## ETSITS 101 823-2-3 V1.2.1 (2001-12)

Technical Specification

**Broadband Radio Access Networks (BRAN)**;

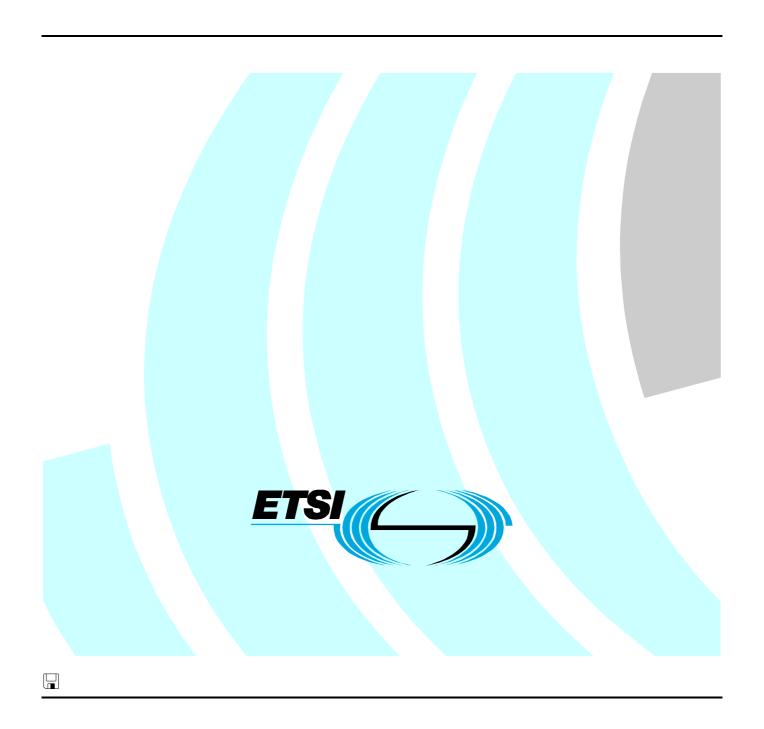
**HIPERLAN Type 2**;

Conformance testing for the

Data Link Control (DLC) layer;

Part 2: Radio Link Control (RLC) sublayer;

**Sub-part 3: Abstract Test Suite (ATS) specification** 



# Reference RTS/BRAN-002T0A4-2-3 Keywords

access, HIPERLAN, testing

#### **ETSI**

650 Route des Lucioles F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C Association à but non lucratif enregistrée à la Sous-Préfecture de Grasse (06) N° 7803/88

#### Important notice

Individual copies of the present document can be downloaded from: <u>http://www.etsi.org</u>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<a href="http://portal.etsi.org/tb/status/status.asp">http://portal.etsi.org/tb/status/status.asp</a></a>

If you find errors in the present document, send your comment to:  $\underline{\text{editor} @\, \text{etsi.fr}}$ 

#### **Copyright Notification**

No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2001. All rights reserved.

### Contents

Intell	lectual Property Rights	6
Forev	word	6
1	Scope	
2	References	
3	Definitions and abbreviations	
3.1	Definitions	
3.2	Abbreviations	δ
4	Abstract Test Method (ATM)	9
4.1	Test architecture	9
4.2	Test Configurations	
4.2.1	Test Configurations for MT	
4.2.2	Test Configurations for AP	10
5	Untestable Test Purposes (TP)	11
6	ATS conventions	11
6.1	Naming conventions	
6.1.1	Declarations part	
6.1.1.		
6.1.1.		
6.1.1.		
6.1.1.		
6.1.1.		
6.1.1.		
6.1.1. 6.1.1.		
6.1.1. 6.1.1.		
6.1.1.	<b>71</b>	
6.1.1.	71	
6.1.1.	**	
6.1.2		
6.1.2.		
6.1.3		
6.1.3.	• 1	
6.1.3.		
6.1.3.	.3 Test step identifier	14
6.1.3.	.4 Default identifier	14
6.1.3.		
6.1.3.		
6.2	Implementation conventions	
6.2.1	Declaration part	
6.2.2	1	
6.2.3	, ,	
7	Abstract testing service primitives	
7.1	Tester primitives	
7.2	Centralized mode primitives	
7.3	Direct mode primitives	10
Anne	ex A (normative): Abstract Test Suite (ATS)	17
A.1	The TTCN Graphical form (TTCN.GR)	17
A.2	The TTCN Machine Processable form (TTCN.MP)	17
Anne	ex B (normative): Automatic generation of the Abstract Test Suite (ATS)	18

B.1	The TTCN Graphical form (TTCN.GR)	18
B.2	The TTCN Machine Processable form (TTCN.MP)	18
Anne	ex C (normative): Partial PIXIT proforma for H/2 RLC MT	19
C.1	Identification summary	19
C.2	ATS summary	19
C.3	Test laboratory	19
C.4	Client identification	20
C.5	SUT	20
C.6 C.6.1 C.6.2		20
Anne	ex D (normative): Partial PIXIT proforma for H/2 RLC AP	30
D.1	Identification summary	30
D.2	ATS summary	30
D.3	Test laboratory	30
D.4	Client identification	31
D.5	SUT	31
D.6	Protocol layer information	
D.6.1 D.6.2		
Anne	ex E (normative): PCTR Proforma for H/2 RLC MT	41
E.1	Identification summary	
E.1.1 E.1.2	1	
E.1.3	Testing environment	41
E.1.4 E.1.5		
E.2	IUT Conformance status	42
E.3	Static conformance summary	42
E.4	Dynamic conformance summary	42
E.5	Static conformance review report	43
E.6	Test campaign report	43
E.7	Observations	45
Anne	ex F (normative): PCTR Proforma for H/2 RLC AP	46
F.1	Identification summary	46
F.1.1 F.1.2	Protocol conformance test report	
F.1.2 F.1.3		
F.1.4	Limits and reservation	47
F.1.5		
F.2	IUT Conformance status	
F.3	Static conformance summary	
F.4	Dynamic conformance summary	48

F.5	Static conformance review report	48
F.6	Test campaign report	48
F.7	Observations	51
Histo	ory	52

### Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

### **Foreword**

This Technical Specification (TS) has been produced by ETSI Project Broadband Radio Access Networks (BRAN).

The present document is part 2, sub-part 3 of a multi-part deliverable covering Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer, as identified below:

Part 1: "Basic data transport function";

Part 2: "Radio Link Control (RLC) sublayer";

Sub-part 1: "Protocol Implementation Conformance Statement (PICS) proforma";

Sub-part 2: "Test Suite Structure and Test Purposes (TSS&TP) specification";

Sub-part 3: "Abstract Test Suite (ATS) specification".

Part 3: "Profile for Business Environment";

Part 4: "Extension for Home Environment";

Part 5: "Profile for Home Environment".

### 1 Scope

The present document contains the Abstract Test Suite (ATS) to test the BRAN HIPERLAN type 2; Data Link Control (DLC) layer; Radio Link Control (RLC) sublayer [1].

The objective of the persent document is to provide a basis for conformance tests for BRAN HIPERLAN type 2 equipment giving a high probability of air interface inter-operability between different manufacturer's BRAN HIPERLAN type 2 equipment.

The ISO standard for the methodology of conformance testing (see ISO/IEC 9646-1 [4] and ISO/IEC 9646-2 [5]) as well as the ETSI rules for conformance testing (see ETS 300 406 [2]) are used as a basis for the test methodology.

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

Annex B provides the automatic generation of the Tree and Tabular Combined Notation (TTCN) part of the ATS.

Annex C provides the Partial Protocol Implementation Extra Information for Testing (PIXIT) Proforma of the MT side ATS.

Annex D provides the Partial Protocol Implementation Extra Information for Testing (PIXIT) Proforma of the AP side ATS.

Annex E provides the Protocol Conformance Test Report (PCTR) Proforma of the MT side ATS.

Annex F provides the Protocol Conformance Test Report (PCTR) Proforma of the AP side ATS.

### 2 References

The following documents contain provisions, which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- [1] ETSI TS 101 761-2 (V1.1.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 2: Radio Link Control (RLC) Sublayer".
- [2] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [3] ETSI TS 101 823-2-2 (V1.2.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 2: Radio Link Control (RLC) sublayer; Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [4] ISO/IEC 9646-1: "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 1: General concepts".
- [5] ISO/IEC 9646-2: "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 2: Abstract Test Suite specification".
- [6] ISO/IEC 9646-3: "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 3: The Tree and Tabular Combined Notation (TTCN)".
- [7] ISO/IEC 9646-6: "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 6: Protocol profile test specification".
- [8] ISO/IEC 9646-7: "Information technology Open Systems Interconnection Conformance testing methodology and framework Part 7: Implementation conformance statement".

### 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-7 [8] and TS 101 761-2 [1] apply.

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations defined in ISO/IEC 9646-1 [4], ISO/IEC 9646-6 [7], ISO/IEC 9646-7 [8], TS 101 761-2 [1] and the following apply:

ACF	Association Control Function
ACH	Access feedback CHannel
AP	Access Point
APT	Access Point Transceiver
ARQ	Automatic Repeat reQuest
ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
BCH	Broadcast CHannel
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
CA	CApability tests
CC	Central Controller
CL	Convergence Layer

DFS Dynamic Frequency Selection

DLC Data Link Control
DM Direct Mode

DUC DLC User Connection
H/2 HIPERLAN Type 2
IUT Implementation Under Test

LCH Long CHannel LT Lower Tester

MAC Medium Access Control MT Mobile Terminal

PCO Point of Control and Observation
PCTR Protocol Conformance Test Report

PDU Protocol Data Unit PHY PHYsical layer

PICS Protocol Implementation Conformance Statement
PIXIT Protocol Implementation eXtra Information for Testing

RLC Radio Link Control
RRC Radio Resource Control
RSS Received Signal Strength
SAP Service Access Point
SCH Short CHannel

SCH Short CHannel SDU Service Data Unit

SSCS Service Specific Convergence Sublayer

SSK Session Secret Key
SUT System Under Test
TC Test Cases

TC Test Cases
TP Test Purposes
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 HIPERLAN 2 RLC layer at the AP side and at the MT side.

### 4.1 Test architecture

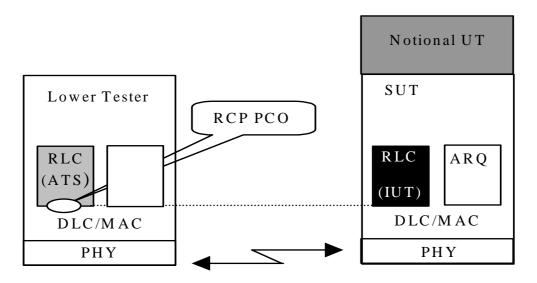


Figure 1: Test architecture for RLC

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

Lower Tester: A Lower Tester (LT) is located in the remote BRAN H/2 test system. It controls and observes the

behaviour of the IUT.

**RLC ATS:** A RLC Abstract Test Suite (ATS) is located in the remote BRAN H/2 test system.

**RCP PCO:** The Point of Control and Observation (PCO) for RLC testing is located at a SAP between the RLC

layer and the MAC layer. All test events at the PCO are specified in terms of Abstract testing Service Primitives (ATSP defined in clause 7) containing complete PDU. To avoid the complexity of data fragmentation and recombination testing, the SAP is defined below these functions.

**Notional UT:** No explicit upper tester (UT) exists in the system under test. Nevertheless, some specific actions to

cover implicit send events and to obtain feedback information are necessary for the need of the test procedures. A black box covering these requirements is used in the SUT as a notional UT as

defined in ISO/IEC 9646. This notional UT is part of the test system.

### 4.2 Test Configurations

### 4.2.1 Test Configurations for MT

Tree configurations are defined for MT testing.



Figure 2: Normal configuration for MT

The normal configuration is defined and used for functionality that requires only interaction between the tested MT and one AP.

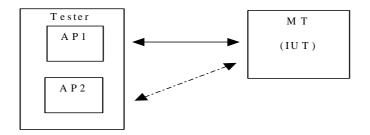


Figure 3: Handover configuration for MT

The handover configuration is used when the MT has to interact with two AP. In that case, the two simulated AP are configurable to be either a multi-sector AP or two separate AP. The concurrent TTCN facilities are used in this configuration.

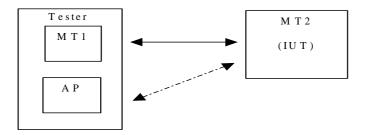


Figure 4: Direct mode configuration for MT

The direct mode configuration is used for direct mode testing. The test system simulates one AP and one MT. The AP part of the test system is used to initialize the direct mode with the tested MT. The MT part of the system is used to verify the communication of the tested MT when the direct mode is active. The concurrent TTCN facilities are used in this configuration.

### 4.2.2 Test Configurations for AP

Two configurations are defined for AP testing.



Figure 5: Normal configuration for AP

The normal configuration is defined and used for functionality that requires only interaction between the tested AP and one MT.

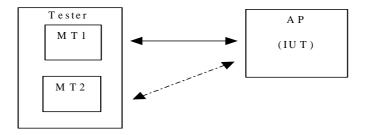


Figure 6: Direct mode configuration for AP

The direct mode configuration is used for direct mode testing. The test system simulates two MT. The two MT of the test system are necessary to test the centralized initialization procedure of the direct mode. The concurrent TTCN facilities are used in this configuration.

### 5 Untestable Test Purposes (TP)

This clause gives a list of TP, which are not implemented in the ATS due to the chosen ATM or other restrictions.

**Table 1: Untestable TP** 

Test purpose	Reason

### 6 ATS conventions

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 ETS 300 406 [2] was considered.

### 6.1 Naming conventions

### 6.1.1 Declarations part

This clause 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.

### 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\_". An underscore character ("\_") separates each substring.

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\_". An underscore character ("\_") separates each substring.

EXAMPLE 1: TSP\_t\_wait.

If the test suite parameter references a Protocol Implementation Conformance Statement (PICS) item, the letter "C" is added to the standard prefix.

EXAMPLE 2: TSPC\_encryption\_support.

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

EXAMPLE 3: TSPX pid.

#### 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\_". An underscore character ("\_") separates each substring.

#### 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\_". An underscore character ("\_") separates each substring.

If the test suite constant represents a system parameter, the complete name defined in the protocol standard [1] is used.

### 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\_". An underscore character ("\_") separates each substring.

Complete names as defined in the protocol standard [1] 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\_". An underscore character ("\_") separates each substring.

Complete names as defined in the protocol standard [1] are used.

#### 6.1.1.8 Timer declarations

Two types of timers can be identified:

- 1) Standardized:
  - Those defined in the protocol standard [1], e.g. T201. They use exactly the same name as in the standard.

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 standardized:

Those not defined in the protocol standard [1], 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 clause 6.1.1.1 apply.

The identifier of an ASP type uses the same name as the name defined in the protocol standard [1].

#### 6.1.1.10 PDU type definitions

The general conventions in clause 6.1.1.1 apply.

The PDU type identifier shall identify the related structure or type as defined in the protocol standard [1].

### 6.1.1.11 CM type definitions

The CM types are defined as the ASP types without sub-fields.

#### 6.1.1.12 Alias definitions

Alias definitions are not used.

### 6.1.2 Constraints part

This clause 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\_paging.

### 6.1.3 Dynamic part

This clause 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 Test Suite Structure (TSS) and TP document (TS  $102\ 823-2-2$ ).

#### 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 part 2 of the present document, with the exception that "TP" is replaced by "TC". The identifier of a TC is built according to table 2.

**Table 2: TC naming convention** 

Identifier:	TC_ <st>_<pg>_<fm>_<x>_<nnn></nnn></x></fm></pg></st>		
	<st>= side type</st>	AP	Access Point
	31	MT	Mobile Terminal
	<pg> = protocol group</pg>	ACF	Association Control Function
	19 1 3	RRC	Radio Resource Control
		DUC	DLC User Connection
	<fm> = functional module</fm>	RA	RBCH Association
		MA	Mac Id Assignment
		LC	Link_Capability
		EN	ENcryption
		AU	AUthentication
		CK	Common Key distribution
		IT	Info_Transfer
		MT	MulTicast
		DI	DIsassociation
		KR	Key Refresh
		AR	Association Rejection
		RQ	DFS ReQuesting
		RP	DFS RePorting
		SH	Sector Handover
		RH	Radio Handover
		NH	Network Handover
		HR	Handover Rejection
		SL	SLeep
		AL	ALive
		AB	ABsence
		CS	Centralized Mode Set-up
		CR	Centralized Mode Release
		CM	Centralized Mode Modify
		CT	Centralized Mode Reset
		DS	Direct Mode Set-up
		DR	Direct Mode Release
		DM	Direct Mode Modify
		RS	Direct Mode Relay Set-up
		RR	Direct Mode Relay Release
		RM	Direct Mode Relay Modify
		DT	Direct Mode Reset
	y Type of testing	UM	Unsupported Message
	x = Type of testing	CA	CApability Tests
		BV BI	Valid Behaviour Tests Invalid Behaviour Tests
		BO BO	
		TI BO	Inopportune Behaviour Tests TImer Tests
	enno – coguantial number		
	<nnn> = sequential number</nnn>	(000-999)	Test Case Number

EXAMPLE: TP identifier: TP/MT/RRC/RP/BV-010

TC identifier: TC\_MT\_RRC\_RP\_BV\_010

### 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. Underscore characters join the substrings. 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\_duc

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

#### 6.1.3.6 ATS abbreviations

These abbreviations are used to shorten identifier names:

ack	acknowledgement
addr	address
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 standards. 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. ASP) is used to reference to the protocol standard.

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

In the ASP and PDU declarations the comment 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 parameterized. 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 standard.

The detailed comment 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.

All verdict assignments are labelled. According to ISO/IEC 9646-3 [6], 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 clause 6.1.3.5 is applied.

TP 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 TC is not always continuous.

### 7 Abstract testing service primitives

### 7.1 Tester primitives

**RLC\_Configuration** {parameters}

### 7.2 Centralized mode primitives

 $RLC\_CM\_request~\{\text{MAC\_ID}, \text{Length}, \text{SDU}\}$ 

**RLC\_CM\_indication** {MAC\_ID, Length, SDU}

### 7.3 Direct mode primitives

**RLC\_DM\_request** {Src\_MAC\_ID, Dst\_MAC\_ID, Length, SDU}

**RLC\_DM\_indication** {Src\_MAC\_ID, Dst\_MAC\_ID, Length, SDU}

### Annex A (normative): Abstract Test Suite (ATS)

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [6].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part which provides additional information and references.

### A.1 The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in Adobe Portable Document Format<sup>™</sup> file (hip2\_v008.PDF contained in archive hip2\_test.ZIP) which accompanies the present document. The PDF file contains also the TTCN.GR representations for all other parts of the HIPERLAN 2 Specifications testing.

### A.2 The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in ASCII file (hip2\_v008.MP contained in archive hip2\_test.ZIP) which accompanies the present document. The MP file contains also the TTCN.MP representations for all other parts of the Hiperlan 2 Specifications testing.

NOTE: Where an ETSI Abstract Test Suite (in TTCN) is published in both .GR and .MP format these two forms shall be considered equivalent. In the event that there appears to be syntactical or semantic differences between the two then the problem shall be resolved and the erroneous format (whichever it is) shall be corrected.

### Annex B (normative): Automatic generation of the Abstract Test Suite (ATS)

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [6]. This ATS has been produced using an automatic generation tools using SDL model in input.

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part, which provides additional information and references.

### B.1 The TTCN Graphical form (TTCN.GR)

For the AP part, the TTCN.GR representation of this ATS is contained in Adobe Portable Document Format<sup>TM</sup> file (rlc\_ap\_ATG.PDF contained in archive rlc\_basic\_ap.ZIP) which accompanies the present document.

For the MT part, the TTCN.GR representation of this ATS is contained in Adobe Portable Document Format<sup>TM</sup> file (rlc mt ATG.PDF contained in archive rlc basic mt.ZIP) which accompanies the present document.

### B.2 The TTCN Machine Processable form (TTCN.MP)

For the AP part, the TTCN.MP representations corresponding to this ATS is contained in ASCII file (rlc\_ap\_ATG.MP contained in archive rlc\_basic\_ap.ZIP) which accompanies the present document.

For the MT part, the TTCN.MP representations corresponding to this ATS is contained in ASCII file (rlc\_mt\_ATG.MP contained in archive rlc\_basic\_mt.ZIP) which accompanies the present document.

NOTE: Where an ETSI Abstract Test Suite (in TTCN) is published in both .GR and .MP format these two forms shall be considered equivalent. In the event that there appears to be syntactical or semantic differences between the two then the problem shall be resolved and the erroneous format (whichever it is) shall be corrected.

# Annex C (normative): Partial PIXIT proforma for H/2 RLC MT

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

The PIXIT Proforma is based on ISO/IEC 9646-6, where any needed additional information can be found.

### 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:	TS 101 761-2
Protocol to be tested:	
ATS Specification:	TS 101 823-2-3
Abstract Test Method:	TS 101 823-2-3, 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:	BRAN H/2 - RLC layer TS 101 761-2
Version:	
PICS References:	

### C.6.2 IUT information

**Table C.7: Configuration parameters** 

Name/Type	Comments	Value
TSPX_net_id1	Value of the NET_ID parameter for the	
NET_ID	entity 1 of the tester.	
TSPX_ap_id1	Value of the AP_ID parameter for the	
AP_ID	entity 1 of the tester.	
TSPX_sector1	Value of the SECTOR_ID parameter for	
SECTOR_ID	the entity 1 of the tester.	
TSPX_number1	Value of the number of sector parameter	
SECTOR_ID	for the entity 1 of the tester.	
TSPX_tx1	Value of the AP_TX_LEVEL parameter	
AP_TX_LEVEL	for the entity 1 of the tester.	
TSPX_rx1	Value of the AP_RX_UL_LEVEL	
AP_RX_UL_LEVEL	parameter for the entity 1 of the tester.	
TSPX_vers1	Value of the VERSION parameter for the	
VERSION	entity 1 of the tester.	
TSPX_load1	Value of the AP_TRAFFIC_LOAD	
AP_TRAFFIC_LOAD	parameter for the entity 1 of the tester.	
TSPX_max1	Value of the MAXIMUM_POWER	
MAXIMUM_POWER	parameter for the entity 1 of the tester.	
TSPX_net_id2	Value of the NET_ID parameter for the	
NET_ID	entity 2 of the tester.	
TSPX_ap_id2	Value of the AP_ID parameter for the	
AP_ID	entity 2 of the tester.	
TSPX_sector2	Value of the SECTOR_ID parameter for	
SECTOR_ID	the entity 2 of the tester.	
TSPX_number2	Value of the number of sector parameter	
SECTOR_ID	for the entity 2 of the tester.	
TSPX_tx2	Value of the AP_TX_LEVEL parameter	
AP_TX_LEVEL	for the entity 2 of the tester.	
TSPX_rx2	Value of the AP_RX_UL_LEVEL	
AP_RX_UL_LEVEL	parameter for the entity 2 of the tester.	
TSPX_vers2	Value of the VERSION parameter for the	
VERSION	entity 2 of the tester.	
TSPX_load2	Value of the AP_TRAFFIC_LOAD	
AP_TRAFFIC_LOAD	parameter for the entity 2 of the tester.	
TSPX_max2	Value of the MAXIMUM_POWER	
MAXIMUM_POWER	parameter for the entity 2 of the tester.	

Table C.8: General parameters

Name/Type	Comments	Value
TSPX_duc_descr	Content of the DUC_DESCR defining	
DUC_DESCR	full duplex DUC.	
TSPX_mtu_value	Value of the maximum transmission unit	
INTEGER	used by the Convergence Layer to be	
	tested.	
TSPX_lch_phy_mode	Content of the LCH phy mode for ARQ.	
REPORTED_PHY_MODE		
TSPX_sch_phy_mode	Content of the SCH phy mode for ARQ.	
REPORTED_PHY_MODE		
TSPX_magic	Content of the MAGIC field.	
MAGIC		
TSPX_opId	Content of the BOOLEAN field.	
BOOLEAN		
TSPX_macID	Content of the MAC_ID field.	
MAC_ID		
TSPX_unique_length	Content of the UNIQUE_LENGTH field.	
UNIQUE_LENGTH		
TSPX_cug	Content of the C_U_G field.	
C_U_G		
TSPX_op_id_local	Content of the NETW_OP_ID_LOCAL	
NETW_OP_ID_LOCAL	field.	
TSPX_op_id_global	Content of the NETW_OP_ID_GLOBAL	
NETW_OP_ID_GLOBAL	field.	
TSPX_cl_vid_list	Content of the CL_VID_LIST field.	
CL_VID_LIST		
TSPX_opid_lo_no_match	Value of the Local Op_Id field that does	
NETW_OP_ID_LOCAL	not match with the allowed MT list.	
TSPX_opid_gl_no_match	Value of the Global Op_Id field that	
NETW_OP_ID_GLOBAL	does not match with the allowed MT list.	
TSPX_cl_vid_no_match	Value of the Cl_Vid_list field in which	
CL_VID_LIST	every CI_Vid does not match with any of	
	the allowed MT list.	

Table C.9: Specific parameters for testing

Name/Type	Comments	Value
TSPX_apt_address_length1	Content of the APT_ADDRESS_LENGTH	
APT_ADDRESS_LENGTH	field.	
TSPX_dlc_vers1	Content of the DLC_VERSION field.	
DLC_VERSION		
TSPX_rlc_vers1	Content of the RLC_VERSION field.	
RLC_VERSION	0	
TSPX_cl_vid_list1	Content of the CL_VID_LIST field.	
CL_VID_LIST	Contant of the DOC MALLIE field	
TSPX_rss_value1	Content of the RSS_VALUE field.	
RSS_VALUE	Content of the SUPPORTED64QAM field.	
TSPX_supported64QAM1 SUPPORTED64QAM	Content of the SUPPORTED64QAM field.	
	Content of the DIDECT MODE CAR field	
TSPX_direct_mode_cap1 DIRECT_MODE_CAP	Content of the DIRECT_MODE_CAP field.	
TSPX_cyclic_prefix1	Content of the CYCLIC_PREFIX field.	
CYCLIC_PREFIX	Content of the CTCLIC_FREFIX field.	
TSPX_support_fca1	Content of the SUPPORTED_FCA field.	
SUPPORTED_FCA	Content of the SOLL OKTED_LOW lield.	
TSPX_support_fsa1	Content of the SUPPORTED_FSA field.	
SUPPORTED_FSA		
TSPX_ho_cap1	Content of the HO_CAP field.	
HO_CAP	_	
TSPX_cc_ho_cap1	Content of the CC_HO_CAP field.	
CC_HO_CAP		
TSPX_time_gap1	Content of the TIME_GAP_ACH_UPLINK	
TIME_GAP_ACH_UPLINK	field.	
TSPX_duty_cycle1	Content of the DUTY_CYCLE field.	
DUTY_CYCLE		
TSPX_arq_delay_rx1	Content of the RX ARQ_DELAY field.	
ARQ_DELAY		
TSPX_arq_delay_tx1	Content of the TX ARQ_DELAY field.	
ARQ_DELAY		
TSPX_auth_encr_list1	Content of the	
AUTHENTICATION_ENCRYPTION_LIST	AUTHENTICATION_ENCRYPTION_LIST field.	
TSPX_dm_attributes1	Content of the DM_ATTIBUTES field.	
DM_ATTIBUTES		

Table C.10: Home extension authentication parameters

Name/Type	Comments	Value
TSPX_valid_key	Content of the valid_key field for	
VALID_KEY	authentication.	
TSPX_auth_key_length AUTH_KEY_LENGTH	Content of the auth_key_length field for authentication.	
TSPX_pin_code_length PIN_CODE_LENGTH	Content of the pin_code_length field for authentication.	
TSPX_auth_key	Content of the auth_key field for	
AUTH_KEY	authentication.	
TSPX_pin_code	Content of the pin_code field for	
PIN_CODE	authentication.	
TSPX_mt_id_number_lgth	Content of the Length of mt_id_number	
MT_ID_NUMBER_LENGTH	field for authentication.	
TSPX_mt_id_number	Content of the mt_id_number field for	
MT_ID_NUMBER	authentication.	

**Table C.11: Authentication parameters** 

Name/Type	Comments	Value
TSPX_auth_content_ieee MT_AUTH_CONTENT	Authentication content for ieee.	
TSPX_auth_ct_ext_ieee MT_AUTH_CONTENT	Authentication content for ext. ieee.	
TSPX_auth_ct_net_acc_id MT_AUTH_CONTENT	Authentication content for net_acc_id. Short length (≤ 46 octets) first part.	
TSPX_auth_ct_net_acc_id_l1 MT_AUTH_CONTENT	Authentication content for net_acc_id. Long length (> 46 octets) first part.	
TSPX_auth_ct_net_acc_id_l2 MT_AUTH_CONTENT	Authentication content for net_acc_id. Long length (> 46 octets) second part.	
TSPX_auth_ct_compressed MT_AUTH_CONTENT	Authentication content for compressed.	
TSPX_auth_ct_generic MT_AUTH_CONTENT	Authentication content for generic. Short length (≤ 46 octets) first part.	
TSPX_auth_ct_generic_l1 MT_AUTH_CONTENT	Authentication content for generic. Long length (> 46 octets) first part.	
TSPX_auth_ct_generic_l2 MT_AUTH_CONTENT	Authentication content for generic. Long length (> 46 octets) second part.	
TSPX_auth_ct_x509_cert MT_AUTH_CONTENT	Authentication content for x509_cert Short length (≤ 46 octets) first part.	
TSPX_auth_ct_x509_cert_l1 MT_AUTH_CONTENT	Authentication content for x509_cert Long length (> 46 octets) first part.	
TSPX_auth_ct_x509_cert_l2 MT_AUTH_CONTENT	Authentication content for x509_cert Long length (> 46 octets) second part.	

### **Table C.12: Encryption parameters**

Name/Type	Comments	Value
TSPX_PresharedKey	Value of the Pre Shared Key.	
B_128		
TSPX_Rsa512Key	Value of the RSA 512 public Key.	
B_512		
TSPX_Rsa768Key	Value of the RSA 768 public Key.	
B_768		
TSPX_Rsa1024Key	Value of the RSA 1024 public Key.	
B_1024		
TSPX_ApprivateKey	Value of the AP private Key.	
B_1_1024		
TSPX_MtprivateKey	Value of the MT private Key.	
B_1_1024		

### Table C.13: DM COMMON KEY distribution message

Name/Type	Comments	Value
TSPX_ck_encr_info	Value of the encr_info field.	
ENCR_INFO		
TSPX_ck_key_id	Value of the Key_Id field.	
KEY_ID		
TSPX_common_key	Value of the common key field.	
COMMON KEY		

### Table C.14: COMMON KEY REFRESH message

Name/Type	Comments	Value
TSPX_nonce	Value of the nonce field.	
NONCE		

### Table C.15: INFO message

Name/Type	Comments	Value
TSPX_cl_data	Value of the cl data field.	
CL_DATA		
TSPX_dlc_attributes	Value of the dlc attributes field.	
DLC_ATTRIBUTES		
TSPX_cl_atm_data	Content of the cl data field in case of atm	
CL_DATA	uni SSCS.	
TSPX_cl_atm_hn_data	Content of the cl data field in case of	
CL_DATA	network handover for atm uni SSCS.	
TSPX_cl_eth_data	Content of the cl data field in case of	
CL_DATA	Ethernet SSCS.	
TSPX_cl_eth_hn_data	Content of the cl data field in case of	
CL_DATA	network handover for Ethernet SSCS.	

### Table C.16: TRANS\_CC\_DATA message

Name/Type	Comments	Value
TSPX_ext_ind	Value of the ext_ind field for CC	
EXT_IND	responsibility handover testing in case of	
	home extension.	
TSPX_data	Value of the data field for CC	
DATA	responsibility handover testing in case of	
	home extension.	

### **Table C.17: DM Power Control message**

Name/Type	Comments	Value
TSPX_dm_duc_type DM_DUC_TYPE	Content of dm_duc_type field.	
TSPX_wt_tx_level WT_TX_LEVEL	Content of wt_tx_level field.	
TSPX_adjust_tx ADJUST_TX	Content of adjust_tx field.	

### Table C.18: Setup message

Name/Type	Comments	Value
TSPX_cl_id	Content of Cl_ld field.	
CL_ID		
TSPX_duc_ext_ind	Content of duc_ext_ind field.	
DUC_EXT_IND		
TSPX_cl_attr_lgth	Content of cl_attr_lgth field.	
INTEGER		
TSPX_duc_descr_list	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table C.19: DM\_Setup message

Name/Type	Comments	Value
TSPX_peer_mac_id MAC_ID	Content of perr_mac_id field.	
TSPX_cl_common_attr CL_COMMON_ATTR	Content of cl_common_attr field.	

### Table C.20: DM MC Setup message

Name/Type	Comments	Value
TSPX_extension_type EXTENSION_TYPE	Content of extension_type field.	
TSPX_min_req_receivers INTEGER	Content of min_req_receivers field.	

### Table C.21: Modify Req message

Name/Type	Comments	Value
TSPX_duc_ext_ind2	Content of duc_descr_ind field.	
DUC_EXT_IND		
TSPX_cl_attr_lgth2	Content of cl_attr_lgth field.	
INTEGER	-	
TSPX_duc_descr_list2	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table C.22: DM Modify Req message

Name/Type	Comments	Value
TSPX_cl_attr_lgth3	Content of cl_attr_lgth field.	
INTEGER		
TSPX_duc_descr_list3	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table C.23: DM MC Modify Req message

Name/Type	Comments	Value
•	Content of cl_attr_lgth field.	
INTEGER		
TSPX_start_mac_frame START_MAC_FRAME	Content of start_mac_frame field.	
TSPX_duc_descr_list4	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table C.24: GROUP\_JOIN message

Name/Type	Comments	Value
TSPX_encryption_proposal	Value of the encryption algorithm	
ENCRYPTION_ALGORITHM_PROPOSAL	proposal field.	
TSPX_cl_data2	Value of the cl data field.	
CL_DATA		

### Table C.25: GROUP\_JOIN message for home extension

Name/Type	Comments	Value
,	Value of the encryption algorithm proposal field for home extension testing.	
TSPX_cl_data_HE CL_DATA	Value of the cl data field for home extension testing.	

### Table C.26: GROUP\_JOIN message for 1394 bridge

Name/Type	Comments	Value
TSPX_encryption_proposal_1394 ENCRYPTION ALGORITHM PROPOSAL	Value of the encryption algorithm proposal field for 1394 bridge	
ENGRIT HON_ALGORITHM_I ROT GGAL	testing.	
TSPX_cl_data_1394	Value of cl data field for 1394 bridge	
CL_DATA_1394	testing.	

### Table C.27: GROUP\_JOIN message for the forwarding clock mc group

Name/Type	Comments	Value
	Value of the encryption algorithm proposal field for the forwarding clock mc group in case of 1394 testing.	
TSPX_cl_data_1394_fw CL_DATA_1394	Value of cl data field for the forwarding clock mc group in case of 1394 testing.	

### Table C.28: CL\_BROADCAST\_JOIN message

Name/Type	Comments	Value
TSPX_encryption_proposal2	Value of the encryption algorithm	
ENCRYPTION_ALGORITHM_PROPOSAL	proposal field.	
TSPX_cl_data3	Value of the cl data field.	
CL_DATA		

### Table C.29: DFS\_MT\_INIT\_REPORT\_REQUEST message

Name/Type	Comments	Value
TSPX_measurement_type	Value of the measurement_type field.	
MEASUREMENT_TYPE	·	
TSPX_frequency_index	Content of frequency_index field.	
FREQUENCY_INDEX	·	
TSPX_adjacent_ch_interference	Content of adjacent_ch_interference	
ADJACENT_CH_INTERFERENCE	field.	

### Table C.30: DFS\_MEASUREMENT\_REQUEST message

Name/Type	Comments	Value
TSPX_frequency_index_2	Value of the frequency_index field for	
FREQUENCY_INDEX	message of type complete,	
	percentiles or short.	
TSPX_use_omni_antenna	Value of the use_omni_antenna field	
USE_OMNI_ANTENNA	for message of type complete,	
	percentiles or short.	
TSPX_start_of_measurement	Value of the start_of_measurement	
START_OF_MEASUREMENT	field for message of type complete,	
	percentiles or short.	
TSPX_measurement_window	Value of the measurement_window	
MEASUREMENT_WINDOW	field for message of type complete,	
	percentiles or short.	
TSPX_maximum_age_of_bch_measurement	Value of the	
MAXIMUM_AGE_OF_BCH_MEASUREMENT	maximum_age_of_bch_measurement	
	field for message of type complete or	
	short.	
TSPX_rss_index_list	Value of the rss_index_list field for	
RSS_INDEX_LIST	message of type complete.	
TSPX_length_of_measurement	Value of the length_of_measurement	
NUMBER_OF_SAMPLES	field for message of type short.	

### Table C.31: Calibration\_measurement\_trigger message

Name/Type	Comments	Value
TSPX_trigger_type	Value of the trigger_type field for	
TRIGGER_TYPE	message of type complete.	
TSPX_mac_ids	Value of the mac_ids field for message	
MAC_IDS	of type complete.	

### Table C.32: Sleep message

Name/Type	Comments	Value
TSPX_sleep_group SLEEP_GROUP	Value of the sleep_group field.	
TSPX_care_of_broadcast CARE_OF_BROADCAST	Value of the care_of_broadcast field.	

### Table C.33: MT\_ALIVE\_REQUEST message

Name/Type	Comments	Value
TSPX_mt_alive_interval	Value of the mt_alive_interval field.	
MT_ALIVE_INTERVAL		

### Table C.34: HO INFO DISTRIBUTION message

Name/Type	Comments	Value
TSPX_ssk_token	Content of SSK_TOKEN field.	
SSK TOKEN		

### Table C.35: BUS\_SUSPEND information element

Name/Type	Comments	Value
TSPX_bs_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS.	
TSPX_bs_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS.	

### Table C.36: BUS\_RESUME information element

Name/Type	Comments	Value
TSPX_br_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS.	
TSPX_br_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS.	
TSPX_br2_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS. The resulting	
	information element shall be different	
	from the first one.	
TSPX_br2_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS. The	
	resulting information element shall be	
	different from the first one.	

### Table C.37: Parameter for ARQ testing

Name/Type	Comments	Value
	Value of the window size used for testing the DUC connection (shall be small,	
	i.e. 32).	

Table C.38: Cell convergence layer configuration parameters

Name/Type	Comments	Value
TSPX_cl_tag	CL_tag for Cell common part	
B_8	convergence layer.	
TSPX_cl_tag_2	Second CL_tag for Cell common part	
B_8	convergence layer corresponding to the	
	same DLCC_ID as TSPX_cl_tag (second	
	VCI, VPI).	
TSPX_cl_tag_3	Third CL_tag for Cell common part	
B_8	convergence layer corresponding to the	
	same DLCC_ID as TSPX_cl_tag (third	
	VCI, VPI).	
TSPX_cl_tag_not	CL_tag for Cell common part	
B_8	convergence layer in case of a	
	non-configured mapping for the DUC_ID	
	(MAC_ID, DLCC_ID) and the CL_Tag.	
TSPX_pt	Payload type for Cell common part	
B_3	convergence layer.	
TSPX_clp	Cell loss priority bit for Cell common part	_
B_1	convergence layer.	

Table C.39: Implementation options

Name/Type	Comments	Value
TSPX_IEEE	TRUE if the IUT support the IEEE MT	
BOOLEAN	authentication.	
TSPX_ext_IEEE	TRUE if the IUT support the Extended	
BOOLEAN	IEEE MT authentication.	
TSPX_net_acc_id	TRUE if the IUT support the Net. Acc. Id.	
BOOLEAN	MT authentication.	
TSPX_compressed	TRUE if the IUT support the	
BOOLEAN	Compressed MT authentication.	
TSPX_generic	TRUE if the IUT support the Generic MT	
BOOLEAN	authentication.	
TSPX_X509_cert	TRUE if the IUT support the X509 Cert.	
BOOLEAN	MT authentication.	
TSPX_pre_shared	RUE if the IUT support the Pre. shared	
BOOLEAN	AP authentication.	
TSPX_RSH_64	TRUE if the IUT support the RSH_64 AP	
BOOLEAN	authentication.	
TSPX_RSH_96	TRUE if the IUT support the RSH_96 AP	
BOOLEAN	authentication.	
TSPX_RSH_128	TRUE if the IUT support the RSH_128	
BOOLEAN	AP authentication.	
TSPX_direct_mode	TRUE if the IUT support the Direct Mode	
BOOLEAN	Option.	
TSPX_disa_pwr_off	TRUE if the IUT support the	
BOOLEAN	Disassociation process at power off.	

# Annex D (normative): Partial PIXIT proforma for H/2 RLC AP

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

The PIXIT Proforma is based on ISO/IEC 9646-6, where any needed additional information can be found.

### D.1 Identification summary

#### Table D.1

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

### D.2 ATS summary

#### Table D.2

Protocol Specification:	TS 101 761-2
Protocol to be tested:	
ATS Specification:	TS 101 823-2-3
Abstract Test Method:	TS 101 823-2-3, clause 4

### D.3 Test laboratory

#### Table D.3

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

### D.4 Client identification

Table D.4

Client Identification:	
Client Test manager:	
Test Facilities required:	

### D.5 SUT

Table D.5

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

## D.6 Protocol layer information

### D.6.1 Protocol identification

Table D.6

Name:	BRAN H/2 - RLC layer TS 101 761-2
Version:	
PICS References:	

### D.6.2 IUT information

**Table D.7: Configuration parameters** 

Name/Type	Comments	Value
TSPX_net_id1	Value of the NET_ID parameter for the	
NET_ID	entity 1 of the tester.	
TSPX_ap_id1	Value of the AP_ID parameter for the	
AP_ID	entity 1 of the tester.	
TSPX_sector1	Value of the SECTOR_ID parameter for	
SECTOR_ID	the entity 1 of the tester.	
TSPX_number1	Value of the number of sector parameter	
SECTOR_ID	for the entity 1 of the tester.	
TSPX_tx1	Value of the AP_TX_LEVEL parameter	
AP_TX_LEVEL	for the entity 1 of the tester.	
TSPX_rx1	Value of the AP_RX_UL_LEVEL	
AP_RX_UL_LEVEL	parameter for the entity 1 of the tester.	
TSPX_vers1	Value of the VERSION parameter for the	
VERSION	entity 1 of the tester.	
TSPX_load1	Value of the AP_TRAFFIC_LOAD	
AP_TRAFFIC_LOAD	parameter for the entity 1 of the tester.	
TSPX_max1	Value of the MAXIMUM_POWER	
MAXIMUM_POWER	parameter for the entity 1 of the tester.	
TSPX_net_id2	Value of the NET_ID parameter for the	
NET_ID	entity 2 of the tester.	
TSPX_ap_id2	Value of the AP_ID parameter for the	
AP_ID	entity 2 of the tester.	
TSPX_sector2	Value of the SECTOR_ID parameter for	
SECTOR_ID	the entity 2 of the tester.	
TSPX_number2	Value of the number of sector parameter	
SECTOR_ID	for the entity 2 of the tester.	
TSPX_tx2	Value of the AP_TX_LEVEL parameter	
AP_TX_LEVEL	for the entity 2 of the tester.	
TSPX_rx2	Value of the AP_RX_UL_LEVEL	
AP_RX_UL_LEVEL	parameter for the entity 2 of the tester.	
TSPX_vers2	Value of the VERSION parameter for the	
VERSION	entity 2 of the tester.	
TSPX_load2	Value of the AP_TRAFFIC_LOAD	
AP_TRAFFIC_LOAD	parameter for the entity 2 of the tester.	
TSPX_max2	Value of the MAXIMUM_POWER	
MAXIMUM_POWER	parameter for the entity 2 of the tester.	

**Table D.8: General parameters** 

Name/Type	Comments	Value
TSPX_duc_descr	Content of the DUC_DESCR defining	
DUC_DESCR	full duplex DUC.	
TSPX_mtu_value	Value of the maximum transmission unit	
INTEGER	used by the Convergence Layer to be	
	tested.	
TSPX_lch_phy_mode	Content of the LCH phy mode for ARQ.	
REPORTED_PHY_MODE		
TSPX_sch_phy_mode	Content of the SCH phy mode for ARQ.	
REPORTED_PHY_MODE		
TSPX_magic	Content of the MAGIC field.	
MAGIC		
TSPX_opId	Content of the BOOLEAN field.	
BOOLEAN		
TSPX_macID	Content of the MAC_ID field.	
MAC_ID		
TSPX_unique_length	Content of the UNIQUE_LENGTH field.	
UNIQUE_LENGTH		
TSPX_cug	Content of the C_U_G field.	
C_U_G		
TSPX_op_id_local	Content of the NETW_OP_ID_LOCAL	
NETW_OP_ID_LOCAL	field.	
TSPX_op_id_global	Content of the NETW_OP_ID_GLOBAL	
NETW_OP_ID_GLOBAL	field.	
TSPX_cl_vid_list	Content of the CL_VID_LIST field.	
CL_VID_LIST		
TSPX_opid_lo_no_match	Value of the Local Op_Id field that does	
NETW_OP_ID_LOCAL	not match with the allowed MT list.	
TSPX_opid_gl_no_match	Value of the Global Op_Id field that	
NETW_OP_ID_GLOBAL	does not match with the allowed MT list.	
TSPX_cl_vid_no_match	Value of the Cl_Vid_list field in which	
CL_VID_LIST	every Cl_Vid does not match with any of	
	the allowed MT list.	

Table D.9: Specific parameters for testing

Name/Type	Comments	Value
TSPX_apt_address_length1	Content of the APT_ADDRESS_LENGTH	
APT_ADDRESS_LENGTH	field.	
TSPX_dlc_vers1	Content of the DLC_VERSION field.	
DLC_VERSION		
TSPX_rlc_vers1	Content of the RLC_VERSION field.	
RLC_VERSION		
TSPX_cl_vid_list1	Content of the CL_VID_LIST field.	
CL_VID_LIST		
TSPX_rss_value1	Content of the RSS_VALUE field.	
RSS_VALUE		
TSPX_supported64QAM1	Content of the SUPPORTED64QAM field.	
SUPPORTED64QAM		
TSPX_direct_mode_cap1	Content of the DIRECT_MODE_CAP field.	
DIRECT_MODE_CAP		
TSPX_cyclic_prefix1	Content of the CYCLIC_PREFIX field.	
CYCLIC_PREFIX		
TSPX_support_fca1	Content of the SUPPORTED_FCA field.	
SUPPORTED_FCA		
TSPX_support_fsa1	Content of the SUPPORTED_FSA field.	
SUPPORTED_FSA		
TSPX_ho_cap1	Content of the HO_CAP field.	
HO_CAP		
TSPX_cc_ho_cap1	Content of the CC_HO_CAP field.	
CC_HO_CAP		
TSPX_time_gap1	Content of the TIME_GAP_ACH_UPLINK	
TIME_GAP_ACH_UPLINK	field.	
TSPX_duty_cycle1	Content of the DUTY_CYCLE field.	
DUTY_CYCLE		
TSPX_arq_delay_rx1	Content of the RX ARQ_DELAY field.	
ARQ_DELAY		
TSPX_arq_delay_tx1	Content of the TX ARQ_DELAY field.	
ARQ_DELAY		
TSPX_auth_encr_list1	Content of the	
AUTHENTICATION_ENCRYPTION_LIST	AUTHENTICATION_ENCRYPTION_LIST field.	
TSPX_dm_attributes1	Content of the DM_ATTIBUTES field.	
DM_ATTIBUTES		

Table D.10: Home extension authentication parameters

Name/Type	Comments	Value
TSPX_valid_key	Content of the valid_key field for	
VALID_KEY	authentication.	
TSPX_auth_key_length	Content of the auth_key_length field for	
AUTH_KEY_LENGTH	authentication.	
TSPX_pin_code_length	Content of the pin_code_length field for	
PIN_CODE_LENGTH	authentication.	
TSPX_auth_key	Content of the auth_key field for	
AUTH_KEY	authentication.	
TSPX_pin_code	Content of the pin_code field for	
PIN_CODE	authentication.	
TSPX_mt_id_number_lgth	Content of the Length of mt_id_number	
MT_ID_NUMBER_LENGTH	field for authentication.	
TSPX_mt_id_number	Content of the mt_id_number field for	
MT_ID_NUMBER	authentication.	

**Table D.11: Authentication parameters** 

Name/Type	Comments	Value
TSPX_auth_content_ieee MT_AUTH_CONTENT	Authentication content for ieee.	
TSPX_auth_ct_ext_ieee MT_AUTH_CONTENT	Authentication content for ext. ieee.	
TSPX_auth_ct_net_acc_id MT_AUTH_CONTENT	Authentication content for net_acc_id. Short length (≤ 46 octets) first part.	
TSPX_auth_ct_net_acc_id_l1 MT_AUTH_CONTENT	Authentication content for net_acc_id. Long length (> 46 octets) first part.	
TSPX_auth_ct_net_acc_id_l2 MT_AUTH_CONTENT	Authentication content for net_acc_id. Long length (> 46 octets) second part.	
TSPX_auth_ct_compressed MT_AUTH_CONTENT	Authentication content for compressed.	
TSPX_auth_ct_generic MT_AUTH_CONTENT	Authentication content for generic. Short length (≤ 46 octets) first part.	
TSPX_auth_ct_generic_l1 MT_AUTH_CONTENT	Authentication content for generic. Long length (> 46 octets) first part.	
TSPX_auth_ct_generic_l2 MT_AUTH_CONTENT	Authentication content for generic. Long length (> 46 octets) second part.	
TSPX_auth_ct_x509_cert MT_AUTH_CONTENT	Authentication content for x509_cert Short length (≤ 46 octets) first part.	
TSPX_auth_ct_x509_cert_l1 MT_AUTH_CONTENT	Authentication content for x509_cert Long length (> 46 octets) first part.	
TSPX_auth_ct_x509_cert_l2 MT_AUTH_CONTENT	Authentication content for x509_cert Long length (> 46 octets) second part.	

### **Table D.12: Encryption parameters**

Name/Type	Comments	Value
TSPX_PresharedKey	Value of the Pre Shared Key.	
B_128		
TSPX_Rsa512Key	Value of the RSA 512 public Key.	
B_512		
TSPX_Rsa768Key	Value of the RSA 768 public Key.	
B_768		
TSPX_Rsa1024Key	Value of the RSA 1024 public Key.	
B_1024		
TSPX_ApprivateKey	Value of the AP private Key.	
B_1_1024		
TSPX_MtprivateKey	Value of the MT private Key.	
B_1_1024		

### Table D.13: DM COMMON KEY distribution message

Name/Type	Comments	Value
TSPX_ck_encr_info ENCR_INFO	Value of the encr_info field.	
TSPX_ck_key_id KEY_ID	Value of the Key_ld field.	
TSPX_common_key COMMON KEY	Value of the common key field.	

### Table D.14: COMMON KEY REFRESH message

Name/Type	Comments	Value
TSPX_nonce	Value of the nonce field.	
NONCE		

### Table D.15: INFO message

Name/Type	Comments	Value
TSPX_cl_data CL_DATA	Value of the cl data field.	
TSPX_dlc_attributes DLC_ATTRIBUTES	Value of the dlc attributes field.	
TSPX_cl_atm_data CL_DATA	Content of the cl data field in case of atm uni SSCS.	
TSPX_cl_atm_hn_data CL_DATA	Content of the cl data field in case of network handover for atm uni SSCS.	
TSPX_cl_eth_data CL_DATA	Content of the cl data field in case of Ethernet SSCS.	
TSPX_cl_eth_hn_data CL_DATA	Content of the cl data field in case of network handover for Ethernet SSCS.	

### Table D.16: TRANS\_CC\_DATA message

Name/Type	Comments	Value
TSPX_ext_ind	Value of the ext_ind field for CC	
EXT_IND	responsibility handover testing in case of	
	home extension.	
TSPX_data	Value of the data field for CC	
DATA	responsibility handover testing in case of	
	home extension.	

### **Table D.17: DM Power Control message**

Name/Type	Comments	Value
TSPX_dm_duc_type	Content of dm_duc_type field.	
DM_DUC_TYPE		
TSPX_wt_tx_level	Content of wt_tx_level field.	
WT_TX_LEVEL		
TSPX_adjust_tx	Content of adjust_tx field.	
ADJUST_TX		

### Table D.18: Setup message

Name/Type	Comments	Value
TSPX_cl_id	Content of Cl_Id field.	
CL_ID		
TSPX_duc_ext_ind	Content of duc_ext_ind field.	
DUC_EXT_IND		
TSPX_cl_attr_lgth	Content of cl_attr_lgth field.	
INTEGER		
TSPX_duc_descr_list	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table D.19: DM\_Setup message

Name/Type	Comments	Value
TSPX_peer_mac_id MAC_ID	Content of perr_mac_id field.	
TSPX_cl_common_attr CL_COMMON_ATTR	Content of cl_common_attr field.	

# Table D.20: DM MC Setup message

Name/Type	Comments	Value
TSPX_extension_type EXTENSION_TYPE	Content of extension_type field.	
TSPX_min_req_receivers INTEGER	Content of min_req_receivers field.	

### Table D.21: Modify Req message

Name/Type	Comments	Value
TSPX_duc_ext_ind2	Content of duc_descr_ind field.	
DUC_EXT_IND		
TSPX_cl_attr_lgth2	Content of cl_attr_lgth field.	
INTEGER	-	
TSPX_duc_descr_list2	Content of duc_descr_list field.	
DUC_DESCR_LIST		

# Table D.22: DM Modify Req message

Name/Type	Comments	Value
TSPX_cl_attr_lgth3	Content of cl_attr_lgth field.	
INTEGER		
TSPX_duc_descr_list3	Content of duc_descr_list field.	
DUC_DESCR_LIST		

### Table D.23: DM MC Modify Req message

Name/Type	Comments	Value
•	Content of cl_attr_lgth field.	
INTEGER		
TSPX_start_mac_frame START_MAC_FRAME	Content of start_mac_frame field.	
TSPX_duc_descr_list4	Content of duc_descr_list field.	
DUC_DESCR_LIST		

# Table D.24: GROUP\_JOIN message

Name/Type	Comments	Value
TSPX_encryption_proposal	Value of the encryption algorithm	
ENCRYPTION_ALGORITHM_PROPOSAL	proposal field.	
TSPX_cl_data2	Value of the cl data field.	
CL_DATA		

# Table D.25: GROUP\_JOIN message for home extension

Name/Type	Comments	Value
,	Value of the encryption algorithm proposal field for home extension testing.	
TSPX_cl_data_HE CL_DATA	Value of the cl data field for home extension testing.	

# Table D.26: GROUP\_JOIN message for 1394 bridge

Name/Type	Comments	Value
TSPX_encryption_proposal_1394	Value of the encryption algorithm	
ENCRYPTION_ALGORITHM_PROPOSAL	proposal field for 1394 bridge	
	testing.	
TSPX_cl_data_1394	Value of cl data field for 1394 bridge	
CL_DATA_1394	testing.	

# Table D.27: GROUP\_JOIN message for the forwarding clock mc group

Name/Type	Comments	Value
	Value of the encryption algorithm proposal field for the forwarding clock mc group in case of 1394 testing.	
TSPX_cl_data_1394_fw CL_DATA_1394	Value of cl data field for the forwarding clock mc group in case of 1394 testing.	

### Table D.28: CL\_BROADCAST\_JOIN message

Name/Type	Comments	Value
TSPX_encryption_proposal2	Value of the encryption algorithm	
ENCRYPTION_ALGORITHM_PROPOSAL	proposal field.	
TSPX_cl_data3	Value of the cl data field.	
CL_DATA		

# Table D.29: DFS\_MT\_INIT\_REPORT\_REQUEST message

Name/Type	Comments	Value
TSPX_measurement_type	Value of the measurement_type field.	
MEASUREMENT_TYPE	· ·	
TSPX_frequency_index	Content of frequency_index field.	
FREQUENCY_INDEX		
TSPX_adjacent_ch_interference	Content of adjacent_ch_interference	
ADJACENT_CH_INTERFERENCE	field.	

### Table D.30: DFS\_MEASUREMENT\_REQUEST message

Name/Type	Comments	Value
TSPX_frequency_index_2	Value of the frequency_index field for	
FREQUENCY_INDEX	message of type complete,	
	percentiles or short.	
TSPX_use_omni_antenna	Value of the use_omni_antenna field	
USE_OMNI_ANTENNA	for message of type complete,	
	percentiles or short.	
TSPX_start_of_measurement	Value of the start_of_measurement	
START_OF_MEASUREMENT	field for message of type complete,	
	percentiles or short.	
TSPX_measurement_window	Value of the measurement_window	
MEASUREMENT_WINDOW	field for message of type complete,	
	percentiles or short.	
TSPX_maximum_age_of_bch_measurement	Value of the	
MAXIMUM_AGE_OF_BCH_MEASUREMENT	maximum_age_of_bch_measurement	
	field for message of type complete or	
	short.	
TSPX_rss_index_list	Value of the rss_index_list field for	
RSS_INDEX_LIST	message of type complete.	
TSPX_length_of_measurement	Value of the length_of_measurement	
NUMBER_OF_SAMPLES	field for message of type short.	

### Table D.31: Calibration\_measurement\_trigger message

Name/Type	Comments	Value
TSPX_trigger_type	Value of the trigger_type field for	
TRIGGER_TYPE	message of type complete.	
TSPX_mac_ids	Value of the mac_ids field for message	
MAC_IDS	of type complete.	

### Table D.32: Sleep message

Name/Type	Comments	Value
TSPX_sleep_group SLEEP_GROUP	Value of the sleep_group field.	
TSPX_care_of_broadcast CARE_OF_BROADCAST	Value of the care_of_broadcast field.	

# Table D.33: MT\_ALIVE\_REQUEST message

Name/Type	Comments	Value
TSPX_mt_alive_interval	Value of the mt_alive_interval field.	
MT_ALIVE_INTERVAL		

### Table D.34: HO INFO DISTRIBUTION message

Name/Type	Comments	Value
TSPX_ssk_token	Content of SSK_TOKEN field.	
SSK TOKEN		

#### Table D.35: BUS\_SUSPEND information element

Name/Type	Comments	Value
TSPX_bs_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS.	
TSPX_bs_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS.	

### Table D.36: BUS\_RESUME information element

Name/Type	Comments	Value
TSPX_br_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS.	
TSPX_br_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS.	
TSPX_br2_length	Content of length field in cl_attributes for	
INTEGER	IEEE 1394 SSCS. The resulting	
	information element shall be different	
	from the first one.	
TSPX_br2_info	Content of information field in	
OCTETSTRING	cl_attributes for IEEE 1394 SSCS. The	
	resulting information element shall be	
	different from the first one.	

### Table D.37: Parameter for ARQ testing

Name/Type	Comments	Value
TSPX_window_size INTEGER	Value of the window size used for testing the DUC connection (shall be small,	
	i.e. 32).	

Table D.38: Cell convergence layer configuration parameters

Name/Type	Comments	Value
TSPX_cl_tag	CL_tag for Cell common part	
B_8	convergence layer.	
TSPX_cl_tag_2	Second CL_tag for Cell common part	
B_8	convergence layer corresponding to the	
	same DLCC_ID as TSPX_cl_tag (second	
	VCI, VPI).	
TSPX_cl_tag_3	Third CL_tag for Cell common part	
B_8	convergence layer corresponding to the	
	same DLCC_ID as TSPX_cl_tag (third	
	VCI, VPI).	
TSPX_cl_tag_not	CL_tag for Cell common part	
B_8	convergence layer in case of a	
	non-configured mapping for the DUC_ID	
	(MAC_ID, DLCC_ID) and the CL_Tag.	
TSPX_pt	Payload type for Cell common part	
B_3	convergence layer.	
TSPX_clp	Cell loss priority bit for Cell common part	_
B_1	convergence layer.	

Table D.39: Implementation options

Name/Type	Comments	Value
TSPX_IEEE	TRUE if the IUT support the IEEE MT	
BOOLEAN	authentication.	
TSPX_ext_IEEE	TRUE if the IUT support the Extended	
BOOLEAN	IEEE MT authentication.	
TSPX_net_acc_id	TRUE if the IUT support the Net. Acc. Id.	
BOOLEAN	MT authentication.	
TSPX_compressed	TRUE if the IUT support the	
BOOLEAN	Compressed MT authentication.	
TSPX_generic	TRUE if the IUT support the Generic MT	
BOOLEAN	authentication.	
TSPX_X509_cert	TRUE if the IUT support the X509 Cert.	
BOOLEAN	MT authentication.	
TSPX_pre_shared	RUE if the IUT support the Pre. shared	
BOOLEAN	AP authentication.	
TSPX_RSH_64	TRUE if the IUT support the RSH_64 AP	
BOOLEAN	authentication.	
TSPX_RSH_96	TRUE if the IUT support the RSH_96 AP	
BOOLEAN	authentication.	
TSPX_RSH_128	TRUE if the IUT support the RSH_128	
BOOLEAN	AP authentication.	
TSPX_direct_mode	TRUE if the IUT support the Direct Mode	
BOOLEAN	Option.	
TSPX_disa_pwr_off	TRUE if the IUT support the	
BOOLEAN	Disassociation process at power off.	

# Annex E (normative): PCTR Proforma for H/2 RLC MT

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document 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, where any needed additional information can be found.

# E.1 Identification summary

# E.1.1 Protocol conformance test report

#### Table E.1

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

# E.1.2 IUT identification

#### Table E.2

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

# E.1.3 Testing environment

#### Table E.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Remote test method, Embedded variant with notional UT
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

# E.1.4 Limits and reservation

	levant to the technical contents or further use of the test report, or the rights and obligations of client, may be given here. Such information may include restriction on the publication of the
E.1.5 Comm	ents y be given by either the client or the test laboratory on any of the contents of the PCTR, for
	ment between the two parties.
E.2 IUT C	onformance status
This IUT has/has not been specification.	n shown by conformance assessment to be non conforming to the specified protocol
requirements (as specified	rds in this sentence. If the PICS for this IUT is consistent with the static conformance d in clause D.3 of the present document) and there are no "FAIL" verdicts to be recorded (in document) strike the words "has or", otherwise strike the words "or has not".
E.3 Static	conformance summary
The PICS for this IUT is/i	is not consistent with the static conformance requirements in the specified protocol.
Strike the appropriate wo	rds in this sentence.
E.4 Dynar	mic conformance summary
The test campaign did or	did not reveal errors in the IUT.
	rds in this sentence. If there are no "FAIL" verdicts to be recorded (in clause D.6 of the the words "of did or" otherwise strike the words "or did not".
Summary of the results of	groups of test:

# E.5 Static conformance review report

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

# E.6 Test campaign report

Table E.4

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC-MT-ACF-RA-CA-000	Yes/No	Yes/No		,
TC-MT-ACF-RA-CA-001	Yes/No	Yes/No		
TC-MT-ACF-RA-CA-002	Yes/No	Yes/No		
TC-MT-ACF-RA-CA-003	Yes/No	Yes/No		
TC-MT-ACF-RA-CA-004	Yes/No	Yes/No		
TC-MT-ACF-RA-CA-005	Yes/No	Yes/No		
TC-MT-ACF-MA-CA-000	Yes/No	Yes/No		
TC-MT-ACF-LC-CA-000	Yes/No	Yes/No		
TC-MT-ACF-EN-CA-000	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-000	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-001	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-002	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-003	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-004	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-005	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-006	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-007	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-008	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-009	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-010	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-011	Yes/No	Yes/No		
TC-MT-ACF-AU-CA-012	Yes/No	Yes/No		
TC-MT-ACF-CK-CA-000	Yes/No	Yes/No		
TC-MT-ACF-IT-CA-000	Yes/No	Yes/No		
TC-MT-ACF-MT-CA-000	Yes/No	Yes/No		
TC-MT-ACF-MT-CA-001	Yes/No	Yes/No		
TC-MT-ACF-MT-CA-002	Yes/No	Yes/No		
TC-MT-ACF-MT-CA-003	Yes/No	Yes/No		
TC-MT-ACF-DI-CA-000	Yes/No	Yes/No		
TC-MT-ACF-DI-CA-001	Yes/No	Yes/No		
TC-MT-ACF-KR-CA-000	Yes/No	Yes/No		
TC-MT-ACF-KR-CA-001	Yes/No	Yes/No		
TC-MT-ACF-UM-CA-000	Yes/No	Yes/No		
TC-MT-ACF-TI-000	Yes/No	Yes/No		
TC-MT-ACF-TI-001	Yes/No	Yes/No		
TC-MT-ACF-TI-002	Yes/No	Yes/No		
TC-MT-RRC-RQ-CA-000	Yes/No	Yes/No		
TC-MT-RRC-RP-CA-000	Yes/No	Yes/No		
TC-MT-RRC-RP-CA-001	Yes/No	Yes/No		

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC-MT-RRC-RP-CA-002	Yes/No	Yes/No		iii diade i y
TC-MT-RRC-SH-CA-000	Yes/No	Yes/No		
TC-MT-RRC-SH-CA-001	Yes/No	Yes/No		
TC-MT-RRC-RH-CA-000	Yes/No	Yes/No		
TC-MT-RRC-RH-CA-001	Yes/No	Yes/No		
TC-MT-RRC-RH-CA-002	Yes/No	Yes/No		
TC-MT-RRC-RH-CA-003	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-000	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-001	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-002	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-003	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-004	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-005	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-006	Yes/No	Yes/No		
TC-MT-RRC-NH-CA-007	Yes/No	Yes/No		
TC-MT-RRC-SL-CA-000	Yes/No	Yes/No		
TC-MT-RRC-AL-CA-000	Yes/No	Yes/No		
TC-MT-RRC-AL-CA-001	Yes/No	Yes/No		
TC-MT-RRC-AB-CA-000	Yes/No	Yes/No		
TC-MT-RRC-AB-CA-001	Yes/No	Yes/No		
TC-MT-RRC-UM-CA-000	Yes/No	Yes/No		
TC-MT-RRC-TI-000	Yes/No	Yes/No		
TC-MT-RRC-TI-001	Yes/No	Yes/No		
TC-MT-DUC-CS-CA-000	Yes/No	Yes/No		
TC-MT-DUC-CS-CA-001	Yes/No	Yes/No		
TC-MT-DUC-CS-CA-002	Yes/No	Yes/No		
TC-MT-DUC-CS-CA-003	Yes/No	Yes/No		
TC-MT-DUC-CR-CA-000	Yes/No	Yes/No		
TC-MT-DUC-CR-CA-001	Yes/No	Yes/No		
TC-MT-DUC-CM-CA-000	Yes/No	Yes/No		
TC-MT-DUC-CM-CA-001	Yes/No	Yes/No		
TC-MT-DUC-CM-CA-002	Yes/No	Yes/No		
TC-MT-DUC-CM-CA-003	Yes/No	Yes/No		
TC-MT-DUC-CT-CA-000	Yes/No	Yes/No		
TC-MT-DUC-CT-CA-001	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-000	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-001	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-002	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-003	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-004	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-005	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-006	Yes/No	Yes/No		
TC-MT-DUC-DS-CA-007	Yes/No	Yes/No		<u> </u>
TC-MT-DUC-DR-CA-000	Yes/No	Yes/No		
TC-MT-DUC-DR-CA-001	Yes/No	Yes/No		
TC-MT-DUC-DR-CA-002	Yes/No	Yes/No		+
TC-MT-DUC-DR-CA-003	Yes/No	Yes/No		+
TC-MT-DUC-DM-CA-000 TC-MT-DUC-DM-CA-001	Yes/No	Yes/No		
TC-MT-DUC-DM-CA-001	Yes/No Yes/No	Yes/No Yes/No		
TC-MT-DUC-DM-CA-002				
TC-MT-DUC-DM-CA-003	Yes/No Yes/No	Yes/No Yes/No		
TC-MT-DUC-DM-CA-004	Yes/No	Yes/No		
TC-MT-DUC-DM-CA-005	Yes/No	Yes/No		
TC-MT-DUC-DM-CA-006	Yes/No	Yes/No Yes/No		
TC-MT-DUC-RS-CA-000	Yes/No	Yes/No		
TC-MT-DUC-RS-CA-000	Yes/No	Yes/No		
TC-MT-DUC-RS-CA-001	Yes/No	Yes/No		
TC-MT-DUC-RS-CA-002	Yes/No	Yes/No		
TC-MT-DUC-RS-CA-003	Yes/No	Yes/No		+
TC-MT-DUC-RR-CA-000	Yes/No	Yes/No		+
10 m. 200 mm-04-000	1 53/140	1 53/140	l	

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC-MT-DUC-RR-CA-001	Yes/No	Yes/No		
TC-MT-DUC-RR-CA-002	Yes/No	Yes/No		
TC-MT-DUC-RM-CA-000	Yes/No	Yes/No		
TC-MT-DUC-RM-CA-001	Yes/No	Yes/No		
TC-MT-DUC-RM-CA-002	Yes/No	Yes/No		
TC-MT-DUC-RM-CA-003	Yes/No	Yes/No		
TC-MT-DUC-RM-CA-004	Yes/No	Yes/No		
TC-MT-DUC-DT-CA-000	Yes/No	Yes/No		
TC-MT-DUC-DT-CA-001	Yes/No	Yes/No		
TC-MT-DUC-DT-CA-002	Yes/No	Yes/No		
TC-MT-DUC-DT-CA-003	Yes/No	Yes/No		
TC-MT-DUC-UM-CA-000	Yes/No	Yes/No		
TC-MT-DUC-TI-000	Yes/No	Yes/No		
TC-MT-DUC-TI-001	Yes/No	Yes/No		
TC-MT-DUC-TI-002	Yes/No	Yes/No		

E./ C	oservations
Additional infor	ation relevant to the technical content of the PCTR is given here.

# Annex F (normative): PCTR Proforma for H/2 RLC AP

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document 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, where any needed additional information can be found.

# F.1 Identification summary

# F.1.1 Protocol conformance test report

#### Table F.1

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

# F.1.2 IUT identification

#### Table F.2

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

# F.1.3 Testing environment

#### Table F.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Remote test method, Embedded variant with notional UT
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

# F.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.
F.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.

# F.2 IUT Conformance status

This IUT has/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 of the present document) and there are no "FAIL" verdicts to be recorded (in clause D.6 of the present document) strike the words "has or", otherwise strike the words "or has not".

# F.3 Static conformance summary

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

Strike the appropriate words in this sentence.

# F.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 the present document) strike the words "did or" otherwise strike the words "or did not".
Summary of the results of groups of test:
F.5 Static conformance review report
If clause D.3 indicates non-conformance, this clause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

# F.6 Test campaign report

Table F.4

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC-AP-ACF-RA-CA-000	Yes/No	Yes/No		
TC-AP-ACF-RA-CA-001	Yes/No	Yes/No		
TC-AP-ACF-MA-CA-000	Yes/No	Yes/No		
TC-AP-ACF-LC-CA-000	Yes/No	Yes/No		
TC-AP-ACF-EN-CA-000	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-000	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-001	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-002	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-003	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-004	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-005	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-006	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-007	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-008	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-009	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-010	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-011	Yes/No	Yes/No		
TC-AP-ACF-AU-CA-012	Yes/No	Yes/No		

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC-AP-ACF-CK-CA-000	Yes/No	Yes/No		in clade 1)
TC-AP-ACF-IT-CA-000	Yes/No	Yes/No		
TC-AP-ACF-MT-CA-000	Yes/No	Yes/No		
TC-AP-ACF-MT-CA-001	Yes/No	Yes/No		
TC-AP-ACF-MT-CA-002	Yes/No	Yes/No		
TC-AP-ACF-MT-CA-003	Yes/No	Yes/No		
TC-AP-ACF-DI-CA-000	Yes/No	Yes/No		
TC-AP-ACF-DI-CA-001	Yes/No	Yes/No		
TC-AP-ACF-KR-CA-000	Yes/No	Yes/No		
TC-AP-ACF-KR-CA-001	Yes/No	Yes/No		
TC-AP-ACF-KR-CA-002	Yes/No	Yes/No		
TC-AP-ACF-AR-CA-000	Yes/No	Yes/No		
TC-AP-ACF-AR-CA-001	Yes/No	Yes/No		
TC-AP-ACF-UM-CA-000	Yes/No	Yes/No		
TC-AP-ACF-TI-000	Yes/No	Yes/No		
TC-AP-ACF-TI-001	Yes/No	Yes/No		
TC-AP-ACF-TI-002	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-000	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-001	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-002	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-003	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-004	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-005	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-006	Yes/No	Yes/No		
TC-AP-RRC-RQ-CA-007	Yes/No	Yes/No		
TC-AP-RRC-SH-CA-000	Yes/No	Yes/No		
TC-AP-RRC-RH-CA-000	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-000	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-001	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-002	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-003	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-004	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-005	Yes/No	Yes/No		
TC-AP-RRC-NH-CA-006	Yes/No	Yes/No		
TC-AP-RRC-HR-CA-000	Yes/No	Yes/No		
TC-AP-RRC-SL-CA-000	Yes/No	Yes/No		
TC-AP-RRC-AL-CA-000	Yes/No	Yes/No		
TC-AP-RRC-AL-CA-001	Yes/No	Yes/No		
TC-AP-RRC-AB-CA-000	Yes/No	Yes/No		
TC-AP-RRC-AB-CA-001	Yes/No	Yes/No		
TC-AP-RRC-AB-CA-002	Yes/No	Yes/No		
TC-AP-RRC-UM-CA-000	Yes/No	Yes/No		
TC-AP-RRC-TI-000	Yes/No	Yes/No		
TC-AP-RRC-TI-001	Yes/No	Yes/No		
TC-AP-RRC-TI-002	Yes/No	Yes/No		
TC-AP-DUC-CS-CA-000	Yes/No	Yes/No		
TC-AP-DUC-CS-CA-001	Yes/No	Yes/No		
TC-AP-DUC-CS-CA-002	Yes/No	Yes/No		
TC-AP-DUC-CS-CA-003	Yes/No	Yes/No		
TC-AP-DUC-CR-CA-000	Yes/No	Yes/No		<del> </del>
TC-AP-DUC-CR-CA-001	Yes/No	Yes/No		<del> </del>
TC-AP-DUC-CM-CA-000	Yes/No	Yes/No		
TC-AP-DUC-CM-CA-001	Yes/No	Yes/No		
TC-AP-DUC-CM-CA-002	Yes/No	Yes/No		
TC-AP-DUC-CM-CA-003 TC-AP-DUC-CT-CA-000	Yes/No	Yes/No		
TC-AP-DUC-CT-CA-000	Yes/No	Yes/No Yes/No		
TC-AP-DUC-CT-CA-001	Yes/No Yes/No	Yes/No Yes/No		
TC-AP-DUC-DS-CA-000	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-001	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-002	Yes/No	Yes/No		
10-V1-000-00-0W-003	1 62/140	169/140	l	

ATS Reference	Selected?	Run?	Verdict	Observations
	00.00.00.		10.0.00	(Reference to any observations made
				in clause 7)
TC-AP-DUC-DS-CA-004	Yes/No	Yes/No		,
TC-AP-DUC-DS-CA-005	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-006	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-007	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-008	Yes/No	Yes/No		
TC-AP-DUC-DS-CA-009	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-000	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-001	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-002	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-003	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-004	Yes/No	Yes/No		
TC-AP-DUC-DR-CA-005	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-000	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-001	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-002	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-003	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-004	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-005	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-006	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-007	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-008	Yes/No	Yes/No		
TC-AP-DUC-DM-CA-009	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-000	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-001	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-002	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-003	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-004	Yes/No	Yes/No		
TC-AP-DUC-RS-CA-005	Yes/No	Yes/No		
TC-AP-DUC-RR-CA-000	Yes/No	Yes/No		
TC-AP-DUC-RR-CA-001	Yes/No	Yes/No		
TC-AP-DUC-RR-CA-002	Yes/No	Yes/No		
TC-AP-DUC-RR-CA-003	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-000	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-001	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-002	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-003	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-004	Yes/No	Yes/No		
TC-AP-DUC-RM-CA-005	Yes/No	Yes/No		
TC-AP-DUC-DT-CA-000	Yes/No	Yes/No		
TC-AP-DUC-DT-CA-001	Yes/No	Yes/No		<del> </del>
TC-AP-DUC-DT-CA-002	Yes/No	Yes/No		<del> </del>
TC-AP-DUC-DT-CA-003 TC-AP-DUC-DT-CA-004	Yes/No	Yes/No		
	Yes/No	Yes/No		
TC-AP-DUC-DT-CA-005 TC-AP-DUC-UM-CA-000	Yes/No	Yes/No		
TC-AP-DUC-UM-CA-000	Yes/No	Yes/No		
TC-AP-DUC-TI-000	Yes/No	Yes/No		
TC-AP-DUC-TI-001	Yes/No	Yes/No		
10-AF-DUC-11-002	Yes/No	Yes/No		

F./	Observatio	ns				
Additional information relevant to the technical content of the PCTR is given here.						
						· <b>····</b>
			•••••			· • • • • • • • • • • • • • • • • • • •

# History

Document history				
V1.1.1	September 2000	Publication		
V1.1.1	January 2001	Publication as EN 301 823-2-3		
V1.2.1	December 2001	Publication		