

Implementation of
ENV 41802-2:1992

Information systems interconnection — X.25 Protocol relaying —

Part 2: LAN Subnetwork dependent
media independent requirements

UDC 681.2.01/.02

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National foreword

This Draft for Development is identical with the European Prestandard ENV 41802-2:1992 *Information systems interconnection — X.25 Protocol relaying — Part 2: LAN Subnetwork dependent media independent requirements*, prepared by CEN/CENELEC whose members have committed themselves to making it available in an appropriate form. In the UK the Draft for Development is the form now chosen for ENVs in the information technology area.

This Draft for Development is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/6 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on interpretation, or proposals for change, and to keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

NOTE International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

After two years this ENV will be reviewed by CEN/CENELEC members with a view to its:

- conversion into a European Standard (which would be implemented in the UK as a British Standard);
- extension once for a further two years;
- replacement by a revised ENV (which would be published in the UK as a revised Draft for Development);
- withdrawal.

The future of this Draft for Development is therefore bound to that of the ENV and the Draft for Development will not be reviewed or developed separately.

This publication is not to be regarded as a British Standard.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 44 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Data processing, network interconnection, transmission, protocols, specifications

English version

Information systems interconnection — X.25 Protocol
Relaying —
Part 2: LAN Subnetwork dependent media independent
requirements

Interconnexion de systèmes d'information —
Relais du protocole X.25 —
Partie 2: Spécifications dépendant du
sous-réseau RLE et indépendantes du support

Kommunikation von Informationssystemen —
Relais für X.25 Protokolle —
Teil 2: Vom Typ des lokalen
Teilnetzes-abhängige, Medium-unabhängige
Anforderungen

This European Prestandard (ENV) was approved by CEN/CENELEC on 1991-10-17 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the ENV can be converted into an European Standard (EN).

CEN/CENELEC members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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CEN/CENELEC

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Foreword

This European Prestandard (ENV) was elaborated by the EWOS Expert Group Lower Layer (EWOS/EG LL).

It was submitted for formal vote by the CEN Central Secretariat to the members of CEN/CENELEC on 1991/07/17 with the deadline of 1991/10/17. The result of the formal vote was positive.

This ENV forms part of a six-part prestandard the remaining parts of which are:

- *Part 1: General overview and subnetwork independent requirements;*
- *Part 3: ISO 8806-3 CSMA/CD subnetwork dependent media dependent requirements;*
- *Part 4: PSDN subnetwork dependent media dependent requirements for virtual calls over a permanent access;*
- *Part 5: Profile RC51.1111 (M-IT-02 R/32 over PSTN leased line);*
- *Part 6: Profile RC51.1121 (M-IT-02 R/32 over digital data circuit/CSDN leased line).*

According to the CEN/CENELEC Common Rules, the following countries are bound to announce the existence of this European Prestandard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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Introduction

This Function Standard is defined in accordance with the principles specified by ISO/IEC TR 10000. The context of Functional Standardization is one part of the overall field of Information Technology (IT) standardization activities, covering *base standards, profiles, and registration mechanisms*. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards, and provide a basis for the development of uniform, internationally recognized system tests.

One of the most important roles for a Functional Standard is to serve as the basis for the development (by organizations other than ISO and IEC) of internationally recognized tests and test centres. Functional Standards are produced not simply to “legitimize” a particular choice of base standards and options, but to promote real system interoperability. The development and widespread acceptance of tests based on this and other Functional Standards is crucial to the successful realization of this goal.

This Functional Standard consists of several parts, of which this is Part 2. Part 1 defines the overall structure of the R/Cp.q profiles and specifies the profile requirements that are subnetwork independent. There are further parts which specify subnetwork dependent and media dependent requirements. In addition for each individual profile there is a part of this Functional Standard which identifies the specific requirements of that profile, making reference to appropriate material from Part 1 and from the subnetwork dependent parts.

1 Scope

This part of the Functional Standard specifies subnetwork-type dependent requirements applicable to an interworking unit attached to a LAN and using ISO 8802-2 LLC type 2 protocol, irrespective of the LAN medium. The operation of an interworking unit may involve relaying from one subnetwork to another, and those subnetworks may not be of the same type. This part of the Functional Standard applies only to communication over those subnetworks which are LANs using ISO 8802-2 LLC type 2.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this Functional Standard. At the time of publication, the editions indicated were valid. All documents are subject to revision and parties to agreements based on this Functional Standard are warned against automatically applying any more-recent editions of the documents listed below, since the nature of references made by Functional Standard to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and CCITT maintains published editions of its current Recommendations.

ISO 8208:1990, *Information technology — Data communications — X.25 Packet Layer Protocol for Data Terminal Equipment*.

ISO 8881:1999, *Information processing systems — Data communications — Use of the X.25 Packet Level Protocol for local area networks*.

ISO 8802-2:1990, *Information processing systems — Local area networks — Part 2: Logical link control (ISO/TC 97/SC6 N4609)*.

ENV 41802-1, *RCp.q X.25 protocol relaying — Part 1: Relaying functions, general overview and subnetwork independent requirements*.

ISO/IEC TR 10000-1:1991, *Information technology — Framework and taxonomy of International Standardized Profiles — Part 1: Framework (ISO/IEC JTC1 SG-FS N184)*.

ISO/IEC TR 10000-2:1991, *Information technology — Framework and taxonomy of International Standardized Profiles — Part 2: Taxonomy of profiles (ISO/IEC JTC1 SG-FS N185)*.

M-TT-02 (Issue 5), *CEN/CENELEC ETSI Memorandum on Taxonomy of Profiles and Directory of Functional Standards (For interworking in an OSI environment)*.

3 Definitions

The terms used in this Functional Standard are defined in the referenced base standards (see clause 2).

4 Abbreviations

Abbreviations used in this Functional Standard are defined in the referenced base standards (see clause 2).

5 Subnetwork-type dependent media independent requirements

5.1 General

The requirements in this clause specify the subnetwork-type dependent media independent requirements for relay system operation when the relay system is attached to a Local Area Network (LAN).

5.2 Static conformance requirements

5.2.1 Overall requirements

An implementation conforming to this part of this Functional Standard shall:

- a) conform to the static conformance requirements of Part 1 of this Functional Standard
- b) meet the requirements for ISO 8208 in clause 5.2.2 below
- c) meet the requirements for ISO 8802-2 in clause 5.2.3 below
- d) implement all the features identified as requirements in the ISPICS Requirements List in Annex A.

5.2.2 ISO 8208

The implementation shall:

- a) meet the requirements for the X.25 Packet Level Protocol of ISO 8208, as modified for operation over LLC type 2 in a LAN environment by ISO 8881
- b) support the following optional user facilities:
 - Non-standard Default Packet Sizes
 - Non-standard Default Window Sizes
- c) support at least the following non-standard default parameter values:
 - all non-standard default window sizes from 1 to 7
 - all non-standard default packet sizes (maximum user data field length) from 32 octets to 1 024 octets

The non-standard default values shall be agreed on a LAN-wide basis.

5.2.3 ISO 8802-2

The implementation shall:

- a) implement the functions required by ISO 8802-2 for the support of the Logical Link Control Type 2 protocol
- b) in order to achieve intercommunication agree the values of N1 and the Ack Timer on a LAN-wide basis

- c) support an Ack Timer value of 5 ± 1 seconds, and it is recommended that the Ack Timer should be configurable.

5.3 Dynamic conformance requirements

5.3.1 Overall requirements

An implementation conforming to this part of this Functional Standard shall:

- a) conform to the dynamic conformance requirements of Part 1 of this Functional Standard
- b) meet the requirements for ISO 8208 in clause 5.3.2 below
- c) meet the requirements for ISO 8802-2 in clause 5.3.3 below
- d) behave in accordance with the requirements of the ISPICS Requirements List in Annex A.

5.3.2 ISO 8208

5.3.2.1 General requirements

The implementation shall:

- a) carry out the supported ISO 8208 functions in accordance with the procedures for the X.25 Packet Level Protocol of ISO 8208, as modified for operation over LLC type 2 in a LAN environment by ISO 8881
 - b) not make use of the procedures for the operation of ISO 8208 over LLC type 1 defined in Section 3 of ISO 8881, as they are prohibited by this Functional Standard
- NOTE This does not apply to the use of ISO 10030 routing protocol which can make use of LLC type 1 in a LAN environment.
- c) support the method for determining the range of logical channels detailed in clause 5.3.2.2 below

5.3.2.2 Method for the determination of the range of logical channels

The logical channel ranges (LIC, HIC, LTC, HTC, LOC and HOC) to be used are determined by local knowledge. If local knowledge is not available, then by default only a single two-way logical channel will be used (ie LTC and HTC will be set to 1, while LIC, HIC, LOC and HOC will be set to zero). If more than one channel is available, a higher value of HTC may be negotiated using the On-line Facility Registration Facility.

If a DTE is capable of initiating a REGISTRATION REQUEST packet, then the registration parameter fields shall be set as follows.

The LIC, HIC, LOC and HOC parameters shall be set to zero. The LTC shall be set to the value 1. The value in the total number of logical channels parameter field shall be set equal to the value in the HTC parameter field.

No other optional user facilities shall be identified in the REGISTRATION REQUEST packet, and may be ignored by a responder if they are present.

If a DTE is capable of responding with a REGISTRATION CONFIRMATION packet, the maximum number of two-way logical channels allowed between the two DTEs shall be indicated in the HTC parameter field. The value in the HTC parameter field shall be less than or equal to the value requested in the HTC parameter field in the REGISTRATION REQUEST packet.

Registration of facilities normally applies in one direction only for the DTE/DCE case (ie registration of facilities is performed independently for each direction), but for the logical channel range negotiation it applies to both directions.

NOTE REGISTRATION REQUEST packet may be ignored by a responder. However, it is recommended that DTEs are capable of responding with a REGISTRATION CONFIRMATION packet even if they support only a single two-way logical channel. This will prevent unnecessary delays for the initiator in transmitting a CALL REQUEST packet. Such delays are determined by the initiator's values for timer T28 and retry counter R28.

5.3.3 ISO 8802-2

5.3.3.1 General requirements

The implementation shall:

- carry out the supported ISO 8802-2 functions in accordance with the procedures specified in ISO 8802-2
- use the LLC actual address value of "111 1110", Table 3 illustrates the coding of the DSAP and the SSAP address fields
- if a value of K other than 7 is to be used, negotiate the value to be used by XID frames according to the procedures in clause 5.3.3.2 below

5.3.3.2 Use of XID

This Functional Standard does not require an implementation to transmit XID command frames, except for the negotiation of values of K other than 7.

NOTE ISO 8802-2 requires that the receipt of an XID command frame is responded to with an XID response frame.

An implementation receiving an XID command frame addressed to the individual actual address value specified in clause 5.3.3.1 b) is required to respond with an XID response frame using the individual actual address. The implementation shall act as follows.

- Take note of the initiator's Receive Window Size, if the default value is in use this would be 7. However if the value is different, the implementation shall not use a transmit window size greater than the value indicated in the received XID command. If a transmit window size is used which is greater than the receive window size, it can lead to LLC connection resets. There is no requirement to actually use the full window size indicated in the receive XID command.
- The information field in the XID response should contain the responder's receive window size. The default window size (specified in ISO 8881) is 7.
- The initiator receiving the XID response shall note and act on the receive window size as indicated in i).

An implementation receiving an XID command frame addressed to the null address shall respond with an XID response frame using the null address in both the DSAP and SSAP fields. The implementation shall act as follows.

- The value of received window size shall be ignored.
- It is recommended that the information field in the XID response should contain: the value of the LLC types/Class set to the value indicating "Class II" and the receive window size set to "000 0000".

NOTE 1 The value for Class II is defined in ISO 8802-2 and is "1 1000".

NOTE 2 The receive window size in an XID frame associated with the null address has no meaning. Therefore, its value must be ignored. Whilst any value could be used for this field, the value "000 0000" is suggested.

Table 3 — LLC address values

	DSAP address field	SSAP address field
Field format	Address type designator bit (Individual/Group) Actual address VG D D D D D D D D	Command/response identifier bit Actual address C/R S S S S S S S S
Value	0 1 1 1 1 1 1 0	C/R 1 1 1 1 1 1 1 0

Annex A (normative)

ISPICS Requirements list

A.1 Introduction

ISO TR 10000-1 identifies 3 items to be included in an ISPICS requirements list. These are:

- general options of the profile;
- list of standards selected in the profile;
- constraints on the allowable answers in the PICS proforma of each such standard.

The first two items relate to the profile as a whole, and so are included only in those parts of this Functional Standard which are specific to individual profiles. However, each part of this Functional Profile contains the identification of those PICS proforma constraints which are within its scope.

ISO TR 10000-1 indicates that an ISPICS proforma may consist either of a simple list of constraints or of amended copies of the base PICS proforma. In this Functional Standard the former method is used.

A.2 Notation and Conventions

The notation and conventions used in this IPRL are defined in clause A.2 of Part 1 of this Functional Standard.

A.3 IPRL for ISO 8208

The relevant base standard PICS proforma is given in Annex C of ISO 8208/Add.3. This part of this Functional Standard imposes the following constraints:

General DTE characteristics:

Base Item	Description	Constraint
Ec/4	DTE/DCE (1984) operation	x
Ec/0	DTE/DCE (1980) operation	x

Default Values for Flow Control Parameters and Throughput Class:

Base Item	Description	Constraint
V1s	Default packet sizes, sending (octets)	the values 32, 64, 128, 256, 512 and 1024 shall be supported
V1r	Default packet sizes, receiving (octets)	the values 32, 64, 128, 256, 512 and 1024 shall be supported
V2s	Default window sizes, sending	the values 1 to 7 shall be supported
V2r	Default window sizes, receiving	the values 1 to 7 shall be supported

A.4 IPRL for ISO 8802-2

Since the base standard does not itself have a stable PICS proforma, interim base standard PICS proforma information is provided in Annex B. This part of this Functional Standard imposes the following constraints:

LLC type 1

General characteristics:

Base Item	Description	Constraint
B.2.4.5/UI/1	UI_CMD Transmission	i
B.2.4.5/UI/2	UI_CMD Receipt	i
B.2.4.5/XID/3	XID_CMD Transmission	c1
B.2.4.5/XID/6	XID_RSP Receipt	c1
B.2.4.5/TEST/7	TEST_CMD Transmission	i

Procedures, PDU types and Formats:

Base Item	Description	Constraint
B.2.4.6/DTS/14a	— <s> UI_CMD with P=0	i
B.2.4.6/DTS/15	— <f> UI_CMD with P=0	i
B.2.4.6/UIP/17a	Discard UI with P=1	i
B.2.4.6/UIP/17b	Retain UI with P=1	i
B.2.4.6/XIDI/22a	Initiate XID_CMD P=0	c2
B.2.4.6/XIDI/22b	Initiate XID_CMD P=1	c3
B.2.4.6/TSTI/33a	Initiate Test_CMD P=0	i
B.2.4.6/TSTI/33b	Initiate Test_CMD P=1	i

Parameter and Parameter Values:

Base Item	Description	Constraint
B.2.4.7/MXU/40	Max octets in UI PDU	i
B.2.4.7/MIN/41	Min octets in UI PDU	i

LLC type 2

Parameter and Parameter Values:

Base Item	Description	Constraint
B.2.4.16/ACKT/119b	Ack Timer Default Value	the value 5 ± 1 seconds shall be supported
B.2.4.16/MXTU/124b	Max Number of outstanding I PDU (K)	the value 7 shall be supported

Definition of conditional status items

c1	if a value of k other than 7 supported then m else o
c2	if a value of k other than 7 supported AND NOT X8/XIDI/22b then m else x
c3	if a value of k other than 7 supported AND NOT X8/XIDI/22a then m else x

Annex B (normative)

Assumed base standard PICS proformas

B.1 Introduction

This Annex contains the PICS proforma information for those base standards which do not already have an internationally stable PICS proforma.

B.2 ISO 8802-2

B.2.1 Introduction

Where base standard PICS proformas are not adequate for profile definition purposes, ISO TR 10000 provides for the necessary material to be supplied within the profile definition either by supplying the specific questions needed in addition to whatever may be available, or by supplying a complete PICS proforma. In the case of ISO 8802-2 the approach of supplying a complete PICS proforma has been adopted.

B.2.2 Abbreviations and Symbols

B.2.2.1 Status symbols

M Mandatory

O Optional

O.<i> Optional but support of at least one of the group of options labelled in sequential order is required

X Prohibited

<item>: Simple-predicate condition, dependent on the support marked for the <item>

B.2.2.2 Other symbols

<s>	Send (PDU, or field of PDU)
<r>	Receive (PDU, or field of PDU)
N/A	Not Applicable

The classifications used by the implementor in the support column are of the following form:

Y	Supported	— the item is supported by the implementation
N	Not Supported	— the item is not supported by the implementation.

B.2.3 Instructions for completing the PICS pro forma**B.2.3.1 General structure of the PICS pro forma**

The first part of the PICS pro forma Implementation Identification and Protocol Summary — is to be completed as indicated with the information necessary to identify fully both the supplier and the implementation.

The main part of the PICS pro forma is a fixed format questionnaire, divided into a number of subclauses each containing a group of individual items. Answers to the questionnaire are to be provided in the rightmost column, either by marking an answer to indicate a restricted choice (usually Yes or No), or entering a value or a set or range of values. (Note that there are some items where two or more choices from a set of possible answers can apply: all relevant choices are to be marked.)

Each item is identified by an item reference in the first column; the second column contains the question to be answered; the third column contains the reference or references to the material that specifies the item in the main body of the standard. The remaining columns record the status of the item — whether support is mandatory, optional or conditional — and provide the space for answer:

A supplier may also provide, or be required to provide, further information, categorized as either Additional Information or Exception Information. When present, each kind of additional information is to be provided in a further subclause of items labelled A.<i> or X.<i> respectively for cross-referencing purposes, where <i> is any unambiguous identification for the item (eg simply a numeral): there are no other restrictions on its format and presentation.

A completed PICS pro forma, including any Additional Information and Exception Information, is the Protocol Implementation Conformance Statement for the implementation in question.

NOTE Where an implementation is capable of being configured in more than one way, a single PICS may be able to describe all such configurations. However, the supplier has the choice of providing more than one PICS, each covering some subset of the implementation's configuration capabilities, in case this makes for easier and clearer presentation of the information.

B.2.3.2 Additional information

Items of Additional information allow a supplier to provide additional information intended to assist the interpretation of the PICS. It is not intended or expected that a large quantity will be supplied, and a PICS can be considered complete without any such information. Examples might be an outline of the ways in which a (single) implementation can be set up to operate in a variety of environments and configurations; or a brief rationale — based perhaps upon specific application needs — for the exclusion of features which, although optional, are nonetheless commonly present in implementations of the ISO 8802-2 protocol.

References to items of Additional information may be entered next to any answer in the questionnaire, and may be included in items of Exception information.

B.2.3.3 Exception information

It may occasionally happen that a supplier will wish to answer an item with mandatory or prohibited status (after any conditions have been applied) in a way that conflicts with the indicated requirement. No pre-printed answer will be found in the support column for this: instead, the supplier is required to write into the support column an X<i> reference to an item of Exception Information, and to provide the appropriate rationale in the Exception item itself.

An implementation for which an Exception item is require in this way does not conform to ISO/IEC 8802-2.

NOTE A possible reason for the situation above is that a defect in the standard has been reported, a correction for which is expected to change the requirement not met by the implementation.

When completing the questionnaire, note that there are several items where two or more choices from a set of answers can apply: all relevant choices should be marked.

B.2.3.4 Identification of Requirements

The information in the PICS pro forma does not supersede or augment the conformance requirements referenced in the main body of this Standard.

Section 1. Identification Information**B.2.4 Identification****B.2.4.1 Implementation identification**

Supplier	
Contact point for queries about the PICS	
Implementation Names(s) and Versions	
Other information necessary for full identification — eg, name(s) and version(s) for machines and/or operating systems; System Name(s)	

NOTE 1 Only the first three items are required for all implementations; other information may be completed as appropriate in meeting the requirement for full identification.

NOTE 2 The terms Name and Version should be interpreted appropriately to correspond with a supplier's terminology (eg. Type, Series, Model).

B.2.4.2 Protocol Summary, ISO/IEC DIS 8802-2:1987

Protocol Version	
Addenda Implemented (if applicable)	
Amendments Implemented	
Have any Exception items been required (see A.3.3)? No ☐ Yes ☐	
(The answer Yes means that the implementation does not conform to ISO/IEC DIS 8802-2:1987)	

Data of Statement	
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B.2.4.3 Claimed conformance to ISO/IEC DIS 8802-2:1987

Item	Question	References	Status	N/A	Support
Cls/18a	Class I supported	4	M		Y ☐ N ☐
Cls/18b	Are all mandatory features implemented	6	M		Y ☐ N ☐
Cls/19a	Class II supported	4	O		Y ☐ N ☐
Cls/19b	Are all mandatory features implemented	7	Cls/19a: M	☐	Y ☐ N ☐

B.2.4.4 Relationship of the PICS with the System Conformance Statements

If a set of interrelated OSI protocol standards has been implemented in a System, a PICS pro forma is needed for each protocol. A System which claims to implement and conform to ISO 8802-2 shall include in its itemized listing of OSI protocols PICS pro formas for the system the PICS pro forma of ISO 8802-2, in a System Conformance Statement.

Section 2. LLC Type 1 Operation Unacknowledged Connectionless-Mode Data Transfer

B.2.4.5 General Characteristics

Item	Support of LLC1 PDU types	Status	References	N/A	Support
UI/1	UI_CMD supported on transmission	M	6.1, 6.5.1		Y [] N []
UI/2	UI_CMD supported on receipt	M	6.1, 6.5.2		Y [] N []
XID/3	XID_CMD supported on transmission	O	6.6		Y [] N []
XID/4	XID_CMD supported on receipt	M	6.6		Y [] N []
XID/5	XID_RSP supported on transmission	M	6.6		Y [] N []
XID/6	XID_RSP supported on receipt	M	6.6		Y [] N []
TEST/7	TEST_CMD supported on transmission	O	6.7		Y [] N []
TEST/8	TEST_CMD supported on receipt	M	6.7		Y [] N []
TEST/9	TEST_RSP supported on transmission	M	6.7		Y [] N []
TEST/10	TEST_RSP supported on receipt	M	6.7		Y [] N []

B.2.4.6 Procedures, PDU types and Formats

Item	UI PDU Format	Status	References	N/A	Support
	Do all transmitted UI PDUs contain the following fields as specified in the given referenced clauses?				
F/11a	— DSAP address	M	3.2, 3.3		Y [] N []
F/11b	— SSAP address	M	3.2, 3.3		Y [] N []
F/11c	— Control field	M	3.2, 3.3.2, 5.4		Y [] N []
F/11d	— Information field	O	3.3.3		Y [] N []
	Are the following UI DSAP addresses supported:				
DSAP/12a	— individual	O.1	5.4.1.1.1		Y [] N []
DSAP/12b	— group	O.1	5.4.1.1.1		Y [] N []
DSAP/12c	— global	O.1	5.4.1.1.1		Y [] N []
DSAP/12d	— null	O.1	5.4.1.1.1		Y [] N [] Note 16
SSAP/13	Is the UI SSAP address the originator's individual address?	M	5.4.1.1.1		Y [] N []
	Support of Data Transfer procedure				
	Sending Information frames		6.5.1		
DTS/14a	— <s> UI_CMD with P=0	M			Y [] N []
DTS/14b	— <s> UI_CMD with P=1	X			N [] Y []
DTS/14c	— <s> UI_RSP	X			N [] Y []
	Receiving Information frames		6.5.2		
DTR/15	— <f> UI_CMD with P=0	M			Y [] N []
DTR/16	If a UI_RSP PDU is received is the frame discarded?	M	6.3, 6.5.2		Y [] N []
	If a UI_CMD with P=1 is received, is the frame:		6.3		
UIP/17a	— discarded	O.2			Y [] N []
UIP/17b	— passed to the LLC user with a flag identifying that the P bit was set to "1"	O.2			Y [] N [] Note 13
FN/18	Do all transmitted PDUs contain an integral number of octets	M	3.3.5		Y [] N []
	If the following PDUs are received from the MAC sub-layer are the treated as invalid and ignored:				
FI/19a	— contains a non-integral number of octets	M	3.3.5		Y [] N []