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Part 6: Test Suite Structure and Test Purposes (TSS&TP) specification for the general protocol

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# **Contents**

Fore	eword					5			
1	Scope					7			
2	Norma	tive referenc	es			7			
3									
	3.1 3.2	Definition	is related to cor	nformance testing		7 •			
	5.2	Deminion	is related to LT	3 300 402-2					
4	Abbrev	iations				8			
5	Test S	uite Structur	e (TSS)			9			
6	Test purposes (TP)								
•	6.1	Introducti	ion			11			
		6.1.1		Test purpose naming convention					
		6.1.2		Source of TP definition					
		6.1.3		TP structure					
		6.1.4							
	6.2								
		6.2.1	•	•					
			6.2.1.1	0ser 6.2.1.1.1	DL state 1				
				6.2.1.1.2	DL state 3				
				6.2.1.1.3	DL state 4				
				6.2.1.1.4	DL state 5.0				
				6.2.1.1.5	DL state 6.0				
				6.2.1.1.6	DL state 7.0				
				6.2.1.1.7	DL state 8.0				
			6.2.1.2	Network		29			
				6.2.1.2.1	DL state 1				
				6.2.1.2.2	DL state 4				
				6.2.1.2.3	DL state 5.0				
				6.2.1.2.4	DL state 6.0				
				6.2.1.2.5	DL state 7.0				
		6.2.2	Data contro	6.2.1.2.6	DL state 8.0				
		0.2.2	6.2.2.1						
			0.2.2.1	6.2.2.1.1	Valid behaviour	37			
			6.2.2.2	6.2.2.1.2	Inopportune behaviour	-			
				6.2.2.1.3	Syntactically invalid				
				DL state 5.0					
				6.2.2.2.1	Valid behaviour	39			
				6.2.2.2.2	Inopportune behaviour				
			6.2.2.3	6.2.2.2.3	Syntactically invalid				
				6.2.2.2.4	Timers				
					Makid babasiasa				
			6.2.2.4	6.2.2.3.1	Valid behaviour				
			0.2.2.4	6.2.2.4.1	Valid behaviour				
			6.2.2.5	6.2.2.4.2	Inopportune behaviour				
				6.2.2.4.3	Syntactically invalid				
				6.2.2.4.4	Timers				
				6.2.2.5.1	Valid behaviour				
				6.2.2.5.2	Inopportune behaviour	45			

			6.2.2.5.3	Syntactically invalid	. 47
		6.2.2.6	DL state 7.0 with	outstanding I frames	
			6.2.2.6.1	Valid behaviour	. 48
			6.2.2.6.2	Inopportune behaviour	. 49
			6.2.2.6.3	Timers	
		6.2.2.7			. 51
		-	6.2.2.7.1	Valid behaviour	. 51
			6.2.2.7.2	Inopportune behaviour	
		6.2.2.8			
			6.2.2.8.1	Valid behaviour	
			6.2.2.8.2	Inopportune behaviour	
			6.2.2.8.3	Syntactically invalid	
		6.2.2.9		outstanding I frames	
			6.2.2.9.1	Valid behaviour	
			6.2.2.9.2	Inopportune behaviour	
			6.2.2.9.3	Timers	
		6.2.2.10			
		0.2.2.	6.2.2.10.1	Valid behaviour	
			6.2.2.10.2	Inopportune behaviour	
		6.2.2.11	DL state 8.0	• •	
		0.2.2	6.2.2.11.1	Valid behaviour	
			6.2.2.11.2	Inopportune behaviour	
			6.2.2.11.3	Syntactically invalid	
		6.2.2.12		outstanding I frames	
		0.2.22	6.2.2.12.1	Valid behaviour	
			6.2.2.12.2	Inopportune behaviour	
			6.2.2.12.3	Timers	
			6.2.2.12.4	Counters	
		6.2.2.13	DL state 8.1		-
		0.2.2.10	6.2.2.13.1	Valid behaviour	
			6.2.2.13.2	Inopportune behaviour	
		6.2.2.14			
		0.2.2	6.2.2.14.1	Valid behaviour	
			6.2.2.14.2	Inopportune behaviour	
			6.2.2.14.3	Syntactically invalid	
		6.2.2.15		outstanding I frames	
		0.2.2.10	6.2.2.15.1	Valid behaviour	
			6.2.2.15.2	Inopportune behaviour	
			6.2.2.15.3	Timers	
			6.2.2.15.4	Counters	
		6.2.2.16			
		0.2.2.10	6.2.2.16.1	Valid behaviour	
			6.2.2.16.2	Inopportune behaviour	
7	Compliance				60
7	соптрпансе	•••••			. 00
8	Requirements for a	comprehensive te	esting service		. 68
∐ioto	vn /				60

# **Foreword**

This final draft European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Voting phase of the ETSI standards approval procedure.

This ETS is part 6 of a multi-part standard covering the Integrated Services Digital Network (ISDN) Digital Subscriber Signalling System No. one (DSS1) data link layer specification as described below:

Part 1:	"Conoral aspects	ri⊤i i₋⊤	Pecommendation	0 020	(1003)	modified1".
Part 1.	"General aspects	I	Recommendation	Q.920 I	(1993).	, moailleal ;

Part 2: "General protocol specification [ITU-T Recommendation Q.921 (1993), modified]";

Part 3: "Frame relay protocol specification";

Part 4: "Protocol Implementation Conformance Statement (PICS) proforma specification for the general protocol";

Part 5: "PICS proforma specification for the frame relay protocol";

Part 6: "Test Suite Structure and Test Purposes (TSS&TP) specification for the general protocol";

Part 7: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the general protocol".

# **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

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# 1 Scope

This sixth part of ETS 300 402 specifies the Test Suite Structure and Test Purposes (TSS&TP) at the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [7]) of implementations conforming to the standard for the general data link layer protocol of Digital Subscriber Signalling System No. one (DSS1) for the pan-European Integrated Services Digital Network (ISDN), ETS 300 402-2 [1].

A further part of this ETS specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on this TSS&TP.

#### 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 300 402-2 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Data link layer; Part 2: General protocol specification [ITU-T Recommendation Q.921 (1993), modified]".
[2]	ETS 300 402-4 (1996): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Data link layer; Part 4: Protocol Implementation Conformance statement (PICS) proforma for the general protocol".
[3]	ISO/IEC 9646-1: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 1: General Concepts".
[4]	ISO/IEC 9646-2: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 2: Abstract Test Suite Specification".
[5]	ISO/IEC 9646-3: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 3: The Tree and Tabular Combined Notation".
[6]	ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
[7]	ITU-T Recommendation I.411 (1993): "ISDN user network interfaces - reference configurations".

# 3 Definitions

For the purposes of this ETS, the following definitions apply, in addition to those given in ETS 300 402-2 [1]:

# 3.1 Definitions related to conformance testing

abstract test case: Refer to ISO/IEC 9646-1 [3].

Abstract Test Method (ATM): Refer to ISO/IEC 9646-1 [3].

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [3].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [3].

Page 8

Final draft prETS 300 402-6: October 1996

implicit send event: Refer to ISO/IEC 9646-3 [5].

lower tester: Refer to ISO/IEC 9646-1 [3].

point of control and observation: Refer to ISO/IEC 9646-1 [3].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [3].

PICS proforma: Refer to ISO/IEC 9646-1 [3].

Protocol Implementation eXtra Information for Testing (PIXIT): Refer to ISO/IEC 9646-1 [3].

PIXIT proforma: Refer to ISO/IEC 9646-1 [3].

system under test: Refer to ISO/IEC 9646-1 [3].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [3].

#### 3.2 Definitions related to ETS 300 402-2

Integrated Services Digital Network (ISDN): See ITU-T Recommendation I.112 [6], definition 308.

**network:** The DSS1 protocol entity at the Network side of the user-network interface where a T reference point or coincident S and T reference point applies.

**network (S/T):** The DSS1 protocol entity at the Network side of the user-network interface where a coincident S and T reference point applies.

**network (T):** The DSS1 protocol entity at the Network side of the user-network interface where a T reference point applies (user is the private ISDN).

**user:** The DSS1 protocol entity at the User side of the user-network interface where a T reference point or coincident S and T reference point applies.

**user (S/T):** The DSS1 protocol entity at the User side of the user-network interface where a coincident S and T reference point applies.

**user (T):** The DSS1 protocol entity at the User side of the user-network interface where a T reference point applies (User is the private ISDN).

# 4 Abbreviations

For the purposes of this ETS, the following abbreviations apply, in addition to those given in ETS 300 402-2 [1]:

ATM Abstract Test Method ATS Abstract Test Suite

DSS1 Digital Subscriber Signalling System No. one

ISDN Integrated Services Digital Network

IUT Implementation Under Test

PDU Protocol Data Unit

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

TP Test Purpose TSS Test Suite Structure

# 5 Test Suite Structure (TSS)

- Layer management
  - User
    - DL state 1
- · Valid behaviour
- · Syntactically invalid
- DL state 3
- Valid behaviour
- · Syntactically invalid
- Timers
- Counters
- DL state 4
- Valid behaviour
- Inopportune behaviour
- Syntactically invalid
- Timers
- DL state 5.0
- Valid behaviour
- Inopportune behaviour
- Counters
- DL state 6.0
- Valid behaviour
- Inopportune behaviour
- Counters
- DL state 7.0
- Valid behaviour
- Inopportune behaviour
- DL state 8.0
- · Valid behaviour
- Inopportune behaviour
- Network
  - DL state 1
- · Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- DL state 4
- · Valid behaviour
- Inopportune behaviour
- Syntactically invalid
- Timers
- DL state 5.0
- Inopportune behaviour
- Counters
- DL state 6.0
- Inopportune behaviour
- Counters
- DL state 7.0
- Inopportune behaviour
- DL state 8.0
- Inopportune behaviour
- Data control
  - DL state 1
- Valid behaviour
- DL state 3
- Valid behaviour
- DL state 4
- Valid behaviour
- Inopportune behaviour
- Syntactically invalid

Figure 1 (sheet 1 of 2): Test suite structure

- DL state 5.0
- Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- Timers
- DL state 5.1
- · Valid behaviour
- DL state 6.0
- Valid behaviour
- Inopportune behaviour
- Syntactically invalid
- Timers
- DL state 7.0
- Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- DL state 7.0 with outstanding I frames
  - · Valid behaviour
  - Inopportune behaviour
  - Timers
- DL state 7.1
- Valid behaviour
- Inopportune behaviour
- DL state 7.4
- Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- DL state 7.4 with outstanding I frames
  - Valid behaviour
  - Inopportune behaviour
  - Timers
- DL state 7.5
- Valid behaviour
- Inopportune behaviour
- DL state 8.0
- · Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- DL state 8.0 with outstanding I frames
  - Valid behaviour
  - Inopportune behaviour
  - Timers
  - Counters
- DL state 8.1
- · Valid behaviour
- Inopportune behaviour
- DL state 8.4
- · Valid behaviour
- Inopportune behaviour
- · Syntactically invalid
- DL state 8.4 with outstanding I frames
  - Valid behaviour
  - Inopportune behaviour
  - Timers
  - Counters
- DL state 8.5
- · Valid behaviour
- Inopportune behaviour

Figure 1 (sheet 2 of 2): Test suite structure

# 6 Test purposes (TP)

# 6.1 Introduction

For each test requirement, a TP is defined.

# 6.1.1 Test purpose naming convention

TPs are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 1).

Table 1: TP identifier naming convention scheme

Identifier:	Identifier: <suite><side>_<cate< th=""><th colspan="4">egory&gt;<state>_<group>_<n></n></group></state></th></cate<></side></suite>			egory> <state>_<group>_<n></n></group></state>			
<suite></suite>	=	suite	L2 = la	yer 2			
<side></side>	=	side	U = user N = network C = combined (user and network)				
<category></category>	=	procedure category	L D	Layer management Data control			
<state></state>	=	data link entity state	e.g.:	70, 4, 81, etc.			
<group></group>	=	group	one ch V: I: S: T: C:	aracter representing group reference according to TSS: Valid stimulus Inopportune stimulus Syntactically stimulus timers counters			
<n></n>	=	sequential number	(1-99)				

# 6.1.2 Source of TP definition

The TPs are based on ETS 300 402-2 [1].

#### 6.1.3 TP structure

Each TP has been written in a manner which is consistent with all other TPs. The intention of this is to make the TPs more readable and checkable. A particular structure has been used which is illustrated in table 2. This table should be read in conjunction with any TP, i.e. please use a TP as an example to facilitate the full comprehension of table 2.

Table 2: Structure of a single TP

TP part	Text	Example				
Header	<ld><ldentifier> tab</ldentifier></ld>	see table 1				
	<pre><paragraph base="" ets="" in="" number=""> tab</paragraph></pre>	subclause 5.3.1				
	<pre><reference base="" ets="" in="" state="" table="" to="" transition=""> [opt.]</reference></pre>	table D.1/2-1 (see note 2)				
	<pre><reference 300="" 313="" case="" i-ets="" test="" to=""> or new TC</reference></pre>	TC11001 (see note 3)				
Stimulus	Ensure that the IUT in the					
	<dl entity="" state=""></dl>	(see note 4)				
	<trigger> see below for message structure</trigger>	receiving a XXXX frame				
	or <goal></goal>	to request a				
Reaction	<action></action>	transmits, does, etc.				
	if the action is sending					
	see below for frame structure					
	<next action="">, etc.</next>					
	and enters state					
	and/or and remains in the same state(s)					
	or and enters state <state></state>					
Message	<frame type=""/>	UI, I, SABME, etc.				
structure	frame containing a					
	a) <field name=""></field>	TEI, C/R, INFO, P/F, N(R), etc.				
	field name with					
	<pre><coding field="" of="" the=""> and back to a)</coding></pre>					
NOTE 1:	Text in italics will not appear in TPs and text between <> i	s filled in for each TP and may				
	differ from one TP to the next.					
NOTE 2:	All references to state transition tables are to annex D of ITU Recommendation Q.921 as					
	to the state transition table D.1,					
	sheet 2, line 3).					
NOTE 3:	These references to I-ETS 300 313 helped in developing this ETS and are of a purely informative nature.					
NOTE 4:	corresponding to the test group.					
	(e.g. in group L70, all the test cases shall be executed from the state 7.0).					

# 6.1.4 Test strategy

As the base standard ETS 300 402-2 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and PICS specification ETS 300 402-4 [2]. The criteria applied include the following:

- only the requirements from the point of view of the T or coincident S and T reference point are considered;
- whether or not a test case can be built from the test purpose is not considered;
- as a consequence of the test method used, all information units shall be expressed in term of Protocol Data Units (PDUs). The use of primitives is considered to be not acceptable.

#### 6.2 TPs for DSS1 layer 2

All PICS items referred to in this subclause are as specified in ETS 300 402-4 [2] unless indicated otherwise by another numbered reference.

# 6.2.1 Layer Management

Selection: IUT supports TEI management procedures. PICS: MCu 3.

#### 6.2.1.1 User

**Selection:** IUT supports the user role. PICS: R 2.1

#### 6.2.1.1.1 DL state 1

#### 6.2.1.1.1.1 Valid behaviour

# L2U\_L10\_V\_1 subclause 5.3.2, table D.1/1-1

TC11004

Ensure that the IUT, in the state 1, having been requested to establish the data link,

transmits an UI frame with an Identity request message and enters the state 3.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L10 V 2 subclause 5.3.3.2

TC11001

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity check request message with Ai = 127,

transmits no frame and remains in the same state.

#### L2U\_L10\_V\_3 subclause 5.3.3.2

TC11002

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity check request message with Ai = automatic TEI value,

transmits no frame and remains in the same state.

NOTE 1: A random function can be used to generate the Ai value between 64 and 126.

#### L2U\_L10\_V\_4 subclause 5.3.3.2

TC11003

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity check request message with Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the Ai value between 0 and 63.

#### L2U L10 V 5 subclause 5.3.4

TC11005

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity remove message with Ai = 127.

transmits no frame and remains in the same state.

#### L2U L10 V 6 subclause 5.3.4

TC11006

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity remove message with Ai = automatic TEI value.

transmits no frame and remains in the same state.

NOTE 3: A random function can be used to generate the Ai value between 64 and 126.

# L2U\_L10\_V\_7 subclause 5.3.4

TC11007

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity remove message with Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 4: A random function can be used to generate the Ai value between 0 and 63.

# L2U\_L10\_V\_8 subclause 5.3.2

TC11008

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity assigned message with Ai = automatic TEI value,

transmits no frame and remains in the same state.

NOTE 5: A random function can be used to generate the Ai value between 64 and 126.

#### L2U L10 V 9 subclause 5.3.2

TC11010

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity denied message with Ai = 127,

transmits no frame and remains in the same state.

#### L2U L10 V 10 subclause 5.3.2

TC11011

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity denied message with Ai = automatic TEI value.

transmits no frame and remains in the same state.

A random function can be used to generate the Ai value between 64 and 126.

#### 6.2.1.1.1.2 Inopportune behaviour

#### L2U\_L10\_I\_1 subclause 3.3

TC11013

Ensure that the IUT, in the state 1, on receipt of an UI frame with a TEI value ≠ 127, containing a layer 3 message requesting a response.

transmits no frame and remains in the same state.

A random function can be used to generate the Ai value between 64 and 126. NOTE 1:

#### L2U L10 I 2 subclause 3.3

TC11014

Ensure that the IUT, in the state 1, on receipt of a SABME frame with P = 1,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L10 I 3 subclause 3.3

TC11015

Ensure that the IUT, in the state 1, on receipt of a DISC frame with P = 1,

transmits no frame and remains in the same state.

NOTE 3: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L10 I 4 subclause 3.3

TC11016

Ensure that the IUT, in the state 1, on receipt of a DM frame with F = 1,

transmits no frame and remains in the same state.

A random function can be used to generate the TEI value between 0 and 126.

#### L2U\_L10 I 5 subclause 3.3

TC11017

Ensure that the IUT, in the state 1, on receipt of an UA frame with F = 1,

transmits no frame and remains in the same state.

NOTE 5: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L10 I 6 subclause 3.3

TC11018

Ensure that the IUT, in the state 1, on receipt of a RR command frame with P = 1,

transmits no frame and remains in the same state.

NOTE 6: A random function can be used to generate the TEI value between 0 and 126.

#### L2U\_L10\_I\_7 subclause 3.3

TC11022

Ensure that the IUT, in the state 1, on receipt of an I frame with P = 1, containing a layer 3 message, transmits no frame and remains in the same state.

NOTE 7: A random function can be used to generate the TEI value between 0 and 126.

#### 6.2.1.1.1.3 Syntactically invalid behaviour

#### L2U L10 S 1 subclause 2.9 a)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a TEI value = 127, and without closing flag,

transmits no frame and remains in the same state.

#### L2U L10 S 2 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 1, on receipt of a frame containing 4 octets between flags (without control field octet),

#### L2U L10 S 3 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 1, on receipt of a RR frame containing 5 octets between flags (without the second control field octet),

transmits no frame and remains in the same state.

#### L2U\_L10\_S\_4 subclause 2.9 c)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a TEI value = 127 and which does not consist of an integral number of octets,

transmits no frame and remains in the same state.

# L2U\_L10\_S\_5 subclause 2.9 d)

TC11026

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a TEI value = 127 and with a FCS error,

transmits no frame and remains in the same state.

# L2U\_L10\_S\_6 subclause 2.9 e)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame with a single octet address field, , containing a layer 3 message requesting a response,

transmits no frame and remains in the same state.

# L2U\_L10\_S\_7 subclause 2.9 f)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a SAPI value not supported and a TEI value = 127,

transmits no frame and remains in the same state.

#### L2U L10 S 8 subclause 3.3.2

TC11027

Ensure that the IUT, in the state 1, on receipt of an UI frame containing, a layer 3 message requesting a response, with a TEI value = 127 and with an erroneous C/R bit value,

transmits no frame and remains in the same state.

### L2U\_L10\_S\_9 subclause 3.3.1

TC11028

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a TEI value = 127 and with an erroneous EA bit value in the first address field octet, transmits no frame and remains in the same state.

#### L2U L10 S 10 subclause 3.3.1

TC11029

Ensure that the IUT, in the state 1, on receipt of an UI frame containing a layer 3 message requesting a response, with a TEI value = 127 and with an erroneous EA bit value in the second address field octet, transmits no frame and remains in the same state.

#### L2U\_L10\_S\_11 subclauses 3.6.1, 5.8.5

TC11024

Ensure that the IUT, in the state 1, on receipt of an undefined frame,

transmits no frame and remains in the same state.

#### L2U\_L10\_S\_12 subclauses 5.8.5, 5.9.3

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame with a TEI value = 127, containing a layer 3 message requesting a response with a length exceeding N201,

transmits no frame and remains in the same state.

#### 6.2.1.1.2 DL state 3

**Selection**: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

# 6.2.1.1.2.1 Valid behaviour

#### L2U L30 V 1 subclause 5.3.2, table D.1/1-8

TC13007

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ri = own Ri value and Ai = automatic TEI value,

transmits a SABME frame with P = 1 and enters the state 5.0.

NOTE 1: A random function can be used to generate the Ai value between 64 and 126.

#### L2U L30 V 2 subclause 5.3.2

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ri = other Ri value and Ai = automatic TEI value,

transmits no frame and remains in the same state.

#### L2U L30 V 3 subclause 5.3.2, table D.1/1-10

TC13008

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity denied message with Ri = own Ri value and with Ai = 127.

transmits no frame and enters the state 1.

#### L2U L30 V 4 subclause 5.3.2

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity denied message with Ri = other Ri value and with Ai = automatic TEI value,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the Ai value between 64 and 126.

# L2U L30\_V\_5 subclause 5.3.3.2

TC13001

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity check request message with Ai = 127,

transmits no frame and remains in the same state.

# L2U L30 V 6 subclause 5.3.3.2

TC13002

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity check request message with Ai = automatic TEI value,

transmits no frame and remains in the same state.

NOTE 3: A random function can be used to generate the Ai value between 64 and 126.

# L2U\_L30\_V\_7 subclause 5.3.3.2

TC13003

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity check request message with Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 4: A random function can be used to generate the Ai value between 0 and 63.

# L2U\_L30\_V\_8 subclause 5.3.4

TC13004

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits no frame and remains in the same state.

#### L2U L30 V 9 subclause 5.3.4

TC13005

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity remove message with Ai = automatic TEI value,

transmits no frame and remains in the same state.

NOTE 5: A random function can be used to generate the Ai value between 64 and 126.

# L2U\_L30\_V\_10 subclause 5.3.4

TC13006

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity remove message with Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 6: A random function can be used to generate the Ai value between 0 and 63.

# 6.2.1.1.1.2 Inopportune behaviour

#### L2U\_L30\_I\_1 subclause 3.3

TC13011

Ensure that the IUT, in the state 3, on receipt of an UI frame with a TEI value ≠ 127, containing a layer 3 message requesting a response.

transmits no frame and remains in the same state.

NOTE 1: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L30 I 2 subclause 3.3

TC13017

Ensure that the IUT, in the state 3, on receipt of a SABME frame with P = 1,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L30 I 3 subclause 3.3

TC13018

Ensure that the IUT, in the state 3, on receipt of a DISC frame with P = 1,

transmits no frame and remains in the same state.

NOTE 3: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L30 I 4 subclause 3.3

TC13019

Ensure that the IUT, in the state 3, on receipt of a DM frame with F = 1,

transmits no frame and remains in the same state.

NOTE 4: A random function can be used to generate the TEI value between 0 and 126.

#### L2U\_L30\_I\_5 subclause 3.3

TC13020

Ensure that the IUT, in the state 3, on receipt of an UA frame with F = 1,

transmits no frame and remains in the same state.

NOTE 5: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L30 I 6 subclause 3.3

TC13021

Ensure that the IUT, in the state 3, on receipt of a RR command frame with P = 1,

transmits no frame and remains in the same state.

NOTE 6: A random function can be used to generate the TEI value between 0 and 126.

#### L2U L30 I 7 subclause 3.3

TC13025

Ensure that the IUT, in the state 3, on receipt of an I frame with P = 1, containing a layer 3 message, transmits no frame and remains in the same state.

NOTE 7: A random function can be used to generate the TEI value between 0 and 126.

#### 6.2.1.1.2.3 Syntactically invalid behaviour

# L2U\_L30\_S\_1 subclause 5.3.2

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ri = own Ri value and Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 1: A non-automatic TEI value is not allowed in the Ai field of an Identity assigned message.

# L2U\_L30\_S\_2 subclause 5.3.2

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ri = own Ri value and Ai = 127,

transmits no frame and remains in the same state.

NOTE 2: 127 is not allowed in the Ai field of an Identity assigned message.

#### L2U L30 S 3 subclause 5.3.2

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity denied message with Ri = own Ri value and Ai = non-automatic TEI value,

transmits no frame and remains in the same state.

NOTE 3: A non-automatic TEI value is not allowed in the Ai field of an Identity denied message.

# L2U L30 S 4 subclause 2.9 a)

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame, containing an Identity assigned message with Ai = automatic TEI value, without closing flag,

transmits no frame and remains in the same state.

#### L2U L30 S 5 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 3, on receipt of a frame containing 4 octets between flags (without control field octet).

transmits no frame and remains in the same state.

#### L2U L30 S 6 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 3, on receipt of a RR frame containing 5 octets between flags (without the second control field octet),

#### L2U\_L30\_S\_7 subclause 2.9 c)

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame, containing an Identity assigned message with Ai = automatic TEI value, which does not consist of an integral number of octets,

transmits no frame and remains in the same state.

#### L2U L30 S 8 subclause 2.9 d)

TC13029

Ensure that the IUT, in the state 3, on receipt of an UI frame, containing an Identity assigned message with Ai = automatic TEI value, with a FCS error.

transmits no frame and remains in the same state.

#### L2U L30 S 9 subclause 2.9 e)

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame with a single octet address field, containing an Identity assigned message with Ai = automatic TEI value,

transmits no frame and remains in the same state.

#### L2U\_L30\_S\_10 subclause 2.9 f)

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame, containing an Identity assigned message with Ai = automatic TEI value, with a SAPI not supported,

transmits no frame and remains in the same state.

#### L2U L30 S 11 subclause 3.3.2

TC13033

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ai = automatic TEI value with an erroneous C/R bit value,

transmits no frame and remains in the same state.

#### L2U L30 S 12 subclause 3.3.1

TC13034

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ai = automatic TEI value with an erroneous EA bit value in the first address field octet,

transmits no frame and remains in the same state.

#### L2U\_L30\_S\_13 subclause 3.3.1

TC13035

Ensure that the IUT, in the state 3, on receipt of an UI frame containing an Identity assigned message with Ai = automatic TEI value with an erroneous EA bit value in the second address field octet,

transmits no frame and remains in the same state.

#### L2U L30 S 14 subclauses 3.6.1, 5.8.5

new TC

Ensure that the IUT, in the state 3, on receipt of an undefined frame.

transmits no frame and remains in the same state.

#### L2U L30 S 15 subclauses 5.8.5. 5.9.3

new TC

Ensure that the IUT, in the state 3, on receipt of an UI frame with a TEI value = 127, containing an information field with a length exceeding N201,

transmits no frame and remains in the same state.

#### 6.2.1.1.2.3 **Timers**

#### L2U L30 T 1 subclause 5.3.2.1

new TC

Ensure that the IUT, in the state 3, on expiry of the timer T202,

transmits an UI frame with an Identity request message with a new Ri value and remains in the same state.

#### 6.2.1.1.2.4 **Counters**

#### subclause 5.3.2.1 L2U L30 C 1

new TC

Ensure that the IUT, in the state 3, having transmitted N202 time an UI frame with an Identity request message, on expiry of the timer T202,

transmits no frame and enters the state 1.

#### 6.2.1.1.3 DL state 4

#### 6.2.1.1.3.1 Valid behaviour

# L2U L40 V 1 subclause 5.3.2

TC14015

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity assigned message with Ai = other automatic TEI value,

transmits no frame and remains in the same state.

#### L2U L40 V 2 subclause 5.3.2

TC14016

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity denied message with Ai = 127.

transmits no frame and remains in the same state.

#### L2U L40 V 3 subclause 5.3.2

TC14018

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity denied message with Ai = other automatic TEI value,

transmits no frame and remains in the same state.

#### L2U L40 V 4 subclause 5.3.3.1

TC14001

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127,

transmits an UI frame containing an Identity check response message with Ai = own TEI value and remains in the same state.

# L2U\_L40\_V\_5 subclause 5.3.3.2

TC14002

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = own TEI value,

transmits an UI frame containing an Identity check response message with Ai = own TEI value and remains in the same state.

#### L2U\_L40\_V\_6 subclause 5.3.3.2

TC14003

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = other TEI value.

transmits no frame and remains in the same state.

#### L2U L40 V 7 subclause 5.3.4

TC14004

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits an UI frame containing an Identity request message and enters the state 1.

**Selection:** IUT supports the automatic TEI assignment procedures. MCu 3.1.1.

# L2U L40 V 8 subclause 5.3.4

TC14004

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

# L2U\_L40\_V\_9 subclause 5.3.4

TC14005

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits an UI frame containing an Identity request message and enters the state 1.

**Selection:** IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U\_L40\_V\_10 subclause 5.3.4

TC14005

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value.

transmits no frame and enters the state 1.

**Selection:** IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### L2U L40 V 11 subclause 5.3.4

TC14010

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity remove message with Ai = other TEI value.

transmits no frame and remains in the same state.

#### 6.2.1.1.3.2 Inopportune behaviour

#### L2U L40 I 1 subclause 5.3.2, 5.3.4

TC14011, TC14014

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity assigned message with Ai = own TEI value.

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: SCu 1.2 AND MCu 3.1.1.

NOTE 1: The Identity assigned message will provoke a TEI removal procedure (duplicate TEI

value assignment).

# L2U\_L40\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-7

TC24007

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits an UI frame containing an Identity request message and enters the state 1;

OI

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 2: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).`

#### L2U\_L40\_I\_3 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-7

TC24007

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 3: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

# L2U\_L40\_I\_4 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC24008

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F = 0 (MDL error D).

transmits an UI frame containing an Identity request message and enters the state 1;

10

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 4: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value assignment).

# L2U\_L40\_I\_5 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC24008

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F=0 (MDL error D),

transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 5: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value assignment).

# L2U\_L40\_I\_6 subclause 5.3.2

TC14017

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity denied message with Ai = own TEI value.

#### L2U L40 I 7 subclause 3.3.4

TC14025

Ensure that the IUT, in the state 4, on receipt of an UI frame, with a TEI value not currently assigned, containing a layer 3 message requesting a response,

transmits no frame and remains in the same state.

NOTE 6: A function can be used to generate a TEI value not currently assigned.

#### L2U L40 I 8 subclause 3.3.4

TC14026

Ensure that the IUT, in the state 4, on receipt of a SABME frame, with a TEI value not currently assigned, with P = 1,

transmits no frame and remains in the same state.

NOTE 7: A function can be used to generate a TEI value not currently assigned.

#### L2U L40 I 9 subclause 3.3.4

TC14027

Ensure that the IUT, in the state 4, on receipt of a DISC frame, with a TEI value not currently assigned, with P = 1.

transmits no frame and remains in the same state.

NOTE 8: A function can be used to generate a TEI value not currently assigned.

#### L2U L40 I 10 subclause 3.3.4

TC14028

Ensure that the IUT, in the state 4, on receipt of a DM frame, with a TEI value not currently assigned, with F = 1.

transmits no frame and remains in the same state.

NOTE 9: A function can be used to generate a TEI value not currently assigned.

#### L2U L40 I 11 subclause 3.3.4

TC14029

Ensure that the IUT, in the state 4, on receipt of an UA frame, with a TEI value not currently assigned, with F = 1,

transmits no frame and remains in the same state.

NOTE 10: A function can be used to generate a TEI value not currently assigned.

#### L2U L40 I 12 subclause 3.3.4

TC14030

Ensure that the IUT, in the state 4, on receipt of a RR command frame, with a TEI value not currently assigned, with P = 1,

transmits no frame and remains in the same state.

NOTE 11: A function can be used to generate a TEI value not currently assigned.

#### L2U\_L40\_I\_13 subclause 3.3.4

TC14034

Ensure that the IUT, in the state 4, on receipt of an I frame, with a TEI value not currently assigned, with P = 1, containing a layer 3 message,

transmits no frame and remains in the same state.

NOTE 12: A function can be used to generate a TEI value not currently assigned.

#### 6.2.1.1.3.3 Syntactically invalid behaviour

# L2U\_L40\_S\_1 subclause 2.9 a)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127, without closing flag,

transmits no frame and remains in the same state.

#### L2U\_L40\_S\_2 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 4, on receipt of a frame containing 4 octets between flags (without control field octet),

transmits no frame and remains in the same state.

#### L2U L40 S 3 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 4, on receipt of a RR frame containing 5 octets between flags (without the second control field octet),

#### L2U L40 S 4 subclause 2.9 c)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127, which does not consist of an integral number of octets,

transmits no frame and remains in the same state.

#### L2U L40 S 5 subclause 2.9 d)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127, with a FCS error,

transmits no frame and remains in the same state.

#### L2U L40 S 6 subclause 2.9 e)

new TC

Ensure that the IUT, in the state  $\frac{1}{4}$ , on receipt of an UI frame containing an Identity check request message with  $\frac{1}{4}$  is a single octet address field,

transmits no frame and remains in the same state.

# L2U\_L40\_S\_7 subclause 2.9 f)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127, with a SAPI not supported,

transmits no frame and remains in the same state.

#### L2U L40 S 8 subclause 3.3.2

TC14036

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127 containing an Identity assigned message with Ai = current TEI value with an erroneous C/R bit value.

transmits no frame and remains in the same state.

#### L2U\_L40\_S\_9 subclause 3.3.1

TC14037

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127 containing an Identity assigned message with Ai = current TEI value with an erroneous EA bit value in the first address field octet,

transmits no frame and remains in the same state.

# L2U\_L40\_S\_10 subclause 3.3.1

TC14038

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity check request message with Ai = 127 containing an Identity assigned message with Ai = current TEI value with an erroneous EA bit value in the second address field octet,

transmits no frame and remains in the same state.

### L2U\_L40\_S\_11 subclauses 3.6.1, 5.8.5

new TC

Ensure that the IUT, in the state 4, on receipt of an undefined frame,

transmits no frame and remains in the same state.

# L2U\_L40\_S\_12 subclauses 5.8.5, 5.9.3

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame with a TEI value = 127, containing an information field with a length exceeding N201,

transmits no frame and remains in the same state.

#### 6.2.1.1.3.4 Timers

# L2U\_L40\_T\_1 subclause 5.3.5.2

new TC

Ensure that the IUT, in the state 4, having transmitted an UI frame containing an Identity verify message with Ai = own TEI value, on expiry of the timer T202,

transmits an second UI frame containing an Identity verify message with Ai = own TEI value and remains in the same state.

**Selection:** SCu 1.4.2 AND MCu 3.1.1.

NOTE: The sending of an Identity verify message will be provoked by sending to the IUT an

UA frame with own TEI value assuming a duplicate TEI assignment.

#### 6.2.1.1.3.5 Counters

#### L2U L40 C 1 subclause 5.3.5.2, 5.3.4

new TC

Ensure that the IUT, in the state 4, having transmitted 2 times an UI frame containing an Identity verify message with Ai = own TEI value, on expiry of the timer T202,

transmits an UI frame containing an Identity request message and enters the state 1.

**Selection:** SCu 1.4.2 AND MCu 3.1.1.

NOTE 1: The sending of an Identity verify message will be provoked by sending to the IUT an

UA frame with own TEI value assuming a duplicate TEI assignment.

#### L2U L40 C 2 subclause 5.3.5.2, 5.3.4

new TC

Ensure that the IUT, in the state 4, having transmitted 2 times an UI frame containing an Identity verify message with Ai = own TEI value, on expiry of the timer T202,

transmits no frame and enters the state 1. **Selection:** SCu 1.4.2 AND MCu 3.1.2.

NOTE 2: The sending of an Identity verify message will be provoked by sending to the IUT an

UA frame with own TEI value assuming a duplicate TEI assignment.

#### 6.2.1.1.4 DL state 5.0

#### 6.2.1.1.4.1 Valid behaviour

# L2U L50\_V\_1 subclause 5.3.4

TC15001

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L50 V 2 subclause 5.3.4

TC15001

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity remove message with Ai = 127.

transmits no frame and enters the state 1.

**Selection:** IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

### L2U\_L50\_V\_3 subclause 5.3.4

TC15002

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value.

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U\_L50\_V\_4 subclause 5.3.4

TC15002

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

# L2U\_L50\_V\_5 subclause 5.3.4

TC15005

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity remove message with Ai = other TEI value,

# 6.2.1.1.4.2 Inopportune behaviour

#### L2U L50 I 1 subclause 5.3.2, 5.3.4

new TC

Ensure that the IUT, in the state 5.0, on receipt of an UI frame containing an Identity assigned message with Ai = own TEI value.

transmits an UI frame containing an Identity request message and enters the state 1;

٥r

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: SCu 1.2 AND MCu 3.1.1.

NOTE 1: The Identity assigned message will provoke a TEI removal procedure (duplicate TEI

value assignment).

# L2U\_L50\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC25011

Ensure that the IUT, in the state 5.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

**Selection:** IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 2: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

# L2U\_L50\_I\_3 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC25011

Ensure that the IUT, in the state 5.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 3: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

#### 6.2.1.1.4.3 Counters

# L2U L50 C 1 subclause 5.5.1.3, table II.1, table D.1/9-2

TC25031

Ensure that the IUT in state 5.0, having retransmitted N200 times SABME frames with P = 1, on expiry of timer T200,

transmits an UI frame containing an Identity request message and enters state 1;

or

transmits an UI frame containing an Identity verify message and enters state 4.

Selection: IUT supports the automatic TEI assignment procedures, PICS: MCu 3.1.1.

# L2U\_L50\_C\_2 subclause 5.5.1.3, table II.1, table D.1/9-2

TC25031

Ensure that the IUT in state 5.0, having retransmitted N200 times SABME frames with P = 1, on expiry of timer T200,

transmits no frame and enters state 1;

or

transmits an UI frame containing an Identity verify message and enters state 4.

**Selection:** IUT supports the non-automatic TEI assignment procedures, PICS: MCu 3.1.2.

# 6.2.1.1.5 DL state 6.0

#### 6.2.1.1.5.1 Valid behaviour

#### L2U L60 V 1 subclause 5.3.4

TC16001

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L60 V 2 subclause 5.3.4

TC16001

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### L2U L60 V 3 subclause 5.3.4

TC16002

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L60 V 4 subclause 5.3.4

TC16002

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value.

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### L2U\_L60\_V\_5 subclause 5.3.4

TC16005

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity remove message with Ai = other TEI value,

transmits no frame and remains in the same state.

# 6.2.1.1.5.2 Inopportune behaviour

#### L2U L60 I 1 subclause 5.3.2, 5.3.4

new TC

Ensure that the IUT, in the state 6.0, on receipt of an UI frame containing an Identity assigned message with Ai = own TEI value,

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: SCu 1.2 AND MCu 3.1.1.

NOTE 1: The Identity assigned message will provoke a TEI removal procedure (duplicate TEI

value assignment).

# L2U\_L60\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC26010

Ensure that the IUT, in the state 6.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

**Selection:** IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 2: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value assignment).

# L2U\_L60\_I\_3 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC26010

Ensure that the IUT, in the state 6.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D), transmits no frame and enters the state 1;

iansinits no name and enters the state

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 3: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

#### 6.2.1.1.5.3 Counters

#### L2U L60 C 1 subclause 5.5.1.3, table II.1, table D.1/9-2

new TC

Ensure that the IUT in state 6.0, having retransmitted N200 times DISC frames with P = 1, on expiry of timer T200.

transmits an UI frame containing an Identity request message and enters state 1;

or

transmits an UI frame containing an Identity verify message and enters state 4.

Selection: IUT supports the automatic TEI assignment procedures, PICS: MCu 3.1.1.

#### L2U L60 C 2 subclause 5.5.1.3, table II.1, table D.1/9-2

new TC

Ensure that the IUT in state 6.0, having retransmitted N200 times DISC frames with P = 1, on expiry of timer T200.

transmits no frame and enters state 1;

OI

transmits an UI frame containing an Identity verify message and enters state 4.

Selection: IUT supports the non-automatic TEI assignment procedures, PICS: MCu 3.1.2.

#### 6.2.1.1.6 DL state 7.0

#### 6.2.1.1.6.1 Valid behaviour

#### L2U L70 V 1 subclause 5.3.4

TC17001

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L70 V 2 subclause 5.3.4

TC17001

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity remove message with Ai = 127.

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

# L2U\_L70\_V\_3 subclause 5.3.4

TC17002

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value.

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

# L2U\_L70\_V\_4 subclause 5.3.4

TC17002

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### L2U L70 V 5 subclause 5.3.4

TC17005

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity remove message with Ai = other TEI value,

# 6.2.1.1.6.2 Inopportune behaviour

#### L2U\_L70\_I\_1 subclause 5.3.2, 5.3.4

new TC

Ensure that the IUT, in the state 7.0, on receipt of an UI frame containing an Identity assigned message with Ai = own TEI value.

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: SCu 1.2 AND MCu 3.1.1.

NOTE 1: The Identity assigned message will provoke a TEI removal procedure (duplicate TEI

value assignment).

# L2U\_L70\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-7

TC24031

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 2: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

# L2U\_L70\_I\_3 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-7

TC24031

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C), transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 3: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

#### L2U L70 I 4 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-8

TC24032

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits an UI frame containing an Identity request message and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 4: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

# L2U\_L70\_I\_5 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-8

TC24032

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D), transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 5: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

### 6.2.1.1.7 DL state 8.0

# 6.2.1.1.7.1 Valid behaviour

#### L2U L80 V 1 subclause 5.3.4

TC18001

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity remove message with Ai = 127.

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L80 V 2 subclause 5.3.4

TC18001

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity remove message with Ai = 127,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### subclause 5.3.4 L2U L80 V 3

TC18002

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits an UI frame containing an Identity request message and enters the state 1.

Selection: IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

#### L2U L80 V 4 subclause 5.3.4

TC18002

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity remove message with Ai = own TEI value,

transmits no frame and enters the state 1.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

#### L2U L80 V 5 subclause 5.3.4

TC18005

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity remove message with Ai = other TEI value,

transmits no frame and remains in the same state.

#### 6.2.1.1.7.2 Inopportune behaviour

#### L2U L80 I 1 subclause 5.3.2, 5.3.4

new TC

Ensure that the IUT, in the state 8.0, on receipt of an UI frame containing an Identity assigned message with Ai = own TEI value,

transmits an UI frame containing an Identity request message and enters the state 1;

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: SCu 1.2 AND MCu 3.1.1.

NOTE 1: The Identity assigned message will provoke a TEI removal procedure (duplicate TEI

value assignment).

#### L2U L80 I 2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-7

TC28019

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits an UI frame containing an Identity request message and enters the state 1;

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

**Selection:** IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 2: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value assignment).

#### subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-7 L2U\_L80\_I\_3

TC28019

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C), transmits no frame and enters the state 1;

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 3: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value assignment).

# L2U\_L80\_I\_4 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-8

エヘンタリンリ

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits an UI frame containing an Identity request message and enters the state 1;

OI

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

**Selection:** IUT supports the automatic TEI assignment procedures. PICS: MCu 3.1.1.

NOTE 4: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

#### L2U\_L80\_I\_5 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-8

TC28020

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits no frame and enters the state 1;

or

transmits an UI frame containing an Identity verify message with own TEI value and remains in the same state.

Selection: IUT supports the non-automatic TEI assignment procedures. PICS: MCu 3.1.2.

NOTE 5: The unsolicited UA frame will provoke a TEI removal procedure (duplicate TEI value

assignment).

#### 6.2.1.2 Network

**Selection:** IUT supports the network role. PICS: R 2.2

#### 6.2.1.2.1 DL state 1

#### 6.2.1.2.1.1 Valid behaviour

## L2N\_L10\_V\_1 subclause 5.3.2

new TC

Ensure that the IUT, in the state 1, having a TEI value available, on receipt of an UI frame containing an Identity request message with Ai = 127,

transmits an UI frame containing an Identity assigned message with, Ai = automatic TEI value, Ri = the Ri value previously received, and enters the state 4.

NOTE 1: A random function can be used to generate the Ri value between 0 and 65535.

#### L2N L10 V 2 subclause 5.3.2

new TC

Ensure that the IUT, in the state 1, having no TEI value available, on receipt of an UI frame containing an Identity request message with Ai = 127,

transmits an UI frame containing an Identity denied message with, Ai = 127, Ri = the Ri value previously received, and remains in the same state.

NOTE 2: A random function can be used to generate the Ri value between 0 and 65535.

# 6.2.1.2.1.2 Inopportune behaviour

#### L2N\_L10\_I\_1 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity verify message with  $Ai \neq 127$ .

transmits no frame and remains in the same state.

NOTE 1: A random function can be used to generate the TEI value between 0 and 126.

#### L2N L10 I 2 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame with a TEI value ≠ 127, containing a layer 3 message requesting a response,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the Ai value between 64 and 126.

# L2N L10 I 3 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of a SABME frame with P = 1,

transmits no frame and remains in the same state.

NOTE 3: A random function can be used to generate the TEI value between 0 and 126.

#### L2N L10 I 4 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of a DISC frame with P = 1,

transmits no frame and remains in the same state.

NOTE 4: A random function can be used to generate the TEI value between 0 and 126.

#### L2N L10 I 5 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of a DM frame with F = 1,

transmits no frame and remains in the same state.

NOTE 5: A random function can be used to generate the TEI value between 0 and 126.

#### L2N\_L10\_I\_6 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of an UA frame with F = 1,

transmits no frame and remains in the same state.

NOTE 6: A random function can be used to generate the TEI value between 0 and 126.

# L2N L10 I 7 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of a RR command frame with P = 1,

transmits no frame and remains in the same state.

NOTE 7: A random function can be used to generate the TEI value between 0 and 126.

#### L2N L10 I 8 subclause 3.3

new TC

Ensure that the IUT, in the state 1, on receipt of an I frame with P = 1, containing a layer 3 message, transmits no frame and remains in the same state.

NOTE 8: A random function can be used to generate the TEI value between 0 and 126.

#### 6.2.1.2.1.3 Syntactically invalid behaviour

# L2N\_L10\_S\_1 subclause 5.3.2

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity request message with Ai = automatic TEI value,

transmits an UI frame containing an Identity denied message with Ai = the Ai value previously received, Ri = the Ri value previously received, and remains in the same state.

NOTE 1: A random function can be used to generate the Ai value between 64 and 126 and the Ri value between 0 and 65535.

# L2N L10 S 2 subclause 5.3.2

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity request message with Ai = non automatic TEI value,

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the Ai value between 0 and 63 and the Ri value between 0 and 65535.

#### L2N L10 S 3 subclause 2.9 a)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame, containing an Identity request message with Ai = 127, without closing flag,

transmits no frame and remains in the same state.

# L2N\_L10\_S\_4 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 1, on receipt of a frame containing 4 octets between flags (without control field octet),

transmits no frame and remains in the same state.

#### L2N L10 S 5 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 1, on receipt of a RR frame containing 5 octets between flags (without the second control field octet),

transmits no frame and remains in the same state.

# L2N\_L10\_S\_6 subclause 2.9 c)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame, containing an Identity request message with Ai = 127, which does not consist of an integral number of octets,

#### L2N L10 S 7 subclause 2.9 d)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame, containing an Identity request message with Ai = 127, with a FCS error,

transmits no frame and remains in the same state.

#### L2N L10 S 8 subclause 2.9 e)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame with a single octet address field, containing an Identity request message with Ai = 127,

transmits no frame and remains in the same state.

# L2N L10 S 9 subclause 2.9 f)

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame, with a SAPI not supported and TEI = 127, transmits no frame and remains in the same state.

#### L2N\_L10\_S\_10 subclause 3.3.2

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity request message with Ai = 127 with an erroneous C/R bit value,

transmits no frame and remains in the same state.

#### L2N\_L10\_S\_11 subclause 3.3.1

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity request message with Ai = 127 with an erroneous EA bit value in the first address field octet,

transmits no frame and remains in the same state.

#### L2N L10 S 12 subclause 3.3.1

new TC

Ensure that the IUT, in the state 1, on receipt of an UI frame containing an Identity request message with Ai = 127 with an erroneous EA bit value in the second address field octet,

transmits no frame and remains in the same state.

#### L2N L10 S 13 subclauses 3.6.1, 5.8.5

TC131012

Ensure that the IUT, in the state 1, on receipt of an undefined frame,  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ 

transmits no frame and remains in the same state.

# 6.2.1.2.2 DL state 4

# 6.2.1.2.2.1 Valid behaviour

#### L2N L40 V 1 subclause 5.3.2

TC114001

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127.

transmits an UI frame containing an Identity assigned message with, Ai = automatic TEI value, Ri = the Ri value previously received, remains in the state 4 for the first TEI and enters the state 4 for the second TEI.

NOTE: A random function can be used to generate the Ri value between 0 and 65535.

#### L2N\_L40\_V\_2 subclause 5.3.5.2

TC114002

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value,

transmits an UI frame containing an Identity check request message and remains in the same state.

Selection: IUT supports TEI identity verify procedures. PICS: MCn 3.4.

# L2N\_L40\_V\_3 subclause 5.3.5.2

TC114002

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value,

transmits no frame and remains in the same state.

Selection: IUT does not support TEI identity verify procedures. PICS: NOT MCn 3.4.

#### 6.2.1.2.2.2 Inopportune behaviour

#### L2N L40 I 1 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-7

TC224006

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits two UI frames in succession containing an Identity remove message and enters the state 1;

or

transmits an UI frame containing an Identity check request message and remains in the same state.

#### L2N\_L40\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC224007

Ensure that the IUT, in the state 4, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits two UI frames in succession containing an Identity remove message and enters the state 1:

0

transmits an UI frame containing an Identity check request message and remains in the same state.

#### L2N L40 I 3 subclause 5.3.3

TC124005

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an unsolicited Identity check response message.

transmits no frame and remains in the same state.

#### L2N L40 I 4 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = other TEI value,

transmits no frame and remains in the same state.

#### L2N L40 I 5 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame, with an automatic TEI value currently not assigned, containing a layer 3 message requesting a response,

transmits no frame and remains in the same state.

NOTE 1: A function can be used to generate an automatic TEI value currently not assigned.

# L2N L40 I 6 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of a SABME frame, with an automatic TEI value currently not assigned, with P = 1,

transmits no frame and remains in the same state.

NOTE 2: A function can be used to generate an automatic TEI value currently not assigned.

#### L2N L40 I 7 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of a DISC frame, with an automatic TEI value currently not assigned, with P = 1,

transmits no frame and remains in the same state.

NOTE 3: A function can be used to generate an automatic TEI value currently not assigned.

# L2N\_L40\_I\_8 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of a DM frame, with an automatic TEI value currently not assigned, with F = 1,

transmits no frame and remains in the same state.

NOTE 4: A function can be used to generate an automatic TEI value currently not assigned.

# L2N L40 I 9 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of an UA frame, with an automatic TEI value currently not assigned, with F = 1,

transmits no frame and remains in the same state.

NOTE 5: A function can be used to generate an automatic TEI value currently not assigned.

# L2N\_L40\_I\_10 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of a RR command frame, with an automatic TEI value currently not assigned, with P = 1,

transmits no frame and remains in the same state.

NOTE 6: A function can be used to generate an automatic TEI value currently not assigned.

# L2N L40 I 11 subclause 3.3.4

new TC

Ensure that the IUT, in the state 4, on receipt of an I frame, with an automatic TEI value currently not assigned, with P = 1, containing a layer 3 message,

transmits no frame and remains in the same state.

NOTE 7: A function can be used to generate an automatic TEI value currently not assigned.

#### 6.2.1.2.2.3 Syntactically invalid behaviour

#### L2N L40 S 1 subclause 5.3.2

TC134018

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = automatic TEI value,

transmits an UI frame containing an Identity denied message with Ai = the Ai value previously received, Ri = the Ri value previously received, and remains in the same state.

NOTE 1: A random function can be used to generate the Ai value between 64 and 126 and the Ri value between 0 and 65535.

#### L2N L40 S 2 subclause 5.3.2

TC134019

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = non automatic TEI value.

transmits no frame and remains in the same state.

NOTE 2: A random function can be used to generate the Ai value between 0 and 63 and the Ri value between 0 and 65535.

#### L2N L40 S 3 subclause 5.3.5.2

TC124006

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = 127.

transmits no frame and remains in the same state.

# **L2N\_L40\_S\_4** subclause 2.9 a)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127, without closing flag,

transmits no frame and remains in the same state.

#### L2N L40 S 5 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 4, on receipt of a frame containing 4 octets between flags (without control field octet).

transmits no frame and remains in the same state.

# L2N L40 S 6 subclause 2.9 b)

new TC

Ensure that the IUT, in the state 4, on receipt of a RR frame containing 5 octets between flags (without the second control field octet),

transmits no frame and remains in the same state.

# L2N\_L40\_S\_7 subclause 2.9 c)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127, which does not consist of an integral number of octets,

transmits no frame and remains in the same state.

# L2N\_L40\_S\_8 subclause 2.9 d)

TC134029

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127, with a FCS error,

transmits no frame and remains in the same state.

# L2N\_L40\_S\_9 subclause 2.9 e)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127 with a single octet address field,

transmits no frame and remains in the same state.

# L2N\_L40\_S\_10 subclause 2.9 f)

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127, with a SAPI not supported,

#### L2N L40 S 11 subclause 3.3.2

TC134020

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127 an erroneous C/R bit value,

transmits no frame and remains in the same state.

#### L2N L40 S 12 subclause 3.3.1

TC134021

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127 with an erroneous EA bit value in the first address field octet.

transmits no frame and remains in the same state.

#### L2N L40 S 13 subclause 3.3.1

TC134023

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity request message with Ai = 127 with an erroneous EA bit value in the second address field octet,

transmits no frame and remains in the same state.

# L2N\_L40\_S\_14 subclause 3.3.2

TC134026

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = 127 an erroneous C/R bit value,

transmits no frame and remains in the same state.

#### L2N L40 S 15 subclause 3.3.1

TC134027

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = 127 with an erroneous EA bit value in the first address field octet,

transmits no frame and remains in the same state.

#### L2N L40 S 16 subclause 3.3.1

TC134028

Ensure that the IUT, in the state 4, on receipt of an UI frame containing an Identity verify message with Ai = 127 with an erroneous EA bit value in the second address field octet.

transmits no frame and remains in the same state.

#### L2N\_L40\_S\_17 subclauses 3.6.1, 5.8.5

new TC

Ensure that the IUT, in the state 4, on receipt of an undefined frame,

transmits no frame and remains in the same state.

# L2N\_L40\_S\_18 subclauses 5.8.5, 5.9.3

new TC

Ensure that the IUT, in the state 4, on receipt of an UI frame with own TEI value, containing an information field with a length exceeding N201,

transmits no frame and remains in the same state.

#### 6.2.1.2.2.4 Timers

# **L2N\_L40\_T\_1** subclause 5.3.5.2

TC114003

Ensure that the IUT, in the state 4, having transmitted an UI frame containing an Identity check request message, on expiry of the timer T201,

transmits an second UI frame containing an Identity check request message and remains in the same state.

#### 6.2.1.2.2.5 Counter

#### L2N\_L40\_C\_1 subclause 5.3.5.2, 5.3.4

TC114004

Ensure that the IUT, in the state 4, having transmitted 2 times an UI frame containing an Identity check request message, on expiry of the timer T201,

transmits no frame and enters the state 1.

#### 6.2.1.2.3 DL state 5.0

#### 6.2.1.2.3.1 Valid behaviour

#### L2N L50 V 1 subclause 5.3.5.2

New

Ensure that the IUT, in the state 5, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value,

transmits an UI frame containing an Identity check request message and remains in the same state.

**Selection:** IUT supports TEI identity verify procedures. PICS: MCn 3.4.

# 6.2.1.2.3.2 Inopportune behaviour

#### L2N L50 I 1 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC225011

Ensure that the IUT, in the state 5.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits two UI frames in succession containing an Identity remove message and enters the state 1;

or

transmits an UI frame containing an Identity check request message and remains in the same state.

#### 6.2.1.2.3.3 Counters

# L2N\_L50\_C\_1 subclause 5.5.1.3, table II.1, table D.1/9-2

TC215005

Ensure that the IUT in state 5.0, having retransmitted N200 times SABME frames with P = 1 (MDL error G), on expiry of timer T200,

transmits an UI frame containing an Identity check request message and enters state 4.

# 6.2.1.2.4 DL state 6.0

#### 6.2.1.2.4.1 Valid behaviour

# **L2N\_L60\_V\_1** subclause 5.3.5.2

New

Ensure that the IUT, in the state 6, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value,

transmits an UI frame containing an Identity check request message and remains in the same state.

**Selection:** IUT supports TEI identity verify procedures. PICS: MCn 3.4.

# 6.2.1.2.4.2 Inopportune behaviour

# L2N\_L60\_I\_1 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.1/2-9

TC226010

Ensure that the IUT, in the state 6.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits two UI frames in succession containing an Identity remove message and enters the state 1:

٥r

transmits an UI frame containing an Identity check request message and remains in the same state

### 6.2.1.2.4.3 Counters

# L2N\_L60\_C\_1 subclause 5.5.1.3, table II.1, table D.1/9-2

new TC

Ensure that the IUT in state 5.0, having retransmitted N200 times DISC frames with P = 1 (MDL error H), on expiry of timer T200,

transmits an UI frame containing an Identity check request message and enters state 4.

#### 6.2.1.2.5 DL state 7.0

#### 6.2.1.2.5.1 Valid behaviour

# L2N L70 V 1 subclause 5.3.5.2

New

Ensure that the IUT, in the state 7, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value,

transmits an UI frame containing an Identity check request message and remains in the same state.

**Selection:** IUT supports TEI identity verify procedures. PICS: MCn 3.4.

# 6.2.1.2.5.2 Inopportune behaviour

#### L2N L70 I 1 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-7

TC227052

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits two UI frames in succession containing an Identity remove message and enters the state 1:

or

transmits an UI frame containing an Identity check request message and remains in the same state.

# L2N\_L70\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.2/2-8

TC227053

Ensure that the IUT, in the state 7.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits two UI frames in succession containing an Identity remove message and enters the state 1;

10

transmits an UI frame containing an Identity check request message and remains in the same state.

#### 6.2.1.2.6 DL state 8.0

# 6.2.1.2.6.1 Valid behaviour

#### L2N\_L60\_V\_1 subclause 5.3.5.2

Nov

Ensure that the IUT, in the state 8, on receipt of an UI frame containing an Identity verify message with Ai = own TEI value.

transmits an UI frame containing an Identity check request message and remains in the same state.

**Selection:** IUT supports TEI identity verify procedures. PICS: MCn 3.4.

# 6.2.1.2.6.2 Inopportune behaviour

# L2N\_L80\_I\_1 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-7

TC228049

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 1 (MDL error C),

transmits two UI frames in succession containing an Identity remove message and enters the state 1:

10

transmits an UI frame containing an Identity check request message and remains in the same state.

# L2N\_L80\_I\_2 subclause 5.3.4, 5.5.4, 5.8.8, table II.1, table D.3/2-8

TC228050

Ensure that the IUT, in the state 8.0, on receipt of an unsolicited UA frame with F = 0 (MDL error D),

transmits two UI frames in succession containing an Identity remove message and enters the state 1:

10

transmits an UI frame containing an Identity check request message and remains in the same state.

#### 6.2.2 Data control

#### 6.2.2.1 DL state 4

#### 6.2.2.1.1 Valid behaviour

#### L2C D40 V 1 subclause 5.5.1.2, table D.1/1-1

new TC

Ensure that the IUT in state 4, having been requested to establish the data link,

transmits a SABME frame with P = 1 and enters state 5.0.

Selection: IUT supports the self initiated establishment procedures, PICS: MCu 5.1.1.

#### L2C D40 V 2 subclause 5.2.2, table D.1/1-7

new TC

Ensure that the IUT in state 4, having been requested to transmit unacknowledged information,

transmits an UI frame with P = 0 and remains in the same state.

**Selection:** IUT supports the unacknowledged information transfer service, PICS: MCu 2.2.

# L2C\_D40\_V\_3 subclause 5.5.1.2, table D.1/2-1

TC24001

Ensure that the IUT in state 4, on receipt of a SABME frame with P = 1 and being able to enter state 7.0, transmits an UA frame with F = 1 and enters state 7.0.

## L2C D40 V 4 subclause 5.5.1.2, table D.1/2-2

new TC

Ensure that the IUT in state 4, on receipt of a SABME frame with P=1 and being unable to enter state 7.0.

transmits a DM frame with F = 1 and remains in the same state.

## 6.2.2.1.2 Inopportune behaviour

#### L2C D40 I 1 subclause 5.5.1.2, table D.1/2-3

TC24002

Ensure that the IUT in state 4, on receipt of a SABME frame with P = 0 and being able to enter state 7.0, transmits an UA frame with F = 0 and enters state 7.0.

#### L2C D40 I 2 subclause 5.5.1.2, table D.1/2-4

new TC

Ensure that the IUT in state 4, on receipt of a SABME frame with P = 0 and being unable to enter state 7.0,

transmits a DM frame with F = 0 and remains in the same state.

## L2C\_D40\_I\_3 subclause 5.5.4, table D.1/2-5

TC24005

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1, transmits a DM frame with F = 1 and remains in the same state.

## L2C\_D40\_I\_4 subclause 5.5.4, table D.1/2-6

TC24006

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 0, transmits a DM frame with F = 0 and remains in the same state.

#### L2C\_D40\_I\_5 subclause 5.5.4, table D.1/2-10

TC24009

Ensure that the IUT in state 4, on receipt of a DM frame with F = 1,

transmits no frame and remains in the same state.

## L2C\_D40\_I\_6 subclause 5.5.4, table D.1/2-11

TC24003

Ensure that the IUT in state 4, on receipt of a DM frame with F = 0 and being able to enter state 7.0, transmits a SABME frame with P = 1 and enters state 5.0.

#### L2C\_D40\_I\_7 subclause 5.5.4, table D.1/2-12

new TC

Ensure that the IUT in state 4, on receipt of a DM frame with F = 0 and being unable to enter state 7.0, transmits no frame and remains in the same state.

## L2C\_D40\_I\_8 subclause 5.5.4, table D.1/3-4

TC24018

Ensure that the IUT in state 4, on receipt of a FRMR response frame with F = 1 rejecting DM, transmits no frame and remains in the same state.

#### subclause 5.5.4, table D.1/4-1 L2C D40 I 9

TC24010

Ensure that the IUT in state 4, on receipt of a RR command frame with P = 1, transmits no frame and remains in the same state.

#### L2C D40 I 10 subclause 5.5.4, table D.1/4-4

TC24011

Ensure that the IUT in state 4, on receipt of a RR response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D40 I 11 subclause 5.5.4, table D.1/5-1

TC24014

Ensure that the IUT in state 4, on receipt of a REJ command frame with P = 1, transmits no frame and remains in the same state.

#### L2C D40 I 12 subclause 5.5.4, table D.1/5-4

TC24015

Ensure that the IUT in state 4, on receipt of a REJ response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D40 I 13 subclause 5.5.4, table D.1/6-1

TC24012

Ensure that the IUT in state 4, on receipt of a RNR command frame with P = 1, transmits no frame and remains in the same state.

#### L2C D40\_I\_14 subclause 5.5.4, table D.1/6-4

TC24013

Ensure that the IUT in state 4, on receipt of a RNR response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D40 I 15 subclause 5.5.4, table D.1/7-1

TC24016

Ensure that the IUT in state 4, on receipt of an I frame with P = 1 which contains a layer 3 RELEASE message,

transmits no frame and remains in the same state.

#### 6.2.2.1.3 Syntactically invalid

#### L2C D40 S 1 subclause 2.9 a)

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 without closing flag, transmits no frame and remains in the same state.

#### L2C D40 S 2 subclause 2.9 b)

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which is too short (without control field octet).

transmits no frame and remains in the same state.

#### L2C D40 S 3 subclause 2.9 c)

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which does not consist of an integral number of octets,

transmits no frame and remains in the same state.

#### L2C D40 S 4 subclause 2.9 d)

TC24025

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains a frame check sequence error,

transmits no frame and remains in the same state.

#### L2C\_D40\_S\_5 subclause 2.9 e)

new TC

Ensure that the IUT in state 4, on receipt of a too short DISC frame with P = 1 which contains a single octet address field,

transmits no frame and remains in the same state.

#### L2C D40 S 6 subclause 2.9 f)

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains a SAPI value not supported,

transmits no frame and remains in the same state.

Selection: IUT does not support SAPu 1 or SAPu 2 or SAPu 3.

#### L2C D40 S 7 subclause 3.3.1

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains an erroneous Address field extension bit value in the first address field octet,

transmits no frame and remains in the same state.

#### L2C D40 S 8 subclause 3.3.1

new TC

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains an erroneous Address field extension bit value in the second address field octet.

transmits no frame and remains in the same state.

#### L2C D40 S 9 subclause 3.3.2

TC24019

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains an erroneous Command/response field bit value,

transmits no frame and remains in the same state.

#### L2C\_D40\_S\_10 subclauses 3.6.1, 5.8.5, table D.1/10

new TC

Ensure that the IUT in state 4, on receipt of an undefined frame,

transmits no frame and remains in the same state.

#### L2C D40 S 11 subclauses 3.6.4, 5.8.5, table D.1/10

TC24022

Ensure that the IUT in state 4, on receipt of a DISC frame with P = 1 which contains an information field = '00'O (unnumbered frame with incorrect length),

transmits no frame and remains in the same state.

#### 6.2.2.2 DL state 5.0

Selection: IUT supports the self initiated establishment procedures, PICS: MCu 5.1.1.

#### 6.2.2.2.1 Valid behaviour

## L2C\_D50\_V\_1 subclause 5.5.1.2, table D.1/2-7

TC25001

Ensure that the IUT in state 5.0, on receipt of an UA frame with F = 1, enters state 7.0.

### L2C\_D50\_V\_2 subclause 5.5.1.2, table D.1/2-10

TC25002

Ensure that the IUT in state 5.0, on receipt of a DM frame with F = 1, enters state 4.

## L2C\_D50\_V\_3 subclauses 5, 5.8.6, table D.1/3-1

TC25004

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 1 rejecting a SABME frame,

transmits no frame and remains in the same state.

## 6.2.2.2.2 Inopportune behaviour

## L2C\_D50\_I\_1 subclause 5.5.5.1, table D.1/2-1

TC25007

Ensure that the IUT in state 5.0, on receipt of a SABME frame with P = 1, transmits an UA frame with F = 1 and remains in the same state.

## L2C D50 I 2 subclause 5.5.5.1, table D.1/2-3

TC25008

Ensure that the IUT in state 5.0, on receipt of a SABME frame with P = 0, transmits an UA frame with F = 0 and remains in the same state.

## L2C\_D50\_I\_3 subclause 5.5.5.2, table D.1/2-5

TC25009

Ensure that the IUT in state 5.0, on receipt of a DISC frame with P = 1, transmits an DM frame with F = 1 and remains in the same state.

# L2C\_D50\_I\_4 subclause 5.5.5.2, table D.1/2-6

TC25010

Ensure that the IUT in state 5.0, on receipt of a DISC frame with P = 0, transmits an DM frame with F = 0 and remains in the same state.

#### subclauses 5.3.4.2, 5.8.7, table 9, table II.1, table D.1/2-11 L2C D50 I 5

TC25012

Ensure that the IUT in state 5.0, on receipt of an unsolicited DM frame with F = 0, transmits no frame and remains in the same state.

#### L2C D50 I 6 subclause 5, 5.8.6, table D.1/3-3

TC25020

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 1 rejecting UA, transmits no frame and remains in the same state.

#### subclauses 5, 5.8.6, table D.1/3-4

TC25021

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 1 rejecting DM, transmits no frame and remains in the same state.

#### L2C D50 I 8 subclauses 5, 5.8.6, table D.1/3-5

TC25022

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits no frame and remains in the same state.

#### L2C D50 I 9 subclauses 5, 5.8.6, table D.1/3-6

TC25023

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 1 rejecting a RNR response frame.

transmits no frame and remains in the same state.

#### L2C D50\_I\_10 subclause -, table D.1/4-1

TC25013

Ensure that the IUT in state 5.0, on receipt of a RR command frame with P = 1, transmits no frame and remains in the same state.

#### subclause 5.8.7, table 9, table D.1/4-2

TC25014

Ensure that the IUT in state 5.0, on receipt of a RR response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D50 I 12 subclause -, table D.1/5-1

TC25017

Ensure that the IUT in state 5.0, on receipt of a REJ command frame with P = 1, transmits no frame and remains in the same state.

#### subclause 5.8.7, table 9, table D.1/5-4 L2C D50 I 13

TC25018

Ensure that the IUT in state 5.0, on receipt of a REJ response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D50 I 14 subclause -, table D.1/6-1

TC25015

Ensure that the IUT in state 5.0, on receipt of a RNR command frame with P = 1, transmits no frame and remains in the same state.

#### L2C D50 I 15 subclause 5.8.7, table 9, table D.1/6-4

TC25016

Ensure that the IUT in state 5.0, on receipt of a RNR response frame with F = 1, transmits no frame and remains in the same state.

#### L2C D50 I 16 subclause -, table D.1/7-1

TC25019

Ensure that the IUT in state 5.0, on receipt of an I frame with P = 0, transmits no frame and remains in the same state.

#### Syntactically invalid 6.2.2.2.3

#### L2C D50 S 1 subclause 5.8.5, table D.1/10-2

TC25025

Ensure that the IUT in state 5.0, on receipt of a DISC frame with P = 1 containing an information field, transmits no frame and remains in the same state.

#### L2C D50 S 2 subclause 5.8.5, table D.1/10-5

TC25027

Ensure that the IUT in state 5.0, on receipt of a FRMR response frame with F = 0 which contains an information field.

transmits no frame and remains in the same state.

#### L2C D50\_S\_3 subclause 5.8.5, table D.1/10-6

Ensure that the IUT in state 5.0, on receipt of a RR command frame with P = 1 which contains an information field,

transmits no frame and remains in the same state.

#### L2C D50 S 4 subclause 5.8.5, table D.1/10-7

TC25024

Ensure that the IUT in state 5.0, on receipt of an I frame with an information field which exceeds N201 octets.

transmits no frame and remains in the same state.

#### subclause 5.8.5, table D.1/10-8 L2C D50 S 5

TC25028

Ensure that the IUT in state 5.0, on receipt of an undefined frame,

transmits no frame and remains in the same state.

#### L2C D50 S 6 subclause 5.8.4

TC25029

Ensure that the IUT in state 5.0, on receipt of an I frame with P = 0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

#### 6.2.2.2.4 **Timers**

#### L2C D50\_T\_1 subclause 5.5.1.3, table D.1/9-1

TC25030

Ensure that the IUT in state 5.0, on expiry of timer T200,

transmits a SABME frame with P = 1 and remains in the same state.

To test the duration of timer T200 is also part of this test.

#### 6.2.2.3 DL state 5.1

#### 6.2.2.3.1 Valid behaviour

#### L2C D51 V 1 subclause 5.7, table D.1/2-7

TC25101

Ensure that the IUT in state 5.1, having one I frame in queue and no I frame is unacknowledged, on receipt of an UA frame with F = 1,

transmits the I frame with P = 0 and enters state 7.0.

#### subclause 5.7, table D.1/2-8

TC25102

Ensure that the IUT in state 5.1, having one I frame in queue and one I frame is unacknowledged, on receipt of an UA frame with F = 1,

transmits no frame and enters state 7.0.

#### DL state 6.0 6.2.2.4

#### 6.2.2.4.1 Valid behaviour

Selection: IUT supports the self initiated termination of multiple frame operation, PICS: MCu 5.2.1.

#### L2C D60 V 1 subclause 5.5.3.2. table D.1/2-7

TC26002

Ensure that the IUT in state 6, on receipt of a UA frame with F = 1. transmits no frame and enters state 4.

#### L2C\_D60\_V\_2 subclause 5.5.3.2, table D.1/2-10

TC26001

Ensure that the IUT in state 6, on receipt of a DM frame with F = 1,

transmits no frame and enters state 4.

#### L2C D60 V 3 subclauses 5, 5.8.6, table D.1/3-2

TC26003

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 1 rejecting a DISC frame. transmits no frame and remains in the same state.

## 6.2.2.4.2 Inopportune behaviour

#### L2C D60 I 1 subclause 5.5.5.2, table D.1/2-1

TC26008

Ensure that the IUT in state 6, on receipt of a SABME frame with P = 1, transmits a DM frame with F = 1 and remains in the same state.

#### L2C D60 I 2 subclause 5.5.5.2, table D.1/2-3

TC26009

Ensure that the IUT in state 6, on receipt of a SABME frame with P = 0, transmits a DM frame with F = 0 and remains in the same state.

#### L2C\_D60\_I\_3 subclause 5.5.5.1, table D.1/2-5

TC26006

Ensure that the IUT in state 6, on receipt of a DISC frame with P = 1, transmits an UA frame with F = 1 and remains in the same state.

## L2C\_D60\_I\_4 subclause 5.5.5.1, table D.1/2-6

TC26007

Ensure that the IUT in state 6, on receipt of a DISC frame with P = 0, transmits an UA frame with F = 0 and remains in the same state.

#### L2C D60 I 5 subclause 5.8.7, table 9, table II.1, table D.1/2-11

TC26011

Ensure that the IUT in state 6, on receipt of an unsolicited DM frame with F = 0, transmits no frame and remains in the same state.

#### L2C D60 I 6 subclauses 5, 5.8.6, table D.1/3-3

TC26019

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 1 rejecting UA, transmits no frame and remains in the same state.

## L2C\_D60\_I\_7 subclauses 5, 5.8.6, table D.1/3-4

TC26020

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 1 rejecting DM, transmits no frame and remains in the same state.

## L2C\_D60\_I\_8 subclauses 5, 5.8.6, table D.1/3-5

TC26021

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits no frame and remains in the same state.

## L2C D60 I 9 subclauses 5, 5.8.6, table D.1/3-6

TC26022

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 1 rejecting a RNR response frame,

transmits no frame and remains in the same state.

#### L2C D60 I 10 subclause -, table D.1/4-1

TC26012

Ensure that the IUT in state 6, on receipt of a RR command frame with P = 1, transmits no frame and remains in the same state.

### L2C\_D60\_I\_11 subclause 5.8.7, table 9, table D.1/4-4

TC26013

Ensure that the IUT in state 6, on receipt of a RR response frame with F = 1, transmits no frame and remains in the same state.

#### L2C\_D60\_I\_12 subclause -, table D.1/5-1

TC26016

Ensure that the IUT in state 6, on receipt of a REJ command frame with P = 1, transmits no frame and remains in the same state.

#### L2C\_D60\_I\_13 subclause 5.8.7, table 9, table D.1/5-4

TC26017

Ensure that the IUT in state 6, on receipt of a REJ response frame with F = 1, transmits no frame and remains in the same state.

## L2C\_D60\_I\_14 subclause -, table D.1/6-1

TC26014

Ensure that the IUT in state 6, on receipt of a RNR command frame with P = 1, transmits no frame and remains in the same state.

#### L2C D60 I 15 subclause 5.8.7, table 9, table D.1/6-4

TC26015

Ensure that the IUT in state 6, on receipt of a RNR response frame with F = 1, transmits no frame and remains in the same state.

## L2C\_D60\_I\_16 subclause -, table D.1/7-1

TC26018

Ensure that the IUT in state 6, on receipt of an I frame with P=0,

transmits no frame and remains in the same state.

## 6.2.2.4.3 Syntactically invalid

#### L2C D60 S 1 subclause 5.8.5, table D.1/10

TC26024

Ensure that the IUT in state 6, on receipt of a DISC frame with P = 1 containing an information field, transmits no frame and remains in the same state.

#### L2C\_D60\_S\_2 subclause 5.8.5, table D.1/10

TC2602

Ensure that the IUT in state 6, on receipt of a FRMR response frame with F = 0 which contains an information field,

transmits no frame and remains in the same state.

## L2C\_D60\_S\_3 subclause 5.8.5, table D.1/10

TC26025

Ensure that the IUT in state 6, on receipt of a RR command frame with P=1 which contains an information field.

transmits no frame and remains in the same state.

#### L2C\_D60\_S\_4 subclause 5.8.5, table D.1/10

TC26023

Ensure that the IUT in state 6, on receipt of an I frame with an information field which exceeds N201 octets.

transmits no frame and remains in the same state.

#### L2C\_D60\_S\_5 subclause 5.8.5, table D.1/10

TC26027

Ensure that the IUT in state 6, on receipt of an undefined frame,

transmits no frame and remains in the same state.

#### L2C D60 S 6 subclause 5.8.4

TC26028

Ensure that the IUT in state 6, on receipt of an I frame with P = 0 which contains a frame check sequence error.

transmits no frame and remains in the same state.

#### 6.2.2.4.4 Timers

## L2C\_D60\_T\_1 subclause 5.5.3.3, table D.1/9-1

TC26005

Ensure that the IUT in state 6, on expiry of timer T200,

transmits a DISC frame with P=1 and remains in the same state.

NOTE: To test the duration of timer T200 is also part of this test.

#### 6.2.2.5 DL state 7.0

#### 6.2.2.5.1 Valid behaviour

# L2C\_D70\_V\_1 subclause 5.7.1, table D.2/1-1

new TC

Ensure that the IUT in state 7.0, to request the establishment of the multiple frame operation,

discards the I queue, transmits a SABME frame with P = 1 and enters state 5.0.

**Selection:** IUT supports the self initiated establishment of multiple frame operation, PICS: MCu 5.1.1.

#### L2C D70 V 2 subclause 5.5.3.2, table D.2/1-2

new TC

Ensure that the IUT in state 7.0, to request the release of the multiple frame operation,

discards the I queue, transmits a DISC frame with P = 1 and enters state 6.

**Selection:** IUT supports the self initiated termination of multiple frame operation, PICS: MCu 5.2.1.

# L2C\_D70\_V\_3 subclause 5.61, table D.2/1-4

TC27005

Ensure that the IUT in state 7.0, having been requested to send an I frame,

transmits an I frame with P=0 and remains in the same state.

NOTE 1: The sending of an I frame can be provoked by sending a layer 3 message to the IUT requesting a response.

## L2C\_D70\_V\_4 subclause 5.2.2, table D.2/1-7

new TC

Ensure that the IUT in state 7.0, having been requested to send an UI frame,

transmits an UI frame with P = 0 and remains in the same state.

Selection: IUT supports the unacknowledged information transfer service, PICS: MCu 2,

NOT (MCu 1.1 OR MCu 1.4.

NOTE 2: May be possible only for the network.

#### L2C D70 V 5 subclause 5.5.3.2, table D.2/2-5

TC27012

Ensure that the IUT in state 7.0, on receipt of a DISC frame with P = 1,

discards the I queue, transmits an UA frame with F = 1 and enters state 4.

# L2C\_D70\_V\_6 subclause 3.6.5, table D.2/2-11

new TC

Ensure that the IUT in state 7.0, on receipt of an UI frame with current TEI and layer 3 content, transmits no frame and remains in the same state.

#### L2C D70 V 7 subclause 3.6.6, table D.2/4-1

TC27016

Ensure that the IUT in state 7.0, having stopped timer T200, on receipt of a RR command frame with P = 1.

transmits a RR response frame with F = 1 and remains in the same state.

NOTE 3: RR with P = 1 sent after T203 expiry on the tester side.

#### L2C D70 V 8 subclause 5.6.3, table D.2/4-2

TC27017

Ensure that the IUT in state 7.0, on receipt of a RR command frame with P = 0, transmits no frame and remains in state 7.0.

#### L2C D70 V 9 subclause 5.6.1, table D.2

new TC

Ensure that the IUT in state 7.0, having I frames queued up, on receipt of a RR response frame with F = 1,

transmits the I frames not exceeding the maximum number of outstanding I frames k.

## L2C D70 V 10 subclause 5.6.4, table D.2/5-5

TC27009

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on receipt of a REJ command frame with P = 1,

transmits a RR response frame with F = 1, subsequently transmits the corresponding I frame and remains in the same state.

NOTE 4: An I frame will be received as soon as the IUT is able to send it.

## L2C D70 V 11 subclause 5.6.4, table D.2/5-6

TC27010

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on receipt of a REJ command frame with P = 0,

transmits the corresponding I frame and remains in the same state.

NOTE 5: An I frame will be received as soon as the IUT is able to send it.

#### L2C\_D70\_V\_12 subclause 5.6.4, table D.2/5-7

TC27080

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on receipt of a REJ response frame with F = 0,

transmits the corresponding I frame and remains in the same state.

NOTE 6: An I frame will be received as soon as the IUT is able to send it.

#### L2C D70 V 13 subclause 5.6.4, table D.2/5-8

TC27036

Ensure that the IUT in state 7.0, on receipt of a REJ response frame with F = 1, transmits the corresponding I frame and remains in the same state.

#### L2C D70 V 14 subclause 5.6.5, table D.2/6-1

TC27006

Ensure that the IUT in state 7.0, on receipt of a RNR command frame with P = 1, transmits a RR response frame with F = 1 and enters state 7.4.

## L2C\_D70\_V\_15 subclause 5.6.5, table D.2/6-2

TC27007

Ensure that the IUT in state 7.0, on receipt of a RNR command frame with P = 0, transmits no frame and enters state 7.4.

#### L2C D70 V 16 subclause 5.6.5, table D.2/6-3

TC27008

Ensure that the IUT in state 7.0, on receipt of a RNR response frame with F = 0, transmits no frame and enters state 7.4.

#### L2C\_D70\_V\_17 subclause 5.6.3.2, table D.2/7-1

TC27002

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on receipt of an I frame with P = 1,

transmits a RR response frame with F = 1 and remains in the same state.

NOTE 7: An I frame with P = 1 and N(R) = V(A)+1 is accepted as acknowledgement.

#### L2C\_D70\_V\_18 subclauses 3.5.2.1, 5.6.2, 5.6.3.2, table D.2/7-2

TC27003

Ensure that the IUT in state 7.0, receiving continuously I frames with P = 0 and N(S) sequentially numbered from 0 through 127,

transmits a RR response with F = 0 and remains in the same state;

or

transmits an I frame with P = 0 as response to each I frame and remains in the same state.

#### L2C D70 V 19 subclause 5.6.3.2. table D.2/7-2

TC27004

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on receipt of an I frame with P = 0.

transmits a RR response frame with F = 0 and remains in the same state.;

01

transmits an I frame with P = 0 as acknowledgement and remains in the same state.

NOTE 8: An I frame with P = 1 and N(R) = V(A)+1 is accepted as acknowledgement.

#### 6.2.2.5.2 Inopportune behaviour

#### L2C\_D70\_I\_1 subclauses 5.7.1, 5.7.2, table D.2/2-1

TC27022

Ensure that the IUT in state 7.0, on receipt of a SABME frame with P = 1, transmits an UA frame with F = 1 and remains in the same state.

#### L2C D70 I 2 subclauses 5.7.1, 5.7.2, table D.2/2-2

new TC

Ensure that the IUT in state 7.0, having transmitted an I frame, on receipt of a SABME frame with P = 1, discards the I queue, transmits an UA frame with F = 1 and remains in the same state.

NOTE 1: the sending of a layer 3 message can be provoked by sending a layer 3 message to the IUT requesting a response.

#### L2C D70 I 3 subclauses 5.7.1, 5.7.2, table D.2/2-3

TC27023

Ensure that the IUT in state 7.0, on receipt of a SABME frame with P = 0, transmits an UA frame with F = 0 and remains in the same state.

#### L2C D70 I 4 subclauses 5.7.1, 5.7.2, table D.2/2-4

new TC

Ensure that the IUT in state 7.0, having transmitted an I frame, on receipt of a SABME frame with P = 0, discards the I queue, transmits an UA frame with F = 0 and remains in the same state.

NOTE 2: the sending of a layer 3 message can be provoked by sending a layer 3 message to the IUT requesting a response.

#### L2C D70 I 5 subclause 5.5.3.2, table D.2/2-6

TC27013

Ensure that the IUT in state 7.0, on receipt of a DISC frame with P = 0, transmits an UA frame with F = 0 and enters state 4.

## L2C\_D70\_I\_6 subclause 5.8.7, table 9, table D.2/2-9

TC27033

Ensure that the IUT in state 7.0, on receipt of an unsolicited DM frame with F = 1, transmits no frame and remains in the same state.

#### L2C D70 I 7 subclauses 5.7.1, 5.8.7, table 9, table D.2/2-10

TC27024

Ensure that the IUT in state 7.0, on receipt of an unsolicited DM frame with F = 0, transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D70\_I\_8 subclauses 5.7.1, 5.8.6, table D.2/3-3

new TC

Ensure that the IUT in state 7.0, on receipt of a FRMR response frame with F = 1 rejecting an UA frame, transmits a SABME frame with P = 1 and enters state 5.1.

NOTE 3: The IUT should have sent an UA frame before having received the FRMR

# L2C\_D70\_I\_9 subclauses 5.7.1, 5.8.6, table D.2/3-5

TC27049

Ensure that the IUT in state 7.0, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits a SABME frame with P = 1 and enters state 5.1.

NOTE 4: The IUT should have sent an I frame before having received the FRMR response frame.

#### L2C D70 I 10 subclauses 5.7.1, 5.8.6, table D.2/3-6

new TC

Ensure that the IUT in state 7.0, on receipt of a FRMR response frame with F = 1 rejecting a RR frame, transmits a SABME frame with P = 1 and enters state 5.1.

NOTE 5: The IUT should have sent a RR frame before having received the FRMR response frame.

# L2C\_D70\_I\_11 subclause 5.6.3, table D.2/4-4

TC27034

Ensure that the IUT in state 7.0, on receipt of a RR response frame with F = 1, transmits no frame and remains in the same state.

## L2C\_D70\_I\_12 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/4-13

TC27037

Ensure that the IUT in state 7.0, on receipt of a RR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 I 13 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/4-14

TC27040

Ensure that the IUT in state 7.0, on receipt of a RR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D70\_I\_14 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/4-15

TC27046

Ensure that the IUT in state 7.0, on receipt of a RR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_I\_15 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/4-16

TC27043

Ensure that the IUT in state 7.0, on receipt of a RR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_I\_16 subclauses 5.6.4, 5.7.1, 5.8.2, 5.8.5, table D.2/5-9

TC27039

Ensure that the IUT in state 7.0, on receipt of a REJ command frame with P=1 and invalid N(R), transmits a RR response frame with F=1, subsequently a SABME frame with P=1 and enters state 5.1.

## L2C D70 I 17 subclauses 5.6.4, 5.7.1, 5.8.2, 5.8.5, table D.2/5-10

TC27042

Ensure that the IUT in state 7.0, on receipt of a REJ command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 I 18 subclauses 5.6.4, 5.7.1, 5.8.2, 5.8.5, table D.2/5-11

TC27048

Ensure that the IUT in state 7.0, on receipt of a REJ response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_I\_19 subclauses 5.6.4, 5.7.1, 5.8.2, 5.8.5, table D.2/5-12

TC27045

Ensure that the IUT in state 7.0, on receipt of a REJ response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_I\_20 subclause 5.6.5, table D.2/6-4

TC27035

Ensure that the IUT in state 7.0, on receipt of a RNR response frame with F = 1, transmits no frame and enters state 7.4.

# L2C\_D70\_I\_21 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-9

TC27038

Ensure that the IUT in state 7.0, on receipt of a RNR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

# L2C\_D70\_I\_22 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-10

TC27041

Ensure that the IUT in state 7.0, on receipt of a RNR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 I 23 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-11

TC27047

Ensure that the IUT in state 7.0, on receipt of a RNR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D70\_I\_24 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-12

TC27044

Ensure that the IUT in state 7.0, on receipt of a RNR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D70\_I\_25 subclauses 3.6.7, 5.8.1, table D.2/7-3

TC27027

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 1 and invalid N(S), transmits a REJ response frame with F = 1 and enters state 7.1.

## L2C\_D70\_I\_26 subclauses 3.6.7, 5.8.1, table D.2/7-4

TC27028

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 0 and invalid N(S), transmits a REJ response frame with F = 0 and enters state 7.1.

#### L2C D70 I 27 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/8-5

TC27025

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 1 and invalid N(R),

transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 I 28 subclauses 5.7.1, 5.8.2, 5.8.5, table D.2/8-6

TC27026

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 I 29 subclauses 3.6.7, 5.8.1, 5.8.2, 5.8.5, table D.2/8-7

TC27029

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 1 and invalid N(R) and N(S), transmits a REJ response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_I\_30 subclauses 3.6.7, 5.8.1, 5.8.2, 5.8.5, table D.2/8-8

TC27030

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 0 and invalid N(R) and N(S), transmits a REJ response frame with F = 0, subsequently a SABME frame with P = 1 and enters state 5.1.

# 6.2.2.5.3 Syntactically invalid

#### L2C\_D70\_S\_1 subclause 5.8.5, table D.2/10-2

TC27055

Ensure that the IUT in state 7.0, on receipt of a DISC frame with P = 1 containing an information field, transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_S\_2 subclause 5.8.5, table D.2/10-5

TC27057

Ensure that the IUT in state 7.0, on receipt of a FRMR response frame with F = 0 which contains an information field.

transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D70\_S\_3 subclause 5.8.5, table D.2/10-6

TC27056

Ensure that the IUT in state 7.0, on receipt of a RR command frame with P=1 which contains an information field,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D70\_S\_4 subclauses 5.8.5, 5.9, table D.2/10-7

TC27054

Ensure that the IUT in state 7.0, on receipt of an I frame with an information field which exceeds N201 octets,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D70 S 5 subclause 3.3.2

TC27051

Ensure that the IUT in state 7.0, on receipt of an I frame which contains a Command/response field bit incorrectly set indicating a response frame type,

transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D70\_S\_6 subclause 5.8.5, table D.2/10-8

TC27053

Ensure that the IUT in state 7.0, on receipt of an undefined frame, transmits a SABME frame with P = 1 and enters state 5.1.

## L2C D70 S 7 subclauses 2.9, 5.8.4

TC27079

Ensure that the IUT in state 7.0, having transmitted an I frame which is already acknowledged, on receipt of an invalid frame (modulo 8 RR command frame with P = 1),

transmits no frame and remains in the same state.

#### L2C\_D70\_S\_8 subclauses 2.9, 5.8.4

TC27058

Ensure that the IUT in state 7.0, on receipt of an I frame with P = 0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

## L2C\_D70\_S\_9 subclauses 2.9, 5.8.4

TC27077

Ensure that the IUT in state 7.0, having transmitted a RR response frame with F = 1, on receipt of an I frame with P = 0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

## 6.2.2.6 DL state 7.0 with outstanding I frames

#### 6.2.2.6.1 Valid behaviour

# L2C\_D70OI\_V\_1 subclause 5.6.3.2, table D.2/4-3

TC27075

Ensure that the IUT in state 7.0, having transmitted two I frames, on receipt of a RR response frame with F = 0.

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C D70OI V 2 subclause 5.6.3.2, table D.2/4-5

TC27060

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RR command frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

# L2C\_D70OI\_V\_3 subclause 5.6.3.2, table D.2/4-6

TC27059

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RR command frame with P = 0 which does not acknowledge the last transmitted I frame,

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C\_D70OI\_V\_4 subclause 5.6.3.2, table D.2/4-7

TC27061

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RR response frame with F = 0 which does not acknowledge the last transmitted I frame,

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D700I V 5 subclause 5.6.4 a), table D.2/5-5

TC27064

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a REJ command frame with P = 1.

transmits a RR response frame with F=1, subsequently the rejected I frames and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 1: An I frame will be received as soon as the IUT is able to send it.

#### L2C D7001 V 6 subclause 5.6.4 a), table D.2/5-6

TC27063

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a REJ command frame with P = 0,

transmits the rejected I frames and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 2: An I frame will be received as soon as the IUT is able to send it.

## L2C\_D70OI\_V\_7 subclause 5.6.4 a), table D.2/5-7

TC27074

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a REJ response frame with F = 0,

transmits the rejected I frames and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 3: An I frame will be received as soon as the IUT is able to send it.

## L2C\_D70OI\_V\_8 subclause 5.6.5, table D.2/6-5

TC27067

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RNR command frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and enters state 7.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

# L2C\_D70OI\_V\_9 subclause 5.6.5, table D.2/6-6

TC27066

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RNR command frame with P = 0 which does not acknowledge the last transmitted I frame,

transmits no frame and enters state 7.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D700I V 10 subclause 5.6.5, table D.2/6-7

TC27068

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RNR response frame with F = 0 which does not acknowledge the last transmitted I frame,

transmits no frame and enters state 7.4.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

# L2C\_D70OI\_V\_11 subclause 5.6.3.2, table D.2/7-5

TC27071

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C D70OI V 12 subclause 5.6.3.2, table D.2/7-6

TC27070

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 0 and remains in the same state.

or

transmits an I frame with P = 0 as acknowledgement and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.6.2 Inopportune behaviour

## L2C\_D70OI\_I\_1 subclause 5.6.3.2, table D.2/4-8

TC27062

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RR response frame with F = 1 which does not acknowledge the last transmitted I frame,

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

# L2C\_D70OI\_I\_2 subclause 5.6.4 a), table D.2/5-8

TC27065

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a REJ response frame with F = 1,

transmits the rejected I frames and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE: An I frame will be received as soon as the IUT is able to send it.

### L2C D70OI I 3 subclause 5.6.5, table D.2/6-8

TC27069

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of a RNR response frame with F = 1 which does not acknowledge the last transmitted I frame,

transmits no frame and enters state 7.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C\_D70OI\_I\_4 subclause 5.8.1, table D.2/7-7

TC27073

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 1 and enters state 7.1.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D700I I 5 subclause 5.8.1, table D.2/7-8

TC27072

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 0 and enters state 7.1.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.6.3 Timers

#### L2C\_D70\_T\_1 subclause 5.6.7, table D.2/9-1

TC27078

Ensure that the IUT in state 7.0, having transmitted an I frame with P = 0, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

OI

transmits an I frame with P = 1 and enters state 8.0.

NOTE 1: Simulation of RR frame loss. To test the duration of timer T200 is also part of this test.

## L2C\_D70\_T\_2 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and an I frame with P = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 2: To test the duration of timer T200 is also part of this test.

# L2C\_D70\_T\_3 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and an I frame with P = 0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 3: To test the duration of timer T200 is also part of this test.

## L2C\_D70\_T\_4 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and a RR command frame with P = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 4: To test the duration of timer T200 is also part of this test.

## L2C D70 T 5 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and a RR command frame with P=0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 5: To test the duration of timer T200 is also part of this test.

## L2C\_D70\_T\_6 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and a RR response frame with F = 0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 6: To test the duration of timer T200 is also part of this test.

#### L2C\_D70\_T\_7 subclauses 5.6.3.2, 5.6.7, table D.2/9-1

new TC

Ensure that the IUT in state 7.0, having transmitted I frames which are still unacknowledged and a RR response frame with F = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 7: To test the duration of timer T200 is also part of this test.

## L2C\_D70\_T\_8 subclauses 5.9.8, 5.10.3, table D.2/9-3

new TC

Ensure that the IUT in state 7.0, on expiry of timer T203,

transmits a RR command frame with P = 1 and enters state 8.0.

Selection: IUT supports the data link layer monitor function, PICS MCu 5.5, TMu 3.

NOTE 8: To test the duration of timer T203 is also part of this test.

#### 6.2.2.7 DL state 7.1

#### 6.2.2.7.1 Valid behaviour

#### L2C D71 V 1 subclauses 5.8.1, 5.6.2, table D.2/7-1

TC27101

Ensure that the IUT in state 7.1, on receipt of an I frame with P=1 and correct send and receive sequence numbers,

transmits a RR response frame with F = 1 and enters state 7.0.

## L2C\_D71\_V\_2 subclauses 5.8.1, 5.6.2, table D.2/7-2

TC27102

Ensure that the IUT in state 7.1, on receipt of an I frame with P = 0 and correct send and receive sequence numbers,

transmits a RR response frame with F = 0 and enters state 7.0.

٥r

transmits an I frame with P = 0 as acknowledgement and enters state 7.0.

#### 6.2.2.7.2 Inopportune behaviour

## L2C\_D71\_I\_1 subclause 5.8.1, table D.2/7-3

TC27103

Ensure that the IUT in state 7.1, on receipt of an I frame with P = 1 and invalid N(S), transmits a RR response frame with F = 1 and remains in the same state.

#### L2C D71 I 2 subclause 5.8.1, table D.2/7-4

TC27104

Ensure that the IUT in state 7.1, on receipt of an I frame with P = 0 and invalid N(S), transmits no frame and remains in the same state.

#### 6.2.2.8 DL state 7.4

## 6.2.2.8.1 Valid behaviour

## L2C\_D74\_V\_1 subclause 5.5.3.2, table D.2/2-5

TC27408

Ensure that the IUT in state 7.4, on receipt of a DISC frame with P = 1,

discards the I queue, transmits an UA frame with F = 1 and enters state 4.

## L2C\_D74\_V\_2 subclause 5.6.5, table D.2/4-1

TC27412

Ensure that the IUT in state 7.4, on receipt of a RR command frame with P = 1, transmits a RR response frame with F = 1 and enters state 7.0.

#### L2C D74 V 3 subclause 5.6.5, table D.2/4-3

TC27413

Ensure that the IUT in state 7.4, on receipt of a RR response frame with F = 0, transmits no frame and enters state 7.0.

## L2C\_D74\_V\_4 subclauses 5.6.1, 5.6.5, table D.2/4-3

TC27467

Ensure that the IUT in state 7.4, having received a RNR response frame with F = 1 and subsequently an I frame with P = 0, on receipt of a RR response frame with F = 0,

transmits the corresponding I frame and enters state 7.0.

NOTE 1: The I frame should contain a layer 3 message to the IUT requesting a response. No I frame should be received during peer busy condition.

# L2C\_D74\_V\_5 subclauses 5.6.4, 5.6.5, table D.2/5-5

TC27405

Ensure that the IUT in state 7.4, on receipt of a REJ command frame with P = 1, transmits a RR response frame with F = 1 and enters state 7.0.

## L2C D74 V 6 subclauses 5.6.4, 5.6.5, table D.2/5-6

TC27406

Ensure that the IUT in state 7.4, on receipt of a REJ command frame with P = 0, transmits no frame and enters state 7.0.

#### L2C D74 V 7 subclauses 5.6.4, 5.6.5, table D.2/5-7

TC27407

Ensure that the IUT in state 7.4, on receipt of a REJ response frame with F = 0, transmits no frame and enters state 7.0.

# L2C\_D74\_V\_8 subclause 5.6.5, table D.2/6-1

TC27414

Ensure that the IUT in state 7.4, on receipt of a RNR command frame with P = 1, transmits a RR response frame with F = 1 and remains in the same state.

# L2C\_D74\_V\_9 subclause 5.6.5, table D.2/6-2

TC27415

Ensure that the IUT in state 7.4, on receipt of a RNR command frame with P = 0, transmits no frame and remains in the same state.

# L2C\_D74\_V\_10 subclause 5.6.5, table D.2/6-3

TC27416

Ensure that the IUT in state 7.4, on receipt of a RNR response frame with F = 0, transmits no frame and remains in the same state.

# L2C D74 V 11 subclauses 5.6.5, 5.6.3.2, table D.2/7-1

TC27403

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 1,

transmits a RR response frame with F = 1 and remains in the same state.

NOTE 2: The I frame should contain a layer 3 message to the IUT requesting a response.

## L2C\_D74\_V\_12 subclauses 5.6.1, 5.6.5, table D.2/7-2

TC28406

Ensure that the IUT in state 7.4, on receipt of an I frame with P=0, transmits a RR response frame with F=0 and remains in state 7.4.

# L2C\_D74\_V\_13 subclauses 5.6.1, 5.6.5, table D.2/7-2

TC27404

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 0,

transmits a RR response frame with F = 0 and remains in the same state.

NOTE 3: The I frame should contain a layer 3 message to the IUT requesting a response.

## 6.2.2.8.2 Inopportune behaviour

#### L2C D74 I 1 subclause 5.7.1, table D.2/2-1

TC27418

Ensure that the IUT in state 7.4, on receipt of a SABME frame with P=1, transmits an UA frame with F=1 and enters state 7.0.

## L2C\_D74\_I\_2 subclause 5.7.1, table D.2/2-3

TC27419

Ensure that the IUT in state 7.4, on receipt of a SABME frame with P = 0, transmits an UA frame with F = 0 and enters state 7.0.

## L2C\_D74\_I\_3 subclause 5.5.3.2, table D.2/2-6

TC27409

Ensure that the IUT in state 7.4, on receipt of a DISC frame with P = 0, discards the I queue, transmits an UA frame with F = 0 and enters state 4.

## L2C\_D74\_I\_4 subclause 5.8.7, table 9, table D.2/2-9

TC27429

Ensure that the IUT in state 7.4, on receipt of an unsolicited DM frame with F = 1, transmits no frame and remains in the same state.

#### L2C\_D74\_I\_5 subclauses 5.7.1, 5.8.7, table 9, table D.2/2-10

TC27420

Ensure that the IUT in state 7.4, on receipt of an unsolicited DM frame with F = 0, transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_6 subclause 5.6.5, 5.7.1, 5.8.6, table D.2/3-5

TC27444

Ensure that the IUT in state 7.4, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits a SABME frame with P = 1 and enters state 5.1.

NOTE: The IUT should have sent an I frame before having received the FRMR response frame.

# L2C\_D74\_I\_7 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/4-13

TC27432

Ensure that the IUT in state 7.4, on receipt of a RR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 I 8 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/4-14

TC27435

Ensure that the IUT in state 7.4, on receipt of a RR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_9 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/4-15

TC27441

Ensure that the IUT in state 7.4, on receipt of a RR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_10 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/4-16

TC27438

Ensure that the IUT in state 7.4, on receipt of a RR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D74\_I\_11 subclauses 5.6.5, 5.6.4, table D.2/5-8

TC27431

Ensure that the IUT in state 7.4, on receipt of a REJ response frame with F = 1, transmits the corresponding I frame and enters state 7.0.

## L2C\_D74\_I\_12 subclauses 5.6.4, 5.6.5, 5.7.1, 5.8.2, 5.8.5, table D.2/5-9

TC27434

Ensure that the IUT in state 7.4, on receipt of a REJ command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_13 subclauses 5.6.4, 5.6.5, 5.7.1, 5.8.2, 5.8.5, table D.2/5-10

TC27437

Ensure that the IUT in state 7.4, on receipt of a REJ command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D74\_I\_14 subclauses 5.6.4, 5.6.5, 5.7.1, 5.8.2, 5.8.5, table D.2/5-11

TC27443

Ensure that the IUT in state 7.4, on receipt of a REJ response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D74\_I\_15 subclauses 5.6.4, 5.6.5, 5.7.1, 5.8.2, 5.8.5, table D.2/5-12

TC27440

Ensure that the IUT in state 7.4, on receipt of a REJ response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 I 16 subclause 5.6.5, table D.2/6-4

TC27430

Ensure that the IUT in state 7.4, on receipt of a RNR response frame with F = 1, transmits no frame and remains in the same state.

## L2C\_D74\_I\_17 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-9

TC27433

Ensure that the IUT in state 7.4, on receipt of a RNR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D74\_I\_18 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-10

TC27436

Ensure that the IUT in state 7.4, on receipt of a RNR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D74\_I\_19 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-11

TC27442

Ensure that the IUT in state 7.4, on receipt of a RNR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 I 20 subclauses 5.6.5, 5.8.2, 5.8.5, table D.2/6-12

TC27439

Ensure that the IUT in state 7.4, on receipt of a RNR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 I 21 subclauses 3.6.7, 5.8.1, table D.2/7-3

TC27423

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 1 and invalid N(S), transmits a REJ response frame with F = 1 and enters state 7.5.

## L2C\_D74\_I\_22 subclauses 3.6.7, 5.8.1, table D.2/7-4

TC27424

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 0 and invalid N(S), transmits a REJ response frame with F = 0 and enters state 7.5.

#### L2C D74 I 23 subclause 5.7.1, 5.8.2, 5.8.5, table D.2/8-5

TC27421

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_24 subclause 5.7.1, 5.8.2, 5.8.5, table D.2/8-6

TC27422

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_I\_25 subclauses 3.6.7, 5.8.1, 5.8.2, 5.8.5, table D.2/8-7

TC27425

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 1 and invalid N(R) and N(S), transmits a REJ response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

# L2C\_D74\_I\_26 subclauses 3.6.7, 5.8.1, 5.8.2, 5.8.5, table D.2/8-8

TC27426

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 0 and invalid N(R) and N(S), transmits a REJ response frame with F = 0, subsequently a SABME frame with P = 1 and enters state 5.1.

#### 6.2.2.8.3 Syntactically invalid

## L2C\_D74\_S\_1 subclause 5.8.5, table D.2/10-2

TC27446

Ensure that the IUT in state 7.4, on receipt of a DISC frame with P = 1 which contains an information field, transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D74\_S\_2 subclause 5.8.5, table D.2/10-5

TC27448

Ensure that the IUT in state 7.4, on receipt of a FRMR response frame with F = 0 which contains an information field,

transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D74\_S\_3 subclause 5.8.5, table D.2/10-6

TC27447

Ensure that the IUT in state 7.4, on receipt of a RR command frame with P = 1 which contains an information field,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 S 4 subclauses 5.8.5, 5.9, table D.2/10-7

TC27445

Ensure that the IUT in state 7.4, on receipt of an I frame with an information field which exceeds N201 octets.

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D74 S 5 subclause 5.8.5, table D.2/10-8

TC27449

Ensure that the IUT in state 7.4, on receipt of an undefined frame,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D74\_S\_6 subclause 2.9, 5.8.5

TC27450

Ensure that the IUT in state 7.4, on receipt of an I frame with P = 0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

#### 6.2.2.9 DL state 7.4 with outstanding I frames

#### 6.2.2.9.1 Valid behaviour

#### L2C D74OI V 1 subclause 5.6.4 a), table D.2/5-5

TC27456

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a REJ command frame with P = 1.

transmits a RR response frame with F = 1, subsequently the rejected I frames and enters state 7.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 1: An I frame will be received as soon as the IUT is able to send it.

## L2C\_D74OI\_V\_2 subclause 5.6.4 a), table D.2/5-6

TC27455

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a REJ command frame with P = 0,

transmits the rejected I frames and enters state 7.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 2: An I frame will be received as soon as the IUT is able to send it.

#### L2C D74OI V 3 subclause 5.6.4 a), table D.2/5-7

TC27457

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a REJ response frame with F = 0.

transmits the rejected I frames and enters state 7.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE 3: An I frame will be received as soon as the IUT is able to send it.

# L2C\_D74OI\_V\_4 subclause 5.6.5, table D.2/6-5

TC27460

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a RNR command frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D74OI V 5 subclause 5.6.5, table D.2/6-6

TC27459

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a RNR command frame with P = 0 which does not acknowledge the last transmitted I frame.

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C\_D74OI\_V\_6 subclause 5.6.5, table D.2/6-7

TC27461

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a RNR response frame with F = 0 which does not acknowledge the last transmitted I frame,

transmits no frame and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C\_D74OI\_V\_7 subclause 5.6.3.2, table D.2/7-5

TC27464

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## L2C\_D74OI\_V\_8 subclause 5.6.3.2, table D.2/7-6

TC27463

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 0 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.9.2 Inopportune behaviour

#### L2C\_D74OI\_I\_1 subclause 5.6.4 a), table D.2/5-8

TC27458

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a REJ response frame with F = 1,

transmits the rejected I frames and enters state 7.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2. NOTE: An I frame will be received as soon as the IUT is able to send it.

## L2C\_D74OI\_I\_2 subclause 5.6.5, table D.2/6-8

TC27462

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of a RNR response frame with F = 1 which does not acknowledge the last transmitted I frame.

transmits no frame and remain in the same state.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C\_D74OI\_I\_3 subclause 5.8.1, table D.2/7-7

TC27466

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 1 and enters state 7.5.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D74OI I 4 subclause 5.8.1, table D.2/7-8

TC27465

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 0 and enters state 7.5.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.9.3 Timers

#### L2C D74 T 1 subclause 5.6.7, table D.2/9-1

TC27452

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RR command frame with P=1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 1: To test the duration of timer T200 is also part of this test.

# L2C\_D74\_T\_2 subclause 5.6.7, table D.2/9-1

TC27451

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RR command frame with P=0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

OI

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 2: To test the duration of timer T200 is also part of this test.

#### L2C D74 T 3 subclause 5.6.7, table D.2/9-1

TC27453

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RR response frame with F = 0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 3: To test the duration of timer T200 is also part of this test.

#### L2C\_D74\_T\_4 subclause 5.6.7, table D.2/9-1

TC27454

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RR response frame with F = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.0;

or

transmits an I frame with P = 1 and enters state 8.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 4: To test the duration of timer T200 is also part of this test.

#### L2C\_D74\_T\_5 subclause 5.6.5, table D.2/9-1

new TC

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RNR command frame with P = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200.

transmits a RR command frame with P = 1 and enters state 8.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 5: To test the duration of timer T200 is also part of this test.

#### L2C\_D74\_T\_6 subclause 5.6.5, table D.2/9-1

new TC

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RNR command frame with P = 0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200

transmits a RR command frame with P = 1 and enters state 8.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 6: To test the duration of timer T200 is also part of this test.

#### L2C\_D74\_T\_7 subclause 5.6.5, table D.2/9-1

new TC

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RNR response frame with F = 0 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 7: To test the duration of timer T200 is also part of this test.

#### L2C D74 T 8 subclause 5.6.5, table D.2/9-1

new TC

Ensure that the IUT in state 7.4, having transmitted I frames which are still unacknowledged and a RNR response frame with F = 1 was received which does not acknowledge the last transmitted I frame, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.4.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

NOTE 8: To test the duration of timer T200 is also part of this test.

#### L2C D74 T 9 subclause 5.6.5, table D.2/9-1

new TC

Ensure that the IUT in state 7.4, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.4.

NOTE 9: To test the duration of timer T200 is also part of this test.

#### L2C\_D74\_T\_10 subclause 5.6.5, table D.2/9-1

TC27417

Ensure that the IUT in state 7.4, on expiry of timer T200,

transmits a RR command frame with P = 1 and enters state 8.4.

NOTE 10: To test the duration of timer T200 is also part of this test.

#### 6.2.2.10 DL state 7.5

#### 6.2.2.10.1 Valid behaviour

## L2C\_D75\_V\_1 subclauses 5.8.1, 5.6.2, table D.2/7-1

TC27501

Ensure that the IUT in state 7.5, on receipt of an I frame with P = 1, transmits a RR response frame with F = 1 and enters state 7.4.

## L2C\_D75\_V\_2 subclauses 5.8.1, 5.6.2, table D.2/7-2

TC27502

Ensure that the IUT in state 7.5, on receipt of an I frame with P = 0, transmits a RR response frame with F = 0 and enters state 7.4.

# 6.2.2.10.2 Inopportune behaviour

#### L2C D75 I 1 subclause 5.8.1, table D.2/7-3

TC27503

Ensure that the IUT in state 7.5, on receipt of an I frame with P = 1 and invalid N(S), transmits a RR response frame with F = 1 and remains in the same state.

#### L2C D75 I 2 subclause 5.8.1, table D.2/7-4

TC27504

Ensure that the IUT in state 7.5, on receipt of an I frame with P = 0 and invalid N(S), transmits no frame and remains in the same state.

# 6.2.2.11 DL state 8.0

#### 6.2.2.11.1 Valid behaviour

## L2C\_D80\_V\_1 subclause 5.5.3.2, table D.3/2-5

TC28003

Ensure that the IUT in state 8.0, on receipt of a DISC frame with P = 1, discards the I queue, transmits an UA frame with F = 1 and enters state 4.

#### L2C\_D80\_V\_2 subclause 5.5.3.2, table D.3/2-6

TC28004

Ensure that the IUT in state 8.0, on receipt of a DISC frame with P = 0, discards the I queue, transmits an UA frame with F = 0 and enters state 4.

# L2C\_D80\_V\_3 subclause 5.6.3, table D.3/4-4

TC27015

Ensure that the IUT in state 8.0, having transmitted a RR command frame with P = 1 or an I frame with P = 1, on receipt of a RR response frame with F = 1 which does not acknowledge the last transmitted I frame.

transmits an I frame with P = 0, and enters state 7.0.

NOTE 1: Simulation of I frame loss.

#### L2C\_D80\_V\_4 subclause 5.6.4, table D.3/5-3

TC28029

Ensure that the IUT in state 8.0, on receipt of a REJ response frame with F = 0, transmits no frame and remains in the same state.

#### L2C D80 V 5 subclause 5.6.4, table D.3/5-4

TC28005

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of a REJ response frame with F = 1.

transmits the corresponding I frame and enters state 7.0.

NOTE 2: An I frame will be received as soon as the IUT is able to send it.

# L2C\_D80\_V\_6 subclause 5.6.4, table D.3/5-4

TC28053

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of a REJ response frame with F = 1,

transmits a RR response frame with F = 1, subsequently transmits the corresponding I frame and enters state 7.0.

NOTE 3: An I frame will be received as soon as the IUT is able to send it.

#### L2C\_D80\_V\_7 subclause 5.6.5, table D.3/6-1

TC28022

Ensure that the IUT in state 8.0, on receipt of a RNR command frame with P = 1, transmits a RR response frame with F = 1 and enters state 8.4.

#### L2C D80 V 8 subclause 5.6.5, table D.3/6-4

TC28006

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of a RNR response frame with F = 1,

transmits no frame and enters state 7.4.

#### 6.2.2.11.2 Inopportune behaviour

# L2C\_D80\_I\_1 subclauses 5.7.1, 5.7.2, table D.3/2-1

TC28007

Ensure that the IUT in state 8.0, on receipt of a SABME frame with P = 1, transmits an UA frame with F = 1 and enters state 7.0.

## L2C\_D80\_I\_2 subclauses 5.7.1, 5.7.2, table D.3/2-3

TC28008

Ensure that the IUT in state 8.0, on receipt of a SABME frame with P = 0, transmits an UA frame with F = 0 and enters state 7.0.

## L2C\_D80\_I\_3 subclause 5.8.7, table 9, table D.3/2-9

TC28009

Ensure that the IUT in state 8.0, on receipt of a DM frame with F = 1, transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D80\_I\_4 subclauses 5.7.1, 5.8.7, table 9, table D.3/2-10

TC28010

Ensure that the IUT in state 8.0, on receipt of an unsolicited DM frame with F = 0, transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_I\_5 subclauses 5.7.1, 5.8.6, table D.3/3-5

TC28042

Ensure that the IUT in state 8.0, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits a SABME frame with P = 1 and enters state 5.1.

NOTE 1: The IUT should have sent an I frame before having received the FRMR response frame.

#### L2C\_D80\_I\_6 subclauses 5.6.3, 5.6.7, table D.3/4-1

TC28021

Ensure that the IUT in state 8.0, on receipt of a RR command frame with P = 1, transmits a RR response frame with F = 1 and remains in the same state.

#### L2C D80 I 7 subclauses 5.6.3, 5.6.7, table D.3/4-2

TC28024

Ensure that the IUT in state 8.0, on receipt of a RR command frame with P = 0, transmits no frame and remains in the same state.

#### L2C D80 I 8 subclause 5.8.7, table 9, table D.3/4-3

TC28027

Ensure that the IUT in state 8.0, on receipt of a RR response frame with F = 0, transmits no frame and remains in the same state.

#### L2C D80 I 9 subclauses 5.6.3, 5.6.7, table D.3/4-4

TC28012

Ensure that the IUT in state 8.0, having received I frames containing layer 3 messages requesting a response, on receipt of a RR response frame with F = 1,

transmits an I frame with P = 0 and enters state 7.0.

# L2C\_D80\_I\_10 subclauses 5.8.2, 5.8.5, table D.3/4-5

TC28030

Ensure that the IUT in state 8.0, on receipt of a RR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D80\_I\_11 subclauses 5.8.2, 5.8.5, table D.3/4-6

TC28033

Ensure that the IUT in state 8.0, on receipt of a RR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D80 I 12 subclauses 5.8.2, 5.8.5, table D.3/4-7

TC28039

Ensure that the IUT in state 8.0, on receipt of a RR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

# L2C D80 I 13 subclauses 5.8.2, 5.8.5, table D.3/4-8

TC28036

Ensure that the IUT in state 8.0, on receipt of a RR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_I\_14 subclause 5.6.4, table D.3/5-1

TC28023

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of a REJ command frame with P = 1,

transmits a RR response frame with F = 1 and remains in the same state.

## L2C D80 I 15 subclause 5.6.4, table D.3/5-2

TC28026

Ensure that the IUT in state 8.0, on receipt of a REJ command frame with P = 0, transmits no frame and remains in the same state.

#### L2C\_D80\_I\_16 subclauses 5.8.2, 5.8.5, table D.3/5-5

TC28032

Ensure that the IUT in state 8.0, on receipt of a REJ command frame with P=1 and invalid N(R), transmits a RR response frame with F=1, subsequently a SABME frame with P=1 and enters state 5.1.

## L2C\_D80\_I\_17 subclauses 5.8.2, 5.8.5, table D.3/5-6

TC28035

Ensure that the IUT in state 8.0, on receipt of a REJ command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D80 I 18 subclauses 5.8.2. 5.8.5. table D.3/5-7

TC28041

Ensure that the IUT in state 8.0, on receipt of a REJ response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_I\_19 subclauses 5.8.2, 5.8.5, table D.3/5-8

TC28038

Ensure that the IUT in state 8.0, on receipt of a REJ response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D80 I 20 subclause 5.6.5, table D.3/6-2

TC28025

Ensure that the IUT in state 8.0, on receipt of a RNR command frame with P = 0, transmits no frame and enters state 8.4.

## L2C\_D80\_I\_21 subclause 5.6.5, table D.3/6-3

TC28028

Ensure that the IUT in state 8.0, on receipt of a RNR response frame with F = 0, transmits no frame and enters state 8.4.

## L2C\_D80\_I\_22 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-5

TC28031

Ensure that the IUT in state 8.0, on receipt of a RNR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

# L2C\_D80\_I\_23 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-6

TC28034

Ensure that the IUT in state 8.0, on receipt of a RNR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C D80 I 24 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-7

TC28040

Ensure that the IUT in state 8.0, on receipt of a RNR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D80\_I\_25 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-8

TC28037

Ensure that the IUT in state 8.0, on receipt of a RNR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D80\_I\_26 subclause 5.6.3.2, table D.3/7-1

TC28011

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of an I frame with P = 1,

transmits a RR response frame with F = 1 and remains in the same state.

NOTE 2: An I frame with P = 1 and N(R) = V(A)+1 is accepted as acknowledgement.

#### L2C D80 I 27 subclause 5.6.3.2, table D.3/7-2

new TC

Ensure that the IUT in state 8.0, having transmitted an I frame with P = 0, on receipt of an I frame with P = 0.

transmits a RR response frame with F = 0 and remains in the same state;

or

transmits an I frame with P = 0 as acknowledgement and remains in the same state.

NOTE 3: An I frame with P = 0 and N(R) = V(A) + 1 is accepted as acknowledgement.

#### L2C\_D80\_I\_28 subclauses 5.6.2.1, 5.8.1, table D.3/7-3

TC28015

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 1 and invalid N(S),

transmits a REJ response frame with F = 1 and enters state 8.1.

## L2C\_D80\_I\_29 subclauses 5.6.2.2, 5.8.1, table D.3/7-4

TC28016

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 0 and invalid N(S), transmits a REJ response frame with F = 0 and enters state 8.1.

#### L2C D80 I 30 subclauses 5.6.2.1, 5.7.1, 5.8.2, 5.8.5, table D.3/8-5

TC28013

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 1 and invalid N(R),

transmits a RR response frame with F=1, subsequently a SABME frame with P=1 and enters state 5.1.

# L2C\_D80\_I\_31 subclauses 5.6.2.2, 5.7.1, 5.8.2, 5.8.5, table D.3/8-6

TC28014

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 0 and invalid N(R),

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D80 I 32 subclauses 5.6.2.1, 5.7.1, 5.8.2, 5.8.5, table D.3/8-7

TC28017

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 1 and invalid N(R) and N(S),

transmits a REJ response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_I\_33 subclauses 5.6.2.2, 5.7.1, 5.8.2, 5.8.5, table D.3/8-8

TC28018

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 0 and invalid N(R) and N(S),

transmits a REJ response frame with F=0, subsequently a SABME frame with P=1 and enters state 5.1.

# 6.2.2.11.3 Syntactically invalid

## L2C\_D80\_S\_1 subclause 5.8.5, table D.3/10-2

TC28044

Ensure that the IUT in state 8.0, on receipt of a DISC frame with P = 1 which contains an information field, transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_S\_2 subclause 5.8.5, table D.3/10-5

TC28046

Ensure that the IUT in state 8.0, on receipt of a FRMR response frame with F = 0 which contains an information field.

transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D80\_S\_3 subclause 5.8.5, table D.3/10-6

TC28045

Ensure that the IUT in state 8.0, on receipt of a RR command frame with P = 1 which contains an information field,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D80\_S\_4 subclause 5.8.5, table D.3/10-7

TC28043

Ensure that the IUT in state 8.0, on receipt of an I frame with an information field which exceeds N201 octets,

transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D80\_S\_5 subclause 5.8.5, table D.3/10-8

TC28047

Ensure that the IUT in state 8.0, on receipt of an undefined frame,

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D80\_S\_6 subclauses 2.9, 5.8.4

TC28048

Ensure that the IUT in state 8.0, on receipt of an I frame with P = 0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

#### 6.2.2.12 DL state 8.0 with outstanding I frames

#### 6.2.2.12.1 Valid behaviour

#### L2C D80OI V 1 subclause 5.6.3.2, table D.3/7-5

TC28050

Ensure that the IUT in state 8.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D80OI V 2 subclause 5.6.3.2, table D.3/7-6

TC28049

Ensure that the IUT in state 8.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 which does not acknowledge the last transmitted I frame.

transmits a RR response frame with F = 0 as acknowledgement and remains in the same state;

transmits an I frame with P = 0 as acknowledgement and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.12.2 Inopportune behaviour

# L2C\_D80OI\_I\_1 subclause 5.8.1, table D.3/7-7

TC28052

Ensure that the IUT in state 8.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 1 and enters state 8.1.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D80OI I 2 subclause 5.8.1, table D.3/7-8

TC28051

Ensure that the IUT in state 8.0, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 0 and enters state 8.1.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.12.3 **Timers**

#### L2C D80 T 1 subclause 5.6.5, table D.3/9-1

new TC

Ensure that the IUT in state 8.0, on expiry of timer T200,

transmits RR command frames with P = 1 and remains in the same state;

transmits I frames with P = 1 and remains in the same state.

NOTE 1: To test the duration of timer T200 is also part of this test.

#### L2C D80 T 2 subclause 5.6.5, table D.3/9-2

new TC

Ensure that the IUT in state 8.0, on expiry of timer T200,

transmits RR command frames with P = 1 and remains in the same state.

To test the duration of timer T200 is also part of this test.

#### 6.2.2.12.4 Counters

#### L2C D80 C 1 subclause 5.6.7, table D.3/9-3

new TC

Ensure that the IUT in state 8.0, having transmitted N200 times RR command frames with P = 1 or I frames with P = 1,

transmits a SABME frame with P = 1 and enters state 5.1.

#### 6.2.2.13 DL state 8.1

#### 6.2.2.13.1 Valid behaviour

## L2C\_D81\_V\_1 subclauses 5.8.1, 5.6.2, table D.3/7-1

TC28101

Ensure that the IUT in state 8.1, on receipt of an I frame with P = 1 and correct send and receive sequence numbers,

transmits a RR response frame with F = 1 and enters state 8.0.

#### L2C D81 V 2 subclauses 5.8.1, 5.6.2, table D.3/7-2

TC28102

Ensure that the IUT in state 8.1, on receipt of an I frame with P = 0 and correct send and receive sequence numbers,

transmits a RR response frame with F=0 as acknowledgement and enters state 8.0;

or

transmits an I frame with P = 0 as acknowledgement and enters state 8.0.

#### 6.2.2.13.2 Inopportune behaviour

#### L2C D81 I 1 subclause 5.8.1, table D.3/7-7

TC28103

Ensure that the IUT in state 8.1, on receipt of an I frame with P = 1 and invalid N(S), transmits a RR response frame with F = 1 and remains in the same state.

#### L2C\_D81\_I\_2 subclause 5.8.1, table D.3/7-8

TC28104

Ensure that the IUT in state 8.1, on receipt of an I frame with P = 0 and invalid N(S), transmits no frame and remains in the same state.

#### 6.2.2.14 DL state 8.4

#### 6.2.2.14.1 Valid behaviour

#### L2C\_D84\_V\_1 subclause 5.5.3.2, table D.3/2-5

TC28402

Ensure that the IUT in state 8.4, on receipt of a DISC frame with P = 1, discards the I queue, transmits an UA frame with F = 1 and enters state 4.

#### L2C D84 V 2 subclause 5.5.3.2, table D.3/2-6

TC28403

Ensure that the IUT in state 8.4, on receipt of a DISC frame with P = 0, discards the I queue, transmits an UA frame with F = 0 and enters state 4.

## L2C\_D84\_V\_3 subclause 5.6.5, table D.3/4-4

TC28405

Ensure that the IUT in state 8.4, on receipt of a RR response frame with F = 1, transmits no frame and enters state 7.0.

## L2C\_D84\_V\_4 subclauses 5.6.1, 5.6.5, table D.3/4-4

new TC

Ensure that the IUT in state 8.4, on receipt of a RR response frame with F = 1, transmits the corresponding I frame and enters state 7.0.

NOTE 3: No I frame should be received during peer busy condition.

#### L2C D84 V 5 subclauses 5.6.4, 5.6.5, table D.3/5-4

TC28407

Ensure that the IUT in state 8.4, on receipt of a REJ response frame with F = 1, transmits no frame and enters state 7.0.

#### 6.2.2.14.2 Inopportune behaviour

#### L2C\_D84\_I\_1 subclause 5.7.1, table D.3/2-1

TC28408

Ensure that the IUT in state 8.4, on receipt of a SABME frame with P = 1, transmits an UA frame with F = 1 and enters state 7.0.

# L2C\_D84\_I\_2 subclause 5.7.1, table D.3/2-3

TC28409

Ensure that the IUT in state 8.4, on receipt of a SABME frame with P = 0, transmits an UA frame with F = 1 and enters state 7.0.

## L2C\_D84\_I\_3 subclause 5.8.7, table 9, table D.3/2-9

TC28410

Ensure that the IUT in state 8.4, on receipt of a DM frame with F = 1, transmits a SABME frame with P = 1 and enters state 5.1

#### L2C D84 I 4 subclause 5.8.7, table 9, table D.3/2-10

TC28411

Ensure that the IUT in state 8.4, on receipt of an unsolicited DM frame with F = 0, transmits a SABME frame with P = 1 and enters state 5.1

#### L2C\_D84\_I\_5 subclauses 5.6.5, 5.7.1, 5.8.6, table D.3/3-5

TC28443

Ensure that the IUT in state 8.4, on receipt of a FRMR response frame with F = 1 rejecting an I frame, transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D84\_I\_6 subclauses 5.6.3, 5.6.7, table D.3/4-1

TC28422

Ensure that the IUT in state 8.4, on receipt of a RR command frame with P = 1, transmits a RR response frame with F = 1 and enters state 8.0.

#### L2C D84 I 7 subclauses 5.6.3, 5.6.7, table D.3/4-2

TC28425

Ensure that the IUT in state 8.4, on receipt of a RR command frame with P = 0, transmits no frame and enters state 8.0.

#### L2C D84 I 8 subclauses 5.6.3, 5.6.7, table D.3/4-3

TC28428

Ensure that the IUT in state 8.4, on receipt of a RR response frame with F = 0, transmits no frame and enters state 8.0.

## L2C\_D84\_I\_9 subclauses 5.8.2, 5.8.5, table D.3/4-5

TC28431

Ensure that the IUT in state 8.4, on receipt of a RR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_10 subclauses 5.8.2, 5.8.5, table D.3/4-6

TC28434

Ensure that the IUT in state 8.4, on receipt of a RR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D84\_I\_11 subclauses 5.8.2, 5.8.5, table D.3/4-7

TC28440

Ensure that the IUT in state 8.4, on receipt of a RR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_12 subclauses 5.8.2, 5.8.5, table D.3/4-8

TC28437

Ensure that the IUT in state 8.4, on receipt of a RR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_13 subclause 5.6.4, table D.3/5-1

TC28424

Ensure that the IUT in state 8.4, on receipt of a REJ command frame with P = 1, transmits a RR response frame with F = 1 and enters state 8.0.

# L2C D84 I 14 subclause 5.6.4, table D.3/5-2

TC28427

Ensure that the IUT in state 8.4, on receipt of a REJ command frame with P = 0, transmits no frame and enters state 8.0.

## L2C\_D84\_I\_15 subclause 5.6.4, table D.3/5-3

TC28430

Ensure that the IUT in state 8.4, on receipt of a REJ response frame with F = 0, transmits no frame and enters state 8.0.

## L2C\_D84\_I\_16 subclauses 5.8.2, 5.8.5, table D.3/5-5

TC28433

Ensure that the IUT in state 8.4, on receipt of a REJ command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_17 subclauses 5.8.2, 5.8.5, table D.3/5-6

TC28436

Ensure that the IUT in state 8.4, on receipt of a REJ command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D84 I 18 subclauses 5.8.2, 5.8.5, table D.3/5-7

TC28442

Ensure that the IUT in state 8.4, on receipt of a REJ response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D84 I 19 subclauses 5.8.2, 5.8.5, table D.3/5-8

TC28439

Ensure that the IUT in state 8.4, on receipt of a REJ response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C\_D84\_I\_20 subclause 5.6.5, table D.3/6-1

TC28423

Ensure that the IUT in state 8.4, on receipt of a RNR command frame with P = 1, transmits a RR response frame with F = 1 and remains in the same state.

## L2C\_D84\_I\_21 subclause 5.6.5, table D.3/6-2

TC28426

Ensure that the IUT in state 8.4, on receipt of a RNR command frame with P = 0, transmits no frame and remains in the same state.

#### L2C D84 I 22 subclause 5.6.5, table D.3/6-3

TC28429

Ensure that the IUT in state 8.4, on receipt of a RNR response frame with F = 0, transmits no frame and remains in the same state.

#### L2C D84 I 23 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-5

TC28432

Ensure that the IUT in state 8.4, on receipt of a RNR command frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

#### L2C D84 I 24 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-6

TC28435

Ensure that the IUT in state 8.4, on receipt of a RNR command frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_25 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-7

TC28441

Ensure that the IUT in state 8.4, on receipt of a RNR response frame with F = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D84\_I\_26 subclauses 5.6.5, 5.8.2, 5.8.5, table D.3/6-8

TC28438

Ensure that the IUT in state 8.4, on receipt of a RNR response frame with F = 1 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_27 subclause 5.6.3.2, table D.3/7-1

TC28412

Ensure that the IUT in state 8.4, on receipt of an I frame with P=1, transmits a RR response frame with F=1 and remains in the same state.

# L2C\_D84\_I\_28 subclause 5.6.3.2, table D.3/7-2

TC28413

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 0, transmits a RR response frame with F = 0 and remains in the same state.

# L2C D84 I 29 subclauses 5.6.2.1, 5.8.1, table D.3/7-3

TC28416

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 1 and invalid N(S), transmits a REJ response frame with F = 1 and enters state 8.5.

## L2C\_D84\_I\_30 subclauses 5.6.2.2, 5.8.1, table D.3/7-4

TC28417

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 0 and invalid N(S), transmits a REJ response frame with F = 0 and enters state 8.5.

## L2C\_D84\_I\_31 subclauses 5.6.2.1, 5.7.1, 5.8.2, 5.8.5, table D.3/8-5

TC28414

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 1 and invalid N(R), transmits a RR response frame with F = 1, subsequently a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_32 subclauses 5.6.2.2, 5.7.1, 5.8.2, 5.8.5, table D.3/8-6

TC28415

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 0 and invalid N(R), transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_I\_33 subclauses 5.6.2.1, 5.7.1, 5.8.2, 5.8.5, table D.3/8-7

TC28418

Ensure that the IUT in state 8.4, on receipt of an I frame with P=1 and invalid N(R) and N(S),

transmits a REJ response frame with F=1, subsequently a SABME frame with P=1 and enters state 5.1.

#### L2C D84 I 34 subclauses 5.6.2.2, 5.7.1, 5.8.2, 5.8.5, table D.3/8-8

TC28419

Ensure that the IUT in state 8.4, on receipt of an I frame with P = 0 and invalid N(R) and N(S),

transmits a REJ response frame with F = 0, subsequently a SABME frame with P = 1 and enters state 5.1.

#### 6.2.2.14.3 Syntactically invalid

#### L2C\_D84\_S\_1 subclause 5.8.5, table D.3/10-2

TC28445

Ensure that the IUT in state 8.4, on receipt of a DISC frame with P = 1 which contains an information field, transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D84 S 2 subclause 5.8.5, table D.3/10-5

TC28447

Ensure that the IUT in state 8.4, on receipt of a FRMR response frame with F = 0 which contains an information field.

transmits a SABME frame with P = 1 and enters state 5.1.

#### L2C D84 S 3 subclause 5.8.5, table D.3/10-6

TC28446

Ensure that the IUT in state 8.4, on receipt of a RR command frame with P = 1 which contains an information field.

transmits a SABME frame with P = 1 and enters state 5.1.

### L2C\_D84\_S\_4 subclause 5.8.5, table D.3/10-7

TC28444

Ensure that the IUT in state 8.4, on receipt of an I frame with an information field which exceeds N201 octets,

transmits a SABME frame with P = 1 and enters state 5.1.

## L2C\_D84\_S\_5 subclause 5.8.5, table D.3/10-8

TC28448

Ensure that the IUT in state 8.4, on receipt of an undefined 4 octet frame,

transmits a SABME frame with P = 1 and enters state 5.1.

# L2C\_D84\_S\_6 subclauses 2.9, 5.8.4

TC28449

Ensure that the IUT in state 8.4, on receipt of an I frame with P=0 which contains a frame check sequence error,

transmits no frame and remains in the same state.

# 6.2.2.15 DL state 8.4 with outstanding I frames

#### 6.2.2.15.1 Valid behaviour

# L2C\_D84OI\_V\_1 subclause 5.6.3.2, table D.3/7-5

TC28451

Ensure that the IUT in state 8.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 1 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C D84OI V 2 subclause 5.6.3.2, table D.3/7-6

TC28450

Ensure that the IUT in state 8.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 which does not acknowledge the last transmitted I frame,

transmits a RR response frame with F = 0 and remains in the same state.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

## 6.2.2.15.2 Inopportune behaviour

#### L2C D84OI I 1 subclauses 5.6.3, 5.6.7, table D.3/4-4

new TC

Ensure that the IUT in state 8.4, having transmitted I frames which are still unacknowledged, on receipt of a RR response frame with F = 1.

transmits the corresponding I frame and enters state 7.0.

**Selection:** IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C\_D84OI\_I\_2 subclause 5.8.1, table D.3/7-7

TC28453

Ensure that the IUT in state 8.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 1 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 1 and enters state 8.5.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

#### L2C\_D84OI\_I\_3 subclause 5.8.1, table D.3/7-8

TC28452

Ensure that the IUT in state 8.4, having transmitted I frames which are still unacknowledged, on receipt of an I frame with P = 0 and invalid N(S) which does not acknowledge the last transmitted I frame,

transmits a REJ response frame with F = 0 and enters state 8.5.

Selection: IUT is of type of implementation primary rate access, PICS: R 6.2.

#### 6.2.2.15.3 Timers

#### L2C\_D84\_T\_1 subclause 5.6.5, table D.3/9-1

TC27411

Ensure that the IUT in state 8.4, on expiry of timer T200,

transmits RR command frames with P = 1 and remains in the same state.

NOTE 1: To test the duration of timer T200 is also part of this test.

#### L2C D84 T 2 subclause 5.6.5, table D.3/9-2

new TC

Ensure that the IUT in state 8.4, on expiry of timer T200,

transmits RR command frames with P = 1 and remains in the same state.

NOTE 2: To test the duration of timer T200 is also part of this test.

# 6.2.2.15.4 Counters

## L2C D84 C 1 subclauses 5.6.5, 5.6.7, table D.3/9-3

new TC

Ensure that the IUT in state 8.4, having retransmitted N200 times RR command frames with P=1 or I frames with P=1,

transmits a SABME frame with P = 1 and enters state 5.1.

#### 6.2.2.16 DL state 8.5

# 6.2.2.16.1 Valid behaviour

## L2C\_D85\_V\_1 subclauses 5.8.1, 5.6.2, table D.3/8-1

TC28501

Ensure that the IUT in state 8.5, on receipt of an I frame with P = 1,

transmits a RR response frame with F = 1 and enters state 8.4.

#### L2C D85 V 2 subclauses 5.8.1, 5.6.2, table D.3/8-2

TC28502

Ensure that the IUT in state 8.5, on receipt of an I frame with P = 0, transmits a RR response frame with F = 0 and enters state 8.4.

#### 6.2.2.16.2 Inopportune behaviour

#### L2C D85 I 1 subclause 5.8.1, table D.3/8-3

TC28503

Ensure that the IUT in state 8.5, on receipt of an I frame with P = 1 and invalid N(S), transmits a RR response frame with F = 1 and remains in the same state.

## L2C\_D85\_I\_2 subclause 5.8.1, table D.3/8-4

TC28504

Ensure that the IUT in state 8.5, on receipt of an I frame with P = 0 and invalid N(S), transmits no frame and remains in the same state.

# 7 Compliance

An ATS which complies with this TSS&TP specification shall:

- a) consist of a set of test cases corresponding to the set or to a subset of the TPs specified in clause 6;
- b) use a TSS which is an appropriate subset of the whole of the TSS specified in clause 5;
- c) use the same naming conventions for the test groups and test cases;
- d) maintain the relationship specified in clause 6 between the test groups and TPs and the entries in the PICS proforma to be used for test case deselection;
- e) comply with ISO/IEC 9646-2 [4].

In the case of a) or b) above, a subset shall be used only where a particular Abstract Test Method (ATM) makes some TPs untestable. All testable TPs from clause 6 shall be included in a compliant ATS.

# 8 Requirements for a comprehensive testing service

As a minimum the Remote test method, as specified in ISO/IEC 9646-2 [4], shall be used by any organization claiming to provide a comprehensive testing service for user equipment claiming conformance to ETS 300 402-2 [1].

# History

Document history			
January 1996	Public Enquiry	PE 99:	1996-01-01 to 1996-04-26
October 1996	Vote	V 113:	1996-10-21 to 1996-12-13