

ETSI TS 101 823-5-2 V1.3.1 (2004-08)

Technical Specification

**Broadband Radio Access Networks (BRAN);
HIPERLAN Type 2;
Conformance testing for the Data Link Control (DLC) layer;
Part 5: Profile for Home Environment;
Sub-part 2: Profile Test Specification (PTS) - Summary**



Reference

RTS/BRAN-002T0B4-5-2

Keywords

access, HIPERLAN, TSS&TP, 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:

<http://www.etsi.org>

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

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

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 2004.
All rights reserved.

DECTTM, **PLUGTESTS**TM and **UMTS**TM are Trade Marks of ETSI registered for the benefit of its Members.
TIPHONTM and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPPTM is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	4
Foreword.....	4
1 Scope	5
2 References	5
3 Definitions and abbreviations.....	7
3.1 Definitions	7
3.2 Abbreviations	8
4 Profile identification.....	8
5 Elements of the PTS	8
5.1 Conformance testing for Physical Layer	8
5.2 Conformance testing for DLC layer protocol.....	9
5.2.1 Basic Data Transport Function	9
5.2.2 Radio Link Control (RLC) Sub-layer	9
5.2.3 Extension for Home Environment Sub-layer.....	10
5.3 Conformance testing for Packet based Convergence Layer	10
5.3.1 Common part functions	10
5.3.2 Ethernet Service Specific Convergence Sublayer	11
5.3.3 IEEE 1394 Service Specific Convergence Sublayer.....	11
5.3.4 IEEE 1394 Bridge Specific Functions Sublayer	12
5.4 Conformance testing for Network Management	12
6 Conformance	13
Annex A (informative): Bibliography	14
History	15

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 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 5, sub-part 2 of a multi-part deliverable. Full details of the entire series can be found in part 1, sub-part 1 [23].

1 Scope

The present document specifies the Profile Test Specification (PTS) summary referencing all the ENs or TSs necessary for the conformance testing of the Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 5: Profile for Home Environments.

This PTS summary together with the ENs and TSs it references constitute the HE PTS.

The present document has the following structure:

- clause 4 contains general information relative to the profile including references to the related Ens or TSs;
- clause 5 contains a summary and references to the ENs or TSs relevant for each of BRAN protocol layers to be tested.

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 and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ETSI TS 101 475 (V1.3.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Physical (PHY) layer".
- [2] ETSI TS 101 761-1 (V1.3.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) Layer; Part 1: Basic Data Transport Functions".
- [3] ETSI TS 101 761-2 (V1.3.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 2: Radio Link Control (RLC) Sublayer".
- [4] ETSI TS 101 761-4 (V1.3.2): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 4: Extension for home environment".
- [5] ETSI TS 101 761-5 (V1.2.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 5: Profile for home environment".
- [6] ETSI TS 101 493-1 (V1.1.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 1: Common part".
- [7] ETSI TS 101 493-2 (V1.2.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 2: Ethernet Service Specific Convergence Sublayer (SSCS)".
- [8] ETSI TS 101 493-3 (V1.2.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS)".
- [9] ETSI TS 101 493-4 (V1.1.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 4: IEEE 1394 Bridge Specific Functions sub-layer for restricted topology".
- [10] ETSI TS 101 762 (V1.1.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Network Management".

- [11] ETSI TS 101 811-1-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 1: Common Part; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [12] ETSI TS 101 811-1-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 1: Common Part; Sub-part 2: Test Suite Structure and Test Purposes (TSS & TP) specification".
- [13] ETSI TS 101 811-1-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 1: Common Part; Sub-part 3: Abstract Test Suite (ATS) specification".
- [14] ETSI TS 101 811-2-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 2: Ethernet Service Specific Convergence Sublayer (SSCS); Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [15] ETSI TS 101 811-2-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 2: Ethernet Service Specific Convergence Sublayer (SSCS); Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [16] ETSI TS 101 811-2-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 2: Ethernet Service Specific Convergence Sublayer (SSCS); Sub-part 3: Abstract Test Suite (ATS) specification".
- [17] ETSI TS 101 811-3-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS); Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [18] ETSI TS 101 811-3-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS); Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [19] ETSI TS 101 811-3-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance Testing for the Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS); Sub-part 3: Abstract Test Suite (ATS) specification".
- [20] ETSI TS 101 811-4-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the packet based convergence layer; Part 4: IEEE 1394 Bridge Layer; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [21] ETSI TS 101 811-4-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the packet based convergence layer; Part 4: IEEE 1394 Bridge Layer; Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [22] ETSI TS 101 811-4-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the packet based convergence layer; Part 4: IEEE 1394 Bridge Layer; Sub-part 3: Abstract Test Suite (ATS) specification".
- [23] ETSI TS 101 823-1-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 1: Basic data transport functions; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [24] ETSI TS 101 823-1-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 1: Basic data transport functions; Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [25] ETSI TS 101 823-1-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 1: Basic data transport functions; Sub-part 3: Abstract Test Suite (ATS) specification".

- [26] ETSI TS 101 823-2-1: "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 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [27] ETSI TS 101 823-2-2: "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".
- [28] ETSI TS 101 823-2-3: "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".
- [29] ETSI TS 101 823-4-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 4: Extension for Home Environment; Sub-part 1: Protocol Implementation Conformance Statement (PICS) proforma".
- [30] ETSI TS 101 823-4-2: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 4: Extension for Home Environment; Sub-part 2: Test Suite Structure and Test Purposes (TSS&TP) specification".
- [31] ETSI TS 101 823-4-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 4: Extension for Home Environment; Sub-part 3: Abstract Test Suite (ATS) specification".
- [32] ETSI TS 101 823-5-1: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 5: Profile for Home Environment; Sub-part 1: Profile Requirement List proforma specification".
- [33] ETSI TS 101 823-5-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer; Part 5: Profile for Home Environment; Sub-part 3: Profile Test Specification (PTS) - Profile Specific Test Specification (PSTS)".
- [34] Void.
- [35] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts". (See also ITU-T Recommendation X.290 (1995)).
- [36] Void.
- [37] Void.
- [38] ISO/IEC 9646-4(1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 4: Test realization".
- [39] ISO/IEC 9646-5 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".
- [40] ISO/IEC 9646-6 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".
- [41] ISO/IEC 9646-7 (1995): "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 [41], TS 101 761-2 [3] and TS 101 761-5 [5] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations defined in ISO/IEC 9646-1 [35], ISO/IEC 9646-6 [40], ISO/IEC 9646-7 [41], TS 101 761-2 [3], TS 101 761-5 [5] and the following apply:

ATM	Abstract Test Method
DLC	Data Link Control
HE	Home Extention
MAC	Medium Access Control
PHY	Physical layer
PICS	Protocol Implementation Conformance Statement
PTS	Profile Test Specification
RLC	Radio Link Control
TP	Test Purposes
TSS	Test Suite Structure

4 Profile identification

Table 1

No.	Profile identification	
1	Profile identifier	BRAN H/2 DLC layer - HE (Home Extension)
2	Profile specification	TS 101 761-5 [5]
3	Profile ICS proforma	TS 101-823-5-1 [32]
4	PSTS	TS 101-823-5-3 [33]
5	Profile IXIT proforma	TS 101-823-5-3 [33]
6	SCS proforma	TS 101-823-5-3 [33]
Comments:		

5 Elements of the PTS

5.1 Conformance testing for Physical Layer

Table 2

No.	Protocol	
1	Protocol identification	TS 101 475 [1]
2	PICS proforma	No
3	TSS and TP	No
4	ATS	No
5	Applicability of ATS	No
6	ATM	No
7	Partial PIXIT	No

Table 3

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No

5.2 Conformance testing for DLC layer protocol

5.2.1 Basic Data Transport Function

Table 4

No.	Protocol	
1	Protocol identification	TS 101 761-1 [2]
2	PICS proforma	TS 101 823-1-1 [23]
3	TSS and TP	TS 101 823-1-2 [24]
4	ATS	TS 101 823-1-3 [25], annex A
5	Applicability of ATS	Yes
6	ATM	TS 101 823-1-3 [25], clause 4
7	Partial PIXIT	TS 101 823-1-3 [25], annex B

Table 5

No	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.2.2 Radio Link Control (RLC) Sub-layer

Table 6

No.	Protocol	
1	Protocol identification	TS 101 761-2 [3]
2	PICS proforma	TS 101 823-2-1 [26]
3	TSS and TP	TS 101 823-2-2 [27]
4	ATS	TS 101 823-2-3 [28], annex A
5	Applicability of ATS	Yes.
6	ATM	TS 101 823-2-3 [28], clause 4
7	Partial PIXIT	TS 101 823-2-3 [28], annex B

Table 7

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.2.3 Extension for Home Environment Sub-layer

Table 8

No.	Protocol	
1	Protocol identification	TS 101 761-4 [4]
2	PICS proforma	TS 101 823-4-1 [29]
3	TSS and TP	TS 101 823-4-2 [30]
4	ATS	TS 101 823-4-3 [31], annex A
5	Applicability of ATS	Yes.
6	ATM	TS 101 823-4-3 [31], clause 4
7	Partial PIXIT	TS 101 823-4-3 [31], annex B

Table 9

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.3 Conformance testing for Packet based Convergence Layer

5.3.1 Common part functions

Table 10

No.	Protocol	
1	Protocol identification	TS 101 493-1 [6]
2	PICS proforma	TS 101 811-1-1 [11]
3	TSS and TP	TS 101 811-1-2 [12]
4	ATS	TS 101 811-1-3 [13], annex A
5	Applicability of ATS	Yes.
6	ATM	TS 101 811-1-3 [13], clause 4
7	Partial PIXIT	TS 101 811-1-3 [13], annex B

Table 11

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.3.2 Ethernet Service Specific Convergence Sublayer

Table 12

No.	Protocol	
1	Protocol identification	TS 101 493-2 [7]
2	PICS proforma	TS 101 811-2-1 [14]
3	TSS and TP	TS 101 811-2-2 [15]
4	ATS	TS 101 811-2-3 [16], annex A
5	Applicability of ATS	Yes
6	ATM	TS 101 811-2-3 [16], clause 4
7	Partial PIXIT	TS 101 811-2-3 [16], annex B

Table 13

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.3.3 IEEE 1394 Service Specific Convergence Sublayer

Table 14

No.	Protocol	
1	Protocol identification	TS 101 493-3 [8]
2	PICS proforma	TS 101 811-3-1 [17]
3	TSS and TP	TS 101 811-3-2 [18]
4	ATS	TS 101 811-3-3 [19], annex A
5	Applicability of ATS	Yes
6	ATM	TS 101 811-3-3 [19], clause 4
7	Partial PIXIT	TS 101 811-3-3 [19], annex B

Table 15

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.3.4 IEEE 1394 Bridge Specific Functions Sublayer

Table 16

No.	Protocol	
1	Protocol identification	TS 101 493-4 [9]
2	PICS proforma	TS 101 811-4-1 [20]
3	TSS and TP	TS 101 811-4-2 [21]
4	ATS	TS 101 811-4-3 [22], annex A
5	Applicability of ATS	Yes
6	ATM	TS 101 811-4-3 [22], clause 4
7	Partial PIXIT	TS 101 811-4-3 [22], annex B

Table 17

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS and TP	No
3	ATM	No changes
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No changes

5.4 Conformance testing for Network Management

Table 18

No.	Protocol	
1	Protocol identification	TS 101 762 [10]
2	PICS proforma	No
3	TSS and TP	No
4	ATS	No
5	Applicability of ATS	No
6	ATM	No
7	Partial PIXIT	No

Table 19

No.	Profile	
1	Profile ICS proforma	No
2	Additional TSS&TP	No
3	ATM	No
4	Additional test cases	No
5	Partial Profile IXIT proforma	No
6	Modified selection expressions	No

6 Conformance

The test realizer of a Means Of Testing (MOT) for this PTS summary shall comply with the requirements of ISO/IEC 9646-4 [38].

In particular, the realization of each referenced ATS shall conform to the ATS specification consistent with the modifications made by the PSTS referenced by this PTS summary. The realization of the ATS within the PSTS shall conform to the PSTS.

The laboratories running conformance test services according to this PTS summary shall comply with ISO/IEC 9646-5 [39].

Annex A (informative): Bibliography

- ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- ISO/IEC 9646-2 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification". (See also ITU-T Recommendation X.291 (1995)).
- ISO/IEC 9646-3 (1998): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)". (See also ITU-T Recommendation X.292 (2002)).

History

Document history		
V1.2.1	July 2003	Publication
V1.3.1	August 2004	Publication