

**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**



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Reference

RTS/BRAN-0024TA4-3-1

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***ETSI***

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## Foreword

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

The present document is part 3, sub-part 1 of a multi-part deliverable. Full details of the entire series can be found in part 1, sub-part 1 [5].

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## Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

## 1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for TS 101 493-3 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4] and ETS 300 406 [2].

It details in tabular form the implementation options, i.e. the optional functions additional to those which are mandatory to implement.

## 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 101 493-3 (V1.2.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS)".
- [2] ETSI ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [5] 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".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 101 493-3 [1], ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [4] and the following apply:

**Implementation Conformance Statement (ICS):** statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

**ICS proforma:** document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

**Protocol ICS (PICS):** ICS for an implementation or system claimed to conform to a given protocol specification

## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AP	Access Point
CC	Central Controller
CL	Convergence Layer
DLC	Data Link Control
DM	Direct Mode
DUC	DLC User Connection
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
MAC	Medium Access Control
PDU	Protocol Data Unit
PICS	Protocol ICS
RLC	Radio Link Control
SCS	System Conformance Statement
SSCS	Service Specific Convergence Sublayer
SUT	System Under Test

---

## 4 Conformance to this PICS proforma specification

If it claims to conform to the present document, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

An PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the guidance for completion given in clause A.1.

---

## Annex A (normative): Protocol ICS proforma for TS 101 493-3

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 PICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed PICS.

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### A.1 Guidance for completing the PICS proforma

#### A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in TS 101 493-3 may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into subclauses for the following categories of information:

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the TS 101 493-3;
- global statement of conformance;
- roles;
- major capabilities;
- PDUs;
- PDU parameters.

#### A.1.2 Abbreviations and conventions

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

##### Item column

The item column contains a number which identifies the item in the table.

##### Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

## Status column

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

m	mandatory - the capability is required to be supported.
o	optional - the capability may be supported or not.
n/a	not applicable - in the given context, it is impossible to use the capability.
x	prohibited (excluded) - there is a requirement not to use this capability in the given context.
o.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
ci	conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table.
i	irrelevant (out-of-scope) - capability outside the scope of the reference specification. No answer is requested from the supplier.

NOTE 1: This use of "i" status is not to be confused with the suffix "i" to the "o" and "c" statuses above.

## Reference column

The reference column makes reference to TS 101 493-3, except where explicitly stated otherwise.

## Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7, are used for the support column:

Y or y	supported by the implementation.
N or n	not supported by the implementation.
N/A, n/a or -	no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status).

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the SCS, each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE 1: ?3: IF prof1 THEN Y ELSE N.

NOTE 2: As stated in ISO/IEC 9646-7, support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

### Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values:                    <min value> .. <max value>  
example:                                5 .. 20
- list of values:                    <value1>, <value2>, ..., <valueN>  
example:                                2, 4, 6, 8, 9  
example:                                '1101'B, '1011'B, '1111'B  
example:                                '0A'H, '34'H, '2F'H
- list of named values:            <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>)  
example:                                reject(1), accept(2)
- length:                            size (<min size> .. <max size>)  
example:                                size (1 .. 8)

### Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

### References to items

For each possible item answer (answer in the support column) within the PICS proforma a unique reference exists, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns are discriminated by letters (a, b, etc.), respectively.

EXAMPLE 2: A.5/4 is the reference to the answer of item 4 in table A.5.

EXAMPLE 3: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table A.6.

### Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

## A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in clause A.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different subclauses of the PICS proforma.

---

## A.2 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.

### A.2.1 Date of the statement

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### A.2.2 Implementation Under Test (IUT) identification

IUT name:

---

---

IUT version:

---

---

### A.2.3 System Under Test (SUT) identification

SUT name:

---

---

Hardware configuration:

---

---

Operating system:

---

### A.2.4 Product supplier

Name:

---

Address:

---

---

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

.....

.....

## A.2.5 Client (if different from product supplier)

Name:

.....

.....

.....

Telephone number:

.....

.....

.....

Facsimile number:

.....

.....

.....

E-mail address:

.....

.....

.....

## A.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS)

Name:

.....

.....

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

### A.3 Identification of the TS 101 493-3

This PICS proforma applies to the following standard:

TS 101 493-3: "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Packet based Convergence Layer; Part 3: IEEE 1394 Service Specific Convergence Sublayer (SSCS)".

### A.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No) .....

NOTE: Answering "No" to this question indicates non-conformance to the TS 101 493-3 specification.  
Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

### A.5 Roles

**Table A.1: Roles**

Item	Role	Reference	Status	Support
1	Central Controller CC	5.1	o.1	
2	Wireless Terminal WT	5.1	o.1	
o.1: It is mandatory to support at least one of these items.				

Comments: According to the answer to items of table A.1 of this proforma, the completed PICS becomes a PICS relative to an CC or to an WT. If you want to describe both CC and WT, then two copies of this PICS proforma must be filled in, one copy for CC, another one for WT.

## A.6 PICS for Wireless Terminal (WT) or Central Controller (CC) - user plane services

This clause contains the PICS proforma tables describing the protocol for user plane services related either to the Wireless Terminal (WT) or to the Central Controller (CC). They need to be completed according to the type of implementation declared in table A.1.

### A.6.1 Major capabilities

**Table A.2: Major capabilities**

Item	Capabilities	Reference	Status	Support
1	Clock synchronisation	5.3	m	
2	Asynchronous transaction data transport	5.4	m	
3	Isochronous stream data transport	5.5.1	m	
4	Asynchronous stream data transport	5.5.2	m	

Comment: Isochronous stream data transport becomes mandatory.

#### A.6.1.1 Clock Synchronisation

Table A.3 lists the individual capabilities. Tables A.4 to A.6 detail each process.

**Table A.3: Clock distribution at the WCM**

Item	Capabilities	Reference	Status	Support
1	Build up a CPCS PDU with clock information	5.3.3.1	m	
2	Deliver SSCS_PDU to the CPCS instance	5.3.3.1	m	
3	Deliver CL_CYCLE_SYNCH indication to upper layer (when CYCLE_TIME.offset_count has overflowed)	5.2.3.1.2	o	

**Table A.4: Clock distribution procedures at the WCM**

Item	Capabilities	Reference	Status	Support
1	Await DLC_MAC_FRAME_START indication	5.3.3.1	m	
2	Take snapshot of BUS_TIME, CYCLE_TIME, LOCAL_SECONDS, LOCAL_CYCLES	5.3.3.1	m	
3	Set clock info fields in SSCS PDU	5.3.3.1	m	

**Table A.5: Clock reception at the WCS**

Item	Capabilities	Reference	Status	Support
1	Check validity of clock PDU (by checking <i>frame_counter</i> field) - see table A.6	5.3.3.2	m	
2	Deliver CL_CYCLE_SYNCH indication to upper layer (when CYCLE_TIME.offset_count has overflowed)	5.2.3.1.2	m	

**Table A.6: Clock reception procedure at the WCS**

Item	Capabilities	Reference	Status	Support
1	Await DLC_MAC_FRAME_START indication	5.3.3.2	m	
2	Take snapshot of BUS_TIME (if any), CYCLE_TIME (if any), LOCAL_SECONDS, LOCAL_CYCLES and <i>frame_counter</i>	5.3.3.2	m	
3	Await corresponding packet from WCM (when <i>frame_counter</i> matches) and update clock	5.3.3.2	m	

### A.6.1.2 Asynchronous transaction data transport

Table A.7 lists the individual capabilities. Tables A.8 to A.10 detail each process.

**Table A.7: Asynchronous transaction data transport procedure at the sender**

Item	Capabilities	Reference	Status	Support
1	Check destination address to open a DLC User Connection (DUC) if not yet open (see table A.8)	5.4.4.1 (1 to 4)	m	
2	Discard invalid packets (where time_of_life<0)	5.4.4.1 - 5	m	
3	Compute time_of_death value for valid packets (where time_of_life>0) and place value in seconds/cycles fields of the packet	5.4.4.1 - 5	m	
4	Determine code type of reply (reply_missing_code, reply_busy or reply_accepted) and return it (see table A.9)	5.4.4.1 - 2,3,6	m	
5	Deliver SSCS_PDU to the CPCS instance	5.4.4.1 - 6	m	

**Table A.8: Analysis to open a DUC at the sender**

Item	Processing	Reference	Status	Support
1	Determine physicalAddress out of destination_ID.bus_ID	5.4.4.1 - 2	m	
2	Determine mac_ID_address out of physicalAddress	5.4.4.1 - 3	m	

**Table A.9: Determination of code type for CL\_ASYNC\_ACTION confirm at the sender**

Item	Processing	Reference	Status	Support
<b>1</b>	Set reply_missing code if HARP operations fail to return valid physicalAddr address	5.4.4.1 - 2	m	
<b>2</b>	Set reply_missing code if no mac_ID address corresponds to physicalAddr value	5.4.4.1 - 3	m	
<b>3</b>	Set reply_busy code if no buffer space available at lower layer	5.4.4.1 - 6	m	
<b>4</b>	Set reply_accepted code if all process correct	5.4.4.1 - 6	m	

**Table A.10: Asynchronous transaction data transport procedure at the receiver**

Item	Capabilities	Reference	Status	Support
<b>1</b>	Check header-CRC and discard corrupted packet	5.4.4.2	m	
<b>2</b>	Compute time_of_life value and set it into CL_UNITDATA	5.4.4.2	m	
<b>3</b>	Check data_CRC and set result into CL_UNITDATA	5.4.4.2	m	
<b>4</b>	Deliver CL_UNITDATA indication to IEEE1394 upper layers	5.4.4.2	m	

### A.6.1.3 Isochronous stream data transport

Table A.11 lists the individual capabilities. Tables A.12 to A.15 detail each process

**Table A.11: Isochronous stream data transport procedure at the sender**

Item	Capabilities	Reference	Status	Support
<b>1</b>	Check if multicast DLC User Connection (DUC) is open and discard request if not open	5.5.1.3.1	m	
<b>2</b>	Build up a CPCS PDU, either empty or not (see tables A.12 and A.13)	5.5.1.3.1	m	
<b>3</b>	Deliver SSCS_PDU to the CPCS instance	5.5.1.3.1	m	

**Table A.12: Build a non empty CPCS PDU at the sender**

Item	Processing	Reference	Status	Support
<b>1</b>	Collect SDUs (16, or less, or 15, or 17 according to the case)	5.5.1.3.1	m	
<b>2</b>	Set seconds and cycles fields of PDU to time_stamp value of first SDU	5.5.1.3.1	m	
<b>3</b>	Set all IEEE 1394 fields (tag, tcode, sy) in each SDU	5.5.1.3.1	m	
<b>4</b>	Set cycle_low field in each SDU	5.5.1.3.1	m	
<b>5</b>	Set data_CRC field in each SDU	5.5.1.3.1	m	

**Table A.13: Build an empty CPCS PDU at the sender**

Item	Processing	Reference	Status	Support
1	Insert an empty SDU (data length=0, data quadlets=0, data CRC=0, tag, tcode, sy set to 0)	5.5.1.3.1	m	
2	Set seconds and cycles fields of PDU to 0	5.5.1.3.1	m	

**Table A.14: Isochronous stream data transport procedure at the receiver**

Item	Capabilities	Reference	Status	Support
1	Discard corrupted SDUs (wrong data_CRC)	5.5.1.3.2	m	
2	Regenerate individual valid SDUs (see table A.15)	5.5.1.3.2	m	
3	Deliver CL_UNITDATA indication to IEEE 1394 upper layers	5.5.1.3.2	m	

**Table A.15: Regeneration of isochronous stream service data units at the receiver**

Item	Processing	Reference	Status	Support
1	Generate time_stamp value	5.5.1.3.2	m	
2	Generate the isoch_header parameters: tag, tcode, sy, channel.	5.5.1.3.2	m	

#### A.6.1.4 Asynchronous stream data transport

Table A.16 lists the individual capabilities. Table A.17 and A.18 detail each process.

**Table A.16: Asynchronous stream data transport procedure at the sender**

Item	Capabilities	Reference	Status	Support
1	Check if multicast DLC User Connection (DUC) is open for this SDU and discard request if not open	5.5.2.3.1	m	
2	Discard packets where time_of_life is negative	5.5.2.3.1	m	
3	Build up a CPCS PDU when valid (see table A.17)	5.5.2.3.1	m	
4	Deliver SSCS_PDU to the CPCS instance	5.5.2.3.1	m	

**Table A.17: Build a CPCS PDU at the sender**

Item	Processing	Reference	Status	Support
1	Set seconds and cycles fields of PDU to time_of_death computed value	5.5.2.3.1	m	
2	Set all IEEE 1394 fields (data length, tag, tcode, sy)	5.5.2.3.1	m	
3	Set data_CRC field if data_quadlets field present	5.5.2.3.1	m	

**Table A.18: Asynchronous stream data transport procedure at the receiver**

Item	Capabilities	Reference	Status	Support
1	Generate a time stamp parameter	5.5.2.3.2	m	
2	Generate the async-header parameter	5.5.2.3.2	m	
3	Generate the time of life parameter	5.5.2.3.2	m	
4	Deliver CL_ASYNC_STREAM indication, containing the generated parameters and the SDU, to IEEE1394 upper layers	5.5.2.3.2	m	

## A.6.2 PDU and Parameters

**Table A.19: SSCS\_PDU**

Item	PDU	AP or WT Sending			AP or WT Receiving		
		Reference	Status	Support	Reference	Status	Support
1	SSCS_PDU	5.4.2, 5.5.2	m		5.4.2, 5.5.2	m	

Comments: .....

**Table A.20: SSCS\_PDU fields**

Item	Fields	Reference	Status	Support
1	format	5.4.2	m	
2	Time stamp	5.4.2	m	
3	information	5.4.2	m	

**Table A.21: Format definition and values**

Item	Parameter	Reference	Status	Support	Values	
					specified	Supported
1	Iso-stream-bus-packet	5.4.2	m		0	
2	Async-stream-bus-packet	5.4.2	m		1	
3	Async-subaction	5.4.2	m		2	

**Table A.22: Asynchronous SSCS\_PDU**

Item	Fields	Reference	Status	Support
1	format = 2	5.4.2	m	
2	seconds/cycles (time-of-death)	5.4.2	m	
3	Type (of packets)	5.4.2	m	
4	destination Id	5.4.2	m	
5	tlabel	5.4.2	m	
6	rt	5.4.2	m	
7	tcode	5.4.2	m	
8	pri	5.4.2	m	
9	header quadlets	5.4.2	m	
10	header CRC	5.4.2	m	
11	data quadlets	5.4.2	m (see note)	
12	data CRC	5.4.2	m (see note)	

NOTE: Not always present.

**Table A.23: Type definition and values**

Item	Parameter	Reference	Status	Support	Values	
					specified	Supported
1	ASYNC_REQUEST	5.4.2	m		0	
2	CLOSE_REQUEST	5.4.2	m		2	
3	CLOSE_RESPONSE	5.4.2	m		3	

**Table A.24: Isochronous SSCS\_PDU**

Item	Fields	Reference	Status	Support
1	format = 0	5.5.1.2	m	
2	seconds/cycles (time stamp)	5.5.1.2	m	
3	Isochronous tagged SDU (repeat from 1 to n, see next table A.25)	5.5.1.2	m (see note)	

NOTE: Not always present.

**Table A.25: Isochronous tagged SDU**

Item	Fields	Reference	Status	Support
1	data length	5.5.1.2	m	
2	tag	5.5.1.2	m	
3	cycle low	5.5.1.2	m	
4	tcode	5.5.1.2	m	
5	sy	5.5.1.2	m	
6	data quadlets	5.5.1.2	m	
7	data CRC	5.5.1.2	m	

**Table A.26: Asynchronous stream SSCS\_PDU**

Item	Fields	Reference	Status	Support
1	format = 1	5.5.2.2	m	
2	seconds/cycles (time-of-death)	5.5.2.2	m	
3	data length (length of SDU)	5.5.2.2	m	
4	tag rt	5.5.2.2	m	
5	tcode	5.5.2.2	m	
6	sy	5.5.2.2	m	
7	data quadlets	5.5.2.2	m	
8	data CRC	5.5.2.2	m	

## A.7 PICS for Wireless Terminal (WT) or Central Controller (CC) - control plane services

This clause contains the PICS proforma tables describing the protocol for control plane services related either to the Wireless Terminal (WT) or to the Central Controller (CC). They need to be completed according to the type of implementation declared in table A.1.

### A.7.1 Service Specific Convergence Sublayer (SSCS) procedures

**Table A.27: SSCS procedures**

Item	Capabilities	Reference	Status	Support
1	Association	6.3	m	
2	Bus reset	6.4	m	
3	Clock information connection control	6.5	m	
4	CC handover	6.6	m	
5	HL2 address resolution service	6.7	m	
6	Asynchronous transaction connection control service	6.8	m	
7	Isochronous stream connection control service	6.9	m	
8	Asynchronous stream connection control service	6.10	m	

### A.7.2 SSCS\_PDU description

The following tables list the SSCS PDUs which carry the CL\_DATA parameter, which in turn carries the CL-ATTRIBUTES required by IEEE 1394 protocol.

**Table A.28: SSCS\_PDUs carrying IEEE 1394 information**

Item	PDU	WT Sending/CC receiving			CC Sending/WT Receiving		
		Reference	Status	Support	Reference	Status	Support
1	RLC_INFO	6.3, 6.4, 6.7 (see note)	m			n/a	
2	RLC_INFO_ACK		n/a		6.3, 6.4 (see note)	m	
3	RLC_DM_SETUP	6.8	m			n/a	
4	RLC_GROUP_JOIN	6.5	m			n/a	
5	RLC_GROUP_JOIN_ACK	6.5	m			n/a	

NOTE: These PDUs are optional in basic RLC.

### A.7.3 CL Information elements parameters

**Table A.29: CL data parameters**

Item	Parameter	Reference	Status	Support
1	Information element type	7.4.1, see values in 7.4.2	m	
2	Length (of information)	7.4.1	m	
3	Information element	7.4.1	m	

Comments: no change compared to base.

**Table A.30: List of information elements**

Item	Parameter	SSCS PDU holding info	Reference	Status	Support
1	EUI_64	RLC_INFO/RLC_INFO_ACK	6.3, 7.4.5	m	
2	BUS_RESET	RLC_INFO/RLC_INFO_ACK	6.4, 7.4.9	m	
3	BUS_SUSPEND	RLC_INFO/RLC_INFO_ACK	6.4, 7.4.7	m	
4	BUS_RESUME	RLC_INFO/RLC_INFO_ACK	6.4, 7.4.8	m	
5	HARP_REQUEST	RLC_INFO/RLC_INFO_ACK	6.7, 7.4.3	m	
6	HARP_RESPONSE	RLC_INFO/RLC_INFO_ACK	6.7, 7.4.4	m	
7	CHANNEL	RLC_GROUP_JOIN / RLC_GROUP_JOIN_ACK	6.3.2, 6.5, 6.7, 7.4.6	m	
8	TRANSACTION_INDICATOR	RLC_DM_SETUP	6.8, 7.4.10	m	

**Table A.31: CL attributes parameters in RLC\_INFO and RLC\_INFO\_ACK for EUI\_64**

Item	Parameter	Reference	Status	Support
1	Length = 9	6.3, 7.4.5	m	
2	GUID	6.3, 7.4.5	m	
3	node type	6.3, 7.4.5	m	

**Table A.32: CL attributes parameters in RLC\_INFO and RLC\_INFO\_ACK for BUS\_RESET**

Item	Parameter	Reference	Status	Support
1	Length = 3	6.4, 7.4.9	m	
2	New_phy_ID	6.4, 7.4.9	m	
3	mac_ID	6.4, 7.4.9	m	
4	node type	6.4, 7.4.9	m	
5	physical_ID	6.4, 7.4.9	m	

**Table A.33: CL attributes parameters in RLC\_INFO and RLC\_INFO\_ACK for BUS\_SUSPEND**

Item	Parameter	Reference	Status	Support
1	Length = 0	6.4, 6.6, 7.4.7	m	

**Table A.34: CL attributes parameters in RLC\_INFO and RLC\_INFO\_ACK for BUS\_RESUME**

Item	Parameter	Reference	Status	Support
1	Length = 2 x N + 1	6.4, 6.6, 7.4.8	m	
2	Toggle_bit	6.4, 6.6, 7.4.8	m	
3	mac_ID	6.4, 6.6, 7.4.8	m	
4	node type	6.4, 6.6, 7.4.8	m	
5	physical_ID	6.4, 6.6, 7.4.8	m	

Comments: Fields "mac\_ID, node type, physical\_ID" repeated N times when N nodes on the HL2 bus.

**Table A.35: CL attributes parameters in RLC\_INFO for HARP\_REQ**

Item	Parameter	Reference	Status	Support
1	Length = 2	6.7, 7.4.3	m	
2	bus_ID	6.7, 7.4.3	m	

**Table A.36: CL attributes parameters in RLC\_INFO and RLC\_INFO\_ACK for HARP\_RESP**

Item	Parameter	Reference	Status	Support
1	Length = 3	6.7, 7.4.4	m	
2	bus_ID	6.7, 7.4.4	m	
3	physical_ID	6.7, 7.4.4	m	

**Table A.37: CL attributes parameters in RLC\_GROUP\_JOIN for CHANNEL**

<b>Item</b>	<b>Parameter</b>	<b>Reference</b>	<b>Status</b>	<b>Support</b>
<b>1</b>	Length = 1	6.5, 7.4.6	m	
<b>2</b>	channel	6.5, 7.4.6	m	
<b>3</b>	relay	6.5, 7.4.6	m	

**Table A.38: CL attributes parameters in RLC\_SETUP and DM\_SETUP for TRANSACTION IDENTIFIER**

<b>Item</b>	<b>Parameter</b>	<b>Reference</b>	<b>Status</b>	<b>Support</b>
<b>1</b>	Length = 1	6.8, 7.4.10	m	
<b>2</b>	request	6.8, 7.4.10	m	

Comments: Request value 0 stands for Requester, Request value 1 stands for Responder.

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## History

<b>Document history</b>		
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