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**Radio Equipment and Systems (RES);
Attachment requirements for terminal equipment for
Digital European Cordless Telecommunications (DECT)
Public Access Profile (PAP) applications**

ETSI

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Foreword

This Technical Basis for Regulation (TBR) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Details of the Digital European Cordless Telecommunications (DECT) Common Interface may be found in ETS 300 175 Parts 1 - 9 [1] to [9].

Further details of the DECT system may be found in the ETSI Technical Reports, ETR 015, ETR 043 and ETR 056.

This TBR contains the technical characteristics particular to public access services using the DECT Public Access Profile (PAP) provided by terminal equipment which is capable of connection to a public telecommunications network and which uses DECT cordless communications.

General attachment requirements and speech attachment requirements are covered by TBR 6 [11] and TBR 10 [12] respectively.

This TBR refers to ETS 300 323 Parts 1 - 7 [15] to [21], the PAP specification.

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1 Scope

This TBR specifies the technical characteristics particular to public access services using the DECT Public Access Profile (PAP) provided by terminal equipment which is capable of connection to a public telecommunications network and which uses DECT cordless communications. The cordless transmissions for such terminal equipment operate within the frequency band 1 880 - 1 900 MHz.

Where applicable, this TBR is in addition to the attachment requirements for the appropriate public network (see NOTE 1), and to the TBRs for DECT general attachment requirements and for telephony applications. This TBR applies to DECT equipment declared to conform to the Public Access Profile (PAP).

This TBR covers the essential requirements for air interface interworking. DECT comprises two equipment elements, referred to as a Fixed Part (FP) and a Portable Part (PP). Where a feature is indicated as optional it need not be provided, but where such a feature is provided, the FP and/or PP shall conform to the requirements and tests of this TBR. This TBR is structured to allow type approval of the FP and PP as separate items.

For each requirement in this TBR, a test is given, including measurement methods. The terminal equipment may be stimulated to perform the tests by additional equipment if necessary.

NOTE 1: TBR for basic ISDN, TBR for primary rate ISDN, or national regulations (implementing ETS 300 001) for PSTN. Interconnection of a DECT terminal to a GSM network is still under study; in due course, the scope statement may need amending to reflect this point.

NOTE 2: This TBR is based on the provisions of ETS 300 175-9 [9].

2 Normative references

This TBR incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this TBR only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ETS 300 175-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 1: Overview".
- [2] ETS 300 175-2: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 2: Physical layer".
- [3] ETS 300 175-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 3: Medium access control layer".
- [4] ETS 300 175-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 4: Data link control layer".
- [5] ETS 300 175-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 5: Network layer".
- [6] ETS 300 175-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 6: Identities and addressing".
- [7] ETS 300 175-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 7: Security features".

- [8] ETS 300 175-8: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 8: Speech coding and transmission".
- [9] ETS 300 175-9: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 9: Public access profile".
- [10] 91/263/EEC: "Council Directive 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. (Terminal Directive)".
- [11] TBR 6: "General Attachment Requirements for Terminal Equipment for Digital European Telecommunications (DECT)".
- [12] TBR 10: "Attachment Requirements for Terminal Equipment for Digital European Telecommunications (DECT): Telephony Applications".
- [13] I-ETS 300 176: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications Approval Test Specification".
- [14] Reserved
- [15] Final draft prETS 300 323-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 1: Overview".
- [16] Final draft prETS 300 323-2: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 2: Portable Radio Termination Abstract Test Suite".
- [17] Final draft prETS 300 323-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 3: Portable Radio Termination Protocol Implementation Conformance Statement (PICS) proforma".
- [18] Final draft prETS 300 323-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 4: Portable Radio Termination Protocol Implementation eXtra Information for Testing (PIXIT) proforma".
- [19] Final draft prETS 300 323-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 5: Fixed Radio Termination Abstract Test Suite".
- [20] Final draft prETS 300 323-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 6: Fixed Radio Termination Protocol Implementation Conformance Statement (PICS) proforma".
- [21] Final draft prETS 300 323-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 7: Fixed Radio Termination Protocol Implementation eXtra Information for Testing (PIXIT) proforma".

3 Definitions and abbreviations

3.1 DECT definitions

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

Attach: the process whereby a portable part within the coverage area of a fixed part to which it has access rights, notifies this fixed part that it is operative. The reverse process is detach, which reports the portable part as inoperative.

NOTE 1: An operative portable part is assumed to be ready to receive calls.

Authentication: the process whereby a DECT subscriber is positively verified to be a legitimate user of a particular fixed part.

NOTE 2: Authentication is generally performed at call setup, but may also be done at any other time (e.g. during a call).

Bearer service: a type of telecommunication service that provides a defined capability for the transmission of signals between user-network interfaces.

NOTE 3: The DECT user-network interface corresponds to the top of the network layer (layer 3).

C-plane: the control plane of the DECT protocol stacks, which contains all of the internal DECT protocol control, but may also include some external user information.

NOTE 4: The C-plane stack always contains protocol entities up to and including the network layer.

Call: all of the NWK layer processes involved in one network layer peer-to-peer association.

NOTE 5: Call may sometimes be used to refer to processes of all layers, since lower layer processes are implicitly required.

Fixed Part (DECT Fixed Part) (FP): a physical grouping that contains all of the elements in the DECT network between the local network and the DECT air interface.

NOTE 6: A DECT fixed part contains the logical elements of at least one fixed radio termination, plus additional implementation specific elements.

Fixed radio Termination (FT): a logical group of functions that contains all of the DECT processes and procedures on the fixed side of the DECT air interface.

NOTE 7: A fixed radio termination only includes elements that are defined in ETS 300 175 Parts 1 - 9 [1] to [9]. This includes radio transmission elements together with a selection of layer 2 and layer 3 elements.

Geographically unique identity: this term relates to fixed part identities, PARIs and RFPIs. It indicates that two systems with the same PARI, or respectively two RFPs with the same RFPI, can not be reached or listened to at the same geographical position.

NOTE 8: PARI stands for Primary Access Rights Identifier; RFPI stands for Radio Fixed Part Identifier.

Global NetWork (GNW): a telecommunication network capable of offering a long distance telecommunication service.

NOTE 9: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public or a private network.

Globally unique identity: the identity is unique within DECT (without geographical or other restrictions).

Handover: the process of switching a call in progress from one physical channel to another physical channel. These processes can be internal (see internal handover) or external (see external handover).

NOTE 10: There are two physical forms of handover, intra-cell handover and inter-cell handover. Intra-cell handover is always internal. Inter-cell handover can be internal or external.

Incoming call: a call received at a portable part.

Inter-cell handover: the switching of a call in progress from one cell to another cell.

Internal handover: handover processes that are completely internal to one fixed radio termination. Internal handover reconnects the call at the lower layers, while maintaining the call at the NWK layer.

NOTE 11: The lower layer reconnection can either be at the DLC layer (connection handover) or at the MAC layer (bearer handover).

Inter-operability: the capability of fixed parts and portable parts, that enable a portable part to obtain access to teleservices in more than one location area and/or from more than one operator (more than one service provider).

Inter-operator roaming: roaming between fixed part coverage areas of different operators (different service providers).

InterWorking Unit (IWU): a unit that is used to interconnect subnetworks.

NOTE 12: The IWU will contain the interworking functions necessary to support the required subnetwork interworking.

Intra-cell handover: the switching of a call in progress from one physical channel of one cell to another physical channel of the same cell.

Intra-operator roaming: roaming between different fixed part coverage areas of the same operator (same service provider).

Local NetWork (LNW): a telecommunication network capable of offering local telecommunication services.

NOTE 13: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public network or a private network.

Locally unique identity: the identity is unique within one FP or location area, depending on application.

Location area: the domain in which a portable part may receive (and/or make) calls as a result of a single location registration.

Location registration: the process whereby the position of a DECT portable termination is determined to the level of one location area, and this position is updated in one or more databases.

NOTE 14: These databases are not included within the DECT fixed radio termination.

MAC Connection (connection): an association between one source MAC Multi-Bearer Control (MBC) entity and one destination MAC MBC entity. This provides a set of related MAC services (a set of logical channels), and it can involve one or more underlying MAC bearers.

NetWorK (NWK): all the means of providing telecommunication services between a number of locations where the services are accessed via equipment attached to the network.

Outgoing call: a call originating from a portable part.

Portable Application (PA): a logical grouping that contains all the elements that lie beyond the DECT network boundary on the portable side.

NOTE 15: The functions contained in the portable application may be physically distributed, but any such distribution is invisible to the DECT network.

Portable Part (DECT Portable Part) (PP): a physical grouping that contains all elements between the user and the DECT air interface. Portable part is a generic term that may describe one or several physical pieces.

NOTE 16: A DECT portable part is logically divided into one portable termination plus one or more portable applications.

Portable radio Termination (PT): a logical group of functions that contains all of the DECT processes and procedures on the portable side of the DECT air interface.

NOTE 17: A portable radio termination only includes elements that are defined in ETS 300 175 Parts 1 - 9 [1] to [9]. This includes radio transmission elements (layer 1) together with a selection of layer 2 and layer 3 elements.

Public Access Profile (PAP): a defined part of the DECT Common Interface (DECT CI) that ensures interoperability between fixed parts and portable parts for public access services.

Radio Fixed Part (RFP): one physical sub-group of a fixed part that contains all the radio end points (one or more) that are connected to a single system of antennas.

Registration: an ambiguous term, that should always be qualified. See either location registration or subscription registration.

Roaming: the movement of a portable part from one fixed part coverage area to another fixed part coverage area, where the capabilities of the fixed parts enable the portable part to make or receive calls in both areas.

NOTE 18: Roaming requires the relevant fixed parts and portable part to be interoperable.

Subscription registration: the infrequent process whereby a subscriber obtains access rights to one or more fixed parts.

NOTE 19: Subscription registration is usually required before a user can make or receive calls.

3.2 Abbreviations

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

ATS	Abstract Test Suite
CI	Common air Interface
DECT	Digital European Cordless Telecommunications
FP	Fixed Part
FT	Fixed radio Termination
GNW	Global NetWork
ISO	International Organisation for Standardisation
IUT	Implementation Under Test
IWU	Inter Working Unit
LNW	Local NetWork
OSI	Open Systems Interconnection
PA	Portable Application
PAP	Public Access Profile
PERL	PICS Essential Requirements List
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PP	Portable Part
PT	Portable radio Termination

RFP	Radio Fixed Part
SERL	Specific Essential Requirement List
TTCN	Tree and Tabular Combined Notation

4 How to use this TBR

This TBR contains one set of tables for the PT and one set of tables for the FT. Each set of tables consists of:

- a PERL feature table;
- a PERL procedure table;
- a SERL table;
- a timer table;
- the upper level message tables; and
- an upper level information element table.

The TBR tables can be used in conjunction with the PAP PICS documents in ETS 300 323-3 [17], ETS 300 323-6 [20] and the PAP test specification overview ETS 300 323-1 [15] for the following purposes:

- 1) to indicate which procedures, messages, information elements and the contents of which are required in order to support the "essential" requirements;
- 2) to provide the complete set of questions in order to perform automatic test case selection using the expressions described in ETS 300 323-2 [16] and ETS 300 323-5 [19]. For automatic test case selection according to this TBR the system variable `v_tbr11` should be set to TRUE. Also, the system variable `v_pap` may be set to TRUE if combined TBR11/PAP test case selection is performed.

When testing according to the requirements of the Terminal Directive [10], the PERL tables list the rows of the PICS tables for features and procedures which are essential according to these requirements. All other rows in the PICS tables for features and procedures not referred to in the PERLs are considered not essential. The timer tables, upper level message tables and upper level information element tables in this TBR specify the status of the timers, messages and information elements associated with the features and procedures listed in the PERL tables. The status of these timers, messages and information elements are derived from the status of the features and procedures specified in the PERL tables. All messages not included in one of the upper level message tables of this TBR are considered not essential.

During voluntary testing i.e. when outside the scope of the Terminal Directive [10], the PICS or ETS 300 323-3 [17] and ETS 300 323-6 [20] can be used independently without any cross-referencing to the TBR tables.

The list of test cases to be run shows the selected test cases for the essential, optional essential and the conditional essential requirements.

5 Introduction to the TBR tables

5.1 Introduction to PICS Essential Requirements Lists (PERLs) and Specific Essential Requirements Lists (SERLs)

5.1.1 General

The PERL tables indicate which features and procedures are Essential (E), Optionally Essential (OE) or Conditionally Essential (CE). The features and procedures are referenced via an existing PICS document.

The SERL tables also indicate which other items are Essential (E), Optionally Essential (OE) or Conditionally Essential (CE). These items, however, are not contained in an existing PICS document and so reference is made directly to ETS 300 175 Parts 1 - 9 [1] to [9].

These tables have two purposes:

- 1) to indicate which features or procedures are considered to be "essential";
- 2) to provide a boolean input to the test case selection expressions contained in ETS 300 323-2 [16] and ETS 300 323-5 [19] and thereby automatically select the corresponding test case(s).

The following table headers are applicable to both PERLs and SERLs as described in the following subclauses.

5.1.2 Category

The letter d), e), f) or g) refers to Article 4 of the Terminal Directive [10] and, therefore, indicates which subclause the feature or procedure has been considered to be "essential".

5.1.3 Entry number

This acts as a shorthand notation to reference any particular row.

5.1.4 The 4th column

5.1.4.1 PICS entry number for PERLS

This refers to the PICS questions in Parts 3 and 6 of the Public Access Profile (PAP) test specification ETS 300 323-3 [17] and ETS 300 323-6 [20]. This indicates where the status to a question in the PICS is replaced by the TBR requirements.

5.1.4.2 Standards reference for SERLs

This refers directly to the standard containing the test for the essential requirement, in this case the overview of the PAP test specification ETS 300 323-1 [15].

5.1.5 Status

5.1.5.1 Essential (E)

This is expressed by the letter "E".

It indicates that the feature or procedure is "essential" under the terms of the Terminal Directive [10].

5.1.5.2 Optional Essential (OE)

This is expressed by the letters "OE".

It indicates that the optional feature or procedure, if provided by the manufacturer, is "essential" under the terms of the Terminal Directive [10].

For example, the incoming call feature is optional for the FT, however, if implemented, it shall be considered to be "essential".

5.1.5.3 Conditional Essential (CE)

This is expressed by the letters "CE_x" where x is a positive integer.

It indicates that the conditional feature or procedure, shall be considered to be essential if the condition evaluates to true. The conditions are listed at the end of each respective table and identified by x.

For example, location registration for the FT is considered "essential" on the condition that incoming call has been implemented.

5.1.5.4 Not Essential (NE)

This is expressed by the letters "NE".

It indicates that the feature or procedure shall be considered not essential with respect to the scope of the TBR, and as such shall not be TBR tested. They are still allowed within the scope of PAP and are covered by voluntary conformance testing.

5.1.6 Support column in the PICS

The standardised symbols for the support column are as follows:

- Y, y, or YES for implemented to support an essential requirement;
- N, n, or NO for not implemented to support an essential requirement.

This is completed by the manufacturer before submission of the IUT for testing.

5.2 Introduction to the timer, message, and information element tables

The timer, message, and information element tables indicate which timers, messages, and information elements are Essential (E), Optionally Essential (OE), Conditionally Essential (CE), Not Essential (NE) or eXcluded (X) as derived from the status of the features and procedure specified in the PERL tables.

The timer, upper level message, and upper level information element tables have the same format as the corresponding tables in the PICS document with the exception that the SUPPORT column is not included in the TBR tables.

The symbols used in these tables are the same as the symbols used in the corresponding tables in the PICS document with the exception of the status column symbols. The following clause describes the symbols applicable to the status column.

5.2.1 Status

5.2.1.1 Essential (E)

This is expressed by the letter "E".

It indicates that the timer, message, or information element is "essential" to the operation of a feature and/or procedure listed in a PERL table.

5.2.1.2 Optional Essential (OE)

This is expressed by the letters "OE".

It indicates that the timer, message, or information element is "optionally essential" to the operation of a feature and/or procedure listed in a PERL table.

5.2.1.3 Conditional Essential (CE)

This is expressed by the letters "CE_x" where x is a positive integer.

It indicates that the status of a timer, message, or information element is "conditional" upon the selection of an "optionally essential" feature and/or procedure listed in a PERL table.

5.2.1.4 Not Essential (NE)

This is expressed by the letters "NE".

It indicates that the timer, message, or information element is "not essential" to the operation of any of the features and/or procedures listed in the PERL tables.

5.2.1.5 eXcluded

This is expressed by the letter "X".

It indicates that the timer, message, or information element is excluded or prohibited.

6 PICS Essential Requirements Lists (PERLs)

6.1 PT features

Table 1

TBR reference:		TBR 11 - PT features			
Category	Entry no.	Description	PICS entry number	Status	Comment
d)	D.1	Class of service field indication	Q.9/24	E	
	D.2	ZAP suspend	Q.9/30	E	
	D.3	ZAP terminate	Q.9/31	E	
e)	E.1	Partial release	Q.9/6	OE	
	E.2	All-physical-channel capability	Q.9/74	E	
f)	F.1	Outgoing Call	Q.9/0	E	
	F.2	Duplex speech-32 kbit/s ADPCM	Q.9/1	E	
	F.3	Bell on	Q.9/2	E	
	F.4	Bell off	Q.9/3	E	
	F.5	Off hook	Q.9/4	E	
	F.6	On hook (full release)	Q.9/5	E	
	F.7	Dialled digits basic	Q.9/7	E	
	F.8	Register recall	Q.9/11	E	
	F.9	Goto DTMF	Q.9/12	OE	
	F.10	Incoming call	Q.9/16	E	
	F.11	Authentication of portable part	Q.9/20	E	
	F.12	Authentication of user	Q.9/21	E	
	F.13	Authentication of fixed part	Q.9/22	OE	
	F.16	Silent polling	Q.9/23	E	
	F.15	Inter-operator roaming registration	Q.9/25	E	
	F.16	Regular security handshake	Q.9/27	E	
	F.17	Signalling of display characters	Q.9/28	OE	
	F.18	Display control characters	Q.9/29	OE	
	F.19	Location registration	Q.9/41	M	
	F.20	Location de-registration	Q.9/42	OE	
	F.21	Emergency service access request	Q.9/48	E	
	F.22	Selection of service provider/network operator	Q.9/51	E	
	F.23	Identification (UPI)	Q.9/57	E	
	F.24	Keypad protocol - CRSS	Q.9/61a	E	
	F.25	Feature key management protocol - CRSS	Q.9/62a	E	
	F.26	Fixed part/portable part capability exchange	Q.9/66	E	
	F.27	Subscription registration user procedure on-air plus digit entry	Q.9/67	E	
	F.28	Subscription data exchange (on-air)	Q.9/70	E	

(continued)

Table 1 (concluded)

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
f)	F.29	Multicell fixed part coverage	Q.9/71	E	
	F.30	Bearer Handover (intra-cell)	Q.9/72_ba	E	
	F.31	Connection Handover (intra-cell)	Q.9/72_ca	E	
	F.32	Bearer Handover (inter-cell)	Q.9/72_br	E	
	F.33	Connection Handover (inter-cell)	Q.9/72_cr	E	
	F.34	Multiple subscription registration	Q.9/73	E	

6.2 PT procedures

Table 2

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
e)	E.1	cc_expiry_of_timer_P<cc.03>	Q.80/10	E	
	E.2	lce_link_partial_release	Q.80/79	CE201	
f)	F.1	cc_outgoing_normal_call_request	Q.80/1	E	
	F.2	cc_outgoing_emergency_call_request	Q.80/2	E	
	F.3	cc_outgoing_connection_of_U_plane	Q.80/5	E	
	F.4	cc_outgoing_overlap_sending	Q.80/6	CE203	
	F.5	cc_outgoing_call_proceeding	Q.80/7	E	
	F.6	cc_outgoing_call_confirmation	Q.80/8	E	
	F.7	cc_outgoing_call_connection	Q.80/9	E	
	F.8	cc_incoming_call_accept	Q.80/12	E	
	F.9	cc_incoming_call_reject	Q.80/13	E	
	F.10	cc_incoming_connection_of_U_plane	Q.80/15	E	
	F.11	cc_incoming_call_confirmation	Q.80/18	E	
	F.12	cc_incoming_call_connection	Q.80/19	E	
	F.13	cc_incoming_pt_sending_terminal_capability	Q.80/20_a	OE	
	F.14	cc_outgoing_pt_sending_terminal_capability	Q.80/20_b	OE	
	F.15	cc_call_information	Q.80/21	E	
	F.16	cc_starting_side_normal_call_release	Q.80/22	E	
	F.17	cc_accepting_side_normal_call_release	Q.80/23	E	
	F.18	cc_abnormal_call_release	Q.80/24	E	

(continued)

Table 2 (continued)

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
f)	F.19	cc_release_collisions	Q.80/25	E	
	F.20	crss_keypad_protocol	Q.80/33	E	
	F.21	crss_feature_key_mgt	Q.80/34	E	
	F.22	mm_identification_of_pt	Q.80/57	E	
	F.23	mm_temporary_identity_assignment	Q.80/58	E	
	F.24	mm_authentication_of_pt	Q.80/59	E	
	F.25	mm_authentication_of_user	Q.80/60	E	
	F.26	mm_authentication_of_ft	Q.80/61	E	
	F.27	mm_location_registration	Q.80/62	E	
	F.28	mm_detach	Q.80/63	CE202	
	F.29	mm_obtain_access_rights	Q.80/64	E	
	F.30	mm_ft_init_terminate_access_rights	Q.80/66	E	
	F.31	mm_key_allocation	Q.80/67	E	
	F.32	mm_location_update	Q.80/69b	E	
	F.33	lce_direct_pt_init_link_establishment	Q.80/72	E	
	F.34	lce_indirect_ft_init_link_establishment	Q.80/73	E	
	F.35	lce_link_maintenance	Q.80/75	E	
	F.36	lce_link_release	Q.80/78	E	
	F.37	mgt_mm_procedures_mgt	Q.80/86	E	
	F.38	mgt_test_call_back	Q.80/89	E	
	F.39	mgt_test_hook_control	Q.80/90	E	
	F.40	eeh_protocol_discriminator_error	Q.81/1	E	
	F.41	eeh_message_too_short	Q.81/2	E	
	F.42	eeh_unsupported_transaction_identity_error	Q.81/3	E	
	F.43	eeh_unknown_active_cc_call	Q.81/4	E	
	F.44	eeh_unknown_active_mm_transaction	Q.81/8	E	
	F.45	eeh_cc_message_error	Q.81/9	E	
	F.46	eeh_mm_message_error	Q.81/12	E	
	F.47	eeh_info_element_out_of_sequence	Q.81/13	E	
	F.48	eeh_duplicated_info_elements	Q.81/14	E	
	F.49	eeh_mandatory_info_element_missing_in_cc_message	Q.81/15	E	
	F.50	eeh_mandatory_info_element_content_error_in_cc_message	Q.81/16	E	

(continued)

Table 2 (concluded)

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
f)	F.51	eeh_mandatory_info_element_missing_in_mm_message	Q.81/18	E	
	F.52	eeh_unrecognised_info_element	Q.81/19	E	
	F.53	eeh_non-mandatory_info_element_content_error	Q.81/20	E	
	F.54	eeh_data_link_reset	Q.81/21	E	
	F.55	eeh_data_link_failure	Q.81/22	E	

CE201 IF partial_release THEN E ELSE NE
 partial_release = Q.9/6 in PT PICS (ETS 300 323-3 [17])

CE202: IF location_deregistration THEN E ELSE NE
 location_deregistration = Q.9/42 in PT PICS (ETS 300 323-3 [17])

CE203: IF dial_type=1 OR dial_type=2 OR dial_type=3 OR dial_type=5 OR
 dial_type = 6 OR dial_type = 7 THEN E ELSE OE
 dial_type = Q.85/1

6.3 FT features

Table 3

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
d)	D.1	Class of service field indication	Q.9/24	E	
	D.2	ZAP suspend	Q.9/30	OE	
	D.3	ZAP terminate	Q.9/31	OE	
e)	E.1	Partial release	Q.9/6	E	
	E.2	All-physical-channel capability	Q.9/74	E	
f)	F.1	Outgoing Call	Q.9/0	E	
	F.2	Duplex speech-32 kbit/s ADPCM	Q.9/1	E	
	F.3	Bell on	Q.9/2	CE304	
	F.4	Bell off	Q.9/3	CE304	
	F.5	Off hook	Q.9/4	E	
	F.6	On hook (full release)	Q.9/5	E	
	F.7	Dialled digits basic	Q.9/7	E	
	F.8	Register recall	Q.9/11	E	
	F.9	Goto DTMF	Q.9/12	E	
	F.10	Incoming call	Q.9/16	OE	
	F.11	Authentication of portable part	Q.9/20	E	
	F.12	Authentication of user	Q.9/21	OE	
	F.13	Authentication of fixed part	Q.9/22	E	
	F.14	Silent polling	Q.9/23	OE	
	F.15	Inter-operator roaming registration	Q.9/25	OE	
	F.16	Regular security handshake	Q.9/27	E	

(continued)

Table 3 (concluded)

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
f)	F.17	Signalling of display characters	Q.9/28	OE	
	F.18	Display control characters	Q.9/29	OE	
	F.19	Location registration	Q.9/41	CE303	
	F.20	Location de-registration	Q.9/42	OE	
	F.21	Emergency service access request	Q.9/48	E	
	F.22	Selection of service provider/network operator	Q.9/51	E	
	F.23	Validation of portable part user	Q.9/54	E	
	F.24	Validation of portable part	Q.9/55	E	
	F.25	Identification (UPI)	Q.9/57	OE	
	F.26	Keypad protocol - CRSS	Q.9/61_a	E	
	F.27	Feature key management protocol - CRSS	Q.9/62_a	E	
	F.28	Fixed part/portable part capability exchange	Q.9/66	E	
	F.29	Subscription registration user procedure on-air plus digit entry	Q.9/67	E	
	F.30	Subscription data exchange (on-air)	Q.9/70	E	
	F.31	Multicell fixed part coverage	Q.9/71	OE	
	F.32	Bearer Handover (intra-cell)	Q.9/72_ba	CE301	
	F.33	Connection Handover (intra-cell)	Q.9/72_ca	CE302	
	F.34	Bearer Handover (inter-cell)	Q.9/72_br	OE	
	F.35	Connection Handover (inter-cell)	Q.9/72_cr	OE	

CE301: IF NOT intra_cell_connection_handover THEN E ELSE OE
intra_cell_connection_handover = Q.9/72_ca in FT PICS (ETS 300 323-6 [20])

CE302: IF NOT intra_be_handover THEN E ELSE OE
intra_cell_bearer_handover = Q.9/72_ba in FT PICS (ETS 300 323-6 [20])

CE303: IF incoming_call THEN E ELSE NE
incoming_call = Q.9/16 in FT PICS (ETS 300 323-6 [20])

CE304: IF incoming_call THEN OE ELSE NE

6.4 FT procedures

Table 4

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
e)	E.1	cc_expiry_of_timer_F<cc.03>	Q.80/10	E	
	E.2	lce_link_partial_release	Q.80/79	CE403	
f)	F.1	cc_outgoing_normal_call_request	Q.80/1	E	
	F.2	cc_outgoing_emergency_call_request	Q.80/2	E	
	F.3	cc_outgoing_connection_of_U_plane	Q.80/5	E	
	F.4	cc_outgoing_overlap_sending	Q.80/6	E	
	F.5	cc_outgoing_call_proceeding	Q.80/7	E	
	F.6	cc_outgoing_call_confirmation	Q.80/8	E	
	F.7	cc_outgoing_call_connection	Q.80/9	E	
	F.8	cc_incoming_call_accept	Q.80/12	CE401	
	F.9	cc_incoming_call_reject	Q.80/13	CE401	
	F.10	cc_incoming_connection_of_U_plane	Q.80/15	CE401	
	F.11	cc_incoming_call_confirmation	Q.80/18	CE401	
	F.12	cc_incoming_call_connection	Q.80/19	CE401	
	F.13	cc_incoming_pt_sending_terminal_capability	Q.80/20_a	CE401	
	F.14	cc_outgoing_pt_sending_terminal_capability	Q.80/20_b	E	
	F.15	cc_call_information	Q.80/21	E	
	F.16	cc_starting_side_normal_call_release	Q.80/22	E	
	F.17	cc_accepting_side_normal_call_release	Q.80/23	E	
	F.18	cc_abnormal_call_release	Q.80/24	E	
	F.19	cc_release_collisions	Q.80/25	E	
	F.20	crss_keypad_protocol	Q.80/33	E	
	F.21	crss_feature_key_mgt	Q.80/34	E	
	F.22	mm_identification_of_pt	Q.80/57	OE	
	F.23	mm_temporary_identity_assignment	Q.80/58	CE404	
	F.24	mm_authentication_of_pt	Q.80/59	E	
	F.25	mm_authentication_of_user	Q.80/60	CE402	
	F.26	mm_authentication_of_ft	Q.80/61	E	
	F.27	mm_location_registration	Q.80/62	CE405	
	F.28	mm_detach	Q.80/63	CE406	
	F.29	mm_obtain_access_rights	Q.80/64	E	
	F.30	mm_ft_init_terminate_access_rights	Q.80/66	CE407	
	F.31	mm_key_allocation	Q.80/67	E	

(continued)

Table 4 (concluded)

TBR reference:		TBR 11			
Category	Entry no.	Description	PICS entry number	Status	Comment
f)	F.32	mm_location_update	Q.80/69_b	CE405	
	F.33	lce_direct_pt_init_link_establishment	Q.80/72	E	
	F.34	lce_indirect_ft_init_link_establishment	Q.80/73	CE401	
	F.35	lce_link_maintenance	Q.80/75	E	
	F.36	lce_link_release	Q.80/78	E	
	F.37	mgt_mm_procedures_mgt	Q.80/86	E	
	F.38	mgt_upper_tester	Q.80/91	CE408	
	F.39	eeh_protocol_discriminator_error	Q.81/1	E	
	F.40	eeh_message_too_short	Q.81/2	E	
	F.41	eeh_unsupported_transaction_identity_error	Q.81/3	E	
	F.42	eeh_unknown_active_cc_call	Q.81/4	E	
	F.43	eeh_unknown_active_mm_transaction	Q.81/8	E	
	F.44	eeh_cc_message_error	Q.81/9	E	
	F.45	eeh_mm_message_error	Q.81/12	E	
	F.46	eeh_info_element_out_of_sequence	Q.81/13	E	
	F.47	eeh_duplicated_info_elements	Q.81/14	E	
	F.48	eeh_mandatory_info_element_mising_in_cc_message	Q.81/15	E	
	F.49	eeh_mandatory_info_element_content_error_in_cc_message	Q.81/16	E	
	F.50	eeh_mandatory_info_element_mising_in_mm_message	Q.81/18	E	
	F.51	eeh_unrecognised_info_element	Q.81/19	E	
	F.52	eeh_non-mandatory_info_element_content_error	Q.81/20	E	
	F.53	eeh_data_link_reset	Q.81/21	E	
	F.54	eeh_data_link_failure	Q.81/22	E	

CE401: IF incoming_call THEN E ELSE NE
incoming_call = Q.9/16 in FT PICS (ETS 300 323-6 [20])

CE402: IF auth_user THEN E ELSE NE
auth_user = Q.9/21 in FT PICS (ETS 300 323-6 [20])

CE403: IF partial_release THEN E ELSE NE
partial_release = Q.9/6 in FT PICS (ETS 300 323-6 [20])

CE404: IF incoming_call AND inter_op_roam THEN E ELSE OE
inter_op_roam = Q.9/25 in FT PICS (ETS 300 323-6 [20])

CE405: IF location_registration AND incoming_call THEN E ELSE NE
location_registration = Q.9/41 in FT PICS (ETS 300 323-6 [20])
incoming_call = Q.9/16 in FT PICS (ETS 300 323-6 [20])

CE406: IF location_deregistration THEN E ELSE NE
location_deregistration = Q.9/42 in FT PICS (ETS 300 323-6 [20])

CE407: IF zap_terminate THEN E ELSE NE
zap_terminate = Q.9/31 in FT PICS (ETS 300 323-6 [20])

CE408: IF no_mm_invoke THEN E ELSE NE
no_mm_invoke = NOT (inv_auth_req AND inv_id_req AND inv_locate_up AND inv_ciph_req #AND
inv_key_alloc AND inv_auth_user AND inv_temp_id AND inv_terminate_req)
inv_auth_req = PIXIT Q.8.2.1 in FT PIXIT (ETS 300 323-7 [21])
inv_id_req = PIXIT Q.8.2.3 in FT PIXIT (ETS 300 323-7 [21])
inv_locate_up = PIXIT Q.8.2.4 in FT PIXIT (ETS 300 323-7 [21])
inv_ciph_req = PIXIT Q.8.2.7 in FT PIXIT (ETS 300 323-7 [21])
inv_key_alloc = PIXIT Q.8.2.8 in FT PIXIT (ETS 300 323-7 [21])
inv_auth_user = PIXIT Q.8.2.9 in FT PIXIT (ETS 300 323-7 [21])
inv_temp_id = PIXIT Q.8.2.10 in FT PIXIT (ETS 300 323-7 [21])
inv_terminate_req = PIXIT Q.8.2.11 in FT PIXIT (ETS 300 323-7 [21])

7 Specific Essential Requirements Lists (SERLs)

These tables indicate the essential requirements which cannot be expressed in terms of standardised PICS entries.

7.1 PT SERL

Table 5

TBR reference:		TBR 11			
Category	Entry no.	Description	Standards reference	Status	Comment
f)	F.1	PAP Physical Layer Requirements- Normal Transmitted Power	PAP Test Specification- part 1 Overview, subclause 10.1	E	

7.2 FT SERL

Table 6

TBR reference:		TBR 11			
Category	Entry no.	Description	Standards reference	Status	Comment
f)	F.1	PAP Physical Layer Requirements- Normal Transmitted Power	PAP Test Specification- part 1 Overview, subclause 10.1	E	
	F.2	PAP Physical Layer Requirements- Radio Receiver Sensitivity	PAP Test Specification- part 1 Overview, subclause 10.2	E	

8 Protocol parameter tables

8.1 PT timers

Table 7

PT timers (Q.10.1)				
Item no.	Name	Ref.	Status	Values allowed
1	CC.01	A.1	X	
2	CC.02	A.1	E	30 seconds
3	CC.03	A.1	E	20 seconds
4	CC.04	A.1	NE	100 second
5	CC.05	A.1	E	10 second
6	COMS.00	A.3	NE	5 seconds
7	COMS.01	A.3	NE	2 seconds
8	COMS.02	A.3	NE	10 seconds
9	COMS.03	A.3	NE	10 seconds
10	CLMS.00	A.4	NE	5 seconds
11	MM_access.1	A.5	E	60 seconds
12	MM_access.2	A.5	NE	20 seconds
13	MM_auth.1	A.5	E	10 seconds
14	MM_auth.2	A.5	E	100 seconds
15	MM_cipher.1	A.5	X	
16	MM_cipher.2	A.5	NE	10 seconds
17	MM_ident.1	A.5	X	
18	MM_ident.2	A.5	X	
19	MM_key.1	A.5	X	
20	MM_locate.1	A.5	E	20 seconds
21	MM_wait	A.5	E	5 minutes
22	LCE.01	A.6	E	5 seconds
23	LCE.02	A.6	CE701	10 seconds
24	LCE.03	A.6	X	3 seconds
25	LCE.04	A.6	NE	5 seconds
26	T601	part 6: B	E	5 minutes
27	T602	part 6: B	NE	5 minutes

CE701: IF part_rel THEN E ELSE NE
part_rel = Q.9/6

8.2 PT messages

8.2.1 PT call control messages

Table 8

PT CC messages (Q.11)				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
1	CC-SETUP	6.3.2.1	E	E
2	CC-INFOMation	6.3.2.2	E	E
3	CC-SETUP-ACKnowledge	6.3.2.3	NE	CE801
4	CC-CALL-PROCeeding	6.3.2.4	NE	E
5	CC-ALERTING	6.3.2.5	E	E
6	CC-CONNECT	6.3.2.6	E	E
7	CC-CONNECT-ACKnowledge	6.3.2.7	X	E
8	CC-RELEASE	6.3.2.8	E	E
9	CC-RELEASE-COMplete	6.3.2.9	E	E
10	CC-SERVICE-CHANGE	6.3.2.10	NE	NE
11	CC-SERVICE-ACCEPT	6.3.2.11	NE	NE
12	CC-SERVICE-REJECT	6.3.2.12	NE	NE
13	CC-NOTIFY	6.3.2.13	X	E
14	IWU-INFOMation	6.3.2.14	NE	NE

CE801: IF dial_type = 1 OR dial_type = 2 OR dial_type=3 OR dial_type = 5 OR dial_type = 6 OR dial_type = 7 THEN E ELSE NE
dial_type = Q.85/1

8.2.2 PT mobility management messages

Table 9

PT MM messages (Q.15)				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
1	ACCESS-RIGHTS-ACCEPT	6.3.6.1	X	E
2	ACCESS-RIGHTS-REJECT	6.3.6.2	X	E
3	ACCESS-RIGHTS-REQUEST	6.3.6.3	E	X
4	ACCESS-RIGHTS-TERMINATE-ACCEPT	6.3.6.4	E	NE
5	ACCESS-RIGHTS-TERMINATE-REJECT	6.3.6.5	E	NE
6	ACCESS-RIGHTS-TERMINATE-REQUEST	6.3.6.6	NE	E
7	AUTHentication-REJECT	6.3.6.7	E	E
8	AUTHentication-REPLY	6.3.6.8	E	E
9	AUTHentication-REQUEST	6.3.6.9	E	E
10	CIPHER-REJECT	6.3.6.10	NE	NE
11	CIPHER-REQUEST	6.3.6.11	X	NE
12	CIPHER-SUGGEST	6.3.6.12	NE	X
13	DETACH	6.3.6.13	CE901	X
14	IDENTITY-REPLY	6.3.6.14	E	X

(continued)

Table 9 (concluded)

PT MM messages (Q.15)				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
15	IDENTITY-REQUEST	6.3.6.15	X	E
16	KEY-ALLOCATE	6.3.6.16	X	E
17	LOCATE-ACCEPT	6.3.6.17	X	E
18	LOCATE-REJECT	6.3.6.18	X	E
19	LOCATE-REQUEST	6.3.6.19	E	X
20	MM-INFO-ACCEPT	6.3.6.20	X	NE
21	MM-INFO-REJECT	6.3.6.21	X	NE
22	MM-INFO-REQUEST	6.3.6.22	NE	X
23	MM-INFO-SUGGEST	6.3.6.23	X	E
24	TEMPORARY-IDENTITY-ASSIGN	6.3.6.24	X	E
25	TEMPORARY-IDENTITY-ASSIGN-ACKnowledge	6.3.6.25	E	X
26	TEMPORARY-IDENTITY-ASSIGN-REject	6.3.6.26	E	X

CE901: IF loc_dereg THEN E ELSE NE
loc_dereg = Q.9/42

8.2.3 PT link control entity messages

Table 10

PT LCE messages (Q.16)				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
1	LCE-PAGE-RESPONSE	6.3.7.1	E	X
2	LCE-PAGE-REJECT	6.3.7.2	X	E
3	LCE-REQUEST-PAGE-B-format	6.4.2	X	E

8.3 PT information elements

Table 11

PT information elements (Q.17)				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
0	Codeset shift	7.5.3-4	NE	NE
1	Sending complete	7.6.2	NE	NE
2	Delimiter request	7.6.2	NE	NE
3	Repeat indicator (non prioritised)	7.6.3	NE	X
4	Repeat indicator (prioritised)	7.6.3	X	X
5	Basic service	7.6.4	E	E
6	Single-display	7.6.5	X	X
7	Single-keypad	7.6.6	X	X
8	Release-reason	7.6.7	E	OE
9	Signal	7.6.8	X	E
10	Timer restart	7.6.9	X	E
11	Test Hook Control	7.6.10	X	E
12	Allocation type	7.7.2	X	E
13	Alphanumeric	7.7.3	NE	NE
14	Auth-type	7.7.4	E	E
15	Call attributes	7.7.5	NE	NE
16	Call identity	7.7.6	NE	NE
17	Called party number	7.7.7	OE	NE
18	Called party subaddress	7.7.8	NE	NE
19	Calling party number	7.7.9	NE	NE
20	Cipher info	7.7.10	NE	NE
21	Connection attributes	7.7.11	NE	NE
22	Connection identity	7.7.12	NE	NE
23	Duration	7.7.13	X	E
24	End-to-end compatibility	7.7.14	NE	NE
25	Facility	7.7.15	NE	NE
26	Feature activate	7.7.16	E	X
27	Feature indicate	7.7.17	X	E
28	Fixed identity	7.7.18	E	E
29	Identity type	7.7.19	X	E
30	Info type	7.7.20	NE	E
31	IWU attributes	7.7.21	NE	NE
32	IWU PACKET	7.7.22	NE	NE
33	IWU to IWU	7.7.23	NE	NE
34	Key	7.7.24	NE	X
35	Location area	7.7.25	E	E
36	Multi-display	7.7.26	X	CE1101
37	Multi-keypad	7.7.27	E	X
38	Network assigned identity	7.7.28	NE	NE
39	Network parameter	7.7.29	NE	NE
40	Portable identity	7.7.30	E	E

(continued)

Table 11 (concluded)

PT information elements				
Item no.	Name	Ref.	Sending (P to F) status	Receipt (F to P) status
41	Progress indicator	7.7.31	X	E
42	Rand	7.7.32	E	E
43	Rate Parameters	7.7.33	NE	NE
44	Reject reason	7.7.34	NE	E
45	RES	7.7.35	E	E
46	RS	7.7.36	X	E
47	Segmented info	7.7.37	NE	NE
48	Service change info	7.7.38	NE	NE
49	Service class	7.7.39	E	E
50	Setup capability	7.7.40	OE	X
51	Terminal capability	7.7.41	OE	X
52	Transit delay	7.7.42	NE	NE
53	Window size	7.7.43	NE	NE
54	ZAP field	7.7.44	E	E

CE1101: IF disp_char OR disp_cont THEN E ELSE NE
 disp_char = Q.9/28
 disp_cont = Q.9/29

8.4 FT timers

Table 12

FT timers (Q.10.1)				
Item no.	Name	Ref.	Status	Values allowed
1	CC.01	A.1	E	20 seconds
2	CC.02	A.1	E	30 seconds
3	CC.03	A.1	CE1203	20 seconds
4	CC.04	A.1	NE	100 second
5	CC.05	A.1	X	
6	COMS.00	A.3	NE	5 seconds
7	COMS.01	A.3	NE	2 seconds
8	COMS.02	A.3	NE	10 seconds
9	COMS.03	A.3	NE	10 seconds
10	CLMS.00	A.4	NE	5 seconds
11	MM_access.1	A.5	X	
12	MM_access.2	A.5	NE	10 seconds
13	MM_auth.1	A.5	E	10 seconds
14	MM_auth.2	A.5	CE1201	100 seconds
15	MM_cipher.1	A.5	NE	10 seconds
16	MM_cipher.2	A.5	X	
17	MM_ident.1	A.5	CE1202	10 seconds
18	MM_ident.2	A.5	NE	10 seconds
19	MM_key.1	A.5	E	10 seconds

(continued)

Table 12 (concluded)

FT timers (Q.10.1)				
Item no.	Name	Ref.	Status	Values allowed
20	MM_locate.1	A.5	X	
21	MM_wait	A.5	X	
22	LCE.01	A.6	E	5 seconds
23	LCE.02	A.6	E	10 seconds
24	LCE.03	A.6	CE1203	3 seconds
25	LCE.04	A.6	NE	5 seconds
26	T601	part 6: B	X	
27	T602	part 6: B	X	

CE1201: IF auth_user THEN E ELSE NE
auth_user = Q.9/21

CE1202: IF int_op_roam_reg THEN E ELSE NE
int_op_roam_reg = Q.9/25

CE1203: IF inc_call THEN E ELSE NE
inc_call = Q.9/16

8.5 FT messages

8.5.1 FT call control messages

Table 13

FT CC messages (Q.11)				
Item no.	Name	Ref.	Sending (F to P) status	Receipt (P to F) status
1	CC-SETUP	6.3.2.1	CE1301	E
2	CC-INFOrmation	6.3.2.2	E	E
3	CC-SETUP-ACKnowledge	6.3.2.3	OE	NE
4	CC-CALL-PROCeeding	6.3.2.4	OE	NE
5	CC-ALERTING	6.3.2.5	OE	CE1301
6	CC-CONNECT	6.3.2.6	E	CE1301
7	CC-CONNECT-ACKnowledge	6.3.2.7	CE1301	X
8	CC-RELEASE	6.3.2.8	E	E
9	CC-RELEASE-COMplete	6.3.2.9	E	E
10	CC-SERVICE-CHANGE	6.3.2.10	NE	NE
11	CC-SERVICE-ACCEPT	6.3.2.11	NE	NE
12	CC-SERVICE-REJECT	6.3.2.12	NE	NE
13	CC-NOTIFY	6.3.2.13	E	X
14	IWU-INFOrmation	6.3.2.14	NE	NE

CE1301: IF inc_call THEN E ELSE X
inc_call = Q.9/16

8.5.2 FT mobility management messages

Table 14

FT MM messages (Q.15)				
Item no.	Name	Ref.	Sending (F to P) status	Receipt (P to F) status
1	ACCESS-RIGHTS-ACCEPT	6.3.6.1	E	X
2	ACCESS-RIGHTS-REJECT	6.3.6.2	E	X
3	ACCESS-RIGHTS-REQUEST	6.3.6.3	X	E
4	ACCESS-RIGHTS-TERMINATE-ACCEPT	6.3.6.4	NE	CE1402
5	ACCESS-RIGHTS-TERMINATE-REJECT	6.3.6.5	NE	CE1402
6	ACCESS-RIGHTS-TERMINATE-REQUEST	6.3.6.6	CE1402	NE
7	AUTHentication-REJECT	6.3.6.7	E	E
8	AUTHentication-REPLY	6.3.6.8	E	E
9	AUTHentication-REQUEST	6.3.6.9	E	E
10	CIPHER-REJECT	6.3.6.10	NE	NE
11	CIPHER-REQUEST	6.3.6.11	NE	X
12	CIPHER-SUGGEST	6.3.6.12	X	NE
13	DETACH	6.3.6.13	X	CE1404
14	IDENTITY-REPLY	6.3.6.14	X	OE
15	IDENTITY-REQUEST	6.3.6.15	OE	X
16	KEY-ALLOCATE	6.3.6.16	E	X
17	LOCATE-ACCEPT	6.3.6.17	CE1401	X
18	LOCATE-REJECT	6.3.6.18	CE1401	X
19	LOCATE-REQUEST	6.3.6.19	X	CE1401
20	MM-INFO-ACCEPT	6.3.6.20	NE	X
21	MM-INFO-REJECT	6.3.6.21	NE	X
22	MM-INFO-REQUEST	6.3.6.22	X	NE
23	MM-INFO-SUGGEST	6.3.6.23	CE1401	X
24	TEMPORARY-IDENTITY-ASSIGN	6.3.6.24	CE1403	X
25	TEMPORARY-IDENTITY-ASSIGN-ACKnowledge	6.3.6.25	X	CE1403
26	TEMPORARY-IDENTITY-ASSIGN-REject	6.3.6.26	X	CE1403

CE1401: IF inc_call THEN E ELSE NE
inc_call = Q.9/16

CE1402: IF zap_term THEN E ELSE X
zap_term = Q.9/31

CE1403: IF inter_op_roam THEN E ELSE OE
inter_op_roam = Q.9/25

CE1404: IF loc_dereg THEN E ELSE NE
loc_dereg = Q.9/42

8.5.3 FT link control entity messages

Table 15

FT LCE messages (Q.16)				
Item no.	Name	Ref.	Sending (F to P) status	Receipt (P to F) status
1	LCE-PAGE-RESPONSE	6.3.7.1	X	E
2	LCE-PAGE-REJECT	6.3.7.2	E	X
3	LCE-REQUEST-PAGE-B-format	6.4.2	E	X

These messages shall be supported for the network test procedure "test call back".

8.6 FT information elements

Table 16

FT information elements (Q.17)				
Item no.	Name	Ref.	Sending (F to P) status	Receipt (P to F) status
0	Codeset shift	7.5.3-4	NE	NE
1	Sending complete	7.6.2	NE	NE
2	Delimiter request	7.6.2	NE	NE
3	Repeat indicator (non prioritised)	7.6.3	X	NE
4	Repeat indicator (prioritised)	7.6.3	X	X
5	Basic service	7.6.4	CE1602	E
6	Single-display	7.6.5	X	X
7	Single-keypad	7.6.6	X	X
8	Release-reason	7.6.7	E	E
9	Signal	7.6.8	CE1603	NE
10	Timer restart	7.6.9	E	X
11	Test Hook Control	7.6.10	X	X
12	Allocation type	7.7.2	E	X
13	Alphanumeric	7.7.3	NE	NE
14	Auth-type	7.7.4	E	E
15	Call attributes	7.7.5	I	I
16	Call identity	7.7.6	NE	NE
17	Called party number	7.7.7	CE1601	E
18	Called party subaddress	7.7.8	CE1601	OE
19	Calling party number	7.7.9	CE1601	OE
20	Cipher info	7.7.10	NE	NE
21	Connection attributes	7.7.11	NE	NE
22	Connection identity	7.7.12	NE	NE
23	Duration	7.7.13	OE	X
24	End-to-end compatibility	7.7.14	NE	NE
25	Facility	7.7.15	NE	NE
26	Feature activate	7.7.16	X	E
27	Feature indicate	7.7.17	E	X
28	Fixed identity	7.7.18	E	E
29	Identity type	7.7.19	CE1609	X

(continued)

Table 16 (concluded)

FT information elements				
Item no.	Name	Ref.	Sending (F to P) status	Receipt (P to F) status
30	Info type	7.7.20	CE1604	CE1604
31	IWU attributes	7.7.21	NE	NE
32	IWU PACKET	7.7.22	NE	NE
33	IWU to IWU	7.7.23	NE	NE
34	Key	7.7.24	X	OE
35	Location area	7.7.25	CE1606	CE1605
36	Multi-display	7.7.26	CE1607	X
37	Multi-keypad	7.7.27	X	E
38	Network assigned identity	7.7.28	CE1608	CE1610
39	Network parameter	7.7.29	CE1611	NE
40	Portable identity	7.7.30	E	E
41	Progress indicator	7.7.31	OE	X
42	Rand	7.7.32	E	E
43	Rate Parameters	7.7.33	NE	NE
44	Reject reason	7.7.34	OE	OE
45	RES	7.7.35	E	E
46	RS	7.7.36	E	X
47	Segmented info	7.7.37	NE	NE
48	Service change info	7.7.38	NE	NE
49	Service class	7.7.39	OE	OE
50	Setup capability	7.7.40	X	CE1601
51	Terminal capability	7.7.41	X	E
52	Transit delay	7.7.42	NE	NE
53	Window size	7.7.43	NE	NE
54	ZAP field	7.7.44	OE	OE

CE1601: IF inc_call THEN OE ELSE X
inc_call = Q.9/16

CE1602: IF inc_call THEN E ELSE X

CE1603: IF inc_call THEN E ELSE NE

CE1604: IF loc_reg THEN E ELSE OE
loc_reg = Q.9/41

CE1605: IF loc_reg OR inc_call THEN OE ELSE NE

CE1606: IF loc_reg THEN E ELSE NE

CE1607: IF disp_char OR disp_cont THEN E ELSE X
disp_char = Q.9/28
disp_cont = Q.9/29

CE1608: IF sil_poll OR inc_call OR loc_dereg THEN OE ELSE NE
sil_poll = Q.9/23

CE1609: IF sil_poll THEN E ELSE NE

CE1610: IF inc_call OR inter_op_roam THEN OE ELSE NE
inter_op_roam = Q.9/25

CE1611: IF inter_op_roam THEN OE ELSE NE]

9 List of abstract test cases to be run

These lists have been derived using the test case selection expressions contained in the PAP Test Specification PT and FT ATS Overview tables ETS 300 323-2 [16] and ETS 300 323-5 [19].

9.1 PT test cases

9.1.1 Always essential

PAPP	N_010
PAPP/PR	N_000
PAPP/PR/BV/MM/AF	N_204, N_219, N_246
PAPP/PR/BV/MM/AU	N_203, N_218
PAPP/PR/BV/MM/KA	N_210, N_225, N_265, N_297
PAPP/PR/BV/MM/TA	N_201, N_216, N_238, N_239
PAPP/PR/BV/MM/LR	N_205, N_220, N_231, N_248, N_249, N_250, N_251, N_91
PAPP/PR/BV/MM/PF	N_211, N_226
PAPP/PR/BV/MM/LU	N_256
PAPP/PR/BV/MM/TF	N_209, N_224, N_263
PAPP/PR/BI	N_028, N_029, N_025, N_026, N_027
PAPP/PR/BO	N_040
PAPP/PR/BV/EI	N_080, N_081
PAPP/PR/BV/CC/OC	N_100
PAPP/PR/BV/CC/NR	N_112, N_113, N_114, N_130, N_131, N_132, N_133, N_134, N_123, N_124, N_128, N_135, N_136
PAPP/PR/BV/CC/AR	N_107, N_108, N_109, N_110, N_111, N_121, N_122, N_127
PAPP/PR/BV/CC/TI	N_174, N_179, N_180, N_175, N_181
PAPP/PR/BV/CC/CI	N_170, N_125
PAPP/PR/BV/CC/EC	N_150, N_151
PAPP/PR/BV/CC/IC	N_120
PAPP/PR/BV/MM/ID	N_200, N_215, N_233, N_235
PAPP/PR/BV/MM/AP	N_202, N_217, N_230, N_244
PAPP/PR/BV/MM/OA	N_222, N_232, N_258, N_264, N_290, N_292, N_293
PAPP/RE/BH	R_400, R_401, R_402
PAPP/RE/CH	R_403, R_404, R_405, R_406
PAPP/RE/OC	R_408

PAPP/RE/OT R_407, R_413

PAPP/RE/PG R_410, R_411, R_412

9.1.2 Essential for outgoing call feature, enbloc dialling

PAPP/PR/BV/CC/OC N_101, N_102, N_103, N_104, N_153, N_154

PAPP/PR/BV/CC/CI N_160

9.1.3 Essential for outgoing call feature, piecewise dialling

PAPP/PR/BV/CC/OC N_105, N_115, N_117, N_129, N_155,

9.1.4 Essential for location de-registration feature

PAPP/PR/BV/MM/DE N_206, N_221, N_255

9.1.5 Essential for partial release feature

PAPP/PR/BV/CC/PR N_137, N_138, N_139, N_140, N_141, N_144, N_196

9.1.6 Essential for display implemented

PAPP/PR/BV/CC/CI N_142, N_143

9.1.7 Essential for tone implemented

PAPP/PR/BV/CC/CI N_189, N_185

9.2 FT test cases

9.2.1 Always essential

PAPF N_510

PAPF/PR N_500

PAPF/PR/BV/CC/OC N_600, N_601, N_602

PAPF/PR/BV/MM/AF N_704, N_719

PAPF/PR/BV/MM/KA N_710, N_740

PAPF/PR/BI N_525, N_526, N_527

PAPF/PR/BV/CC/NR N_613, N_614, N_615, N_619, N_620, N_621, N_622, N_623

PAPF/PR/BV/CC/AR N_605, N_606, N_607, N_608, N_609

PAPF/PR/BV/CC/PR N_626, N_627, N_628, N_629, N_630

PAPF/PR/BV/CC/CI N_635, N_636, N_639, N_663

PAPF/PR/BV/CC/CI N_653, N_654, N_661

PAPF/PR/BV/CC/EC N_633, N_634, N_670, N_671

PAPF/PR/BV/MM/AP N_702, N_717, N_738

PAPF/PR/BV/MM/OA N_733, N_707

PAPF/RE/BH	R_902
PAPF/RE/OT	R_905, R_915
PAPF/RE/QB	R_916, R_917, R_918, R_919, R_920, R_921
PAPF/RE/BR	R_906, R_907, R_908, R_909, R_910

9.2.2 Essential if no intra-cell connection handover feature

PAPF/RE/BH	R_900
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9.2.3 Essential if no intra-cell bearer handover feature

PAPF/RE/CH	R_903
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9.2.4 Essential for inter-cell bearer handover feature

PAPF/RE/BH	R_901
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9.2.5 Essential for inter-cell connection handover feature

PAPF/RE/CH	R_904
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9.2.6 Essential if SARIs supported

PAPF/RE/BR	R_911, R_912
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9.2.7 Essential if TARIs supported

PAPF/RE/BH	R_913
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9.2.8 Essential for incoming call feature

PAPF/PR/BV/CC/IC	N_603, N_604
PAPF/PR/BV/MM/LU	N_711, N_726
PAPF/PR/BV/MM/LR	N_705, N_720, N_734
PAPF/PR/BI	N_528, N_529
PAPF/PR/BO	N_540
PAPF/PR/BV/CC/NR	N_616, N_617, N_624
PAPF/PR/BV/CC/AR	N_610, N_611
PAPF/PR/BV/CC/PR	N_631
PAPF/PR/BV/CC/TI	N_640
PAPF/PR/BV/CC/CI	N_660

9.2.9 Essential for authentication of user feature

PAPF/PR/BV/MM/AU	N_703, N_718
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9.2.10 Essential for location de-registration feature

PAPF/PR/BV/MM/DE	N_706, N_721
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9.2.11 Essential for ZAP terminate feature

PAPF/PR/BV/MM/TF N_709, N_724, N_739

9.2.12 Essential for ZAP suspend feature

PAPF/PR/BV/MM/AP N_732

9.2.13 Essential for identification of PT procedure

PAPF/PR/BV/MM/ID N_700, N_715, N_736

Annex A (informative): Bibliography

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