EUROPEAN
TELECOMMUNICATION
STANDARD

Radio Equipment and Systems (RES);
Digital Enhanced Cordless Telecommunications (DECT);
Common Interface (CI) Test Case Library (TCL);
Part 2: Abstract Test Suite (ATS) for Medium Access Control
(MAC) layer - Portable radio Termination (PT)

ETSI

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Contents

Foreword

This final 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 Voting phase of the ETSI standards approval procedure.

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

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

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

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

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

Part 5:   "Part 5: Abstract Test Suite (ATS) - Data Link Control (DLC) layer".

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

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

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

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

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

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1 Scope

This final draft European Telecommunication Standard (ETS) contains the Abstract Test Suite (ATS) to test the DECT Portable Part (PP) Medium Access Control (MAC) layer.

The objective of this test specification is to provide a basis for approval tests for DECT equipment giving a high probability of air interface inter-operability between different manufacturer's DECT equipment. This test specification contains the ATS specification for testing of the MAC layer at the PT.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646 [21] to [27]) as well as the ETSI rules for conformance testing in ETS 300 406 [29] are used as the basis for the test methodology.

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

Annex A provides the Tree and Tabular Combined Notation (TTCN) part of this ATS.

Annex B provides the specification of the parallel test component LT_MAC.

Annex C provides the Partial Protocol Implementation eXtra Information for Testing (PIXIT) Proforma of this ATS.

Annex D provides the Protocol Conformance Test Report (PCTR) Proforma of this 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 300 175-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".

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

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

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

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

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

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

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

[9]   ETS 300 175-9: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common Interface (CI); Part 9: Public Access Profile (PAP)".

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

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

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

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

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

[15..20]   Reserved values

[21]   ISO/IEC 9646-1 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts". (See also CCITT Recommendation X.290 (1991)).

[22]   ISO/IEC 9646-2 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification". (See also CCITT Recommendation X.291 (1991)).

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

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

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

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

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

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

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

[30]   91/263/EEC: "Council Directive of 29 April 1991 on the approximation of the laws of the Member states concerning telecommunications terminal equipment, including the mutual recognition of their conformity. (Terminal Directive)".

[31..40]   Reserved values

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

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

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

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

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

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

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

[48]   prETS 300 474: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile requirement list and profile specific Implementation Conformance Statement (ICS) proforma".

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

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

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this part of this ETS, the definitions given in ISO/IEC 9646-1 [21] and ETSI ETS 300 175-1 [1] apply.

3.2 DECT abbreviations

For the purpose of this part of this ETS, the following abbreviations apply:

AC	Authentication Code
CC	Call Control
CI	Common Interface
CLMS	Connectionless Message Services (CL)
CM	Co-ordination Message
COMS	Connection Oriented Message Services (CO)
CTS	Conformance Testing Services
DECT	Digital Enhanced Cordless Telecommunication
DLC	Data Link Control
DSAA	DECT Standard Authentication Algorithm
DSCA	DECT Standard Cipher Algorithm 1
ETS	European Telecommunication Standard
ISO	International Organisation for Standardisation
ETSI	European Telecommunications Standards Institute
FT	Fixed radio Termination
IPUI	International Portable User Identity
IPEI	International Portable Equipment Identity
IWU	Inter-Working Unit
LC	Link Control entity
MAC	Medium Access Control
ME	Management Entity
MM	Mobility Management
NWK	Network
PAP	Public Access Profile
PARK	Portable Access Rights Key
PHL	Physical Layer
PT	Portable radio Termination
RPN	Radio Fixed Part Number
SAP	Service Access Point
SARI	Secondary access rights identity
SDU	Service data unit
UAK	User Authentication Key

3.3 ISO 9646 abbreviations

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

ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
BI	Invalid Behaviour
BO	InOpportune Behaviour
BV	Valid Behaviour
CA	Capability tests
CP	Co-ordination Point
IUT	Implementation Under Test
LT	Lower Tester
MTC	Main Test Component
PCO	Point of Control and Observation
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statements
PIXIT	Protocol Implementation eXtra Information for Testing

PTC	Parallel Test Component
SUT	System Under Test
TP	Test Purpose
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4   Abstract Test Method (ATM)

This clause describes the ATM used to test the DECT MAC layer protocol at the Portable radio Termination (PT).

4.1   Description of ATM
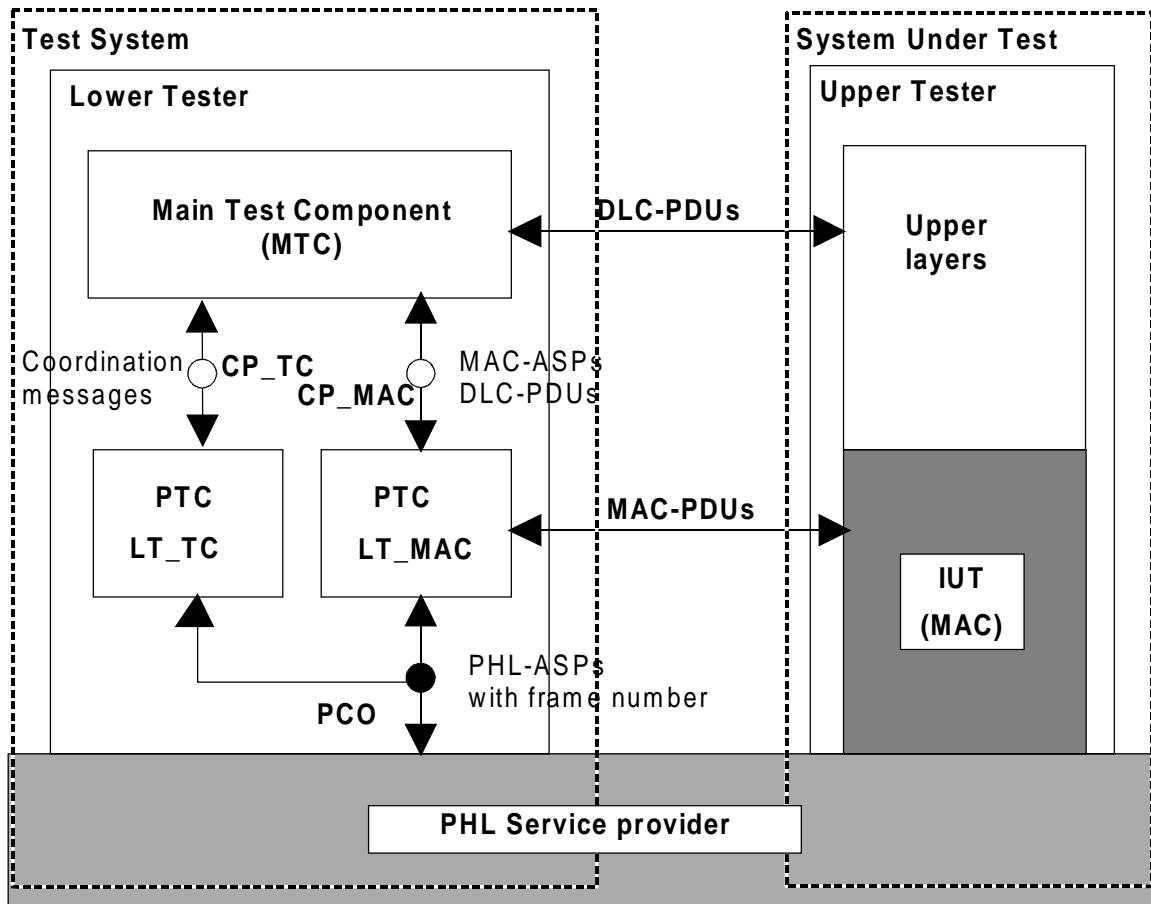
Figure 1: Remote test method, embedded variant

A single-party testing concept is used, which consists of the following abstract testing functions:

PCO: the PCO for MAC Layer testing is located at the D-SAP between the MAC layer and the Physical layer. All test events at the PCO are specified in terms of PHL-ASPs (frame number parameter added).

CP_TC: Co-ordination Point Test Case (CP_TC) is located between the MTC and PTC LT_TC in the test system. It is used for passing co-ordination messages between these two testing functions.

CP_MAC: Co-ordination Point MAC (CP_MAC) is located between the MTC and PTC LT_MAC in the test system. It is equivalent to the PCO used for DLC layer testing in part 6 of this ETS. All co-ordination messages at this CP are specified in terms of MAC-ASPs and DLC-PDUs.

PTC LT_TC: the Lower Tester Parallel Test Component LT_TC (PTC LT_TC) is located in the test system. It makes restricted use of the PCO by only observing the test events in both directions. It assigns preliminary verdicts (the MTC assigns the final verdict).

NOTE: This restricted use of the PCO is a non-ISO 9646-2 [22] application of the PCO.

PTC LT_MAC: The Lower Tester Parallel Test Component LT_MAC (PTC LT_MAC) is located in the test system. It provides indirect control and observation of the IUT during test execution, via the underlying service-provider. It does not assign any verdicts.

MTC: The Main Test Component (MTC) is located in the test system. It is responsible for creating and terminating the PTCs, managing the co-ordination points CP_TC and CP_MAC, and computation of the final test case verdict.

Upper layers: No explicit upper tester (UT) exists in the test system. However, the SUT (upper layers) needs to carry out some UT functions to achieve some effects of test co-ordination procedures.

The primitives used at the PCO (physical SAP - DSAP) are defined according to ETS 300 175-2 [2] clause 7 and associated subclauses.

The co-ordination messages used at CP_MAC co-ordination point are abstract primitives including protocol data units and frames. The abstract primitives (MAC ASPs) are defined according to ETS 300 175-3 [3] clause 8 and associated subclauses. Two abstract primitives for starting and stopping the synchronisation between the main test component and the parallel test component LT_MAC are added for the needs of the tester. The protocol data units (DLC C-plane PDUs) are defined according to ETS 300 175-4 [4] clause 7 and associated subclauses. The frames (DLC U-plane frames) are defined according to ETS 300 175-4 [4] clause 12 and associated subclauses.

4.2 Test strategy

The ATM defined in subclause 4.1 requires the use of concurrent TTCN, which is specified in Amendment 1 of ISO 9646-3 [23]. The parallel test components PTC_TC and PTC_MAC are, however, seen as two independent entities. This means that there is no communication or synchronisation between the two PTCs during the test.

PTC_TC is specified in TTCN (see annex A). Since PTC_TC is only observing at the PCO, this ATS does not contain any send statements. Once the test purpose (TP) is fulfilled, the PTC_TC terminates, i.e. there are no post ambles, unless required by the TP. No explicit co-ordination messages is exchanged at CP_TC. To simplify the TTCN test cases, the underlying service provider has been assigned the task of frame numbering. Consequently, a frame parameter has been added to some of the PHL-ASPs.

The requirements for PTC_MAC (see annex B) are specified using ETS 300 474 [48].

The Main Test Component (MTC) creates the two PTCs (using CREATE operation), stimulates the PTC_MAC (using MAC ASPs at CP_MAC) and then waits for the two PTCs to terminate (using the DONE event). The final verdict is computed as follows:

- a PASS is assigned if PTC_TC returns a PASS verdict and the expected event is received from PTC_MAC at CP_MAC;

- a FAIL verdict is assigned if PTC_TC returns a FAIL verdict independently of what is received from PTC_MAC at CP_MAC;

- an INCONC verdict is assigned if:PTC_TC returns an INCONC verdict and the expected event is received from PTC_MAC at CP_MAC, or returns a PASS verdict and an unexpected event is received from PTC_MAC at CP_MAC.

5 Untestable Test Purposes (TPs)

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

Table 1: Untestable TPs

Test purpose	Reason
TP/DB/BV-00	It is not possible to distinguish, without confusion, if the PT is unlocked or crashed.
TP/DB/BV-02	It is no possible to distinguish, without confusion, if the PT is unlocked or crashed.
TP/PG/BV-00	No procedure can be defined to verify that the FT manages correctly the paging Extended Flag when it transmit pages.

6 ATS conventions (only applicable for PTC LT_TC)

The ATS conventions are intended to give a better understanding of the ATS but they also describe the conventions made for the development of the ATS. These conventions shall be considered during any later maintenance or further development of the ATS.

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

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

6.1 Naming conventions

6.1.1 Declarations part

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

6.1.1.1 General

The following general rules apply for the name giving in the declarations part. All type definitions (simple type definitions, structured type definitions, ASP type definitions and PDU type definitions) shall be written in uppercase.

All element names (structured type definition), parameter names (ASP type definition) and field names (PDU type definition) shall be written in lowercase.

Predefined types (e.g. BITSTRING[8]) are never used in structured type definitions, ASP type definitions or PDU type definitions. Simple types are used instead.

All declarations in the test suite are listed in alphabetical order. A different order of listing should be used for only maintenance reasons.

6.1.1.2 Test suite operations definition

The test suite operation identifiers are composed of substrings in lowercase letters, except for standard prefix "TSO_". Each substring is separated by an underscore character ("_").

EXAMPLE: TSO_substring

6.1.1.3   Test suite parameter declarations

The test suite parameter identifiers are composed of substrings in lowercase letters, except for the standard prefix "TSP_". Each substring is separated by an underscore character ("_").

EXAMPLE 1:   TSP_t_wait

If the test suite parameter references a PICS item, the letter "C" is added to the standard prefix.

EXAMPLE 2:   TSPC_extended_rf_carriers

If the test suite parameter references a PIXIT item, the letter "X" is added to the standard prefix.

EXAMPLE 3:   TSPX_pmid

6.1.1.4   Test case selection expression definition

The test case selection expression identifiers are composed of substrings in lowercase letters, beginning with the prefix "TCS_". Each substring is separated by an underscore character ("_").

6.1.1.5   Test suite constant declarations

The test suite constant identifiers are composed of substrings in lowercase letters, except for the prefix "TSC_". Each substring is separated by an underscore character ("_").

If the test suite constant represents a system parameter, the complete name defined in the protocol ETS is used.

EXAMPLE: TSC_n200

6.1.1.6   Test suite variable declarations

The test suite variable identifiers are composed of substrings in lowercase letters, except for the prefix "TSV_". Each substring is separated by an underscore character ("_").

Complete names as defined in the protocol ETS are used.

6.1.1.7   Test case variable declarations

The test case variable identifiers are composed of substrings in lowercase letters, except for the prefix "TCV_". Each substring is separated by an underscore character ("_").

Complete names as defined in the protocol ETS are used.

6.1.1.8   Timer declarations

Two types of timers can be identified:

1)   standardised:

        -        those defined in the protocol ETS, e.g. T201. They use exactly the same name as in the
                 ETS.

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

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

EXAMPLE 1:   T201_max, T201_min, and T201.

2)   not standardised:

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

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

6.1.1.9   ASP type definitions

The general conventions in subclause 6.1.1.1 applies.

The identifier of an ASP type uses the same name as the name defined in the protocol ETS.

EXAMPLE: PL_TX_REQ for an ASP containing a MAC layer PDU to the peer MAC layer
                        (the IUT).

6.1.1.10   PDU type definitions

The general conventions in subclause 6.1.1.1 applies.

The PDU type identifier shall identify the related structure or type as defined in the protocol ETS.

EXAMPLE: A_MT_BASIC_CONNECTION_CONTROL

6.1.1.11   CM type definitions

The CM types are copied from the ASP types in ETS 300 497-5 [47] without modifications.

6.1.1.12   Alias definitions

Alias definitions are not used.

6.1.2 Constraints part

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

6.1.2.1 General

Constraints shall be written with the first letter in uppercase, and the rest in lowercase.

The first part of the constraint declaration identifier name is equivalent to the corresponding type identifier used in the declaration part. The second part of the name describes the content of this constraint.

EXAMPLE: Declaration part: HEADER_FIELD
                      Constraint part: Header_field_nt_no_b

All constraints shall be listed in alphabetical order. If a different order of listing is maintained, the reason for doing so shall be specified.

6.1.3 Dynamic part

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

6.1.3.1 General

All test cases shall be listed in the order in which they appear in the TSS and TP document.

6.1.3.2 Test Case (TC) identifier

The identifier of the test case is built in the same way as for the test purpose described in ETS 300 497-1 [47], subclause 5.1.1, with the exception that "TP" is replaced by "TC_PT" ("PT" for Portable radio Termination). The identifier of a TC is built according to table 2.

Table 2: TC naming convention

Identifier:	TC_PT_<fm>_<x>_<nn>		
	<fm> = functional module	DB	Down link Broadcast
		PG	Paging services
		NB	Non Continuous Broadcast
		DC	Down link Connectionless
		UC	Uplink Connectionless
		BS	Bearer setup
		CM	Connection modification
		BH	Bearer handover
		BR	Bearer release
		DT	Data transfer
		LM	Layer Management
		TM	Test Messages
	x = Type of testing	CA	Capability Tests
		BV	Valid Behaviour Tests
		BI	Invalid Behaviour Tests
	<nn> = sequential number	(00-99)	Test purpose Number

EXAMPLE: TP identifier: TP/BS/CA-00
                      TC identifier: TC_PT_BS_CA_00

6.1.3.3 Test step identifier

The test step identifier is built of substrings in lowercase letters, preceded by a string of uppercase letters. The substrings are joined by underscore characters. The first substring indicates the main function of the test step; e.g. PR for preamble, PO for postamble, LTS for local tree and STP for general test step. The second substring indicates the purpose of the step.

EXAMPLE: PO_release_bearer

6.1.3.4 Default identifier

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

6.1.3.5 Label identifier

The identifiers in the label column is built according to table 3:

Table 3: Naming convention for verdict assignment identifier

Identifier:	<Table><nn>		
	<Table> = type of table	TB	Test Body
		CS	Check State test step
		DF	DeFault
		PO	POstamble
		PR	PReamble
		TS	TestStep
	<nn> = sequential number	(00-99)	Label number

6.1.3.6 ATS abbreviations

These abbreviations are used to shorten identifier names:

addr	address
ack	acknowledgement
bear	bearer
cap	capability
cfm	confirm
chn	channel
con	connection
ctrl	control
est	establish
ext	extension
id	identification
ind	indication
info	information
max	maximum
min	minimum
par	parameter
prop	proprietary
rel	release
req	request
rsp	response
std	standard
sys	system

6.2 Implementation conventions

6.2.1 Declaration part

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

The comment line in the header of multi element TTCN tables (e.g. ASPs) is used to reference to the protocol ETS.

The detailed comments are used to describe any peculiarity of the table.

In the ASP, PDU, and CM declarations, the comments column is used to identify if a parameter (in ASPs) or field (in PDUs) is mandatory or optional:

- M: mandatory
- O: optional

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

6.2.2 Constraint part

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

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

The Comment line of a constraint always contains a reference to the relevant protocol ETS.

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

6.2.3 Dynamic part

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

All invalid events are handled in the default tree. Only FAIL or INCONC verdicts are assigned in the default tree.

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

Except for local trees, test steps do not contain a default. Then there is no restrictions regarding the error handling.

All verdict assignments are labelled. According to ISO 9646-3 [23], annex E, clause E.2, labels should be written to the conformance log. This allows, for example, to identify were the test failed. To allow an exact identification of the table in which the verdict was assigned, the convention described in subclause 6.1.3.5 is applied.

To avoid deadlocks, the Parallel Test Components (PTC) LT_TC and LT_MAC shall always terminate.

TPs which are listed in the untestable TP list in clause 5 are not considered in the ATS, thus these TC identifiers are missing in the ATS and the numbering of the TCs is not always continuous.

Annex A (normative): Abstract Test Suite (ATS), PTC LT_TC

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

As the ATS was developed on a separate TTCN software tool and therefore 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 (DEV04972.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.

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1) This file is located in a compressed archive file named DEV04972.LZH. Other file formats are available on request.

I

Test Suite Overview

Test Suite Structure			

Suite Name : mac_pt

Standards Ref : ETS 300 175–3 [3]

PICS Ref : ETS 300 476–3

PIXIT Ref : ETS 300 497–2 Annex C

Test Method(s) : ETS 300 497–2 Clause 4

Comments : This ATS is part of the DECT Common Interface Test Case Library (TCL) ETS 300 497.
This ATS is the TTCN part of ETS 300 497 Part 2, TCL MAC layer at Portable Part

ETSI files reference: 497P2V03.MP, 497P2V03.PS (Excluding this Generic comments part, the files of this version are identical to the ITA_V03 version files MACPT4.MP, and MACPT4.PS)

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
PT/	MANDATORY	Verify the correct implementation of the PT (IUT) MAC layer.	82
PT/BH/	MANDATORY	Verify the correct implementation of connection oriented bearer handover procedures.	82
PT/BH/BV/	MANDATORY	To test the behaviour of the IUT concerning connection oriented bearer handover procedures in relation to syntactically and contextual correct behaviour of the test system.	82
PT/BH/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning connection oriented bearer handover procedures are in accordance with the static requirements.	86
PT/BR/	MANDATORY	Verify the correct implementation of connection oriented bearer release procedures.	88
PT/BR/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning connection oriented bearer release procedures are in accordance with the static requirements.	88
PT/BS/	MANDATORY	Verify the correct implementation of connection oriented bearer setup procedures.	90
PT/BS/BV/	MANDATORY	To test the behaviour of the IUT concerning connection oriented bearer setup procedures in relation to syntactically and contextual correct behaviour of the test system.	90
PT/BS/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning connection oriented bearer setup procedures are in accordance with the static requirements.	91
PT/DB/	MANDATORY	Verify the correct implementation of the downlink broadcast services.	93
PT/DB/BV/	MANDATORY	To test the behaviour of the IUT concerning the downlink broadcast services in relation to syntactically and contextual correct behaviour of the test system.	93

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Test Suite Structure			
Test Group Reference	**Selection Ref**	**Test Group Objective**	**Page Nr**
PT/DT/	MANDATORY	Verify the correct implementation of connection oriented data transfer procedures.	94
PT/DT/BI/	MANDATORY	To check the behaviour of the IUT concerning connection oriented data transfer procedures in response to invalid messages.	94
PT/DT/BV/	MANDATORY	To test the behaviour of the IUT concerning connection oriented data transfer procedures in relation to syntactically and contextual correct behaviour of the test system.	96
PT/DT/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning connection oriented data transfer procedures are in accordance with the static requirements.	98
PT/LM/	MANDATORY	Verify the correct implementation of the LLME MAC layer management procedures.	105
PT/LM/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning the MAC layer management are in accordance with the static requirements.	105
PT/PG/	MANDATORY	Verify the correct implementation of the paging services.	111
PT/PG/BV/	MANDATORY	To test the behaviour of the IUT concerning the paging services in relation to syntactically and contextual correct behaviour of the test system.	111
PT/PG/CA/	MANDATORY	Limited testing that the observable capabilities of the IUT concerning the paging services are in accordance with the static requirements.	113
Detailed Comments :			

		Test Case Index		
Test Group Reference	**Test Case Id**	**Selection Ref**	**Description**	**Page Nr**
PT/BH/BV/	TC_PT_BH_BV_00	MANDATORY	Check that the IUT, for a duplex bearer, correctly initiates and completes an intracell bearer handover procedure using basic set−up when encryption is enabled.	82
PT/BH/BV/	TC_PT_BH_BV_01	MANDATORY	Check that the IUT, for a duplex bearer, correctly initiates and completes an intercell bearer handover procedure using basic set−up when encryption is enabled.	84
PT/BH/CA/	TC_PT_BH_CA_00	MANDATORY	Check that the IUT, for a duplex bearer, correctly initiates and completes an intracell bearer handover procedure using basic set−up.	86
PT/BH/CA/	TC_PT_BH_CA_01	MANDATORY	Check that the IUT, for a duplex bearer, correctly initiates and completes an intercell bearer handover procedure using basic set−up.	87
PT/BR/CA/	TC_PT_BR_CA_00	MANDATORY	Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when receiving a release message.	88
PT/BS/BV/	TC_PT_BS_BV_00	MANDATORY	Check that the IUT releases a duplex bearer in case the timer T201 expires during the time a basic bearer exists.	90
PT/BS/CA/	TC_PT_BS_CA_00	MANDATORY	Check that the IUT manages rightly the PT initiated (single) basic bearer setup procedure without wait messages.	91
PT/BS/CA/	TC_PT_BS_CA_01	MANDATORY	Check that the IUT manages rightly the PT initiated (single) basic bearer setup procedure with wait messages.	92
PT/DB/BV/	TC_PT_DB_BV_01	MANDATORY	Check that the IUT is able to establish a bearer after reception of the extended RF carrier information QT message.	93
PT/DT/BI/	TC_PT_DT_BI_00	MANDATORY	Check that the IUT, when receiving IN minimum delay data, is capable to detect A−field R−CRC error and to respond with the correct Q2 bit setting (Q2 = 0).	94

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Continued from previous page

<table>
<tr><th colspan="5">Test Case Index</th></tr>
<tr><th>Test Group Reference</th><th>Test Case Id</th><th>Selection Ref</th><th>Description</th><th>Page Nr</th></tr>
<tr><td>PT/DT/BV/</td><td>TC_PT_DT_BV_00</td><td>MANDATORY</td><td>Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from clear mode to encrypt mode.</td><td>96</td></tr>
<tr><td>PT/DT/BV/</td><td>TC_PT_DT_BV_01</td><td>Encryption_deactivation_ supported</td><td>Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from encrypt mode to clear mode.</td><td>97</td></tr>
<tr><td>PT/DT/CA/</td><td>TC_PT_DT_CA_00</td><td>MANDATORY</td><td>Check that the IUT re–transmits Cs segment until it receives an acknowledgement in the same ARQ window.</td><td>98</td></tr>
<tr><td>PT/DT/CA/</td><td>TC_PT_DT_CA_01</td><td>MANDATORY</td><td>Check that the IUT does not transmit another Cs segment until the successful transmission of the current segment.</td><td>100</td></tr>
<tr><td>PT/DT/CA/</td><td>TC_PT_DT_CA_02</td><td>MANDATORY</td><td>Check that the IUT manages correctly the one bit numbering of the Cs segments.</td><td>102</td></tr>
<tr><td>PT/DT/CA/</td><td>TC_PT_DT_CA_03</td><td>MANDATORY</td><td>Check that the IUT manages correctly the procedure to switch the basic connection from clear mode to encrypt mode.</td><td>103</td></tr>
<tr><td>PT/DT/CA/</td><td>TC_PT_DT_CA_04</td><td>Encryption_deactivation_ supported</td><td>Check that the IUT manages correctly the procedure to switch the basic connection from encrypt mode to clear mode.</td><td>104</td></tr>
<tr><td>PT/LM/CA/</td><td>TC_PT_LM_CA_00</td><td>MANDATORY</td><td>Check that the IUT manages rightly the protocol constant N200.</td><td>105</td></tr>
<tr><td>PT/LM/CA/</td><td>TC_PT_LM_CA_01</td><td>MANDATORY</td><td>Check that the IUT manages rightly the protocol timer T200.</td><td>106</td></tr>
<tr><td>PT/LM/CA/</td><td>TC_PT_LM_CA_02</td><td>MANDATORY</td><td>Check that the IUT manages rightly the protocol timer T207.</td><td>107</td></tr>
<tr><td>PT/LM/CA/</td><td>TC_PT_LM_CA_03</td><td>MANDATORY</td><td>Check that the IUT manages rightly the protocol timer T208.</td><td>108</td></tr>
<tr><td>PT/LM/CA/</td><td>TC_PT_LM_CA_04</td><td>MANDATORY</td><td>Check that the IUT, within a time window of T202 seconds. makes at most N201 bearer setup attempts for bearer handover.</td><td>109</td></tr>
</table>

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Test Case Index				
Test Group Reference	**Test Case Id**	**Selection Ref**	**Description**	**Page Nr**
PT/PG/BV/	TC_PT_PG_BV_02	MANDATORY	Check that the PT does not setup a bearer on a slot announced to be blind, after reception of a PT blind full slot information message.	111
PT/PG/BV/	TC_PT_PG_BV_03	MANDATORY	Check that the PT stays locked to a FT, based on reception of other bearer and dummy or CL−bearer position zero length PT messages.	112
PT/PG/CA/	TC_PT_PG_CA_00	MANDATORY	Check that the IUT can receive a short page message.	113
PT/PG/CA/	TC_PT_PG_CA_01	MANDATORY	Check that the PT can receive a correct zero length page message.	114
Detailed Comments :				

Test Step Index			
Test Step Group Reference	**Test Step Id**	**Description**	**Page Nr**
MAIN_TC/Postambles/	PO_mtc_con_release	Release of MAC connection.	115
PTC_TC/TestSteps/	STP_basic_bearer_setup	PT initiated (single) basic bearer setup procedure without WAIT messages.	116
PTC_TC/TestSteps/	STP_basic_bearer_setup_failed	Failed PT initiated (single) basic bearer setup procedure.	117
PTC_TC/TestSteps/	STP_basic_bearer_setup_wait	PT initiated (single) basic bearer setup procedure with WAIT messages.	118
PTC_TC/TestSteps/	STP_basic_setup_too_many_wait	PT initiated (single) basic bearer setup procedure with too many WAIT messages.	120
PTC_TC/TestSteps/	STP_basic_bearer_handover	PT initiated (single) basic bearer handover procedure.	121
PTC_TC/TestSteps/	STP_emulate_mac	To provide a non TTCN MAC emulation according to Annex B.	122
PTC_TC/TestSteps/	STP_encryption_start	Connection clear to crypted procedure.	122
PTC_TC/TestSteps/	STP_encryption_start_failed	Check that the IUT releases the bearer if it can not conclude to go crypted.	123
PTC_TC/TestSteps/	STP_encryption_stop	Connection crypted to clear procedure.	124
PTC_TC/TestSteps/	STP_encryption_stop_failed	Check that the IUT releases the bearer if it can not conclude to go clear.	125
PTC_TC/TestSteps/	STP_handover_bearer_failed	Failed PT initiated (single) basic bearer handover procedure.	126
PTC_TC/TestSteps/	STP_handover_too_many_wait	PT initiated (single) basic bearer handover procedure with too many WAIT messages.	127
Detailed Comments :			

Default Index			
Default Group Reference	**Default Id**	**Description**	**Page Nr**
MAIN_TC/	DF_mtc_bearer_setup	For bearer setup tests (MTC).	128
MAIN_TC/	DF_mtc_downlink_broadcast	For downlink broadcast and paging tests (MTC).	129
PTC_TC/	DF_tc_bearer_setup	For bearer setup tests (PTC_TC).	129
PTC_TC/	DF_tc_downlink_broadcast	For downlink broadcast tests (PTC_TC).	130
PTC_TC/	DF_tc_paging	For paging tests (PTC_TC).	130
Detailed Comments :			

II

Declarations Part

Simple Type Definitions		
Type Name	**Type Definition**	**Comments**
B_1	BITSTRING[1]	
B_3	BITSTRING[3]	
B_4	BITSTRING[4]	
B_8	BITSTRING[8]	
B_12	BITSTRING[12]	
B_20	BITSTRING[20]	
B_40	BITSTRING[40]	
B_48	BITSTRING[48]	
B_216	BITSTRING[216]	
B_324	BITSTRING[324]	
CM_ADDRESS_T	BITSTRING[16]	lowest 16 bits of TPUI
CM_CF_REQUIRED	BOOLEAN	For CP_MAC CM.
CM_CHANNEL_TYPE	INTEGER	For CP_MAC CM.
CM_CLUSTER_ID	INTEGER	For CP_MAC CM.
CM_CONNECTION	INTEGER	For CP_MAC CM.
CM_CONNECTION_HANDOVER	BOOLEAN	For CP_MAC CM.
CM_CONNECTION_TYPE	INTEGER	For CP_MAC CM.
CM_CRC_RESULTS	INTEGER	For CP_MAC CM.
CM_CRYPTED_OR_CLEAR	BOOLEAN	For CP_MAC CM.
CM_DONT_CARE	BITSTRING[4]	All four bits values allowed.
CM_ECN	INTEGER	For CP_MAC CM.
CM_FMID	BITSTRING[12]	For CP_MAC CM.
CM_LCE_HEADER	BITSTRING[3]	LCE header
CM_LONG_FLAG	BOOLEAN	For CP_MAC CM.
CM_MAX_LIFETIME	INTEGER	For CP_MAC CM.
CM_MCEI	INTEGER	For CP_MAC CM.
CM_PAGE_TYPE	INTEGER	Normal or Fast paging, For CP_MAC CM.
CM_REASON	INTEGER	For CP_MAC CM.
CM_SERVICE_TYPE	INTEGER	For CP_MAC CM.
CM_SLOT_TYPE	INTEGER	For CP_MAC CM.
CM_W	BITSTRING[1]	IPUI adress element
CR_BIT	BITSTRING[1]	Command/Response bit
FRAME_NUMBER	INTEGER(0..15)	
H_1	HEXSTRING[1]	
I_FRAME_ID	BITSTRING[1]	Information frame indicator
INT_0_99	INTEGER(0..99)	
INT_8	INTEGER(0..255)	
LI	BITSTRING[6]	Length for C−plane frame
LLN	BITSTRING[3]	Logical Link Number
M_BIT	BITSTRING[1]	More data bit, Segmenting
N_BIT	BITSTRING[1]	Length indicator field extension bit
NLF	BITSTRING[1]	New Link Flag
NR	BITSTRING[3]	Receive sequence Number
NS	BITSTRING[3]	Send sequence Number
PROTOCOL_DISCRIMINATOR	BITSTRING[4]	Protocol discriminator
TRANSACTION_IDENTIFIER	BITSTRING[3]	M: See Table 7 of ETS 300 175−5
TRANSACTION_FLAG	BITSTRING[1]	Transation side

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<table>
<tr><td colspan="3" align="center">**Simple Type Definitions**</td></tr>
<tr><td align="center">**Type Name**</td><td align="center">**Type Definition**</td><td align="center">**Comments**</td></tr>
<tr><td>MESSAGE_TYPE</td><td>BITSTRING[8]</td><td>See Table 7.4 of ETS 300 175–5</td></tr>
<tr><td>P_BIT</td><td>BITSTRING[1]</td><td>Poll bit</td></tr>
<tr><td>PACKET_START</td><td>INTEGER(0,1)</td><td></td></tr>
<tr><td>PHYSICAL_PACKET_TYPE</td><td>IA5String("00","32","08j","80")</td><td>1.</td></tr>
<tr><td>RF_CHANNEL_NUMBER</td><td>INTEGER(0..9)</td><td></td></tr>
<tr><td>RES</td><td>BITSTRING[1]</td><td>REServed bit = 1</td></tr>
<tr><td>RPN</td><td>INTEGER(1,2)</td><td>To identify the Radio Fixed Part.</td></tr>
<tr><td>SAPI</td><td>BITSTRING[2]</td><td>Service Access Point Identifier</td></tr>
<tr><td>SLOT_NUMBER</td><td>INTEGER(0..23)</td><td></td></tr>
<tr><td colspan="3">**Detailed Comments :** 1. "00": Short physical packet P00
      "32": Basic physical packet P32
      "08j": Low capacity physical packet P08j
      "80": High capacity physical packet P80</td></tr>
</table>

<table>
<tr><td colspan="3" align="center">**Structured Type Definition**</td></tr>
<tr><td colspan="3">**Type Name :** A_ANY</td></tr>
<tr><td colspan="3">**Comments :** ETS 300 175–3 [3], subclause 7.1.2.</td></tr>
<tr><td align="center">**Element Name**</td><td align="center">**Type Definition**</td><td align="center">**Comments**</td></tr>
<tr><td>header_field</td><td>HEADER_FIELD</td><td></td></tr>
<tr><td>data</td><td>B_40</td><td></td></tr>
<tr><td>ra</td><td>H_1</td><td></td></tr>
<tr><td colspan="3">**Detailed Comments :**</td></tr>
</table>

<table>
<tr><td colspan="3" align="center">**Structured Type Definition**</td></tr>
<tr><td colspan="3">**Type Name :** A_CT</td></tr>
<tr><td colspan="3">**Comments :** ETS 300 175–3 [3], subclause 7.1.2.</td></tr>
<tr><td align="center">**Element Name**</td><td align="center">**Type Definition**</td><td align="center">**Comments**</td></tr>
<tr><td>header_field</td><td>HEADER_FIELD</td><td></td></tr>
<tr><td>cs_segment</td><td>PDU</td><td></td></tr>
<tr><td>ra</td><td>H_1</td><td></td></tr>
<tr><td colspan="3">**Detailed Comments :**</td></tr>
</table>

<table>
<tr><td colspan="3" align="center">**Structured Type Definition**</td></tr>
<tr><td colspan="3">**Type Name :** A_OTHER</td></tr>
<tr><td colspan="3">**Comments :** This type defines the A–field header and tail as one bitstring.</td></tr>
<tr><td align="center">**Element Name**</td><td align="center">**Type Definition**</td><td align="center">**Comments**</td></tr>
<tr><td>msg</td><td>B_48</td><td>Header and tail</td></tr>
<tr><td>ra</td><td>H_1</td><td>R–CRC A–field</td></tr>
<tr><td colspan="3">**Detailed Comments :**</td></tr>
</table>

Structured Type Definition

Type Name : A_MT_BASIC_CON_CTRL

Comments : ETS 300 175–3 [3], subclause 7.2.5.2.

Element Name	Type Definition	Comments
header_field	HEADER_FIELD	MAC layer header
mt_header	B_4	Header of MAC control
command	B_4	Command of MAC control
fmid	B_12	Fixed part MAC id
pmid	B_20	Portable part MAC id
ra	H_1	R–CRC A–field

Detailed Comments :

Structured Type Definition

Type Name : A_MT_ENCRYPTION_CTRL

Comments : ETS 300 175–3 [3], subclause 7.2.5.7.

Element Name	Type Definition	Comments
header_field	HEADER_FIELD	MAC layer header
mt_header	B_4	Header of MAC control
command	B_4	Command of MAC control
fmid	B_12	Fixed part MAC id
pmid	B_20	Portable part MAC id
ra	H_1	R–CRC A–field

Detailed Comments :

Structured Type Definition

Type Name : HEADER_FIELD

Comments : A–field header. See ETS 300 175–3 [3], subclause 7.1.

Element Name	Type Definition	Comments
ta(tail identification)	B_3	Describes tail contents
q1_bck(q1/bck bit)	B_1	
ba(b–field identification)	B_3	Describes B–field contents
q2(q2 bit)	B_1	

Detailed Comments :

Test Suite Operation Definition

Operation Name	: TSO_cimpt_emulate_mac
Result Type	: BOOLEAN
Comments	: To implement the parallel test component (PTC) LT_MAC.

Description

TSO_cimpt_emulate_mac is a test suite operation which returns a BOOLEAN value to the calling tree. When this operation is called, the Lower Tester shall emulate a MAC layer until stopped by action TSC_action, as required in Annex B. If the emulation has stopped successfully (by action TSC_stop) TRUE shall be returned, otherwise a FALSE shall be returned.

TSO_cimpt_emulate_mac = TRUE when emulation has stopped successfully by action TSC_stop.
TSO_cimpt_emulate_mac = FALSE when emulation has stopped un–successfully.

Detailed Comments :

Test Suite Operation Definition

Operation Name	: TSO_cimpt_return_cr_value(iut_type,frame_type:BOOLEAN)
Result Type	: INTEGER
Comments	: Determine the value of the CR_bit for C plane FA frame according to the type of the IUT (FT or PT) and the wanted type of frame (Command or Response).

Description

```
IF (iut_type =TRUE) THEN
BEGIN /* IUT is a PT */
IF (frame_type = TRUE) THEN RETURN 0 /* this is a command frame */
ELSE RETURN 1 /* this is a response frame */
END
ELSE
BEGIN /* IUT is a FT */
IF (frame_type = TRUE) THEN RETURN 1 /* this is a command frame */
ELSE RETURN 0 /* this is a response frame */
END
```

Detailed Comments :

Test Suite Operation Definition

Operation Name	: TSO_cimpt_substring(source:BITSTRING;start_index,length:INTEGER)
Result Type	: BITSTRING
Comments	:

Description

TSO_cimpt_substring(source,start_index,length) is the bitstring of length 'length' starting from index 'start_index' of the source bitstring 'source'.

EXAMPLES: TSO_cimpt_substring('01010011'B,1,4)='0101'B
          TSO_cimpt_substring('01010011'B,4,5)='10011'B

Detailed Comments :

Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPX_in_pdu	OCTETSTRING	PIXIT item C.10.3	Content of FU1 frame
TSPX_ipui	BITSTRING	PIXIT item C.7.1	international portable id
TSPX_n200	INTEGER	PIXIT item C.8.1	N200 standard system counter
TSPX_n201	INTEGER	PIXIT item C.8.2	N201 standard system counter
TSPX_rfpi1	B_40	PIXIT item C.7.3	RFPI for RFP number 1
TSPX_rfpi2	B_40	PIXIT item C.7.4	RFPI for RFP number 2
TSPX_sync_time	INTEGER	PIXIT item C.9.2	Maximal resynchronisation time of the IUT
TSPX_t_implicit_send	INT_0_99	PIXIT item C.9.1	Max. time to wait after request for invokation of an implicit send event.
TSPX_deactivation	BOOLEAN	PIXIT item C.10.1	TRUE for IUT that support encryption deactivation
TSPX_deactivation_proc_de fined	BOOLEAN	PIXIT item C.10.2	TRUE for IUT that have a procedure defined for encryption deactivation
Detailed Comments :			

Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
MANDATORY	TRUE	For all mandatory tests.
Encryption_deactivation_supported	TSPX_deactivation AND TSPX_deactivation_proc_defined	For IUT that support encryption deactivation and have a procedure defined.
Detailed Comments :		

Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_T200_value	INTEGER	3000	The period of T200 in ms
TSC_T201_value	INTEGER	5000	The period of T201 in ms
TSC_T202_value	INTEGER	3000	The period of T202 in ms
TSC_T207_value	INTEGER	5000	The period of T207 in ms
TSC_T208_value	INTEGER	20000	The period of T208 in ms
TSC_1_frame_value	INTEGER	10000	The period of one frame in us
TSC_1_mf_value	INTEGER	16 * TSC_1_frame_value	The period of one multiframe
TSC_cm_cs	INTEGER	1	Number of CS channel
TSC_cm_in	INTEGER	3	MAC connection with IN channel. For use in CM MAC_CON_REQ.
TSC_command	BOOLEAN	TRUE	For command frame
TSC_connection_sapi	INTEGER	0	Connection oriented SAPI
TSC_fmid1	B_12	TSO_cimpt_substring(TSPX_rfpi1,29,12)	FMID for RFP number 1. ETS 300 175–3 [3], subclause 11.7.1.
TSC_fmid2	B_12	TSO_cimpt_substring(TSPX_rfpi2,29,12)	FMID for RFP number 2. ETS 300 175–3 [3], subclause 11.7.1.
TSC_lln_ca	INTEGER	1	Class A LLN
TSC_normal_paging	INTEGER	0	For normal paging request
TSC_rpn1	RPN	1	RFP number 1.
TSC_rpn2	RPN	2	RFP number 2
TSC_start	INTEGER	0	0. Start test case synchronisation
TSC_stop	INTEGER	1	1. Stop test case synchronisation
TSC_action2	INTEGER	2	2. Generate A field CRC error.
TSC_action4	INTEGER	4	4. Generate an incorrect message for RFPI handshake. Change the RFPI transmitted by the Lower Tester on all traffic bearers to the IUT by inverting bit a47.
TSC_action5	INTEGER	5	5. Acknowledge received Cs segment only after three receipt.
TSC_action6	INTEGER	6	6. Jam the currently occupied channel, {RF–carrier; slot} (to force an intracell bearer handover)
TSC_action7	INTEGER	7	7. Power down the signal strength of the currnetly used RFP stepwise by 1dB/sec to force handover to a different RFP (intercell bearer handover).
TSC_action8	INTEGER	8	8. Ignore any received "accwss_request" messages in basic bearer setup.

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<table>
<tr><th colspan="4">Test Suite Constant Declarations</th></tr>
<tr><th>Constant Name</th><th>Type</th><th>Value</th><th>Comments</th></tr>
<tr><td>TSC_action9</td><td>INTEGER</td><td>9</td><td>9. When receiving an ACCESS_REQUEST message, send a WAIT message, and then repeat doing this when receiving a WAIT message.</td></tr>
<tr><td>TSC_action10</td><td>INTEGER</td><td>10</td><td>10. Transmit forever incorrect A field CRC in frame 0 (Timer T207 testing)</td></tr>
<tr><td>TSC_action11</td><td>INTEGER</td><td>11</td><td>11. Transmit blind slot information with only one slot available. This one available slot shall have a minimum distance of two slots to the Dummy Bearer of the LT.</td></tr>
<tr><td>TSC_action12</td><td>INTEGER</td><td>12</td><td>12. Transmit "other bearer" or "dummy or C/L bearer position" twice to tell a new bearer position, which is distanced a minimum of two slots to the old position, to the PP and release the old dummy bearer afterwards. In the moment of transmission of the new position there has to be a new active dummy bearer at the LT at the new position. Repeat this three times.</td></tr>
<tr><td>TSC_action13</td><td>INTEGER</td><td>13</td><td>13. Transmit the extended RF carrier information QT message.</td></tr>
<tr><td>TSC_action14</td><td>INTEGER</td><td>14</td><td>14. Ignore Start Encryption request when received.</td></tr>
<tr><td>TSC_action15</td><td>INTEGER</td><td>15</td><td>15. Ignore Stop Encryption request when received.</td></tr>
<tr><td>TSC_action19</td><td>INTEGER</td><td>19</td><td>19. Ignore any received "bearer_handover_request" messages in bearer setup for handover.</td></tr>
<tr><td>TSC_action20</td><td>INTEGER</td><td>20</td><td>20. Dont use wait for bearer setup</td></tr>
<tr><td>TSC_action21</td><td>INTEGER</td><td>21</td><td>21. Configure MAC layer to use one wait cycle during bearer setup</td></tr>
<tr><td colspan="4">**Detailed Comments :** Actions TSC_action3 and TSC_action16 to TSC_action18 are only used when testing a FT.</td></tr>
</table>

Test Suite Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TSV_pmid	B_20		PMID of PP loaded at the first "bearer request" procedure
Detailed Comments :			

Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TCV_afield	A_MT_BASIC_CON_CTRL		For working on received Afield.
TCV_bool	BOOLEAN	FALSE	General purpose boolean
TCV_dfield	D32_MT_BASIC_CON_CTRL		For working on received Dfield.
TCV_mcei1	INTEGER	1	For use in coordination messages at CP_MAC.
TCV_mcei2	INTEGER	2	For use in coordination messages at CP_MAC.
TCV_count	INT_8	1	General purpose counter
TCV_frame	FRAME_NUMBER		1.
TCV_frame1	FRAME_NUMBER		1.
TCV_rf	RF_CHANNEL_NUMBER		2.
TCV_slot	SLOT_NUMBER		3.
TCV_slot_pair	SLOT_NUMBER		4.
Detailed Comments : 1. Local variable for frame number. 2. Local vaiable for rf channel number. 3. Local variable for slot number. 4. Local variable for slot number of TDMA pair (0 for slot 12 – 1 for slot 13 – etc...).			

PCO Declarations			
PCO Name	**PCO Type**	**Role**	**Comments**
PHL	D_SAP	LT	
Detailed Comments :			

Coordination Point Declarations	
CP Name	**Comments**
CP_MAC	Coordination point between MTC and PTC_MAC
CP_TC	Coordination point between MTC and PTC_TC
Detailed Comments :	

Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T200	TSC_T200_value + (5 * (TSC_T200_value / 100))	ms	The period of T200 + 5%
T201	TSC_T201_value + (5 * (TSC_T201_value / 100))	ms	The period of T201 + 5%
T202	TSC_T202_value + (5 * (TSC_T202_value / 100))	ms	The period of T202 + 5%
T207	TSC_T207_value + (5 * (TSC_T207_value / 100))	ms	The period of T207 + 5%
T208	TSC_T208_value + (5 * (TSC_T208_value / 100))	ms	The period of T208 + 5%
T_DL07	2	s	Class A link establishment timer
T_1_frame	TSC_1_frame_value + (5 * (TSC_1_frame_value / 100))	us	The period of one frame + 5%
T_1_mf	(TSC_1_mf_value + (5 * (TSC_1_mf_value / 100))) / 1000	ms	The period of one multiframe + 5%
T_implicit_send	TSPX_t_implicit_send	s	Max. time to wait after request for invokation of an implicit send event.
T_wait_ptc_mac	10	s	Max. time to wait for a PHL−ASP at the PHL PCO after issuing a MAC−ASP to the PTC_MAC at the CP_MAC CP.
T_wait_mtc_mac	60	s	Max. time to wait for a MAC response in the MTC.
Detailed Comments :			

Test Component Declarations				
Component Name	**Component Role**	**Nr PCOs**	**Nr CPs**	**Comments**
MTC_FT	MTC	0	2	Main Test Component
LT_MAC	PTC	1	1	Emulation of MAC layer
LT_TC	PTC	1	1	MAC test cases
Detailed Comments :				

Test Components Configuration Declaration			
Configuration Name : Mac_config			
Comments : Single−party context, remote test method, embedded variant using concurrent TTCN			
Components Used	**PCOs Used**	**CPs Used**	**Comments**
MTC_FT		CP_MAC,CP_TC	MTC
LT_MAC	PHL	CP_MAC	LT which emulates MAC
LT_TC	PHL	CP_TC	LT which runs TCs
Detailed Comments :			

ASP Type Definition

ASP Name : PL_FREQ_ADJ_REQ

PCO Type : D_SAP

Comments : ETS 300 175–2 [2], subclause 7.1.3.

Parameter Name	Parameter Type	Comments
frequency_adjust	B_8	1.

Detailed Comments : 1. The frequency error may be encoded as specified in ETS 300 175–3 [3], subclause 7.2.5.5.

ASP Type Definition

ASP Name : PL_RX_CFM

PCO Type : D_SAP

Comments : For D–field receptions. See ETS 300 175–2 [2], subclause 7.1.2.

Parameter Name	Parameter Type	Comments
valid_synch_word	BOOLEAN	1.
d_field	PDU	Data field
frequency_error	B_8	2.
sliding_collision_info	BOOLEAN	3.
n	RPN	4.
frame	FRAME_NUMBER	5.
slotpair	SLOT_NUMBER	6.

Detailed Comments : 1. TRUE if synchronisation word is valid, else FALSE.
2. The frequency error may be encoded as specified in ETS 300 175–3 [3], subclause 7.2.5.5 (not required for GAP).
3. TRUE if sliding collision is detected, else FALSE.
4. The number, Radio fixed Part Number (RPN), of the radio fixed part using the physical channel
5. Non–standardised parameter indicating the frame number in which the PDU was received.
6. Number of the slotpair for access_request

ASP Type Definition

ASP Name : PL_RX_REQ

PCO Type : D_SAP

Comments : PL–RX.Req ASP. See ETS 300 175–2 [2], subclause 7.1.2.

Parameter Name	Parameter Type	Comments
a	PHYSICAL_PACKET_TYPE	Physical packet type
k	SLOT_NUMBER	1.
l	PACKET_START	2.
m	RF_CHANNEL_NUMBER	3.
n	RPN	4.

Detailed Comments : 1. The number of the full–slot in which transmission of the packet starts.
2. If l=0 the packet starts at bit interval f0. If l=1 then packet starts at bit interval f240.
3. The number of the RF channel used to transmit the physical packet.
4. The number, Radio fixed Part Number (RPN), of the radio fixed part using the physical channel

ASP Type Definition		
ASP Name : PL_TX_REQ		
PCO Type : D_SAP		
Comments : For D−field transmissions. See ETS 300 175−2 [2], subclause 7.1.1.		
Parameter Name	**Parameter Type**	**Comments**
d_field	PDU	Data field
a	PHYSICAL_PACKET_TYPE	Physical packet type
k	SLOT_NUMBER	1.
l	PACKET_START	2.
m	RF_CHANNEL_NUMBER	3.
n	RPN	4.
add_z_field	BOOLEAN	Z−field is added if TRUE.
frame	FRAME_NUMBER	5.
Detailed Comments : 1. The number of the full−slot in which transmission of the packet starts. 2. If l=0 the packet starts at bit interval f0. If l=1 then packet starts at bit interval f240. 3. The number of the RF channel used to transmit the physical packet. 4. The number, Radio fixed Part Number (RPN), of the radio fixed part using the physical channel. 5. Non−standardised parameter indicating the frame number used for transmission of the PDU.		

PDU Type Definition

PDU Name : D00_CT

PCO Type : D_SAP

Comments : D00 field PDU for receiving a CT message in the A–field.

Field Name	Field Type	Comments
a_field	A_CT	

Detailed Comments :

PDU Type Definition

PDU Name : D00_ANY

PCO Type : D_SAP

Comments : D00 field PDU for receiving any A field.

Field Name	Field Type	Comments
a_field	A_ANY	

Detailed Comments :

PDU Type Definition

PDU Name : D32_ANY

PCO Type : D_SAP

Comments : D32 field PDU fo receiving any A field.

Field Name	Field Type	Comments
a_field	A_ANY	
b_field	B_324	

Detailed Comments :

PDU Type Definition

PDU Name : D32_MT_BASIC_CON_CTRL

PCO Type : D_SAP

Comments : D32 field PDU for receiving a MT_BASIC_CON_CONTROL message in the A–field

Field Name	Field Type	Comments
a_field	A_MT_BASIC_CON_CTRL	
b_field	B_324	

Detailed Comments :

PDU Type Definition		
PDU Name : D32_MT_ENCRYPTION_CTRL		
PCO Type : D_SAP		
Comments : D32 field PDU for receiving a MT_ENCRYPTION_CONTROL message in the A−field		
Field Name	**Field Type**	**Comments**
a_field	A_MT_ENCRYPTION_CTRL	
b_field	B_324	
Detailed Comments :		

PDU Type Definition		
PDU Name : D32_OTHER		
PCO Type : D_SAP		
Comments : D32 field PDU for receiving any message in the A−field.		
Field Name	**Field Type**	**Comments**
a_field	A_OTHER	
b_field	B_324	
Detailed Comments :		

PDU Type Definition		
PDU Name : FU1		
PCO Type : D_SAP		
Comments : ETS 300 175−4: § 13 Element of procedure and formats of fields for U−plane peer to peer communication. § 12.2 FU1 frame structure		
Field Name	**Field Type**	**Comments**
higher_layer_info	OCTETSTRING[0..INFINITY]	M: Higher layer info
Detailed Comments :		

PDU Type Definition

PDU Name : INFO_FIRST_CS_SEGMENT

PCO Type : D_SAP

Comments : ETS 300 175–4: § 7 Element of procedure and formats of fields for C–plane peer to peer communication

Field Name	Field Type	Comments
nlf	NLF	M: New Link Flag
lln	LLN	M: Logical Link Number
sapi	SAPI	M: Service Access Point Identifier
cr_bit	CR_BIT	M: Command/Response bit
res	RES	M: REServed bit = 1
n_r	NR	M: Receive sequence Number
p_bit	P_BIT	M: Poll bit
n_s	NS	M: Send sequence Number
iframe_id	I_FRAME_ID	M: Information frame indicator = 0
li	LI	M: Length
m_bit	M_BIT	M: More data bit, Segmenting = 1
n_bit	N_BIT	M: Length indicator field extension bit
protocol_discriminator	PROTOCOL_DISCRIMINATOR	M: LCE
transaction_identifier	TRANSACTION_IDENTIFIER	M: See Table 7 of ETS 300 175–5
transaction_flag	TRANSACTION_FLAG	M: 0 = Transation originator
message_type	MESSAGE_TYPE	M: See Table 7.4 of ETS 300 175–5

Detailed Comments :

PDU Type Definition

PDU Name : CS_SEGMENT

PCO Type : D_SAP

Comments : Generic format for 40 bits segment of data received on the Cs channel.

Field Name	Field Type	Comments
cs_segment	B_40	M: 40 bits of segmented data.

Detailed Comments :

PDU Type Definition

PDU Name : LCE_SHORT_REQUEST_PAGE

PCO Type : D_SAP

Comments : ETS 300 175–5: § 8.2 LCE request paging messages

Field Name	Field Type	Comments
dont_care	CM_DONT_CARE	M: All values allowed.
w	CM_W	M: type of derived adress
lce_header	CM_LCE_HEADER	M: LCE header
address	CM_ADDRESS_T	M: w = 1 lowest 16 bits of assigned TPUI, w = 0 lowest 16 bits of default individual TPUI

Detailed Comments :

CM Type Definition		
CM Name : MAC_DATA_IND		
Comments : This is a non−standardised ASP used instead of MAC−CO_DATA_IND and MAC−CO_DTR.Ind.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
receive_channel_type	CM_CHANNEL_TYPE	
sdu	PDU	
crc_results	CM_CRC_RESULTS	Optional
Detailed Comments :		

CM Type Definition		
CM Name : MAC_DATA_REQ		
Comments : This is a non−standardised ASP used instead of MAC−CO_DATA.Req		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
transmit_channel_type	CM_CHANNEL_TYPE	
sdu	PDU	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_CMD		
Comments : This is a non−standardised CM type used to synchronise and to command the PTC MAC (MAC emulation).		
Parameter Name	**Parameter Type**	**Comments**
action	INTEGER	Action required (see detailed comments)
Detailed Comments : Action required: 00. Start test case synchronisation, 01. Stop test case synchronisation, 02. generate A field CRC error, 03. pass to phicical layer a request for generating Z field error, 04. stop generating NT message for RFPI handshake, 05. Acknowledge received Cs segment only after three receipt, 06. generate poor carrier on this connection to force intracell handover, 07. generate poor carrier on this connection to force intercell handover, 08. Dont terminate PT initiated bearer setup with "other message" (setup failure for testing N200), 09. Repeat "WAIT message " until T200 reached on PT initiated bearer setup (setup failure for testing T200), 10. Transmit forever incorrect A field CRC in frame 0 (Timer T207 testing), 11. Transmit blind slot information with only one slot available, 12. Transmit "other bearer' and "dummy or CL bearer position" to provide only one slot pair available for the PT for initiating setup, 13. Transmit the extended RF carrier information QT message, 14. Dont acknowledge Start Encryption request when received, 15. Dont acknowledge Stop Encryption request when received, 16. Dont send the GRANT message, 17. Initiate and perform an intracell bearer handover procedure. 18. Initiate and perform an intercell bearer handover procedure. 19. Ignore any received bearer handover request messages.		

CM Type Definition		
CM Name : MAC_CON_CFM		
Comments : ETS 300 175–3 [3], subclause 8.1.1.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	1.
connection_type	CM_CONNECTION_TYPE	Basic or advanced
ecn	CM_ECN	2.
Detailed Comments : 1 MAC Connection Endpoint 2. Exchange connection number (for advanced connection only)		

CM Type Definition		
CM Name : MAC_CON_IND		
Comments : ETS 300 175–3 [3], subclause 8.1.1.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	1.
pmid	B_20	Portable Part MAC Identity
connection_handover	CM_CONNECTION_HANDOVER	
cf_required	CM_CF_REQUIRED	
slot_type	CM_SLOT_TYPE	
service_type	CM_SERVICE_TYPE	
connection	CM_CONNECTION	
connection_type	CM_CONNECTION_TYPE	Basic or advanced
fmid	CM_FMID	Fixed Part MAC Identity
max_lifetime	CM_MAX_LIFETIME	
ecn	CM_ECN	2.
Detailed Comments : 1 MAC Connection Endpoint 2. Exchange connection number (for advanced connection only)		

CM Type Definition		
CM Name : MAC_DIS_IND		
Comments : ETS 300 175–3 [3], subclause 8.1.6.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
reason	CM_REASON	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_DIS_REQ		
Comments : ETS 300 175–3 [3], subclause 8.1.6.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_ENC_EKS_CFM		
Comments : ETS 300 175–3 [3], subclause 8.1.8.2.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
crypted_or_clear	CM_CRYPTED_OR_CLEAR	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_ENC_EKS_IND		
Comments : ETS 300 175–3 [3], subclause 8.1.8.2.		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
crypted_or_clear	CM_CRYPTED_OR_CLEAR	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_PAGE_IND		
Comments : ETS 300 175–3 [3], subclause 8.2.1.		
Parameter Name	**Parameter Type**	**Comments**
cluster_id	CM_CLUSTER_ID	
sdu	PDU	
long_flag	CM_LONG_FLAG	
crc_results	CM_CRC_RESULTS	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_PAGE_REQ		
Comments : ETS 300 175–3 [3], subclause 8.2.1.		
Parameter Name	**Parameter Type**	**Comments**
page_type	CM_PAGE_TYPE	M: Normal or Fast
sdu	PDU	
long_flag	CM_LONG_FLAG	
Detailed Comments :		

CM Type Definition		
CM Name : MAC_RES_DLC_IND		
Comments : ETS 300 175–3 [3], subclause 8.1.5		
Parameter Name	**Parameter Type**	**Comments**
mcei	CM_MCEI	
Detailed Comments :		

III

Constraints Part

Structured Type Constraint Declaration		
Constraint Name : A_any_q2_0		
Structured Type : A_ANY		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_any_no_b_q2_0	
data	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_any_q2_1		
Structured Type : A_ANY		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_any_no_b_q2_1	
data	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_any_with_b_q2_0		
Structured Type : A_ANY		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_any_q2_0	
data	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_any_with_b_q2_1		
Structured Type : A_ANY		
Derivation Path :		
Comments : ETS 300 175−3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_any_q2_1	
data	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_ct(pdu_:PDU)		
Structured Type : A_CT		
Derivation Path :		
Comments : ETS 300 175−3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_ct_no_b	
cs_segment	pdu_	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_ct_any		
Structured Type : A_CT		
Derivation Path :		
Comments : ETS 300 175−3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_ct_no_b	
cs_segment	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_ct_second_cs		
Structured Type : A_CT		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_ct_no_b_second	
cs_segment	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_ct_first_cs		
Structured Type : A_CT		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_ct_no_b_first	
cs_segment	?	
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : A_mt_basic_con_ctrl_access_req		
Structured Type : A_MT_BASIC_CON_CTRL		
Derivation Path :		
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2.		
Element Name	**Element Value**	**Comments**
header_field	Header_field_mt_first_pp_u_type	
mt_header	'0000'B	Basic connection control
command	'0000'B	Access_request
fmid	TSC_fmid1	FMID of RFP number 1
pmid	?	PMID of the PP MAC
ra	?	
Detailed Comments :		

Structured Type Constraint Declaration		

Constraint Name : A_mt_basic_con_ctrl_bearer_cfm(pmid_ : B_20)
Structured Type : A_MT_BASIC_CON_CTRL
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.2.5.2.2.

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0000'B	Basic connection control
command	'0100'B	Bearer_confirm
fmid	TSC_fmid1	FMID of RFP number 1
pmid	pmid_	PMID of the PP MAC
ra	?	

Detailed Comments :

Structured Type Constraint Declaration		

Constraint Name : A_mt_basic_con_ctrl_release(pmid_ : B_20)
Structured Type : A_MT_BASIC_CON_CTRL
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.2.5.2.2.

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0000'B	MT basic connection
command	'1111'B	Release
fmid	TSC_fmid1	FMID for RFP number 1
pmid	pmid_	PMID for PP
ra	?	

Detailed Comments :

Structured Type Constraint Declaration		

Constraint Name : A_mt_basic_con_ctrl_wait(pmid_ : B_20)
Structured Type : A_MT_BASIC_CON_CTRL
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.2.5.2.2 and 7.2.5.2.3.

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0000'B	MT basic connection
command	'0101'B	Wait
fmid	TSC_fmid1	FMID for RFP number 1
pmid	(pmid_, '1111000011110000111'B)	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_mt_basic_handover_req(fmid_:B_12)
Structured Type : A_MT_BASIC_CON_CTRL
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2.

Element Name	Element Value	Comments
header_field	Header_field_mt_first_pp_u_type	
mt_header	'0000'B	Basic connection control
command	'0010'B	Handover_request
fmid	fmid_	FMID of RFP number 1
pmid	?	PMID of the PP MA
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_mt_enc_ctrl_start_grant(pmid_ : B_20)
Structured Type : A_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2 and 7.2.5.7

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0101'B	MT encryption control
command	'0010'B	Start grant
fmid	TSC_fmid1	FMID for RFP number 1
pmid	(pmid_, '11110000111100001111'B)	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_mt_enc_ctrl_start_req(pmid_ : B_20)
Structured Type : A_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2 and 7.2.5.7

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0101'B	MT encryption control
command	'0000'B	Start request
fmid	TSC_fmid1	FMID for RFP number 1
pmid	(pmid_, '11110000111100001111'B)	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_mt_enc_ctrl_stop_grant(pmid_ : B_20)
Structured Type : A_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2 and 7.2.5.7

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0101'B	MT encryption control
command	'0110'B	Stop grant
fmid	TSC_fmid1	FMID for RFP number 1
pmid	(pmid_, '11110000111100001111'B)	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_mt_enc_ctrl_stop_req(pmid_ : B_20)
Structured Type : A_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.5.2.2 and 7.2.5.7

Element Name	Element Value	Comments
header_field	Header_field_mt_u_type	
mt_header	'0101'B	MT encryption control
command	'0100'B	Stop request
fmid	TSC_fmid1	FMID for RFP number 1
pmid	(pmid_, '11110000111100001111'B)	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_any_in_data
Structured Type : A_ANY
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.2.2.

Element Name	Element Value	Comments
header_field	Header_field_nt_with_b	
data	?	
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : A_other
Structured Type : A_OTHER
Derivation Path :
Comments : Constraint for receiving any A–field message.

Element Name	Element Value	Comments
msg	?	Any A–field header and tail
ra	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_any_no_b_q2_0
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	?	Any type
q1_bck	?	
ba	'111'B	No B–field
q2	'0'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_any_no_b_q2_1
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	?	Any type
q1_bck	?	
ba	'111'B	No B–field
q2	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_any_q2_0
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	?	Any type
q1_bck	?	
ba	?	
q2	'0'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_any_q2_1
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	?	Any type
q1_bck	?	
ba	?	
q2	'1'B	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_ct_no_b
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	'00?'B	CT
q1_bck	?	
ba	'111'B	No B field
q2	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_ct_no_b_second
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	'001'B	CT
q1_bck	?	
ba	'111'B	No B field
q2	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_ct_no_b_first
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	'000'B	CT
q1_bck	?	
ba	'111'B	No B field
q2	?	

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name : Header_field_mt_first_pp_u_type
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175–3 [3], subclause 7.1.

Element Name	Element Value	Comments
ta	'111'B	First PP transmission
q1_bck	'0'B	
ba	'000'B	U–type
q2	'1'B	

Detailed Comments :

Structured Type Constraint Declaration		

Constraint Name : Header_field_mt_u_type
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.1.

Element Name	Element Value	Comments
ta	'110'B	MT
q1_bck	'0'B	
ba	'000'B	U−type
q2	'1'B	

Detailed Comments :

Structured Type Constraint Declaration		

Constraint Name : Header_field_nt_with_b
Structured Type : HEADER_FIELD
Derivation Path :
Comments : ETS 300 175−3 [3], subclause 7.1

Element Name	Element Value	Comments
ta	'011'B	NT
q1_bck	?	
ba	'000'B	U type IN data
q2	?	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_freq_adj_req
ASP Type : PL_FREQ_ADJ_REQ
Derivation Path :
Comments : Only for use in defaults.

Parameter Name	Parameter Value	Comments
frequency_adjust	?	Any value.

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_rx_cfm(mac_pdu:PDU; rpn:RPN; tdma_frame:FRAME_NUMBER)
ASP Type : PL_RX_CFM
Derivation Path :
Comments : For receiving a PL–RX.Cfm ASP with any PDU from the IUT.

Parameter Name	Parameter Value	Comments
valid_synch_word	TRUE	Valid synchronisation word
d_field	mac_pdu	
frequency_error	OMIT	Not used
sliding_collision_info	FALSE	Sliding collision not detected
n	rpn	
frame	tdma_frame	
slotpair	?	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_rx_cfm_01
ASP Type : PL_RX_CFM
Derivation Path :
Comments : Special constraints for receiving any PL–RX.Cfm ASP (for use in defaults).

Parameter Name	Parameter Value	Comments
valid_synch_word	TRUE	Valid synchronisation word
d_field	?	Any PDU
frequency_error	OMIT	Not used
sliding_collision_info	FALSE	Sliding collision not detected
n	?	Any RPN
frame	?	Any frame
slotpair	?	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_rx_cfm_02(mac_pdu:PDU; rpn:RPN)
ASP Type : PL_RX_CFM
Derivation Path :
Comments : Special constraint for receiving a PL−RX.Cfm ASP with a PDU from the IUT in any frame.

Parameter Name	Parameter Value	Comments
valid_synch_word	TRUE	Valid synchronisation word
d_field	mac_pdu	
frequency_error	OMIT	Not used
sliding_collision_info	FALSE	Sliding collision not detected
n	rpn	
frame	?	Any frame
slotpair	?	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_rx_cfm_03(rpn:RPN)
ASP Type : PL_RX_CFM
Derivation Path :
Comments : Special constraint for receiving a PL−RX.Cfm ASP with any PDU from the IUT in any frame in a parmetrised RPN.

Parameter Name	Parameter Value	Comments
valid_synch_word	TRUE	Valid synchronisation word
d_field	?	Any PDU
frequency_error	OMIT	Not used
sliding_collision_info	FALSE	Sliding collision not detected
n	rpn	
frame	?	Any frame
slotpair	?	

Detailed Comments :

ASP Constraint Declaration

Constraint Name : Pl_rx_req_01
ASP Type : PL_RX_REQ
Derivation Path :
Comments : Special constraint for receiving any PL−RX.Req ASP from PTC_MAC (for use in defaults).

Parameter Name	Parameter Value	Comments
a	?	Any physical packet type
k	?	Any slot
l	?	Any packet start
m	?	Any RF carrier
n	?	Any RPN

Detailed Comments :

<table>
<tr><td colspan="3" align="center">**ASP Constraint Declaration**</td></tr>
<tr><td colspan="3">**Constraint Name** : Pl_rx_req_02(physical_packet_type:PHYSICAL_PACKET_TYPE; packet_start:PACKET_START; rpn:RPN)</td></tr>
<tr><td colspan="3">**ASP Type** : PL_RX_REQ</td></tr>
<tr><td colspan="3">**Derivation Path** :</td></tr>
<tr><td colspan="3">**Comments** : Special constraint for receiving a PL–RX.Req ASP from PTC_MAC (any physical channel).</td></tr>
<tr><td align="center">**Parameter Name**</td><td align="center">**Parameter Value**</td><td align="center">**Comments**</td></tr>
<tr><td>a</td><td>physical_packet_type</td><td></td></tr>
<tr><td>k</td><td>(12..23)</td><td>Any normal PP transmit slot</td></tr>
<tr><td>l</td><td>packet_start</td><td></td></tr>
<tr><td>m</td><td>?</td><td>Any RF carrier</td></tr>
<tr><td>n</td><td>rpn</td><td></td></tr>
<tr><td colspan="3">**Detailed Comments** :</td></tr>
</table>

<table>
<tr><td colspan="3" align="center">**ASP Constraint Declaration**</td></tr>
<tr><td colspan="3">**Constraint Name** : Pl_tx_req_01</td></tr>
<tr><td colspan="3">**ASP Type** : PL_TX_REQ</td></tr>
<tr><td colspan="3">**Derivation Path** :</td></tr>
<tr><td colspan="3">**Comments** : Special constraint for receiving any PL–TX.Req ASP from PTC_MAC (for use in defaults).</td></tr>
<tr><td align="center">**Parameter Name**</td><td align="center">**Parameter Value**</td><td align="center">**Comments**</td></tr>
<tr><td>d_field</td><td>?</td><td>Any MAC PDU</td></tr>
<tr><td>a</td><td>?</td><td>Any physical packet type</td></tr>
<tr><td>k</td><td>?</td><td>Any slot</td></tr>
<tr><td>l</td><td>?</td><td>Any packet start</td></tr>
<tr><td>m</td><td>?</td><td>Any RF carrier</td></tr>
<tr><td>n</td><td>?</td><td>Any RPN</td></tr>
<tr><td>add_z_field</td><td>TRUE</td><td>Z–field added</td></tr>
<tr><td>frame</td><td>?</td><td>Any frame</td></tr>
<tr><td colspan="3">**Detailed Comments** :</td></tr>
</table>

ASP Constraint Declaration		

Constraint Name : Pl_tx_req_02(mac_pdu:PDU; physical_packet_type:PHYSICAL_PACKET_TYPE; packet_start:PACKET_START; rpn:RPN)

ASP Type : PL_TX_REQ

Derivation Path :

Comments : Special constraint for receiving a PL−TX.Req ASP from PTC_MAC on any normal normal PP transmit channel, containing any PDU.

Parameter Name	Parameter Value	Comments
d_field	mac_pdu	
a	physical_packet_type	
k	(0..11)	Any normal FP transmit slot
l	packet_start	
m	?	Any RF carrier
n	rpn	
add_z_field	TRUE	Z−field added
frame	?	Any frame

Detailed Comments :

ASP Constraint Declaration		

Constraint Name : Pl_tx_req_03(mac_pdu : PDU; physical_packet_type : PHYSICAL_PACKET_TYPE; packet_start : PACKET_START; rpn : RPN; tdma_frame : FRAME_NUMBER; slot : SLOT_NUMBER)

ASP Type : PL_TX_REQ

Derivation Path :

Comments : Special constraint for receiving a PL−TX.Req ASP from PTC_MAC on any normal normal PP transmit channel, containing any PDU.

Parameter Name	Parameter Value	Comments
d_field	mac_pdu	
a	physical_packet_type	
k	slot	Any normal FP transmit slot
l	packet_start	
m	?	Any RF carrier
n	rpn	
add_z_field	TRUE	Z−field added
frame	tdma_frame	Any frame

Detailed Comments :

ASP Constraint Declaration		
Constraint Name : Pl_tx_req_04(physical_packet_type:PHYSICAL_PACKET_TYPE; packet_start:PACKET_START; rpn:RPN)		
ASP Type : PL_TX_REQ		
Derivation Path :		
Comments : Special constraint for receiving a PL–TX.Req ASP from PTC_MAC on any normal normal PP transmit channel, containing any PDU.		
Parameter Name	**Parameter Value**	**Comments**
d_field	?	
a	physical_packet_type	
k	(0..11)	Any normal FP transmit slot
l	packet_start	
m	?	Any RF carrier
n	rpn	
add_z_field	TRUE	Z–field added
frame	?	Any frame
Detailed Comments :		

PDU Constraint Declaration

Constraint Name **:** Cs_segment
PDU Type **:** CS_SEGMENT
Derivation Path **:**
Comments **:** Generic Cs channel segment for receiving any 40 bits of segmented data.

Field Name	Field Value	Comments
cs_segment	?	40 bits of segmented data.

Detailed Comments :

PDU Constraint Declaration

Constraint Name **:** D00_any_ct_second_cs
PDU Type **:** D00_CT
Derivation Path **:**
Comments **:** CT message in A−field

Field Name	Field Value	Comments
a_field	A_ct_second_cs	

Detailed Comments :

PDU Constraint Declaration

Constraint Name **:** D00_any_ct_first_cs
PDU Type **:** D00_CT
Derivation Path **:**
Comments **:** CT message in A−field

Field Name	Field Value	Comments
a_field	A_ct_first_cs	

Detailed Comments :

PDU Constraint Declaration

Constraint Name **:** D00_any_q2_0
PDU Type **:** D00_ANY
Derivation Path **:**
Comments **:** NT message in A−field

Field Name	Field Value	Comments
a_field	A_any_q2_0	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D00_any_q2_1
PDU Type   : D00_ANY
Derivation Path :
Comments   : NT message in A–field

Field Name	Field Value	Comments
a_field	A_any_q2_1	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D00_ct(pdu_:PDU)
PDU Type   : D00_CT
Derivation Path :
Comments   : CT message in A–field

Field Name	Field Value	Comments
a_field	A_ct(pdu_)	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D00_ct_other
PDU Type   : D00_CT
Derivation Path :
Comments   : CT message in A–field

Field Name	Field Value	Comments
a_field	A_ct_any	

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_any_q2_0
PDU Type   : D32_ANY
Derivation Path :
Comments   : IN data in B filed of a NT message.

Field Name	Field Value	Comments
a_field	A_any_with_b_q2_0	
b_field	?	Any B–field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_any_q2_1
PDU Type : D32_ANY
Derivation Path :
Comments : IN data in B filed of a NT message.

Field Name	Field Value	Comments
a_field	A_any_with_b_q2_1	
b_field	?	Any B–field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_basic_con_ctrl_access_req
PDU Type : D32_MT_BASIC_CON_CTRL
Derivation Path :
Comments : ACCESS_REQUEST message in A–field.

Field Name	Field Value	Comments
a_field	A_mt_basic_con_ctrl_access_req	
b_field	?	Any B–field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_basic_con_ctrl_bearer_cfm(pmid_ : B_20)
PDU Type : D32_MT_BASIC_CON_CTRL
Derivation Path :
Comments : BEARER_CONFIRM message in A–field.

Field Name	Field Value	Comments
a_field	A_mt_basic_con_ctrl_bearer_cfm(pmid_)	
b_field	?	Any B–field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_basic_con_ctrl_release(pmid_ : B_20)
PDU Type : D32_MT_BASIC_CON_CTRL
Derivation Path :
Comments : RELEASE message in A–field.

Field Name	Field Value	Comments
a_field	A_mt_basic_con_ctrl_release(pmid_)	
b_field	?	Any B–field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_basic_con_ctrl_wait(pmid_ : B_20)
PDU Type : D32_MT_BASIC_CON_CTRL
Derivation Path :
Comments : WAIT message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_basic_con_ctrl_wait(pmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_basic_handover_req(fmid_:B_12)
PDU Type : D32_MT_BASIC_CON_CTRL
Derivation Path :
Comments : HANDOVER_REQUEST message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_basic_handover_req(fmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_enc_ctrl_start_grant(pmid_ : B_20)
PDU Type : D32_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : Encryption Start Grant message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_enc_ctrl_start_grant(pmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_enc_ctrl_start_req(pmid_ : B_20)
PDU Type : D32_MT_ENCRYPTION_CTRL
Derivation Path :
Comments : Encryption Start Request message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_enc_ctrl_start_req(pmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_enc_ctrl_stop_grant(pmid_ : B_20)
PDU Type   : D32_MT_ENCRYPTION_CTRL
Derivation Path   :
Comments   : Encryption Stop Grant message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_enc_ctrl_stop_grant(pmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_mt_enc_ctrl_stop_req(pmid_ : B_20)
PDU Type   : D32_MT_ENCRYPTION_CTRL
Derivation Path   :
Comments   : Encryption Stop Request message in A−field.

Field Name	Field Value	Comments
a_field	A_mt_enc_ctrl_stop_req(pmid_)	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_any_in_data
PDU Type   : D32_ANY
Derivation Path   :
Comments   : IN data in B filed of a MAC message.

Field Name	Field Value	Comments
a_field	A_any_in_data	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : D32_other
PDU Type   : D32_OTHER
Derivation Path   :
Comments   : "OTHER" message in A−field.

Field Name	Field Value	Comments
a_field	A_other	
b_field	?	Any B−field

Detailed Comments :

PDU Constraint Declaration

Constraint Name : First_cs_segment
PDU Type : INFO_FIRST_CS_SEGMENT
Derivation Path :
Comments : Information Class A frame establishment frame sent by PT, First Cs segment constraint.

Field Name	Field Value	Comments
nlf	'1'B	New Link Flag
lln	INT_TO_BIT(TSC_lln_ca,3)	Logical Link Number
sapi	INT_TO_BIT(TSC_connection_sapi,2)	Service Access Point Identifier
cr_bit	INT_TO_BIT(TSO_cimpt_return_cr_val ue(TRUE,TSC_command),1)	Command/Response bit (IUT is PT part)
res	'1'B	REServed bit = 1
n_r	'000'B	Receive sequence Number
p_bit	'0'B	Poll bit
n_s	'000'B	Send sequence Number
iframe_id	'0'B	Information frame indicator = 0
li	?	Length
m_bit	'0'B	More data bit, Segmenting = 1
n_bit	'1'B	Extented lentgh indicator = no extension
protocol_discriminator	'0000'B	LCE message
transaction_identifier	'000'B	Transation 0
transaction_flag	'0'B	Transation originator
message_type	'01110001'B	LCE–PAGE–RESPONSE message type coding

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Fu1s(data_:OCTETSTRING)
PDU Type : FU1
Derivation Path :
Comments : ETS 300 175–4: § 13 Element of procedure and formats of fields for U–plane peer to peer communication. § 12.2 FU1 frame structure

Field Name	Field Value	Comments
higher_layer_info	data_	Higher layer info

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Lce_short_request_page
PDU Type   : LCE_SHORT_REQUEST_PAGE
Derivation Path :
Comments   : ETS 300 175–5: § 8.2 LCE request paging messages.

Field Name	Field Value	Comments
dont_care	'0000'B	MAC BS channel is 20 bits for short page paging and short LCE request paging message is 3 octets = ignore these 4 bits
w	'0'B	adress is the lowest 16 bits of default individual TPUI
lce_header	'000'B	Cs service only
address	TSO_cimpt_substring(TSPX_ipui,LENGTH_OF(TSPX_ipui)–15,16)	Lowest 16 bits of IPUI–N is default individual TPUI

Detailed Comments :

PDU Constraint Declaration

Constraint Name : Lce_short_request_page_in
PDU Type   : LCE_SHORT_REQUEST_PAGE
Derivation Path :
Comments   : ETS 300 175–5: § 8.2 LCE request paging messages.

Field Name	Field Value	Comments
dont_care	'0000'B	MAC BS channel is 20 bits for short page paging and short LCE request paging message is 3 octets = ignore these 4 bits
w	'0'B	adress is the lowest 16 bits of default individual TPUI
lce_header	'100'B	In minimum delay service required
address	TSO_cimpt_substring(TSPX_ipui,LENGTH_OF(TSPX_ipui)–15,16)	Lowest 16 bits of IPUI–N is default individual TPUI

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_data_ind_01
CM Type : MAC_DATA_IND
Derivation Path :
Comments : Special constraint for receiving any MAC–DATA.IND CM (MAC ASP) at CP_MAC (for use in defaults).

Parameter Name	Parameter Value	Comments
mcei	?	
receive_channel_type	?	
sdu	?	
crc_results	?	

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_cmd(action_:INTEGER)
CM Type : MAC_CMD
Derivation Path :
Comments : Special constraint for sending command (Start and Stop) to the PTC MAC at CP_MAC.

Parameter Name	Parameter Value	Comments
action	action_	

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_con_cfm_01
CM Type : MAC_CON_CFM
Derivation Path :
Comments : Special constraint for receiving any MAC–CON.CFM CM (MAC ASP) at CP_MAC (for use in defaults).

Parameter Name	Parameter Value	Comments
mcei	?	
connection_type	?	
ecn	? IF_PRESENT	Ignore. Only used for advanced connections.

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_con_ind(service_type_:CM_SERVICE_TYPE)
CM Type : MAC_CON_IND
Derivation Path :
Comments : Constraint for receiving MAC–CON.IND CM (MAC ASP) at CP_MAC with parametrised MCEI and CONNECTION_TYPE.

Parameter Name	Parameter Value	Comments
mcei	?	
pmid	?	
connection_handover	?	
cf_required	?	
slot_type	?	
service_type	service_type_	
connection	?	
connection_type	?	
fmid	? IF_PRESENT	
max_lifetime	? IF_PRESENT	
ecn	? IF_PRESENT	Ignore. Only used for advanced connections.

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_con_ind_handover(service_type_:CM_SERVICE_TYPE)
CM Type : MAC_CON_IND
Derivation Path :
Comments : Constraint for receiving MAC–CON.IND CM (MAC ASP) at CP_MAC with parametrised MCEI and CONNECTION_TYPE.

Parameter Name	Parameter Value	Comments
mcei	?	
pmid	?	
connection_handover	TRUE	
cf_required	?	
slot_type	?	
service_type	service_type_	
connection	?	
connection_type	?	
fmid	? IF_PRESENT	
max_lifetime	? IF_PRESENT	
ecn	? IF_PRESENT	Ignore. Only used for advanced connections.

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_con_ind_01
CM Type : MAC_CON_IND
Derivation Path :
Comments : Special constraint for receiving any MAC−CON.IND CM (MAC ASP) at CP_MAC (for use in defaults).

Parameter Name	Parameter Value	Comments
mcei	?	
pmid	?	
connection_handover	?	
cf_required	?	
slot_type	?	
service_type	?	
connection	?	
connection_type	?	
fmid	? IF_PRESENT	
max_lifetime	? IF_PRESENT	
ecn	? IF_PRESENT	Ignore. Only used for advanced connections.

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_data_req(mcei_:CM_MCEI; service_type_:CM_SERVICE_TYPE;data_:PDU)
CM Type : MAC_DATA_REQ
Derivation Path :
Comments : This is a non−standardised ASP used instead of MAC−CO_DATA.Req

Parameter Name	Parameter Value	Comments
mcei	mcei_	
transmit_channel_type	service_type_	
sdu	data_	

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_dis_ind_01
CM Type : MAC_DIS_IND
Derivation Path :
Comments : Special constraint for receiving any MAC−DIS.IND CM (MAC ASP) at CP_MAC (for use in defaults).

Parameter Name	Parameter Value	Comments
mcei	?	
reason	? IF_PRESENT	

Detailed Comments :

CM Constraint Declaration

Constraint Name	**:** Mac_dis_req(mcei_:CM_MCEI)	
CM Type	**:** MAC_DIS_REQ	
Derivation Path	**:**	
Comments	**:** Base constraint for sending a MAC–DIS.REQ CM (MAC ASP) at CP_MAC.	

Parameter Name	**Parameter Value**	**Comments**
mcei	mcei_	

Detailed Comments :

CM Constraint Declaration

Constraint Name	**:** Mac_enc_eks_cfm_01	
CM Type	**:** MAC_ENC_EKS_CFM	
Derivation Path	**:**	
Comments	**:** Special constraint for receiving any MAC–ENC_EKS.CFM CM (MAC ASP) at CP_MAC (for use in defaults).	

Parameter Name	**Parameter Value**	**Comments**
mcei	?	
crypted_or_clear	?	

Detailed Comments :

CM Constraint Declaration

Constraint Name	**:** Mac_enc_eks_ind(mcei_:CM_MCEI)	
CM Type	**:** MAC_ENC_EKS_IND	
Derivation Path	**:**	
Comments	**:** Special constraint for receiving MAC–ENC_EKS.IND CM (MAC ASP) at CP_MAC on a parametrised MCEI.	

Parameter Name	**Parameter Value**	**Comments**
mcei	mcei_	
crypted_or_clear	?	

Detailed Comments :

CM Constraint Declaration

Constraint Name	**:** Mac_enc_eks_ind_01	
CM Type	**:** MAC_ENC_EKS_IND	
Derivation Path	**:**	
Comments	**:** Special constraint for receiving any MAC–ENC_EKS.IND CM (MAC ASP) at CP_MAC (for use in defaults).	

Parameter Name	**Parameter Value**	**Comments**
mcei	?	
crypted_or_clear	?	

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_page_ind_01
CM Type   : MAC_PAGE_IND
Derivation Path :
Comments   : Special constraint for receiving any MAC–PAGE.IND CM (MAC ASP) at CP_MAC.

Parameter Name	Parameter Value	Comments
cluster_id	?	
sdu	?	
long_flag	? IF_PRESENT	
crc_results	? IF_PRESENT	

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_page_req(pt_:CM_PAGE_TYPE;data:PDU)
CM Type   : MAC_PAGE_REQ
Derivation Path :
Comments   : Abstract primitive: CM MAC broadcast data sending request to MAC layer.

Parameter Name	Parameter Value	Comments
page_type	pt_	Normal or Fast
sdu	data	broadcast message
long_flag	FALSE	Needed if data length is 36

Detailed Comments :

CM Constraint Declaration

Constraint Name : Mac_res_dlc_ind(mcei_:CM_MCEI)
CM Type   : MAC_RES_DLC_IND
Derivation Path :
Comments   : Base constraint for receiving a MAC–RES_DLC.IND CM (MAC ASP) at CP_MAC.

Parameter Name	Parameter Value	Comments
mcei	mcei_	

Detailed Comments :

IV

Dynamic Part

Test Case Dynamic Behaviour					

Test Case Name : TC_PT_BH_BV_00

Group : PT/BH/BV/

Purpose : Initial state: Active_locked.
Check that the IUT, for a duplex bearer, correctly initiates and completes an intracell bearer handover procedure using basic set–up when encryption is enabled.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.6 C/O bearer handover and subclauses; ETS 300 175–7 [7]: 6.4.7 Handover of the encryption process. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		4.
6		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action6)		5.
7		CP_MAC ? MAC_CON_IND (TCV_mcei2 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind_handover(T SC_cm_in)		6.
8		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei2)		4.
9		? DONE(LT_TC)			7.
10		+PO_mtc_con_release(TCV_mcei1)			8.
11		+PO_mtc_con_release(TCV_mcei2)			8.
12		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		9.
13	TB01	? DONE(LT_MAC)		R	10.
		LTS_tc			
14		ACTIVATE(DF_tc_bearer_setup)			
15		START T_wait_ptc_mac			11.
16		+STP_basic_bearer_setup			12.
17		START T_wait_ptc_mac			11.
18		+STP_encryption_start(TSC_rpn1)			13.
19		START T_wait_ptc_mac			11.
20		+STP_basic_bearer_handover(TSC_fmid1,TSC_rpn1)			14.
21		START T_wait_ptc_mac			11.
22		+STP_encryption_start(TSC_rpn1)			15.
		LTS_mac			
23		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.

Continued on next page

Continued from previous page

Test Case Dynamic Behaviour
Detailed Comments : ... 3. Bearer succesfully established. 4. The IUT enable encryption. 5. Request the PTC_MAC to force an intracell bearer handover. 6. Second bearer for handover succesfully established. 7. Wait for PTC_TC to terminate. 8. Request PTC_MAC to release established bearer. 9. Request the PTC_MAC to stop. 10. Wait for PTC_MAC to terminate. 11. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates. 12. Verify the basic bearer setup procedure. 13. Verify the Encryption control procedure of the firsrt bearer. 14. Verify bearer handover procedure 15. Encryption control of the second bearer.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BH_BV_01

Group : PT/BH/BV/

Purpose : Initial state: Active_locked.
Check that the IUT, for a duplex bearer, correctly initiates and completes an intercell bearer handover procedure using basic set–up when encryption is enabled.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.6 C/O bearer handover and subclauses; ETS 300 175–7 [7]: 6.4.7 Handover of the encryption process. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		4.
6		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action7)		5.
7		CP_MAC ? MAC_CON_IND (TCV_mcei2 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind_handover(T SC_cm_in)		6.
8		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei2)		4.
9		? DONE(LT_TC)			7.
10		+PO_mtc_con_release(TCV_mcei1)			8.
11		+PO_mtc_con_release(TCV_mcei2)			8.
12		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		9.
13	TB01	? DONE(LT_MAC)		R	10.
		LTS_tc			
14		ACTIVATE(DF_tc_bearer_setup)			
15		START T_wait_ptc_mac			11.
16		+STP_basic_bearer_setup			12.
17		START T_wait_ptc_mac			11.
18		+STP_encryption_start(TSC_rpn1)			13.
19		START T_wait_ptc_mac			11.
20		+STP_basic_bearer_handover(TSC_fmid2,TSC_rpn2)			14.
21		START T_wait_ptc_mac			11.
22		+STP_encryption_start(TSC_rpn2)			15.
		LTS_mac			
23		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.

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Test Case Dynamic Behaviour
Detailed Comments : ... 3. Bearer succesfully established. 4. The IUT enable encryption. 5. Request the PTC_MAC to force an intercell bearer handover. 6. Second bearer for handover succesfully established. 7. Wait for PTC_TC to terminate. 8. Request PTC_MAC to release established bearer. 9. Request the PTC_MAC to stop. 10. Wait for PTC_MAC to terminate. 11. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates. 12. Verify the basic bearer setup procedure. 13. Verify the Encryption control procedure of the firsrt bearer. 14. Verify bearer handover procedure 15. Encryption control of the second bearer.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BH_CA_00

Group : PT/BH/CA/

Purpose : Initial state: Active_locked.
Check that the IUT, for a duplex bearer, correctly initiates and completes an intracell bearer handover procedure using basic set–up.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.6 C/O bearer handover and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action6)		4.
6		CP_MAC ? MAC_CON_IND (TCV_mcei2 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind_handover(T SC_cm_in)		5.
7		? DONE(LT_TC)			6.
8		+PO_mtc_con_release(TCV_mcei1)			7.
9		+PO_mtc_con_release(TCV_mcei2)			7.
10		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		8.
11	TB01	? DONE(LT_MAC)		R	9.
		LTS_tc			
12		ACTIVATE(DF_tc_bearer_setup)			
13		START T_wait_ptc_mac			10.
14		+STP_basic_bearer_setup			11.
15		START T_wait_ptc_mac			10.
16		+STP_basic_bearer_handover(TSC_fmid1,TSC_rpn1)			12.
		LTS_mac			
17		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request the PTC_MAC to force an intracell bearer handover.
5. Second bearer for handover succesfully established.
6. Wait for PTC_TC to terminate.
7. Request PTC_MAC to release established bearer.
8. Request the PTC_MAC to stop.
9. Wait for PTC_MAC to terminate.
10. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
11. Verify the basic bearer setup procedure.
12. Verify bearer handover procedure

		Test Case Dynamic Behaviour			

Test Case Name **:** TC_PT_BH_CA_01

Group **:** PT/BH/CA/

Purpose **:** Initial state: Active_locked.
Check that the IUT, for a duplex bearer, correctly initiates and completes an intercell bearer handover procedure using basic set–up.

Configuration **:** Mac_config

Default **:** DF_mtc_bearer_setup

Comments **:** ETS 300 175–3 [3]: 10.6 C/O bearer handover and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action7)		4.
6		CP_MAC ? MAC_CON_IND (TCV_mcei2 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind_handover(T SC_cm_in)		5.
7		? DONE(LT_TC)			6.
8		+PO_mtc_con_release(TCV_mcei1)			7.
9		+PO_mtc_con_release(TCV_mcei2)			7.
10		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		8.
11	TB01	? DONE(LT_MAC)		R	9.
		LTS_tc			
12		ACTIVATE(DF_tc_bearer_setup)			
13		START T_wait_ptc_mac			10.
14		+STP_basic_bearer_setup			11.
15		START T_wait_ptc_mac			10.
16		+STP_basic_bearer_handover(TSC_fmid2,TSC_rpn2)			12.
		LTS_mac			
17		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request the PTC_MAC to force an intercell bearer handover.
5. Second bearer for handover succesfully established.
6. Wait for PTC_TC to terminate.
7. Request PTC_MAC to release established bearer.
8. Request the PTC_MAC to stop.
9. Wait for PTC_MAC to terminate.
10. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
11. Verify the basic bearer setup procedure.
12. Verify bearer handover procedure

	Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BR_CA_00

Group : PT/BR/CA/

Purpose : Initial state: Active_locked.
Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when receiving a release message.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.7.2.1 Unacknowledged release procedure.The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_DIS_REQ	Mac_dis_req(TCV_mcei1)		4.
6		? DONE(LT_TC)			5.
7		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		6.
8	TB01	? DONE(LT_MAC)		R	7.
		LTS_tc			
9		ACTIVATE(DF_tc_bearer_setup)			
10		START T_wait_ptc_mac			8.
11		+STP_basic_bearer_setup			9.
12		START T_wait_ptc_mac			8.
13		PHL ? PL_TX_REQ CANCEL T_wait_ptc_mac , START T_1_frame	PI_tx_req_02(D32_mt_basic_con_ctrl_r elease(TSV_pmid), "32", 0, TSC_rpn1)		10.
14		PHL ? PL_TX_REQ START T_1_frame	PI_tx_req_02(D32_mt_basic_con_ctrl_r elease(TSV_pmid), "32", 0, TSC_rpn1)		11.
15	TB02	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm_03(TSC_rpn1)	(F)	12.
16	TB03	?TIMEOUT T_1_frame		(P)	13.
17	TB04	?TIMEOUT T_1_frame		(I)	14.
		LTS_mac			
18		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request the PTC_MAC to disconnect the established single bearer connection.
5. Wait for PTC_TC to terminate.
6. Request the PTC_MAC to stop.
7. Wait for PTC_MAC to terminate.
8. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates
9. Verify the basic bearer setup procedure.
10. First RELEASE message.
11. Second RELEASE message in next frame.
12. The IUT did not release the channel.

Test Case Dynamic Behaviour

Detailed Comments **:** ...
                        13. The IUT have released the channel.
                        14. Second RELEASE not received.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BS_BV_00

Group   **:** PT/BS/BV/

Purpose   **:** Initial state: Active_locked.
Check that the IUT releases a duplex bearer in case the timer T201 expires during the time a basic bearer exists.

Configuration **:** Mac_config

Default   **:** DF_mtc_bearer_setup

Comments   **:** ETS 300 175–3 [3]: 10.5.1.1 Basic bearer setup procedure – 11.5.1 RFPI handshake.The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action4)		4.
6		CP_MAC ! MAC_DATA_REQ	Mac_data_req(TCV_mcei1,TSC_cm_in, Fu1s(TSPX_in_pdu))		5.
7		? DONE(LT_TC)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
13		START T_wait_ptc_mac			9.
14		PHL ? PL_TX_REQ CANCEL T_wait_ptc_mac, START T201	Pl_tx_req_02(D32_any_in_data, "32",0,TSC_rpn1)		11.
15	TB02	PHL ? PL_RX_CFM CANCEL T201	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_r elease(TSV_pmid),TSC_rp n1)	(P)	12.
16	TB03	? TIMEOUT T201		F	13.
		LTS_mac			
17		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request the PTC_MAC to generate an incorrect message for RFPI handshake.
5. Request the PTC_MAC to transmit the specified SDU containing IN data.
6. Wait for PTC_TC to terminate.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates
10. Verify the basic bearer setup procedure.
11. Start timer T201 when the SDU containing the IN data is passed to the service provider (PTC_MAC stop RFPI handshake immediately afterwards).
12. First RELEASE message received.
13. No RELEASE message received before T201 timed out.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BS_CA_00

Group : PT/BS/CA/

Purpose : Initial state: Idle_locked.
Check that the IUT manages rightly the PT initiated (single) basic bearer setup procedure without wait messages.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.5.1.1 Basic bearer setup procedure. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action20)		3.
5		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Request PTC_MAC for TSC_action20 (dont use wait for bearer setup).
4. Bearer succesfully established.
5. Wait for PTC_TC to terminate.
6. Request PTC_MAC to release established bearer.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup without wait messages procedure.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_BS_CA_01

Group : PT/BS/CA/

Purpose : Initial state: Idle_locked.
Check that the IUT manages rightly the PT initiated (single) basic bearer setup procedure with wait messages.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.5.1.1 Basic bearer setup procedure. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action21)		3.
5		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup_wait			10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Request PTC_MAC for TSC_action21 (Use at least 9 wait cycles for bearer setup).
4. Bearer succesfully established.
5. Wait for PTC_TC to terminate.
6. Request PTC_MAC to release established bearer.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup with wait messages procedure.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_DB_BV_01

Group   : PT/DB/BV/

Purpose   : Initial state: Idle_locked.
Check that the IUT is able to establish a bearer after reception of the extended RF carrier information QT message.

Configuration : Mac_config

Default   : DF_mtc_bearer_setup

Comments   : ETS 300 175–3 [3]: 7.2.3.3 Extended RF carrier information. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action13)		2.
3		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
4		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		3.
5		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_downlink_broadcast)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the PTC_MAC to transmit the extended RF carrier information QT message.
3. Request the IUT to establish a symmetric single bearer connection of the specified type.
4. Bearer succesfully established.
5. Wait for PTC_TC to terminate.
6. Request PTC_MAC to release established bearer.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup procedure.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_DT_BI_00

Group : PT/DT/BI/

Purpose : Initial state: Active_locked.
Check that the IUT, when receiving IN minimum delay data, is capable to detect A–field R–CRC error
and to respond with the correct Q2 bit setting (Q2 = 0).

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.8.1.3 Q1 and Q2 settings for IN and IP error detection services and
subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action2)		4.
6		CP_MAC ! MAC_DATA_REQ	Mac_data_req(TCV_mcei1,TSC_cm_in, Fu1s(TSPX_in_pdu))		5.
7		? DONE(LT_TC)			6.
8		+PO_mtc_con_release(TCV_mcei1)			7.
9		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		8.
10	TB01	? DONE(LT_MAC)		R	9.
		LTS_tc			
11		ACTIVATE(DF_tc_bearer_setup)			
12		START T_wait_ptc_mac			10.
13		+STP_basic_bearer_setup			11.
14		PHL ? PL_TX_REQ (TCV_frame := PL_TX_REQ.frame) START T_1_frame	PI_tx_req_02(D32_any_in_data, "32",0,TSC_rpn1)		12.
15	TB02	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm(D00_any_q2_0, TSC_rpn1, TCV_frame)	(P)	13.
16	TB03	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm(D32_any_q2_0, TSC_rpn1, TCV_frame)	(P)	13.
17	TB04	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm(D00_any_q2_1, TSC_rpn1, TCV_frame)	(F)	14.
18	TB05	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm(D32_any_q2_1, TSC_rpn1, TCV_frame)	(F)	14.
19	TB06	? TIMEOUT T_1_frame		F	15
		LTS_mac			
20		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request PTC_MAC to generate A field CRC error on the next data seding request.

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Test Case Dynamic Behaviour

Detailed Comments : ...
    5. Request PTC_MAC to send some IN data.
    6. Wait for PTC_TC to terminate.
    7. Request PTC_MAC to release any established bearer.
    8. Request the PTC_MAC to stop.
    9. Wait for PTC_MAC to terminate.
    10. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
    11. Verify the basic bearer setup procedure.
    12. PTC_MAC sends IN data as requested in 5.
    13. Expected event: The IUT indicates the A field CRC error in D00 or D32 packet.
    14. The IUT does not indicate the A field CRC error in the same ARQ window. Fail verdict.
    15. No response from IUT. Fail verdict.

		Test Case Dynamic Behaviour			
Test Case Name	**:** TC_PT_DT_BV_00				
Group	**:** PT/DT/BV/				
Purpose	**:** Initial state: Active_locked. Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from clear mode to encrypt mode.				
Configuration	**:** Mac_config				
Default	**:** DF_mtc_bearer_setup				
Comments	**:** ETS 300 175–7 [7]: 6.4.6 Encryption mode control – 6.4.6.3 Procedures for switching to encrypt mode. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action14)		4.
6		? DONE(LT_TC)			5.
7		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		6.
8	TB01	? DONE(LT_MAC)		R	7.
		LTS_tc			
9		ACTIVATE(DF_tc_bearer_setup)			
10		START T_wait_ptc_mac			8.
11		+STP_basic_bearer_setup			9.
12		+STP_encryption_start_failed			10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Request PTC_MAC to ignore the START_REQUEST message.
5. Wait for PTC_TC to terminate.
6. Request the PTC_MAC to stop.
7. Wait for PTC_MAC to terminate.
8. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
9. Verify the basic bearer setup procedure.
10. Verify the expected behaviour described in a test step.

		Test Case Dynamic Behaviour			

Test Case Name	**:** TC_PT_DT_BV_01				
Group	**:** PT/DT/BV/				
Purpose	**:** Only for IUT supporting encryption deactivation. Initial state: Active_locked. Check that the IUT releases the basic connection when it cannot conclude the procedure to switch from encrypt mode to clear mode.				
Configuration	**:** Mac_config				
Default	**:** DF_mtc_bearer_setup				
Comments	**:** ETS 300 175–7 [7]: 6.4.6 Encryption mode control – 6.4.6.4 Procedures for switching to clear mode. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ? MAC_ENC_EKS_IND START T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action15)		5.
7		? DONE(LT_TC)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
13		+STP_encryption_start(TSC_rpn1)			11.
14		+STP_encryption_stop_failed			12.
		LTS_mac			
15		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Indication received from PTC_MAC. Connection is encrypted.
5. Request PTC_MAC to ignore the received STOP_REQUEST message.
6. Wait for PTC_TC to terminate.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup procedure.
11. Verify the start encryption procedure.
12. Verify the expected behaviour described in a test step.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_DT_CA_00

Group : PT/DT/CA/

Purpose : Initial state: Active_locked.
Check that the IUT re–transmits Cs segment until it receives an acknowledgement in the same ARQ window.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.8.1.1 Cs–channel data and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action5)		3.
5		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
13		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame) START T_1_frame	PI_rx_cfm_02(D00_ct(First_cs_segment),TSC_rpn1)		11.
14		(TCV_frame := (TCV_frame+1) MOD 16)			
15		PHL ? PL_RX_CFM START T_1_frame	PI_rx_cfm(D00_ct(First_cs_segment), TSC_rpn1, TCV_frame)		12.
16		(TCV_frame := (TCV_frame+1) MOD 16)			
17		PHL ? PL_RX_CFM START T_1_frame	PI_rx_cfm(D00_ct(First_cs_segment),TSC_rpn1, TCV_frame)		13.
18	TB02	PHL ? PL_RX_CFM CANCEL T_1_frame	PI_rx_cfm_02(D00_ct(First_cs_segment), TSC_rpn1)	F	14.
19	TB03	? TIMEOUT T_1_frame		(P)	15.
20	TB04	? TIMEOUT T_1_frame		F	16.
21	TB05	? TIMEOUT T_1_frame		F	17.
		LTS_mac			
22		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.

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Test Case Dynamic Behaviour

Detailed Comments : ...

        3. Request PTC_MAC to acknowledge received Cs segment only after three receipt..
        4. Bearer succesfully established.
        5. Wait for PTC_TC to terminate.
        6. Request PTC_MAC to release established bearer.
        7. Request the PTC_MAC to stop.
        8. Wait for PTC_MAC to terminate.
        9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
      10. Verify the basic bearer setup procedure.
      11. First Cs segment received from IUT.
      12. Second transmission of the first Cs segment received from IUT.
      13. Third transmission of the first Cs segment received from IUT.
      14. Too much re-transmission of the first Cs segment by the IUT. Fail verdict.
      15. Expected event: no new re-transmission of the first Cs segment.
      16. No second transmission of the first Cs segment received from IUT. Fail verdict.
      17. No third transmission of the first Cs segment received from IUT. Fail verdict.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_DT_CA_01

Group : PT/DT/CA/

Purpose : Initial state: Active_locked.
Check that the IUT does not transmit another Cs segment until the successful transmission of the current segment.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.8.1.1 Cs–channel data and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		CP_MAC ! MAC_CMD START T_wait_mtc_mac	Mac_cmd(TSC_action5)		3.
5		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
13		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame) START T_1_frame	PI_rx_cfm_02(D00_ct(First_cs_segment), TSC_rpn1)		11.
14		(TCV_frame := (TCV_frame+1) MOD 16)			
15		PHL ? PL_RX_CFM START T_1_frame	PI_rx_cfm(D00_ct(First_cs_segment), TSC_rpn1, TCV_frame)		12.
16		(TCV_frame := (TCV_frame+1) MOD 16)			
17		PHL ? PL_RX_CFM CANCEL T_1_frame , START T_1_mf	PI_rx_cfm(D00_ct(First_cs_segment), TSC_rpn1, TCV_frame)		13.
18	TB03	PHL ? PL_RX_CFM CANCEL T_1_mf	PI_rx_cfm_02(D00_ct(First_cs_segment), TSC_rpn1)	F	15.
19	TB04	PHL ? PL_RX_CFM CANCEL T_1_mf	PI_rx_cfm_02(D00_ct_other,TSC_rpn1)	(P)	14.
20	TB05	? TIMEOUT T_1_mf		F	16.
21	TB06	? TIMEOUT T_1_frame		F	17.
22	TB07	? TIMEOUT T_1_frame		F	18.
		LTS_mac			

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Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		Test Case Dynamic Behaviour			
23		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Request PTC_MAC to acknowledge received Cs segment only after three receipt..
4. Bearer succesfully established.
5. Wait for PTC_TC to terminate.
6. Request PTC_MAC to release any established bearer.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup procedure.
11. First Cs segment received from IUT.
12. Second transmission of the first Cs segment received from IUT.
13. Third transmission of the first Cs segment received from IUT.
14. Expected event: new CS segment transmitted
15. Too much re−transmission of the first Cs segment by the IUT. Fail verdict.
16. No new CS segment transmitted. Fail verdict.
17. No second transmission of the first Cs segment received from IUT. Fail verdict.
18. No third transmission of the first Cs segment received from IUT. Fail verdict.

Test Case Dynamic Behaviour					

Test Case Name : TC_PT_DT_CA_02

Group   : PT/DT/CA/

Purpose   : Initial state: Active_locked.
Check that the IUT manages correctly the one bit numbering of the Cs segments.

Configuration   : Mac_config

Default   : DF_mtc_bearer_setup

Comments   : ETS 300 175–3 [3]: 10.8.1.1 Cs–channel data and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		? DONE(LT_TC)			4.
6		+PO_mtc_con_release(TCV_mcei1)			5.
7		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		6.
8	TB01	? DONE(LT_MAC)		R	7.
		LTS_tc			
9		ACTIVATE(DF_tc_bearer_setup)			
10		START T_wait_ptc_mac			8.
11		+STP_basic_bearer_setup			9.
12		START T_DL07			10.
13		PHL ? PL_RX_CFM START T_DL07	PI_rx_cfm_02(D00_any_ct_first_cs, TSC_rpn1)		11.
14	TB03	PHL ? PL_RX_CFM CANCEL T_DL07	PI_rx_cfm_02(D00_any_ct_second_cs, TSC_rpn1)	(P)	12.
15	TB04	? TIMEOUT T_DL07		F	13.
16	TB05	? TIMEOUT T_DL07		F	14.
		LTS_mac			
17		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Wait for PTC_TC to terminate.
5. Request PTC_MAC to release any established bearer.
6. Request the PTC_MAC to stop.
7. Wait for PTC_MAC to terminate.
8. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
9. Verify the basic bearer setup procedure.
10. Start Class A establishment timer.
11. First CS segment received containing Class A establishment request.
12. Expected event: Second CS segment received.
13. No second Cs segment received.
14. No first Cs segment received .

	Test Case Dynamic Behaviour		

Test Case Name : TC_PT_DT_CA_03

Group : PT/DT/CA/

Purpose : Initial state: Active_locked.
Check that the IUT manages correctly the procedure to switch the basic connection from clear mode to encrypt mode.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–7 [7]: 6.4.6 Encryption mode control – 6.4.6.3 Procedures for switching to encrypt mode. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		4.
6		? DONE(LT_TC)			5.
7		+PO_mtc_con_release(TCV_mcei1)			6.
8		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		7.
9	TB01	? DONE(LT_MAC)		R	8.
		LTS_tc			
10		ACTIVATE(DF_tc_bearer_setup)			
11		START T_wait_ptc_mac			9.
12		+STP_basic_bearer_setup			10.
13		START T_wait_ptc_mac			9.
14		+STP_encryption_start(TSC_rpn1)			11.
		LTS_mac			
15		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Indication from PTC_MAC that connection is encrypted.
5. Wait for PTC_TC to terminate.
6. Request PTC_MAC to release any established bearer.
7. Request the PTC_MAC to stop.
8. Wait for PTC_MAC to terminate.
9. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
10. Verify the basic bearer setup procedure.
11. Verify the expected behaviour described in a test step.

		Test Case Dynamic Behaviour			
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Test Case Name : TC_PT_DT_CA_04

Group   **:** PT/DT/CA/

Purpose   **:** Only for IUT supporting encryption deactivation.
Initial state: Active_locked.
Check that the IUT manages correctly the procedure to switch the basic connection from encrypt
mode to clear mode.

Configuration   **:** Mac_config

Default   **:** DF_mtc_bearer_setup

Comments   **:** ETS 300 175–7 [7]: 6.4.6 Encryption mode control – 6.4.6.4 Procedures for switching to clear
mode. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page_ in)		2,
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) START T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ? MAC_ENC_EKS_IND START T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		4.
6		CP_MAC ? MAC_ENC_EKS_IND CANCEL T_wait_mtc_mac	Mac_enc_eks_ind(TCV_mcei1)		5.
7		? DONE(LT_TC)			6.
8		+PO_mtc_con_release(TCV_mcei1)			7.
9		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		8.
10	TB01	? DONE(LT_MAC)		R	9.
		LTS_tc			
11		ACTIVATE(DF_tc_bearer_setup)			
12		START T_wait_ptc_mac			10.
13		+STP_basic_bearer_setup			11.
14		START T_wait_ptc_mac			10.
15		+STP_encryption_start(TSC_rpn1)			12.
16		START T_wait_ptc_mac			10.
17		+STP_encryption_stop(TSC_rpn1)			13.
		LTS_mac			
18		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Bearer succesfully established.
4. Indication received from PTC_MAC. Connection is encrypted.
5. Indication received from PTC_MAC. Connection is clear.
6. Wait for PTC_TC to terminate.
7. Request PTC_MAC to release established bearer.
8. Request the PTC_MAC to stop.
9. Wait for PTC_MAC to terminate.
10. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
11. Verify the basic bearer setup procedure.
12. Verify the encryption start procedure.
13. Verify the expected behaviour described in a test step.

		Test Case Dynamic Behaviour			

Test Case Name **:** TC_PT_LM_CA_00

Group **:** PT/LM/CA/

Purpose **:** Initial state: Idle_locked.
Check that the IUT manages rightly the protocol constant N200.

Configuration **:** Mac_config

Default **:** DF_mtc_bearer_setup

Comments **:** ETS 300 175–3 [3]: 10.2 C/O connection setup and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action8)		3.
5		? DONE(LT_TC)			4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		5.
7	TB01	? DONE(LT_MAC)		R	6.
		LTS_tc			
8		ACTIVATE(DF_tc_bearer_setup)			
9		(TCV_count := 0 , TCV_bool := FALSE)			
10		START T200			
11		REPEAT LTS_subtree UNTIL [TCV_bool]			
12		[TCV_count <= TSPX_n200]			
13	TB02	CANCEL		(P)	9.
14		[TCV_count > TSPX_n200]			
15	TB03	CANCEL		F	10.
		LTS_subtree			
16		+STP_basic_bearer_setup_failed			7.
17		(TCV_count := TCV_count + 1)			
18		? TIMEOUT T200			8.
19		(TCV_bool := TRUE)			
		LTS_mac			
20		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Request the PTC_MAC to ignore any received messages after esnding "bearer confirm " in bearer setup.
4. Wait for PTC_TC to terminate.
5. Request the PTC_MAC to stop.
6. Wait for PTC_MAC to terminate.
7. Force the IUT to make another reattempt.
8. Bearer setup maximun time elapsed. Verify number of reattempts.
9. Expected behaviour: Number of reattempts is less or egal to N200.
10. Too much reattempts (> N200). Fail verdict

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_LM_CA_01

Group : PT/LM/CA/

Purpose : Initial state: Idle_locked.
Check that the IUT manages rightly the protocol timer T200.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 10.2 C/O connection setup and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action9)		3.
3		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
4		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
5		? DONE(LT_TC)			4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		5.
7	TB01	? DONE(LT_MAC)		R	6.
		LTS_tc			
8		ACTIVATE(DF_tc_bearer_setup)			
9		START T_wait_ptc_mac			7.
10		+STP_basic_setup_too_many_wait			8.
		LTS_mac			
11		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Request the PTC_MAC to send WAIT message for a duration exceeding T200 after receiving ACCESS_REQUEST message and WAIT messages.
4. Wait for PTC_TC to terminate.
5. Request the PTC_MAC to stop.
6. Wait for PTC_MAC to terminate.
7. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
8. Basic bearer setup procedure exceding the duration of T200 timer.

		Test Case Dynamic Behaviour			

Test Case Name **:** TC_PT_LM_CA_02

Group **:** PT/LM/CA/

Purpose **:** Initial state: Idle_locked.
Check that the IUT manages rightly the protocol timer T207.

Configuration **:** Mac_config

Default **:** DF_mtc_bearer_setup

Comments **:** ETS 300 175−3 [3]: 11.3 PP states and state transitions and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_CMD START T207	Mac_cmd(TSC_action10)		2.
4		? TIMEOUT T207			3.
5		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		4.
6		? DONE(LT_TC)			5.
7		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		6.
8	TB01	? DONE(LT_MAC)		R	7.
		LTS_tc			
9		ACTIVATE(DF_tc_bearer_setup)			
10		START T_wait_ptc_mac			8.
11	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	PI_rx_cfm_02(D32_mt_basic_con_ctrl_access_req, TSC_rpn1)	F	9.
12	TB03	? TIMEOUT T_wait_ptc_mac		(P)	10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the PTC_MAC to transmit incorrect A field CRC in frame 0 for a duration exceeding T207.
3. Wait for T207 expiration.
4. Request the IUT to establish a symmetric single bearer connection of the specified type.
5. Wait for PTC_TC to terminate.
6. Request the PTC_MAC to stop.
7. Wait for PTC_MAC to terminate.
8. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
9. The IUT send ACCESS_REQUEST. Test case fail.
10. Expected behaviour: No response from the IUT.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_LM_CA_03

Group : PT/LM/CA/

Purpose : Initial state: Idle_locked.
Check that the IUT manages rightly the protocol timer T208.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 11.3 PP states and state transitions and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_CMD START T208	Mac_cmd(TSC_action4)		2.
4		? TIMEOUT T208			3.
5		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		4.
6		? DONE(LT_TC)			5.
7		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		6.
8	TB01	? DONE(LT_MAC)		R	7.
		LTS_tc			
9		ACTIVATE(DF_tc_bearer_setup)			
10		START T_wait_ptc_mac			8.
11	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_a ccess_req, TSC_rpn1)	F	9.
12	TB03	? TIMEOUT T_wait_ptc_mac		(P)	10.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the PTC_MAC to generate an incorrect message for RFPI handshake.
3. Wait for T208 expiration.
4. Request the IUT to establish a symmetric single bearer connection of the specified type.
5. Wait for PTC_TC to terminate.
6. Request the PTC_MAC to stop.
7. Wait for PTC_MAC to terminate.
8. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
9. The IUT send ACCESS_REQUEST. Test case fail.
10. Expected behaviour: No response from the IUT.

Test Case Dynamic Behaviour

Test Case Name	**:** TC_PT_LM_CA_04
Group	**:** PT/LM/CA/
Purpose	**:** Initial state: Active_locked. Check that the IUT, makes at most N201 bearer setup attempts for bearer handover of one particular bearer and within a time window of T202 seconds.
Configuration	**:** Mac_config
Default	**:** DF_mtc_bearer_setup
Comments	**:** ETS 300 175−3 [3]: 10.6.2 Duplex bearer handover procedure. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ START T_wait_mtc_mac	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		CP_MAC ? MAC_CON_IND (TCV_mcei1 := MAC_CON_IND.mcei) CANCEL T_wait_mtc_mac	Mac_con_ind(TSC_cm_in)		3.
5		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action19)		4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action6)		5.
7		? DONE(LT_TC)			6.
8		+PO_mtc_con_release(TCV_mcei1)			7.
9		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		8.
10	TB01	? DONE(LT_MAC)		R	9.
		LTS_tc			
11		ACTIVATE(DF_tc_bearer_setup)			
12		START T_wait_ptc_mac			10.
13		+STP_basic_bearer_setup			11.
14		(TCV_count := 0 , TCV_bool := FALSE)			
15		START T202			
16		REPEAT LTS_subtree UNTIL [TCV_count = TSPX_n201]			
17		[TCV_count <= TSPX_n201]			
18	TB02	CANCEL		(P)	14.
19		[TCV_count > TSPX_n201]			
20	TB03	CANCEL		F	15.
		LTS_subtree			
21		+STP_handover_bearer_failed(TSC_fmid1,TSC_rpn1)			12.
22		(TCV_count := TCV_count + 1)			
23		? TIMEOUT T202			13.
24		(TCV_bool := TRUE)			
		LTS_mac			
25		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
      2. Request the IUT to establish a symmetric single bearer connection of the specified type.
      3. Bearer succesfully established.
      4. Request the PTC_MAC to ignore any received messages after sending "bearer confirm" in bearer setup for handover.
      5. Request the PTC_MAC to force intracell bearer handover.
      6. Wait for PTC_TC to terminate.

Continued from previous page

Test Case Dynamic Behaviour

Detailed Comments : ...
      7. Request PTC_MAC to release established bearer.
      8. Request the PTC_MAC to stop.
      9. Wait for PTC_MAC to terminate.
      10. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
      11. Verify the basic bearer setup procedure.
      12. Force the IUT to make another handover reattempt.
      13. Bearer setup for handover maximun time elapsed. Verify number of reattempts.
      14. Expected behaviour: Number of reattempts is less or egal to N201.
      15. Too much reattempts (> N201). Fail verdict

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_PG_BV_02

Group : PT/PG/BV/

Purpose : Initial state: Idle_locked.
Check that the PT does not setup a bearer on a slot announced to be blind, after reception of a PT blind full slot information message.

Configuration : Mac_config

Default : DF_mtc_downlink_broadcast

Comments : ETS 300 175–3 [3]: 7.2.4.3 MAC layer information for PT. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action11)		1.
3		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		2.
4		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		3.
5		? DONE(LT_TC)			4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		5.
7	TB01	? DONE(LT_MAC)		R	6.
		LTS_tc			
8		ACTIVATE(DF_tc_paging)			
9		START T_wait_ptc_mac			7.
10		PHL ? PL_TX_REQ	Pl_tx_req_04("00", 0, TSC_rpn1)		
11	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_access_req, TSC_rpn1)	(P)	8.
12	TB03	? TIMEOUT T_wait_ptc_mac		F	7.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Request the PTC_MAC to transmit blind slot information with only one slot available. This one available slot shall have a minimum distance of two slots to the Dummy Bearer of the LT.
2. Activate PTC_MAC (see Annex B for a specification of the behaviour).
3. Request the IUT to establish a symmetric single bearer connection of the specified type.
4. Wait for PTC_TC to terminate.
5. Request the PTC_MAC to stop.
6. Wait for PTC_MAC to terminate.
7. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
8. Expected behaviour: the IUT transmits ACCESS_REQUEST on the only one slot available.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_PG_BV_03

Group : PT/PG/BV/

Purpose : Initial state: Idle_locked.
Check that the PT stays locked to a FT, based on reception of other bearer and dummy or CL–bearer position zero length PT messages.

Configuration : Mac_config

Default : DF_mtc_bearer_setup

Comments : ETS 300 175–3 [3]: 7.2.4.3 MAC layer information for PT. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action12)		1.
3		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		2.
4		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		3.
5		? DONE(LT_TC)			4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		5.
7	TB01	? DONE(LT_MAC)		R	6.
		LTS_tc			
8		ACTIVATE(DF_tc_paging)			
9		START T_wait_ptc_mac			7.
10	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_access_req, TSC_rpn1)	(P)	8.
11	TB03	? TIMEOUT T_wait_ptc_mac		F	7.
		LTS_mac			
12		+STP_emulate_mac			

Detailed Comments : 1. Request the PTC_MAC : "Twice to tell a new bearer position, which is distanced a minimum of two slots to the old position, to the PP and release the old dummy bearer afterwards. In the moment of transmission of the new position there has to be a new active dummy bearer at the LT at the new position. Repeat this three times."
2. Activate PTC_MAC (see Annex B for a specification of the behaviour).
3. Request the IUT to establish a symmetric single bearer connection of the specified type.
4. Wait for PTC_TC to terminate.
5. Request the PTC_MAC to stop.
6. Wait for PTC_MAC to terminate.
7. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
8. Expected behaviour: The IUT stays locked and sends the ACCESS_REQUEST message.

		Test Case Dynamic Behaviour			

Test Case Name : TC_PT_PG_CA_00

Group   : PT/PG/CA/

Purpose   : Initial state: Idle_locked.
Check that the IUT can receive (PT part normal idle locked mode) a short page message.

Configuration : Mac_config

Default   : DF_mtc_bearer_setup

Comments   : ETS 300 175−3 [3]: 9.1.3 Paging broadcast procedure and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		1.
3		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		2.
4		? DONE(LT_TC)			3.
5		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		4.
6	TB01	? DONE(LT_MAC)		R	5.
		LTS_tc			
7		ACTIVATE(DF_tc_paging)			
8		START T_wait_ptc_mac			6.
9	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_a ccess_req, TSC_rpn1)	(P)	7.
10	TB03	? TIMEOUT T_wait_ptc_mac		F	6.
		LTS_mac			
11		+STP_emulate_mac			

Detailed Comments : 1. Activate PTC_MAC (see Annex B for a specification of the behaviour).
2. Request the IUT to establish a symmetric single bearer connection of the specified type.
3. Wait for PTC_TC to terminate.
4. Request the PTC_MAC to stop.
5. Wait for PTC_MAC to terminate.
6. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
7. Expected behaviour: the IUT reacts correctly to the reception of a short paging message.

			Test Case Dynamic Behaviour			

Test Case Name : TC_PT_PG_CA_01

Group : PT/PG/CA/

Purpose : Initial state: Idle_locked.
Check that the PT can receive a correct zero length page message.

Configuration : Mac_config

Default : DF_mtc_downlink_broadcast

Comments : ETS 300 175–3 [3]: 9.1.3 Paging broadcast procedure and subclauses. The behaviour of PTC_MAC (LTS_mac) is specified in Annex B.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CREATE(LT_MAC:LTS_mac, LT_TC:LTS_tc)			
2		CP_MAC ! MAC_CMD	Mac_cmd(TSC_action11)		1.
3		CP_MAC ! MAC_CMD	Mac_cmd(TSC_start)		2.
4		CP_MAC ! MAC_PAGE_REQ	Mac_page_req(TSC_normal_paging, Lce_short_request_page)		3.
5		? DONE(LT_TC)			4.
6		CP_MAC ! MAC_CMD	Mac_cmd(TSC_stop)		5.
7	TB01	? DONE(LT_MAC)		R	6.
		LTS_tc			
8		ACTIVATE(DF_tc_paging)			
9		START T_wait_ptc_mac			7.
10		PHL ? PL_TX_REQ	PI_tx_req_04("00", 0, TSC_rpn1)		
11	TB02	PHL ? PL_RX_CFM (TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	PI_rx_cfm_02(D32_mt_basic_con_ctrl_a ccess_req, TSC_rpn1)	(P)	8.
12	TB03	? TIMEOUT T_wait_ptc_mac		F	7.
		LTS_mac			
13		+STP_emulate_mac			

Detailed Comments : 1. Request the PTC_MAC to transmit blind slot information with only one slot available. This one available slot shall have a minimum distance of two slots to the Dummy Bearer of the LT.
2. Activate PTC_MAC (see Annex B for a specification of the behaviour).
3. Request the IUT to establish a symmetric single bearer connection of the specified type.
4. Wait for PTC_TC to terminate.
5. Request the PTC_MAC to stop.
6. Wait for PTC_MAC to terminate.
7. Timer T_wait_ptc_mac is used to make sure that PTC_TC always terminates.
8. Expected behaviour: the IUT reacts correctly to the reception of the zero length paging message with blind slot information.

		Test Step Dynamic Behaviour			
Test Step Name	: PO_mtc_con_release(mcei_:CM_MCEI)				
Group	: MAIN_TC/Postambles/				
Objective	: Release established connection				
Default	:				
Comments	:				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		CP_MAC ! MAC_DIS_REQ	Mac_dis_req(mcei_)		1.
Detailed Comments : 1. Request the PTC_MAC to release the established connection.					

		Test Step Dynamic Behaviour			

Test Step Name : STP_basic_bearer_setup

Group : PTC_TC/TestSteps/

Objective : PT initiated (single) basic bearer setup procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175–3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_slot:= PL_RX_CFM.slotpair, TCV_slot_pair := TCV_slot + 12, TCV_frame:= PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac , START T_1_mf	PI_rx_cfm_02(D32_mt_basic_con_ctrl_acc ess_req, TSC_rpn1)		1.
2		(TCV_frame := (TCV_frame+1) MOD 16)			
3		PHL ? PL_TX_REQ (TCV_rf:=PL_TX_REQ.m) START T_1_mf	PI_tx_req_03(D32_mt_basic_con_ctrl_bea rer_cfm(TSV_pmid), "32",0,TSC_rpn1, TCV_frame, TCV_slot_pair)		2.
4	TB01	PHL ? PL_RX_CFM CANCEL T_1_mf	PI_rx_cfm(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1, TCV_frame)	I	3.
5		PHL ? PL_RX_CFM START T_1_mf	PI_rx_cfm(D32_other, TSC_rpn1, TCV_frame)		4.
6		(TCV_frame := (TCV_frame+1) MOD 16)			
7	TB02	PHL ? PL_TX_REQ CANCEL T_1_mf	PI_tx_req_03(D32_other, "32", 0, TSC_rpn1, TCV_frame, TCV_slot_pair)	(P)	5.
8	TB03	? TIMEOUT T_1_mf		I	6.
9	TB04	? TIMEOUT T_1_mf		F	7.
10	TB05	? TIMEOUT T_1_mf		I	8.

Detailed Comments : 1. Tester receives ACCESS_REQUEST.
2. PTC_MAC acknoledges by sending BEARER_CONFIRM.
3. The IUT release the basic bearer. Inconclusive verdict.
4. Bearer established. The IUT transmits "other" message.
5. PTC_MAC acknoledges by sending "other" message.
6. PTC_MAC problem (No "other" message sent}. Inconclusive verdict.
7. No response from the IUT. Test step fails.
8. PTC_MAC problem (NO BEARER_CONFIRM message sent}. Inconclusive verdict.

Test Step Dynamic Behaviour					
Test Step Name	**:** STP_basic_bearer_setup_failed				
Group	**:** PTC_TC/TestSteps/				
Objective	**:** Failed PT initiated (single) basic bearer setup procedure.				
Default	**:** DF_tc_bearer_setup				
Comments	**:** ETS 300 175–3 [3], subclause 10.5.1.1.				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		PHL ? PL_RX_CFM (TCV_frame:=PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_acc ess_req, TSC_rpn1)		1.
2	TB01	PHL ? PL_RX_CFM	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1)	(P)	2.
3		? TIMEOUT T200			3.
4		(TCV_bool := TRUE)			
5		? TIMEOUT T200		(P)	3.
6		(TCV_bool := TRUE)			
7		? TIMEOUT T200			3.
8		(TCV_bool := TRUE)			
Detailed Comments : 1. Tester receives ACCESS_REQUEST. 2. PTC_MAC does not acknoledge. The IUT release the bearer. 3. Bearer setup maximun time elapsed. Verify number of reattempts.					

| **Test Step Dynamic Behaviour** |

Test Step Name : STP_basic_bearer_setup_wait

Group : PTC_TC/TestSteps/

Objective : PT initiated (single) basic bearer setup procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175–3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_slot:= PL_RX_CFM.slotpair, TCV_slot_pair := TCV_slot + 12,TCV_frame:= PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac , START T_1_mf	PI_rx_cfm_02(D32_mt_basic_con_ctrl_access_req, TSC_rpn1)		1.
2		(TCV_frame := (TCV_frame+1) MOD 16)			
3		PHL ? PL_TX_REQ (TCV_rf:=PL_TX_REQ.m) START T_1_mf	PI_tx_req_03(D32_mt_basic_con_ctrl_wait(TSV_pmid), "32",0, TSC_rpn1, TCV_frame, TCV_slot_pair)		2.
4		+LTS_next_MT_frame			
5		PHL ? PL_RX_CFM START T_1_mf	PI_rx_cfm(D32_mt_basic_con_ctrl_wait(TSV_pmid), TSC_rpn1, TCV_frame)		3.
6		(TCV_frame := (TCV_frame+1) MOD 16)			
7		PHL ? PL_TX_REQ START T_1_mf	PI_tx_req_03(D32_mt_basic_con_ctrl_bearer_cfm(TSV_pmid), "32",0,TSC_rpn1, TCV_frame, TCV_slot_pair)		4.
8	ST01	PHL ? PL_RX_CFM CANCEL T_1_mf	PI_rx_cfm(D32_mt_basic_con_ctrl_release(TSV_pmid), TSC_rpn1, TCV_frame)	I	5.
9		(TCV_frame := (TCV_frame+1) MOD 16)			
10		PHL ? PL_RX_CFM START T_1_mf	PI_rx_cfm(D32_other, TSC_rpn1, TCV_frame)		6.
11		(TCV_frame := (TCV_frame+1) MOD 16)			
12	ST02	PHL ? PL_TX_REQ CANCEL T_1_mf	PI_tx_req_03(D32_other, "32", 0, TSC_rpn1, TCV_frame, TCV_slot_pair)	(P)	7.
13	ST03	? TIMEOUT T_1_mf		I	8.
14	ST04	? TIMEOUT T_1_mf		F	9.
15	ST05	? TIMEOUT T_1_mf		I	10.
16	ST06	? TIMEOUT T_1_mf		F	11.
17	ST07	? TIMEOUT T_1_mf		I	12.
		LTS_next_MT_frame			
18		[(TCV_frame MOD 2)=0]			13.
19		(TCV_frame:=(TCV_frame+1) MOD 16)			

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		Test Step Dynamic Behaviour			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
20		[(TCV_frame MOD 2)<>0]			13.

Detailed Comments : 1. Tester receives ACCESS_REQUEST.
2. PTC_MAC responds with WAIT message.
3. The IUT acknowledges the received WAIT message by sending WAIT message.
4. PTC_MAC acknoledges the primary ACCESS_REQUEST by sending BEARER_CONFIRM.
5. The IUT release the basic bearer. Inconclusive verdict.
6. Bearer established. The IUT transmits "other" message.
7. PTC_MAC acknoledges by sending "other" message.
8. PTC_MAC problem (No "other" message sent}. Inconclusive verdict.
9. No response from the IUT. Test step fails.
10. PTC_MAC problem (NO BEARER_CONFIRM message sent}. Inconclusive verdict.
11. IUT problem (no WAIT message sent). Fail verdict.
12. PTC_MAC problem (no WAIT message sent). Inconclusive verdict.
13. Shall be an odd numbered frame (i.e. 1, 3, 5, 7, 9,11, 13, or 15)

		Test Step Dynamic Behaviour			

Test Step Name : STP_basic_setup_too_many_wait

Group : PTC_TC/TestSteps/

Objective : Too may wait PT initiated (single) basic bearer setup procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175–3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_slot:= PL_RX_CFM.slotpair, TCV_slot_pair := TCV_slot + 12, TCV_frame:= PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid, TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := FALSE) CANCEL T_wait_ptc_mac , START T_1_mf	PI_rx_cfm_02(D32_mt_basic_con_ctrl_acc ess_req, TSC_rpn1)		1.
2		START T200			2.
3		REPEAT LTS_subtree UNTIL [TCV_bool]			
		LTS_subtree			
4		PHL ? PL_TX_REQ (TCV_rf:=PL_TX_REQ.m) START T_1_mf	PI_tx_req_03(D32_mt_basic_con_ctrl_wai t(TSV_pmid), "32",0, TSC_rpn1, TCV_frame, TCV_slot_pair)		3.
5		+LTS_next_MT_frame			
6		PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := FALSE) CANCEL T_1_mf	PI_rx_cfm(D32_mt_basic_con_ctrl_wai t(TSV_pmid), TSC_rpn1, TCV_frame)		4.
7		? TIMEOUT T200			5.
8	ST01	PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := TRUE) CANCEL T_1_mf	PI_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1)	(P)	6.
9	ST02	? TIMEOUT T_1_mf		I	7.
10		? TIMEOUT T200			5.
11	ST03	PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := TRUE) CANCEL T_1_mf	PI_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1)	(P)	6.
12	ST04	? TIMEOUT T_1_mf		I	7.
		LTS_next_MT_frame			
13		[(TCV_frame MOD 2)=0]			8.
14		(TCV_frame:=(TCV_frame+1) MOD 16)			
15		[(TCV_frame MOD 2)<>0]			8.

Detailed Comments : 1. Tester receives ACCESS_REQUEST.
2. T200 is used to limit the exchange of the "WAIT" message.
3. PTC_MAC responds with WAIT message.
4. The IUT acknowledges the received WAIT message by sending WAIT message.
5. T200 elapsed. IUT shall release to bearer.
6. Expected event:The IUT release the basic bearer.
7. No response from the IUT. Inconclusive verdict.
8. Shall be an odd numbered frame (i.e. 1, 3, 5, 7, 9,11, 13, or 15)

		Test Step Dynamic Behaviour			

Test Step Name : STP_basic_bearer_handover(fmid_:B_12;rpn_:RPN)

Group : PTC_TC/TestSteps/

Objective : PT initiated (single) basic bearer handover procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175−3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_slot:= PL_RX_CFM.slotpair, TCV_slot_pair := TCV_slot + 12, TCV_frame:=PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac , START T_1_mf	Pl_rx_cfm_02(D32_mt_basic_handover_re q(fmid_), rpn_)		1.
2		(TCV_frame := (TCV_frame+1) MOD 16)			
3		PHL ? PL_TX_REQ (TCV_rf:=PL_TX_REQ.m) START T_1_mf	Pl_tx_req_03(D32_mt_basic_con_ctrl_bea rer_cfm(TSV_pmid), "32",0,rpn_, TCV_frame, TCV_slot_pair)		2.
4	TB01	PHL ? PL_RX_CFM CANCEL T_1_mf	Pl_rx_cfm(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), rpn_, TCV_frame)	I	3.
5		(TCV_frame := (TCV_frame+1) MOD 16)			
6		PHL ? PL_RX_CFM START T_1_mf	Pl_rx_cfm(D32_other, rpn_, TCV_frame)		4.
7		(TCV_frame := (TCV_frame+1) MOD 16)			
8	TB02	PHL ? PL_TX_REQ CANCEL T_1_mf	Pl_tx_req_03(D32_other, "32", 0, rpn_, TCV_frame, TCV_slot_pair)	(P)	5.
9	TB03	? TIMEOUT T_1_mf		I	6.
10	TB04	? TIMEOUT T_1_mf		F	7.
11	TB05	? TIMEOUT T_1_mf		I	8.

Detailed Comments : 1. Tester receives ACCESS_REQUEST (handover request).
      2. PTC_MAC acknoledges by sending BEARER_CONFIRM.
      3. The IUT release the basic bearer. Inconclusive verdict.
      4. Bearer established. The IUT transmits "other" message.
      5. PTC_MAC acknoledges by sending "other" message.
      6. PTC_MAC problem (No "other" message sent}. Inconclusive verdict.
      7. No response from the IUT. Test step fails.
      8. PTC_MAC problem (NO BEARER_CONFIRM message sent}. Inconclusive verdict.

		Test Step Dynamic Behaviour			

Test Step Name : STP_emulate_mac

Group : PTC_TC/TestSteps/

Objective : To provide a non TTCN MAC emulation according to Annex B.

Default :

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_bool := TSO_cimpt_emulate_mac())			
2	ST01	[TCV_bool]		(PASS)	
3	ST02	[NOT TCV_bool]		(I)	

Detailed Comments :

		Test Step Dynamic Behaviour			

Test Step Name : STP_encryption_start(rpn_:RPN)

Group : PTC_TC/TestSteps/

Objective : Connection clear to crypted procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175–7 [7] Encryption process

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame , TCV_count := 1) START T_1_mf	PI_rx_cfm_02(D32_mt_enc_ctrl_start_req (TSV_pmid), rpn_)		1.
2	LOOP	PHL ? PL_RX_CFM	PI_rx_cfm_02(D32_mt_enc_ctrl_start_gra nt(TSV_pmid) ,rpn_)	(P)	2.
3		PHL ? PL_RX_CFM (TCV_frame1 := PL_RX_CFM.frame)	PI_rx_cfm_02(D32_mt_enc_ctrl_start_req (TSV_pmid), rpn_)		3.
4		[TCV_frame1 = TCV_frame + 2]			
5		[TCV_count < 5]			
6		(TCV_count := TCV_count + 1, TCV_frame := TCV_frame1)			4.
7		START T_1_mf			
8		GOTO LOOP			
9		[TCV_count >= 5]			
10	ST03	CANCEL T_1_mf		(F)	5.
11		[TCV_frame1 <> TCV_frame + 2]			
12	ST04	CANCEL T_1_mf		(F)	6.
13	ST05	?TIMEOUT T_1_mf		F	7.

Detailed Comments : 1. The IUT sends the first START_REQUEST message.
2. Expected event: START_GRANT received.
3. START_REQUEST re–transmission. No START_CONFIRM received.
4. Update working variables and go to wait START_GRANT.
5. Too much re–transmission of START_REQUEST. IUT problem. Fail verdict.
6. START_REQUEST not in good even frame. IUT problem. Fail verdict.
7. No response received from the IUT. Fail verdict.

Test Step Dynamic Behaviour

Test Step Name : STP_encryption_start_failed

Group : PTC_TC/TestSteps/

Objective : Check that the IUT releases the bearer if it can not conclude to go crypted.

Default : DF_tc_bearer_setup

Comments : ETS 300 175-7 [7] Encryption process

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame , TCV_count := 1) START T_1_mf	Pl_rx_cfm_02(D32_mt_enc_ctrl_start_req (TSV_pmid), TSC_rpn1)		1.
2	LOOP	PHL ? PL_RX_CFM	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid) ,TSC_rpn1)		2.
3		[TCV_count = 5]			
4	ST01	CANCEL T_1_mf		(P)	3.
5		[TCV_count <> 5]			
6	ST02	CANCEL T_1_mf		F	4.
7		PHL ? PL_RX_CFM (TCV_frame1 := PL_RX_CFM.frame)	Pl_rx_cfm_02(D32_mt_enc_ctrl_start_req (TSV_pmid), TSC_rpn1)		5.
8		[TCV_frame1 = TCV_frame + 2]			
9		[TCV_count < 5]			
10		(TCV_count := TCV_count + 1, TCV_frame := TCV_frame1)			6.
11		START T_1_mf			
12		GOTO LOOP			
13		[TCV_count >= 5]			
14	ST03	CANCEL T_1_mf		(F)	7.
15		[TCV_frame1 <> TCV_frame + 2]			
16	ST04	CANCEL T_1_mf		(F)	8.
17	ST05	?TIMEOUT T_1_mf		F	9.

Detailed Comments : 1. The IUT sends the first START_REQUEST message.
2. Release received. Now, control it.
3. Expected event: Release received at the good time.
4. Release not received in time. Not enough or too much re-transmission of START_REQUEST.
5. START_REQUEST re-transmission. No START_CONFIRM received.
6. Update working variables and go to wait release.
7. Too much re-transmission of START_REQUEST. IUT problem. Fail verdict.
8. START_REQUEST not in good even frame. IUT problem. Fail verdict.
9. No response received from the IUT. Fail verdict.

		Test Step Dynamic Behaviour			

Test Step Name : STP_encryption_stop(rpn_:RPN)

Group : PTC_TC/TestSteps/

Objective : Connection crypted to clear procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175–7 [7] Encryption process

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_implicit_send			
2		<IUT ! PL_RX_CFM>	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), rpn_)		1.
3		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame , TCV_count := 1) START T_1_mf	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), rpn_)		1.
4	LOOP	PHL ? PL_RX_CFM	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_grant(TSV_pmid) ,rpn_)	(P)	2.
5		PHL ? PL_RX_CFM (TCV_frame1 := PL_RX_CFM.frame)	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), rpn_)		3.
6		[TCV_frame1 = TCV_frame + 2]			
7		[TCV_count < 5]			
8		(TCV_count := TCV_count + 1, TCV_frame := TCV_frame1)			4.
9		START T_1_mf			
10		GOTO LOOP			
11		[TCV_count >= 5]			
12	ST03	CANCEL T_1_mf		(F)	5.
13		[TCV_frame1 <> TCV_frame + 2]			
14	ST04	CANCEL T_1_mf		(F)	6.
15	ST05	?TIMEOUT T_1_mf		F	7.
16	ST06	? TIMEOUT T_implicit_send		I	9.

Detailed Comments : 1. Implicit send event.
2. The IUT sends the first STOP_REQUEST message.
3. Expected event: STOP_GRANT received.
4. STOP_REQUEST re–transmission. No STOP_CONFIRM received.
5. Update working variables and go to wait STOP_GRANT.
6. Too much re–transmission of STOP_REQUEST. IUT problem. Fail verdict.
7. STOP_REQUEST not in good even frame. IUT problem. Fail verdict.
8. No response received from the IUT. Fail verdict.
9. Implicit send procedure failed.

	Test Step Dynamic Behaviour

Test Step Name : STP_encryption_stop_failed

Group : PTC_TC/TestSteps/

Objective : Check that the IUT releases the bearer if it can not conclude to go clear.

Default : DF_tc_bearer_setup

Comments : ETS 300 175−7 [7] Encryption process

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_implicit_send			
2		<IUT ! PL_RX_CFM>	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), TSC_rpn1)		1.
3		PHL ? PL_RX_CFM (TCV_frame := PL_RX_CFM.frame , TCV_count := 1) START T_1_mf	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), TSC_rpn1)		2.
4	LOOP	PHL ? PL_RX_CFM	PI_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid) ,TSC_rpn1)		3.
5		[TCV_count = 5]			
6	ST01	CANCEL T_1_mf		(P)	4.
7		[TCV_count <> 5]			
8	ST02	CANCEL T_1_mf		F	5.
9		PHL ? PL_RX_CFM (TCV_frame1 := PL_RX_CFM.frame)	PI_rx_cfm_02(D32_mt_enc_ctrl_stop_req(TSV_pmid), TSC_rpn1)		6.
10		[TCV_frame1 = TCV_frame + 2]			
11		[TCV_count < 5]			
12		(TCV_count := TCV_count + 1, TCV_frame := TCV_frame1)			7.
13		START T_1_mf			
14		GOTO LOOP			
15		[TCV_count >= 5]			
16	ST03	CANCEL T_1_mf		(F)	8.
17		[TCV_frame1 <> TCV_frame + 2]			
18	ST04	CANCEL T_1_mf		(F)	9.
19	ST05	?TIMEOUT T_1_mf		F	10.
20	ST06	? TIMEOUT T_implicit_send		I	11.

Detailed Comments : 1. Implicit send event.
2. The IUT sends the first STOP_REQUEST message.
3. Release received. Now, control it.
4. Expected event: Release received at the good time.
5. Release not received in time. Not enough or too much re−transmission of STOP_REQUEST.
6. STOP_REQUEST re−transmission. No STOP_CONFIRM received.
7. Update working variables and go to wait release.
8. Too much re−transmission of STOP_REQUEST. IUT problem. Fail verdict.
9. STOP_REQUEST not in good even frame. IUT problem. Fail verdict.
10. No response received from the IUT. Fail verdict.
11. Implicit send procedure failed.

Test Step Dynamic Behaviour					

Test Step Name : STP_handover_bearer_failed(fmid_:B_12;rpn_:RPN)

Group   : PTC_TC/TestSteps/

Objective   : Failed PT initiated (single) basic bearer handover procedure.

Default   : DF_tc_bearer_setup

Comments   : ETS 300 175–3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_frame:=PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid) CANCEL T_wait_ptc_mac	PI_rx_cfm_02(D32_mt_basic_handover_req(fmid_), rpn_)		1.
2	TB01	PHL ? PL_RX_CFM	PI_rx_cfm_02(D32_mt_basic_con_ctrl_release(TSV_pmid), rpn_)	(P)	2.
3		? TIMEOUT T202			3.
4		(TCV_bool := TRUE)			
5		? TIMEOUT T202		(P)	3.
6		(TCV_bool := TRUE)			
7		? TIMEOUT T202			3.
8		(TCV_bool := TRUE)			

Detailed Comments : 1. Tester receives ACCESS_REQUEST (handover request).
2. PTC_MAC does not acknoledge. The IUT release the bearer.
3. Bearer setup for handover maximun time elapsed. Verify number of reattempts.

		Test Step Dynamic Behaviour			

Test Step Name : STP_handover_too_many_wait

Group : PTC_TC/TestSteps/

Objective : Too may wait PT initiated (single) basic bearer handover procedure.

Default : DF_tc_bearer_setup

Comments : ETS 300 175−3 [3], subclause 10.5.1.1.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		PHL ? PL_RX_CFM (TCV_slot:= PL_RX_CFM.slotpair, TCV_slot_pair := TCV_slot + 12, TCV_frame := PL_RX_CFM.frame, TCV_dfield := PL_RX_CFM.d_field, TCV_afield := TCV_dfield.a_field, TSV_pmid := TCV_afield.pmid, TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := FALSE) CANCEL T_wait_ptc_mac , START T_1_mf	Pl_rx_cfm_02(D32_mt_basic_handover_re q(TSC_fmid1), TSC_rpn1)		1.
2		START T202			2.
3		REPEAT LTS_subtree UNTIL [TCV_bool] LTS_subtree			
4		PHL ? PL_TX_REQ (TCV_rf:=PL_TX_REQ.m) START T_1_mf	Pl_tx_req_03(D32_mt_basic_con_ctrl_wai t(TSV_pmid), "32",0, TSC_rpn1, TCV_frame, TCV_slot_pair)		3.
5		+LTS_next_MT_frame			
6		PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := FALSE) CANCEL T_1_mf	Pl_rx_cfm(D32_mt_basic_con_ctrl_wai t(TSV_pmid), TSC_rpn1, TCV_frame)		4.
7		? TIMEOUT T202			5.
8	ST01	PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := TRUE) CANCEL T_1_mf	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1)	(P)	6.
9	ST02	? TIMEOUT T_1_mf		I	7.
10		? TIMEOUT T202			5.
11	ST03	PHL ? PL_RX_CFM (TCV_frame := (TCV_frame+1) MOD 16, TCV_bool := TRUE) CANCEL T_1_mf	Pl_rx_cfm_02(D32_mt_basic_con_ctrl_rele ase(TSV_pmid), TSC_rpn1)	(P)	6.
12	ST04	? TIMEOUT T_1_mf LTS_next_MT_frame		I	7.
13		[(TCV_frame MOD 2)=0]			8.
14		(TCV_frame:=(TCV_frame+1) MOD 16)			
15		[(TCV_frame MOD 2)<>0]			8.

Detailed Comments : 1. Tester receives ACCESS_REQUEST (handover request).
    2. T202 is used to limit the exchange of the "WAIT" message.
    3. PTC_MAC responds with WAIT message.
    4. The IUT acknowledges the received WAIT message by sending WAIT message.
    5. T202 elapsed. IUT shall release to bearer.
    6. Expected event:The IUT release the basic bearer.
    7. No response from the IUT. Inconclusive verdict.
    8. Shall be an odd numbered frame (i.e. 1, 3, 5, 7, 9,11, 13, or 15).

	Default Dynamic Behaviour			
Default Name : DF_mtc_bearer_setup				
Group : MAIN_TC/				
Objective : To catch any unexpected events at the MTC during bearer setup (BS) tests.				
Comments :				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DF01	? TIMEOUT T_wait_mtc_mac		I	1.
2	DF02	CP_MAC ? MAC_CON_CFM	Mac_con_cfm_01	I	2.
3	DF03	CP_MAC ? MAC_DIS_IND	Mac_dis_ind_01	I	3.
4	DF04	CP_MAC ? MAC_RES_DLC_IND	Mac_res_dlc_ind(TCV_mcei1)	(I)	4.
5		CP_MAC ! MAC_DIS_REQ	Mac_dis_req(TCV_mcei1)		
6	DF05	CP_MAC ? MAC_RES_DLC_IND	Mac_res_dlc_ind(TCV_mcei2)	(I)	4.
7		CP_MAC ! MAC_DIS_REQ	Mac_dis_req(TCV_mcei2)		
8	DF06	CP_MAC ? MAC_CON_IND	Mac_con_ind_01	I	5.
9		CP_MAC ? MAC_DATA_IND	Mac_data_ind_01		7.
10		RETURN			
11	DF07	CP_MAC ? MAC_ENC_EKS_CFM	Mac_enc_eks_cfm_01	I	5.
12	DF08	CP_MAC ? MAC_ENC_EKS_IND	Mac_enc_eks_ind_01	I	5.
13		CP_MAC ? MAC_PAGE_IND	Mac_page_ind_01		7.
14		RETURN			
15	DF09	CP_MAC ? OTHERWISE		I	5.
16	DF10	CP_TC ? OTHERWISE		I	6.

Detailed Comments : 1. No response from PTC_MAC.
2. One or more of the parameter values are invalid.
3. PTC_MAC indicates that connection cannot be established or wanted service is not supported or wanted connection is not allowed.
4. Bearer setup failed.
5. Unexpected event.
6. No events expected at coordination point CP_TC.
7. Ignore.

		Default Dynamic Behaviour			
Default Name	**:** DF_mtc_downlink_broadcast				
Group	**:** MAIN_TC/				
Objective	**:** To catch any unexpected events at the MTC during downlink broadcast (DB) tests.				
Comments	**:**				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1	DF01	? TIMEOUT T_wait_mtc_mac		I	1.
2	DF02	CP_MAC ? MAC_CON_CFM	Mac_con_cfm_01	I	2.
3	DF03	CP_MAC ? MAC_CON_IND	Mac_con_ind_01	I	2.
4	DF04	CP_MAC ? MAC_DATA_IND	Mac_data_ind_01	I	2.
5	DF05	CP_MAC ? MAC_DIS_IND	Mac_dis_ind_01	I	2.
6	DF06	CP_MAC ? MAC_ENC_EKS_CFM	Mac_enc_eks_cfm_01	I	2.
7	DF07	CP_MAC ? MAC_ENC_EKS_IND	Mac_enc_eks_ind_01	I	2.
8		CP_MAC ? MAC_PAGE_IND	Mac_page_ind_01		3.
9		RETURN			
10	DF08	CP_MAC ? OTHERWISE		I	2.
11	DF09	CP_TC ? OTHERWISE		I	4.
Detailed Comments : 1. No response from PTC_MAC. 2. Unexpected event. 3. Ignore. 4. No events expected at coordination point CP_TC.					

		Default Dynamic Behaviour			
Default Name	**:** DF_tc_bearer_setup				
Group	**:** PTC_TC/				
Objective	**:** To catch any unexpected events at PTC_TC during bearer setup tests.				
Comments	**:**				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1	DF01	? TIMEOUT T_wait_ptc_mac		I	1.
2	DF02	? TIMEOUT T_1_mf		F	1.
3	DF03	PHL ? PL_FREQ_ADJ_REQ CANCEL	Pl_freq_adj_req	I	2.
4		PHL ? PL_RX_CFM	Pl_rx_cfm_01		3.
5		RETURN			
6		PHL ? PL_RX_REQ	Pl_rx_req_01		3.
7		RETURN			
8		PHL ? PL_TX_REQ CANCEL	Pl_tx_req_01		3.
9		RETURN			
10	DF05	PHL ? OTHERWISE CANCEL		F	
Detailed Comments : 1. No response from IUT. 2. Unexpected event from PTC_MAC. 3. Ignore these ASPs.					

		Default Dynamic Behaviour			

Default Name : DF_tc_downlink_broadcast

Group : PTC_TC/

Objective : To catch any unexpected events at PTC_TC during downlink broadcast (DB) tests.

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DF01	? TIMEOUT T_wait_ptc_mac		I	1.
2	DF02	? TIMEOUT T_1_mf		F	1.
3	DF03	PHL ? PL_FREQ_ADJ_REQ CANCEL	PI_freq_adj_req	I	2.
4		PHL ? PL_RX_CFM	PI_rx_cfm_01		3.
5		RETURN			
6		PHL ? PL_RX_REQ	PI_rx_req_01		3.
7		RETURN			
8	DF05	PHL ? PL_TX_REQ CANCEL	PI_tx_req_01	I	2.
9	DF06	PHL ? OTHERWISE CANCEL		F	

Detailed Comments : 1. No response from IUT.
        2. Unexpected event from PTC_MAC.
        3. Ignore these ASPs.

		Default Dynamic Behaviour			

Default Name : DF_tc_paging

Group : PTC_TC/

Objective : To catch any unexpected events at PTC_TC during paging (PG) tests.

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DF01	? TIMEOUT T_wait_ptc_mac		I	1.
2	DF02	? TIMEOUT T_1_mf		F	1.
3	DF03	PHL ? PL_FREQ_ADJ_REQ CANCEL	PI_freq_adj_req	I	2.
4		PHL ? PL_RX_CFM	PI_rx_cfm_01		3.
5		RETURN			
6		PHL ? PL_RX_REQ	PI_rx_req_01		3.
7		RETURN			
8	DF05	PHL ? PL_TX_REQ CANCEL	PI_tx_req_01	I	2.
9	DF06	PHL ? OTHERWISE CANCEL		F	

Detailed Comments : 1. No response from IUT.
        2. Unexpected event from PTC_MAC.
        3. Ignore these ASPs.

Annex B (normative): Specification of PTC LT_MAC

B.1 General requirements

The PTC LT_MAC (MAC emulation) shall, as a minimum, fulfil all requirements with profile status M in the profile Requirement List (profile RL) in ETS 300 474 [48], clause 7.

B.2 Additional requirements

A number of commands have been defined to control the behaviour of PTC LT_MAC (the MAC emulation). In annex A, these are implemented as a co-ordination message with a parameter to specify the required action. The test system shall support the actions specified in table B.1.

Table B.1: Actions to be supported by the test system

Action	Ref. to ETS 300 175-3 [3]	Requirement
TSC_action2	6.2.5.1	Corrupt the A-field R-CRC in the next transmitted A-field.
TSC_action4	11.5.1	Generate an incorrect message for RFPI handshake. Change the RFPI transmitted by the Lower Tester on all traffic bearers to the IUT by inverting bit a47.
TSC_action5	10.8.1.1	Do not acknowledge until CS segment have been received three times.
TSC_action6	10.6.1	Jam the currently occupied channel , {RF-carrier; slot} (to force a intracell bearer handover).
TSC_action7	10.6.1	Power down the signal strength of the currently used RFP stepwise by 1 dB/sec to force handover to a different RFP (intercell handover).
TSC_action8	10.5.1	Ignore any received "acces_request" messages in basic bearer setup
TSC_action9	10.5.1.1	When receiving an ACCESS_REQUEST message, send a WAIT message and then repeat doing this when receiving a WAIT message.
TSC_action10	11.3.3	Transmit forever incorrect A-field CRC in frame 0.
TSC_action11	7.2.4.3	Transmit blind slot information with only one slot available. This one available slot shall have a minimum distance of 2 slots to the Dummy Bearer of the LT
TSC_action12	7.2.4.3	Transmit "other bearer" or "dummy or C/L bearer position" twice to tell a new bearer position, which is a minimum distance of two slots from the old position, to the PP and release the old dummy bearer afterwrds. In the moment of transmission of the new position there has to be a new active dummy bearer at the LT at the new position. Repeat this 3 times

(continued)

Table B.1 (concluded): Actions to be supported by the test system

Action	Ref. to ETS 300 175-3 [3]	Requirement
TSC_action13	7.2.3.3	Transmit the extended RF carrier QT message.
TSC_action14	ETS 300 175-7 [7] 6.4.6.3	Ignore start encryption request when received
TSC_action15	ETS 300 175-7 [7] 6.4.6.4	Ignore stop encryption request when received
TSC_action19	10.5.1	Ignore any received BEARER_HANDOVER_REQUEST messages in bearer setup for handover.
TSC_action20	10.5.1.1	Don't use wait for bearer setup
TSC_action21	10.5.1.1	Configure MAC layer to use one wait cycle during bearer setup
TSC_start	11.3.2	Try to enter state Idle_Locked.
TSC_stop	11.5.1	1) Stop all transmission; and then 2) Wait T201 seconds.

NOTE: These actions are defined as test suite constants in the ATS (see annex A).

Annex C (normative): Partial PIXIT proforma for DECT MAC

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

C.1   Identification summary

Table C.1

PIXIT Number:	
Test Laboratory Name:	
Date of Issue:	
Issued to:	

C.2   ATS summary

Table C.2

Protocol Specification:	ETS 300 175-3
Protocol to be tested:	
ATS Specification:	ETS 300 497-2
Abstract Test Method:	ETS 300 497-2 clause 4

C.3   Test laboratory

Table C.3

Test Laboratory Identification:	
Test Laboratory Manager:	
Means of Testing:	
SAP Address:	

C.4   Client identification

Table C.4

Client Identification:	
Client Test manager:	
Test Facilities required:	

C.5   SUT

Table C.5

Name:	
Version:	
SCS Number:	
Machine configuration:	
Operating System Identification:	
IUT Identification:	
PICS Reference for IUT:	
Limitations of the SUT:	
Environmental Conditions:	

C.6   Protocol layer information

C.6.1   Protocol identification

Table C.6

Name:	DECT - MAC layer ETS 300 175-3
Version:	
PICS References:	

C.6.2   IUT information

Table C.7: Addresses

Item	Parameter	Parameter Type	Explanation	Value
1	TSPX_ipui	B_20 - (Bitstring[20])	International Portable User Identity (ETS 300 175-6 [6])	
2	TSPX_pmid	B_20 - (Bitstring[20])	PMID for RFP	
3	TSPX_rfpi1	B_40 - (Bitstring[40])	RFPI for RFP number 1 (ETS 300 175-6 [6])	
4	TSPX_rfpi2	B_40 - (Bitstring[40])	RFPI for RFP number 2 (ETS 300 175-6 [6])	

Table C.8: Parameter values

Item	Parameter	Parameter Type	Explanation	Value
1	TSPX_n200	INTEGER	N200 System counter	
2	TSPX_n201	INTEGER	N201 System counter	

Table C.9: Timer values

Item	Parameter	Parameter Type	Explanation	Value
1	TSPX_t_implicit_send	INT_0_99 - INTEGER (0..99)	Max. time to wait after request for invocation of an implicit send event (In second).	
2	TSPX_sync_time	INTEGER	Maximum resynchronisation time for the IUT	

Table C.10: Procedural information

Item	Parameter	Parameter Type	Explanation	Value
1	TSPX_deactivation	BOOLEAN	Does the IUT support encryption deactivation process.	TRUE FALSE
2	TSPX_desctivation_proc_defined	BOOLEAN	Is it possible to force the IUT to switch a connection from crypted to clear mode?	TRUE FALSE
3	TSPX_in_pdu	OCTETSTRING	Indicate in the following lines an acceptable information field for a FU1 frame sent by the tester.	
4	TSPX_TSC_action7_difference	INTEGER	In TSC_action7, what is the initial difference in power level between RFP1 and RFP2 required by the IUT?	
5	TSPX_TSC_action7_step	INTEGER	In TSC_action7, what is the rate of stepwise reduction in the power level of RFP1 required by the IUT?	

Table C.11: Implicit send events

Test step name	Parameter Type	Indication how the implicit send event can be invoked
STP_encryption_stop STP_encryption_stop_failed	Implicit Send	If item C.10/1 and item C.10/2 are TRUE, indicate in the following lines the procedure to force the IUT to return a crypted connection in clear mode. ....

Annex D (normative): Protocol Conformance Test Report (PCTR) Proforma for DECT MAC

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

The PCTR proforma is based on ISO/IEC 9646-6. Any additional information needed can be found in this document.

D.1 Identification summary

D.1.1 Protocol conformance test report

Table D.1

PCTR Number:	
PCTR Date:	
Corresponding SCTR Number:	
Corresponding SCTR Date:	
Test Laboratory Identification:	
Test Laboratory Manager:	
Signature:	

D.1.2 IUT identification

Table D.2

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

D.1.3 Testing environment

Table D.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Remote test method, Embedded variant with no UT
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

D.1.4 Limits and reservation

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

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D.1.5 Comments

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

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D.2 IUT Conformance status

This IUT has or has not been shown by conformance assessment to be non conforming to the specified protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in clause D.3 in this report) and there are no "FAIL" verdicts to be recorded (in clause D.6 in this report) strike the words "has or",. otherwise strike the words "or has not".

D.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

D.4   Dynamic conformance summary

The test campaign did or did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in clause D.6 of this report) strike the words "did or" otherwise strike the words "or did not".

Summary of the results of groups of test:

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D.5   Static conformance review report

If clause D.3 indicates non-conformance, this subclause itemises the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

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D.6   Test campaign report

Table D.4

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC_PT_BH_BV_00	Yes/No	Yes/No		
TC_PT_BH_BV_01	Yes/No	Yes/No		
TC_PT_BH_CA_00	Yes/No	Yes/No		
TC_PT_BH_CA_01	Yes/No	Yes/No		
TC_PT_BR_CA_00	Yes/No	Yes/No		
TC_PT_BS_BV_00	Yes/No	Yes/No		
TC_PT_BS_CA_00	Yes/No	Yes/No		
TC_PT_BS_CA_01	Yes/No	Yes/No		
TC_PT_DB_BV_01	Yes/No	Yes/No		

(continued)

Table D.4 (concluded)

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC_PT_DT_BI_00	Yes/No	Yes/No		
TC_PT_DT_BV_00	Yes/No	Yes/No		
TC_PT_DT_BV_01	Yes/No	Yes/No		
TC_PT_DT_CA_00	Yes/No	Yes/No		
TC_PT_DT_CA_01	Yes/No	Yes/No		
TC_PT_DT_CA_02	Yes/No	Yes/No		
TC_PT_DT_CA_03	Yes/No	Yes/No		
TC_PT_DT_CA_04	Yes/No	Yes/No		
TC_PT_DT_LM_00	Yes/No	Yes/No		
TC_PT_DT_LM_01	Yes/No	Yes/No		
TC_PT_DT_LM_02	Yes/No	Yes/No		
TC_PT_DT_LM_03	Yes/No	Yes/No		
TC_PT_DT_LM_04	Yes/No	Yes/No		
TC_PT_PG_BV_02	Yes/No	Yes/No		
TC_PT_PG_BV_03	Yes/No	Yes/No		
TC_PT_PG_CA_00	Yes/No	Yes/No		
TC_PT_PG_CA_01	Yes/No	Yes/No		

D.7   Observations

Additional information relevant to the technical content of the PCTR is given here.

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Annex E (informative):   Bibliography

1)   EWOS/ETSI Project Team No 5: "Project Report and Technical Report. OSI Conformance Testing Methodology and Procedures in Europe".

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

3)   ETR 141: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; The Tree and Tabular Combined Notation (TTCN) style guide".

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

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

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

7)   ETR 042: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); A Guide to DECT features that influence the traffic capacity and the maintenance of high radio link transmission quality, including the results of simulations".

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

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

History

Document history			
June 1995	Public Enquiry	PE 85:	1995-06-05 to 1995-09-29
May 1996	Vote	V 102:	1996-05-06 to 1996-08-09