1110100'B)]		(I)	9)
28		+DFLTS_release_link			
29		[(TCV_id_group = '0100'B) AND (TCV_id_type = '0000000'B)]			10)
30		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx05)		
31		[(TCV_id_group = '0100'B) AND (TCV_id_type = '0000001'B)]			11)
32		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx06)		
33		[(TCV_id_group = '0100'B) AND (TCV_id_type = '0100000'B)]			12)
34		DLS ! DL_DATA_REQ	Dl_data_req(Identity_reply_tx04)		
		DFLTS_handle_key_allocate			
35	DS5	DLS ? DL_DATA_IND (TCV_pdu_key_allocate := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_key_allocate.rand.field, TCV_rs := TCV_pdu_key_allocate.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Key_allocate_rx01)		13)
36		[TSV_ft_authentication_pending]			
37		[NOT TSV_ft_authentication_pending]			
38		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			
39		START T_P_MM_auth_1			
40		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx05(TCV_res_tx))		14)
41		DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_P_MM_auth_1	Dl_data_ind(Auth_reply_rx01)		15)
42		(TCV_xres := TSO_cinft_algosb1_a2(TSC_rand, TSC_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)), TSV_uak := TSO_cinft_algosb1_a21(TSC_rs, TSO_cinft_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			
43		[TCV_xres = TCV_res_rx]			
44	DS6	[TCV_xres <> TCV_res_rx]		(FAIL)	
		DFLTS_handle_location_update			
45	DS7	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Mm_info_suggest_rx_base)		16)
		DFLTS_handle_pt_authentication			

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Continued from previous page

Default Dynamic Behaviour

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
46	DS8	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx01)		17)
47		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSV_uak))			
48		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		
49	DS9	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx05)		18)
50		(TCV_res_tx := TSO_cinft_algosb1_a1(TCV_rand, TCV_rs, TSO_cinft_convert_ac_to_bitstring(TSPX _decimal_ac_value)))			
51		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx))		
		DFLTS_handle_user_authentication			
52	DS10	DLS ? DL_DATA_IND (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field, TCV_rs := TCV_pdu_auth_request.rs.field) CANCEL T_USER_INVOKE	Dl_data_ind(Auth_request_rx03)		19)
53		(TCV_res_tx_u := TSO_cinft_algosb2_a1(TCV_rand, TCV_rs, TSV_uak, TSO_cinft_convert_upi_to_bitstring(TSPX _decimal_upi_value)))			
54		DLS ! DL_DATA_REQ	Dl_data_req(Auth_reply_tx01(TCV_res_tx_u))		20)
		DFLTS_release_link			
55	DS11	DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_abnormal)		
56		DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm		
57		DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind		21)
58	DS12	? TIMEOUT T_P_LCE_01		(FAIL)	
59	DS13	DLS ? OTHERWISE		(FAIL)	22)
60	DS14	CANCEL		R	

Detailed Comments : 1) A terminate accessrights request from the FT, will lead to an inconclusive verdict. Why does the FT want to terminate accessrights?
2) Recieve the Cipher Request with <<cipher_info>>ie containing ciphering on.

Continued on next page

Continued from previous page

Default Dynamic Behaviour

Detailed Comments : ...

3) Pass dck value to DLC.
4) Start ciphering in LT
5) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
6) Id_Group: Portable Id AND Id_Type: IPUI
Send Identity Reply with <<portable_id>>ie containing ipui.
7) Id_Group: Portable Id AND Id_Type: IPEI
Send Identity Reply with <<portable_id>>ie contaning ipei.
8) Id_Group: Portable Id AND Id_Type: TPUI
Send Identity Reply with <<portable_id>>ie contaning tpui
9) Id_Group: Network Assigned Id AND Id_Type: GSM TMSI
Not implemented.
10) Id_Group: Fixed Id AND Id_Type: ARI
Send Identity Reply with <<fixed_id>>ie contaning ari.
11) Id_Group: Fixed Id AND Id_Type: ARI + Radio fixed part nr.
Send Identity Reply with <<fixed_id>>ie containing ari.
12) Id_Group: Fixed Id AND Id_Type: PARK
Send Identity Reply with <<fixed_id>>ie containing pa
13) Key allocate message with the <<allocation type>>ie, specifying the DECT standard Authentication Algorithm to be used.
14) Send Authentication Request message with the calculated res and <<authentication type>>ie containing AC.
15) Receive Authentication Reply message with the <<res>>ie, which to be calculated by <<rand>>ie and <<res>>ie.
16) The locate update is only received. No action is taken, as we are probably in the middle of another procedure anyway.
17) Auth_request_rx01 specifies authentication based on the UAK
18) Auth_request_rx05 specifies authentication based on the AC
19) Authentication is based on UPI. ZAP increment bit shall not be set to 1.
20) Copy calculated upi_res field into reply message.
21) This receive statement captures release collision.
22) A general otherwise captures invalid behaviour

Default Dynamic Behaviour

Default Name : DF_handle_mm_invokation
Group :
Objective : To handle the reply of a LT (PT) initated MM procedure used for invoking an FT (IUT) initiated procedure.
Comments : The procedure is handled, and afterwards control is passed back to the testcase

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+DFLTS_handle_access_rights_accept			
2		RETURN			
3		+DFLTS_handle_location_accept			
4		RETURN			
		DFLTS_handle_access_rights_accept			
5	DS1	DLS ? DL_DATA_IND CANCEL T_P_MM_access_1	Dl_data_ind(Access_rights_accept_rx01)		1)
		DFLTS_handle_location_accept			
6	DS2	DLS ? DL_DATA_IND(TCV_pdu_locate_accept := DL_DATA_IND.message_unit, TCV_port_id_length_tpui := TCV_pdu_locate_accept.portable_id.length) CANCEL T_P_MM_locate_1	Dl_data_ind(Locate_accept_rx01)		
7	DS3	[TCV_port_id_length_tpui = '00'O]			
8	DS4	[TCV_port_id_length_tpui <> '00'O]			
9		DLS ! DL_DATA_REQ	Dl_data_req(Temporary_id_ assign_ack_tx_base)		
10		(TCV_result := TSO_assign_tpui(TCV_pdu_locate_accept.portable_id.id_ value, TCV_port_id_length_tpui))			

Detailed Comments : 1) Receive the accessrights accept, and return to the testcase.

Default Dynamic Behaviour

Default Name : DF_handle_mm_timeout
Group :
Objective : To handle a timeout of any of the MM timers started in a testcase, and fail the testcase
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_P_MM_access_1		(FAIL)	
2		+DFLTS_release_link			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_P_MM_access_2		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_P_MM_auth_1		(FAIL)	
8		(TSV_ft_authentication_pending := FALSE)			
9		+DFLTS_release_link			
10	D6	CANCEL		R	
11	D7	? TIMEOUT T_P_MM_cipher_2		(FAIL)	
12		+DFLTS_release_link			
13	D8	CANCEL		R	
14	D9	? TIMEOUT T_P_MM_locate_1		(FAIL)	
15		+DFLTS_release_link			
16	D10	CANCEL		R	
		DFLTS_release_link			
17		DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_abnormal)		
18	DS11	DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm		
19	DS12	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind		1)
20	DS13	? TIMEOUT T_P_LCE_01		(FAIL)	
21	DS14	DLS ? OTHERWISE		(FAIL)	2)
22	DS15	CANCEL		R	

Detailed Comments : 1) This receive statement captures release collision.
2) A general otherwise captures invalid behaviour

Default Dynamic Behaviour

Default Name : DF_handle_paging
Group :
Objective : To handle any paging message re−transmission during paging procedures.
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DS1	DLB ? DL_BROADCAST_IND	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_cc))		1)
2		RETURN			
3	DS3	DLB ? DL_BROADCAST_IND	Dl_brc_ind(Lce_request_page_rx_base(TSC_lce_hdr_mm))		2)
4		RETURN			

Detailed Comments : 1) Handle a broadcast message with an LCE−REQUEST−PAGE PDU for CC services, and return to the test case or test step.
2) Handle a broadcast message with an LCE−REQUEST−PAGE PDU for MM services, and return to the test case or test step.

Default Dynamic Behaviour

Default Name : DF_handle_unexpected_events
Group :
Objective : To release the link and to FAIL the testase in case of an unexpected event
Comments : In case a release indication arrives, the result of the test is inconclusive.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DS1	DLS ? DL_RELEASE_IND	Dl_rel_ind	I	1)
2		CANCEL		R	
3	DS2	DLS ? DL_DATA_IND	Dl_data_ind(Ciss_any_pdu_rx)		6)
4	DS3	DLS ? DL_DATA_IND	Dl_data_ind(Coms_any_pdu_rx)		7)
5	DS4	DLS ? DL_DATA_IND	Dl_data_ind(Cc_out_of_scope_pdu_rx(TCV_cc_tv, TCV_cc_iut_tf))		8)
6	DS5	DLS ? DL_DATA_IND	Dl_data_ind(Mm_out_of_scope_pdu_rx)		9)
7	DS6	DLS ? OTHERWISE		(FAIL)	2)
8		+DFLTS_release_link			
9	DS7	CANCEL		R	
10	DS8	DLB ? OTHERWISE		(FAIL)	3)
11		+DFLTS_release_link			
12	DS9	CANCEL		R	
		DFLTS_release_link			
13	DS10	DLS ! DL_RELEASE_REQ START T_P_LCE_01	Dl_rel_req(TSC_rm_abnormal)		
14		DLS ? DL_RELEASE_CFM CANCEL T_P_LCE_01	Dl_rel_cfm		
15		DLS ? DL_RELEASE_IND CANCEL T_P_LCE_01	Dl_rel_ind		4)
16	DS11	? TIMEOUT T_P_LCE_01		(FAIL)	
17	DS12	DLS ? OTHERWISE		(FAIL)	5)
18	DS13	CANCEL		R	

Detailed Comments :
1) Unexpected link release: result is inconclusive. Check external conditions
2) General otherwise statement, cathcing all unexpected (and thus invalid) events from DLS PCO
3) General otherwise statement, cathcing all unexpected (and thus invalid) events from DLB PCO
4) This receive statement captures release collision.
5) A general otherwise captures invalid behaviour.
6) Ignore any CISS PDU, which is out of scope in the GAP.
7) Ignore any COMS PDU, which is out of scope in the GAP.
8) Ignore CC PDUs, which are out of scope in the GAP.
9) Ignore MM PDUs, which are out of scope in the GAP.

Annex B (normative): Partial PIXIT proforma

The PIXIT Proforma is based on ISO/IEC 9646-6 [26]. Any additional information needed can be found in this international standard document.

B.1 Identification summary

Table B.1

PIXIT Number:	
Test Laboratory Name:	
Date of Issue:	
Issued to:	

B.2 ATS summary

Table B.2

Protocol Specification:	
Protocol to be tested:	
ATS Specification:	
Abstract Test Method:	Embedded variant of the Remote Test Method with no UT

B.3 Test laboratory

Table B.3

Test Laboratory Identification:	
Test Laboratory Manager:	
Means of Testing:	
SAP Address:	

B.4 Client identification

Table B.4

Client Identification:	
Client Test manager:	
Test Facilities required:	

B.5 SUT

Table B.5

Name:	
Version:	
SCS Number:	
Machine configuration:	
Operating System Identification:	
IUT Identification:	
PICS Reference for IUT:	
Limitations of the SUT:	
Environmental Conditions:	

B.6 Protocol layer information

B.6.1 Protocol identification

Table B.6

Name:	DECT - Data Link Control Layer
Version:	
PICS References:	

B.6.2 IUT information

Table B.7: General configuration

Item	Parameter	Parameter type	Explanation and ETS reference	Value
1	TSPX_mmproc_arte_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the access rights terminate request test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
2	TSPX_mmproc_aupt_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the authentication of PT test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
3	TSPX_mmproc_auus_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the authentication of PT test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
4	TSPX_mmproc_cift_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the FT init. ciphering test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
5	TSPX_mmproc_idpt_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the id. of PT test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
6	TSPX_mmproc_loup_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the location update test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
7	TSPX_mmproc_keal_ccstate	CCSTATE_TYPE (INTEGER 0, 1, 2, 3, 4, 6, 7, 10, 19)	Indicates the FT cc state, the key allocation test cases shall be tested in. Ref. ETS 300 175 [5], subclause 13.5	
8	TSPX_mmproc_arte_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the access rights terminate proc. Ref. ETS 300 175 [5], subclause 13.5	

(continued)

Table B.7: (concluded) General configuration

9	TSPX_mmproc_aupt_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the authentication of PT proc. Ref. ETS 300 175 [5], subclause 13.5	
10	TSPX_mmproc_auus_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the authentication of user proc. Ref. ETS 300 175 [5], subclause 13.5	
11	TSPX_mmproc_cift_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the FT initiated ciphering proc. Ref. ETS 300 175 [5], subclause 13.5	
12	TSPX_mmproc_idpt_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the identification of PT proc. Ref. ETS 300 175 [5], subclause 13.5	
13	TSPX_mmproc_loup_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the location update proc. Ref. ETS 300 175 [5], subclause 13.5	
14	TSPX_mmproc_keal_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the key allocation proc. Ref. ETS 300 175 [5], subclause 13.5	
15	TSPX_nr_of _digits_in_cpn	INT_8 (INTEGER 0..255)	In order to facilitate testing, a number of digits less then 10 is advised. This parameter really indicates the number of CC_INFO messages to be expected during call setup	
16	TSPX_access_rights_uak	BOOLEAN	TRUE if IUT supports Auth_Key_Type = 1 (UAK)	

Table B.8: Addresses

Item	Address name	Parameter type	Explanation and ETS reference	Value
1	TSPX_decimal_ac_value	OCT_4 (OCTETSTRING[4])	Value of AC to be used. The AC will be entered as maximal 8 decimal digits. The AC to bitstring mapping will be done with operator TSO_convert_ac_to_bitstring. Ref. ETS 300 444 [10], subclause 14.2	
2	TSPX_complete_fixed_id_ari_value	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of ARI. Ref. ETS 300 175-5[7.7.18]	
3	TSPX_complete_fixed_id_ari_rpn_value	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of ARI + RPN Ref. ETS 300 175 [5], subclause 7.7.18	
4	TSPX_dlei_value	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	Value of data link endpoint identifier to be used in the test system (local test system matter)	

(continued)

Table B.8: (concluded) Addresses

5	TSPX_ipei_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of IPEI (IPUI-N) to be expected from the IUT (before subscription) Ref. ETS 300 175 [5], subclause 7.7.30	
6	TSPX_ipui_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of portable_id to be used in case of a IPUI (after subscription). Contains fill bits '1111'B if necessary Ref. ETS 300 175 [5], subclause 7.7.30	
7	TSPX_location_area_level	BIT_6 (BITSTRING[6])	The location area level that is going to be used Ref. ETS 300 175 [5], subclause 7.7.25	
8	TSPX_complete_fixed_id_park_value	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of PARK Ref. ETS 300 175 [5], subclause 7.7.18	
9	TSPX_tpui_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of tpui to be used, when assigning a tpui to the IUT Ref. ETS 300 175 [5], subclause 7.7.30	
10	TSPX_decimal_upi_value	OCT_4 (OCTETSTRING[4])	Value of UPI to be used. The UPI will be entered as maximal 8 decimal digits. The UPI to bitstring mapping will be done with operator TSO_convert_upi_to_bitstring. Ref. ETS 300 444 [10], subclause 8.22	
11	TSPX_park_length_indicator	INTEGER	The number of significant bits in TSPX_complete_fixed_id_park_value	
12	TSPX_ari_length_indicator	INTEGER	The number of significant bits in TSPX_complete_fixed_id_ari_value	
13	TSPX_called_party_number	OCT_1_14	Called party number, max 14 digits long, which tester should use in making outgoing call to FT	
14	TSPX_emergency_cpn	OCT_1_14	Emergency Called party number, max 14 digits long, which tester should use in making outgoing emergency call to FT	
15	TSPX_calling_party_number	DECT_1_254	Calling party number which IUT is expected to include in incoming call to tester	
16	TSPX_complete_fixed_id_park_value_2	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of second PARK Ref. ETS 300 175 [5], subclause 7.7.18	
17	TSPX_park_length_indicator_2	INTEGER	The number of significant bits in TSPX_complete_fixed_id_value_2	

Table B.9: Implicit send events

Item	PIXIT (see Note)	Related implicit send message (PDU)	Indication how the implicit send event can be invoked
1	TSPX_invoke_access_term_req	To invoke the FT initiated terminate access rights procedure. A dl_data_indication is to be expected, containing an ACCESS_RIGHTS_TERM_REQUEST message. Expected Constrain: Access_rights_term_req_rx_base	
2	TSPX_invoke_pt_authentication	To invoke the FT initiated PT authentication procedure. A dl_data_indication is to be expected, containing an AUTH_REQUEST message. Expected Constraint: Auth_request_rx01	
3	TSPX_invoke_user_authentication	To invoke the FT initiated user authentication procedure. A dl_data_indication is to be expected, containing an AUTH_REQUEST message with UPI. Expected Constraint: Auth_request_rx03	
4	TSPX_invoke_pt_auth_with_zap	To invoke the FT initiated PT authentication procedure. A dl_data_indication is to be expected, containing an AUTH_REQUEST message. The AUTH_REQ message shall contain the <<auth_type>>i.e. with ZAP_increment bit set to 1. Expected Constraint: Auth_request_rx02	
5	TSPX_invoke_ft_init_ciphering_off	To invoke the FT to initiate ciphering off. A dl_data_ind is expected, containing a CIPHER-REQUEST PDU. Expected Constraint: Cipher_request_rx02	
6	TSPX_invoke_ft_init_ciphering_on	A dl_data_ind is expected, containing a CIPHER-REQUEST PDU. Expected Constraint: Cipher_request_rx01	

(continued)

Table B.9: (concluded) Implicit send events

7	TSPX_invoke_incoming_call	To invoke the IUT to initiate a normal incoming call setup, while in state F-00. Postcondition: Timer T_USER_INVOKE is started. It will be cancelled when the link is established. Expected Constraint: Lce_request_page_rx01	
8	TSPX_invoke_identity_req	To invoke the FT to initiate identity request. A dl_data_ind is expected, containing a IDENTITY-REQUEST PDU. Expected Constraint: Identity_request_rx_base	
9	TSPX_invoke_normal_release	To invoke the IUT to go on hook, thus initiating a normal release, while in any cc state. A dl_data_indication is to be expected, containing a CC_RELEASE message. Expected Constraint: Cc_release_rx_base	
10	TSPX_invoke_key_allocate	To invoke a key allocation procedure initiated by the FT side. Expected Constraint: Allocation_type_rx_dsaa	
11	TSPX_invoke_location_update	To initiate the FT initiated location update procedure. A dl_data_indication is to be expected, containing an MM_INFO_SUGGEST message. Expected Constraint: Mm_info_suggest_rx_base	
12	TSPX_invoke_partial_release	To invoke the IUT to initiate a partial release. A precondition to the execution of this test step is, that a link exists between the lt and the iut. Expected Constraint: Cc_release_rx_base	
2	TSPX__invoke_call_answering	To invoke the IUT to answer the call by sending a CC-CONNECT message. Expected constraint: Cc_connect_rx_base	

NOTE: The PIXIT names are related to the test steps where the Implicit send events are handled, e.g. the PIXIT TSPX_invoke_abnormal_release is related to the test step STP_invoke_abnormal_release.

Annex C (normative): Protocol Conformance Test Report (PCTR) Proforma for DECT NWK

The PCTR Proforma is based on ISO/IEC 9646-6. Any additional information needed can be found in this document.

C.1 Identification summary

C.1.1 Protocol conformance test report

Table C.1

PCTR Number:	
PCTR Date:	
Corresponding SCTR Number:	
Corresponding SCTR Date:	
Test Laboratory Identification:	
Test Laboratory Manager:	
Signature:	

C.1.2 IUT identification

Table C.2

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

C.1.3 Testing environment

Table C.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Remote test method, Embedded variant with no UT
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

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C.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

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C.2 IUT Conformance status

This IUT has or has not been shown by conformance assessment to be non conforming to the specified protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in Clause 3 in this report) and there are no "FAIL" verdicts to be recorded (in Clause 6) strike the words "has or". otherwise strike the words "or has not".

C.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did or did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in clause 6 of this report) strike the words "did or". otherwise strike the words "or did not".

Summary of the results of groups of test:

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C.5 Static conformance review report

If clause 3 indicates non-conformance, this subclause itemises the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

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C.6 Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC_FT_CC_BV_OC_01	Yes/No	Yes/No		
TC_FT_CC_BV_OC_02	Yes/No	Yes/No		
TC_FT_CC_BV_OC_03	Yes/No	Yes/No		
TC_FT_CC_BV_OC_04	Yes/No	Yes/No		
TC_FT_CC_BV_OC_05	Yes/No	Yes/No		
TC_FT_CC_BV_IC_01	Yes/No	Yes/No		
TC_FT_CC_BV_IC_02	Yes/No	Yes/No		
TC_FT_CC_BV_CI_01	Yes/No	Yes/No		
TC_FT_CC_BV_CI_02	Yes/No	Yes/No		
TC_FT_CC_BV_CI_04	Yes/No	Yes/No		
TC_FT_CC_BV_CI_05	Yes/No	Yes/No		
TC_FT_CC_BV_CI_06	Yes/No	Yes/No		
TC_FT_CC_BV_CI_07	Yes/No	Yes/No		
TC_FT_CC_BV_CI_08	Yes/No	Yes/No		
TC_FT_CC_BV_CI_09	Yes/No	Yes/No		
TC_FT_CC_BV_CI_10	Yes/No	Yes/No		
TC_FT_CC_BV_CR_01	Yes/No	Yes/No		
TC_FT_CC_BV_CR_02	Yes/No	Yes/No		
TC_FT_CC_BV_CR_03	Yes/No	Yes/No		
TC_FT_CC_BV_CR_04	Yes/No	Yes/No		
TC_FT_CC_BV_CR_05	Yes/No	Yes/No		
TC_FT_CC_BV_CR_06	Yes/No	Yes/No		
TC_FT_CC_BV_CR_07	Yes/No	Yes/No		
TC_FT_CC_BV_CR_08	Yes/No	Yes/No		
TC_FT_CC_BV_CR_09	Yes/No	Yes/No		
TC_FT_CC_BV_CR_10	Yes/No	Yes/No		
TC_FT_CC_BV_CR_11	Yes/No	Yes/No		
TC_FT_CC_BV_RS_07	Yes/No	Yes/No		
TC_FT_CC_BV_BO_01	Yes/No	Yes/No		
TC_FT_CC_BV_BO_02	Yes/No	Yes/No		
TC_FT_CC_BI_01	Yes/No	Yes/No		
TC_FT_CC_BI_02	Yes/No	Yes/No		
TC_FT_CC_BI_03	Yes/No	Yes/No		
TC_FT_CC_BI_04	Yes/No	Yes/No		
TC_FT_CC_TI_01	Yes/No	Yes/No		
TC_FT_CC_TI_02	Yes/No	Yes/No		
TC_FT_CC_TI_03	Yes/No	Yes/No		
TC_FT_CC_TI_04	Yes/No	Yes/No		
TC_FT_MM_BV_ID_01	Yes/No	Yes/No		
TC_FT_MM_BV_AU_01	Yes/No	Yes/No		
TC_FT_MM_BV_AU_02	Yes/No	Yes/No		
TC_FT_MM_BV_AU_03	Yes/No	Yes/No		
TC_FT_MM_BV_AU_04	Yes/No	Yes/No		
TC_FT_MM_BV_AU_05	Yes/No	Yes/No		
TC_FT_MM_BV_AU_06	Yes/No	Yes/No		
TC_FT_MM_BV_LO_01	Yes/No	Yes/No		
TC_FT_MM_BV_LO_02	Yes/No	Yes/No		
TC_FT_MM_BV_LO_03	Yes/No	Yes/No		
TC_FT_MM_BV_LO_04	Yes/No	Yes/No		
TC_FT_MM_BV_LO_05	Yes/No	Yes/No		

(continued)

(concluded)

TC_FT_MM_BV_LO_06	Yes/No	Yes/No		
TC_FT_MM_BV_AR_01	Yes/No	Yes/No		
TC_FT_MM_BV_AR_02	Yes/No	Yes/No		
TC_FT_MM_BV_AR_03	Yes/No	Yes/No		
TC_FT_MM_BV_AR_06	Yes/No	Yes/No		
TC_FT_MM_BV_AR_07	Yes/No	Yes/No		
TC_FT_MM_BV_KA_01	Yes/No	Yes/No		
TC_FT_MM_BV_KA_02	Yes/No	Yes/No		
TC_FT_MM_BV_KA_03	Yes/No	Yes/No		
TC_FT_MM_BV_CH_01	Yes/No	Yes/No		
TC_FT_MM_BV_CH_02	Yes/No	Yes/No		
TC_FT_MM_BV_CH_03	Yes/No	Yes/No		
TC_FT_MM_BV_CH_04	Yes/No	Yes/No		
TC_FT_MM_BV_CH_05	Yes/No	Yes/No		
TC_FT_MM_BO_01	Yes/No	Yes/No		
TC_FT_MM_BI_01	Yes/No	Yes/No		
TC_FT_MM_BI_02	Yes/No	Yes/No		
TC_FT_MM_BI_03	Yes/No	Yes/No		
TC_FT_MM_TI_01	Yes/No	Yes/No		
TC_FT_MM_TI_02	Yes/No	Yes/No		
TC_FT_MM_TI_03	Yes/No	Yes/No		
TC_FT_MM_TI_04	Yes/No	Yes/No		
TC_FT_MM_TI_05	Yes/No	Yes/No		
TC_FT_MM_TI_06	Yes/No	Yes/No		
TC_FT_MM_TI_07	Yes/No	Yes/No		
TC_FT_ME_BV_01	Yes/No	Yes/No		
TC_FT_ME_BV_02	Yes/No	Yes/No		
TC_FT_ME_BV_03	Yes/No	Yes/No		
TC_FT_ME_BO_01	Yes/No	Yes/No		
TC_FT_LC_BV_LE_01	Yes/No	Yes/No		
TC_FT_LC_BV_LE_02	Yes/No	Yes/No		
TC_FT_LC_BV_LE_03	Yes/No	Yes/No		
TC_FT_LC_BV_LR_01	Yes/No	Yes/No		
TC_FT_LC_BV_LR_02	Yes/No	Yes/No		
TC_FT_LC_BV_LR_03	Yes/No	Yes/No		
TC_FT_LC_BV_LR_04	Yes/No	Yes/No		
TC_FT_LC_BI_01	Yes/No	Yes/No		
TC_FT_LC_BI_04	Yes/No	Yes/No		
TC_FT_LC_BI_05	Yes/No	Yes/No		
TC_FT_LC_BI_07	Yes/No	Yes/No		
TC_FT_LC_TI_02	Yes/No	Yes/No		
TC_FT_LC_TI_03	Yes/No	Yes/No		

C.7 Observations

Additional information relevant to the technical content of the PCTR are given here.

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Annex D (informative): Bibliography

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