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Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications/ Global System for Mobile communications (DECT/GSM) Interworking Profile (IWP); Profile Test Specification (PTS); Profile Specific Test Specification (PSTS); Part 2: Portable radio Termination (PT)

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Contents

Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

The Digital Enhanced Cordless Communications/Global System for Mobile communication (DECT/GSM) Interworking Profile (IWP) Profile Test Specification (PTS) comprises three parts:

Part 1: "Summary";

Part 2: "Portable radio Termination (PT)";

Part 3: "Fixed radio Termination (FT)".

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
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Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

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1 Scope

This European Telecommunication Standard (ETS) contains the test specification for Digital Enhanced Cordless Telecommunications/Global System for Mobile communications (DECT/GSM) Interworking Profile (IWP), Portable Part (PP) applications as specified in ETS 300 370 [3].

The main objective of the DECT/GSM IWP test specification is to provide approval tests giving a high probability of air interface inter-operability between any DECT Fixed Part (FP) and any PP conforming to ETS 300 370 [3] offered by different manufacturers.

All PPs conforming to ETS 300 370 [3], as far as DECT Network (NWK) layer is concerned, are tested for conformance separately:

- first to ETS 300 494-1 [8] and ETS 300 494-2 [9]; and

- second to this ETS.

For the purpose of this ETS the Portable radio Termination (PT) uses an International Portable User Identity (IPUI) type R.

All PPs conforming to ETS 300 370 [3], as far as the Data Link Control (DLC) layer, the Medium Access Control (MAC) layer and the Physical (PHL) layer are concerned, are tested to ETS 300 494-1 [8] and ETS 300 494-2 [9].

ISO/IEC 9646 Parts 1 to 7 [10 - 15] are used as the basis for the test methodology, and as the basis for test case specification.

The test cases, if listed in this ETS, have been derived from ETS 300 497, Parts 1 to 9 [5 - 7] or ETS 300 494-1 [8] and ETS 300 494-2 [9]. Additional DECT/GSM IWP specific test cases are included where required. The Profile Implementation Extra Information for Testing (IXIT) is based on ETS 300 497, Parts 1 to 9 [5 - 7] and the General Access Profile, Profile IXIT ETS 300 494-1 [8] and ETS 300 494-2 [9].

Annex A contains the Abstract Test Suite (ATS).

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

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

[3] 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)".

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

[5] prETS 300 497-1: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL); Part 1: Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer".

[6] prETS 300 497-6: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL); Part 6: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Portable radio Termination (PT)".

[7] prETS 300 497-7: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL); Part 7: Abstract Test Suite (ATS) for Network (NWK) layer - Portable radio Termination (PT)".

[8] prETS 300 494-1: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile Test Specification (PTS); Part 1: Summary".

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

[10] 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)).

[11] 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)).

[12] 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)).

[13] 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)).

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

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

3 Definitions and abbreviations

3.1 Definitions

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

- terms defined in ISO/IEC 9646 Parts 1 to 3 [10 - 12] and Parts 5 to 7 [13 - 15];
- definitions in ETS 300 370 [3];
- definitions in ETS 300 466 [2].

3.2 Abbreviations

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

ATS	Abstract Test Suite
CC	Call Control
CI	Common Interface
DLC	Data Link Control
FT	Fixed radio Termination
GAP	Generic Access Profile
GSM	Global System for Mobile communications
ICS	Implementation Conformance Statement
IPUI	International Portable User Identity
IUT	Implementation Under Test
IXIT	Implementation Extra Information for Testing
IWP	Interworking Profile
LCE	Link Control Entity
LLME	Lower Layer Management Entity
LLN	Logical Link Number
MAC	Medium Access Control
MM	Mobility Management
NLF	New Link Flag
NWK	Network
PARK	Portable Access Rights Key
PHL	Physical
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation Extra Information for Testing
PP	Portable Part
PT	Portable radio Termination
PSTS	Profile Specific Test Specification
PTS	Profile Test Specification
SARI	Secondary Access Rights Identity
SUT	System Under Test
TCL	Test Case Library
TPUI	Temporary Portable User Identity
TS	Test System
TSO	Test Suite Overview
TSS&TP	Test Suite Structure & Test Purposes
TTCN	Tree and Tabular Combined Notation

4 Relevant test cases list

4.1 Network (NWK) layer

This subclause includes lists of test suite groups and abstract test cases, relevant for DECT/GSM IWP derived from ETS 300 497-7 [7] and ETS 300 494-2 [9].

If a test purpose, described in ETS 300 497-6 [6], is outside the scope of the DECT/GSM IWP the name of the relevant test case is excluded from the list.

NOTE: Exclusion of a test case may lead to exclusion of test steps, constraints, etc. and this should be taken into account when extracting the relevant information from ETS 300 497-7 [7].

If a test purpose, described in ETS 300 497-6 [6], is within the scope of the DECT/GSM IWP the name of the relevant test case is included into the list.

4.1.1 Test suite structure

Table 1: Test suite structure

Test suite structure	
Suite name:	nwk_pt
Standards ref.:	ETS 300 370 [3]; ETS 300 497-7 [7]; ETS 300 494-2 [9]
Profile ICS ref.:	ETS 300 704-1 [4]
Profile IXIT ref.:	ETS 300 702-2 (this ETS)
Test method:	remote
Comments:	
Test group reference	**Test group objective**
PT/	To check the behaviour of the NWK layer of the PT(IUT)
PT/CC/	To check the IUT CC-state machine behaviour
PT/CC/IT/	To check that the IUT CC-state machine provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/CC/CA/	Limited testing that the observable capabilities of the CC entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the Profile ICS/Profile IXIT
PT/CC/BV/	To test the CC entity of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/CC/BV/OC/	To check the IUT's behaviours to set-up an outgoing call
PT/CC/BV/IC/	To check the IUT's behaviours to set-up an incoming call
PT/CC/BV/CR/	To check the IUT's behaviours to release an outgoing/incoming call
PT/MM/	To check the behaviour of the MM entity of the IUT
PT/MM/IT/	To check that the MM entity of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/MM/CA/	Limited testing that the observable capabilities of the MM entity of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the Profile ICS/Profile IXIT
PT/MM/BV/	To tests the MM entity of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/MM/BV/ID/	To check the IUT's behaviour concerning identity procedures
PT/MM/BV/AU/	To check the IUT's behaviour concerning the authentication procedures
PT/MM/BV/LO/	To check the IUT's behaviour concerning the location procedures
PT/MM/BV/CH/	To check the IUT's behaviour concerning the ciphering related procedures
PT/ME/	To check the behaviour of the LLME of the IUT
PT/ME/IT/	To check that LLME of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/ME/CA/	Limited testing that the observable capabilities of the LLME of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the Profile ICS/Profile IXIT
PT/ME/BV/	To tests the LLME of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/LC/	To check the behaviour of the LCE of the IUT
PT/LC/IT/	To check that LCE of the IUT provides sufficient conformance for possible interconnection without trying to perform thorough testing
PT/LC/CA/	Limited testing that the observable capabilities of the LCE of the IUT are in accordance with the static conformance requirements and the additional capabilities claimed in the Profile ICS/Profile IXIT
PT/LC/BV/	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system
PT/LC/BV/LE/	To check the IUT's behaviour concerning the connection oriented link establishment procedures
Detailed comments:	
1) The sub-sub-groups with identifiers PT/xx/IT/ and PT/xx/CA/ do not include their own test cases but only list an appropriate selection of tests from the relevant sub-group with identifier PT/xx/.	

4.1.2 Test case index

Table 2: Test case index

Test case index		
Test group reference	**Test case identity**	**Description**
PT/CC/BV/OC/	No relevant test cases	-
PT/CC/BV/IC/	No relevant test cases	-
PT/CC/BV/CR/	No relevant test cases	-
PT/MM/BV/ID/	No relevant test cases	-
PT/MM/BV/AU/	No relevant test cases	-
PT/MM/BV/LO/	No relevant test cases	-
PT/MM/BV/CH/	No relevant test cases	-
PT/ME/BV/	No relevant test cases	-
PT/LC/BV/LE/	No relevant test cases	-
Detailed comments: 1) The PT is the IUT.		

4.2 Data Link Control (DLC) layer

All test cases for DLC layer as specified in ETS 300 494-2 [9] apply.

4.3 Medium Access Control (MAC) layer

All test cases for MAC layer as specified in ETS 300 494-2 [9] apply.

4.4 Physical (PHL) layer

All test cases for PHL layer as specified in ETS 300 494-2 [9] apply.

5 Replacement lists

5.1 General

The following subclauses list all the necessary replacements due to specific DECT/GSM IWP requirements, in the following ways:

a) if a test purpose is still valid but the relevant test case is not usable (e.g. because of specific requirements to the information flow it requires additional test steps to be added to the behaviour tree), the test case name identifier, as specified in ETS 300 497-7 [7], and preceded by ETS 300 497-7 [7], is listed together with the test case name identifier of the test specified in this ETS (see subclause 5.2);

b) some of the test cases can be re-used but with replacement of the contents of some of the test step used in the behaviour description (e.g. preambles for CC testing does not include obtaining access rights procedure), the test step name identifier, as specified in ETS 300 497-7 [7] and preceded by ETS 300 497-7 [7], is listed together with the test step name identifier of the test step specified in this ETS (see subclause 5.3);

c) some of the test cases can be re-used but with replacement of the contents of some of the constraints used in the behaviour description (e.g. a message used need to include an additional information element), the constraint name identifier, as specified in ETS 300 497-7 [7] and preceded by ETS 300 497-7 [7], is listed together with the constraint name identifier of the test constraint specified in this (see subclause 5.4).

In addition, all the test cases listed in subclause 4.1.2, that are used unchanged for the purposes of this ETS but are impacted by changes in test steps or constraints they use are listed in subclause 5.5.

5.2 Test case replacement list

Table 3: Test case replacement list

Test case index		
Test case identity in Test Case Library (TCL)	**Test case identity DECT/GSM IWP**	**Description**
(TCL) TP/PT/CC/BV/OC-07	(DECT/GSM) TP/PT/CC/BV/OC-22	Reference, comments, behaviour description and detailed comments changed
(TCL) TP/PT/MM/BV/ID-01	(DECT/GSM) TP/PT/MM/BV/ID-21	Reference, comments, behaviour description and detailed comments changed
(TCL) TP/PT/MM/BV/ID-05	(DECT/GSM) TP/PT/MM/BV/ID-24	Reference, comments, behaviour description and detailed comments changed
(TCL) TP/PT/MM/BV/AU-01	(DECT/GSM) TP/PT/MM/BV/AU-20	Reference, comments, behaviour description, constraints reference and detailed comments changed
(TCL) TP/PT/MM/BV/LO-05	(DECT/GSM) TP/PT/MM/BV/LO-20	Reference, comments, behaviour description, constraints reference and detailed comments changed
(TCL) TP/PT/MM/BV/CH-03	(DECT/GSM) TP/PT/MM/BV/CH-06	Reference, behaviour description, constraints reference and detailed comments changed
(TCL) TP/PT/MM/BV/CH-04	(DECT/GSM) TP/PT/MM/BV/CH-07	Reference, behaviour description, constraints reference and detailed comments changed
(TCL) TP/PT/LC/BV/LE-02	(DECT/GSM) TP/PT/LC/BV/LE-03	Reference, comments, behaviour description, and detailed comments changed
(TCL) TP/PT/ME/BV-07	(DECT/GSM) TP/PT/ME/BV-20	Reference, comments and behaviour description, and detailed comments changed

5.3 Test step replacement list

Table 4: Test step replacement list

Test step index		
Test step identity in Test Case Library (TCL)	**Test step identity DECT/GSM IWP**	**Description**
PR_goto_t01	PR_goto_t01	Behaviour description changed
STP_receive_digit_info	STP_receive_digit_info	Comments and behaviour description changed
STP_perform_ft_init_ ciphering_on	STP_perform_ft_init_ ciphering_on	Constraints reference changed
STP_perform_paging	STP_perform_paging	Constraints reference changed
DFSTP_handle_locate_ request	DFSTP_handle_locate_ request	Comments, behaviour description and detailed comments changed
DF_handle_mm_events	DF_handle_mm_events	Behaviour description changed
DF_handle_mm_timeout	DF_handle_mm_timeout	Behaviour description changed

5.4 Constraint replacement list

Table 5: Constraint replacement list

Constraint index		
Constraint identity in Test Case Library (TCL)	**Constraint identity DECT/GSM IWP**	**Description**
Cc_setup_rx01	Cc_setup_rx01	Comments, field names and field values changed
Locate_accept_tx_base	Locate_accept_tx_base	Comments changed
Locate_accept_tx01	Locate_accept_tx01	Comments, field names and field values changed
Locate_request_rx01	Locate_request_rx01	Comments, field names and field values changed

5.5 Test cases impacted by replacements outside of the test case description

Table 6: Test cases impacted by replacements outside of the test case description

Test Case Index	
Test case identity in Test Case Library (TCL)	**Modified item**

6 Additional test cases list

6.1 Test purposes

This subclause includes the all test purposes developed for covering the DECT/GSM IWP NWK layer requirements not included in ETS 300 497-6 [6] or ETS 300 494-2 [9].

6.1.1 Test purposes for Call Control (CC)

6.1.1.1 Outgoing call

Table 7: Outgoing call

No.	Test purpose	Comment
(DECT/GSM) TP/PT/CC/BV/OC-21	Ref.: ETS 300 175-5 [5], subclauses 9.1, 9.2, and 9.3.1, ETS 300 370 [3], subclauses 6.1.1.1 and 6.3.1.1 Initial state: T-00 Verify that the IUT is able to perform a CC-state transition from the T-00 state to T-10 state via T-01 , T-02, T-03 and T-04 for an outgoing normal call set-up. PT may request the call using one of the following methods to transfer the dialling information: - en-bloc method to transfer dialling information in <<Called party number>> information element of {CC-SETUP} message; - piecewise method to transfer dialling information <<Multi keypad>> information element(s) of {CC-INFO} message in state T-02; - en-bloc method to transfer dialling information in <<Called party number>> INFORMATION ELEMENT of {CC-INFO} message.	
(DECT/GSM) TP/PT/CC/BV/OC-22	Ref.: ETS 300 175-5 [1], subclauses 9.1, 9.2, and 9.3.1, ETS 300 370 [3], subclauses 6.1.1.2 and 6.3.1.1 Initial state: T-00 Verify that the IUT is able to perform an emergency call set-up.	

6.1.1.2 Incoming call

Table 8: Incoming call

No.	Test purpose	Comment
(DECT/GSM) TP/PT/CC/BV/IC-21	Ref.: ETS 300 175-5 [1], subclauses 9.1, 9.2, and 9.3.2, ETS 300 370 [3], subclause 6.1.1.3 Initial state: T-00 Verify that the IUT is able to process an incoming call. PT answer will determine one of the following transmissions: - via the states T-06, T-07 and T-08 to the state T-10; - via the states T-06, and T-08 to the state T-10. The <<Signal>> information element is in the {CC-INFO} message	
(DECT/GSM) TP/PT/CC/BV/IC-22	Ref.: ETS 300 175-5 [1], subclauses 9.1, 9.2, and 9.3.2, ETS 300 370 [3], subclause 6.1.1.3 Initial state: T-00 Verify that the IUT is able to process an incoming call. PT answer will determine one of the following transmissions: - via the states T-06, T-07 and T-08 to the state T-10; - via the states T-06, and T-08 to the state T-10. The <<Signal>> information element is in the {CC-SETUP} message	

6.1.1.3 Call release

Table 9: Call release

No.	Test purpose	Comment
(DECT/GSM) TP/PT/CC/BV/CR-21	Ref.: ETS 300 175-5 [1], subclause 9.5.2 ETS 300 370 [3], subclauses 6.1.1.7 and 6.3.1.2 Initial state: T-01 Verify that the IUT is able to process a FT (PLMN) initiated DECT abnormal release procedure with <<Release reason>> in {CC-RELEASE-COM} message set to “Unknown identity”. PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI. After the procedure has been accomplished PT shall initiate location registration procedure.	
(DECT/GSM) TP/PT/CC/BV/CR-22	Ref.: ETS 300 175-5 [1], subclause 9.5.2 ETS 300 370 [3], subclauses 6.1.1.5 and 6.3.1.2 Initial state: T-01 Verify that the IUT is able to process a FT (PLMN) initiated DECT abnormal release procedure with <<Release reason>> in {CC-RELEASE-COM} message set to “Invalid identity”. PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI.	
(DECT/GSM) TP/PT/CC/BV/CR-23	Ref.: ETS 300 175-5 [1], subclause 9.5.2 ETS 300 370 [3], subclauses 6.1.1.7 and 6.3.1.2 Initial state: T-01 Verify that the IUT is able to process a FT (PLMN) initiated DECT normal release procedure with <<Release reason>> in {CC-RELEASE-COM} message set to “Unknown identity”. PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI. After the procedure has been accomplished PT shall initiate location registration procedure.	
(DECT/GSM) TP/PT/CC/BV/CR-24	Ref.: ETS 300 175-5 [1], subclause 9.5.2 ETS 300 370 [3], subclauses 6.1.1.5 and 6.3.1.2 Initial state: T-01 Verify that the IUT is able to process a FT (PLMN) initiated DECT normal release procedure with <<Release reason>> in {CC-RELEASE-COM} message set to “Invalid identity”. PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI.	

6.1.2 Test purposes for Mobility Management (MM)

6.1.2.1 Identity procedures

Table 10: Identity procedures

No.	Test purpose	Comment
(DECT/GSM) TP/PT/MM/BV/ID-21	Ref.: ETS 300 175-5 [1], subclause 13.2.1 ETS 300 370 [3], subclause 6.3.2.2 Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying “Portable identity” and “IPUI”, returns an {IDENTITY-REPLY} message with the IMSI.	
(DECT/GSM) TP/PT/MM/BV/ID-22	Ref.: ETS 300 175-5 [1], subclause 13.2.1 ETS 300 370 [3], subclause 6.3.2.2 Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying “Portable identity” and “IPEI”, returns an {IDENTITY-REPLY} message with the IPEI.	
(DECT/GSM) TP/PT/MM/BV/ID-23	Ref.: ETS 300 175-5 [1], subclause 13.2.1 ETS 300 370 [3], subclause 6.3.2.2 Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying “NWK assigned identity” and “GSM TMSI”, returns an {IDENTITY-REPLY} message with the TMSI.	
(DECT/GSM) TP/PT/MM/BV/ID-24	Ref.: ETS 300 175-5 [1], subclause 13.2.2 ETS 300 370 [3], subclause 6.3.2.5 Verify that the IUT is able to operate the basic temporary identity assign procedure.	

6.1.2.2 Authentication procedures

Table 11: Authentication procedures

No.	Test purpose	Comment
(DECT/GSM) TP/PT/MM/BV/AU-20	Ref.: ETS 300 175-5 [1], subclause 13.3.1 ETS 300 370 [3], subclause 6.3.2.1 Verify that if the PT is able to operate the basic authentication of the PT procedure.	
(DECT/GSM) TP/PT/MM/BV/AU-21	Ref.: ETS 300 175-5 [1], subclause 13.3.1 ETS 300 370 [3], subclause 6.3.2.1 Verify that if the PT authentication is not accepted and but rejected by the MSC, the IUT, on receipt of a {MM-INFO-SUGGEST} message indicating <<Authentication failure>>, will delete LAI, TMSI and Cipher key sequence number.	

6.1.2.3 Location registration procedures

Table 12: Location registration procedures

No.	Test purpose	Comment
(DECT/GSM) TP/PT/MM/BV/LO-20	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT is capable to operate the basic location registration procedure (Attach) after it is switched on for the first time. FT does not perform TPUI but TMSI assignment.	
(DECT/GSM) TP/PT/MM/BV/LO-21	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT is capable to operate the basic location registration procedure (Attach) after it is switched on for the first time. FT performs TPUI and TMSI assignment.	
(DECT/GSM) TP/PT/MM/BV/LO-22	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, if DECT location area changes but GSM does not, is able to operate location registration procedure. FT performs TPUI assignment.	
(DECT/GSM) TP/PT/MM/BV/LO-23	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, if DECT and GSM location areas change, is able to operate location registration procedure. FT performs TPUI and TMSI assignment.	
(DECT/GSM) TP/PT/MM/BV/LO-24	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, if GSM location area changes and no DECT location areas exist, is able to operate location registration procedure. FT performs TMSI assignment. **NOT TESTABLE**	
(DECT/GSM) TP/PT/MM/BV/LO-25	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, if GSM location area changes and no DECT location areas exist, is able to operate location registration procedure. FT sends invalid TMSI. **NOT TESTABLE**	
(DECT/GSM) TP/PT/MM/BV/LO-26	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, is able to operate detach procedure. **NOT TESTABLE**	
(DECT/GSM) TP/PT/MM/BV/LO-27	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, on receipt of a {LOCATE-REJECT} message with <<Reject reason>> set to “IPUI unknown”, will delete LAI, Cipher key, Cipher key number and TMSI and shall not initiate neither location registration procedure nor detach procedure.	

(continued)

Table 12 (concluded): Location registration procedures

No.	Test purpose	Comment
(DECT/GSM) TP/PT/MM/BV/LO-28	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, on receipt of a {LOCATE-REJECT} message with <<Reject reason>> set to “IPUI not accepted”, will delete LAI, Cipher key, Cipher key number and TMSI and shall not initiate neither location registration procedure nor detach procedure.	
(DECT/GSM) TP/PT/MM/BV/LO-29	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, on receipt of a {LOCATE-REJECT} message with <<Reject reason>> set to “PLMN not allowed”, will store the ARI value in the forbidden PLMNs list, delete LAI, Cipher key, Cipher key number and TMSI and shall not initiate location registration procedure until broadcasted ARI changes, nor detach procedure.	
(DECT/GSM) TP/PT/MM/BV/LO-30	Ref.: ETS 300 175-5 [1], subclause 13.4.1 ETS 300 370 [3], subclauses 6.3.2.3 and 6.1.2.3 Pre-condition: No CC call in progress. Verify that the IUT, on receipt of a {LOCATE-REJECT} message with <<Reject reason>> set to “Location area not allowed”, will delete LAI, Cipher key, Cipher key number and TMSI and shall not initiate location registration procedure before DECT location area changes, nor detach procedure. FT performs location update.	

6.1.2.4 Ciphering procedures

Table 13: Ciphering procedures

No.	Test purpose	Comment
(DECT/GSM) TP/PT/MM/BV/CH-06	Ref.: ETS 300 175-5 [1], subclause 13.8 ETS 300 370 [3], subclauses 6.3.2.6 and 6.1.2.6 Verify that the IUT, being in unciphered mode, is able to operate the basic FT (invoked by the MSC) initiated cipher-switching procedure requesting “cipher-on”.	
(DECT/GSM) TP/PT/MM/BV/CH-07	Ref.: ETS 300 175-5 [1], subclause 13.8 ETS 300 370 [3], subclauses 6.3.2.6 and 6.1.2.6 Verify that the IUT, being in ciphered mode, is able to operate the basic FT (invoked by the MSC) initiated cipher-switching procedure requesting “cipher-off”.	

6.1.3 Test purposes for LCE

Table 14: Test purposes for LCE

No.	Test purpose	Comment
(DECT/GSM) TP/PT/LC/BV/LE-03	Ref.: ETS 300 175-5 [1], subclause 14.2.3 ETS 300 370 [3], subclauses 6.3.3 and 6.1.3 Initial state: T-00 Verify that the IUT is able to respond to indirect (paged) FT-initiated link establishment request which uses a short address request paging and contains correct identity.	

6.1.4 Test purposes for LLME

Table 15: Test purposes for LLME

No.	Test purpose	Comment
(DECT/GSM) TP/PT/ME/BV-20	Ref.: ETS 300 175-5 [1], subclause 15.5 ETS 300 370 [3], subclause 6.1.2.7 Verify that the IUT is able to perform the FT initiated cipher-switching procedure (invoked by the MSC), before reception of a {CC_SETUP_ACK} message during an outgoing call establishment.	
(DECT/GSM) TP/PT/ME/BV-21	Ref.: ETS 300 175-5 [1], subclause 15.5 ETS 300 370 [3], subclause 6.1.2.7 Verify that the IUT is able to restart the relevant CC timer, on receipt of a {CC-NOTIFY} message, when the first answer to an outgoing call set-up request from the IUT is delayed by the GSM CM service procedure and interrupted by a FT (GSM) initiated ciphering procedure.	

Annex A (normative): Abstract Test Suite (ATS) for NWK testing (DECT/GSM IWP specific)

The ATS is written in TTCN according to ISO/IEC 9646-3 [12].

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 Test Suite Overview (TSO) part 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 (DEP7022.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 7022_ep.LZH. Other file formats are available on request.

I

Test Suite Overview

Test Suite Structure

Suite Name : NWK_PT_GSM

Standards Ref : ETS 300 370, ETS 300 175

PICS Ref : ETS 300 704−1

PIXIT Ref : ETS 300 497−7 Annex B and ETS 300 702−2 Annex A

Test Method(s) : Remote Layer Embedded

Comments : This ATS is the TTCN part of ETS 300 702 Part 2, DECT/GSM IWP PTS PSTS Portable Termination (PT)

ETSI Status: This ETS is the ETSI Public Enquiry (PE) version, from June 1996

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
PT/	SENG_pt_testing	To check the behaviour of the NWK layer of the PT(IUT).	192
PT/CC/	SENG_cc_support	To check the IUT CC−state machine behaviour.	192
PT/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.	192
PT/CC/BV/OC/	SENG_outgoing_call	To check the IUT's behaviours to setup an outgoing call.	192
PT/CC/BV/IC/	SENG_incoming_call	To check the IUT's behaviours to setup an incoming call.	196
PT/CC/BV/CR/	SENG_cc_support	To check the IUT's behaviours to release an outgoing/incoming call.	198
PT/MM/	SENG_mm_support	To check the behaviour of the Mobility Management entity of the IUT.	202
PT/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.	202
PT/MM/BV/ID/	SENG_identity_procs	To check the IUT's behaviour concerning identity procedures.	202
PT/MM/BV/AU/	SENG_auth_procs	To check the IUT's behaviour concerning the authentication procedures.	205
PT/MM/BV/LO/	SENG_location_procs	To check the IUT's behaviour concerning the location procedures.	208
PT/MM/BV/CH/	SENG_ciphering_procs	To check the IUT's behaviour concerning the ciphering related procedures.	219
PT/ME/	SENG_llme_support	To check the behaviour of the LLME of the IUT.	221
PT/ME/BV/	SENG_llme_support	To tests the LLME of the IUT in response to syntactically and contextual correct behaviour of the test system.	221
PT/LC/	SENG_lce_support	To check the behaviour of the LCE of the IUT.	223

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Test Suite Structure			
Test Group Reference	**Selection Ref**	**Test Group Objective**	**Page Nr**
PT/LC/BV/	SENG_lce_support	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system.	223
PT/LC/BV/LE/	SENG_lce_co	To check the IUT's behaviour concerning the connection oriented link establishment procedures.	223
Detailed Comments :			

Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/CC/BV/OC/	TC_PT_CC_BV_OC_21	SENC_normal_out_call	Outgoing call; T−00, T−01, T−02, T−03, T−04, T−10; Piecewise or en−block dialling	192
PT/CC/BV/OC/	TC_PT_CC_BV_OC_22	SENC_emerg_call	Outgoing emergency call; T−00, T−01, T−02, T−03, T−04, T−10; Piecewise or en−block dialling	194
PT/CC/BV/IC/	TC_PT_CC_BV_IC_21	SENG_incoming_call	Incoming call; T−00, T−06, (T−07), T−08, T−10; <<SIGNAL>> in {CC−INFO}	196
PT/CC/BV/IC/	TC_PT_CC_BV_IC_22	SENG_incoming_call	Incoming call; T−00, T−06, (T−07), T−08, T−10; <<SIGNAL>> in {CC−SETUP}	197
PT/CC/BV/CR/	TC_PT_CC_BV_CR_21	SENC_normal_out_call	Outgoing normal call; T−01; FT (PLMN) initiated abnormal release (reason: "Unknown identity")	198
PT/CC/BV/CR/	TC_PT_CC_BV_CR_22	SENC_normal_out_call	Outgoing normal call; T−01; FT (PLMN) initiated abnormal release (reason: "Invalid identity")	199
PT/CC/BV/CR/	TC_PT_CC_BV_CR_23	SENC_normal_out_call	Outgoing normal call; T−02; FT (PLMN) initiated normal release (reason: "Unknown identity")	200
PT/CC/BV/CR/	TC_PT_CC_BV_CR_24	SENC_normal_out_call	Outgoing normal call; T−02; FT (PLMN) initiated normal release (reason: "Invalid identity")	201
PT/MM/BV/ID/	TC_PT_MM_BV_ID_21	SENC_identification	Identity request; IPUI type requested; IPUI (IMSI) returned	202
PT/MM/BV/ID/	TC_PT_MM_BV_ID_22	SENC_identification	Identity request; IPEI type requested; IPEI returned	202
PT/MM/BV/ID/	TC_PT_MM_BV_ID_23	SENC_identification	Identity request; TMSI type requested; TMSI returned	203
PT/MM/BV/ID/	TC_PT_MM_BV_ID_24	SENC_temp_id_assign	Temporary identity assign procedure (invoked by MSC)	204
PT/MM/BV/AU/	TC_PT_MM_BV_AU_20	SENC_pt_auth	Authentication of PT (invoked by MSC); Storage of DCK	205
PT/MM/BV/AU/	TC_PT_MM_BV_AU_21	SENC_pt_auth	Authentication of PT (invoked by MSC); MSC rejection	207

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Test Case Index

Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/MM/BV/LO/	TC_PT_MM_BV_LO_20	SENC_location_reg	No CC activities; power off; power on; Location registration request (no TPUI but TMSI assignment)	208
PT/MM/BV/LO/	TC_PT_MM_BV_LO_21	SENC_location_reg	No CC activities; power off; power on; Location registration request (TPUI and TMSI assignment)	209
PT/MM/BV/LO/	TC_PT_MM_BV_LO_22	SENC_location_reg	Location registration after change of DECT (not GSM) location area; TPUI assignment	210
PT/MM/BV/LO/	TC_PT_MM_BV_LO_23	SENC_location_reg	Location registration after change of DECT and GSM location area; TPUI and TMSI assignment	211
PT/MM/BV/LO/	TC_PT_MM_BV_LO_27	SENC_location_reg	Location registration; reject with reason:"IPUI unknown"	212
PT/MM/BV/LO/	TC_PT_MM_BV_LO_28	SENC_location_reg	Location registration; reject with reason:"IPUI not accepted"	214
PT/MM/BV/LO/	TC_PT_MM_BV_LO_29	SENC_location_reg	Location registration; reject with reason:"PLMN not allowed"	216
PT/MM/BV/LO/	TC_PT_MM_BV_LO_30	SENC_location_reg	Location registration; reject with reason:"Location area not allowed"	218
PT/MM/BV/CH/	TC_PT_MM_BV_CH_06	SENC_ft_cipher_on	Cipher switching; FT (MSC) initiated; "cipher−off" to "cipher−on"	219
PT/MM/BV/CH/	TC_PT_MM_BV_CH_07	SENC_ft_cipher_on	Cipher switching; FT (MSC) initiated; "cipher−on" to "cipher−off"	220
PT/ME/BV/	TC_PT_ME_BV_20	SENC_out_call_ft_cipher	Outgoing call; T−01; Cipher switching FT (MSC) initiated performed before answering the setup request	221
PT/ME/BV/	TC_PT_ME_BV_21	SENC_out_call_ft_cipher	Outgoing call; T−01; GSM CM service procedure and Cipher switching FT (MSC) initiated performed before answering the setup request	222
PT/LC/BV/LE/	TC_PT_LC_BV_LE_03	SENC_link_co_ft_indir	Indirect FT initiated link establishment	223

Detailed Comments :

Test Step Index

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Test Step Index			
Test Step Group Reference	**Test Step Id**	**Description**	**Page Nr**
Steps_for_defaults/	DFSTP_handle_tpui_assign_ack		247
Steps_for_defaults/	DFSTP_release_link		247
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_32	BITSTRING[32]	
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 character 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_1_13	OCTETSTRING[1 .. 13]	
OCT_1_16	OCTETSTRING[1 .. 16]	
OCT_1_20	OCTETSTRING[1 .. 20]	
OCT_1_254	OCTETSTRING[1 .. 254]	
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

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Simple Type Definitions		
Type Name	**Type Definition**	**Comments**
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
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[8 .. 72]	The FIXED_ID_VALUE_TYPE is a type for the value of the fixed_id. It is NOT the fixed_id type. The value of the fixed_id can lie between 1 and 9 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
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	
ext3a	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_20	
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_16	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’
discriminator_type	BIT_7	
f4	BIT_1	’1’
discriminator	OCT_2	
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	BIT_32	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**
lce_header	BIT_3	
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	
extended_character	BIT_7	
ext3a	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	
display_behaviour_field	BIT_7	
ext3h	BIT_1	
f3d	OCT_1	’10000000’
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_algosb1_a1(rand,rs : BIT_32; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A1 for PP 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_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_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_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_algos_dck_b1_a1(rand,rs:BIT_32; 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_algos_dck_from_gsm(rand:BIT_128; uak_ac:BIT_128)
Result Type	: BIT_64
Comments	: Authentication key selection algorithm from GSM. Used to calculate the derived ciphering key.
Description	
Detailed Comments	: algorithm according to GSM 04.08 and 12.03

Test Suite Operation Definition	
Operation Name	: TSO_algos_res_from_gsm(rand: BIT_128; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm from GSM. Used to calculate res.
Description	
Detailed Comments	: algorithm according to GSM 04.08

Test Suite Operation Definition	
Operation Name	: TSO_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_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_called_party_number_present(nwk_pdu:PDU)
Result Type	: BOOLEAN
Comments	: To check if called_party_number is present in a NWK L3 message.

Description

TSO_called_party_number_present = TRUE, when the NWK L3 message contains a called_party_number
TSO_called_party_number_present = FALSE, when the NWK L3 message contains no called_party_number

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_calling_party_number_ind

Result Type : BOOLEAN

Comments : To check if the calling party number is provided to the user.

Description

TSO_check_calling_party_number_ind is an operator that checks whether or not the calling party number indication, also known as CLIP, is functioning correctly. Test personnell will check the display of the IUT, or the means of providing the calling party number.

TSO_check_calling_party_number_ind = TRUE, when calling party number is indicated
TSO_check_calling_party_number_ind = FALSE, when calling party number is not indicated

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_ctrl_char

Result Type : BOOLEAN

Comments : To check if the IUT understands and reacts on the LT sent control character; here, if the display is cleared.

Description

An artificial eye or test personnell will check if the IUT display is cleared or not. The result of the operation is a boolean value.

TSO_check_ctrl_char = TRUE, when the display is cleared.
TSO_check_ctrl_char = FALSE, when the display is not cleared.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_link_present

Result Type : BOOLEAN

Comments : To check if a link between the iut and the lt is present.

Description

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

TSO_check_link_present = TRUE, when a link between the lt and the iut link is present.
TSO_check_link_present = FALSE, when NO link between the lt and the iut link is present.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_stand_char

Result Type : BOOLEAN

Comments : To check if the IUT shows the LT sent standard character on the display; here, if the digits 1234 are shown on the display.

Description

An artificial eye or test personnell will check if the IUT shows the digits 1234 on the display or not. The result of the operation is a boolean value.

TSO_check_stand_char = TRUE, when the standard characters 1234 are shown on the display.
TSO_check_stand_char = FALSE, when the standard characters 1234 are not shown on the display.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_u_plane

Result Type : BOOLEAN

Comments : To check if U−plane is present.

Description

TSO_check_u_plane is an operation to detect the U−plane connection. The acoustical path will be checked in both directions by two tone generators. The result of the operation is a boolean value which indicates the condition of the U_plane.

TSO_check_u_plane = TRUE, when U_plane is connected.
TSO_check_u_plane = FALSE, when U_plane is not connected.

Detailed Comments :

Test Suite Operation Definition

Operation Name : TSO_check_user_alerting

Result Type : BOOLEAN

Comments : To check if user alerting is present

Description

An artificial ear or test personnell will check if user alerting is present or not. The result of the operation is a boolean value.

TSO_check_user_alerting = TRUE, when alerting is present.
TSO_check_user_alerting = FALSE, when alerting is not present.

Detailed Comments :

Test Suite Operation Definition	
Operation Name	: TSO_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_convert_upi_to_bitstring(param : OCT_4)
Result Type	: BIT_32
Comments	: To convert the value of the UPI, into a bitstring, exactly as specified in ETS 300 444, subclause 14.2
Description	
Convert the decimal UPI 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_init_broadcast_bits
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bits, and of the location area.
Description	
A37 will be set to 1 A38 will be set to 1 A39 will be set to 1 The location area will be set to a default value 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_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_keypad_present(nwk_pdu:PDU)
Result Type	: BOOLEAN
Comments	: To check if keypad is present in a NWK L3 message.
Description	
TSO_keypad_present = TRUE, when the NWK L3 message contains a keypad ie TSO_keypad_present = FALSE, when the NWK L3 message contains no keypad ie	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_lose_and_regain_lock
Result Type	: BOOLEAN
Comments	: The objective of this testsuite operator will be to temporarily remove the lock that the IUT has with the LT, and after a few seconds, to restore the lock again. This can for instance be done by moveing the IUT out of radio range from the LT, or by switching the power off and on, or by putting a metal screen between the LT and the IUT.
Description	
The result of the operation will be TRUE, assuming that the operation has been carried out successfully.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_sending_complete_present(nwk_pdu:PDU)
Result Type	: BOOLEAN
Comments	: To check if sending_complete is present in a NWK L3 message.
Description	
TSO_sending_complete_present = TRUE, when the NWK L3 message contains a sending_complete TSO_sending_complete_present = FALSE, when the NWK L3 message contains no sending_complete	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_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 Operation Definition	
Operation Name	: TSO_set_bit_a44(param : INT_8)
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bit a 44. The parameter indicates the value that the bit shall get.
Description	
The value of bit a44 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_access_rights	BOOLEAN		PICS PARAMETERS:
			Selection expression parameters:
TSPC_access_rights_procs	BOOLEAN		
TSPC_auth_procs	BOOLEAN		
TSPC_basic_digits	BOOLEAN		
TSPC_cc_support	BOOLEAN		
TSPC_ciphering_procs	BOOLEAN		
TSPC_ciss_support	BOOLEAN		
TSPC_clip	BOOLEAN		
TSPC_clms_fixed	BOOLEAN		
TSPC_clms_support	BOOLEAN		
TSPC_clms_variable	BOOLEAN		
TSPC_coms_support	BOOLEAN		
TSPC_control_char	BOOLEAN		
TSPC_crss_support	BOOLEAN		
TSPC_dialling_pause	BOOLEAN		
TSPC_emerg_call	BOOLEAN		
TSPC_enblock	BOOLEAN		
TSPC_fkm_prot	BOOLEAN		
TSPC_fkm_prot_cost_info	BOOLEAN		
TSPC_fkm_prot_queue_mgt	BOOLEAN		
TSPC_ft_auth	BOOLEAN		
TSPC_ft_cipher_off	BOOLEAN		
TSPC_ft_cipher_on	BOOLEAN		
TSPC_ft_terminate_ar	BOOLEAN		
TSPC_func_prot_ciea	BOOLEAN		
TSPC_go_dtmf_dl	BOOLEAN		
TSPC_go_dtmf_il	BOOLEAN		
TSPC_go_pulse	BOOLEAN		
TSPC_identification	BOOLEAN		
TSPC_identity_procs	BOOLEAN		
TSPC_incoming_call	BOOLEAN		
TSPC_info_19	BOOLEAN		
TSPC_internal_call	BOOLEAN		
TSPC_key_allocat_proc	BOOLEAN		
TSPC_keypad_prot	BOOLEAN		
TSPC_lce_cl	BOOLEAN		
TSPC_lce_co	BOOLEAN		
TSPC_lce_support	BOOLEAN		
TSPC_link_estab_co_ft_indir	BOOLEAN		
TSPC_link_estab_co_pt	BOOLEAN		
TSPC_link_release	BOOLEAN		

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPC_link_rel_maintain_cc	BOOLEAN		
TSPC_link_rel_maintain_mm	BOOLEAN		
TSPC_llme_support	BOOLEAN		
TSPC_location_procs	BOOLEAN		
TSPC_location_reg	BOOLEAN		
TSPC_location_update	BOOLEAN		
TSPC_mm_cc_interl_mgt	BOOLEAN		
TSPC_mm_priority_mgt	BOOLEAN		
TSPC_mm_support	BOOLEAN		
TSPC_normal_call	BOOLEAN		
TSPC_para_retr_pt	BOOLEAN		
TSPC_param_retr_procs	BOOLEAN		
TSPC_partial_release	BOOLEAN		
TSPC_piecewise	BOOLEAN		
TSPC_piecewise_multi_digit	BOOLEAN		
TSPC_pt_auth	BOOLEAN		
TSPC_pt_call_received	BOOLEAN		
TSPC_pt_cipher_off	BOOLEAN		
TSPC_pt_cipher_on	BOOLEAN		
TSPC_pt_terminate_ar	BOOLEAN		
TSPC_outgoing_call	BOOLEAN		
TSPC_reg_recall	BOOLEAN		
TSPC_repeat_indicator_id	BOOLEAN		
TSPC_service_class	BOOLEAN		
TSPC_signal_cc_info	BOOLEAN		
TSPC_signal_cc_setup	BOOLEAN		
TSPC_standard_char	BOOLEAN		
TSPC_store_dck	BOOLEAN		
TSPC_temp_id_assign	BOOLEAN		
TSPC_user_auth	BOOLEAN		
TSPC_zap	BOOLEAN		
			PIXIT PARAMETERS: _____ Values to be spcified bythe testlaboratory:
TSPX_decimal_ac_value	OCT_4	PIXIT Question B.8.1 Ref. ETS 300 444 [9], subclause 14.2	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.

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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 Ref. ETS 300 444 [9], subclause 8.22	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.
TSPX_ari_rpn_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.2 Ref. ETS 300 175 [5], subclause 7.7.18	Value of fixed_id to be used in case of ARI D+ RPN
TSPX_ipui_value	PORT_ID_VALUE_TYPE	DECT/GSM IWP Profile XRL Question A.1 Ref. ETS 300 175 [5], subclause 7.7.30	Value of portable_id to be used in case of a IPUI (after subscription). The value shall include the PUT (IPUI Type R (value ' 0100')) and the IMSI
TSPX_ipui_value_2	PORT_ID_VALUE_TYPE	PIXIT Question B.8.5 Ref. ETS 300 175 [5], subclause 7.7.30	Value of portable_id to be used in case of a second IPUI (after subscription) (NOT USED FOR GAP TESTING)
TSPX_location_area_level	BIT_6	PIXIT Question B.8.6 Ref. ETS 300 175 [5], subclause 7.7.25	The location area level that is going to be used.
TSPX_nr_of_digits_in_cpn	INT_8	7.5PIXIT Question B.	In order to facilitate testing a number of digits less then 10 is advised
TSPX_park_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.7 Ref. ETS 300 175 [5], subclause 7.7.18	Value of fixed_id to be used in case of PARK.
TSPX_park_value_2	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.8 Ref. ETS 300 175 [5], subclause 7.7.18	Value of fixed_id to be used in case of a second PARK
TSPX_tpui_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.9 Ref. ETS 300 175 [5], subclause 7.7.30	Value of tpui to be used, when assigning a tpui to the IUT. −−−−−−−−−−−−−−−−−− Values to be specified by the manufacturer:
TSPX_ipei_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.3 Ref. ETS 300 175 [5], subclause 7.7.30	Value of IPEI (IPUI−N) to be expected from the IUT (before subscription).
TSPX_tmsi_value	BIT_32	PIXIT Question DE/RES−03025−2 A.3 Table 21, No. 1 Ref. ETS 300 370 [12], subclause 6.3.2.3	Value of tmsi to be used, when assigning a tmsi to the IUT. −−−−−−−−−−−−−−−−−− Values to be specified by the manufacturer:

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPX_extended_location_information	OCT_7	PIXIT Question DE/RES−03025−2 A.3 Table 21, No. 2 Ref. ETS 300 370 [12], subclause 6.3.2.3	Value of eli to be used, when assigning a eli to the IUT (ELI includes MCC, MNC, LAC and CI) −−−−−−−−−−−−−−−−−− Values to be specified by the manufacturer:
TSPX_rand_value	BIT_128	PIXIT Question DE/RES−03025−2 A.3 Table 21, No. 3 Ref. ETS 300 370 [12], subclause 6.3.2.1	Value of rand to be used during PT authentication procedure. −−−−−−−−−−−−−−−−−− Values to be specified by the manufacturer:
TSPX_cc_ckn_gsm	BIT_4	PIXIT Question DE/RES−03025−2 A.3 Table 21, No. 4 Ref. ETS 300 370 [12], subclause 6.3.2.1	Value of cipher key number to be used during PT authentication procedure (MSB shall be set to 0!). −−−−−−−−−−−−−−−−−− Values to be specified by the manufacturer:
TSPX_mmproc_auft_ccstate	CCSTATE_TYPE	PIXIT Question B.7.1 Ref. ETS 300 175 [5], subclause 13.3.3	Indicates the PT cc state, the authentication of FT testcases shall be tested in.
TSPX_mmproc_cipt_ccstate	CCSTATE_TYPE	PIXIT Question B.7.2 Ref. ETS 300 175 [5], subclause 13.8	Indicates the PT cc state, the PT init. ciphering testcases shall be tested in.
TSPX_mmproc_auft_invoke	MMPROC_TYPE	PIXIT Question B.7.3 Ref. ETS 300 175 [5], subclause 13.3.3	Indicates the way of invoking the authentication of FT procedure.
TSPX_mmproc_cipt_invoke	MMPROC_TYPE	PIXIT Question B.7.4 Ref. ETS 300 175 [5], subclause 13.8	Indicates the way of invoking the PT initiated ciphering procedure.
Detailed Comments :			

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_auth_procs	Are authentication procedures supported
SENG_cc_support	TSPC_cc_support	Is Call Control supported
SENG_ciphering_procs	TSPC_mm_support AND TSPC_ciphering_procs	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_crss_support	Are Call Related Supplementary Services supported
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_llme_support	TSPC_llme_support	Is Lower Layer Management Entity Supported
SENG_location_procs	TSPC_mm_support AND TSPC_location_procs	Are location 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
SENG_param_retr_procs	TSPC_mm_support AND TSPC_param_retr_procs	Are parameter retrieval procedures supported.
SENG_pt_testing	TRUE	Are we testing the PT SELECTION EXPRESSION NAMES FOR TESTCASES:
SENC_access_rights	TSPC_mm_support AND TSPC_access_rights	Is obtain access rights procedure supported
SENC_access_rights_loc	TSPC_mm_support AND TSPC_access_rights AND TSPC_location_reg	Are location registration and obtain access rights procedures 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

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
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
SENC_control_char	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_control_char	Is sending/receiving DECT control characters supported
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_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_ciss	TSPC_ciss_support AND TSPC_fkm_prot	Is feature key management protocol for call independent supplementary services supported
SENC_fkm_prot_crss	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_fkm_prot	Is feature key management protocol for call related supplementary services 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_auth_ident	TSPC_mm_support AND TSPC_ft_auth AND TSPC_identification	Are authentication of FT and identification of PT procedures supported
SENC_ft_auth_pt_auth	TSPC_mm_support AND TSPC_ft_auth AND TSPC_pt_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and pt authentication) 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_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

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_func_prot_ciea_ciss	TSPC_ciss_support AND TSPC_func_prot_ciea	Is functional protocol "common information element procedure" for call independent supplementary services supported
SENC_func_prot_ciea_crss	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_func_prot_ciea	Is functional protocol "common information element procedure" for call related supplementary services 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
SENC_identification_rep_ind	TSPC_mm_support AND TSPC_identification AND TSPC_repeat_indicator_id	Is identification of PT procedure supported, and is the repeat indicator in message supported
SENC_info_19	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_info_19	Is sending/receiving of {CC−INFO} message in state T(F)−19 supported
SENC_internal_call	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_internal_call	Is initiation/acceptance of internal call supported
SENC_key_alloc_ident	TSPC_mm_support AND TSPC_key_allocat_proc AND TSPC_identification	Are key allocation and identification of PT procedures supported
SENC_key_allocate	TSPC_mm_support AND TSPC_key_allocat_proc	Is key allocation procedure supported
SENC_key_prot_ciss	TSPC_ciss_support AND TSPC_keypad_prot	Is keypad protocol for call independent supplementary services 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

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_loc_reg_identif	TSPC_mm_support AND TSPC_location_reg AND TSPC_identification	Are location registration and identification procedures supported
SENC_loc_upd_pt_cipher	TSPC_mm_support AND TSPC_location_update AND TSPC_pt_cipher_on	TSPC_mm_support AND TSPC_location_update AND TSPC_pt_cipher_on
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_cc_interl_mgt	TSPC_mm_support AND TSPC_cc_support AND TSPC_mm_cc_interl_mgt	Is handling coexistence of MM and CC procedures supported
SENC_mm_general	TSPC_mm_support	Is any MM procedure supported
SENC_mm_priority_mgt	TSPC_mm_support AND TSPC_mm_priority_mgt	Is priority scheme for handling interrupting MM procedures supported
SENC_normal_in_call	TSPC_cc_support AND TSPC_incoming_call AND TSPC_normal_call	Is normal incoming call establishment, maintenance and release supported
SENC_normal_out_call	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_normal_call AND TSPC_enblock	Is normal outgoing call establishment, maintenance and release supported
SENC_obtain_ar_key_alloc	TSPC_mm_support AND TSPC_access_rights AND TSPC_key_allocat_proc	Is priority scheme for handling interrupting MM procedures (obtain access rights and key allocation) supported
SENC_obtain_ar_pt_auth	TSPC_mm_support AND TSPC_access_rights AND TSPC_pt_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and pt authentication) supported
SENC_obtain_ar_user_auth	TSPC_mm_support AND TSPC_access_rights AND TSPC_user_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and user authentication) supported
SENC_out_call_ft_cipher	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_ft_cipher_on	Is handling coexistence of CC (outgoing call) and MM (FT initiated cipher on) procedures supported
SENC_out_call_ft_term_ar	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_ft_terminate_ar	Is handling coexistence of CC (outgoing call) and MM (FT terminate access rights) procedures supported
SENC_out_call_key_alloc	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_key_allocat_proc	Is handling coexistence of CC (outgoing call) and MM (key allocation) procedures 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

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_out_call_pt_auth	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_pt_auth	Is handling coexistence of CC (outgoing call) and MM (PT authentication) procedures supported
SENC_out_call_user_auth	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_user_auth	Is handling coexistence of CC (outgoing call) and MM (user authentication) procedures 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
SENC_piecewise	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_piecewise	Is sending the called party number in piecewise way (in a <<Keypad>> I.E.) supported
SENC_piecewise_multi_digit	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_piecewise AND TSPC_piecewise_multi_digit	Is sending the called party number in piecewise way (in a <<Keypad>> I.E.) supported, and does the called party number consist of more than one digit.
SENC_pt_auth	TSPC_mm_support AND TSPC_pt_auth	Is authentication of PT procedure supported
SENC_pt_call_received	TSPC_cc_support AND TSPC_incoming_call AND TSPC_pt_call_received	Is state T−07 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_terminate_ar	TSPC_mm_support AND TSPC_pt_terminate_ar	Is PT initiated terminate access rights procedure supported
SENC_reg_recall	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_reg_recall	Is sending/receiving "Register recall" 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_signal_cc_info	TSPC_cc_support AND TSPC_incoming_call AND TSPC_pt_call_received AND TSPC_signal_cc_info	Is sending/receiving <<Signal>> in {CC−INFO} in T(F)−07 supported
SENC_signal_cc_setup	TSPC_cc_support AND TSPC_incoming_call AND TSPC_signal_cc_setup	Is sending/receiving <<Signal>> in {CC−SETUP} supported

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Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
SENC_standard_char	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_standard_char	Is sending/receiving standard characters supported
SENC_store_dck	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck	Is storing of DCK supported
SENC_store_dsc_ft_cipher	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_ft_cipher_on	Are FT initiated cipher on and storing of DCK procedures supported
SENC_temp_id_assign	TSPC_mm_support AND TSPC_temp_id_assign	Is temporary identity assign procedure supported
SENC_user_auth	TSPC_mm_support AND TSPC_user_auth	Is user authentication 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_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	

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_iei_reject_reason	OCT_1	'60'O	
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_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_auth_request	MESSAGE_TYPE	'40'O	
TSC_mt_auth_reply	MESSAGE_TYPE	'41'O	

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
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_suggest	MESSAGE_TYPE	’52’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	
			Protocol discriminator coding:
TSC_mt_unrec	MESSAGE_TYPE	’04’O	unrecognised message type used for CC and MM
TSC_pd_lce	BIT_4	’0000’B	
TSC_pd_cc	BIT_4	’0011’B	
TSC_pd_mm	BIT_4	’0101’B	
			Establish mode coding:
TSC_em_class_a	ESTABLISH_MODE	0	
TSC_em_class_b	ESTABLISH_MODE	1	
TSC_em_class_u	ESTABLISH_MODE	2	
			Release mode coding:
TSC_rm_normal	RELEASE_MODE	0	

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_rm_abnormal	RELEASE_MODE	1	
			Transaction flag def. coding:
TSC_iut_originated	TRANS_FLAG	0	
TSC_lt_originated	TRANS_FLAG	1	
			Cipher status coding:
TSC_cs_disabled	CIPHER_STATUS	0	
TSC_cs_enabled	CIPHER_STATUS	1	
			OTHER CONSTANTS:
TSC_ari_rpn_length	INT_8	LENGTH_OF(TSPX_ari_rpn_value)	Length of the id_value in the fixed_id ie in case of ARI + RPN
TSC_string_1234	OCT_4	'31323334'O	Standard chacters used for display on the PT.
TSC_fixed_id_length_ari_rpn	OCT_1	TSO_int_to_oct_1(((TSC_ari_rpn_length + 4) / 8) + 2)	Length of the fixed_id ie, in case of ARI + RPN type
TSC_fixed_id_length_park	OCT_1	TSO_int_to_oct_1(((TSC_park_length + 4) / 8) + 2)	Length of the fixed_id ie, in case of PARK type
TSC_ipei_length	INT_8	LENGTH_OF(TSPX_ipei_value)	Length of the id_value in the portable_id ie in case of IPEI
TSC_ipui_length	INT_8	LENGTH_OF(TSPX_ipui_value)	Length of the id_value in the portable_id ie in case of IPUI
TSC_park_length	INT_8	LENGTH_OF(TSPX_park_value)	Length of the id_value in the fixed_id ie in case of PARK
TSC_port_id_length_ipei	OCT_1	TSO_int_to_oct_1(((TSC_ipei_length + 4) / 8) + 2)	Length of the portable_id iei, in case of IPEI type
TSC_port_id_length_ipui	OCT_1	TSO_int_to_oct_1(((TSC_ipui_length + 4) / 8) + 2)	Length of the portable_id iei, in case of IPUI type
TSC_port_id_length_tpui	OCT_1	TSO_int_to_oct_1(((TSC_tpui_length + 4) / 8) + 2)	Length of the portable_id iei, in case of TPUI type
TSC_rand	BIT_64	'00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000111'B	Value of 64 bit rand used
TSC_rs	BIT_64	'00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001111'B	Value of 64 bit rs used
TSC_tpui_length	INT_8	LENGTH_OF(TSPX_tpui_value)	Length of the id_value in the portable_id ie in case of TPUI
Detailed Comments :			

Test Suite Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TSV_cc_ckn_gsm	BIT_4	’1111’B	cipher key number from GSM
TSV_dck_value	BIT_64	INT_TO_BIT(0, 64)	Derived cipher key to be used by the LT.
TSV_dlei_value	DATA_LINK_ENDPOINT_IDENTIFIER	0	Value of data link endpoint identifier
TSV_extended_loc_info	OCT_7	’FFFF’O	Value of received ELI from GSM to be used (ELI includes MCC, MNC, LAC and CI)
TSV_nw_ass_id_tmsi	BIT_32	’11111111111111111111111111111111’B	value of received tmsi in a locate accept msg
TSV_uak	BIT_128	INT_TO_BIT(0, 128)	UAK value. Used for all testcases.
Detailed Comments：			

Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
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_setup	CC_SETUP		Used to temporarily store a received CC_SETUP PDU
TCV_pdu_cc_info	CC_INFO		Used to temporarily store a received CC_INFO PDU
			INFORMATION ELEMENT VARIABLES:
TCV_pdu_locate_acc	LOCATE_ACCEPT		Used to temporarily store a sent 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_pdu_temp_id_assign	TEMPORARY_ID_ASSIGN		Used to temporarily store a sent TEMPORARY_ID_ASSIGN PDU
			INFORMATION ELEMENT VARIABLES:
TCV_ie_auth_type	AUTH_TYPE		Used to temporarily store the AUTH_TYPE ie
			OTHER VARIABLES:
TCV_cc_ckn_gsm	BIT_4		Used to temporarily store the cipher key number in a locate request msg
TCV_cc_state	CCSTATE_TYPE	0	Used in PR_select_state
TCV_cc_tv	BIT_3	’000’B	Transaction value for CC
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_count	INT_8	0	General counter

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Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TCV_extended_loc_info	OCT_7		Used to temporarily store the value of received ELI in a locate request msg(ELI includes MCC, MNC, LAC and CI)
TCV_nw_ass_id_tmsi	BIT_32		Used to temporarily store the value of received tmsi in a locate request msg
TCV_rand	BIT_64	INT_TO_BIT(0, 64)	Value of rand
TCV_res_rx	BIT_32	INT_TO_BIT(0, 32)	Value of received res
TCV_res_tx	BIT_32	INT_TO_BIT(0, 32)	Value of transmitted res
TCV_xres	BIT_32	INT_TO_BIT(0, 32)	Value calculated res
TCV_result	BOOLEAN	FALSE	General BOOLEAN variable
TCV_sendcompl_present	BOOLEAN	FALSE	Is <<Sending complete>> ie present
TCV_cpn_present	BOOLEAN	FALSE	Is <<Called party number>> ie present
TCV_keypad_present	BOOLEAN	FALSE	Is <<Multi keypad>> ie present
TCV_dialling_info_received	BOOLEAN	FALSE	Is information received in the <<Multi keypad>> ie dialling information or any other code
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_F_CC_01	20 * (1 + 5/100)	s	PROTOCOL TIMERS RUNNING IN THE FT (LT): Overlap sending timer
T_F_CC_02	36 * (1 + 5/100)	s	CC release timer (changed to 36 seconds in version 2 of ETS 300 175−5 [5])
T_F_CC_03	20 * (1 + 5/100)	s	CC setup timer
T_F_CC_04	100 * (1 + 5/100)	s	CC completion timer
T_F_MM_auth_1	10 * (1 + 5/100)	s	FT initiated PT authentication timer
T_F_MM_auth_2	100 * (1 + 5/100)	s	FT initiated user authentication timer
T_F_MM_cipher_1	10 * (1 + 5/100)	s	FT cipher−switching timer
T_F_MM_ident_1	10 * (1 + 5/100)	s	Temporary identity (TPUI) assignment timer
T_F_MM_ident_2	10 * (1 + 5/100)	s	Identification timer
T_F_LCE_01	5 * (1 + 5/100)	s	Link release timer
T_F_LCE_02	10 * (1 + 5/100)	s	Link maintain timer
T_F_LCE_03	3 * (1 + 5/100)	s	Page repeat timer
T_F_LCE_04	5 * (1 + 5/100)	s	Link suspend and resume timer TIMERS USED FOR TESTING PROTOCOL TIMERS RUNNING IN THE PT (IUT):
T_P_CC_02_min	36	s	For testing CC release timer. 5% smaller than T_F_CC_02.
T_P_CC_02_max	36 * (1 + 10/100)	s	For testing CC release timer. 5% bigger than T_F_CC_02. OTHER TIMERS RUNNING IN THE FT (LT):
T_P_CC_03_min	20	s	For testing CC set−up timer. 5% smaller than T_P_CC_03.
T_P_CC_03_max	20 * (1 + 10/100)	s	For testing CC set−up timer. 5% bigger than T_P_CC_03.
T_P_CC_05_min	10	s	For testing CC connect timer. 5% smaller than T_P_CC_05.
T_P_CC_05_max	10 * (1 + 10/100)	s	For testing CC connect timer. 5% bigger than T_P_CC_05.
T_P_LCE_02_min	10	s	For testing link maintain timer in the PT. 5% smaller than T_F_LCE_02

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Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T_P_LCE_02_max	10 * (1 + 10/100)	s	For testing link maintain timer in the PT. 5% bigger than T_F_LCE_02
T_P_MM_auth_1_max	10 * (1 + 10/100)	s	For testing FT authentication timer. 5% bigger than T_F_MM_auth_1
T_P_MM_cipher_2_min	10	s	For testing location timer. 5% smaller than T_P_MM_cipher_2
T_P_MM_cipher_2_max	10 * (1 + 10/100)	s	For testing location timer. 5% bigger than T_P_MM_cipher_2
T_P_MM_locate_1_min	20	s	For testing location timer. 5% bigger than T_P_MM_locate_1
T_P_MM_locate_1_max	20 * (1 + 10/100)	s	For testing location timer. 5% bigger than T_P_MM_locate_1 OTHER TIMERS RUNNING IN THE FT (LT):
T_EXPECT_LOCATE	8	s	Guards the time between a successful accessrights procedure, or a change of location area, or a location update request, and the PT initiated location registration afterwards.
T_DLC_RESPONSE	4	s	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
T_USER_INVOKE	30	s	Guards the user invokation time of an operation requested by an implicit send statement.
T_RELEASE_DELAY	4	s	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
T_RESTART_DELAY	10	s	Before sending a NOTIFY message to restart timer A, this timer is started to ensure that when the timer A is not restarted, its timeout will happen before the timeout of guarding timer A_min

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	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	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	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	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	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	RELEASE_MODE	
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 : 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_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	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
progress_indicator	PROGRESS_INDICATOR	
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_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 : 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	
portable_id_2	PORTABLE_ID	Used in case repeat indicator_1 present
portable_id_3	PORTABLE_ID	
repeat_indicator_2	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
fixed_id_2	FIXED_ID	Used in case repeat indicator_1 present
fixed_id_3	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 : 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_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 : TEMPORARY_ID_ASSIGN **PCO Type :** S_SAP **Comments :** ETS 300 175−5 [5], subclause 6.3.6.24 ETS 300 370 [12], 6.1.6.1.4		
Field Name	**Field Type**	**Comments**
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
location_area	LOCATION_AREA	Included due to CR M370−7/26 and DECT/GSM TDoc 66/95 (Liason Statement to RES3/N)
network_assigned_id	NETWORK_ASSIGNED_ID	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments : The location_area IE is actually included to fulfil the message mapping in ETS 300 370 (see reference above) unless an other decision is taken (pending CR, see comment above!).		

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_tx_dsaa		
Structured Type : ALLOCATION_TYPE		
Derivation Path :		
Comments : A send constraint for the allocation type ie, specifying the DECT standard Authentication Algorithm to be used.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_allocation_type	
length	’02’O	
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_tx_unacc		
Structured Type : ALLOCATION_TYPE		
Derivation Path :		
Comments : A send constraint for the allocation type ie, specifying a unacceptable auth algo value.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_allocation_type	
length	’02’O	
auth_algo_id	’02’O	unacceptable value
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 : Auth_type_rx_base

Structured Type : AUTH_TYPE

Derivation Path :

Comments : The basic receive constraint for the AUTH_TYPE structured type. 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_ac

Structured Type : AUTH_TYPE

Derivation Path : Auth_type_rx_base.

Comments : A derived receive constraint for the AUTH_TYPE structured type. See table 45 in ETS 300 444, subclause 8.27. The Auth_key_type will be '0100'B (AC). <INC>, <TXC>, <UPC> and <Cipher key nr> are 'don't cares'.

Element Name	Element Value	Comments
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0100'B	AC

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_uak		
Structured Type : AUTH_TYPE		
Derivation Path : Auth_type_rx_base.		
Comments : A derived receive constraint for the AUTH_TYPE structured type. See table 35 in ETS 300 444, subclause 8.20. <INC>, <TXC>, <UPC> and <Cipher key nr> are 'don't cares'. Authentication on UAK mandated		
Element Name	**Element Value**	**Comments**
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_dck_no_zap		
Structured Type : AUTH_TYPE		
Derivation Path :		
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**
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	'1'B	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_gsm_dck_no_zap

Structured Type : AUTH_TYPE

Derivation Path :

Comments : This constraint implies DCK storage and no ZAP increment. GSM is used as authentication algorithm, and authentication is based on UAK.

Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'40'O	GSM
prop_algo_id	OMIT	
auth_key_number	'0000'B	related to active IPUI
auth_key_type	'0001'B	UAK
cipher_key_number	TSPX_cc_ckn_gsm	
upc	'1'B	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_no_zap

Structured Type : AUTH_TYPE

Derivation Path :

Comments : This constraint implies no DCK storage and no ZAP increment. 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	'0'B	No ZAP increment

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_no_dck_zap_inc		
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_unacc_alg		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies an unacceptable algorithm(reserved value).		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_auth_type	
length	’03’O	
auth_algo_id	’FF’O	reserved value
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_upi
Structured Type : AUTH_TYPE
Derivation Path :
Comments : A send 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 : The basic receive constraint for the BASIC_SERVICE ie.
ETS 300 444, subclause 8.2, subclause 8.18. 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, '1010'B)	normal, internal or emergency call setup

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Basic_service_emergency_dectgsm
Structured Type : BASIC_SERVICE
Derivation Path :
Comments : A derived receive constraint for the BASIC_SERVICE ie. Emergency call setup for DECT/GSM IWP is used

Element Name	Element Value	Comments
basic_service	'0100'B	DECT/GSM IWP profile (Phase2)
call_class	'1010'B	Emergency call setup

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Basic_service_normal_dectgsm		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : A derived receive constraint for the BASIC_SERVICE ie. Normal call setup for DECT/GSM IWP is used		
Element Name	**Element Value**	**Comments**
basic_service	’0100’B	DECT/GSM IWP profile (Phase2)
call_class	’1000’B	Normal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_normal		
Structured Type : BASIC_SERVICE		
Derivation Path : Basic_service_rx_base.		
Comments : A derived constraint for the BASIC_SERVICE ie. ETS 300 444, subclause 8.2, subclause 8.18. Basic speech default setup attributes are used Normal call setup		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	’0000’B	basic speech default setup attributes
call_class	’1000’B	normal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_internal		
Structured Type : BASIC_SERVICE		
Derivation Path : Basic_service_rx_base.		
Comments : A derived constraint for the BASIC_SERVICE ie. ETS 300 444, subclause 8.2, subclause 8.18. Basic speech default setup attributes are used internal call setup		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_basic_service	
basic_service	’0000’B	basic speech default setup attributes
call_class	’1001’B	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 8.18		
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 : Call_attributes_rx_base		
Structured Type : CALL_ATTRIBUTES		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_call_attributes	
length	('04'O, '05'O, '06'O)	
network_layer_attributes	('00000'B, '00001'B)	Undefined Basic speech
coding_standard	'00'B	
f3	'1'B	
c_plane_routing	('0000'B, '0001'B, '0010'B, '1000'B)	
c_plane_class	('000'B, '010'B, '100'B, '101'B)	
f4	'1'B	
lu_id	('00001'B, '00010'B, '00011'B, '00100'B, '00101'B, '00110'B, '00111'B, '10000'B)	
u_plane_symmetry	('00'B, '10'B)	
ext5	?	
lu_id_f_p	('00001'B, '00010'B, '00011'B, '00100'B, '00101'B, '00110'B, '10000'B) IF_PRESENT	
f5a	'100'B IF_PRESENT	
u_plane_frame_type	('0001'B, '0010'B, '0011'B, '0100'B, '0101'B, '0110'B, '0111'B)	
u_plane_class	COMPLEMENT('011'B)	
ext6	?	

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Structured Type Constraint Declaration		
Element Name	**Element Value**	**Comments**
u_plane_frame_type_f_p	('0001'B, '0010'B, '0011'B, '0100'B, '0101'B, '0110'B) IF_PRESENT	
u_plane_class_f_p	COMPLEMENT('011'B) IF_PRESENT	
f6a	'1'B IF_PRESENT	
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	?	
ext3a	?	
extended_transaction_value	? IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_number_rx_base		
Structured Type : CALLED_PARTY_NUMBER		
Derivation Path :		
Comments : The basic receive constraint for the CALLED_PARTY_NUMBER ie.		
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_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 : Calling_party_number_rx_base		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments :		
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	?	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Calling_party_number_tx_1234
Structured Type : CALLING_PARTY_NUMBER
Derivation Path :
Comments : A send constraint for the calling party number. The actual calling party number is ’1234’

Element Name	Element Value	Comments
iei	TSC_iei_calling_party_number	
length	’05’O	
numbering_plan_id	’0001’B	ISDN
number_type	’100’B	Subscriber number
ext3	’0’B	
screening_indicator	OMIT	
spare	OMIT	
presentation_indicator	OMIT	
f3a	OMIT	
calling_party_address	TSC_string_1234	Number consists of digits 1, 2, 3, 4

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_gsm_enable
Structured Type : CIPHER_INFO
Derivation Path : Cipher_info_rx_base.
Comments : A receive/send constraint for the cipher info ie, enabling ciphering and specifying DECT standard cipher algorithm, cipher key number and 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	?	
cipher_key_type	’1001’B	DCK

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_indicate
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, cipher key number and 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	?	Don’t care
prop_algo_id	OMIT	
cipher_key_number	?	Any ’0xxx’ value is suitable
cipher_key_type	’1001’B	DCK

Detailed Comments :

Structured Type Constraint Declaration

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

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	*	
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
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_gsm_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 and the GSM Cipher Key Number.

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	TSPX_cc_ckn_gsm	
cipher_key_type	'1001'B	DCK

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Cipher_info_gsm_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 and the GSM Cipher Key Number.

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	TSPX_cc_ckn_gsm	
cipher_key_type	'1001'B	DCK

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_attributes_rx_base
Structured Type : CONNECTION_ATTRIBUTES
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_connection_attributes	
length	?	
connection_id	(’0000’B, ’1???’B)	
symmetry	(’1??’B, ’001’B)	
f3	’1’B	
target_bearers_p_f	?	
f4	’00’B	
ext4	*	
min_bearers_p_f	*	
f4a	’01’B	
ext4a	*	
target_bearers_f_p	*	
f4b	’10’B	
ext4b	*	
min_bearers_f_p	*	
f4c	’111’B	
mac_service	*	
slot_size	*	
ext5	*	
mac_service_f_p	*	
f5a	’1000’B	
mac_packet_lifetime	*	
cf_channel_attributes	*	
ext6	*	
mac_packet_lifetime_f_p	*	
cf_channel_attributes_f_p	*	
f6a	’1’B	

Detailed Comments :

Structured Type Constraint Declaration

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

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 : Delimiter_request_tx_base
Structured Type : DELIMITER_REQUEST
Derivation Path :
Comments : The basic receive constraint for Delimiter request.

Element Name	Element Value	Comments
delimiter_request	TSC_iei_delimiter_request	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Duration_rx_base
Structured Type : DURATION
Derivation Path :
Comments : The basic receive constraint for duration.

Element Name	Element Value	Comments
iei	TSC_iei_duration	
length	('01'O, '02'O)	
time_limits	('0000'B, '0010'B, '0100'B, '1111'B)	
lock_limits	('110'B, '111'B)	
ext3	?	
time_duration	? IF_PRESENT	

Detailed Comments : See subclause 7.7.13 + part 6 subclause 6.3.1

Structured Type Constraint Declaration		
Constraint Name : End_to_end_compatibility_rx_base		
Structured Type : END_TO_END_COMPATIBILITY		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_end_to_end_compatibility	
length	?	
user_rate	?	
negotiation	?	
s_a	?	
ext3	?	
v110_x30_service	?	
ext3a	?	
parity	?	
data_bits	?	
stop_bits	?	
ext3b	?	
modem_type	?	
duplex	?	
f3c	’1’B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Facility_rx_base		
Structured Type : FACILITY		
Derivation Path :		
Comments : The basic receive constraint for the FACILITY ie.		
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 : Feature_activate_rx_base
Structured Type : FEATURE_ACTIVATE
Derivation Path :
Comments : The basic receive constraint for the FEATURE_ACTIVATE ie.

Element Name	Element Value	Comments
iei	TSC_iei_feature_activate	
length	('01'O, '02'O)	
feature	('0000001'B, '0001111'B, '0100000'B, '0110000'B, '1000010'B, '1000100'B, '1000111'B, '1001000'B, '1100000'B)	register recall external handover switch queue entry request indication of subscr. number feature key specific line selection specific trunk carrier selection control of echo control functions cost information
ext3	?	
parameter	*	
f3a	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

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

Element Name	Element Value	Comments
iei	TSC_iei_fixed_id	
length	('00'O, '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_0
Structured Type : FIXED_ID
Derivation Path : Fixed_id_rx_base.
Comments : A derived constraint for the FIXED_ID ie with zero length.

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

Element Name	Element Value	Comments
length	TSC_fixed_id_length_ari_rpn	
type	'0000001'B	ARI + RPN
length_of_id_value	INT_TO_BIT(TSC_ari_rpn_length, 7)	
id_value	TSPX_ari_rpn_value	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Identity_type_ipei
Structured Type : IDENTITY_TYPE
Derivation Path :
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with the IPEI

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0000'B	portable id
space	'000'B	
f3	'1'B	
type	'0010000'B	IPEI
f4	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

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

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0000'B	portable id
space	'000'B	
f3	'1'B	
type	'0000000'B	IPUI
f4	'1'B	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Identity_type_park		
Structured Type : IDENTITY_TYPE		
Derivation Path :		
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the fixed id with the PARK		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0100'B	fixed id
space	'000'B	
f3	'1'B	
type	'0100000'B	PARK
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Identity_type_tmsi		
Structured Type : IDENTITY_TYPE		
Derivation Path :		
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the network assigned id with the TMSI		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0001'B	network assigned id
space	'000'B	
f3	'1'B	
type	'1110100'B	TMSI
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Identity_type_tpui
Structured Type : IDENTITY_TYPE
Derivation Path :
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with the TPUI

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	’02’O	
id_group	’0000’B	portable id
space	’000’B	
f3	’1’B	
type	’0100000’B	TPUI
f4	’1’B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Identity_type_unavailable
Structured Type : IDENTITY_TYPE
Derivation Path :
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with an unavailable identity type.
See ETS 300 175−5[5], subclause 7.7.19

Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	’02’O	
id_group	’0000’B	portable id
space	’000’B	
f3	’1’B	
type	’1000000’B	unavailable identity type
f4	’1’B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Info_type_tx_locate_suggest
Structured Type : INFO_TYPE
Derivation Path :
Comments : A send 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_attributes_rx_base
Structured Type : IWU_ATTRIBUTES
Derivation Path :
Comments : The basic receive constraint for the IWU_ATTRIBUTES ie.

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	*	
rate_multiplier	'0????'B IF_PRESENT	
unit_rate	COMPLEMENT('00'B) IF_PRESENT	
ext5a	*	
establishment	'00'B IF_PRESENT	
configuration	'00'B IF_PRESENT	
structure	('00?'B, '100'B, '111'B) IF_PRESENT	
ext5b	*	
info_transfer_rate_d_o	('00000'B, '0101?'B, '1000?'B, '10011'B , '1111?'B) IF_PRESENT	
symmetry	COMPLEMENT('01'B) IF_PRESENT	
ext5c	*	
rate_multiplier_d_o	'0????'B IF_PRESENT	
unit_rate_d_o	COMPLEMENT('00'B) IF_PRESENT	
f5d	'1'B IF_PRESENT	

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Structured Type Constraint Declaration		
Element Name	**Element Value**	**Comments**
user_protocol_id	('00???'B , '0100?'B, '1000?'B, '11000'B) IF_PRESENT	
f6	'00'B IF_PRESENT	
ext6	*	
l3_protocol_id	('000?0'B , '0011?'B , '0100?'B , '01010'B , '10010'B) IF_PRESENT	
f7	'11'B IF_PRESENT	
ext7	*	
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	*	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Iwu_packet_rx_base

Structured Type : IWU_PACKET

Derivation Path :

Comments : The basic receive constraint for the IWU_PACKET ie.

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_to_iwu_rx_base
Structured Type : IWU_TO_IWU
Derivation Path :
Comments : The basic receive constraint for the IWU_TO_IWU ie.
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	
discriminator_type	('0000000'B, '0000001'B)	unspecified EMC
f4	'1'B	'1'
discriminator	*	If discriminator_type = 0, discriminator is absent
contents	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Key_rx_base
Structured Type : KEY
Derivation Path :
Comments : Constraint of the Key ie, with key type being DCK

Element Name	Element Value	Comments
iei	TSC_iei_key	
length	COMPLEMENT('00'O)	Should be non zero length
key_type	'90'O	DCK
key_data	?	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Location_area_rx_base		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments : The basic receive constraint for the LOCATION_AREA ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_location_area	
length	('01'O, '02'O, '09'O)	
location_area_level	?	
li_type	('01'B, '10'B, '11'B)	
spare	'1111'B	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_lal_only		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments : A constraint for the LOCATION_AREA PDU. See table 41 in ETS 300 444, subclause 8.25. This constraint can be used for rx and tx.		
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 : Location_area_rx_lal_and_eli
Structured Type : LOCATION_AREA
Derivation Path :
Comments : A receive constraint for the LOCATION_AREA PDU with LAL and ELI. See ETS 300 370, subclause 6.3.2.3 Table 114 and subclause 6.1.8.2.12.

Element Name	Element Value	Comments
iei	TSC_iei_location_area	
length	'09'O	
location_area_level	TSPX_location_area_level	LAL to be specified in PIXIT.
li_type	'11'B	LAL and ELI included
spare	OMIT	
eli_type	'1111'B	
extended_location_information	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Location_area_tx_lal_and_eli
Structured Type : LOCATION_AREA
Derivation Path :
Comments : A send constraint for the LOCATION_AREA PDU with LAL and ELI. See ETS 300 370, subclause 6.3.2.3 Table 114 and subclause 6.1.8.2.12.

Element Name	Element Value	Comments
iei	TSC_iei_location_area	
length	'09'O	
location_area_level	TSPX_location_area_level	LAL to be specified in PIXIT.
li_type	'11'B	LAL and ELI included
spare	OMIT	
eli_type	'1111'B	
extended_location_information	TSPX_extended_location_information	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Multi_keypad_rx_base
Structured Type : MULTI_KEYPAD
Derivation Path :
Comments : The basic constraint for multi_keypad

Element Name	Element Value	Comments
iei	TSC_iei_multi_keypad	
length	COMPLEMENT('00'O)	
keypad_info	?	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_digit		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The constraint for multi_keypad containing the basic dialled digits		
Element Name	**Element Value**	**Comments**
length	'01'O	
keypad_info	('23'O, '2A'O, '30'O, '31'O, '32'O, '33'O, '34'O, '35'O, '36'O, '37'O, '38'O, '39'O)	basic dialled digits: # * 0 1 2 3 4 5 6 7 8 9
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_rx_base		
Structured Type : NETWORK_ASSIGNED_ID		
Derivation Path :		
Comments : The basic receive constraint for the NETWORK_ASSIGNED_ID ie.		
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_rx01		
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	GSM TMSI
f3	'1'B	
id_length	?	length of TMSI
f4	'1'B	
value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_rx02		
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	GSM TMSI
f3	'1'B	
id_length	'0100000'B	length of TMSI
f4	'1'B	
value	TSV_nw_ass_id_tmsi	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_tx01		
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	GSM TMSI
f3	'1'B	
id_length	'0100000'B	length of TMSI
f4	'1'B	
value	TSPX_tmsi_value	
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_cc_iut
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	TCV_cc_tv	
transaction_flag	TCV_cc_iut_tf	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_cc_iut_any_tv

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	TCV_cc_iut_tf	
ext_transaction_flag	OMIT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Network_header_cc_lt

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	TCV_cc_tv	
transaction_flag	TCV_cc_lt_tf	
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 sent from originating side.

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 sent from destination side.

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_parameter_rx_base
Structured Type : NETWORK_PARAMETER
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_network_parameter	
length	COMPLEMENT('00'O)	
discriminator	('01101010'B, '01111111'B, '11101010'B)	
data_field	?	

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 an 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_ipei

Structured Type : PORTABLE_ID

Derivation Path : Portable_id_rx_base.

Comments : A constraint for the portable_id, specifying that the type should be IPUI−N or IPEI, with the value specified in TSPX_ipei_value.
This constraint can be used for rx and tx.

Element Name	Element Value	Comments
length	TSC_port_id_length_ipei	
type	(’0000000’B, ’0010000’B)	IPUI type in case IPUI−N used IPEI type
length_of_id_value	INT_TO_BIT(TSC_ipei_length, 7)	
id_value	TSPX_ipei_value	

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	INT_TO_BIT(TSC_ipui_length, 7)	
id_value	TSPX_ipui_value	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Portable_id_tpui		
Structured Type : PORTABLE_ID		
Derivation Path : Portable_id_rx_base.		
Comments : A 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	INT_TO_BIT(TSC_tpui_length, 7)	
id_value	TSPX_tpui_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_tx_patt_avail
Structured Type : PROGRESS_INDICATOR
Derivation Path :
Comments : A send constraint for the progress_indicator i.e, saying: inband information or appropriate pattern now available.

Element Name	Element Value	Comments
iei	TSC_iei_progress_indicator	
length	'02'O	
location	'1111'B	n.a.
coding_standard	'000'B	CCITT standardised
f3	'1'B	
progress_description	'0001000'B	inband information or appropriate pattern now available.
f4	'1'B	

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_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 : Rand_tx_128_bit		
Structured Type : RAND		
Derivation Path :		
Comments : A send constraint for the RAND structured type for GSM		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rand	
length	'16'O	128 bits (GSM)
field	TSPX_rand_value	Use a 128 bit rand, defined as a PIXIT variable
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rate_parameters_rx_base		
Structured Type : RATE_PARAMETERS		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rate_parameters	
length	?	
class_of_service	?	
interleaving	?	
symmetry	?	
f3	'1'B	
channel1_arrangement_ptof	?	
channel1_rate_ptof	?	
ext4	?	
channel1_arrangement_ftop	?	
channel1_rate_ftop	?	
f4a	'1'B	
channel2_arrangement_ptof	?	
channel2_rate_ptof	?	
ext5	?	
channel2_arrangement_ftop	?	
channel2_rate_ftop	?	
f5a	'1'B	
channel3_arrangement_ptof	?	
channel3_rate_ptof	?	
ext6	?	
channel3_arrangement_ftop	?	
channel3_rate_ftop	?	
f6a	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration

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

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_tx_base
Structured Type : REJECT_REASON
Derivation Path :
Comments : The basic send constraint for the REJECT_REASON ie.

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_tx_ipui_unknown
Structured Type : REJECT_REASON
Derivation Path :
Comments : A derived send constraint for the REJECT_REASON ie with the value "IPUI unknown"

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	'01'O	
reason	'02'O	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration

Constraint Name : Reject_reason_tx_ipui_not_accepted
Structured Type : REJECT_REASON
Derivation Path :
Comments : A derived send constraint for the REJECT_REASON ie with the value "IPUI not accepted"

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	’01’O	
reason	’06’O	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration

Constraint Name : Reject_reason_tx_plmn_not_allowed
Structured Type : REJECT_REASON
Derivation Path :
Comments : A derived send constraint for the REJECT_REASON ie with the value "PLMN not allowed"

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	’01’O	
reason	’76’O	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration

Constraint Name : Reject_reason_tx_lai_not_allowed
Structured Type : REJECT_REASON
Derivation Path :
Comments : A derived send constraint for the REJECT_REASON ie with the value "Location area not allowed"

Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	’01’O	
reason	’80’O	

Detailed Comments : See subclause 7.7.34.

Structured Type Constraint Declaration		
Constraint Name : Release_reason_rx_base		
Structured Type : RELEASE_REASON		
Derivation Path :		
Comments : The basic receive constraint for the release reason constraint.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_release_reason	
reason	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Release_reason_invalid_identity		
Structured Type : RELEASE_REASON		
Derivation Path :		
Comments : A send constraint for the release reason constraint, containing reason ’12’O (invalid identity)		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_release_reason	
reason	’12’O	Invalid identity
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Release_reason_unknown_identity		
Structured Type : RELEASE_REASON		
Derivation Path :		
Comments : A send constraint for the release reason constraint, containing reason ’08’O (unknown identity)		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_release_reason	
reason	’08’O	Unknown identity
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_tx_64_bit		
Structured Type : RES		
Derivation Path :		
Comments : The basic send constraint for the RES ie. This actual value for the field will be filled in in the testcase		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_res	
length	'08'O	64 bits
field	INT_TO_BIT(0, 32)	Actual value to be filled in in the testcase
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rs_tx_64_bit		
Structured Type : RS		
Derivation Path :		
Comments : A send constraint for the RS structured type		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_rs	
length	’08’O	
field	TSC_rs	Use a 64 bit rs, defined as a constant
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	*	
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_class_rx_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 : Setup_capability_rx_base		
Structured Type : SETUP_CAPABILITY		
Derivation Path :		
Comments : The basic receive constraint for SETUP_CAPABILITY		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_setup_capability	
length	('01'O, '02'O)	
page	('01'B, '10'B)	
setup	('01'B, '10'B)	
f3	'000'B	
ext3	?	
profile_indicator	'100'B IF_PRESENT	DECT/GSM IWP
f3a	'10000'B IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Setup_capability_rx_gsm		
Structured Type : SETUP_CAPABILITY		
Derivation Path :		
Comments : The receive constraint for SETUP_CAPABILITY for GSM		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_setup_capability	
length	'02'O	
page	'01'B	
setup	'01'B	
f3	'000'B	
ext3	'1'B	
profile_indicator	'100'B	DECT/GSM IWP
f3a	'10000'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Short_frm_addr		
Structured Type : SHORT_FORMAT_ADDRESS		
Derivation Path :		
Comments : A constraint for the SHORT_FORMAT_ADDRESS ie, specifying an assigned TPUI, with the value as specified in the PIXIT.		
Element Name	**Element Value**	**Comments**
w	'1'B	Assigned TPUI
f1	'0'H	
tpui_address	TSPX_tpui_value	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Signal_tx_alerting_on		
Structured Type : SIGNAL		
Derivation Path :		
Comments : Alerting on		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_signal	
signal_value	'40'O	Alerting on
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Single_keypad_rx_base		
Structured Type : SINGLE_KEYPAD		
Derivation Path :		
Comments :		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_single_keypad	
keypad_info	?	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Terminal_capability_rx_base
Structured Type : TERMINAL_CAPABILITY
Derivation Path :
Comments :

Element Name	Element Value		Comments
iei	TSC_iei_terminal_capability		
length	('01'O, '02'O, '03'O, '04'O, '05'O)		
display_capability	('000?'B, '0011'B, '010?'B, '1111'B)		
tone_capability	('0??'B, '100'B)		N.a., No tone, dial tone, E.182 Complete DECT tones supported
ext3	?		
extended_character	'000????'B	IF_PRESENT	
ext3a	?	IF_PRESENT	
a_vol	'??'B	IF_PRESENT	
n_rej	'??'B	IF_PRESENT	
echo_param	('00?'B, '010'B)	IF_PRESENT	
ext3b	?	IF_PRESENT	
slot_type_capability	'00?100?'B	IF_PRESENT	
ext3c	?	IF_PRESENT	
number_of_stored_display_chars_ms	?	IF_PRESENT	
ext3d	?	IF_PRESENT	
number_of_stored_display_chars_ls	?	IF_PRESENT	
ext3e	?	IF_PRESENT	
number_of_lines_in_display	?	IF_PRESENT	
ext3f	?	IF_PRESENT	
number_of_characters_per_line	?	IF_PRESENT	
ext3g	?	IF_PRESENT	
display_behaviour_field	?	IF_PRESENT	
ext3h	?	IF_PRESENT	
f3d	'80'O	IF_PRESENT	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Timer_restart_restart_timer
Structured Type : TIMER_RESTART
Derivation Path :
Comments : A send constraint for the timer restart ie, specifying: restart timer.

Element Name	Element Value	Comments
iei	TSC_iei_timer_restart	
restart_value	'00'O	Restart timer

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 : Window_size_rx_base		
Structured Type : WINDOW_SIZE		
Derivation Path :		
Comments : The basic receive constraint for the WINDOW_SIZE ie.		
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 : Zap_field_rx_base		
Structured Type : ZAP_FIELD		
Derivation Path :		
Comments : The basic receive constraint for the zap field ie.		
Element Name	**Element Value**	**Comments**
iei	TSC_iei_zap_field	
length	'01'O	
contents	?	
f3	'0000'B	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_brc_req(nwk_pdu : PDU)		
ASP Type : DL_BROADCAST_REQ		
Derivation Path :		
Comments :		
Parameter Name	**Parameter Value**	**Comments**
cluster_address_list	OMIT	
message_unit	nwk_pdu	
extended_message_flag	'0'B	Short paging
Detailed Comments :		

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	TSV_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	TSV_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	TSV_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	TSV_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	TSV_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	TSV_dlei_value	
connection_identities	OMIT	
encryption_key	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_est_ind_no_pdu		
ASP Type : DL_ESTABLISH_IND		
Derivation Path :		
Comments : This constraint does not contain a PDU.		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	?	On receipt of this primitive, the dlei value shall be stored in the variable TSV_dlei_value
establish_mode	TSC_em_class_a	
radio_fixed_part_number	?	
message_unit	OMIT	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_est_ind_pdu(nwk_pdu : PDU)		
ASP Type : DL_ESTABLISH_IND		
Derivation Path :		
Comments : This constraint contains a PDU		
Parameter Name	**Parameter Value**	**Comments**
data_link_endpoint_identifier	?	On receipt of this primitive, the dlei value shall be stored in the variable TSV_dlei_value
establish_mode	TSC_em_class_a	
radio_fixed_part_number	?	
message_unit	nwk_pdu	
Detailed Comments :		

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	TSV_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	TSV_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	TSV_dlei_value	
release_mode	param	
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 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	Auth_type_rx_base IF_PRESENT	O
reject_reason	Reject_reason_rx_base IF_PRESENT	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

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	OMIT	N
zap_field	Zap_field_rx_base IF_PRESENT	O
service_class	Service_class_rx_base IF_PRESENT	O
key	Key_rx_base IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_reply_rx03
PDU Type : AUTH_REPLY
Derivation Path : Auth_reply_rx_base.
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the absence of zap field and service class.

Field Name	Field Value	Comments
zap_field	OMIT	
service_class	OMIT	

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx_base		
PDU Type : AUTH_REPLY		
Derivation Path :		
Comments : The basic send constraint for the AUTH_REPLY message.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reply	M
res	OMIT	M (t.b.s. in derived constraint)
rs	OMIT	O
zap_field	OMIT	N
service_class	OMIT	N
key	OMIT	N
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx01		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : A derived send constraint for the AUTH_REPLY message, specifying the RES		
Field Name	**Field Value**	**Comments**
res	Res_tx_64_bit	Filed value to be filled in in the testcase
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx02		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : A derived send constraint for the AUTH_REPLY message, send by the LT in, during the kay allocation procedure.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	
res	Res_tx_64_bit	Filed value to be filled in in the testcase
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 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	Auth_type_rx_base		M
rand	Rand_rx_base		M
res	Res_rx_base	IF_PRESENT	O
rs	OMIT		N
cipher_info	Cipher_info_rx_base	IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base	IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

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

Field Name	Field Value	Comments
auth_type	Auth_type_rx_uak	Authentication on UAK mandated

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Auth_request_rx02
PDU Type : AUTH_REQUEST
Derivation Path : Auth_request_rx_base.
Comments : A derived receive constraint for the authenticate request PDU, to be sent by the PT, as a response to the FT initiated Key allocation. Authentication on AC is mandated.

Field Name	Field Value	Comments
network_header	Network_header_mm_dest	
auth_type	Auth_type_rx_ac	Authentication on AC mandated

Detailed Comments :

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 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	OMIT	M (t.b.s. in derived constraint)
rand	OMIT	M (t.b.s. in derived constraint)
res	OMIT	N
rs	OMIT	O
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 : A derived send constraint for the authenticate request PDU. Authentication is based on UAK. No DCK is stored, ZAP value is not increased		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_no_dck_no_zap	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value not increased.		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx02		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : The derived send constraint for the authenticate request, containing an unacceptable algorithm.		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_unacc_alg	unacceptable algorithm
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx03		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case ot PT authentication. Authentication is based on UAK. No DCK is stored, ZAP value is increased		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_no_dck_zap_inc	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value increased by one.		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx04		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case ot PT authentication. Authentication is based on UAK. DCK is stored.		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_dck_no_zap	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies dck to be stored, no zap value increment		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx05		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case ot user authentication. Authentication is based on UPI. No DCK is stored, no zap field is increased.		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_upi	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) Auth_type_tx_upi specifies no DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UPI		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx06		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case ot PT authentication. Authentication is based on UAK. DCK is stored. Authentication algorithm is GSM.		
Field Name	**Field Value**	**Comments**
auth_type	Auth_type_tx_gsm_dck_no_zap	1)
rand	Rand_tx_128_bit	
Detailed Comments : 1) auth_type specifies dck to be stored, no zap value increment and GSM authentication algorithm		

PDU Constraint Declaration			
Constraint Name : Cc_alerting_rx_base			
PDU Type : CC_ALERTING			
Derivation Path :			
Comments : The basic receive constraint for the cc_alerting PDU, for incoming call			
Field Name	**Field Value**		**Comments**
network_header	Network_header_cc_iut		M
message_type	TSC_mt_cc_alerting		M
call_attributes	Call_attributes_rx_base	IF_PRESENT	O
connection_id	Connection_id_rx_base	IF_PRESENT	O
facility	Facility_rx_base	IF_PRESENT	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	Terminal_capability_rx_base IF_PRESENT		O
transit_delay	Transit_delay_rx_base IF_PRESENT		O
window_size	Window_size_rx_base	IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base	IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base	IF_PRESENT	O
Detailed Comments :			

PDU Constraint Declaration

Constraint Name : Cc_alerting_tx_base
PDU Type : CC_ALERTING
Derivation Path :
Comments : The basic send constraint for the cc_alerting PDU, for outgoing call

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_alerting	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	OMIT	O
terminal_capability	OMIT	N
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_tx_base
PDU Type : CC_CALL_PROC
Derivation Path :
Comments : A send constraint for the cc_call_proceeding PDU, for outgoing call

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_call_proc	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	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_tx01		
PDU Type : CC_CALL_PROC		
Derivation Path : Cc_call_proc_tx_base.		
Comments : A derived send constraint for the cc_call_proceeding PDU, specifying the progress_indicator containing "in−band info. or appropriate pattern now available".		
Field Name	**Field Value**	**Comments**
progress_indicator	Progress_indicator_tx_patt_avail	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_connect_rx_base		
PDU Type : CC_CONNECT		
Derivation Path :		
Comments : The basic receive constraint for the cc_connect PDU, for incoming call		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_iut	M
message_type	TSC_mt_cc_connect	M
call_attributes	Call_attributes_rx_base IF_PRESENT	O
connection_id	Connection_id_rx_base IF_PRESENT	O
facility	Facility_rx_base IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
signal	OMIT	N
feature_indicate	OMIT	N
terminal_capability	Terminal_capability_rx_base IF_PRESENT	O
transit_delay	Transit_delay_rx_base IF_PRESENT	O
window_size	Window_size_rx_base IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_connect_tx_base
PDU Type : CC_CONNECT
Derivation Path :
Comments : The basic send constraint for the cc_connect PDU, for outgoing call

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_connect	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	OMIT	O
terminal_capability	OMIT	N
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_tx_base
PDU Type : CC_CONNECT_ACK
Derivation Path :
Comments : A send constraint for the cc_connect_ack PDU, for incoming call

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_connect_ack	M
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_info_rx_base
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	M
message_type	TSC_mt_cc_info	M
location_area	Location_area_rx_base IF_PRESENT	O
network_assigned_id	Network_assigned_id_rx_base IF_PRESENT	O
facility	Facility_rx_base IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	Multi_keypad_rx_base IF_PRESENT	O
single_keypad	OMIT	O
signal	OMIT	N
feature_activate	Feature_activate_rx_base IF_PRESENT	O
feature_indicate	OMIT	N
network_parameter	Network_parameter_rx_base IF_PRESENT	O
called_party_number	Called_party_number_rx_base IF_PRESENT	O
called_party_subaddress	Called_party_subaddress_rx_base IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
test_hook_control	OMIT	N
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_info_rx01
PDU Type : CC_INFO
Derivation Path : Cc_info_rx_base.
Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending keypad information in multi−display. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE

Field Name	Field Value	Comments
multi_keypad	Multi_keypad_rx_digit	
called_party_number	OMIT	
called_party_subaddress	OMIT	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_info_tx_base
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	M
message_type	TSC_mt_cc_info	M
facility	OMIT	N
progress_indicator	OMIT	N
multi_display	OMIT	O
single_display	OMIT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	OMIT	O
feature_activate	OMIT	N
feature_indicate	OMIT	O
network_parameter	OMIT	N
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
test_hook_control	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_info_tx01		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	**Field Value**	**Comments**
signal	Signal_tx_alerting_on	Contains 'Alerting on'
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx02		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	**Field Value**	**Comments**
progress_indicator	Progress_indicator_tx_patt_avail	inband information or appropriate pattern now available.
signal	Signal_tx_alerting_on	Contains 'Alerting on'
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_notify_tx_base		
PDU Type : CC_NOTIFY		
Derivation Path :		
Comments : The basic send constraint for the cc_notify PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_notify	M
timer_restart	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_notify_tx01		
PDU Type : CC_NOTIFY		
Derivation Path : Cc_notify_tx_base.		
Comments : A derived send constraint for the cc_notify PDU. See ETS 300 175[5], subclause 7.6.9		
Field Name	**Field Value**	**Comments**
timer_restart	Timer_restart_restart_timer	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_release_rx_base
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	M
message_type	TSC_mt_cc_release	M
release_reason	Release_reason_rx_base IF_PRESENT	O
facility	Facility_rx_base IF_PRESENT	O (version 2 of ETS 300 175−5 [5])
multi_display	OMIT	N
single_display	OMIT	N
feature_indicate	OMIT	N
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base IF_PRESENT	O
progress_indicator	Progress_indicator_rx_base IF_PRESENT	O (version 2 of ETS 300 175−5 [5])

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_release_tx_base
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	M
message_type	TSC_mt_cc_release	M
release_reason	OMIT	O
facility	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
progress_indicator	OMIT	O (version 2 of ETS 300 175−5 [5])

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_release_tx02		
PDU Type : CC_RELEASE		
Derivation Path : Cc_release_tx_base.		
Comments : A derived send constraint for the cc_release PDU, containing release reason ’08’H (Unknown identity)		
Field Name	**Field Value**	**Comments**
release_reason	Release_reason_unknown_identity	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_tx03		
PDU Type : CC_RELEASE		
Derivation Path : Cc_release_tx_base.		
Comments : A derived send constraint for the cc_release PDU, containing release reason ’12’H (Invalid identity)		
Field Name	**Field Value**	**Comments**
release_reason	Release_reason_invalid_identity	
Detailed Comments :		

PDU Constraint Declaration			
Constraint Name : Cc_release_com_rx_base			
PDU Type : CC_RELEASE_COM			
Derivation Path :			
Comments : The basic receive constraint for the cc_release_com PDU, for either outgoing or incoming call			
Field Name	**Field Value**		**Comments**
network_header	Network_header_cc_iut		M
message_type	TSC_mt_cc_release_com		M
release_reason	Release_reason_rx_base IF_PRESENT		O
identity_type	OMIT		N
location_area	OMIT		N
iwu_attributes	Iwu_attributes_rx_base	IF_PRESENT	O
facility	Facility_rx_base	IF_PRESENT	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	Iwu_to_iwu_rx_base	IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base	IF_PRESENT	O
Detailed Comments :			

PDU Constraint Declaration

Constraint Name : Cc_release_com_tx_base
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	M
message_type	TSC_mt_cc_release_com	M
release_reason	OMIT	O
identity_type	OMIT	O
location_area	OMIT	O
iwu_attributes	OMIT	O
facility	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
network_parameter	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_release_com_tx02
PDU Type : CC_RELEASE_COM
Derivation Path : Cc_release_com_tx_base.
Comments : A derived send constraint for the CC_RELEASE_COM PDU, specifying 'Unknown identity'.

Field Name	Field Value	Comments
release_reason	Release_reason_unknown_identity	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_release_com_tx03
PDU Type : CC_RELEASE_COM
Derivation Path : Cc_release_com_tx_base.
Comments : A derived send constraint for the CC_RELEASE_COM PDU, specifying 'Invalid identity'.

Field Name	Field Value	Comments
release_reason	Release_reason_invalid_identity	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_setup_rx_base

PDU Type : CC_SETUP

Derivation Path :

Comments : The basic receive constraint for the cc_setup PDU, for outgoing 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	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 IF_PRESENT	O
connection_id	OMIT	O (only in advanced MAC connections)
facility	Facility_rx_base IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	Multi_keypad_rx_base IF_PRESENT	O
single_keypad	Single_keypad_rx_base IF_PRESENT	O
signal	OMIT	N
feature_activate	Feature_activate_rx_base IF_PRESENT	O
feature_indicate	OMIT	N
network_parameter	Network_parameter_rx_base IF_PRESENT	O
terminal_capability	Terminal_capability_rx_base IF_PRESENT	O
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 IF_PRESENT	O

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PDU Constraint Declaration		
Field Name	**Field Value**	**Comments**
called_party_number	Called_party_number_rx_base IF_PRESENT	O
called_party_subaddress	Called_party_subaddress_rx_base IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
iwu_packet	Iwu_packet_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx01		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A receive constraint for the cc_setup PDU, for outgoing call, Fixed_id_0 with zero length, ciphering information included in cipher_info.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_0	
basic_service	Basic_service_normal_dectgsm	
cipher_info	Cipher_info_indicate	Cipher information available for a ciphering procedure including the current active cipher key number
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx04		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_rx_base.		
Comments : A receive constraint for the cc_setup PDU, for outgoing call, Fixed_id_0 with zero length, ciphering information included in cipher_info.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_0	
basic_service	Basic_service_emergency_dectgsm	
cipher_info	Cipher_info_indicate	Cipher information available for a ciphering procedure including the current active cipher key number
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_tx_base
PDU Type : CC_SETUP
Derivation Path :
Comments : The basic send constraint for the cc_setup PDU, for incoming call.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	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	O
multi_display	OMIT	O
single_display	OMIT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	OMIT	O
feature_activate	OMIT	N
feature_indicate	OMIT	O
network_parameter	OMIT	N
terminal_capability	OMIT	N
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_tx06		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for incoming call. No signal iei present		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_ari_rpn	
basic_service	Basic_service_normal_dectgsm	The Basic_service_mormal_dectgsm constraint specifies 'DECT/GSM IWP profile (Phase2)'.
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx07		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A derived send constraint for the cc_setup PDU, for incoming call, with signal iei present		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_ari_rpn	
basic_service	Basic_service_normal_dectgsm	The Basic_service_mormal_dectgsm constraint specifies 'DECT/GSM IWP profile (Phase2)'.
signal	Signal_tx_alerting_on	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_ack_tx_base
PDU Type : CC_SETUP_ACK
Derivation Path :
Comments : The basic send constraint for the cc_setup_ack PDU, for outgoing call
See also ETS 300 444, subclause 8.3. No progress indicator included

Field Name	Field Value	Comments
network_header	Network_header_cc_lt	M
message_type	TSC_mt_cc_setup_ack	M
info_type	OMIT	O
portable_id	OMIT	O
fixed_id	OMIT	O
location_area	OMIT	O
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
delimiter_request	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cc_setup_ack_tx01
PDU Type : CC_SETUP_ACK
Derivation Path : Cc_setup_ack_tx_base.
Comments : A derived send constraint for the cc_setup_ack PDU, for outgoing call.
Progress indicator included.

Field Name	Field Value	Comments
progress_indicator	Progress_indicator_tx_patt_avail	

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 IF_PRESENT	O
reject_reason	Reject_reason_rx_base IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cipher_reject_rx01
PDU Type : CIPHER_REJECT
Derivation Path : Cipher_reject_rx_base.
Comments : A derived receive constraint for the CIPHER_REJECT PDU, as an answer to the PT initiated cipher switching procedure. Only one cipher info ie is assumed to be present.

Field Name	Field Value	Comments
network_header	Network_header_mm_ori	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Cipher_request_tx_base
PDU Type : CIPHER_REQUEST
Derivation Path :
Comments : The basic send 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	OMIT	M (t.b.s. in derived constraint)
call_identity	OMIT	O
connection_identity	OMIT	O
iwu_to_iwu	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx01		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send 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_tx02		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU, as an answer to the PT initiated cipher switching procedure, specifying ciphering on with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	
cipher_info	Cipher_info_dsca_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx03		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU, as an answer to the PT initiated cipher switching procedure, specifying ciphering off with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	
cipher_info	Cipher_info_dsca_disable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx04		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send 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_request_tx05		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying an unacceptable ciphering algorithm in the cipher infor ie.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_unacceptable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx06		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying ciphering on with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_gsm_dsca_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx07		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying ciphering off with DECT standard ciphering algorithm.		
Field Name	**Field Value**	**Comments**
cipher_info	Cipher_info_gsm_dsca_disable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Detach_rx_base		
PDU Type : DETACH		
Derivation Path :		
Comments : The basic receive constraint for the detach PDU		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_detach	M
portable_id	Portable_id_rx_base	M
network_assigned_id	Network_assigned_id_rx_base IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx_base		
PDU Type : IDENTITY_REPLY		
Derivation Path :		
Comments : The basic receive 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	Repeat_indicator_rx_base IF_PRESENT	O
portable_id	Portable_id_rx_base IF_PRESENT	O
portable_id_2	Portable_id_rx_base IF_PRESENT	O
portable_id_3	Portable_id_rx_base IF_PRESENT	O
repeat_indicator_2	Repeat_indicator_rx_base IF_PRESENT	O
fixed_id	Fixed_id_rx_base IF_PRESENT	O
fixed_id_2	Fixed_id_rx_base IF_PRESENT	O
fixed_id_3	Fixed_id_rx_base IF_PRESENT	O
repeat_indicator_3	Repeat_indicator_rx_base IF_PRESENT	O
network_assigned_id	Network_assigned_id_rx_base IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx01		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_rx_base.		
Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the IPUI. (Only one portable_id is assumed to be present)		
Field Name	**Field Value**	**Comments**
repeat_indicator_1	OMIT	
portable_id	Portable_id_ipui	
portable_id_2	OMIT	
portable_id_3	OMIT	
repeat_indicator_2	OMIT	
fixed_id	OMIT	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
repeat_indicator_3	OMIT	
network_assigned_id	OMIT	
iwu_to_iwu	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx10		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_rx_base.		
Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the IPEI. (Only one portable_id is assumed to be present)		
Field Name	**Field Value**	**Comments**
repeat_indicator_1	OMIT	
portable_id	Portable_id_ipei	
portable_id_2	OMIT	
portable_id_3	OMIT	
repeat_indicator_2	OMIT	
fixed_id	OMIT	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
repeat_indicator_3	OMIT	
network_assigned_id	OMIT	
iwu_to_iwu	OMIT	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Identity_reply_rx11
PDU Type : IDENTITY_REPLY
Derivation Path : Identity_reply_rx_base.
Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the TMSI. (Only the network_assigned_id is assumed to be present)

Field Name	Field Value	Comments
repeat_indicator_1	OMIT	
portable_id	OMIT	
portable_id_2	OMIT	
portable_id_3	OMIT	
repeat_indicator_2	OMIT	
fixed_id	OMIT	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
repeat_indicator_3	OMIT	
network_assigned_id	Network_assigned_id_rx02	
iwu_to_iwu	OMIT	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Identity_request_tx_base
PDU Type : IDENTITY_REQUEST
Derivation Path :
Comments : The basic send constraint for the IDENTITY_REQUEST PDU. Only one identity will be requested at the same time.

Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_identity_request	M
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 : Identity_request_tx01
PDU Type : IDENTITY_REQUEST
Derivation Path : Identity_request_tx_base.
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the IPUI.

Field Name	Field Value	Comments
identity_type	Identity_type_ipui	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Identity_request_tx06
PDU Type : IDENTITY_REQUEST
Derivation Path : Identity_request_tx_base.
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the IPEI.

Field Name	Field Value	Comments
identity_type	Identity_type_ipei	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Identity_request_tx07
PDU Type : IDENTITY_REQUEST
Derivation Path : Identity_request_tx_base.
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the TMSI.

Field Name	Field Value	Comments
identity_type	Identity_type_tmsi	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Lce_page_response_rx_base
PDU Type : LCE_PAGE_RESPONSE
Derivation Path :
Comments : The basic receive 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_response	M
portable_id	Portable_id_rx_base	M
fixed_id	Fixed_id_rx_base IF_PRESENT	O
network_assigned_id	Network_assigned_id_rx_base IF_PRESENT	O
cipher_info	Cipher_info_rx_base IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Lce_page_response_rx02		
PDU Type : LCE_PAGE_RESPONSE		
Derivation Path : Lce_page_response_rx_base.		
Comments : A derived constraint for the lce_page_response PDU		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
network_assigned_id	Network_assigned_id_rx01	
cipher_info	Cipher_info_gsm_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_request_page_tx_base		
PDU Type : LCE_REQUEST_PAGE		
Derivation Path :		
Comments : The basic constraint for the LCE_REQUEST_PAGE message		
Field Name	**Field Value**	**Comments**
lce_header	OMIT	M (t.b.s. in derived constraint)
short_format_address	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_request_page_tx01		
PDU Type : LCE_REQUEST_PAGE		
Derivation Path : Lce_request_page_tx_base.		
Comments : A derived constraint for the LCE_REQUEST_PAGE PDU, specifying CC services (with U−plane AND C−plane), and a short form address.		
Field Name	**Field Value**	**Comments**
lce_header	’4’H	1)
short_format_address	Short_frm_addr	
Detailed Comments : 1) This LCE header is used when MAC U−plane services are required		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx_base		
PDU Type : LOCATE_ACCEPT		
Derivation Path :		
Comments : The basic send 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	OMIT	M (t.b.s. in derived constraint)
location_area	OMIT	M (t.b.s. in derived constraint)
network_assigned_id	OMIT	M (t.b.s. in derived constraint)
duration	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx01		
PDU Type : LOCATE_ACCEPT		
Derivation Path : Locate_accept_tx_base.		
Comments : A derived send constraint for the LOCATE_ACCEPT PDU. TPUI and TMSI assignment is done		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_tpui	
location_area	Location_area_tx_lal_and_eli	
network_assigned_id	Network_assigned_id_tx01	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx02		
PDU Type : LOCATE_ACCEPT		
Derivation Path : Locate_accept_tx_base.		
Comments : A derived send constraint for the LOCATE_ACCEPT PDU. TPUI assignment is done.		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_tpui	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx04		
PDU Type : LOCATE_ACCEPT		
Derivation Path : Locate_accept_tx_base.		
Comments : A derived send constraint for the LOCATE_ACCEPT PDU. Only TMSI assignment is done		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_empty	
location_area	Location_area_tx_lal_and_eli	
network_assigned_id	Network_assigned_id_tx01	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx_base		
PDU Type : LOCATE_REJECT		
Derivation Path :		
Comments : The basic send constraint for the LOCATE_REJECT PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_dest	
message_type	TSC_mt_locate_reject	
reject_reason	OMIT	M (t.b.s. in derived constraint)
duration	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx01		
PDU Type : LOCATE_REJECT		
Derivation Path : Locate_reject_tx_base.		
Comments : A derived send constraint for the LOCATE_REJECT PDU containing a reject reason		
Field Name	**Field Value**	**Comments**
reject_reason	Reject_reason_tx_ipui_unknown	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx02		
PDU Type : LOCATE_REJECT		
Derivation Path : Locate_reject_tx_base.		
Comments : A derived send constraint for the LOCATE_REJECT PDU containing a reject reason		
Field Name	**Field Value**	**Comments**
reject_reason	Reject_reason_tx_ipui_not_accepted	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx03		
PDU Type : LOCATE_REJECT		
Derivation Path : Locate_reject_tx_base.		
Comments : A derived send constraint for the LOCATE_REJECT PDU containing a reject reason		
Field Name	**Field Value**	**Comments**
reject_reason	Reject_reason_tx_plmn_not_allowed	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx04		
PDU Type : LOCATE_REJECT		
Derivation Path : Locate_reject_tx_base.		
Comments : A derived send constraint for the LOCATE_REJECT PDU containing a reject reason		
Field Name	**Field Value**	**Comments**
reject_reason	Reject_reason_tx_lai_not_allowed	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_rx_base		
PDU Type : LOCATE_REQUEST		
Derivation Path :		
Comments : The basic receive 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_rx_base	M
fixed_id	Fixed_id_rx_base	M
location_area	Location_area_rx_base	M
network_assigned_id	Network_assigned_id_rx_base IF_PRESENT	O
cipher_info	Cipher_info_rx_base IF_PRESENT	O
setup_capability	Setup_capability_rx_base IF_PRESENT	O
terminal_capability	Terminal_capability_rx_base IF_PRESENT	O
iwu_to_iwu	Iwu_to_iwu_rx_base IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_rx01		
PDU Type : LOCATE_REQUEST		
Derivation Path : Locate_request_rx_base.		
Comments : A derived receive constraint for the locate_request PDU. See ETS 300 370, subclause 6.1.6.2.1 and subclause 6.3.2.3		
Field Name	**Field Value**	**Comments**
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_ari_rpn	
location_area	Location_area_rx_lal_and_eli	
network_assigned_id	Network_assigned_id_rx01	
cipher_info	Cipher_info_gsm_enable	
setup_capability	Setup_capability_rx_gsm	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Mm_info_suggest_tx_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	OMIT	M (t.b.s. in derived constraint)
fixed_id	OMIT	O
location_area	OMIT	O
network_assigned_id	OMIT	O
network_parameter	OMIT	O
iwu_to_iwu	OMIT	O

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Mm_info_suggest_tx01
PDU Type : MM_INFO_SUGGEST
Derivation Path : Mm_info_suggest_tx_base.
Comments : A derived send constraint for the MM_INFO_SUGGEST PDU, specifying info type ‘locate suggest’.

Field Name	Field Value	Comments
info_type	Info_type_tx_locate_suggest	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Temporary_id_assign_ack_rx_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 :

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_rej_rx_base		
PDU Type : TEMPORARY_ID_ASSIGN_REJECT		
Derivation Path :		
Comments : The basic constraint for the TEMPORARY_ID_ASSIGN_REJECT PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	
message_type	TSC_mt_temporary_id_assign_reject	
reject_reason	Reject_reason_rx_base IF_PRESENT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_tx_base		
PDU Type : TEMPORARY_ID_ASSIGN		
Derivation Path :		
Comments : The basic send constraint for the TEMPORARY_ID_ASSIGN PDU.		
Field Name	**Field Value**	**Comments**
network_header	Network_header_mm_ori	M
message_type	TSC_mt_temporary_id_assign	M
portable_id	OMIT	O
location_area	OMIT	M (t.b.s. in derived constraint) (Included due to CR M370−7/26 and DECT/GSM TDoc 66/95 (Liaison Statement to RES3/N))
network_assigned_id	OMIT	M (t.b.s. in derived constraint)
duration	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments : The location_area IE is actually included to fulfil the message mapping in ETS 300 370 (see reference above) unless an other decision is taken (pending CR, see comment above!)		

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_tx01		
PDU Type : TEMPORARY_ID_ASSIGN		
Derivation Path : Temporary_id_assign_tx_base.		
Comments : A derived send constraint for the TEMPORARY_ID_ASSIGN PDU.		
Field Name	**Field Value**	**Comments**
location_area	Location_area_tx_lal_and_eli	(Included due to CR M370−7/26 and DECT/GSM TDoc 66/95 (Liaison Statement to RES3/N))
network_assigned_id	Network_assigned_id_tx01	
Detailed Comments : The location_area IE is actually included to fulfil the message mapping in ETS 300 370 (see reference above) unless an other decision is taken (pending CR, see comment above!)		

IV

Dynamic Part

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_OC_21

Group : PT/CC/BV/OC/

Purpose : Verify that the IUT is able to perform a CC−state transition from the T−00 state to T−10 state via T−01, T−02, T−03 and T−04 for an outgoing normal call set−up. IUT may request the call using any method to transfer dialling information either in {CC−SETUP} message or in {CC−INFO} in state T−02.

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
No progress indicator is sent in the messages cc_setup_ack, cc_call_proc or cc_alerting. IUT will connect U−plane after reception of cc_connect message.
When the piecewise method is used: 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 received, one multi−keypad information element can contain multiple digits; cc_setup_ack shall contain delimiter_request and the last cc_info carring dialling information shall contain sending_complete.
See ETS 300 175−5 [5], subclauses 9.1, 9.2, 9.3.1
ETS 300 370 [12], subclauses 6.1.1.1, 6.3.1.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		+STP_release_link			2)
3		+STP_invoke_outgoing_call			3)
4		+STP_handle_direct_link_est			
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_rx01)	(PASS)	4)
6		+STP_initialise_tf(TSC_iut_originated)			5)
7		(TCV_cpn_present := TSO_called_party_number_present (TCV_pdu_cc_setup))			6)
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_notify_tx_base)		7)
9		+STP_perform_ft_init_ciphering_on			
10		[TCV_cpn_present = TRUE]			
11		+STP_cc_outgoing_establish			9)
12		+PO_normal_release			
13		[TCV_cpn_present = FALSE]			
14		DLS ! DL_DATA_REQ START T_F_CC_01	Dl_data_req(Cc_setup_ack_tx_base)		

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Test Case Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
15		REPEAT STP_receive_cc_info_diall(Cc_info_rx_base) UNTIL [TCV_dialling_info_received = TRUE]			8)
16		+STP_cc_outgoing_establish			9)
17		+PO_normal_release			

Detailed Comments : 1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Release the established link.
3) Invoke an outgoing call (for direct link establishment) and handle the direct link establishment.
4) Receive CC−SETUP for normal call. Copy the transaction value used by the PT, into the variable TCV_cc_tv.
5) Initialise the transaction identifier flags used in the communication.
6) If <<Called party number>> is present set TCV_cpn_present to TRUE.
7) Cipher procedure may take time, ensure restart of the setup timer at IUT.
8) Receive cc_info's with dialling information in <<Called party number>> or in <<multi−keypad>> ie's or cc_info without dialling information.
9) Accomplish outgoing call establishment.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_OC_22

Group : PT/CC/BV/OC/

Purpose : Verify that the IUT is able to perform a CC−state transition from the T−00 state to T−10 state via T−01, T−02, T−03 and T−04 for an outgoing emergency call set−up. IUT may request the call using any method to transfer dialling information either in {CC−SETUP} message or in {CC−INFO} in state T−02.

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
A convenient way has to be found to trigger the IUT to send the appropriate {CC−SETUP} message for the emergency call!
No progress indicator is sent in the messages cc_setup_ack, cc_call_proc or cc_alerting. IUT will connect U−plane after reception of cc_connect message.
When the piecewise method is used: 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 received, one multi−keypad information element can contain multiple digits; cc_setup_ack shall contain delimiter_request and the last cc_info carring dialling information shall contain sending_complete.
See ETS 300 175−5 [5], subclauses 9.1, 9.2, 9.3.1
ETS 300 370 [12], subclauses 6.1.1.1, 6.3.1.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		+STP_release_link			2)
3		+STP_invoke_outgoing_call			3)
4		+STP_handle_direct_link_est			
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_rx04)	(PASS)	4)
6		+STP_initialise_tf(TSC_iut_originated)			5)
7		(TCV_cpn_present := TSO_called_party_number_present (TCV_pdu_cc_setup))			6)
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_notify_tx_base)		7)
9		+STP_perform_ft_init_ciphering_on			
10		[TCV_cpn_present = TRUE]			
11		+STP_cc_outgoing_establish			9)
12		+PO_normal_release			
13		[TCV_cpn_present = FALSE]			
14		DLS ! DL_DATA_REQ START T_F_CC_01	Dl_data_req(Cc_setup_ack_tx_base)		

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Test Case Dynamic Behaviour					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
15		REPEAT STP_receive_cc_info_diall(Cc_info_rx_base) UNTIL [TCV_dialling_info_received = TRUE]			8)
16		+STP_cc_outgoing_establish			9)
17		+PO_normal_release			

Detailed Comments : 1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Release the established link.
3) Invoke an outgoing call (for direct link establishment) and handle the direct link establishment.
4) Receive CC−SETUP for emergency call. Copy the transaction value used by the PT, into the variable TCV_cc_tv.
5) Initialise the transaction identifier flags used in the communication.
6) If <<Called party number>> is present set TCV_cpn_present to TRUE.
7) Cipher procedure may take time, ensure restart of the setup timer at IUT.
8) Receive cc_info's with dialling information in <<Called party number>> or in <<multi−keypad>> ie's or cc_info without dialling information.
9) Accomplish outgoing call establishment.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_IC_21

Group : PT/CC/BV/IC/

Purpose : Verify that the IUT is able to process an incoming call (invoked by the MSC) via the states T−06, T−07 and T−08 or T−06 and T−08 to the state T−10, on receipt of the information element <<SIGNAL>> in the {CC−INFO} message.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−00
See ETS 300 175−5 [5], subclauses 9.1, 9.2, 9.3.2
ETS 300 370 [12], subclause 6.1.1.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		START T_F_CC_03			
3		+STP_initialise_tf(TSC_lt_originated)			2)
4		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req(Cc_setup_tx06)		3)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	Dl_data_ind(Cc_alerting_rx_base)	(PASS)	4)
6		DLS ! DL_DATA_REQ	Dl_data_req(Cc_info_tx01)		5)
7		+STP_invoke_call_answering			
8	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base)	(PASS)	6)
9		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_ack_tx_base)		7)
10		+STP_check_u_plane			
11		+PO_normal_release			
12	B3	DLS ? DL_DATA_IND CANCEL T_F_CC_03	Dl_data_ind(Cc_connect_rx_base)	(PASS)	8)
13		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_ack_tx_base)		7)
14		+STP_check_u_plane			
15		+PO_normal_release			

Detailed Comments :
1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Initialise the transaction id flag to be used in the communication.
3) Send cc_setup without <<signal>> ie
4) Wait for cc_alerting
5) Send cc_info with <<signal>> ie
6) Wait for cc_connect
7) Send cc_connect_ack
8) The IUT can also send back cc_connect directly. This behaviour is valid according to ETS 300 175−5 [5] and ETS 300 370 [12], but NOT according to ETS 300 444 [10].

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_IC_22

Group : PT/CC/BV/IC/

Purpose : Verify that the IUT is able to process an incoming call (invoked by the MSC) via the states T−06, T−07 and T−08 or T−06 and T−08 to the state T−10, on receipt of the information element <<SIGNAL>> in the {CC−SETUP} message.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−00
See ETS 300 175−5 [5], subclauses 9.1, 9.2, 9.3.2
ETS 300 370 [12], subclause 6.1.1.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		START T_F_CC_03			
3		+STP_initialise_tf(TSC_lt_originated)			2)
4		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	Dl_data_req(Cc_setup_tx07)		3)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	Dl_data_ind(Cc_alerting_rx_base)	(PASS)	4)
6		+STP_invoke_call_answering			
7	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	Dl_data_ind(Cc_connect_rx_base)	(PASS)	5)
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_ack_tx_base)		6)
9		+STP_check_u_plane			
10		+PO_normal_release			
11	B3	DLS ? DL_DATA_IND CANCEL T_F_CC_03	Dl_data_ind(Cc_connect_rx_base)	(PASS)	7)
12		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_ack_tx_base)		6)
13		+STP_check_u_plane			
14		+PO_normal_release			

Detailed Comments :
1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Initialise the transaction id flag to be used in the communication.
3) Send cc_setup with <<signal>> ie
4) Wait for cc_alerting
5) Wait for cc_connect
6) Send cc_connect_ack
7) The IUT can also send back cc_connect directly. This behaviour is valid according to ETS 300 175−5 [5] and ETS 300 370 [12], but NOT according to ETS 300 444 [10].

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CR_21

Group : PT/CC/BV/CR/

Purpose : Verify that the IUT is able to process a FT (PLMN) initiated DECT abnormal release procedure with <<Release reason>> in {CC−RELEASE−COM} message set to "Unknown identity". The PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI. After the procedure has been accomplished the PT shall initiate the location registration procedure.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−01
ETS 300 175−5 [5], subclause 9.5.2
ETS 300 370 [12], subclause 6.1.1.7 and 6.3.1.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		+STP_cc_release_abnormal_GSM_1			1)
3		+STP_delete_elementary_files			2)
4		+PO_release_link			
5		+STP_handle_direct_link_est			3)
6		+STP_check_locate_request			4)
7	B1	[TCV_result = TRUE]		(PASS)	5)
8		+PO_release_link			
9	B2	[TCV_result = FALSE]		(FAIL)	6)
10		+PO_release_link			

Detailed Comments :
1) Abnormal release, LT (GSM) initiated with appropriate <<Release reason>> ie.
2) Delete variables containing LAI, TMSI and CKSN.
3) Wait for direct link establishment.
4) Wait for location registration and check LAI, TMSI and CKSN.
5) If the values of LAI, TMSI and CKSN are correct, the test passes.
6) If the values of LAI, TMSI and CKSN are not correct, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CR_22

Group : PT/CC/BV/CR/

Purpose : Verify that the IUT is able to process a FT (PLMN) initiated DECT abnormal release procedure with <<Release reason>> in {CC−RELEASE−COM} message set to "Invalid identity". The PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI.

Configuration :

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−01
ETS 300 175−5 [5], subclause 9.5.2
ETS 300 370 [12], subclause 6.1.1.7 and 6.3.1.2
The testpurpose will be checked by invoking a location registration procedure which should be done with the new values of LAI, TMSI and CKSN.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		+STP_cc_release_abnormal_GSM_2			1)
3		+STP_delete_elementary_files			2)
4		+PO_release_link			
5		+STP_indirect_link_no_fail			3)
6		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		4)
7		+STP_check_locate_request			5)
8	B1	[TCV_result = TRUE]		(PASS)	6)
9		+PO_release_link			
10	B2	[TCV_result = FALSE]		(FAIL)	7)
11		+PO_release_link			

Detailed Comments :
1) Abnormal release, LT (GSM) initiated with appropriate <<Release reason>> ie.
2) Delete variables containing LAI, TMSI and CKSN.
3) Invoke indirect link establishment.
4) Send MM−INFO−SUGGEST message to invoke location registration.
5) Wait for location registration and check LAI, TMSI and CKSN.
6) If the values of LAI, TMSI and CKSN are correct, the test passes.
7) If the values of LAI, TMSI and CKSN are not correct, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CR_23

Group : PT/CC/BV/CR/

Purpose : Verify that the IUT is able to process a FT (PLMN) initiated normal release procedure with <<Release reason>> in {CC−RELEASE} message set to "Unknown identity". The PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI. After the procedure has been accomplished the PT shall initiate the location registration procedure.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−02
Timer T_F_CC_01 is handled in DF_handle_cc_timeout
ETS 300 175−5 [5], subclause 9.5.1
ETS 300 370 [12], subclause 6.1.1.5 and 6.3.1.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		CANCEL T_F_CC_01			1)
3		+STP_cc_release_normal_GSM_1 (TSC_lt_originated)			2)
4		+STP_delete_elementary_files			3)
5		+PO_release_link			
6		+STP_handle_direct_link_est			4)
7		+STP_check_locate_request			5)
8	B1	[TCV_result = TRUE]		(PASS)	6)
9		+PO_release_link			
10	B2	[TCV_result = FALSE]		(FAIL)	7)
11		+PO_release_link			

Detailed Comments :
1) Timer T_F_CC_01 is stopped.
2) cc_release with appropriate <<Release reason>> shall be sent, and a cc_release_com is expected.
3) Delete variables containing LAI, TMSI and CKSN.
4) Wait for direct link establishment.
5) Wait for location registration and check LAI, TMSI and CKSN.
6) If the values of LAI, TMSI and CKSN are correct, the test passes.
7) If the values of LAI, TMSI and CKSN are not correct, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CR_24

Group : PT/CC/BV/CR/

Purpose : Verify that the IUT is able to process a FT (PLMN) initiated normal release procedure with <<Release reason>> in {CC−RELEASE} message set to "Invalid identity". The PT shall delete the LAI, the Cipher key, the Cipher key number and the TMSI.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−02
Timer T_F_CC_01 is handled in DF_handle_cc_timeout
ETS 300 175−5 [5], subclause 9.5.1
ETS 300 370 [12], subclause 6.1.1.5 and 6.3.1.2
The testpurpose will be checked by invoking a location registration procedure which should be done with the new values of LAI, TMSI and CKSN.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		CANCEL T_F_CC_01			1)
3		+STP_cc_release_normal_GSM_2 (TSC_lt_originated)			2)
4		+STP_delete_elementary_files			3)
5		+PO_release_link			
6		+STP_indirect_link_no_fail			4)
7		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		5)
8		+STP_check_locate_request			6)
9	B1	[TCV_result = TRUE]		(PASS)	7)
10		+PO_release_link			
11	B2	[TCV_result = FALSE]		(FAIL)	8)
12		+PO_release_link			

Detailed Comments :
1) Timer T_F_CC_01 is stopped.
2) cc_release with appropriate <<Release reason>> shall be sent, and a cc_release_com is expected.
3) Delete variables containing LAI, TMSI and CKSN.
4) Invoke indirect link establishment.
5) Send MM−INFO−SUGGEST message to invoke location registration.
6) Wait for location registration and check LAI, TMSI and CKSN.
7) If the values of LAI, TMSI and CKSN are correct, the test passes.
8) If the values of LAI, TMSI and CKSN are not correct, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_21

Group : PT/MM/BV/ID/

Purpose : Verify that the IUT, on receipt of an {IDENTITY−REQUEST} message specifying the IPUI (invoked by an {IDENTITY−REQUEST} message with an IMSI from the MSC), returns an {IDENTITY−REPLY} message with the IMSI.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 13.2.1
ETS 300 370 [12], subclause 6.3.2.2, figure 29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_ident_2			
3		DLS ! DL_DATA_REQ	Dl_data_req(Identity_request_tx01)		
4	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	Dl_data_ind(Identity_reply_rx01)	(PASS)	1)
5		+PO_release_link			

Detailed Comments : 1) IPUI is defined in the PIXIT. If the Identity_reply_rx01 is received, the testcase is ok. If the expected IPUI (IMSI) is not received, a default will handle the failed testcase.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_22

Group : PT/MM/BV/ID/

Purpose : Verify that the IUT, on receipt of an {IDENTITY−REQUEST} message specifying the IPEI (invoked by an {IDENTITY−REQUEST} message with an IMEI from the MSC), returns an {IDENTITY−REPLY} message with the IPEI.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 13.2.1
ETS 300 370 [12], subclause 6.3.2.2, figure 29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_ident_2			
3		DLS ! DL_DATA_REQ	Dl_data_req(Identity_request_tx06)		
4	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	Dl_data_ind(Identity_reply_rx10)	(PASS)	1)
5		+PO_release_link			

Detailed Comments : 1) IPEI is defined in the PIXIT. If the Identity_reply_rx10 is received, the testcase is ok. If the expected IPEI is not received, a default will handle the failed testcase.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_23

Group : PT/MM/BV/ID/

Purpose : Verify that the IUT, on receipt of an {IDENTITY−REQUEST} message specifying the "NWK assigned identity" and "GSM TMSI" (invoked by an {IDENTITY−REQUEST} message with an TMSI from the MSC), returns an {IDENTITY−REPLY} message with the TMSI.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 13.2.1
ETS 300 370 [12], subclause 6.3.2.2, figure 29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_ident_2			
3		DLS ! DL_DATA_REQ	Dl_data_req(Identity_request_tx07)		
4	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	Dl_data_ind(Identity_reply_rx11)	(PASS)	1)
5		+PO_release_link			

Detailed Comments : 1) The TMSI is defined in the PIXIT and assigned during location registration or temporary identity assignment. If the Identity_reply_rx11 is received, the testcase is ok. If the expected TMSI is not received, a default will handle the failed testcase.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_24

Group : PT/MM/BV/ID/

Purpose : Verify that the IUT is able to perform the basic temporary identity assign procedure (invoked by a {TMSI−REALLOCATION−COMMAND} message from the MSC).

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
ETS 300 175−5 [5], subclause 13.2.2
ETS 300 370 [12], subclause 6.1.2.5 and subclause 6.3.2.5, figure 32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_ident_1			
3		DLS ! DL_DATA_REQ(TCV_pdu_temp_id_assign := DL_DATA_REQ.message_unit)	Dl_data_req(Temporary_id_assign_tx01)		1)
4	B1	DLS ? DL_DATA_IND (TSV_extended_loc_info := TCV_pdu_temp_id_assign.location_area .extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_temp_id_assign.network_assigned_id.value) CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack_rx_base)	(PASS)	2)
5		+PO_release_link			
6	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_rej_rx_base)	(FAIL)	3)
7		+PO_release_link			

Detailed Comments : 1) Send a TEMPORARY_ID_ASSIGN message with <<network_assigned_id>> and <<location_area>> IE.
2) Receive a TEMPORARY_ID_ASSIGN_ACK. Store TMSI and ELI
3) On receipt of TEMPORARY_ID_ASSIGN_REJ the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AU_20

Group : PT/MM/BV/AU/

Purpose : Verify that the IUT, after invocation from the MSC is able to perform the basic operation of the authentication of the PT procedure requesting storage of the DCK. It is checked that the DCK can be used again in a successive FT initiated ciphering procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−00
Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned.
The testpurpose will be checked by switching on ciphering, and afterwards requesting an identity (IPUI) of the IUT. If no response is received on this identity request, LT and IUT are probably ciphering with a different DCK.
ETS 300 175−5 [5], subclause 13.8 and 7.7.24
ETS 300 370 [12], subclause 6.1.2.1, Figure 15 and subclause 6.3.2.1, Figure 28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_auth_1			
3		DLS ! DL_DATA_REQ (TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field)	Dl_data_req(Auth_request_tx06)		1)
4	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_F_MM_auth_1	Dl_data_ind(Auth_reply_rx03)	(PASS)	2)
5		(TCV_xres := TSO_algos_res_from_gsm(TCV_rand, TSV_uak), TSV_dck_value := TSO_algos_dck_from_gsm(TCV_rand, TSV_uak))			3)
6	B2	[TCV_xres <> TCV_res_rx]		(FAIL)	4)
7		+PO_release_link			
8	B3	[TCV_xres = TCV_res_rx]		(PASS)	4)
9		+STP_perform_ft_init_ciphering_on			5)
10		START T_F_MM_ident_2			6)
11		DLS ! DL_DATA_REQ	Dl_data_req(Identity_request_tx01)		
12	B4	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	Dl_data_ind(Identity_reply_rx01)	(PASS)	7)
13		+PO_release_link			
14	B5	? TIMEOUT T_F_MM_ident_2		(FAIL)	8)
15		+PO_release_link			
16	B6	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	Dl_data_ind(Auth_reject_rx_base)	(FAIL)	9)
17		+PO_release_link			

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Test Case Dynamic Behaviour	
Detailed Comments :	1) Authentication is based on UAK. A new DCK is to be stored, no ZAP value is increased. 2) The Auth_reply_rx03 constraint specifies the absence of zap field and service class. 3) Store the calculated res value and dck value in variables. 4) Check if received res value matches calculated res value. 5) Activate ciphering. 6) Now request an identity from the IUT. 7) If a response is received: ok. 8) If no response is received: ciphering went wrong, IUT used wrong dck. test fails. 9) If an AUTHENTICATION−REJECT message is received, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AU_21

Group : PT/MM/BV/AU/

Purpose : Verify that the IUT, if after invocation from the MSC the authentication of the PT procedure is not accepted but rejected by the MSC, will, on receipt of a {MM−INFO−SUGGEST} message indicating <<Authentication failure>>, delete LAI, TMSI and Cipher key sequence number.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Initial state: T−00
Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned.
The testpurpose will be checked by invoking a location registration which should be done with the new values of LAI, TMSI and CKSN.
ETS 300 175−5 [5], subclause 13.8 and 7.7.24
ETS 300 370 [12], subclause 6.1.2.1, Figure 15 and subclause 6.3.2.1, Figure 28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		START T_F_MM_auth_1			
3		DLS ! DL_DATA_REQ	Dl_data_req(Auth_request_tx06)		1)
4	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	Dl_data_ind(Auth_reply_rx03)	(PASS)	2)
5		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		3)
6		+STP_delete_elementary_files			4)
7		+STP_check_locate_request			5)
8	B2	[TCV_result = TRUE]		(PASS)	6)
9		+PO_release_link			
10	B3	[TCV_result = FALSE]		(FAIL)	7)
11		+PO_release_link			
12	B4	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	Dl_data_ind(Auth_reject_rx_base)	(FAIL)	8)
13		+PO_release_link			

Detailed Comments :
1) Authentication is based on UAK. A new DCK is to be stored, no ZAP value is increased.
2) The Auth_reply_rx03 constraint specifies the absence of zap field and service class.
3) Send MM−INFO−SUGGEST message as a result of an AUTHENTICATION−REJECT message from the MSC.
4) Delete variables containing LAI, TMSI and CKSN.
5) Wait for location registration and check LAI, TMSI and CKSN
6) If the values of LAI, TMSI and CKSN are correct, the test passes.
7) If the values of LAI, TMSI and CKSN are not correct, the test fails.
8) If an AUTHENTICATION−REJECT message is received, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_20

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, if the a37, a38 and a39 bits in the FT broadcasted "higher layer capabilities" were set to "1", is capable to operate the basic location registration procedure (attach) after it is switched on for the first time (FT does not perform TPUI but TMSI assignment).

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The PT is powered down and then switched on to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, with a TMSI assignment. Timer T_F_MM_ident_1 is started. The IUT shall respond with an TEMPORARY_ID_ASSIGN_ACK. If the timer T_F_MM_ident_1 times out, the test fails.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_switch_iut_power_off_on			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		START T_F_MM_ident_1			5)
6		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area. extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assig ned_id.value)	Dl_data_req(Locate_accept_tx04)		6)
7	B2	? TIMEOUT T_F_MM_ident_1		(FAIL)	7)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack _rx_base)	(PASS)	8)
10		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Have the power of the IUT switched off and on. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
6) Send back a locate accept, with a valid portable id. Only TMSI assignment is done. Store TMSI and ELI.
7) If timer T_F_MM_ident_1 times out, the test fails.
8) If a TEMPORARY_ID_ASSIGN_ACK follows, the test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_21

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, if the a37, a38 and a39 bits in the FT broadcasted "higher layer capabilities" were set to "1", is capable to operate the basic location registration procedure (attach) after it is switched on for the first time (FT performs TPUI and TMSI assignment).

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The PT is powered down and then switched on to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, with a TPUI and TMSI assignment. Timer T_F_MM_ident_1 is started. The IUT shall respond with an TEMPORARY_ID_ASSIGN_ACK. If the timer T_F_MM_ident_1 times out, the test fails.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_switch_iut_power_off_on			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		START T_F_MM_ident_1			5)
6		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area. extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assig ned_id.value)	Dl_data_req(Locate_accept_tx01)		6)
7	B2	? TIMEOUT T_F_MM_ident_1		(FAIL)	7)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack _rx_base)	(PASS)	8)
10		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Have the power of the IUT switched off and on. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
6) Send back a locate accept, with a valid portable id. TPUI and TMSI assignment is done. Store TMSI and ELI.
7) If timer T_F_MM_ident_1 times out, the test fails.
8) If a TEMPORARY_ID_ASSIGN_ACK follows, the test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_22

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, if the a37, a38 and a39 bits in the FT broadcasted "higher layer capabilities" were set to "1", is able to operate the location registration procedure if the DECT location area changes but GSM does not. (FT performs TPUI assignment).

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, with a TPUI assignment. Timer T_F_MM_ident_1 is started. The IUT shall respond with an TEMPORARY_ID_ASSIGN_ACK. If the timer T_F_MM_ident_1 times out, the test fails.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		START T_F_MM_ident_1			5)
6		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area. extended_location_information)	Dl_data_req(Locate_accept_tx02)		6)
7	B2	? TIMEOUT T_F_MM_ident_1		(FAIL)	7)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack _rx_base)	(PASS)	8)
10		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
6) Send back a locate accept, with a valid portable id. Only TPUI assignment is done.
7) If timer T_F_MM_ident_1 times out, the test fails.
8) If a TEMPORARY_ID_ASSIGN_ACK follows, the test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_23

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, if the a37, a38 and a39 bits in the FT broadcasted "higher layer capabilities" were set to "1", is able to operate the location registration procedure if the DECT and GSM location areas change (FT performs TPUI and TMSI assignment).

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, with a TPUI and TMSI assignment. Timer T_F_MM_ident_1 is started. The IUT shall respond with an TEMPORARY_ID_ASSIGN_ACK. If the timer T_F_MM_ident_1 times out, the test fails.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		START T_F_MM_ident_1			5)
6		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area. extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assig ned_id.value)	Dl_data_req(Locate_accept_tx01)		6)
7	B2	? TIMEOUT T_F_MM_ident_1		(FAIL)	7)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack _rx_base)	(PASS)	8)
10		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
6) Send back a locate accept, with a valid portable id. TPUI and TMSI assignment is done. Store TMSI and ELI.
7) If timer T_F_MM_ident_1 times out, the test fails.
8) If a TEMPORARY_ID_ASSIGN_ACK follows, the test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_27

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, on receipt of a {LOCATE−REJECT} message with <<Reject reason>> set to "IPUI unknown", will delete LAI, Cipher key number and TMSI and shall not initiate neither location registration nor detach procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the LT sends back a locate_reject with the appropriate reject reason. LAI, Cipher key, Cipher key number and TMSI are deleted and a timer is started to observe the correct behaviour (e.g.: no reaction!) of the IUT. After this a normal location registration is invoked (by sending an MM_INFO_SUGGEST message) and the values of LAI, Cipher key, Cipher key number and TMSI are checked.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		DLS ! DL_DATA_REQ	Dl_data_req(Locate_reject_tx01)		5)
6		+STP_delete_elementary_files			6)
7		START T_EXPECT_LOCATE			7)
8	B2	? TIMEOUT T_EXPECT_LOCATE		(PASS)	8)
9		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		9)
10		+STP_check_locate_request			10)
11	B3	[TCV_result = TRUE]		(PASS)	11)
12		+PO_release_link			
13	B4	[TCV_result = FALSE]		(FAIL)	12)
14		+PO_release_link			
15	B5	DLS ? DL_DATA_IND	Dl_data_ind(Locate_request_rx01)	(FAIL)	13)
16		+PO_release_link			
17	B6	DLS ? DL_DATA_IND	Dl_data_ind(Detach_rx_base)	(FAIL)	14)
18		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Send back a locate reject with reject reason "IPUI unknown"
6) Delete variables containing LAI, TMSI and CKSN.

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Test Case Dynamic Behaviour
Detailed Comments : ... 7) Start the timer to check the correct behaviour of the IUT. 8) Wait for the timeout of the timer. 9) Send MM−INFO−SUGGEST to invoke a new location registration procedure. 10) Wait for location registration and check LAI, TMSI and CKSN 11) If the values of LAI, TMSI and CKSN are correct, the test passes. 12) If the values of LAI, TMSI and CKSN are not correct, the test fails. 13) If a locate_request message is sent by the IUT, the test fails. 14) If a detach message is sent by the IUT, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_28

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, on receipt of a {LOCATE−REJECT} message with <<Reject reason>> set to "IPUI not accepted", will delete LAI, Cipher key number and TMSI and shall not initiate neither location registration nor detach procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the LT sends back a locate_reject with the appropriate reject reason. LAI, Cipher key, Cipher key number and TMSI are deleted and a timer is started to observe the correct behaviour (e.g.: no reaction!) of the IUT. After this a normal location registration is invoked (by sending an MM_INFO_SUGGEST message) and the values of LAI, Cipher key, Cipher key number and TMSI are checked.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		DLS ! DL_DATA_REQ	Dl_data_req(Locate_reject_tx02)		5)
6		+STP_delete_elementary_files			6)
7		START T_EXPECT_LOCATE			7)
8	B2	? TIMEOUT T_EXPECT_LOCATE		(PASS)	8)
9		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		9)
10		+STP_check_locate_request			10)
11	B3	[TCV_result = TRUE]		(PASS)	11)
12		+PO_release_link			
13	B4	[TCV_result = FALSE]		(FAIL)	12)
14		+PO_release_link			
15	B5	DLS ? DL_DATA_IND	Dl_data_ind(Locate_request_rx01)	(FAIL)	13)
16		+PO_release_link			
17	B6	DLS ? DL_DATA_IND	Dl_data_ind(Detach_rx_base)	(FAIL)	14)
18		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Send back a locate reject with reject reason "IPUI not accepted"
6) Delete variables containing LAI, TMSI and CKSN.

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Test Case Dynamic Behaviour
Detailed Comments : ... 7) Start the timer to check the correct behaviour of the IUT. 8) Wait for the timeout of the timer. 9) Send MM−INFO−SUGGEST to invoke a new location registration procedure. 10) Wait for location registration and check LAI, TMSI and CKSN 11) If the values of LAI, TMSI and CKSN are correct, the test passes. 12) If the values of LAI, TMSI and CKSN are not correct, the test fails. 13) If a locate_request message is sent by the IUT, the test fails. 14) If a detach message is sent by the IUT, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_29

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, on receipt of a {LOCATE−REJECT} message with <<Reject reason>> set to "PLMN not allowed", will delete LAI, Cipher key number and TMSI and shall not initiate location registration procedure until broadcasted ARI changes, nor detach procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the LT sends back a locate_reject with the appropriate reject reason. LAI, Cipher key, Cipher key number and TMSI are deleted and a timer is started to observe the correct behaviour (e.g.: no reaction!) of the IUT. After this a normal location registration is invoked (by sending an MM_INFO_SUGGEST message) and the values of LAI, Cipher key, Cipher key number and TMSI are checked.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		DLS ! DL_DATA_REQ	Dl_data_req(Locate_reject_tx03)		5)
6		+STP_delete_elementary_files			6)
7		START T_EXPECT_LOCATE			7)
8	B2	? TIMEOUT T_EXPECT_LOCATE		(PASS)	8)
9		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		9)
10		+STP_check_locate_request			10)
11	B3	[TCV_result = TRUE]		(PASS)	11)
12		+PO_release_link			
13	B4	[TCV_result = FALSE]		(FAIL)	12)
14		+PO_release_link			
15	B5	DLS ? DL_DATA_IND	Dl_data_ind(Locate_request_rx01)	(FAIL)	13)
16		+PO_release_link			
17	B6	DLS ? DL_DATA_IND	Dl_data_ind(Detach_rx_base)	(FAIL)	14)
18		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Send back a locate reject with reject reason "PLMN not allowed"
6) Delete variables containing LAI, TMSI and CKSN.

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Test Case Dynamic Behaviour
Detailed Comments : ... 7) Start the timer to check the correct behaviour of the IUT. 8) Wait for the timeout of the timer. 9) Send MM−INFO−SUGGEST to invoke a new location registration procedure. 10) Wait for location registration and check LAI, TMSI and CKSN 11) If the values of LAI, TMSI and CKSN are correct, the test passes. 12) If the values of LAI, TMSI and CKSN are not correct, the test fails. 13) If a locate_request message is sent by the IUT, the test fails. 14) If a detach message is sent by the IUT, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_30

Group : PT/MM/BV/LO/

Purpose : Verify that the IUT, on receipt of a {LOCATE−REJECT} message with <<Reject reason>> set to "Location area not allowed", will delete LAI, Cipher key number and TMSI and shall not initiate location registration procedure until the DECT area which is not corresponding to the GSM location area changes, nor detach procedure.

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
The location area is changed by the LT to invoke location registration. First a direct link establishment procedure is performed. If the procedure finished successfully, a location registration procedure is started, which waits for a locate_request message to arrive. If this message arrives, the LT sends back a locate_reject with the appropriate reject reason. LAI, Cipher key, Cipher key number and TMSI are deleted, a normal location registration is invoked (by sending an MM_INFO_SUGGEST message) and the values of LAI, Cipher key, Cipher key number and TMSI are checked. Any unexpected location registration or detach procedure is handled in DF_handle_unexpected_events.
In this test, no authentication of PT is done.
ETS 300 175−5 [5], subclause 13.4.1
ETS 300 370 [12], subclause 6.3.2.3, 6.1.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_no_link			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	4)
5		DLS ! DL_DATA_REQ	Dl_data_req(Locate_reject_tx04)		5)
6		+STP_delete_elementary_files			6)
7		DLS ! DL_DATA_REQ	Dl_data_req(Mm_info_suggest_tx01)		7)
8		+STP_check_locate_request			8)
9	B3	[TCV_result = TRUE]		(PASS)	9)
10		+PO_release_link			
11	B4	[TCV_result = FALSE]		(FAIL)	10)
12		+PO_release_link			

Detailed Comments :
1) Initialize bits a37, a38 and a39 in the FT broadcasted "higher layer capabilities".
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
3) Handle the direct link establishment procedure.
4) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
5) Send back a locate reject with reject reason "PLMN not allowed"
6) Delete variables containing LAI, TMSI and CKSN.
7) Send MM−INFO−SUGGEST to invoke a new location registration procedure.
8) Wait for location registration and check LAI, TMSI and CKSN
9) If the values of LAI, TMSI and CKSN are correct, the test passes.
10) If the values of LAI, TMSI and CKSN are not correct, the test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_CH_06

Group : PT/MM/BV/CH/

Purpose : Verify that the IUT, being in unciphered mode, is able to operate the basic FT initiated (invoked by the MSC) cipher−switching procedure requesting "cipher−on".

Configuration :

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T−00
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck
ETS 300 175−5 [5], subclause 13.8
ETS 300 370 [12], subclause 6.1.2.6 and 6.3.2.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		START T_F_MM_cipher_1			
3		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_request_tx06)		2)
4		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck _value)		3)
5	B1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	Dl_enc_ind(TSC_cs_enabled)	(PASS)	4)
6	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	5)

Detailed Comments :
1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Send ciphering request
3) Pass dck value to DLC
4) 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.
5) The ciphering request was rejected by the IUT.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_CH_07

Group : PT/MM/BV/CH/

Purpose : Verify that the IUT, being in ciphered mode, is able to operate the basic FT (invoked by the MSC) initiated cipher−switching procedure requesting "cipher−off".

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: T−00
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck
ETS 300 175−5 [5], subclause 13.8
ETS 300 370 [12], subclause 6.1.2.6 and 6.3.2.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		+STP_perform_ft_init_ciphering_on			2)
3		START T_F_MM_cipher_1			
4		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_request_tx07)		3)
5	B1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	Dl_enc_ind(TSC_cs_disabled)	(PASS)	4)
6		+PO_release_link			
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	5)
8		+PO_release_link			

Detailed Comments :
1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Switch on ciphering, LT initiated.
3) Now switch off ciphering again.
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 Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_20

Group : PT/ME/BV/

Purpose : Verify that the IUT is able to perform the FT initiated cipher−switching procedure (invoked by the MSC), before reception of a {CC_SETUP_ACK} message during an outgoing call establishment

Configuration :

Default : DF_handle_sending_of_cc_notify,
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: T−00
An outgoing call will be invoked. After receiving the cc−setup message, the lt will switch on ciphering. If this is successfully completed, a cc−setup−ack message is sent, containing a progress−indicator ' inband information or appropriate pattern now available'. After this, the connection of the U−plane is checked, and the call is released.
ETS 300 175−5 [5], subclause 15.5
ETS 300 370 [12], subclauses 6.1.2.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_P_CC_03_min			2)
3		+STP_perform_ft_init_ciphering_on			3)
4		DLS ! DL_DATA_REQ	Dl_data_req(Cc_setup_ack_tx01)		4)
5		+STP_check_u_plane			5)
6		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc−setup.
2) Start a CC−03 guarding timer. If this timer times out, the default DF_handle_sending_of_cc_notify will send a CC−NOTIFY message to restart the timer.
3) Perform FT initiated ciphering on.
4) Send cc−setup_ack with progress−indicator ' inband information or appropriate pattern now available'.
5) Check U−plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_21

Group : PT/ME/BV/

Purpose : Verify that the IUT is able to restart the relevant CC timer, on receipt of a {CC−NOTIFY} message, when the first answer to an outgoing call setup request from the IUT is delayed by the GSM CM service procedure and interrupted by a FT (GSM) initiated cipher−switching procedure.

Configuration :

Default : DF_handle_sending_of_cc_notify,
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: T−00
An outgoing call will be invoked. After receiving the cc−setup message, the lt will switch on ciphering. It is expected that during or after this procedure the relevant timer times out and a cc−notify message will be sent by the lt. After this a cc−setup−ack message is sent, containing a progress−indicator ' inband information or appropriate pattern now available'. After this, the connection of the U−plane is checked, and the call is released.
ETS 300 175−5 [5], subclause 15.5
ETS 300 370 [12], subclauses 6.1.2.7

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_P_CC_03_min			2)
3		+STP_perform_ft_init_ciphering_on			3)
4	D1	? TIMEOUT T_P_CC_03_min		(PASS)	4)
5		DLS ! DL_DATA_REQ START T_P_CC_03_min	Dl_data_req(Cc_notify_tx01)		
6		DLS ! DL_DATA_REQ CANCEL T_P_CC_03_min	Dl_data_req(Cc_setup_ack_tx01)		5)
7		+STP_check_u_plane			6)
8		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc−setup.
2) Start a CC−03 guarding timer. If this timer times out during the following ciphering procedure, the default DF_handle_sending_of_cc_notify will send a CC−NOTIFY message to restart the timer.
3) Perform FT initiated ciphering on.
4) Wait for the timeout of CC−03 and send a CC−NOTIFY message to restart the timer
5) Send cc−setup_ack with progress−indicator ' inband information or appropriate pattern now available' and stop the timer CC−03.
6) Check U−plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_BV_LE_03

Group : PT/LC/BV/LE/

Purpose : Verify that the IUT is able to respond to indirect (paged) FT−initiated link establishment request which uses a short address request paging and contains correct identity.

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 300 370 [12], subclause 6.1.3 and 6.3.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			1)
2		+STP_release_link			2)
3		+STP_indirect_link_establishment			3)
4		+PO_release_link			

Detailed Comments : 1) Go to the state T−00 and perform the location registration procedure. A postcondition to this teststep is that an indirect link is established.
2) Release the established link.
3) Try to establish an indirect link.

Test Step Dynamic Behaviour

Test Step Name : PR_goto_t00_and_perform_locate_request

Group : Preambles/

Objective : To place the IUT in a stable state, which is defined as follows:
− CC state T−00
− No link established
− IUT is locked to the FT
− Location registration was performed

Default : DF_handle_mm_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : It is assumed that when the IUT locked to the tester, the higher layer broadcast bit A38 is set to 1, thus enabling 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_init_broadcast_bits			
2		+STP_indirect_link_no_fail			
3		+STP_perform_locate_request (Locate_request_rx01, Locate_accept_tx01)		(PASS)	
4		+STP_release_link			
5		+STP_indirect_link_establishment			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_t00_no_link

Group : Preambles/

Objective : To place the IUT in a stable state, which is defined as follows:
− CC state T−00
− No link established
− IUT is locked to the FT

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : It is assumed that when the IUT locked to the tester, the higher layer broadcast bits A44 and A38 are both set to 1, thus enabling 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_init_broadcast_bits			
2		+STP_indirect_link_no_fail			
3		+STP_release_link			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : PR_goto_t01

Group : Preambles/

Objective : To bring the IUT in state T−01 (Call initiated). This implies having the IUT start an outgoing call

Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00_and_perform_locate_request			
2		+STP_release_link			
3		+STP_invoke_outgoing_call			
4		+STP_handle_direct_link_est			
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)	Dl_data_ind(Cc_setup_rx01)	(PASS)	1)
6		+STP_initialise_tf(TSC_iut_originated)			

Detailed Comments : 1) cc_setup_rx01 allows no 'called party address' to be specified. The transaction value of the cc message received, is stored in TCV_cc_tv.

Test Step Dynamic Behaviour

Test Step Name : PR_goto_t02

Group : Preambles/

Objective : To bring the IUT in state T−02 (Overlap sending). This implies having the IUT start an outgoing call (CC_SETUP), and respond to it with a CC_SETUP_ACK.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events

Comments : Postcondition of this teststep: T_F_CC_01 is running

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		START T_F_CC_01			
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_setup_ack_tx_base)		

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_abnormal_GSM_1

Group : Teststeps/CC/

Objective : To initiate the abnormal cc release procedure , initiated and the LT (GSM) 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_tx02)		
2	S1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_abnormal_GSM_2

Group : Teststeps/CC/

Objective : To initiate the abnormal cc release procedure , initiated by 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_tx03)		
2	S1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_receive_cc_info_diall(param : CC_INFO)

Group : Teststeps/CC/

Objective : To establish a call when dialling information has been included in {CC−INFO}.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Dialling information can be either in <<Called party number>> or in <<Multi keypad>>

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_invoke_dialled_digit(Cc_info_rx_base)			
2	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_info := DL_DATA_IND.message_unit) CANCEL T_F_CC_01	Dl_data_ind(param)	(PASS)	
3		(TCV_cpn_present := TSO_called_party_number_present (TCV_pdu_cc_info), TCV_keypad_present := TSO_keypad_present (TCV_pdu_cc_info))			
4		[(TCV_cpn_present = TRUE) AND (TCV_keypad_present = FALSE)]			
5		(TCV_dialling_info_received := TRUE)			
6		[(TCV_cpn_present = FALSE) AND (TCV_keypad_present = TRUE)]			
7		REPEAT STP_receive_digit_info(Cc_info_rx01) UNTIL [TCV_sendcompl_present = TRUE]			3)
8		CANCEL T_F_CC_01			4)
9		(TCV_dialling_info_received := TRUE)			
10		[(TCV_cpn_present = FALSE) AND (TCV_keypad_present = FALSE)]			
11		START T_F_CC_01			
12		(TCV_dialling_info_received := FALSE)			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_cc_outgoing_establish

Group : Teststeps/CC/

Objective : To establish a call when dialling information has been included in <<Called party number>> either in {CC−SETUP} or in {CC−INFO}.

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_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(Cc_call_proc_tx_base)		
2		DLS ! DL_DATA_REQ	Dl_data_req(Cc_alerting_tx_base)		
3		DLS ! DL_DATA_REQ	Dl_data_req(Cc_connect_tx_base)		
4		+STP_check_u_plane			5)

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_F_CC_02	Dl_data_req(Cc_release_tx_base)		
3	S1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	Dl_data_ind(Cc_release_com_rx_base)	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_F_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)	(PASS)	
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
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 IUT
2) DL_REL_IND received. Result of the test is Inconclusive
3) Release is to be initiated by the LT

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_normal_GSM_1(param : TRANS_FLAG)

Group : Teststeps/CC/

Objective : To initiate the cc release procedure at the IUT side or LT (GSM) 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_F_CC_02	Dl_data_req(Cc_release_tx02)		
3	S1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	Dl_data_ind(Cc_release_com_rx_base)	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_F_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)	(PASS)	
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
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_normal_GSM_2(param : TRANS_FLAG)

Group : Teststeps/CC/

Objective : To initiate the cc release procedure at the IUT side or LT (GSM) 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_F_CC_02	Dl_data_req(Cc_release_tx03)		
3	S1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	Dl_data_ind(Cc_release_com_rx_base)	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_F_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)	(PASS)	
8		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
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_check_u_plane

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_check_u_plane()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_call_answering
Group : Teststeps/CC/
Objective : To invoke the IUT to answer the incoming call. The IUT will go off hook when call present.
See PIXIT Question B.9.2
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Cc_connect_rx_base)		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_dialled_digit(param : PDU)
Group : Teststeps/CC/
Objective : To invoke the IUT to dial a digit
See PIXIT Question B.9.3
Default :
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT!DL_DATA_IND>	Dl_data_ind(param)		
2		START T_USER_INVOKE			

Detailed Comments :

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.9.8
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)		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_outgoing_call

Group : Teststeps/CC/

Objective : To invoke the IUT to go off hook for a normal outgoing call setup, while in state T−00
See PIXIT Question B.9.10

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	Dl_est_ind_no_pdu		1)
2		START T_USER_INVOKE			

Detailed Comments : 1) LT expects a DL_EST_IND without a PDU

Test Step Dynamic Behaviour

Test Step Name : STP_receive_digit_info(param : CC_INFO)

Group : Teststeps/CC/

Objective : To receive the dialling information to be send by the IUT

Default :

Comments : End of dialling information will be indicated by the receipt of the Sending_complete. The value of the digits is indicated by the parameters TSPX_digit_n

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_invoke_dialled_digit(param)			
2	S1	DLS ? DL_DATA_IND (TCV_pdu_cc_info := DL_DATA_IND.message_unit) CANCEL T_USER_INVOKE, START T_F_CC_01	Dl_data_ind(param)	(PASS)	
3		(TCV_sendcompl_present := TSO_sending_complete_present(TCV_pdu_cc_info))			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_change_location_area

Group : Teststeps/MM/

Objective : To change the location area broadcasted by the LT. The location area is considered to be different to the one specified in STP_init_broadcast_bits
See PIXIT Question B.9.1

Default : DF_handle_unexpected_events

Comments : The implicit send will contain a Dl_est_ind_no_pdu, because the IUT should begin link establishment, in order to perform location registration.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	Dl_est_ind_no_pdu		
2		START T_EXPECT_LOCATE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_check_elementary_files

Group : Teststeps/MM/

Objective : A general teststep for checking the EF values

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : The teststep returns TCV_result.
See ETS 300 370[12] subclause 6.1.2.3 and 6.3.2.3(also ETS 300 175[5] subclause 13.4.1)

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TRUE)			1)
2		[TCV_extended_loc_info <> TSV_extended_loc_info]			2)
3		(TCV_result := FALSE)			
4		[TCV_nw_ass_id_tmsi <> TSV_nw_ass_id_tmsi]			3)
5		(TCV_result := FALSE)			
6		[TCV_cc_ckn_gsm <> TSV_cc_ckn_gsm]			4)
7		(TCV_result := FALSE)			

Detailed Comments : 1) Set TCV_result to default value.
2) Check if the received ELI was deleted by the IUT and set TCV_result to FALSE if not
3) Check if the received TMSI was deleted by the IUT and set TCV_result to FALSE if not
4) Check if the received CKSN was deleted by the IUT and set TCV_result to FALSE if not.

Test Step Dynamic Behaviour

Test Step Name : STP_check_locate_request

Group : Teststeps/MM/

Objective : A general teststep for performing location registration and checking the EF values

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 has an established L2−link.
The Location registration procedure was invoked automatically or by a sent MM_INFO_SUGGEST.
The teststep returns TCV_result.
See ETS 300 370[12] subclause 6.1.2.3 and 6.3.2.3(also ETS 300 175[5] subclause 13.4.1)

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_EXPECT_LOCATE			1)
2	S1	DLS ? DL_DATA_IND(TCV_pdu_locate_req := DL_DATA_IND.message_unit, TCV_extended_loc_info := TCV_pdu_locate_req.location_area.extended_location_information, TCV_nw_ass_id_tmsi := TCV_pdu_locate_req.network_assigned_id.value, TCV_cc_ckn_gsm := TCV_pdu_locate_req.cipher_info.cipher_key_number) CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	2)
3		+STP_check_elementary_files			3)
4		START T_F_MM_ident_1			4)
5		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area.extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assigned_id.value)	Dl_data_req(Locate_accept_tx01)		5)
6	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack_rx_base)	(PASS)	6)

Detailed Comments : 1) Start the timer T_EXPECT_LOCATE. The expiry of this timer is handled in DF_handle_any_timeout.
2) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3 and store the values of ELI, TMSI and CKSN.
3) Check the values of ELI, TMSI and CKSN.
4) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
5) Send back a locate accept, with a valid portable id. TPUI and TMSI assignment is done. Store TMSI and ELI.
6) Receive a TEMPORARY_ID_ASSIGN_ACK.

Test Step Dynamic Behaviour

Test Step Name : STP_delete_elementary_files

Group : Teststeps/MM/

Objective : To delete CKSN, TMSI and LAI in DAM GA

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		(TSV_cc_ckn_gsm := '1111'B, TSV_nw_ass_id_tmsi := '11111111111111111111111111111111'B, TSV_extended_loc_info := 'FFFF'O)			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_handle_locate_request

Group : Teststeps/MM/

Objective : To handle a locate request issued by the IUT.

Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : The locate accept message that is sent as a response to the locate request, contains a TPUI. Therefore, a TEMPORARY_ID_ASSIGN_ACK is to be expected (within time T_F_MM_ident_1). This message is handled in DF_handle_mm_events.
If timer T_EXPECT_LOCATE is running, it is cancelled in this teststep.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(Locate_request_rx01)	(PASS)	
2		START T_F_MM_ident_1			1)
3		DLS ! DL_DATA_REQ	Dl_data_req(Locate_accept_tx02)		2)

Detailed Comments : 1) Timer T_MM_ident_1 is started, because a TEMPORARY_ID_ASSIGN_ACK is expected.,
2) Locate accept message contains TPUI

Test Step Dynamic Behaviour

Test Step Name : STP_init_broadcast_bits
Group : Teststeps/MM/
Objective : To set the value of the broadcasted "higher layer capabilities" bits, and of the location area.
Default : DF_handle_unexpected_events
Comments : A call to TSO_init_broadcast_bits is made.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_init_broadcast_bits())			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_direct_link_est
Group : Teststeps/MM/
Objective : To invoke the direct link establishment procedure, initiated by the IUT
Default :
Comments : A Dl_est_ind_no_pdu is to be expected to start link establishment by the IUT.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	Dl_est_ind_no_pdu		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_invoke_locate_req
Group : Teststeps/MM/
Objective : To invoke the location registration procedure, initiated by the IUT
Default :
Comments : A Dl_est_ind_no_pdu is to be expected to start link establishment by the IUT.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	Dl_data_ind(Locate_request_rx01)		
2		START T_USER_INVOKE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_perform_ft_init_ciphering_off

Group : Teststeps/MM/

Objective : To execute the FT 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 : A precondition to this teststep, is that a valid dck is present in the testsuite variable TSV_dck.
Also, a link between the LT and the IUT must be present.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_cipher_1			
2		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_request_tx04)		1)
3	S1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	Dl_enc_ind(TSC_cs_disabled)	(PASS)	2
4	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	3)

Detailed Comments : 1) Disable ciphering.
2) 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.
3) The ciphering request was rejected by the IUT.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_ft_init_ciphering_on

Group : Teststeps/MM/

Objective : To execute the FT initiated ciphering procedure, in order to switch on ciphering.

Default : DF_handle_sending_of_cc_notify,
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 teststep, is that a valid dck is present in the testsuite variable TSV_dck.
Also, a link between the LT and the IUT must be present.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_cipher_1			
2		DLS ! DL_DATA_REQ	Dl_data_req(Cipher_request_tx06)		
3		DLS ! DL_ENC_KEY_REQ	Dl_enc_key_req(TSV_dck_value)		1)
4	S1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	Dl_enc_ind(TSC_cs_enabled)	(PASS)	2)
5	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	Dl_data_ind(Cipher_reject_rx_base)	(FAIL)	3)

Detailed Comments : 1) Pass dck value to DLC
2) 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.
3) The ciphering request was rejected by the IUT.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_locate_request(param_rx : PDU; param_tx : 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_rx is an input parameter specifying the constraints for the location request.
param_tx is an output parameter, specifying the constraint for the location accept.
A precondition to this test is that the IUT shall be in state F−00 with established L2−link.
The Location registration procedure is invoked by sending a MM_INFO_SUGGEST.
See ETS 300 370[12] subclause 6.1.2.3 and 6.3.2.3(also ETS 300 175[5] subclause 13.4.1)

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ START T_EXPECT_LOCATE	Dl_data_req(Mm_info_suggest_tx01)		1)
2	S1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	Dl_data_ind(param_rx)	(PASS)	2)
3		START T_F_MM_ident_1			3)
4		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area.extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assigned_id.value)	Dl_data_req(param_tx)		4)
5	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack_rx_base)	(PASS)	5)

Detailed Comments : 1) Initiate the location registration procedure by sending an appropriate MM_INFO_SUGGEST message
2) Receive a locate request message as specified in ETS 300 370, subclause 6.3.2.3
3) Start timer T_F_MM_ident_1 in order to wait for a correct TEMPORARY_ID_ASSIGN_ACK.
4) Send back a locate accept, with a valid portable id. TPUI and TMSI assignment is done. Store TMSI and ELI.
5) Receive a TEMPORARY_ID_ASSIGN_ACK.

Test Step Dynamic Behaviour

Test Step Name : STP_perform_pt_authentication(param_tx : PDU; param_rx : PDU)

Group : Teststeps/MM/

Objective : A general teststep for performing PT authentication.

Default : DF_handle_sending_of_cc_notify,
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		START T_F_MM_auth_1			1)
2		DLS ! DL_DATA_REQ	Dl_data_req(param_tx)		2)
3	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_F_MM_auth_1	Dl_data_ind(param_rx)	(PASS)	3)
4		(TCV_xres := TSO_algosb1_a1(TSC_rand, TSC_rs, TSV_uak), TSV_dck_value := TSO_algos_dck_b1_a1(TSC_rand, TSC_rs, TSV_uak))			4)
5	S2	[TCV_xres = TCV_res_rx]		(PASS)	
6	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_switch_iut_power_off_on

Group : Teststeps/MM/

Objective : To switch the power of the IUT off, and afterwards on.

Default : DF_handle_unexpected_events

Comments : The implicit send will contain a Dl_est_ind_no_pdu, because the IUT should begin link establishment, in order to perfrom location registration.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	Dl_est_ind_no_pdu		
2		START T_EXPECT_LOCATE			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_handle_direct_link_est

Group : Teststeps/LC/

Objective : To handle the direct 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

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	DLS ? DL_ESTABLISH_IND (TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier) CANCEL T_USER_INVOKE	Dl_est_ind_no_pdu	(PASS)	1)

Detailed Comments : 1) Store dlei value to be used for communication in TSV_dlei_value.
ONLY a Dl_est_ind WITHOUT a PDU is expected here.
Cancel the invocation timer started in the STP_invoke... teststep. In DLC class A, the DL_ESTABLISH_RES may be omitted.

Test Step Dynamic Behaviour

Test Step Name : STP_indirect_link_establishment

Group : Teststeps/LC/

Objective : To establish a link, initiated by the LT, using the indirect link establishment procedure as described in ETS 300 444, subclause 8.32

Default : DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A page request is retransmitted three times. If the IUT still does not repond, the testcase is failed.
The PT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep.
A postcondition to this teststep is that a link is present, because if the link establishment fails, a postamble is executed, terminating the testcase

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_count := 0)			
2		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
3	S1	[TCV_result = TRUE]		(PASS)	
4	S2	[TCV_result = FALSE]		(FAIL)	
5		+PO_terminate			1)

Detailed Comments : 1) Abort testcase, because link could not be established

Test Step Dynamic Behaviour

Test Step Name : STP_indirect_link_no_fail

Group : Teststeps/LC/

Objective : To establish a link, initiated by the LT, using the indirect link establishment procedure as described in ETS 300 444, subclause 8.32. The difference with STP_indirect_link_establishment is that the testcase is NOT failed when no link could be established.

Default : DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : A page request is retransmitted three times. If the IUT still does not repond, the testcase variable TCV_result will containt the value FALS, otherwise TRUE.
The PT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_count := 0)			
2		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			

Detailed Comments :

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 :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_iut_originated]			
2		(TCV_cc_iut_tf := ’0’B)			
3		(TCV_cc_lt_tf := ’1’B)			
4		[param = TSC_lt_originated]			
5		(TCV_cc_iut_tf := ’1’B)			
6		(TCV_cc_lt_tf := ’0’B)			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STP_perform_paging

Group : Teststeps/LC/

Objective : To page the IUT, as part of the FT initiated indirect link establishment procedure.

Default : DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : The IUT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep.
The boolean variableTCV_result indicates whether or not the IUT has responded to the page.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLB ! DL_BROADCAST_REQ (TCV_count := TCV_count + 1) START T_F_LCE_03	Dl_brc_req(Lce_request_page_tx01)		1)
2	S1	DLS ? DL_ESTABLISH_IND (TCV_result := TRUE, TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier) CANCEL T_F_LCE_03	Dl_est_ind_pdu(Lce_page_response_rx02)	(PASS)	2)
3		? TIMEOUT T_F_LCE_03 (TCV_result := FALSE)			3)

Detailed Comments : 1) U−plane services requested
2) Set transaction value to be used in outgoing cc message,. to 0. Store dlei value to be used in TSV_dlei_value. In DLC class A, the DL_ESTABLISH_RES may be omitted.
3) PT does not respond in time.

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_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.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_RELEASE_REQ START T_F_LCE_01	Dl_rel_req(TSC_rm_normal)		
2	S1	DLS ? DL_RELEASE_CFM CANCEL T_F_LCE_01	Dl_rel_cfm	(PASS)	
3	S2	DLS ? DL_RELEASE_IND CANCEL T_F_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_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_any_timeout,
DF_handle_unexpected_events

Comments : Timer T_F_LCE_02 is the link maintain timer. All events received during this time will lead to failure of the tescase (except the events described in DF_handle_mm_invokation)

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_LCE_02			
2	PO1	? TIMEOUT T_F_LCE_02		(PASS)	
3		+STP_release_link			
4	PO2	CANCEL		R	

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_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 :

Test Step Dynamic Behaviour

Test Step Name : DFSTP_cc_release_abnormal

Group : Steps_for_defaults/

Objective : To perform an abnormal release, initiated by the LT

Default :

Comments : As this teststep is called from the default teststeps, no defaults may be atttached to this teststep, in order to prevent recursive definitions.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
2	DS1	DLS ? DL_RELEASE_IND	Dl_rel_ind	(PASS)	
3	DS2	DLS ? OTHERWISE		(FAIL)	
4		+DFSTP_release_link			
5	DS3	CANCEL		R	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : DFSTP_cc_release_normal

Group : Steps_for_defaults/

Objective : To perform a normal release, initiated by the LT

Default :

Comments : As this teststep is called from the default teststeps, no defaults may be atttached to this teststep, in order to prevent recursive definitions.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ START T_F_CC_02	Dl_data_req(Cc_release_tx_base)		
2	DS1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	Dl_data_ind(Cc_release_com_rx_base)	(PASS)	
3		+DFSTP_release_link			
4	DS2	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	Dl_rel_ind	(PASS)	
5	DS3	? TIMEOUT T_F_CC_02		(I)	
6		+DFSTP_cc_release_abnormal			
7	DS4	DLS ? OTHERWISE		(FAIL)	
8		+DFSTP_release_link			
9	DS5	CANCEL		R	

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : DFSTP_handle_locate_request

Group : Steps_for_defaults/

Objective : To handle an intervening locate request issued by the IUT.

Default :

Comments : As this teststep is called from the default teststeps, no defaults may be atttached to this teststep, in order to prevent recursive definitions.
The locate accept message that is sent as a response to the locate request, contains a TPUI and a TMSI. Therefore, a TEMPORARY_ID_ASSIGN_ACK is to be expected (within time T_F_MM_ident_1). This message is handled in DFSTP_handle_tpui_assign_ack

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DS1	DLS ? DL_DATA_IND	Dl_data_ind(Locate_request_rx01)	(PASS)	
2		START T_F_MM_ident_1			1)
3		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area.extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assigned_id.value)	Dl_data_req(Locate_accept_tx01)		2)

Detailed Comments : 1) Timer T_MM_ident_1 is started, because a TEMPORARY_ID_ASSIGN_ACK is expected.,
2) Locate accept message contains TPUI and TMSI. Store TMSI and ELI.

Test Step Dynamic Behaviour

Test Step Name : DFSTP_handle_tpui_assign_ack

Group : Steps_for_defaults/

Objective : To handle a TEMPORARY_ID_ASSIGN_ACK that is sent by the IUT, after an intervening location registration procedure.

Default :

Comments : As this teststep is called from the default teststeps, no defaults may be atttached to this teststep, in order to prevent recursive definitions.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DS1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack_rx_base)	(PASS)	1)

Detailed Comments : 1) A TEMPORARY_ID_ASSIGN_ACK is received and the timer T_F_MM_ident_1 is cancelled.

Test Step Dynamic Behaviour

Test Step Name : DFSTP_release_link

Group : Steps_for_defaults/

Objective : To initiate link procedure. A DL_RELEASE_REQ is sent (release mode 'abnormal'), and the DL_RELEASE_CFM is waited for.

Default :

Comments : As this teststep is called from the default teststeps, no defaults may be atttached to this teststep, in order to prevent recursive definitions.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	Dl_rel_req(TSC_rm_abnormal)		
2	DS1	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	Dl_rel_cfm	(PASS)	
3	DS2	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind	(PASS)	1)
4	DS3	? TIMEOUT T_DLC_RESPONSE		(I)	
5	DS4	CANCEL		R	
6	DS5	DLS ? OTHERWISE		(FAIL)	2)
7	DS6	CANCEL		R	

Detailed Comments : 1) This receive statement captures release collision.
2) A general otherwise captures all invalid behaviour

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_EXPECT_LOCATE		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_LCE_01		(FAIL)	
8		+DFLTS_release_link			
9	D6	CANCEL		R	
10	D7	? TIMEOUT		(FAIL)	1)
11		+DFLTS_cc_release_abnormal			
12	D8	CANCEL		R	
		DFLTS_cc_release_abnormal			
13		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
14	DS9	DLS ? DL_RELEASE_IND	Dl_rel_ind		
15	DS10	DLS ? OTHERWISE		(FAIL)	
16		+DFLTS_release_link			
17	DS11	CANCEL		R	
		DFLTS_release_link			
18		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	Dl_rel_req(TSC_rm_abnormal)		
19	DS12	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	Dl_rel_cfm		
20	DS13	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind		2)
21	DS14	? TIMEOUT T_DLC_RESPONSE		(I)	
22	DS15	CANCEL		R	
23	DS16	DLS ? OTHERWISE		(FAIL)	3)
24	DS17	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)	(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_F_CC_01		(FAIL)	
2		+DFLTS_cc_release_normal			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_F_CC_02		(FAIL)	
5		+DFLTS_cc_release_abnormal			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_CC_03		(FAIL)	
8		+DFLTS_cc_release_abnormal			
9	D6	CANCEL		R	
		DFLTS_cc_release_normal			
10		DLS ! DL_DATA_REQ START T_F_CC_02	Dl_data_req(Cc_release_tx_base)		
11	DS1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	Dl_data_ind(Cc_release_com_rx_base)		
12		+DFLTS_release_link			
13	DS2	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	Dl_rel_ind		
14	DS3	? TIMEOUT T_F_CC_02		(I)	
15		+DFLTS_cc_release_abnormal			
16	DS4	DLS ? OTHERWISE		(FAIL)	
17		+DFLTS_release_link			
18	DS5	CANCEL		R	
		DFLTS_cc_release_abnormal			
19		DLS ! DL_DATA_REQ	Dl_data_req(Cc_release_com_tx_base)		
20	DS9	DLS ? DL_RELEASE_IND	Dl_rel_ind		
21	DS10	DLS ? OTHERWISE		(FAIL)	
22		+DFLTS_release_link			
23	DS11	CANCEL		R	
		DFLTS_release_link			
24		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	Dl_rel_req(TSC_rm_abnormal)		
25	DS12	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	Dl_rel_cfm		
26	DS13	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind		1)
27	DS14	? TIMEOUT T_DLC_RESPONSE		(I)	
28	DS15	CANCEL		R	
29	DS16	DLS ? OTHERWISE		(FAIL)	2)
30	DS17	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 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_locate_request			
2		RETURN			
3		+DFLTS_handle_tpui_assign_ack			
4		RETURN			
		DFLTS_handle_locate_request			
5	DS1	DLS ? DL_DATA_IND	Dl_data_ind(Locate_request_rx01)		
6		START T_F_MM_ident_1			1)
7		DLS ! DL_DATA_REQ(TCV_pdu_locate_acc := DL_DATA_REQ.message_unit, TSV_extended_loc_info := TCV_pdu_locate_acc.location_area.extended_location_information, TSV_nw_ass_id_tmsi := TCV_pdu_locate_acc.network_assigned_id.value)	Dl_data_req(Locate_accept_tx01)		2)
		DFLTS_handle_tpui_assign_ack			
8	DS2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	Dl_data_ind(Temporary_id_assign_ack_rx_base)		3)

Detailed Comments : 1) Timer T_MM_ident_1 is started, because a TEMPORARY_ID_ASSIGN_ACK is expected.,
2) Locate accept message contains TPUI and TMSI. Store TMSI and ELI.
3) A TEMPORARY_ID_ASSIGN_ACK is received and the timer T_F_MM_ident_1 is cancelled.

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_F_MM_auth_1		(FAIL)	
2		+DFLTS_release_link			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_F_MM_auth_2		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_MM_cipher_1		(FAIL)	
8		+DFLTS_release_link			
9	D6	CANCEL		R	
10	D7	? TIMEOUT T_F_MM_ident_1		(FAIL)	
11		+DFLTS_release_link			
12	D8	CANCEL		R	
13	D9	? TIMEOUT T_F_MM_ident_2		(FAIL)	
14		+DFLTS_release_link			
15	D10	CANCEL		R	
		DFLTS_release_link			
16		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	Dl_rel_req(TSC_rm_abnormal)		
17	DS11	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	Dl_rel_cfm		
18	DS12	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind		1)
19	DS13	? TIMEOUT T_DLC_RESPONSE		(I)	
20	DS14	CANCEL		R	
21	DS15	DLS ? OTHERWISE		(FAIL)	2)
22	DS16	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_sending_of_cc_notify

Group :

Objective : To restart a CC timer in the IUT, by means of a {CC_NOTIFY} message containing a 'restart timer' ie, in case an intervening MM procedure takes too long.

Comments : To check the necessety for a timer restart, a guard timer in the LT should be started, which should have the same value as the timer in the IUT, minus 5 %. If this timer times out, a CC−NOTIFY is sent, and the timer is restarted. The teststep will pass back control to the testcase.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_P_CC_03_min		(PASS)	
2		DLS ! DL_DATA_REQ START T_P_CC_03_min	Dl_data_req(Cc_notify_tx01)		
3		RETURN			

Detailed Comments :

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	D1	DLS ? DL_RELEASE_IND	Dl_rel_ind	I	1)
2	D2	CANCEL		R	
3	D3	DLS ? OTHERWISE		(FAIL)	2)
4		+DFLTS_release_link			
5	D4	CANCEL		R	
6	D5	DLB ? OTHERWISE		(FAIL)	3)
7		+DFLTS_release_link			
8	D6	CANCEL		R	
		DFLTS_release_link			
9		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	Dl_rel_req(TSC_rm_abnormal)		
10	DS11	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	Dl_rel_cfm		
11	DS12	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	Dl_rel_ind		4)
12	DS13	? TIMEOUT T_DLC_RESPONSE		(I)	
13	DS14	CANCEL		R	
14	DS15	DLS ? OTHERWISE		(FAIL)	5)
15	DS16	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

Annex B (normative): Profile Implementation Extra Information for Testing (IXIT) proforma

The PIXIT Proforma is based on ISO/IEC 9646-6 [14]. Any additional information needed can be found in this ISO/IEC standard.

B.1 General

This annex specifies restrictions on answers, and additional questions to (and is intended to be used with) the IXIT proforma specified in ETS 300 497-7 [7] or ETS 300 494-2 [9].

B.2 Profile XRL NWK layer protocol

This clause specifies restrictions on answers relevant to DECT/GSM IWP PTS, NWK layer. If a question exists in the relevant DECT CI or GAP IXIT but is not listed in the tables of this subclause this means that such a question does not need modifications and is fully applicable for DECT/GSM IWP.

B.2.1 Addresses

Table B.1: Addresses

No.	SAP addresses	
	To IUT	To TS
Comments:		

B.2.2 Parameter values

Table B.2: Parameter values

No.	Parameter name	Parameter value	Profile ICS clause	Parameter range	Parameter value	Comment
1	TSPX_tmsi_ value			BIT_32		Value of TMSI to be used, when assigning a TMSI to the IUT
2	TSPX_extended _location_ information			OCT_7		Value of ELI to be used, when assigning a ELI to the IUT
3	TSPX_rand_ value			BIT_128		Value of rand to be used during PT authentication procedure
4	TSPX_cc_ckn_ gsm			BIT_4		Value of cipher key number to be used during PT authentication procedure
Detailed comments:						

B.2.3 Timer values

Table B.3: Timer values

No.	Timer name type	Profile ICS clause	Timer range	Timer value	Comment
Detailed comments:					

B.2.4 Counter values

Table B.4: Counter values

No.	Counter name type	Profile ICS clause	Counter range	Counter value	Comment
Detailed comments:					

B.2.5 Protocol constants values

Table B.5: Protocol constants values

No.	Constant name	Profile ICS clause	Constant value	Comment
1	TSPX_ipui_value	(GSPICS) Table A.63		note
Detailed comments: NOTE: If the number of identity digits is even the digit '9' shall be added at the end, see ETS 300 175-5 [1] subclause 7.7.30, IPUI R.				

B.2.6 Control of Protocol Data Units (PDU) sending

This subclause identifies requirements for testing, placed by the PTS specification which may not be realisable by the SUT resulting in abstract test cases which cannot be executed (e.g. unsatisfiable implicit send events).

No restrictions or modifications required.

B.3 Profile specific IXIT NWK layer

This clause contains, additional to the DECT/GSM IWP Profile IXIT questions, information for testing related to the profile covering requirements of the DECT/GSM IWP PSTS.

Table B.6

No.	Parameter name	Parameter value	Profile ICS clause	Parameter range	Parameter value	Comment
1	TSPX_tmsi_ value			BIT_32		Value of TMSI to be used when assigning a TMSI to the IUT
2	TSPX_extended_l ocation_ information			OCT_7		Value of ELI to be used when assigning an ELI to the IUT
3	TSPX_rand_value			BIT_128		Value of rand to be used during PT authentication procedure
4	TSPX_cc_ckn_ gsm			BIT_4		Value of cipher key number to be used during PT authentication procedure
Detailed comments:						

B.3.1 Configuration constraints

This subclause includes constraints on the configuration of the IUT to restrict its operation to the DECT/GSM IWP only.

No constraints on the configuration of the IUT required.

Annex C (normative): Profile Conformance Test Report (Profile CTR) proforma

C.1 Identification summary

C.1.1 Profile CTR

PCTR number	
PCTR date	
Test laboratory	
Accreditation status	
Accreditation reference	
Technical authority	
Job title	
Signature	
Test laboratory manager	
Signature	

C.1.2 Implementation Under Test (IUT)

Name	
Version	
Protocol Specification	ETS 300 370
Profile ICS	ETS 300 704-1

C.1.3 Testing environment

Profile IXIT	ETS 300 702-2
Profile specific test specification	ETS 300 702-2
ATM	Remote
MOT	
Period of testing	
Conformance log reference	
Retention date of log reference	

C.1.4 Limits and reservations

The order of test cases listed in clause C.6 (if any) of this annex corresponds to the ordering of test cases defined in the PSTS referenced in subclause B.1.3. This does not indicate that the test cases were executed in this order.

The test results presented in this test report apply only to the particular IUT declared in subclause C.1.2, as presented for test in the period declared in subclauses C.1.3, and configured as declared in the relevant IXIT attached to this PCTR. This report shall not be reproduced except in full together with its attached ICS and IXIT.

NOTE: Additional information relevant to the technical contents or further use of the test report, or to the rights and obligations of the test laboratory and the client, may be given here. Such information may include restrictions on the publication of the report.

C.1.5 Comments

Additional comments may be given by either the client or test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

Additional comments reference in annex:	

C.2 IUT conformance status

IUT conformance status	Yes/No
The IUT conformance to the referenced base specification.	

NOTE: For further details see ISO 9646-5 [13], annex B clause 2.

C.3 Static conformance summary

Static conformance summary	Yes/No
The ICS for this IUT consistency with the static conformance requirements in the referenced base specification.	

NOTE: For further details see ISO 9646-5 [13], annex B clause 3.

C.4 Dynamic conformance summary

Dynamic conformance summary	Yes/No
Errors in the IUT revealed by the test campaign.	

NOTE: For further details see ISO 9646-5 [13], annex B clause 4.

C.5 Static conformance review report

If clause B.3 indicates non-conformance, this section itemises the mismatches between the ICS and the static conformance requirements of the referenced base and profile specifications.

Non-conformance indication			Comment
Item in ETS 300 476	Item in ETS 300 474	Item in ETS 300 704	

C.6 Test campaign report

The following subclause lists the untestable test cases (if any).

NOTE: For further details see ISO 9646-5 [13], annex B clause 6.

C.6.1 NWK layer

TC Name	Selected [Yes/No]	Run [Yes/No]	Verdict [P/F/I]	Observation

C.7 Observations

NOTE: Additional information relevant to the technical content of the PCTR may be given here.

Annex D (normative): System Conformance Test Report (SCTR) proforma

D.1 Identification summary

D.1.1 System conformance test report

SCTR number	
SCTR date	
Test laboratory manager	
Signature	

D.1.2 Test laboratory

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Telex	
Teletex	
E-mail	

D.1.3 Client

Identification	
Address	
Postal code/city	
Country	
Telephone	
Telefax	
Telex	
Teletex	
E-mail	

D.1.4 System Under Test (SUT)

Name	
Version	
Supplier	
Dates of testing	
Date of receipt of SUT	
Location of SUT for testing	
SCS identifier	

D.1.5 Profile

Profile identification	ETS 300 370
Profile version	
Profile ICS	ETS 300 704-1
Profile specific IXIT	ETS 300 702-2
PTS-summary	ETS 300 702-1
PSTS	ETS 300 702-2

D.1.6 Nature of conformance testing

The purpose of conformance testing is to increase the probability that different implementations can interwork in different environments. However, the complexity of Open Systems Interconnection (OSI) protocols makes exhaustive testing impractical on both technical and economic grounds. Furthermore, there is no guarantee that an SUT which has passed all the relevant test cases conforms to a specification. Neither is there any guarantee that such an SUT will interwork with other real open systems. Rather, the passing of the test cases gives confidence that the SUT has the stated capabilities and that its behaviour conforms consistently in representative instances of communication.

D.1.7 Limits and reservations

The test results presented in this test report apply only to the particular SUT and component IUTs declared in subclause D.1.4 and D.1.8, for the functionality described in the referenced SCS and in the ICS referenced in each PCTR, as presented for test in the period declared in section D.1.4 and configured as declared in the relevant IXIT referenced in each PCTR. This SCTR may not be reproduced except in full together with its SCS.

NOTE: Additional information relevant to the technical contents or further use of the test report, or to the rights and obligations of the test laboratory and the client, may be given here. Such information may include restrictions on the publication of the report.

D.1.8 Record of agreement

A definition of what parts of the SUT were considered to be the IUT during testing, and of the Abstract Test Method (ATM) and Abstract Test Suite (ATS) that were used:

IUT Definition Reference	Protocol	ATM	ATS
	DECT NWK layer PT	Remote	ETS 300 702-2
	DECT DLC layer PT	Remote	ETS 300 494-2
	DECT MAC layer PT	Remote (modified)	ETS 300 494-2
	DECT PH layer PT	Not applicable	ETS 300 494-2

D.1.9 Comments

Additional comments reference in annex:	

NOTE: Additional comments may be given by either the client or test laboratory on any of the contents of the SCTR, for example, to note disagreement between the two parties.

D.2 System Report Summary

D.2.1 Profile testing summary for DECT/GSM IWP NWK layer PT

Accreditation status	
Accreditation reference	
Implementation identifier	
IUT definition reference	
Protocol specification	ETS 300 370 ETS 300 175-5 ETS 300 444
Profile ICS	ETS 300 704-1
Profile IXIT	ETS 300 702-2
PCTR number	
PCTR date	
PSTS	ETS 300 702-2
ATM	Remote
Means of testing identifier	
Conformance status	
Conformance status: static conformance errors dynamic conformance errors	 Yes / No Yes / No
Test cases all	
Selected	
Run	
Passed	
Inconclusive	
Failed	
Observations	

NOTE: If the SUT is not statically and dynamically conforming for this protocol, an additional summary may be given on aspect of non conformance. Any difficulties encountered may be reported here.

Annex E (normative): System Conformance Statement (SCS) proforma

E.1 Identification summary

E.1.1 SCS identification

SCS serial number	
SCS date	

E.1.2 IUT identification

Trade name	
Type	
Version	
Serial number	

E.1.3 Client identification

Company	
Street number	
Postal code / city	
Country	
Contact person name	
Telephone	
Telefax	
Telex	
Teletex	
E-mail	

E.1.4 Supplier identification

Company	
Street number	
Postal code / city	
Country	
Contact person name	
Telephone	
Telefax	
Telex	
Teletex	
E-mail	

E.1.5 Manufacturer identification

(if different from client)

Company	
Street number	
Postal code / city	
Country	
Contact person name	
Telephone	
Telefax	
Telex	
Teletex	
E-mail	

E.1.6 Protocols identification

Protocol Name	Specification Reference	PICS Reference	PCTR Reference	PCTR Reference from previous campaign
DECT NWK layer	ETS 300 175 - 5	ETS 300 476-1	-	
DECT DLC layer	ETS 300 175 - 4	ETS 300 476-2	-	
DECT MAC layer	ETS 300 175 - 3	ETS 300 476-3	-	
DECT PH layer	ETS 300 175 - 2	ETS 300 476-7	-	

E.1.7 Profile identification

Profile Identifier	Specification Reference	Profile ICS Specific Reference	SCTR Reference	SCTR reference from previous campaign
Generic Access Profile (GAP)	ETS 300 444	ETS 300 474-1	ETS 300 494-2	

Profile Identifier	Specification Reference	Profile ICS Specific Reference	SCTR Reference	SCTR reference from previous campaign
DECT/GSM IWP	ETS 300 370	ETS 300 704-1	ETS 300 702-2	

E.2 Miscellaneous system information

E.2.1 Configuration

Environment	Which one?
CPU type	
Bus-system	
Operating system name	
Additional	

E.2.2 Other information

History

Document history			
June 1996	Public Enquiry	PE 108:	1996-06-24 to 1996-10-18