

# EUROPEAN TELECOMMUNICATION STANDARD

**FINAL DRAFT** pr **ETS 300 836-2** 

February 1998

Source: BRAN Reference: DE/BRAN-10-02A

ICS: 33.020

Key words: HIPERLAN, LAN, radio, testing

# Radio Equipment and Systems (RES); HIgh PErformance Radio Local Area Network (HIPERLAN) Type 1;

Conformance testing specification;

Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification

# **ETSI**

European Telecommunications Standards Institute

#### **ETSI Secretariat**

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - Internet: secretariat@etsi.fr

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

**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.

Final draft prETS 300 836-2: Februa	ary 1998		

Whilst every care has been taken in the preparation and publication of this document, errors in content, typographical or otherwise, may occur. If you have comments concerning its accuracy, please write to "ETSI Editing and Committee Support Dept." at the address shown on the title page.

# **Contents**

Forev	word		5
1	Scope		7
2	Normativ	ve references	-
2			
3		ns and abbreviations	
	3.1	Definitions	
	3.2	Abbreviations	
4	Conform	ance	8
Anno	x A (norm	ative): PICS proforma	c
	,		
A.1		ons for completing the PICS proforma	9
	A.1.1	Identification of the implementation	
	A.1.2	Global statement of conformance	
	A.1.3	Symbols, abbreviations and terms	
A.2	Identifica	ation of the implementation	10
	A.2.1	Implementation Under Test (IUT) identification	
	A.2.2	System Under Test (SUT) identification	10
	A.2.3	Product supplier	
	A.2.4	Client	
	A.2.5	PICS contact person	12
A.3	PICS/Sy	stem Conformance Statement (SCS)	12
A.4	Identifica	ation of the protocol	12
A.5	Global st	tatement of conformance	13
A.6	MAC pro	otocol	15
71.0	A.6.1	Roles	
	A.6.2	Major capabilities	
	A.6.3	Subsidiary capabilities	
	A.6.4	Protocol data units	
A.7	CAC pro	tocol	17
	A.7.1	Roles	
	A.7.2	Major capabilities	18
	A.7.3	Subsidiary capabilities	
	A.7.4	Protocol data units	20
A.8	PHY pro	tocol	
	A.8.1	Roles	
	A.8.2	Major capabilities	
	A.8.3	Subsidiary capabilities	
	A.8.4	Protocol data units	23
Histo	rv		25

Page 4 Final draft prETS 300 836-2: February 1998

Blank page

## **Foreword**

This final draft European Telecommunication Standard (ETS) has been produced by the ETSI Project Broadband Radio Access Networks (BRAN) of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Voting phase of the ETSI standards approval procedure.

This ETS consists of 4 parts:

Part 1: "Radio type approval and Radio Frequency (RF) conformance test specification";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification";

Part 4: "Abstract Test Suite (ATS) specification".

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given Open Systems Interconnection (OSI) protocol. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

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

Page 6 Final draft prETS 300 836-2: February 1998

Blank page

## 1 Scope

This European Telecommunication Standard (ETS) provides the Protocol Implementation Conformance Statement (PICS) proforma for the RES HIPERLAN protocol as specified in ETS 300 652 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3].

The supplier of a protocol implementation which is claimed to conform to ETS 300 652 [1] is required to complete a copy of the PICS proforma provided in annex A of this ETS and is required to provide the information necessary to identify both the supplier and the implementation.

#### 2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1]	ETS 300 652 (1996) and prA1 (1996): "Radio Equipment and Systems (RES);
	HIgh PErformance Radio Local Area Network (HIPERLAN); Type 1; Functional

specification".

[2] ISO/IEC 9646-1 (1994): "Information technology - Open systems interconnection

- Conformance testing methodology and framework - Part 1: General concepts".

[3] ISO/IEC 9646-7 (1994): "Information technology - Open systems interconnection

- Conformance testing methodology and framework - Part 7: Implementation

Conformance Statements".

## 3 Definitions and abbreviations

#### 3.1 Definitions

For the purposes of this ETS, the following definitions apply, in addition to those given in ETS 300 652 [1]:

**PICS proforma:** A document, in the form of a questionnaire, designed by the protocol specifier or conformance test suite specifier, which, when completed for an OSI implementation or system, becomes the PICS (see ISO/IEC 9646-1 [2]).

**Protocol Implementation Conformance Statement (PICS):** A statement made by the supplier of an OSI implementation or system, stating which capabilities have been implemented for a given OSI protocol (see ISO/IEC 9646-1 [2]).

**static conformance review:** A review of the extent to which the static conformance requirements are met by the Implementation Under Test (IUT), accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s) (see ISO/IEC 9646-1 [2]).

#### 3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply, in addition to those given in ETS 300 652 [1]:

AND Boolean "and"
ATS Abstract Test Suite

HEU HIPERLAN Enhancement Unit IUT Implementation Under Test

M Mandatory requirement (to be observed in all cases)

MC Major Capabilities

N/A Not applicable, not supported or the conditions for status are not met

No not supported NOT Boolean "not"

#### Page 8

## Final draft prETS 300 836-2: February 1998

O Option (may be selected to suit the implementation, provided that any

requirements applicable to the option are observed)

O.n Options, but support required for either at least one or only one of the options in

the group labelled with the same numeral "n"

OR Boolean "or"

OSI Open Systems Interconnection

P Parameters

PICS Protocol Implementation Conformance Statement

RF Radio Frequency SC Subsidiary Capabilities

SCS System Conformance Statement

SUT System Under Test

TM Timers

TSS&TP Test Suite Structure and Test Purposes

X Prohibited Yes Supported

## 4 Conformance

A PICS proforma which conforms to this PICS proforma specification shall be technically equivalent to annex A, and shall preserve the numbering and ordering of the items in annex A.

A PICS which conforms to this PICS proforma specification shall:

- a) describe an implementation which claims to conform to ETS 300 652 [1];
- b) be a conforming PICS proforma which has been completed in accordance with the instructions for completion given in clause A.1;
- c) include the information necessary to uniquely identify both the supplier and the implementation.

## Annex A (normative): PICS proforma

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

# A.1 Instructions for completing the PICS proforma

## A.1.1 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides, the System Under Test (SUT) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the PICS should be named as the contact person.

The System Conformance Statement (SCS) as defined in ISO/IEC 9646-1 [2] is a document supplied by the client or product supplier that summarizes which OSI International Standards, ETSs or other standards are implemented and to which conformance is claimed. The PICS/SCS subclause should describe the relationship of the PICS to the SCS.

#### A.1.2 Global statement of conformance

If the answer to the statement in this subclause is "Yes", all subsequent subclauses should be completed to facilitate selection of test cases for optional functions.

If the answer to the statement in this subclause is "No", all subsequent subclauses should be completed, and all non-supported mandatory capabilities should be identified and explained. Explanations may be entered in the comments field at the bottom of each table or on attached sheets of paper.

## A.1.3 Symbols, abbreviations and terms

The PICS proforma contained in this annex is comprized of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [3].

The reference column contained in the tables gives reference to the appropriate part(s) of ETS 300 652 [1] describing the particular item. Note, however, that a reference merely indicates the place where the core of a description of an item can be found. Any additional information contained in ETS 300 652 [1] has to be taken into account when making a statement about the conformance of that particular item.

The following common notations, defined in ISO/IEC 9646-7 [3], are used for the status column:

M mandatory
O optional
N/A not applicable

O.<integer> for mutually exclusive or selectable options from a set

X prohibited (excluded)

The following common notations, defined in ISO/IEC 9646-7 [3], are used for the support column:

Yes for supported/implemented

No for not supported/not implemented

N/A not applicable

A.2.1

# A.2 Identification of the implementation

Implementation Under Test (IUT) identification

IUT name:
IUT version:
A.2.2 System Under Test (SUT) identification
SUT name:
Hardware configuration:
Operating system:

A.2.3	Product supplier
Name:	
Address:	
Telephor	ne number:
Facsimile	e number:
Additiona	al information:
A.2.4	Client
Name:	
Address:	
Telephor	ne number:
Facsimile	e number:
Additiona	al information:

# Page 12

Final draft prETS 300 836-2: February 1998

A.2.5	PICS contact person
Name:	
Address	
Telepho	one number:
Facsimi	le number:
Addition	al information:
•••••	
A.3	PICS/System Conformance Statement (SCS)
Provide	the relationship of the PICS with the SCS for the system:

# A.4 Identification of the protocol

This PICS proforma applies to the following standard:

ETS 300 652 (1996 + A1 (1996)): "Radio Equipment and Systems (RES); HIgh PErformance Radio Local Area Network (HIPERLAN) Type 1; Functional specification".

#### **A.5** Global statement of conformance

The implementation described in this PICS meets all the mandatory requirements of the referenced standard:

[]Yes

[ ] No

NOTE:

Answering "No" to this question indicates non-conformance to the protocol specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming. Explanations may be entered in the comments field at the bottom of each table or on attached sheets of paper.

In the tabulations which follow, all references are to ETS 300 652 [1] unless another numbered reference is explicitly indicated.

#### **A.6 MAC** protocol

The tables in this clause are not required to be completed where the SUT is a HIPERLAN Enhancement Unit (HEU) (see PICS item R 6).

#### A.6.1 Roles

Table A.1: Roles - MAC protocol

Item	Role	Conditions for status	Status	Reference	Support	
R 1	forwarder		0.1	11	[ ]Yes [ ]No	
R 2	non-forwarder		0.1	11	[ ]Yes [ ]No	
R 3	p-saver		0	11	[ ]Yes [ ]No	
R 4	p-supporter		0	11	[ ]Yes [ ]No	
O.1. Support of one and only one of these options is required						

Final draft prETS 300 836-2: February 1998

# A.6.2 Major capabilities

Table A.2: Major capabilities - MAC protocol

Item	Major capability	Conditions for status	Status	Reference	Support
MC 1	HIPERLAN look-up function		M	6.2	[ ]Yes [ ]No
MC 2	Routing information maintenance function		М	6.5	[ ]Yes [ ]No
MC 3	POWER CONSERVATION FUNCTION	R 3 OR R 4 NOT (R 3 OR R 4)	M N/A	6.3	[ ]Yes [ ]No [ ]N/A
MC 4	User data transfer function		M	6.4	[ ]Yes [ ]No
MC 5	HMPDU transfer function		M	6.6	[ ]Yes [ ]No
MC 6	MAC service	R 1	0	6	[ ]Yes [ ]No
		R 2	M		

# A.6.3 Subsidiary capabilities

Table A.3: Subsidiary capabilities - MAC protocol

Item	Subsidiary capability	Conditions for status	Status	Reference	Support
SC 1.1	HIPERLAN information query	MC 6 NOT MC 6	M N/A	6.2.1	[ ]Yes [ ]No [ ]N/A
SC 1.2	HIPERLAN information declaration		М	6.2.2	[ ]Yes [ ]No
SC 1.3	HIPERLAN information collection		М	6.2.3	[ ]Yes [ ]No
SC 2.1	Individual-attention pattern declaration	R 3 NOT R 3	M N/A	6.3.1	[ ]Yes [ ]No [ ]N/A
SC 2.2	Group-attendance pattern declaration	R 4 NOT R 4	M N/A	6.3.2	[ ]Yes [ ]No [ ]N/A
SC 2.3	Individual-attention pattern recording	R 4 NOT R 4	M N/A	6.3.3	[ ]Yes [ ]No [ ]N/A
SC 2.4	Group-attendance pattern recording	R 3 NOT R 3	M N/A	6.3.4	[ ]Yes [ ]No [ ]N/A
SC 2.5	Expired individual-attention pattern entry removal	R 4 NOT R 4	M N/A	6.3.5	[ ]Yes [ ]No [ ]N/A
SC 2.6	Expired group-attendance pattern entry removal	R 3 NOT R 3	M N/A	6.3.6	[ ]Yes [ ]No [ ]N/A
SC 3.1	Sanity check computation	SC 3.2 NOT SC 3.2	M N/A	6.4.1	[ ]Yes [ ]No [ ]N/A
SC 3.2	User data encryption- decryption	MC 6 NOT MC 6	O N/A	6.4.2	[ ]Yes [ ]No [ ]N/A
SC 3.3	HMQoS failure reporting	MC 6 NOT MC 6	M N/A	6.4.3	[ ]Yes [ ]No [ ]N/A
SC 3.4	User data acceptance	MC 6 NOT MC 6	M N/A	6.4.4	[ ]Yes [ ]No [ ]N/A
SC 3.5	User data delivery	MC 6 NOT MC 6	O N/A	6.4.5	[ ]Yes [ ]No [ ]N/A
SC 3.6	User data forwarding	R 1 R 2	M X	6.4.6	[ ]Yes [ ]No
SC 4.1	Route determination		M	6.5.1	[ ]Yes [ ]No
SC 4.2	Route information base establishment		М	6.5.2	[]Yes []No
SC 4.3	Multipoint relay selection		M	6.5.3	[ ]Yes [ ]No
SC 4.4	Neighbour information declaration		М	6.5.4	[]Yes []No
SC 4.5	Neighbour information recording		М	6.5.5	[ ]Yes [ ]No
SC 4.6	Source multipoint relay information declaration	R 1 R 2	M X	6.5.6	[ ]Yes [ ]No
SC 4.7	Source multipoint relay information recording	R 1 R 2	M O	6.5.7	[ ]Yes [ ]No
SC 4.8	TC-HMPDU forwarding	R 1 R 2	M X	6.5.8	[ ]Yes [ ]No
SC 4.9	Alias address learning		M	6.5.9	[]Yes []No
SC 4.10	Expired neighbour entry removal		М	6.5.10	[]Yes []No
SC 4.11		R 1 R 2	M X	6.5.11	[ ]Yes [ ]No
SC 4.12		SC 4.7 NOT SC 4.7	M N/A	6.5.12	[ ]Yes [ ]No [ ]N/A
	J	(continued)		I	

Table A.3 (concluded): Subsidiary capabilities - MAC protocol

Subsidiary capability	Conditions for status	Status	Reference	Support
Expired alias entry removal		M	6.5.13	[ ]Yes [ ]No
Expired HMPDU removal		M	6.6.1	[ ]Yes [ ]No
HMPDU selection		M	6.6.2	[ ]Yes [ ]No
HMPDU transmission		M	6.6.3	[ ]Yes [ ]No
HMPDU reception		M	6.6.4	[ ]Yes [ ]No
Expired duplicate detection entry removal		М	6.6.5	[]Yes[]No
	Expired alias entry removal Expired HMPDU removal HMPDU selection HMPDU transmission HMPDU reception Expired duplicate detection	Expired alias entry removal Expired HMPDU removal HMPDU selection HMPDU transmission HMPDU reception Expired duplicate detection	Expired alias entry removal M Expired HMPDU removal M HMPDU selection M HMPDU transmission M HMPDU reception M Expired duplicate detection M	Status         M         6.5.13           Expired HMPDU removal         M         6.6.1           HMPDU selection         M         6.6.2           HMPDU transmission         M         6.6.3           HMPDU reception         M         6.6.4           Expired duplicate detection         M         6.6.5

Comments:

## A.6.4 Protocol data units

Table A.4: HMPDUs transmitted - MAC protocol

Item	HMPDU	Conditions for	Status	Reference	Support
		status			
PDUt 1	DT-HMPDU		M	6.7.3	[ ]Yes [ ]No
PDUt 2	LR-HMPDU	SC 1.1	M	6.7.4	[ ]Yes [ ]No [ ]N/A
		NOT SC 1.1	N/A		
PDUt 3	LC-HMPDU		M	6.7.4	[ ]Yes [ ]No
PDUt 4	IP-HMPDU	R 3	M	6.7.5	[ ]Yes [ ]No [ ]N/A
		NOT R 3	N/A		
PDUt 5	GP-HMPDU	R 4	M	6.7.5	[ ]Yes [ ]No [ ]N/A
		NOT R 4	N/A		
PDUt 6	TC-HMPDU	R 1	M	6.7.6	[ ]Yes [ ]No
		R 2	Χ		
PDUt 7	HO-HMPDU		M	6.7.7	[ ]Yes [ ]No

Table A.5: HMPDUs received - MAC protocol

HMPDU	Conditions for status	Status	Reference	Support
DT-HMPDU	R 1 OR SC 3.5	M	6.7.3	[ ]Yes [ ]No [ ]N/A
	NOT (R 1 OR SC 3.5)	N/A		
LR-HMPDU		M	6.7.4	[ ]Yes [ ]No
LC-HMPDU		M	6.7.4	[ ]Yes [ ]No
IP-HMPDU	R 4	M	6.7.5	[ ]Yes [ ]No [ ]N/A
	NOT R 4	N/A		
GP-HMPDU	R 3	M	6.7.5	[ ]Yes [ ]No [ ]N/A
	NOT R 3	N/A		
TC-HMPDU	SC 4.7	M	6.7.6	[]Yes []No []N/A
	NOT SC 4.7	N/A		
HO-HMPDU		M	6.7.7	[ ]Yes [ ]No
	DT-HMPDU  LR-HMPDU  LC-HMPDU  IP-HMPDU  GP-HMPDU  TC-HMPDU	DT-HMPDU R 1 OR SC 3.5 NOT (R 1 OR SC 3.5)  LR-HMPDU LC-HMPDU IP-HMPDU R 4 NOT R 4  GP-HMPDU R 3 NOT R 3  TC-HMPDU SC 4.7 NOT SC 4.7	DT-HMPDU         R 1 OR SC 3.5 NOT (R 1 OR SC 3.5)         M N/A           LR-HMPDU         M           LC-HMPDU         M           IP-HMPDU         R 4 NOT R 4         M/A           GP-HMPDU         R 3 NOT R 3         M N/A           TC-HMPDU         SC 4.7 NOT SC 4.7         M N/A	DT-HMPDU         R 1 OR SC 3.5 NOT (R 1 OR SC 3.5)         M         6.7.3 N/A           LR-HMPDU         M         6.7.4           LC-HMPDU         M         6.7.4           IP-HMPDU         R 4 NOT R 4         M         6.7.5 N/A           GP-HMPDU         R 3 NOT R 3         M         6.7.5 N/A           TC-HMPDU         SC 4.7 NOT SC 4.7         M         6.7.6 N/A

Comments:

# A.7 CAC protocol

# A.7.1 Roles

Table A.6: Roles - CAC protocol

Item	Role	Conditions for status	Status	Reference	Support
R 5	Normal HIPERLAN implementation		O.2	11	[]Yes []No
R 6	HIPERLAN Enhancement Unit (HEU)		O.2	11	[ ]Yes [ ]No

O.2 Support of one and only one of these options is required.

Final draft prETS 300 836-2: February 1998

# A.7.2 Major capabilities

Table A.7: Major capabilities - CAC protocol

Item	Major capability	Conditions for	Status	Reference	Support
		status			
MC 7	EY-NPMA		М	8.2	[ ]Yes [ ]No
MC 7.1	Channel access in channel free condition		М	8.2.5.1	[ ]Yes [ ]No
MC 7.2	Channel access in synchronized channel condition	R 5 R 6	O M	8.2.5.2	[ ]Yes [ ]No
MC 7.3	Channel access in hidden elimination condition	MC 7.2 NOT MC 7.2	M N/A	8.2.5.3	[ ]Yes [ ]No [ ]N/A
MC 8	Channel permission function		М	8.3	[ ]Yes [ ]No
MC 8.1	Channel permission declaration	R 5 R 6	X M	8.3.1	[]Yes[]No
MC 8.2	Channel permission recording	R 5 R 6	M X	8.3.2	[ ]Yes [ ]No
MC 8.3	Channel permission invalidation	R 5 R 6	M X	8.3.3	[ ]Yes [ ]No
MC 9	User data transfer function	R 5 R 6	M X	8.4	[ ]Yes [ ]No
MC 10	HCPDU transfer function		M	8.5	[]Yes[]No
Cammante			•	*	

#### Subsidiary capabilities A.7.3

Table A.8: Subsidiary capabilities - CAC protocol

Item	Subsidiary capability	Conditions for status	Status	Reference	Support
SC 6.1	Prioritization phase	MC 7.2	М	8.2.1	[]Yes []No []N/A
	·	NOT MC 7.2	N/A		
SC 6.2	Elimination phase	MC 7.2	М	8.2.2	[ ]Yes [ ]No [ ]N/A
	·	NOT MC 7.2	N/A		
SC 6.3	Yield phase	MC 7.2	М	8.2.3	[ ]Yes [ ]No [ ]N/A
	•	NOT MC 7.2	N/A		
SC 6.4	Transmission phase		M	8.2.4	[ ]Yes [ ]No
SC 7.1	Synchronized transfer	R 5 AND MC 7.2	М	8.4.1	[]Yes []No []N/A
	invitation	R 5 AND NOT MC 7.2	N/A		
		R 6	X		
SC 7.2	Free transfer invitation	R 5	M	8.4.2	[ ]Yes [ ]No
		R 6	X		
SC 7.3	Free transfer	R 5	M	8.4.3	[ ]Yes [ ]No
	cancellation	R 6	X		
SC 7.4	User data refusal	R 5	M	8.4.4	[ ]Yes [ ]No
		R 6	Χ		
SC 7.5	User data acceptance	R 5	M	8.4.5	[ ]Yes [ ]No
		R 6	Χ		
SC 7.6	User data delivery	R 5	M	8.4.6	[ ]Yes [ ]No
		R 6	X		
SC 8.1	LBR-part checksum		М	8.5.1	[ ]Yes [ ]No
	computation				
SC 8.2	HBR-part checksum		M	8.5.2	[ ]Yes [ ]No
	computation				
SC 8.3	Hashed destination		M	8.5.3	[ ]Yes [ ]No
	address computation				
SC 8.4	LBR-HBR HCPDU		M	8.5.4	[ ]Yes [ ]No
	transmission				
SC 8.5	HCPDU reception		M	8.5.5	[ ]Yes [ ]No
SC 8.6	Rejection of HCPDU		0	8.5.5	[ ]Yes [ ]No
	containing HDACS or				
	BLIRCS error(s)				
Comments	3.				

# A.7.4 Protocol data units

Table A.9: HCPDUs transmitted - CAC protocol

Item	HCPDU	Conditions for status	Status	Reference	Support
PDUt 8	AK-HCPDU	MC 9 NOT MC 9	M N/A	8.6.3	[ ]Yes [ ]No [ ]N/A
PDUt 9	CP-HCPDU	MC 8.1 NOT MC 8.1	M N/A	8.6.4	[ ]Yes [ ]No [ ]N/A
PDUt 10	DT-HCPDU	MC 9 NOT MC 9	M N/A	8.6.5	[ ]Yes [ ]No [ ]N/A
Comments	<b>:</b> :				

Table A.10: HCPDUs received - CAC protocol

Item	HCPDU	Conditions for status	Status	Reference	Support
PDUr 8	AK-HCPDU		M	8.6.3	[ ]Yes [ ]No
PDUr 9	CP-HCPDU		M	8.6.4	[ ]Yes [ ]No
PDUr 10	DT-HCPDU		M	8.6.5	[ ]Yes [ ]No
Comments:			•		

# A.8 PHY protocol

# A.8.1 Roles

Table A.11: Roles - PHY protocol

Item	Role	Conditions for status	Status	Reference	Support
R 7	Transmitter class A, receiver class A		O.3	9.1	[ ]Yes [ ]No
R 8	Transmitter class A, receiver class B		O.3	9.1	[ ]Yes [ ]No
R 9	Transmitter class A, receiver class C		O.3	9.1	[ ]Yes [ ]No
R 10	Transmitter class B, receiver class B		O.3	9.1	[ ]Yes [ ]No
R 11	Transmitter class B, receiver class C		O.3	9.1	[ ]Yes [ ]No
R 12	Transmitter class C, receiver class C		O.3	9.1	[ ]Yes [ ]No

O.3 Support of one and only one of these options is required.

Comments:

#### Major capabilities A.8.2

Table A.12: Major capabilities - PHY protocol

Item	Major capability	Conditions for status	Status	Reference	Support
MC 11	Operation on all 5 channels		М	9.2.1	[]Yes[]No
MC 12	Channel change function		M	9.10.2	[ ]Yes [ ]No
MC 13.1	Minimum receiver input level for receiver class A	R 7 NOT R 7	M N/A	9.9.3.1	[ ]Yes [ ]No [ ]N/A
MC 13.2	Minimum receiver input level for receiver class B	R 8 OR R 10 NOT (R 8 OR R 10)	M N/A	9.9.3.1	[ ]Yes [ ]No [ ]N/A
MC 13.3	Minimum receiver input level for receiver class C	R 9 OR R 11 OR R 12 NOT (R 9 OR R 11 OR R 12)	M N/A	9.9.3.1	[ ]Yes [ ]No [ ]N/A
MC 14.1	Maximum transmitter power output for transmitter class A	R 7 OR R 8 OR R 9 NOT (R 7 OR R 8 OR R 9)	M N/A	9.8.1.6	[ ]Yes [ ]No [ ]N/A
MC 14.2	Maximum transmitter power output for transmitter class B	R 10 OR R 11 NOT (R 10 OR R 11)	M N/A	9.8.1.6	[ ]Yes [ ]No [ ]N/A
MC 14.3	output for transmitter class C	R 12 NOT R 12	M N/A	9.8.1.6	[ ]Yes [ ]No [ ]N/A

# A.8.3 Subsidiary capabilities

Table A.13: Subsidiary capabilities - PHY protocol

Item	Subsidiary capability	Conditions for status	Status	References	Support
SC 9	Unauthorized antenna prevention		М	9.3	[ ]Yes [ ]No
SC 10.1	Default defer threshold		M	9.4.1	[ ]Yes [ ]No
SC 10.2	Adaptive defer threshold scheme		0	9.4, 9.4,2, 9.4.3	[ ]Yes [ ]No
SC 11.1	Class B transmitter power control	R 10 OR R 11 NOT (R 10 OR R 11)	M N/A	9.8.1.6	[ ]Yes [ ]No [ ]N/A
SC 11.2	Class C transmitter power control	R 12 NOT R 12	M N/A	9.8.1.6	[ ]Yes [ ]No [ ]N/A
SC 12	Signal strength measurement		0	9.10.1	[ ]Yes [ ]No
SC 13	Transmitter power change function	R 10 OR R 11 OR R 12 NOT (R 10 OR R 11 OR R 12)	M N/A	9.10.3	[ ]Yes [ ]No [ ]N/A
SC 14	Channel load measurement		0	9.10.4	[ ]Yes [ ]No
Comments:					

# A.8.4 Protocol data units

Table A.14: Protocol data units transmitted - PHY protocol

Item	PHY bursts transmitted	Conditions for status	Status	Reference	Support
PDUt 11	Channel access burst		M	9.5	[ ]Yes [ ]No
PDUt 12	LBR-HBR data burst		M	9.6.2,	[ ]Yes [ ]No
PDUt 13	LBR data burst	R 5	M	9.6.3,	[ ]Yes [ ]No
		R 6	Χ		
Comments:					

Table A.15: Protocol data units received - PHY protocol

Item	PHY bursts received	Conditions for status	Status	Reference	Support
PDUr 11	Channel access burst		M	9.5	[ ]Yes [ ]No
PDUr 12	LBR-HBR data burst		M	9.6.2	[ ]Yes [ ]No
PDUr 13	LBR data burst		M	9.6.3	[ ]Yes [ ]No
Comments:					

# History

Document history						
February 1997	Public Enquiry	PE 9724:	1997-02-14 to 1997-06-13			
February 1998	Vote	V 9817:	1998-02-24 to 1998-04-24			