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Private Integrated Services Network (PISN);
Inter-exchange signalling protocol;
Circuit mode basic services;
Data Link Layer (DLL);
Part 1: Test Suite Structure and Test Purposes
(TSS & TP)

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Foreword

This draft European Telecommunication Standard (ETS) has been produced by the standardizing Information and Communication Systems Association (ECMA) on behalf of its members and those of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

This ETS comprises two parts with the generic title "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Data Link Layer (DLL); Circuit mode basic services". The title of each part is listed below:

Part 1: **"Test Suite Structure and Test Purposes (TSS & TP)"**

Part 2: "Abstract Test Suite Specification (ATS)"

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 European Telecommunication Standard (ETS) contains the Test Suite Structure and Test Purposes specification for the Data Link Layer (DLL) of the Private Integrated Services Network (PISN), Inter-exchange signalling protocol.

The objective of this Test Suite Structure and Test Purposes specification is to provide conformance tests which give a high probability of inter-operability of the Data Link Layer (DLL). The Test Suite Structure and Test Purposes specification covers the procedures described in ETS 300 402-2 [1] annex H.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [2] and ISO/IEC 9646-2 [3]) is used as basis for the test methodology.

This Test Suite Structure and Test Purposes specification standard is applicable for use in symmetrical application between two PINXs and is also applicable to equipment when used in certain scenarios that provide a continuous bit stream channel between two PINXs, and will be referenced from the standard which specifies the scenarios concerned.

Test Suite Structure and Test Purposes specifications for the Network Layer are provided in other parts of the Private Integrated Services Network (PISN), Inter-exchange signalling protocol standards.

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited in the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments or revisions to 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]   ISO/IEC 9646-1 (1994): "Information Technology - OSI Conformance Testing Methodology and Framework, Part 1: General Concepts".

[3]   ISO/IEC 9646-2 (1994): "Information Technology - OSI Conformance Testing Methodology and Framework, Part 2: Abstract Test Suite Specification".

[4]   ISO 7498-1 (1994): "Information Processing Systems - Open Systems Interconnection - Basic Reference model: The basic model".

3 Definitions and abbreviations

3.1 ETS definitions

For the purposes of this ETS, the following definitions apply:

master: The Data Link entity that provides the functionality of the "network" as described in ETS 300 402-2 [1] for a particular Data Link.

slave: The Data Link entity that provides the functionality of the "user" as described in ETS 300 402-2 [1] for a particular Data Link.

3.2 ISO definitions

For the purposes of this ETS, the following definitions apply:

Abstract Test Suite (ATS):	see ISO/IEC 9646-1 [2]
Data Link Layer (DLL):	see ISO 7498 [4]
Implementation Under Test (IUT):	see ISO/IEC 9646-1 [2]
Lower Tester (LT):	see ISO/IEC 9646-1 [2]
Network Layer (NWK):	see ISO 7498 [4]
Physical Layer (PHL):	see ISO 7498 [4]
PICS proforma:	see ISO/IEC 9646-1 [2]
PIXIT proforma:	see ISO/IEC 9646-1 [2]
Point of Control and Observation (PCO):	see ISO/IEC 9646-1 [2]
Protocol Implementation Conformance Statement (PICS):	see ISO/IEC 9646-1 [2]
Protocol Implementation eXtra Information for Testing (PIXIT):	see ISO/IEC 9646-1 [2]
System Under Test (SUT):	see ISO/IEC 9646-1 [2]
Upper Tester (UT):	see ISO/IEC 9646-1 [2]

3.3 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
DLL	Data Link Layer
ETS	European Telecommunication Standard
FSM	Finite State Machine
ISO	International Organisation for Standardisation
IUT	Implementation Under Test
LT	Lower Tester
MST	Multi State Transition
NWK	Network Layer
PCO	Point of Control and Observation
PDU	Protocol Data Unit
PHL	Physical Layer
PICS	Protocol Implementation Conformance Statements
PIXIT	Protocol Implementation eXtra Information for Testing
PSAP	PHL Service Access Point
PISN	Private Integrated Services Network
PINX	Private Integrated services Network eXchange
SUT	System Under Test
TP	Test Purpose
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4 Test Suite Structure (TSS)

4.1 Overview

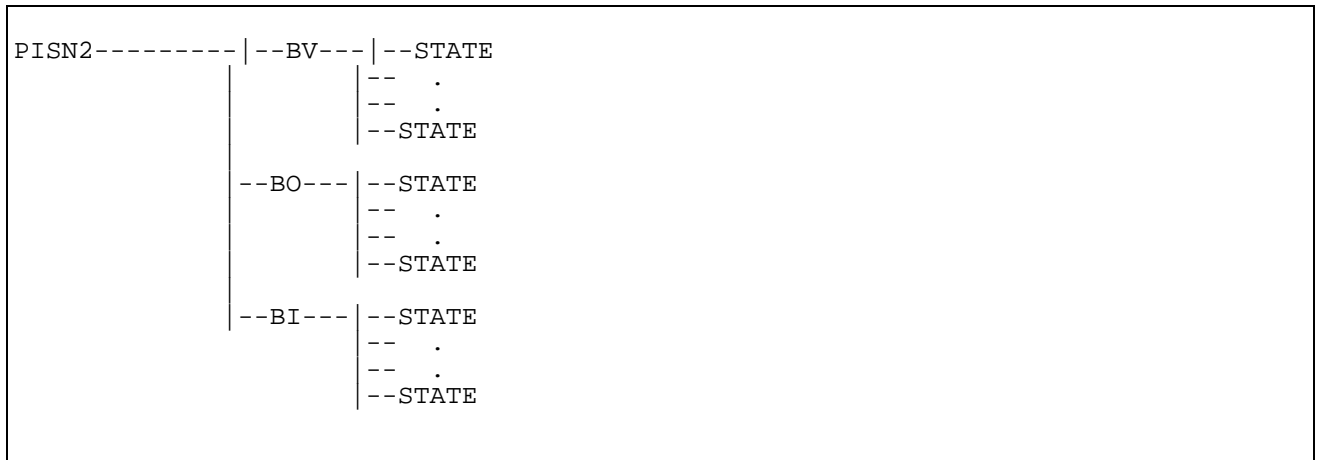Figure 1 shows the Data Link Layer Test Suite Structure including its subgroups BV, BO and BI.

```
PISN2--------|--BV---|--STATE
             |       |--  .
             |       |--  .
             |       |--STATE
             |
             |--BO---|--STATE
             |       |--  .
             |       |--  .
             |       |--STATE
             |
             |--BI---|--STATE
                     |--  .
                     |--  .
                     |--STATE
```

Figure 1: Data Link Layer Test Suite Structure

4.2 Test groups

4.2.1 Protocol group

The test suite is structured as a tree with a first level defined as PISN2 representing the protocol group.

4.2.2 Main test groups

The second level of the test suite contains the subgroups BV, BO and BI.

4.2.2.1 Valid Behaviour Tests (BV)

A valid test is a test where the message sequence and the message content are considered as valid (no MDL_ERR_IND shall be indicated).

4.2.2.2 Inopportune Behaviour Tests (BO)

This test sub group shall verify that the IUT is capable of a valid reaction, when an inopportune protocol event occurs. Such an event is syntactically correct but it occurs when it is not expected (a MDL_ERR_IND is caused in the FSM of the DLL entity).

4.2.2.3 Invalid Behaviour Tests (BI)

This test sub group shall verify that the IUT, after receipt of an invalid PDU, reacts in conformity with the standard. PDU here, means syntactically invalid PDU and therefore a MDL_ERR_IND may be generated in the FSM of the DLL entity.

5 Test Purposes (TP)

5.1 Introduction

5.1.1 TP naming convention

The identifier of the TP is built according to figure 2:

Identifier: **TP<s><ss>-<nnn>**

            <s>   = state   (4-8)

            <ss>   = sub-state   (0-7)

            <nnn> = sequential number   (001-300)   BV, Valid Behaviour Tests
                                                    (301-600)   BO, Inopportune Behaviour Tests
                                                      (601-900)   BI, Invalid Behaviour Tests

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Figure 2: TP naming convention

5.1.2 Source of test purpose definition

The test purposes were developed based on ETS 300 402-2 [1], including the state tables D-1 to D-3.

> NOTE: The state tables D-1 to D-3 of ETS 300 402-2 [1] have been interpreted according to ETS 300 402-2 [1] annex H .

The relevant part of ETS 300 402-2 [1] specifying the PICS proforma for the PISN application is used for the test purpose definition.

5.2 PISN2

5.2.1 Valid Behaviour

TP40-001	Incoming link establishment procedure: Check that the IUT, after receipt of a correct SABME/P=1 in state S4.0, responds by sending UA/F=1 and enters Multiple Frame Operation state (i.e. state transition S4.0 to S7.0).
TP40-002	Incoming link establishment procedure: Check that the IUT, after receipt of a correct SABME/P=0 in state S4.0, responds by sending UA/F=0 and enters Multiple Frame Operation state (i.e. state transition S4.0 to S7.0).
TP40-003	Check that the IUT, after receipt of an unsolicited DM/F=0 frame in state S4.0, initiates the link establishment procedure by sending SABME/P=1 and remains in state S4.0 after receipt of a Tester's response DM/F=1 frame (no state transition).
TP40-004	Check that the IUT, after receipt of an unsolicited DM/F=0 frame in state S4.0, initiates the link establishment procedure by sending SABME/P=1 and enters Multiple Frame Operation state after receipt of a Tester's response UA/F=1 frame (i.e. state transition S4.0 to S7.0).
TP50-001	Check that the IUT, after receipt of a correct UA/F=1 frame in state S5.0, enters Multiple Frame Operation state (i.e. state transition S5.0 to S7.0).
TP50-002	Check that the IUT, after receipt of a correct DM/F=1 frame in state S5.0, enters TEI-assigned state (i.e. state transition S5.0 to S4.0).
TP50-003	Check that the IUT, after receipt of an opportune FRMR frame rejecting SABME in state S5.0, ignores the received frame and discards its contents.
TP50-004	Check that the IUT, in state S5.0, after T200 time elapsed and no UA/F=1 or DM/F=1 frame received, repeats only N200 times the establishment request SABME/P=1 frame.
TP50-005	Check that, in state S5.0, the IUT's re-transmission timer T200 is within the allowed tolerance of its value.
TP51-001	Check that the IUT, after receipt of a correct UA/F=1 frame in state S5.1, enters Multiple Frame Operation state (i.e. state transition S5.1 to S7.0).
TP51-002	Check that the IUT, after receipt of a correct DM/F=1 frame in state S5.1, enters TEI-assigned state (i.e. state transition S5.1 to S4.0).
TP51-003	Check that the IUT, in state S5.1, preserves it I queue if it V(A) variable is equal to it V(S) variable.
TP51-004	Check that the IUT, in state S5.1, discards it I queue if it V(A) variable is different of it V(S) variable.
TP60-001	Check that the IUT, in state S6.0, after receipt of a DM/F=1 frame enters TEI-assigned state (i.e. state transition S6.0 to S4.0).
TP60-002	Check that the IUT, in state S6.0, after receipt of a UA/F=1 frame enters TEI-assigned state (i.e. state transition S6.0 to S4.0).
TP60-003	Check that the IUT, after receipt of an opportune FRMR frame rejecting DISC in state S6.0, ignores the received frame and discards its contents.
TP60-004	Check that the IUT, in state S6.0, after T200 time elapsed and no UA/F=1 or DM/F=1 frame received, repeats only N200 times the disconnection request DISC/P=1 frame.
TP60-005	Check that the IUT, in state S6.0, after T200 time elapsed and no UA/F=1 or DM/F=1 frame received, repeats the disconnection request DISC/P=1 frame.
TP70-001	Check that the IUT, in state S7.0, accepts I-Frame/P=0 acknowledgement by means of RR/F=0 frame.
TP70-002	Check that the IUT, in state S7.0, accepts I-Frame/P=1 acknowledgement by means of RR/F=1 frame.
TP70-003	Check that the IUT, in state S7.0, manages properly the sequence numbering operation,
TP70-004	Check that the IUT manages properly I-Frame exchange in state S7.0.
TP70-005	Check that the IUT, after receipt of a RNR/P=1 frame in state S7.0, responds with RR/F=1 and enters state S7.4.
TP70-006	Check that the IUT, after receipt of a RNR/P=0 frame in state S7.0, enters state S7.4.
TP70-007	Check that the IUT, after receipt of a RNR/F=0 response frame in state S7.0, enters state S7.4.
TP70-008	Check that the IUT, after receipt of a REJ/P=1 frame in state S7.0, responds with RR/F=1 frame and re-transmits the appropriate I-Frame/P=0.

TP70-009	Check that the IUT, after receipt of a REJ/P=0 frame in state S7.0, re-transmits the appropriate I-Frame/P=0.
TP70-010	Check that the IUT, after receipt of a REJ/F=0 frame in state S7.0, re-transmits the appropriate I-Frame/P=0.
TP70-011	Normal data link disconnection: Check that the IUT, after receipt of a DISC/P=1 frame in state S7.0, responds with UA/F=1 frame and enters state S4.0.
TP70-012	Normal data link disconnection: Check that the IUT, after receipt of a DISC/P=0 frame in state S7.0, responds with UA/F=0 frame and enters state S4.0.
TP70-013	Check that the IUT, in state S7.0, polls by sending RR/P=1 frame or by re-transmitting the unacknowledged I-Frame if it receives no acknowledgement of an I-Frame sent before T200 time (I-Frame command loss).
TP70-014	Check that the IUT, after receipt of a RR/P=1 simulating a link supervision procedure during Multiple Frames Operation (S7.0), responds with RR/F=1 frame.
TP70-015	Check that the IUT, after receipt of a RR/P=0 frame in state S7.0, stops T200 timer if it is running and starts or restarts T203 timer.
TP70-016	Check that the IUT, after inactivity (T203) in state S7.0, re-transmits N200 time RR/P=1 frames on each expiration of T200 before to try to re-establish the data link by sending SABME/P=1.
TP70-017	Check that the IUT, in state S7.0, polls by sending RR/P=1 frame or by re-transmitting the unacknowledged I-Frame if it receives no acknowledgement of an I-Frame sent before T200 time (RR response frame loss).
TP70-018	Check that the IUT's link supervision timer T203, in state S7.0, is within the allowed tolerance of its value.
TP70-019	Check that the IUT, after receipt of a RR/P=0 command frame in state S7.0, restarts timer T200.
TP70-020	Check that the IUT, after receipt of a RR/P=1 command frame in state S7.0, responds with RR/F=1 frame and restarts timer T200.
TP70-021	Check that the IUT, after receipt of a RR/F=0 response frame in state S7.0, restarts timer T200.
TP70-022	Check that the IUT, after receipt of a REJ/P=0 frame in state S7.0, re-transmits the appropriate I-Frames.
TP70-023	Check that the IUT, after receipt of a REJ/P=1 frame in state S7.0, responds with RR/F=1 frame and re-transmits the appropriate I-Frames.
TP70-024	Check that the IUT, after receipt of a RNR/P=0 command frame in state S7.0, restarts timer T200.
TP70-025	Check that the IUT, after receipt of a RNR/P=1 command frame in state S7.0, responds with RR/F=1 frame and restarts timer T200.
TP70-026	Check that the IUT, after receipt of a RNR/F=0 response frame in state S7.0, restarts timer T200.
TP70-027	Check that the IUT, after receipt of a I-Frame/P=0 command frame in state S7.0, responds with RR/F=0 frame and restarts timer T200.
TP70-028	Check that the IUT, after receipt of a I-Frame/P=1 command frame in state S7.0, responds with RR/F=1 frame and restarts timer T200.
TP70-029	Check that the IUT, after receipt of a REJ/F=0 frame in state S7.0, re-transmits the appropriate I-Frames.
TP70-030	Check that the IUT, in state S7.0, accepts simultaneous acknowledgement of more than one I-Frame by receiving RR/F=0 frame that acknowledges two I-Frames.
TP70-031	Check that the IUT, in state S7.0, sends a maximum number of k I-Frames if it receives no acknowledgement.
TP71-001	Check that the IUT, in state S7.1, leaves the REJ mode after receipt of a correct I-Frame/P=1 (state transition S7.1 to S7.0).
TP71-002	Check that the IUT, in state S7.1, leaves the REJ mode after receipt of a correct I-Frame/P=0 (state transition S7.1 to S7.0).
TP74-001	Check that the IUT, in state S7.4, re-transmits the appropriate I-Frames when its peer leaves busy condition by sending RR/F=1 in response of the IUT's RR/P=1 polling.
TP74-002	Check that the IUT, after receipt of an I-Frame/P=1 in state S7.4, responds by sending RR/F=1 frame and remains in the initial state.
TP74-003	Check that the IUT, in state S7.4, handles properly peer busy condition by not sending any I-Frames.
TP74-004	Check that the IUT, after receipt of a REJ/P=1 frame in state S7.4, responds with RR/F=1 frame and re-transmits the I-Frame rejected.

TP74-005	Check that the IUT, after receipt of a REJ/P=0 frame in state S7.4, re-transmits the I-Frame rejected.
TP74-006	Check that the IUT, after receipt of a REJ/F=0 frame in state S7.4, re-transmits the I-Frame rejected.
TP74-007	Check that the IUT, after receipt of a valid DISC/P=1 frame in state S7.4, responds with UA/F=1 frame and enters TEI-assigned state (i.e. state transition S7.4 to S4.0).
TP74-008	Check that the IUT, after receipt of a valid DISC/P=0 frame in state S7.4, responds with UA/F=0 frame and enters TEI-assigned state (i.e. state transition S7.4 to S4.0).
TP74-009	Check that the IUT, in state S7.4, polls with RR/P=1 frame N200 times before it initiates link re-establishment by sending SABME/P=1.
TP74-010	Check that the IUT, after receipt of a correct RR/P=1 frame in state S7.4, responds with RR/F=1 frame and enters state S7.0.
TP74-011	Check that the IUT, after receipt of a correct RR/F=0 frame in state S7.4, enters state S7.0.
TP74-012	Check that the IUT, after receipt of a correct RNR/P=1 frame in state S7.4, responds with RR/F=1 frame and remains in the initial state S7.4.
TP74-013	Check that the IUT, after receipt of a correct RNR/P=0 frame in state S7.4, remains in the initial state S7.4.
TP74-014	Check that the IUT, after receipt of a correct RNR/F=0 frame in state S7.4, remains in the initial state S7.4.
TP74-015	Check that, in state S7.4, the IUT's re-transmission timer T200 is within the allowed tolerance of its value.
TP74-016	Check that the IUT, after receipt of a RR/P=0 command frame in state S7.4, restarts timer T200.
TP74-017	Check that the IUT, after receipt of a RR/P=1 command frame in state S7.4, responds with RR/F=1 frame and restarts timer T200.
TP74-018	Check that the IUT, after receipt of a RR/F=0 command frame in state S7.4, restarts timer T200.
TP74-019	Check that the IUT, after receipt of a REJ/P=0 frame in state S7.4, re-transmits the appropriate I-Frames according to the N(R) of the REJ/P=0 received.
TP74-020	Check that the IUT, after receipt of a REJ/P=1 frame in state S7.4, responds with RR/F=1 frame and re-transmits the appropriate I-Frames according to the N(R) of the REJ/P=0 received.
TP74-021	Check that the IUT, after receipt of a REJ/F=0 in state S7.4, re-transmits the appropriate I-Frames according to the N(R) of the REJ/P=0 received.
TP74-022	Check that the IUT, after receipt of a RNR/P=0 command frame in state S7.4, restarts timer T200.
TP74-023	Check that the IUT, after receipt of a RNR/P=1 command frame in state S7.4, responds with RR/F=1 frame and restarts timer T200.
TP74-024	Check that the IUT, after receipt of a RNR/F=0 command frame in state S7.4, restarts timer T200.
TP74-025	Check that the IUT, after receipt of an I-Frame/P=0 in state S7.4, responds with RR/F=0 frame and remains in the initial state.
TP74-026	Check that the IUT, after receipt of an I-Frame/P=1 in state S7.4, responds with RR/F=1 frame and remains in the initial state.
TP75-001	Check that the IUT, after receipt of a correct I-Frame/P=1 in state S7.5, responds with RR/F=1 frame, leaves the REJ mode and enters state S7.4 (i.e. state transition S7.5 to S7.4).
TP75-002	Check that the IUT, after receipt of a correct I-Frame/P=0 in state S7.5, responds with RR/F=0 frame, leaves the REJ mode and enters state S7.4 (i.e. state transition S7.5 to S7.4).
TP80-001	Check that the IUT, after receipt of a valid DISC/P=1 frame in state S8.0, responds with UA/F=1 frame and enters TEI-assigned state (i.e. state transition S8.0 to S4.0).
TP80-002	Check that the IUT, after receipt of a valid DISC/P=0 frame in state S8.0, responds with UA/F=0 frame and enters TEI-assigned state (i.e. state transition S8.0 to S4.0).
TP80-003	Check that the IUT, after receipt of a valid REJ/F=1 frame in state S8.0, re-transmits the I-Frame rejected.
TP80-004	Check that the IUT, after receipt of a valid RNR/F=1 frame, leaves state S8.0 and enters state S7.4.
TP80-005	Check that the IUT, after receipt of an I-Frame/P=0 in state S8.0, responds with RR/F=0 frame and remains in the initial state.

TP80-006	Check that the IUT, after receipt of an I-Frame/P=1 in state S8.0, responds with RR/F=1 frame and remains in the initial state.
TP80-007	Check that the IUT, after receipt of a valid RR/P=1 polling frame in state S8.0, responds with RR/F=1 frame.
TP80-008	Check that the IUT, after receipt of a valid RR/P=0 command frame in state S8.0, updates V(A) variable and remains in the initial state.
TP80-009	Check that the IUT, after receipt of a valid RR/F=0 response frame in state S8.0, updates V(A) variable and remains in the initial state.
TP80-010	Check that the IUT, after receipt of a valid RNR/P=1 command frame in state S8.0, responds with RR/F=1 frame, updates V(A) variable and enters state S8.4.
TP80-011	Check that the IUT, after receipt of a valid RNR/P=0 command frame in state S8.0, updates V(A) variable and enters state S8.4.
TP80-012	Check that the IUT, after receipt of a valid RNR/F=0 response frame in state S8.0, updates V(A) variable and enters state S8.4.
TP80-013	Check that the IUT, after receipt of a valid REJ/P=1 frame in state S8.0, responds with RR/F=1 frame and remains in the initial state.
TP80-014	Check that the IUT, after receipt of a valid REJ/P=0 frame in state S8.0, remains in this state and updates it V(A) variable (no state transition and no response sent).
TP80-015	Check that the IUT, after receipt of a valid REJ/F=0 frame in state S8.0, remains in this state and updates it V(A) variable (no state transition and no response sent).
TP81-001	Check that the IUT, after receipt of a correct I-Frame/P=1 in state S8.1, responds with an RR/F=1 frame and leaves the REJ mode (state transition S8.1 to S8.0).
TP81-002	Check that the IUT, after receipt of a correct I-Frame/P=0 in state S8.1, responds with an RR/F=0 frame and leaves the REJ mode (state transition S8.1 to S8.0).
TP84-001	Check that the IUT, after receipt of a valid DISC/P=1 frame in state S8.4, responds with UA/F=1 frame and enters TEI-assigned state (i.e. state transition S8.4 to S4.0).
TP84-002	Check that the IUT, after receipt of a valid DISC/P=0 frame in state S8.4, responds with UA/F=0 frame and enters TEI-assigned state (i.e. state transition S8.4 to S4.0).
TP84-003	Check that the IUT, after receipt of a valid RR/F=1 frame in state S8.4, leaves Timer Recovery state and enters Multiple Frame Operation state (i.e. state transition S8.4 to S7.0).
TP84-004	Check the correct handling of peer busy sub-state. After receipt of RNR/F=1 frame in state S8.4, the IUT has to maintain the peer busy condition.
TP84-005	Check that the IUT, after receipt of a valid REJ/F=1 frame in state S8.4, leaves Timer Recovery state and enters Multiple Frame Operation state (i.e. state transition S8.4 to S7.0).
TP84-006	Check that the IUT, after receipt of an I-Frame/P=0 in state S8.4, responds with RR/F=0 frame and remains in the initial state.
TP84-007	Check that the IUT, after receipt of an I-Frame/P=1 in state S8.4, responds with RR/F=1 frame and remains in the initial state.
TP84-008	Check that the IUT, after receipt of a valid RR/P=1 frame in state S8.4, responds with RR/F=1 frame and leaves peer receiver busy and timer recovery conditions (state transition S8.4 to S7.0).
TP84-009	Check that the IUT, after receipt of a valid RR/P=0 frame in state S8.4, leaves the peer receiver busy sub-state and remains in timer recovery condition (state transition S8.4 to S8.0).
TP84-010	Check that the IUT, after receipt of a valid RR/F=0 frame in state S8.4, leaves the peer receiver busy sub-state and remains in timer recovery condition (state transition S8.4 to S8.0).
TP84-011	Check that the IUT, after receipt of a valid RNR/P=1 frame in state S8.4, responds with RR/F=1 frame and remains in the initial state.
TP84-012	Check that the IUT, after receipt of a valid RNR/P=0 frame in state S8.4, remains in the initial state.
TP84-013	Check that the IUT, after receipt of a valid RNR/F=0 frame in state S8.4, remains in the initial state.
TP84-014	Check that the IUT, after receipt of a valid REJ/P=1 frame in state S8.4, responds with RR/F=1 frame and leaves peer receiver busy condition (state transition S8.4 to S8.0).
TP84-015	Check that the IUT, after receipt of a valid REJ/P=0 frame in state S8.4, leaves peer receiver busy condition and remains in timer recovery condition (state transition S8.4 to S8.0).

TP84-016	Check that the IUT, after receipt of a valid REJ/F=0 frame in state S8.4, leaves peer receiver busy condition and remains in timer recovery condition (state transition S8.4 to S8.0).
TP85-001	Check that the IUT, after receipt of a correct I-Frame/P=1 in state S8.5, responds with RR/F=1 frame, leaves the REJ mode and enters state S8.4 (i.e. state transition S8.5 to S8.4).
TP85-002	Check that the IUT, after receipt of a correct I-Frame/P=0 in state S8.5, responds with RR/F=0 frame, leaves the REJ mode and enters state S8.4 (i.e. state transition S8.5 to S8.4).

5.2.2 Inopportune Behaviour

TP40-301	Check that the IUT, in state S4.0, responds with a DM/F=1 frame after receipt of an inopportune DISC/P=1 frame.
TP40-302	Check that the IUT, in state S4.0, responds with a DM/F=0 frame after receipt of an inopportune DISC/P=0 frame.
TP40-303	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=1.
TP40-304	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP40-305	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune DM/F=1.
TP40-306	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RR/P=1.
TP40-307	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=1.
TP40-308	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=0.
TP40-309	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/P=1.
TP40-310	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=1.
TP40-311	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=0.
TP40-312	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/P=1.
TP40-313	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=1.
TP40-314	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=0.
TP40-315	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune I-Frame/P=0.
TP40-316	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting SABME.
TP40-317	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting UA.
TP40-318	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting DM.
TP40-319	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting I-Frame.
TP40-320	Check that the IUT, in state S4.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting S-Frame (RNR).
TP50-301	Check that the IUT, in state S5.0, responds correctly if there is collision between mode setting commands SABME/P=1 and SABME/P=1 frame.
TP50-302	Check that the IUT, in state S5.0, responds correctly if there is collision between mode setting commands SABME/P=1 and SABME/P=0 frame.
TP50-303	Check that the IUT, in state S5.0, responds correctly if there is collision between mode setting commands SABME/P=1 and DISC/P=1 frame.
TP50-304	Check that the IUT, in state S5.0, responds correctly if there is collision between mode setting commands SABME/P=1 and DISC/P=0 frame.
TP50-305	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP50-306	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune DM/F=0.
TP50-307	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RR/P=1.
TP50-308	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=1.
TP50-309	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=0.

TP50-310	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/P=1.
TP50-311	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=1.
TP50-312	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=0.
TP50-313	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/P=1.
TP50-314	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=1.
TP50-315	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=0.
TP50-316	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune I-Frame/P=0.
TP50-317	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting SABME.
TP50-318	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting UA.
TP50-319	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting DM.
TP50-320	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting I-Frame.
TP50-321	Check that the IUT, in state S5.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting S-Frame (RNR).
TP60-301	Check that the IUT, in state S6.0, responds correctly if there is collision between mode setting commands DISC/P=1 and DISC/P=1 frame.
TP60-302	Check that the IUT, in state S6.0, responds correctly if there is collision between mode setting commands DISC/P=1 and DISC/P=0 frame.
TP60-303	Check that the IUT, in state S6.0, responds correctly if there is collision between mode setting commands DISC/P=1 and SABME/P=1 frame.
TP60-304	Check that the IUT, in state S6.0, responds correctly if there is collision between mode setting commands DISC/P=1 and SABME/P=0 frame.
TP60-305	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP60-306	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune DM/F=0.
TP60-307	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RR/P=1.
TP60-308	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=1.
TP60-309	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=0.
TP60-310	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/P=1.
TP60-311	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=1.
TP60-312	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=0.
TP60-313	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/P=1.
TP60-314	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=1.
TP60-315	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune REJ/F=0.
TP60-316	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune I-Frame/P=0.
TP60-317	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting SABME.
TP60-318	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting UA.

TP60-319	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting DM.
TP60-320	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting I-Frame.
TP60-321	Check that the IUT, in state S6.0, ignores the received frame and discards its contents after receipt of an inopportune FRMR/F=1 frame rejecting S-Frame (RNR).
TP70-301	Check that the IUT, in state S7.0, acknowledges link reset by sending UA/F=1 after receipt of a SABME/P=1 frame.
TP70-302	Check that the IUT, in state S7.0, acknowledges link reset by sending UA/F=0 after receipt of a SABME/P=0 frame.
TP70-303	Check that the IUT, after receipt of a DM/F=0, resets the data link by sending SABME/P=1 as a result of state transition S7.0 to S5.1.
TP70-304	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-305	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R), resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-306	Check that the IUT, in state S7.0, after receipt of a I-Frame/P=1 with invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S) and enters state S7.1.
TP70-307	Check that the IUT, in state S7.0, after receipt of a I-Frame/P=0 with invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S) and enters state S7.1.
TP70-308	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-309	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-310	Check that the IUT, in state S7.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=1.
TP70-311	Check that the IUT, in state S7.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP70-312	Check that the IUT, in state S7.0, ignores the received frame and discards its contents after receipt of an inopportune DM/F=1.
TP70-313	Check that the IUT, in state S7.0, ignores the received frame and discards its contents after receipt of an inopportune RR/F=1.
TP70-314	Check that the IUT, after receipt of an inopportune RNR/F=1 in state S7.0, enters state S7.4.
TP70-315	Check that the IUT, in state S7.0, re-transmits the appropriate I-Frame after receipt of an inopportune REJ/F=1.
TP70-316	Check that the IUT, after receipt of a RR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-317	Check that the IUT, after receipt of a RNR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-318	Check that the IUT, after receipt of a REJ/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-319	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-320	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-321	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.

TP70-322	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-323	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-324	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-325	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-326	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-327	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.0 to S5.1.
TP70-328	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting UA, as a result of state transition S7.0 to S5.1.
TP70-329	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting I-Frame, as a result of state transition S7.0 to S5.1.
TP70-330	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting S-Frame (RNR), as a result of state transition S7.0 to S5.1.
TP70-331	Check that the IUT, in state S7.0, restarts timer T200 after receipt of a RR/F=1, and check if the value of T200 is within tolerance.
TP70-332	Check that the IUT, in state S7.0, re-transmits the appropriate I-Frames after receipt of a REJ/F=1.
TP70-333	Check that the IUT, in state S7.0, restarts timer T200 after receipt of a RNR/F=1, and check if the value of T200 is within tolerance.
TP70-334	Check that the IUT, in state S7.0, rejects the received frame by sending REJ/F=0 after receipt of an I-Frame/P=0 with invalid N(S), and enters state S7.1.
TP70-335	Check that the IUT, in state S7.0, rejects the received frame by sending REJ/F=1 after receipt of an I-Frame/P=1 with invalid N(S), and enters state S7.1.
TP71-301	Check that the IUT, in state S7.1, replies with RR/F=1, ignores the received frame and discards its contents after receipt of an I-Frame/P=1 with invalid N(S).
TP71-302	Check that the IUT, in state S7.1, ignores the received frame and discards its contents after receipt of an I-Frame/P=0 with invalid N(S).
TP74-301	Check that the IUT, in state S7.4, acknowledges link reset by sending UA/F=1 after receipt of a SABME/P=1 frame and enters state S7.0.
TP74-302	Check that the IUT, in state S7.4, acknowledges link reset by sending UA/F=0 after receipt of a SABME/P=0 frame and enters state S7.0.
TP74-303	Check that the IUT, after receipt of a DM/F=0, resets the data link by sending SABME/P=1 as a result of state transition S7.4 to S5.1.
TP74-304	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-305	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R), resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-306	Check that the IUT, in state S7.4, after receipt of a I-Frame/P=1 with invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S) and enters state S7.5.
TP74-307	Check that the IUT, in state S7.4, after receipt of a I-Frame/P=0 with invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S) and enters state S7.5.
TP74-308	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.

TP74-309	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-310	Check that the IUT, in state S7.4, ignores the received frame and discards its contents after receipt of an inopportune UA/F=1.
TP74-311	Check that the IUT, in state S7.4, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP74-312	Check that the IUT, in state S7.4, ignores the received frame and discards its contents after receipt of an inopportune DM/F=1.
TP74-313	Check that the IUT, in state S7.4, ignores the received frame and discards its contents after receipt of an inopportune RNR/F=1.
TP74-314	Check that the IUT, in state S7.4, re-transmits the appropriate I-Frame after receipt of an inopportune REJ/F=1.
TP74-315	Check that the IUT, after receipt of a RR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-316	Check that the IUT, after receipt of a RNR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-317	Check that the IUT, after receipt of a REJ/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-318	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-319	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-320	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-321	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-322	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-323	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-324	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-325	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-326	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S7.4 to S5.1.
TP74-327	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting UA, as a result of state transition S7.4 to S5.1.
TP74-328	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting I-Frame, as a result of state transition S7.4 to S5.1.
TP74-329	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting S-Frame (RNR), as a result of state transition S7.4 to S5.1.
TP74-330	Check that the IUT, in state S7.4, restarts timer T200 after receipt of a RR/F=1, and check if the value of T200 is within tolerance.
TP74-331	Check that the IUT, in state S7.4, re-transmits the appropriate I-Frames after receipt of a REJ/F=1.
TP74-332	Check that the IUT, in state S7.4, restarts timer T200 after receipt of a RNR/F=1, and check if the value of T200 is within tolerance.

TP74-333	Check that the IUT, in state S7.4, rejects the received frame by sending REJ/F=0 after receipt of an I-Frame/P=0 with invalid N(S), and enters state S7.5.
TP74-334	Check that the IUT, in state S7.4, rejects the received frame by sending REJ/F=1 after receipt of an I-Frame/P=1 with invalid N(S), and enters state S7.5.
TP75-301	Check that the IUT, in state S7.5, replies with RR/F=1, ignores the received frame and discards its contents after receipt of an I-Frame/P=1 with invalid N(S).
TP75-302	Check that the IUT, in state S7.5, ignores the received frame and discards its contents after receipt of an I-Frame/P=0 with invalid N(S).
TP80-301	Check that the IUT, in state S8.0, acknowledges link reset by sending UA/F=1 after receipt of a SABME/P=1 frame and enters state S7.0.
TP80-302	Check that the IUT, in state S8.0, acknowledges link reset by sending UA/F=0 after receipt of a SABME/P=0 frame and enters state S7.0.
TP80-303	Check that the IUT, after receipt of a DM/F=1, resets the data link by sending SABME/P=1 as a result of state transition S8.0 to S5.1.
TP80-304	Check that the IUT, after receipt of a DM/F=0, resets the data link by sending SABME/P=1 as a result of state transition S8.0 to S5.1.
TP80-305	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-306	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R), resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-307	Check that the IUT, in state S8.0, after receipt of a I-Frame/P=1 with invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S) and enters state S8.1.
TP80-308	Check that the IUT, in state S8.0, after receipt of a I-Frame/P=0 with invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S) and enters state S8.1.
TP80-309	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-310	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-311	Check that the IUT, in state S8.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=1.
TP80-312	Check that the IUT, in state S8.0, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP80-313	Check that the IUT, after receipt of a RR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-314	Check that the IUT, after receipt of a RNR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-315	Check that the IUT, after receipt of a REJ/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-316	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-317	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-318	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-319	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.

TP80-320	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-321	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-322	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-323	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-324	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.0 to S5.1.
TP80-325	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting I-Frame, as a result of state transition S8.0 to S5.1.
TP80-326	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting S-Frame (RNR), as a result of state transition S8.0 to S5.1.
TP80-327	Check that the IUT, in state S8.0, rejects the received frame by sending REJ/F=0 after receipt of an I-Frame/P=0 with invalid N(S), and enters state S8.1.
TP80-328	Check that the IUT, in state S8.0, rejects the received frame by sending REJ/F=1 after receipt of an I-Frame/P=1 with invalid N(S), and enters state S8.1.
TP81-301	Check that the IUT, in state S8.1, replies with RR/F=1, ignores the received frame and discards its contents after receipt of an I-Frame/P=1 with invalid N(S).
TP81-302	Check that the IUT, in state S8.1, ignores the received frame and discards its contents after receipt of an I-Frame/P=0 with invalid N(S).
TP84-301	Check that the IUT, in state S8.4, acknowledges link reset by sending UA/F=1 after receipt of a SABME/P=1 frame and enters state S7.0.
TP84-302	Check that the IUT, in state S8.4, acknowledges link reset by sending UA/F=0 after receipt of a SABME/P=0 frame and enters state S7.0.
TP84-303	Check that the IUT, after receipt of a DM/F=1, resets the data link by sending SABME/P=1 as a result of state transition S8.4 to S5.1.
TP84-304	Check that the IUT, after receipt of a DM/F=0, resets the data link by sending SABME/P=1 as a result of state transition S8.4 to S5.1.
TP84-305	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-306	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R), resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-307	Check that the IUT, in state S8.4, after receipt of a I-Frame/P=1 with invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S) and enters state S8.5.
TP84-308	Check that the IUT, in state S8.4, after receipt of a I-Frame/P=0 with invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S) and enters state S8.5.
TP84-309	Check that the IUT, after receipt of a I-Frame/P=1 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=1 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-310	Check that the IUT, after receipt of a I-Frame/P=0 with invalid N(R) and invalid N(S), rejects the received frame by sending REJ/F=0 as a result of the invalid N(S), and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-311	Check that the IUT, in state S8.4, ignores the received frame and discards its contents after receipt of an inopportune UA/F=1.
TP84-312	Check that the IUT, in state S8.4, ignores the received frame and discards its contents after receipt of an inopportune UA/F=0.
TP84-313	Check that the IUT, after receipt of a RR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.

TP84-314	Check that the IUT, after receipt of a RNR/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-315	Check that the IUT, after receipt of a REJ/P=1 with invalid N(R), responds with RR/F=1 frame and resets the data link by sending SABME/P=1 as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-316	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-317	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-318	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/P=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-319	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-320	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-321	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=1 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-322	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-323	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a RNR/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-324	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a REJ/F=0 with invalid N(R), as a result of the invalid N(R) that provokes state transition S8.4 to S5.1.
TP84-325	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting I-Frame, as a result of state transition S8.4 to S5.1.
TP84-326	Check that the IUT resets the data link by sending SABME/P=1 after receipt of a FRMR frame rejecting S-Frame (RNR), as a result of state transition S8.4 to S5.1.
TP84-327	Check that the IUT, in state S8.4, rejects the received frame by sending REJ/F=0 after receipt of an I-Frame/P=0 with invalid N(S), and enters state S8.5.
TP84-328	Check that the IUT, in state S8.4, rejects the received frame by sending REJ/F=1 after receipt of an I-Frame/P=1 with invalid N(S), and enters state S8.5.
TP85-301	Check that the IUT, in state S8.5, replies with RR/F=1, ignores the received frame and discards its contents after receipt of an I-Frame/P=1 with invalid N(S).
TP85-302	Check that the IUT, in state S8.5, ignores the received frame and discards its contents after receipt of an I-Frame/P=0 with invalid N(S).

5.2.3 Invalid Behaviour

TP40-601	Check that the IUT, in state S4.0, after receipt of an invalid SABME/P=1 frame with erroneous CR bit value ignores the received frame and discards its contents.
TP40-602	Check that the IUT, in state S4.0, after receipt of an SABME/P=1 frame containing an invalid address ignores the received frame and discards its contents.
TP40-603	Check that the IUT, in state S4.0, after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets ignores the received frame and discards its contents.
TP40-604	Check that the IUT, in state S4.0, after receipt of an invalid DISC/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP40-605	Check that the IUT, in state S4.0, after receipt of an invalid RR/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP40-606	Check that the IUT, in state S4.0, after receipt of an invalid FRMR/F=0 frame with incorrect length ignores the received frame and discards its contents.
TP40-607	Check that the IUT, in state S4.0, after receipt of an undefined 3 octet frame ignores the received frame and discards its contents.
TP40-608	Check that the IUT, in state S4.0, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP40-609	Check that the IUT, in state S4.0, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP40-610	Check that the IUT, in state S4.0, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP40-611	Check that the IUT, in state S4.0, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP50-601	Check that the IUT, in state S5.0, after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets ignores the received frame and discards its contents.
TP50-602	Check that the IUT, in state S5.0, after receipt of an invalid DISC/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP50-603	Check that the IUT, in state S5.0, after receipt of an invalid RR/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP50-604	Check that the IUT, in state S5.0, after receipt of an invalid FRMR/F=0 frame with incorrect length ignores the received frame and discards its contents.
TP50-605	Check that the IUT, in state S5.0, after receipt of an undefined 3 octet frame ignores the received frame and discards its contents.
TP50-606	Check that the IUT, in state S5.0, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP50-607	Check that the IUT, in state S5.0, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP50-608	Check that the IUT, in state S5.0, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP50-609	Check that the IUT, in state S5.0, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP60-601	Check that the IUT, in state S6.0, after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets ignores the received frame and discards its contents.
TP60-602	Check that the IUT, in state S6.0, after receipt of an invalid DISC/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP60-603	Check that the IUT, in state S6.0, after receipt of an invalid RR/P=1 frame with incorrect length ignores the received frame and discards its contents.
TP60-604	Check that the IUT, in state S6.0, after receipt of an invalid FRMR/F=0 frame with incorrect length ignores the received frame and discards its contents.
TP60-605	Check that the IUT, in state S6.0, after receipt of an undefined 3 octet frame ignores the received frame and discards its contents.
TP60-606	Check that the IUT, in state S6.0, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.

TP60-607	Check that the IUT, in state S6.0, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP60-608	Check that the IUT, in state S6.0, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP60-609	Check that the IUT, in state S6.0, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP70-601	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of a modulo 8 supervisory frame.
TP70-602	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an I-Frame/P=1 with erroneous CR bit value.
TP70-603	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets.
TP70-604	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid DISC/P=1 frame with incorrect length.
TP70-605	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid RR/P=1 frame with incorrect length.
TP70-606	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid FRMR/F=0 frame with incorrect length.
TP70-607	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) unnumbered frame (3 octet frame).
TP70-608	Check that the IUT, in state S7.0, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) supervisory frame (4 octet frame).
TP70-609	Check that the IUT, in state S7.0, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP70-610	Check that the IUT, in state S7.0, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP70-611	Check that the IUT, in state S7.0, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP70-612	Check that the IUT, in state S7.0, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP74-601	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets.
TP74-602	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid DISC/P=1 frame with incorrect length.
TP74-603	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid RR/P=1 frame with incorrect length.
TP74-604	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid FRMR/F=0 frame with incorrect length.
TP74-605	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) unnumbered frame (3 octet frame).
TP74-606	Check that the IUT, in state S7.4, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) supervisory frame (4 octet frame).
TP74-607	Check that the IUT, in state S7.4, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP74-608	Check that the IUT, in state S7.4, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP74-609	Check that the IUT, in state S7.4, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP74-610	Check that the IUT, in state S7.4, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP80-601	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets.
TP80-602	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid DISC/P=1 frame with incorrect length.
TP80-603	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid RR/P=1 frame with incorrect length.

TP80-604	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid FRMR/F=0 frame with incorrect length.
TP80-605	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) unnumbered frame (3 octet frame).
TP80-606	Check that the IUT, in state S8.0, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) supervisory frame (4 octet frame).
TP80-607	Check that the IUT, in state S8.0, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP80-608	Check that the IUT, in state S8.0, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP80-609	Check that the IUT, in state S8.0, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP80-610	Check that the IUT, in state S8.0, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.
TP84-601	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid I-Frame/P=0 whose information field exceeds N201 octets.
TP84-602	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid DISC/P=1 frame with incorrect length.
TP84-603	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid RR/P=1 frame with incorrect length.
TP84-604	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid FRMR/F=0 frame with incorrect length.
TP84-605	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) unnumbered frame (3 octet frame).
TP84-606	Check that the IUT, in state S8.4, resets the data link by sending SABME/P=1 after receipt of an invalid (undefined) supervisory frame (4 octet frame).
TP84-607	Check that the IUT, in state S8.4, after receipt of an undefined frame (UI frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP84-608	Check that the IUT, in state S8.4, after receipt of an undefined frame (XID frame in ETS 300 402-2 [1] table 5/Q.921) ignores the received frame and discards its contents.
TP84-609	Check that the IUT, in state S8.4, after receipt of an invalid SABME/P=1 frame with SAPI value not equal to zero ignores the received frame and discards its contents.
TP84-610	Check that the IUT, in state S8.4, after receipt of an invalid I-Frame/P=0 containing an FCS error ignores the received frame and discards its contents.

5.2.4 Undefined test purposes

There are no test purposes defined, for the states: 7.2, 7.3, 7.6, 7.7, 8.2, 8.3, 8.6, and 8.7, because only internal conditions of the IUT can place it into these states. The procedures and mechanisms for managing these internal conditions are outside the specified procedures in ETS 300 402-2 [1].

History

Document history		
July 1996	Public Enquiry	PE 110: 1996-07-22 to 1996-11-15