COMMISSION DECISION

of 18 November 1994

on a common technical regulation for the pan-European integrated services digital network (ISDN) basic access

(94/797/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 91/263/EEC of 29 April 1991 on the approximation of the laws of the Member States concerning telecommunications terminal equipment, including the mutual recognition of their conformity [1], as amended by Directive 93/68/EEC [2], and in particular Articles 6(2) and 16(4) thereof,

Whereas the Commission has adopted under Council Directive 86/361/EEC [3] the measure identifying the type of terminal equipment for which a common technical regulation is required, together with the associated scope statement;

Whereas this Decision constitutes a bridging measure which is to be reviewed within a period of two years following its adoption due account being taken of the progress made by the relevant standardization body engaged in the preparation of a new harmonized standard implementing the essential requirements applicable;

Whereas during this period it may be necessary to amend this Decision with respect to the harmonized standards identified in this Decision;

Whereas in some Member States, the early national implementations of ISDN may have resulted in justified national variations;

Whereas in order to ensure continuity of access to markets for manufacturers now serving one or more national markets, it is necessary to allow for transitional arrangements regarding the use of national requirements during the period mentioned in this Decision;

Whereas the maximum period mentioned in this Decision should be determined by the finalization by the relevant standardization body of the mandated harmonized standards implementing the essential requirements applicable;

Whereas the common technical regulation adopted in this Decision is in accordance with the opinion of the Approvals Committee for Terminal Equipment (ACTE),

HAS ADOPTED THIS DECISION:

Article 1

1. This Decision shall apply to terminal equipment intended to be connected to a public telecommunications network and falling within the scope of the harmonized standard identified in Article 2 (1).

2. This Decision establishes a common technical regulation covering the technical characteristics, electrical and mechanical interface requirements, and access control protocol to be provided by terminal equipment which is capable of and intended by the manufacturer, or his representative, for connection to a T, or coincident S and T, reference point for a basic access rate access at an interface to a public telecommunications network presented as a pan-European ISDN (EURO-ISDN) basic access point.

Article 2

1. The common technical regulation shall include the harmonized standard prepared for the corresponding measure adopted under Directive 86/361/EEC, but shall limit itself to the essential requirements referred to in Article 4 (c) to (f) of Directive 91/263/EEC. The reference to the standard is set out in Annex I, of which the applicable part is shown in Annex II.

2. Terminal equipment covered by this Decision shall comply with the common technical regulation referred to in paragraph 1, shall meet the essential requirements referred to in points (a) and (b) of Article 4 of Directive 91/263/EEC, and shall meet the requirements of any other applicable Directives, in particular Council Directives 73/23/EEC [4] and 89/336/EEC [5].

[1] OJ No L 128, 23. 5. 1991, p. 1.
[2] OJ No L 220, 31. 8. 1993, p. 1.
[3] OJ No L 217, 5. 8. 1986, p. 21.
[4] OJ No L 77, 26. 3. 1973, p. 29.
[5] OJ No L 139, 23. 5. 1989, p. 19.

Article 3

Notified bodies designated for carrying out the procedures referred to in Article 9 of Directive 91/263/EEC shall, as regards terminal equipment covered by Article 1 (1) of this Decision, use or ensure the use of the harmonized standard referred to in Annex I except where a justified national variation is applicable during the period referred to in Article 4.

Article 4

The Commission shall examine the experience gained in the application of this Decision and the progress made by the relevant standardization body for the purpose of ensuring the early availability of the relevant harmonized standard which has been adopted by that recognized standardization body. To that end it shall adopt any necessary amendments to this Decision in accordance with the procedures laid down in Directive 91/263/EEC, and it shall adopt a final measure within a maximum period of two years after this Decision has taken effect.

Article 5

This Decision is addressed to the Member States.

Done at Brussels, 18 November 1994.

For the Commission
Martin BANGEMANN
Member of the Commission

ANNEX I

Reference to the harmonized standard of which parts are applicable

The harmonized standard referred to Article 2 of the Decision is:

NET 3 (ISDN basic access)

OJ No C 53, 24. 2. 1993, p. 6.

Additional information

The harmonized standard referred to, NET 3, was adopted under Directive 86/361/EEC.

The full text of NET 3 can be obtained from the following address:

European Telecommunications Standards Institute,
F-06921 Sophia Antipolis Cedex.

ANNEX II

Cross Reference List indicating applicable part of the harmonized standard

Layer 1, NET 3, cross reference list

Reference to NET 3 (ETS 300 012)	Reference to draft prTBR 3 (1) TTCN test case	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3 (ETS 300 012)
D.2.1.1	No TTCN test case	9.3.1.1 9.3.1.3 9.3.2	Not TTCN	To check the binary organization of INFO 3 frames.
D.2.1.2	No TTCN test case	9.2.1	Not TTCN	To check the binary organization of INFO 1 frames.
D.3.1.1	DCBinaryOneCL1	9.4.1.1	TTCN	To check the D-channel contains the correct interframe time fill from the TE.
D.3.1.2	DCNormalPL1CL1 DCNormalPL0CL1 DCPriorityClass1 DCNormtoLowPLCL1 DCLowtoNormPLCL1	9.4.1.2 9.4.1.3	TTCN	To check if the TE detects collisions on the D-channel when transmitting, by means of the D-echo channel and ceases transmission immediately.
D.3.2.1	AD1aF1_PS&LP-on AD1bF10_LP-on AD1cF11_LP-off AD1dF11_PS-on AD2F11_CHK_T3 AD3aF2_PS-off AD3bF2_LP-off AD4F2_RX-I0 AD5F2_RX-I2 AD6F2_RX-I4 AD7F2_RX-IX CPF2PHAI AD8F2_CHK_T3 AD9aF3_PS-off AD9bF3_LP-off AD10F3_PH-AR AD11F3_RX-I0 AD12F3_RX-I2 AD13F3_RX-I4 AD14F3_RX-IX AD15F3_CHK_T3 CPF3MPHIID CPF3PHAI CPF4Tlayer2 AD16aF4_PS-off AD16bF4_LP-off CPF4MPHIID CPF4PHAI CPF4PHDI_T3exp AD17F4_RX-I0 AD18F4_RX-I2 AD19F4_RX-I4 IAD21F4_CHK_T3 AD22aF5_PS-off AD22bF5_LP-off AD23F5_RX-I0 AD24F5_RX-I2 AD25F5_RX-I4 AD26F5_RX-IX	9.4.2.3.1	TTCN	To check the terminal correctly executes the activation/deactivation procedure.

(1) Draft prTBR 3, April 1994.

Reference to NET 3 (ETS 300 012)	Reference to draft prTBR 3 (1) TTCN test case	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3 (ETS 300 012)
D.3.2.1 *(Continues)*	AD27F5_CHK_T3 CPF5MPHIID CPF5PHAI CPF5PHDI_I0T3 CPF5PHDI_T3expa CPF5PHDI_T3expb AD28aF6_PS-off AD28bF6_LP-off AD28cF6_PS-off AD29F6_Lostfr AD30F6_PH-AR AD32F6_RX-I2 AD33F6_RX-I4 AD34F6_CHK_T3 CPF6PHAIa CPF6PHAIb CPF6PHDI_T3exp CPF6PHDI_I0T3 CPF6PHDI_I0 CPF6PHARa CPF6PHARb AD35aF7_PS-off AD35bF7_LP-off AD35cF7_PS-off AD36F7_Lostfr AD37F7_RX-I0 AD38F7_RX-I2 AD39F7_RX-I4 CPF7PHDI_I0 AD40aF8_PS-off AD40bF8_LP-off AD41F8_PH-AR AD42F8_RX-I0 AD43F8_RX-I2 AD44F8_RX-I4 AD45F8_RX-IX AD46F8_CHK_T3 CPF8MPHIIDa CPF8MPHIIDb CPF8PHAIb CPF8PHAIc CPF8PHDI_T3exp CPF8PHDI_I0T3 CPF8PHDI_I0b CPF8PHARa CPF8PHARb			
D.3.2.1	AD31F6_RX-I0	9.4.2.5	TTCN	To check that IUT is brought to state F3 when receiving INFO 0 in state F6. *Note:* There is a missing reference to AD31F6_RX-I0 in paragraph 9.4.2.5 of draft prTBR 3.
D.3.2.2.1.1	TIF3info2	9.4.2.4	TTCN	To check the value of the TE activation times in the deactivated state.
D.3.2.2.1.2	TIF4info2	9.4.2.4	TTCN	To check the value of the TE activation times in the waiting for signal state.
D.3.2.2.2.1	TIF3info4	9.4.2.4	TTCN	To check the value of the TE activation times in the deactivated state.
D.3.2.2.2.2	TIF4info4	9.4.2.4	TTCN	To check the value of the TE activation times in the waiting for signal state.

(1) Draft prTBR 3, April 1994.

Reference to NET 3 (ETS 300 012)	Reference to draft prTBR 3 (1) TTCN test case	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3 (ETS 300 012)
D.3.2.2.4	TItimerT3	9.4.2.3.2	TTCN	To check the value of timer T3.
D.3.2.2.5.1	TIF6physdeact	9.4.2.5	TTCN	To check the value of the TE deactivation times.
D.3.2.2.5.2	TIF7physdeact	9.4.2.5	TTCN	To check the value of the TE deactivation times.
D.3.2.2.6.1	TIF7compdeact1	9.4.2.3.1	TTCN	To check the value of the timer when leaving state F7 upon reception of INFO 0.
D.3.2.2.6.2	TIF8compdeact1	9.4.2.3.1	TTCN	To check the value of the timer when leaving state F8 upon reception of INFO 0.
D.3.3	FAinfA_1fr FAinfB_1fr FAinfD_1fr FAinfA_kfr FAinfB_kfr FAinfD_kfr FAregain	9.4.3	TTCN	To test the IUT correctly executes the frame alignment procedures.
D.3.4	MUltiframe	9.4.4	TTCN	To test the IUT correctly executes the multiframing procedures.
D.3.5	BCBinaryOne	9.4.5	TTCN	To check the contents of all non-assigned B-channels.
D.4.1	No TTCN test case	9.2.1	Not TTCN	The average frame rate when the TE is transmitting INFO 1 type frames.
D.4.2.1	No TTCN test case	9.2.2.2	Not TTCN	TE output jitter when transmitting INFO 3 type frames.
D.4.2.2	No TTCN test case	9.2.2.3	Not TTCN	TE total phase deviation input to output.
D.4.3.1	No TTCN test case	9.2.3	Not TTCN	Output impedance of the transmitters when transmitting a binary ONE (no signal).
D.4.3.2	No TTCN test case	9.2.3	Not TTCN	Output impedance of the transmitters when transmitting a binary ZERO.
D.4.3.3	No TTCN test case	9.2.3	Not TTCN	Output peak current.
D.4.3.4	No TTCN test case	9.2.3	Not TTCN	Output impedance of the transmitters in the inactive state.
D.4.3.5	No TTCN test case	9.2.3	Not TTCN	Output peak current.
D.4.4	No TTCN test case	9.2.4	Not TTCN	Pulse shape and amplitude of isolated transmitted pulses.
D.4.5.1	No TTCN test case	9.2.5.1	Not TTCN	Pulse amplitude when transmitting a high density pattern.
D.4.5.2	No TTCN test case	9.2.5.2	Not TTCN	The relative difference in integral Udt for a positive and negative pulse.
D.4.6.1	No TTCN test case	9.2.6.1	Not TTCN	Voltage, on a 400 ohm test load, to prevent pulses adding when 2 to 8 drivers are in parallel.
D.4.6.2	No TTCN test case	9.2.6.2	Not TTCN	Voltage on a 5,6 ohm test load, to prevent current flow when two opposite polarity drivers are in parallel.

(1) Draft prTBR 3, April 1994.

Reference to NET 3 (ETS 300 012)	Reference to draft prTBR 3 (1) TTCN test case	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3 (ETS 300 012)
D.4.7	No TTCN test case	9.2.7	Not TTCN	Longitudinal Conversion Loss (LCL) (the ratio of longitudinal signal converted to a transverse signal as a result of the unbalance about earth of the terminal output).
D.4.8.1.1	No TTCN test case	9.2.8	Not TTCN	To test the input impedance of terminals whilst in a deactive state.
D.4.8.1.2	No TTCN test case	9.2.8	Not TTCN	To test that the input impedance of the receiver when receiving an overvoltage signal is correct.
D.4.8.1.3	No TTCN test case	9.2.8	Not TTCN	To test the input impedance of TE receivers in the inactive state.
D.4.8.1.4	No TTCN test case	9.2.8	Not TTCN	To test that the input impedance of the receiver when receiving an overvoltage signal is correct.
D.4.8.2	No TTCN test case	9.2.9	Not TTCN	Subclause A.8.6.2, ETS 300 012 is designed to correctly test the receivers function in the various wiring configurations.
D.4.8.3	No TTCN test case	9.2.10	Not TTCN	Longitudinal Conversion Loss (LCL) (the ratio of longitudinal signal converted to a transverse signal as a result of the unbalance about earth of the terminal output).
D.5.1.1.1	No TTCN test case	9.5.3.1	Not TTCN	To ensure an ACTIVATED TE does not draw excessive power from a normal mode, phantom Power Source 1, whilst in an activated state.
D.5.1.1.2	No TTCN test case	9.5.3.1	Not TTCN	To ensure the DEACTIVATED TE does not draw excessive power from a normal mode, phantom Power Source 1.
D.5.1.1.3	No TTCN test case	9.5.3.1	Not TTCN	To ensure a DEACTIVATED TE does not draw excessive power from a normal mode, phantom Power Source 1, whilst in local action.
D.5.1.1.4	No TTCN test case	9.5.3.1	Not TTCN	To ensure a LOCALLY POWERED TE does not consume excessive power from PS1.
D.5.1.2.1	No TTCN test case	9.5.3.2.1 9.5.3.2.2	Not TTCN	To ensure an ACTIVATED designated TE does not consume excessive power from PS1.
D.5.1.2.2	No TTCN test case	9.5.3.2.1 9.5.3.2.2	Not TTCN	To ensure a DEACTIVATED designated TE does not consume excessive power from PS1.
D.5.1.2.3	No TTCN test case	9.5.3.2.1 9.5.3.2.2	Not TTCN	To ensure a DEACTIVATED designated TE does not consume excessive power from PS1 during a local action.
D.5.1.2.4	No TTCN test case	9.5.3.2.1 9.5.3.2.2	Not TTCN	To ensure that a locally powered TE, in any state does not consume excessive power from PS1 (restricted).

(1) Draft prTBR 3, April 1994.

Reference to NET 3 (ETS 300 012)	Reference to draft prTBR 3 (1) TTCN test case	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3 (ETS 300 012)
D.5.1.2.6	No TTCN test case	9.5.3.2.1 9.5.3.2.2	Not TTCN	To ensure a non designated TE does not consume excessive power from PS1 in any state.
D.5.1.3	No TTCN test case	9.5.2	Not TTCN	To test the rate of change of the current drawn by a TE when the TE is varying its power consumption. This may be caused by changing the state, by some local actions or by some TE typical services.
D.5.1.4.1	No TTCN test case	9.5.5.1.1 9.5.5.1.2	Not TTCN	To test the behaviour of current over time when connecting to PS1 in normal and restricted mode.
D.5.1.4.2	No TTCN test case	9.5.5.1.3	Not TTCN	To test the sink current of a non — case designated or local powered TE from the phantom in restricted mode when connecting to the S-Bus.
D.5.1.4.3	No TTCN test case	9.5.5.1.4	Not TTCN	To test the connection detector when disconnecting.
D.5.1.4.4.1	No TTCN test case	9.5.5.2.1	Not TTCN	To test the behaviour of TE input voltage over time after removal of short-circuit.
D.5.1.4.4.2	No TTCN test case	9.5.5.2.1	Not TTCN	To test the power start-up of a TE when connected to Power Source 1 normal at low voltage.
D.5.1.4.5.1	No TTCN test case	9.5.5.2.2	Not TTCN	To ensure that an IUT does not lose an ongoing communcation when the provision of power in normal power mode is interrupted.
D.5.1.4.5.2	No TTCN test case	9.5.5.2.2	Not TTCN	To ensure that a IUT does not lose an ongoing communication when the provision of power in restricted power mode is interrupted.
D.5.1.4.6.1	No TTCN test case	9.5.5.2.3	Not TTCN	To check the reaction of an IUT under normal power condition, when the mode changes from normal to restricted mode.
D.5.1.4.6.2	No TTCN test case	9.5.5.2.3	Not TTCN	To check the reaction of power consumption of an IUT after change from restricted to normal mode.
D.5.1.4.7	No TTCN test case	9.5.5.3.1	Not TTCN	To test the DC unbalance of the receiver and transmitter circuit.
D.5.1.4.8	No TTCN test case	9.5.5.3.2	Not TTCN	To test the impedance of the receiver and transmitter when a direct current unbalance is applied.

(1) Draft prTBR 3, April 1994.

Layer 2, NET 3, cross reference list

Reference to NET 3	Reference to I-ETS 300 313	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.2.2.1.1	TC24004	10.6.1.2	TTCN	Tests the normal initialization of multiple-frame operation.
A.2.2.1.3	TC25002	10.6.1.2	TTCN	To test that terminal takes appropriate action if the data link connection cannot be initialized, e.g. in case of the unavailability of resources at the network side.
A.2.2.1.4	TC25005	10.6.1.3	TTCN	Test the terminals response to the inability of the network to respond to requests to initialize the data link and to ensure that the TE under test tries only N200+1 times to initialize the data link.
A.2.2.1.5	TC27022	10.8	TTCN	To ensure correct data link reset by the terminal.
A.2.2.2.2	TC27003	10.7.1 10.7.2 10.7.2.2 10.7.3	TTCN	Tests the operation layer 2 sequence numbering. Since there are 128 sequence numbers the test program should cycle through this number of information frame transfers.
A.2.2.2.3	TC27004	10.7.3	TTCN	To test that the terminal correctly accepts an 'I' command frame as valid response to an 'I' command frame which it has transmitted.
A.2.2.2.4	TC28012	10.7.2	TTCN	Ensures that whilst in the timer recovery state the terminal is able to receive I-frames.
A.2.2.3.1	TC27012	10.6.2	TTCN	Tests the normal data link disconnection sequences.
A.2.2.4.1	TC27058	10.9.2	TTCN	Tests the layer 2 FCS check mechanism.
A.2.2.4.2	TC27015	10.7.6	TTCN	Tests the layer 2 recovery mechanism of the TE in the event of I-frame loss.
A.2.2.4.3	TC27019	10.7.6	TTCN	Test layer 2 recovery mechanism in the event of RR-frame loss.
A.2.2.4.4 (b)	TC27027	10.9.1	TTCN	Test layer 2 recovery mechanism in the event of RR-frame loss.
A.2.2.5.1	TC27404	10.7.5	TTCN	To ensure correct handling of peer busy condition. (Frame numbers 1, 4 to 9)
A.2.2.5.1	TC28406	10.7.1 10.7.2	TTCN	To ensure correct handling of peer busy conditions. (Frame numbers 1 to 3)
A.2.2.7.1	TC14002	10.5.3.2	TTCN	Tests the allocation of TEIs using management procedures and tests that the terminal shall perform TEI check on a check request message for a specific TEI value.
A.2.2.7.2	TC13008	10.5.2.1	TTCN	To test the terminals response to a TEI denied frame.
A.2.2.7.3	TC14001	10.4.1 10.4.2 10.5.3.2	TTCN	Checks the terminal shall perform TEI check on request from ET.
A.2.2.7.4	TC13010	10.5.2.1	TTCN	Check whether the IUT after N202 unsuccessful attempts to acquire a TEI value makes no further attempts.
A.2.2.8.1.1	TC24020	10.9.2	TTCN	Ensures that the terminal does not accept frames containing an invalid address and that, on receipt of such a frame, it takes no action.

(1) Draft prTBR 3, April 1994.

Reference to NET 3	Reference to I-ETS 300 313	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.2.2.8.4.1	TC27028	10.9.1	TTCN	Ensures that the terminal shall transmit a REJ-frame in response to an out of sequence I-frame.
A.2.2.8.4.2	TC27011	10.7.4	TTCN	Ensures that on receipt of a REJ-frame the terminal retransmits the appropriate I-frame.
A.2.2.8.4.3	TC28005	10.7.4 10.7.6	TTCN	Ensures that on receipt of a REJ-frame during the timer recovery condition the terminal retransmits the appropriate I-frame.
A.2.2.8.5.1 (a)	TC27040	10.9.3	TTCN	Ensures that the terminal resets the data link on receipt of a frame with an invalid N(R) value. (N(R) is valid in the range $V(A) \leq N(R) \leq V(S)$).
A.2.2.8.5.1 (b)	TC27043	10.9.3	TTCN	Ensures that the terminal resets the data link on receipt of a frame with an invalid N(R) value. (N(R) is valid in the range $V(A) \leq N(R) \leq V(S)$).
A.2.2.8.5.1 (c)	TC27046	10.9.3	TTCN	Ensures that the terminal resets the data link on receipt of a frame with an invalid N(R) value. (N(R) is valid in the range $V(A) \leq N(R) \leq V(S)$).
A.2.2.8.7	TC11013	10.4.2	TTCN	Ensures that the IUT when in state 1 discards an Incoming UI-frame with TEI value different from 127.
A.2.2.9.1	TC27417	10.7.5 10.7.6	TTCN	Ensures T200 is within the allowed tolerance of its value of 1 second (± 5 %).
A.2.2.9.2	TC27411	10.7.5 10.7.6	TTCN	Ensures the correct value of N200, the maximum number of (retransmissions of a frame (default value 3)).

(1) Draft prTBR 3, April 1994.

Layer 3, NET 3, cross reference list

Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.1.1.1.1	TC10005	11.4.2.1 11.4.2.4 11.4.2.5.1	TTCN	Ensures that on receipt of a valid SETUP message without the Sending complete information element the terminal responds with either a SETUP ACKNOWLEDGE, CALL PROCEEDING, ALERTING or CONNECT message and moves to the relevant state.
A.1.1.1.2	TC10006	11.4.2.1 11.4.2.5.1	TTCN	Ensures that on receipt of a valid SETUP message with the Sending complete information element the terminal responds with either a CALL PROCEEDING, ALERTING or CONNECT message and moves to the relevant state.
A.1.1.2.1	TC10008	11.4.2.2	TTCN	Ensures that on receipt of a valid SETUP message containing an incompatibly coded bearer capability value in the Bearer capability information element the TE either ignores the incoming Call (OPTION A) or responds by sending a RELEASE COMPLETE message (OPTION B) and remains in the Null state.

(1) Draft prTBR 3, April 1994.

Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.1.1.2.2	TC10009	11.4.2.2	TTCN	This test is only applicable to TE's with an HLC capability It ensures that on receipt of a valid SET UP message containing a compatible BC but incompatible High Layer compatibility information element the TE (which performs high layer compatibility checks) either ignores the incoming call (OPTION A) or responds by sending a RELEASE COMPLETE message (OPTION B) and remains in the Null state.
A.1.2	TC10011	11.4.6.2	TTCN	Ensures that on receipt of a repeated valid SETUP message with the same call reference as the initial SETUP message, the terminal ignores the second SETUP message and remains in the same state.
A.1.3.3	TC10015	11.4.6.5.1	TTCN	Ensures that on receipt of a SETUP message without a mandatory information element (e.g. the Bearer capability information element), the terminal responds with a RELEASE COMPLETE message and remains in the Null state.
A.1.3.4	TC10027	11.4.6.6.1	TTCN	Ensures that on receipt of a SETUP message with an unrecognized (not yet defined) information element of the type 'comprehension required' (i.e. bits 5—8 of the information element identifier coded '0000') the terminal responds with a RELEASE COMPLETE message and remains in the Null state.
A.1.3.5	TC10028	11.4.6.6.1	TTCN	Ensures that on receipt of a SETUP message with an unrecognized (not yet defined) information element of the type other than 'comprehension required' (i.e. bits 5—8 of the information element identifier coded other than '0000') the terminal takes normal action on those information elements which are recognized and have valid content. Additionally the terminal may return a STATUS message.
A.1.3.6	TC10029	11.4.6.6.2	TTCN	Ensures that on receipt of a SETUP message with a non-mandatory information element with invalid/unrecognized content the terminal takes normal action on those information elements which are recognized and have valid content. Additionally the terminal may return a STATUS message.
A.1.3.7	TC19003	11.4.8	TTCN	Ensures that on receipt of a RESTART message the specified channel is returned to the idle condition, the call reference is returned to the Null State and a RESTART ACKNOWLEDGE is sent. (Test in ETS 300 104/A1)
A.2.1	TC10002	11.4.6.2 11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and that no change of state occurs.
A.2.2	TC10001	11.4.6.3	TTCN	Ensures the terminal ignores a RELEASE COMPLETE message and that no change of state occurs.
A.2.3.1	TC10010	11.4.6.2	TTCN	Ensures the terminal responds to an inopportune message with a RELEASE or a RELEASE COMPLETE message (see Preliminary Note 10).
A.2.4.2	TC10004	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message indicating any call state except the Null state, the terminal responds with either a RELEASE or a RELEASE COMPLETE message.
A.2.5	TC20001	11.4.4.4	TTCN	Ensures that on sending a RESUME message the terminal enters the Resume Request state.

(1) Draft prTBR 3, April 1994.

Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.4.1	TC12501	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.4.2	TC12505	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE message the terminal responds with RELEASE COMPLETE message and enters the Null state.
A.4.3	TC12504	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.4.4.1	TC12508	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.4.4.2	TC12521	11.4.6.3	TTCN	Ensures the terminal responds to a syntactically invalid message type with a STATUS message and that no change of state occurs.
A.4.5.1	TC12502	11.4.2.4	TTCN	Ensures that on receipt of an INFORMATION PDU without sufficient called number information the IUT does not respond and remains in the same state.
A.4.5.2	TC12503	11.4.2.4 11.4.2.5.1	TTCN	Ensures that on receipt of an INFORMATION message containing sufficient called number information the terminal responds with either a CALL PROCEEDING, ALERTING or CONNECT message and moves to the relevant state.
A.4.6.1	TC12507	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.5.1	TC10901	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.5.2	TC10904	11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.
A.5.3	TC10903	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.5.4.1	TC10907	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.5.4.2	TC10920	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.5.6.1	TC10906	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.6.1	TC10701	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.6.2	TC10704	11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.

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Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.6.3	TC10703	11.4.2 11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.6.4.1	TC10707	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.6.4.2	TC10720	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.6.6.1	TC10706	11.4.6.8	TTCN	Ensures that on receipt of STATUS message specifying the Null state, the terminal moves into the Null state.
A.7.1	TC10802	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.7.2	TC10805	11.4.2.8 11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.
A.7.3	TC10804	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.7.4.1	TC10808	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.7.4.2	TC10821	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.7.6.1	TC10807	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.7.7	TC10801	11.4.2.7	TTCN	Ensures that the terminal will enter the Active state on receipt of a CONNECT ACKNOWLEDGE message.
A.8.2	TC11005	11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.
A.8.3	TC11004	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.8.4.1	TC11008	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.8.4.2.1	TC11021	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.8.6.1	TC11007	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.8.7	TC11003	11.4.7	TTCN	Ensures that on receipt of a NOTIFY message the terminal makes no response and remains in the same state.
A.8.8	TC21003	11.4.3.3	TTCN	Ensures the terminal transmits a DISCONNECT message and enters the Disconnect Request state on invocation of clearing.

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Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.8.9	TC21005	11.4.4.1	TTCN	Ensures that on transmission of a SUSPEND message the terminal moves into the Suspend Request state.
A.9.1	TC20002	11.4.1.1	TTCN	Ensures terminal transmits a valid SETUP message and enters the Call Initiated state (state 1).
A.10.1	TC10103	11.4.6.3	TTCN	Ensures on receipt of a RELEASE message the terminal responds with a RELEASE COMPLETE message and enters the Null state.
A.10.2	TC10102	11.4.6.3	TTCN	Ensures on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.10.3.1	TC10107	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.10.3.2	TC10120	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.10.4.1	TC10105	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.10.5	TC10101	11.4.1.3.1	TTCN	Ensures that on receipt of a CALL PROCEEDING message the terminal enters the Outgoing CALL PROCEEDING state.
A.10.6	TC10104	11.4.1.2	TTCN	Ensures on receipt of a SETUP ACKNOWLEDGE message the terminal enters the Overlap Sending state.
A.11.1	TC10204	11.4.3.4.2	TTCN	Ensures on receipt of a DISCONNECT message the terminal moves into the Disconnect Indication state.
A.11.2	TC10208	11.4.6.3	TTCN	Ensures on receipt of a RELEASE message the terminal responds with a RELEASE COMPLETE message and enters the Null state.
A.11.3	TC10207	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.11.4.1	TC10211	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.11.4.2	TC10224	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.11.6.1	TC10210	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.11.8	TC10203	11.4.1.3.2	TTCN	Ensures on receipt of a CALL PROCEEDING message the terminal enters the Outgoing CALL PROCEEDING state (state 3).
A.11.9	TC10201	11.4.1.4	TTCN	Ensures on receipt of an ALERTING message the terminal enters the Call Delivered state.
A.11.10	TC10202	11.4.1.5	TTCN	Ensures on receipt of a CONNECT message the terminal enters the Active state (a CONNECT ACKNOWLEDGE response from the terminal is optional).

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Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.11.11	TC20204	11.4.1.2	TTCN	Ensures the terminal transmits an INFORMATION message when prompted and remains in the same state.
A.11.12	TC20203	11.4.3.3	TTCN	Ensures the terminal transmits a DISCONNECT message and enters the Disconnect request state on initiation of call clearing by the terminal.
A.12.1	TC10303	11.4.3.4.2	TTCN	Ensures on receipt of a DISCONNECT message the terminal enters the Release Request state.
A.12.2	TC10307	11.4.6.3	TTCN	Ensures on receipt of a RELEASE message the terminal responds with a RELEASE COMPLETE message and enters the Null state.
A.12.3	TC10306	11.4.6.3	TTCN	Ensures on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.12.4.1	TC10310	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.12.4.2	TC10323	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.12.6.1	TC10309	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.12.9	TC10302	11.4.1.5	TTCN	Ensures on receipt of a CONNECT message the terminal enters the Active state (a CONNECT ACKNOWLEDGE response from the terminal is optional).
A.12.10	TC20301	11.4.3.3	TTCN	Ensures that when the terminal transmits a DISCONNECT message it enters the Disconnect Request state.
A.13.1	TC10402	11.4.3.4.2	TTCN	Ensures on receipt of a DISCONNECT message the terminal responds with a RELEASE message and enters Release Request state.
A.13.2	TC10406	11.4.6.3	TTCN	Ensures on receipt of a RELEASE message the terminal responds with a RELEASE COMPLETE message and enters the Null state.
A.13.3	TC10405	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.13.4.1	TC10409	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.13.4.2	TC10422	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with STATUS message and that no change of state occurs.
A.13.6.1	TC10408	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.13.8	TC10401	11.4.1.5	TTCN	Ensures on receipt of a CONNECT message the terminal enters the Active state (a CONNECT ACKNOWLEDGE response from the terminal is optional).

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Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.13.9	TC20401	11.4.3.3	TTCN	Ensures that when the terminal transmits a DISCONNECT message it enters the Disconnect Request state.
A.14.1	TC11101	11.4.3.4.2 11.4.3.5	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.14.2	TC11105	11.4.3.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.
A.14.3	TC11104	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.14.4.1	TC11107	11.4.6.3 11.4.6.7	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.14.4.2	TC11120	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.14.6.1	TC11106	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.14.7	TC11103	11.4.7	TTCN	Ensures that on receipt of a NOTIFY message the terminal makes no response or returns a STATUS message and remains in the same state.
A.16.1	TC11904	11.4.3.5 11.4.6.3	TTCN	Ensures that on receipt of a RELEASE message the terminal enters the Null state immediately. This is a test of RELEASE collision handling.
A.16.2	TC11903	11.4.3.4.3 11.4.6.3	TTCN	Ensures the terminal on receipt of a RELEASE COMPLETE message clears down to the Null state.
A.16.3.1	TC11908	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.16.3.2	TC11909	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.16.5.1	TC11906	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message the terminal releases the resources and moves into the Null state.
A.16.5.2	TC11907	11.4.6.8	TTCN	In this case ensures that on receipt of a STATUS message the terminal makes no response and remains in the same state.
A.17.1	TC11501	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.17.2	TC11506	11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and clears down to the Null state.
A.17.3	TC11505	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.

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Reference to NET 3	Reference to I-ETS 300 322	Reference to draft prTBR 3 (1)	Means of test specification	Test purpose as defined in NET 3
A.17.4.1	TC11510	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.17.4.2	TC11512	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.17.6.1	TC11509	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.17.7	TC11503	11.4.7	TTCN	Ensures that on receipt of a NOTIFY message the terminal makes no response or returns a STATUS message and remains in the same state.
A.17.8	TC11508	11.4.4.3	TTCN	Ensures on receipt of a SUSPEND REJECT message the terminal returns to the Active state.
A.17.9	TC11504	11.4.4.2	TTCN	Ensures on receipt of a SUSPEND ACKNOWLEDGE message the terminal moves into the Null state.
A.18.1	TC11701	11.4.3.4.2	TTCN	Ensures the terminal responds to a DISCONNECT message with a RELEASE message and enters the Release Request state.
A.18.2	TC11705	11.4.6.3	TTCN	Ensures the terminal responds to a RELEASE message with a RELEASE COMPLETE message and enters the Null state.
A.18.3	TC11704	11.4.6.3	TTCN	Ensures that on receipt of a RELEASE COMPLETE message the terminal makes no response but returns to the Null state.
A.18.4.1	TC11709	11.4.6.3	TTCN	Ensures the terminal responds to an inopportune message with a STATUS message and that no change of state occurs.
A.18.4.2	TC11711	11.4.6.3	TTCN	Ensures the terminal responds to a message having an invalid message type with a STATUS message and that no change of state occurs.
A.18.6.1	TC11708	11.4.6.8	TTCN	Ensures that on receipt of a STATUS message specifying the Null state, the terminal moves into the Null state.
A.18.7	TC11706	11.4.4.5	TTCN	Ensures that on receipt of a RESUME REJECT message the terminal returns to the Null state.
A.18.8	TC11703	11.4.4.4	TTCN	Ensures that on receipt of a RESUME ACKNOWLEDGE message the terminal returns to the Active state.

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ANNEX III

Supplementary information

Test suites to be used to demonstration compliance with the relevant essential requirements could, in a number of cases, be based upon the tests using the TTCN notation. These tests are found under the following references: I-ETS 300 312, I-ETS 300 313 and I-ETS 300 322.

The full text of these I-ETSs can be obtained from the following address:

European Telecommunications Standards Institute,
F-06921 Sophia Antipolis Cedex.