Source: **TSG T WG1**

Title: **TS 34.123-2 v1.0.0**

User Equipment (UE) conformance specification. Part 2: Implementation Conformance Statement (ICS) proforma specification.

Agenda item: **6.3**

Document for: **Information**

Presentation of Specification to TSG T

Presentation to: **TSG T Meeting #6**

Document for presentation: **TS 34.123-2, Version 1.0.0**

Presented for: **Information**

Abstract of document:

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

The objective of TS 34.123-2 is to provide the ICS proforma for 3G User Equipment. This ICS is to be used for RF, protocol and EMC testing.

This TS directly depends on TR 21.904 that is being elaborated by TSG T WG2.

Changes since last presentation to TSG T Meeting #:

First presentation.

Outstanding Issues:

TSG T2 has just issue a new version of the TR 21.904 (v1.1.0). Changes included in this version will be incorporated in the next version of 34.123-2.

TSG T2 is expecting additional information from other working groups to complete the annexes on service implementation capabilities.

The applicability table must be updated with test cases included in RF, signalling and EMC specifications. This section could only be completed with this specifications are stable enough.

Contentious Issues:

The content of this specifications is directly related to the content and stability of TR 21.904.

3G TS 34.123-2 V1.0.0 (1999-12)

Technical Specification

3rd Generation Partnership Project; Technical Specification Group Terminal; User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification. (3G TS 34.123-2 version 1.0.0)

Reference
DTS/TSGT-01MS-ICS U

Keywords
ICS, Mobile, MS, Terminal, Testing, UMTS

3GPP

Postal address

3GPP support office address
650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet
http://www.3gpp.org

Contents

Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 Indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the specification;

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 3rd Generation Mobile Station (MS), in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [ ] and ETS 300 406 [ ].

This ICS is to be used for RF, protocol and EMC testing. The different test specifications can be found in:

- parts 1 and 3 of this specification for protocol test specifications;
- 3G TS 34.121 (FDD) [ ] and 3G TS 34.122 (TDD) [ ] for RF test specifications; and
- 3G TS 34 124 [ ] for EMC test specifications.

Special conformance testing functions can be found in 3G TS 34.109 [ ]..

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[ ] ISO/IEC 9646-1 : "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[ ] ISO/IEC9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[ ] ETS 300 406 (January 1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[ ] 3G TR 21.904: "Terminal Capability Requirements".

[ ] 3G TS 22.002: "Bearer Services (BS) supported by a GSM; Public Land Mobile Network (PLMN)".

[ ] 3G TS 22.004: "General on Supplementary Services".

[ ] 3G TS 22.042: "Network Identity and Timezone (NITZ); Service description, Stage 1".

[ ] 3G TS 22.043: "Support of Localised Service Area (SoLSA); Service description; Stage 1".

[ ] 3G TS 22.072: "Call Deflection Service description - Stage 1".

[ ] 3G TS 22.081: "Line identification Supplementary Services; Stage 1"

[ ] 3G TS 22.082: "Call Forwarding (CF) supplementary services - Stage 1".

[ ] 3G TS 22.083: "Call Waiting (CW) and Call Holding (HOLD); Supplementary Services - Stage 1".

[ ] 3G TS 22.084: "MultiParty (MPTY) Supplementary Services - Stage 1".

[ ] 3G TS 22.085: "Closed User Group (CUG) Supplementary Services - Stage 1".

[ ] 3G TS 22.086: "Advice of Charge (AoC) Supplementary Services - Stage 1".

[ ] 3G TS 22.087: "User-to-user signalling (UUS) - Stage 1".

[ ] 3G TS 22.088: "Call Barring (CB) Supplementary Services - Stage 1".

[ ] 3G TS 22.090: "Unstructured Supplementary Service Data (USSD) - Stage 1".

[ ] 3G TS 22.091: "Explicit Call Transfer (ECT)".

[ ] 3G TS 22.093: "Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1".

[ ] 3G TS 22.094: "Example".

[ ] 3G TS 22.095 (Vx.0.0): "".

[ ] 3G TS 22.096: "Name identification supplementary services;Stage 1".

[ ] 3G TS 22.097: "Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1".

[ ] 3G TS 22.105: "Services and Service Capabilities".

[ ] 3G TS 22.121: "Provision of services in UMTS - The virtual Home Environment".

[ ] 3G TS 22.129: "Handover requirements between UMTS and GSM or other Radio Systems".

[ ] 3G TS 25.101: "UE radio transmission and reception (FDD)".

[ ] 3G TS 25.102: "UE radio transmission and reception (TDD)".

[ ] 3G TS 25.301: "Radio Interface Protocol Arquitecture".

[ ] 3G TS 25.303: "UE functions and inter-layer procedures in connected mode".

[ ] 3G TS 25.304: "UE procedures in Idle Mode".

[ ] 3G TS 25.321: "Medium Access Control (MAC) Protocol Specification".

[ ] 3G TS 25.322: "Radio Link Control (RLC) Protocol Specification".

[ ] 3G TS 25.331: "Radio Resource Control (RRC) Protocol Specification".

[ ] 3G TS 34.109: "Logical Test Interface (TDD and FDD)".

[ ] 3G TS 34.121: "Terminal Conformance Specification, Radio Transmission and Reception (FDD)".

[ ] 3G TS 34.122: "Terminal Conformance Specification, Radio Transmission and Reception (FDD)".

[ ] 3G TS 34.124: "Electro-Magnetic Compatibility (EMC) for Terminal equipment - stage 1"

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

- terms defined in the relevant 3GPP core specifications (see normative references)
- terms defined in ISO/IEC 9646-1 [ ] and in ISO/IEC 9646-7 [ ].

In particular, the following terms defined in ISO/IEC 9646-1 [ ] apply:

Implementation Conformance Statement (ICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

ICS proforma: A document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ICS	Implementation Conformance Statement
SCS	System Conformance Statement
UEUT	User Equipment Under Test

Editor's note: Reference to the global abbreviation document for 3GPP shall be included.

4 Conformance to this ICS proforma specification

If it claims to conform to this TS, the actual ICS proforma to be filled in by a supplier shall be technically equivalent to the text of the ICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

An ICS which conforms to this TS shall be a conforming ICS proforma completed in accordance with the instructions for completion given in clause A.1.

Annex A (normative): ICS proforma for 3rd Generation mobile stations

A.1 Guidance for completing the ICS proforma

A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into subclauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- ICS proforma tables;

  [tbd: for example:

  - *global statement of conformance;*
  - *types of mobile stations;*
  - *support of basic services;*
  - *support of supplementary services;*
  - *mobile station features;*
  - *additional information;]*

A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [ ].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column

The following notations, defined in ISO/IEC 9646-7 [3], are used for the status column:

M	mandatory - the capability is 3GPP core required to be supported
O	optional - the capability may be supported or not.
N/A	not applicable - in the given context, it is impossible to use the capability.
X	prohibited (excluded) - there is a requirement not to use this capability in the given context.
O.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
Ci	conditional - the requirement on the capability ("M", "O", "X" or "N/A") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities.

Reference column

The reference column gives reference to the relevant 3GPP core specifications.

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [ ], are used for the support column:

Y or y	supported by the implementation
N or n	not supported by the implementation
N/A, n/a or -	no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status)

It is also possible to provide a comment to an answer in the space provided at the bottom of the table.

NOTE: As stated in ISO/IEC 9646-7 [ ], support for a PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

Values allowed column

The values allowed column contains the values or the ranges of values allowed.

Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

Category column

The Category (Cat.) column contains category values for each item.

R	regulatory testing
I	interoperability testing

V voluntary testing

References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

EXAMPLE 1: A.5/4 is the reference to the answer of item 4 in table A.5.

EXAMPLE 2: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table A.6.

Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation shall complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different subclauses of the ICS proforma.

A.2 Identification of the Mobile Station

Identification of the User Equipment should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.1 Date of the statement

.....

A.2.3 Use Equipment Under Test (UEUT) identification

UEUT name:

.....

.....

Hardware configuration:

.....

.....

.....

Software configuration:

.....

.....

.....

A.2.4 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.5 Client

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.6 ICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of this TS.

A.4 ICS proforma tables

An explicit answer shall be entered, in each of the support column boxes provided, using the notation described in subclause A.1.2.

A.4.1 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No) .....

NOTE: Answering "No" to this question indicates non-conformance to the relevant 3GPP core specifications. Non-supported mandatory capabilities are to be identified in the ICS, with an explanation of why the implementation is non-conforming, on pages attached to the ICS proforma.

A.4.2 Terminal Implementation Types

Table A.1: Terminal Implementation Types

Item	Terminal Implementation Types	Ref.	Status	Support	Mnemonic
1	Single-mode FDD (DS)	21.904, 5	O.01		TSPC_3G_type_FDDds
2	Single-mode TDD	21.904, 5	O.01		TSPC_3G_type_TDD
3	Dual-mode FDD (DS) /TDD	21.904, 5	O.01		TSPC_3G_type_FDDds-TDD
4	Dual-system FDD (DS)/GSM	21.904, 5	O.01		TSPC_3G_type FDDds-GSM
5	Dual-system TDD/GSM	21.904, 5	O.01		TSPC_3G_type TDD-GSM
6	Dual mode/Dual-system FDD(DS)/TDD/GSM	21.904, 5	O.01		TSPC_3G_type_FDDds-TDD-GSM
O.01 At least one of these items shall be supported					

A.4.3 Baseline Capabilities

Table A.4.3: Baseline Capabilities

Item	Baseline Capabilities	Ref.	Status	Support	Mnemonic
1	On / off switch	21.904, 4.1	O		TSPC_3G_base_OnOff
2	Power-on status check	21.904, 4.2	M		TSPC_3G_base_PwOn
3	Radio access mode selection	21.904, 4.4	C01		TSPC_3G_base_RAM_sel
4	Network searching	21.904, 4.6	M		TSPC_3G_base_Nw_search
5	Access node selection	21.904, 4.8	M		TSPC_3G_base_acc_nod_sel
6	Contact network	21.904, 4.10	M		TSPC_3G_base_contact_nw
7	Perform registration	21.904, 4.12	M		TSPC_3G_base_reg
8	Perform de-registration	21.904, 4.14	M		TSPC_3G_base_dereg
C01 IF A1/3 OR A1/4 OR A1/5 OR A1/6 THEN M ELSE N/A					

A.4.4 Terminal Service Capabilities

Editor's note: All the services shall be optional.

A.4.4.1 Basic Terminal Service Capabilities

Table A.4.4.1.1: Basic Terminal Service Capabilities

Item	Basic Terminal Service Capabilities	Ref.	Status	Support	Mnemonic
1	Service initiation attempt	21.904, 6.2			TSPC_3G_serv_attempt
2	Terminate service	21.904, 6.4			TSPC_3G_serv_term

Editor's note: This is only necessary if a service-less terminal is considered valid for the market. .

Table A.4.4.1.2: Terminal Service Capabilities Type

Item	Terminal Service Capabilities Type	Ref.	Status	Support	Mnemonic
1	Circuit Switched	??	O		TSPC_3G_CS
2	Packet Switched	??	O		TSPC_3G_PS

A.4.4.2 Standardised Terminal Service Capabilities

A.4.4.2.1 Teleservices

Table A.4.4.2.1: Teleservices

Item	Teleservices	Ref.	Status	Support	Mnemonic
1	Narrow band speech (AMR)	22.105, 6.4.1	O		TSPC_3G_TS_Speech_AMR
2	Emergency speech call	22.105, 6.4.2	C01		TSPC_3G_TS_Emerg
3	Real time fax service	22.105	O		TSPC_3G_TS_Fax
4	Short Message Service, Point to point	22.105, 6.4.3	O		TSPC_3G_TS_SMS_PP
5	Short Message Service, Cell broadcast	22.105, 6.4.4	O		TSPC_3G_TS_SMS_CB
C01 IF A4/1 THEN M ELSE N/A					

A.4.4.2.2 Bearer Services

[Editor's note:

The following rates shall be added

– *At least 144 kbits/s in satellite radio environment (Note 1).*

– *At least 144 kbits/s in rural outdoor radio environment.*

– *At least 384 kbits/s in urban/suburban outdoor radio environments.*

– *At least 2048 kbits/s in indoor/low range outdoor radio environment.]*

Table A.4.4.2.2.1: Asynchronous General Bearer Services [TBD]

Prerequisite: A.4.4.1.2/1					
Item	**Asynchronous General Bearer Services**	**Ref.**	**Status**	**Support**	**Mnemonic**
	3.1 kHz Audio 300 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS21audio
	3.1 kHz Audio 1200 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS22audio
	3.1 kHz Audio 2400 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS24audio
	3.1 kHz Audio 4800 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS25audio
	3.1 kHz Audio 9600 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS26audio
	3.1 kHz Audio 14400 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS
	3.1 kHz Audio 19200 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS
	3.1 kHz Audio 28800 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS
	V.110 UDI 300 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS21udi
	V.110 UDI 1200 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS22udi
	V.110 UDI 2400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS24udi
	V.110 UDI 4800 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS25udi
	V.110 UDI 9600 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS26udi
	V.110 UDI 14400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS
	V.110 UDI 19200 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS
	V.110 UDI 28800 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS
	V.110 UDI 38400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS
	V.120 1200 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS22v
	V.120 2400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS24v
	V.120 4800 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS25v
	V.120 9600 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS26v
	V.120 14400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS
	V.120 19200 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS
	V.120 28800 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS
	V.120 38400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS
	V.120 40000 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS
	V.120 56000 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS

Table A.4.4.2.2.2: Synchronous General Bearer Services [TBD]

Prerequisite: A.4.4.1.2/1					
Item	**Synchronous General Bearer Services**	**Ref.**	**Status**	**Support**	**Mnemonic**
	3.1 kHz Audio 1200 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS31audio
	3.1 kHz Audio 2400 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS32audio
	3.1 kHz Audio 4800 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS33audio
	3.1 kHz Audio 9600 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS34audio
	3.1 kHz Audio 14400 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS3x
	3.1 kHz Audio 19200 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS3x
	3.1 kHz Audio 28800 bit/s	22.002, 3.1.1	O		TSPC_3G_Serv_BS3x
	V.110 UDI 1200 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS31udi
	V.110 UDI 2400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS32udi
	V.110 UDI 4800 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS33udi
	V.110 UDI 9600 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS34udi
	V.110 UDI 14400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	V.110 UDI 19200 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	V.110 UDI 28800 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	V.110 UDI 38400 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	V.110 UDI 48000 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	V.110 UDI 56000 bit/s	22.002, 3.1.2	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 2400 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS32x
	X.31 Flag Stuffing UDI 4800 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS33x
	X.31 Flag Stuffing UDI 9600 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS34x
	X.31 Flag Stuffing UDI 14400 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 19200 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 28800 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 38400 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 48000 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	X.31 Flag Stuffing UDI 56000 bit/s	22.002, 3.1.3	O		TSPC_3G_Serv_BS3x
	V.120 2400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS32v
	V.120 4800 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS33v
	V.120 9600 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS34v
	V.120 14400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x
	V.120 19200 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x
	V.120 28800 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x

	V.120 38400 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x
	V.120 48000 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x
	V.120 56000 bit/s	22.002, 3.1.4	O		TSPC_3G_Serv_BS3x
	Bit Transparent mode 56 kbit/s	22.002, 3.1.5	O		TSPC_3G_Serv_BS3x
	Bit Transparent mode 64 kbit/s	22.002, 3.1.5	O		TSPC_3G_Serv_BS3x

Table A.4.4.2.2.3: GPRS Bearer Services[TBD]

Prerequisite: A.4.4.1.2/2					
Item	**GPRS Bearer Services**	**Ref.**	**Status**	**Support**	**Mnemonic**
	GPRS Bearer Services [FFS]		O		TSPC_3G_Serv_BS70
Note: Test cases for these features will not be include in R99 of TS 34.123-1.					

Table A.4.4.2.2.4: Other Bearer Services[TBD]

Item	Other Bearer Services	Ref.	Status	Support	Mnemonic
101	Circuit Switched Bearers with QoS	22.105	O		TSPC_3G_Serv_BS
102	Packet Switched Bearers with QoS	22.105	O		TSPC_3G_Serv_BS
103	Handover requirement between UMTS and GSM or other radio system	22.129	O		TSPC_3G_Serv_BS

A.4.4.2.3 Supplementary Services

Table A.4.4.2.3: Supplementary Services

Item	Supplementary services	Ref.	Status	Support	Mnemonic
1	Call Deflection (CD)	22.072; 22.004, 4	O		TSPC_3G_Serv_SS_CD
2	Calling Line Identification Presentation	22.081, 1; 22.004, 4	O		TSPC_3G_Serv_SS_CLIP
3	Calling Line Identification Restriction	22.081, 2; 22.004, 4	O		TSPC_3G_Serv_SS_CLIR
4	Connected Line Identification Presentation	22.081, 3; 22.004, 4	O		TSPC_3G_Serv_SS_COLP
5	Connected Line Identification Restriction	22.081, 4; 22.004, 4	O		TSPC_3G_Serv_SS_COLR
6	Call Forwarding Unconditional	22.082, 1; 22.004, 4	O		TSPC_3G_Serv_SS_CFU
7	Call Forwarding on Mobile Subscriber Busy	22.082, 2; 22.004, 4	O		TSPC_3G_Serv_SS_CFB
8	Call Forwarding on No Reply	22.082, 3; 22.004, 4	O		TSPC_3G_Serv_SS_CFNRy
9	Call Forwarding on Mobile Subscriber Not Reachable	22.082, 4; 22.004, 4v	O		TSPC_3G_Serv_SS_CFNRc
10	Call Waiting	22.083, 1; 22.004, 4	O		TSPC_3G_Serv_SS_CW
11	Call Hold	22.083, 2	O		TSPC_3G_Serv_SS_HOLD
12	Multi Party Service	22.084; 22.004, 4	O		TSPC_3G_Serv_SS_MPTY
13	Closed User Group	22.085; 22.004, 4	O		TSPC_3G_Serv_SS_CUG
14	User-to-user signalling (UUS)	22.087; 22.004, 4	O		TSPC_3G_Serv_SS_UUS
15	Advice of Charge (Information)	22.086, 1; 22.004, 4	O		TSPC_3G_Serv_SS_AoCI
16	Advice of Charge (Charging)	22.086, 2; 22.004, 4	O		TSPC_3G_Serv_SS_AoCC
17	Barring of All Outgoing Calls	22.088, 1; 22.004, 4	O		TSPC_3G_Serv_SS_BAOC
18	Barring of Outgoing International Calls	22.088, 1; 22.004, 4	O		TSPC_3G_Serv_SS_BOIC
19	Barring of Outgoing International Calls except those directed to the Home PLMN Country	22.088, 1; 22.004, 4	O		TSPC_3G_Serv_SS_BOICexHC
20	Barring of All Incoming Calls	22.088, 2; 22.004, 4	O		TSPC_3G_Serv_SS_BAIC
21	Barring of Incoming Calls when Roaming Outside the Home PLMN Country	22.088, 2; 22.004, 4	O		TSPC_3G_Serv_SS_BICRoam
22	Priority Set-up Service (PSUS)	22.087; 22.004, 4	O		TSPC_3G_Serv_SS_PSUS
23	Unstructured SS Data	22.090; 22.004, 4	O		TSPC_3G_Serv_SS_USSD
24	Explicit call transfer	22.091; 22.004, 4	O		TSPC_3G_Serv_SS_ECT
25	Network identity and time zone	22.042; 22.004, 4	O		TSPC_3G_Serv_SS_NITZ
26	Support of localised service area	22.043; 22.004, 4	O		TSPC_3G_Serv_SS_SoLSA
27	Call Completion to Busy Subscriber (CCBS)	22.093; 22.004, 4	O		TSPC_3G_Serv_SS_CCBS

28	Call Completion to Busy Subscriber Request	22.093; 22.004, 4	O		TSPC_3G_Serv_SS_CCBSreq
29	Support of Private Numbering Plan (SPNP)	22.095; 22.004, 4	O		TSPC_3G_Ser_SS_SPNP
30	Follow Me	22.094	O		TSPC_3G_Serv_SS_FM
31	Calling name presentation (CNAP)	22.096; 22.004, 4	O		TSPC_3G_Serv_SS_CNAP
32	Multiple Subscriber Profile (MSP)	22.097	O		TSPC_3G_Serv_SS_MSP
101	Addressing scheme	21.905, 7.1	O		TSPC_3G_Serv_SS_Add
102	On-line billing	21.905, 7.1	O		TSPC_3G_Serv_SS_
Note: Test cases for these features will not be include in R99 of TS 34.123-1.					

A.4.4.2.4 Service Capabilities

Table A.4.4.2.4.1: Services Capabilities [TBD]

Item	Services Capabilities	Ref.	Status	Support	Mnemonic
1	Mobile station Execution Environment (MExE)	21.121, 11 02.57	O		TSPC_3G_MExE
2	Location Services (LCS)	[TBD]	O		TSPC_3G_LCS
3	SIM Application Toolkit (SAT)	21.121, 11	O		TSPC_3G_SAT
4	Customised Application For Mobile Network Enhanced Logic (CAMEL)	21.121, 11 02.78	O		TSPC_3G-CAMEL
Note: Test cases for these features will not be include in R99 of TS 34.123-1.					

A.4.4.2.5 GSM System Features

Table A.4.4.2.5.1: GSM System Features [TBD]

Item	GSM System Features	Ref.	Status	Support	Mnemonic
1	Network Identity and Time Zone (NITZ)	22.105, 10.1	O		TSPC_3G_NITZ
2	Support of Localised Service Area (SoLSA)	22.105, 10.2	O		TSPC_3G_SoLSA
3	Unstructured Supplementary Service Data (USSD)	22.105, 10.6	O		TSPC_3G_USSD
Note: Test cases for these features will not be include in R99 of TS 34.123-1.					

A.4.4.3 Non Standardised Service Capabilities

[tbd]

A.4.5 Baseline Implementation Capabilities

A.4.5.1 Baseline Implementation Capabilities to facilitate Conformance testing

Table A.4.5.1.1: Reference Measurement Channel

Item	Reference Measurement Channel	Ref.	Status	Support	Mnemonic
101	Up-link reference measurement channel 12.2 kbps (FDD)	25.101 A.2.1	C01		TSPC_3G_meas_up_fdd
102	Down-link reference measurement channel 12.2 kbps (FDD)	25.101 A.2.2	C01		TSPC_3G_meas_down_fdd
103	Up-link reference measurement channels for static channel Rx sensitivity measurements (TDD)	25.102 [TBD]	[C02]		TSPC_3G_meas_up_tdd
104	Down-link reference measurement channels for static channel Rx sensitivity measurements (TDD)	25.102 [TBD]	[C02]		TSPC_3G_meas_down_tdd
C01 IF A.1/1 OR A.1/3 OR A.1/4 OR A.1/6 THEM M ELSE N/A C02 IF A.1/2 OR A.1/3 OR A.1/5 OR A.1/6 THEM M ELSE N/A					

Table A.4.5.1.2.: Special Conformance Testing Functions [TBD]

Item	Special Conformance Testing Functions	Ref.	Status	Support	Mnemonic
101	Tx carrier on/off control	34.109, 5.4.1	[M]		TSPC_3G_func_Tx_on-off
102	Loopback start/stop control	34.109, 5.4.2	[M]		TSPC_3G_func_loopback

Table A.4.5.1.3: Terminal Logical Test Interfaces [TBD]

Item	Terminal Logical Test Interfaces	Ref.	Status	Support	Mnemonic
101	Underlying protocol and physical test interface	34.109, 9	[M]		TSPC_3G_interface_under
102	Electrical Man Machine Interface (EMMI)	34.109, 10	[M]		TSPC_3G_interface_EMMI
103	Digital Audio Interface (DAI)	34.109, 11	[M]		TSPC_3G_interface_DAI
104	UICC/ME test interface	34.109, 12	[M]		TSPC_3G_interface_UICC-ME

A.4.5.1 RF Baseline Implementation Capabilities

Table A.4.5.1.1: FDD (DS) RF Baseline Implementation Capabilities

Prerequisite: A.1/1 OR A.1/3 OR A.1/4 OR A.1/6					
Item	**FDD (DS) RF Baseline Implementation Capabilities**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Chip rate 3.84 Mcps	25.101, A.5.1	M		TSPC_3G_RF_FDD_rate
2	Frequency band: 1920-1980 MHz	25.102, A.5.2	M		TSPC_3G_RF_FDD_band_19
3	Frequency band: 2110-2170 MHz	25.102, A.5.2	M		TSPC_3G_RF_FDD_band_21
4	Frequency band: Other spectrum	25.102, A.5.2	O		TSPC_3G_RF_FDD_band_other

		Supported value:			
5	TX-RX Freq. Sep: 190 MHz	25.101, A.5.3	M		TSPC_3G_RF_FDD_freq_sep_190
6	TX-RX Freq. Sep: Variable	25.101, A.5.3	O		TSPC_3G_RF_FDD_freq_sep_vble
		Supported value:			
7	Carrier raster	25.101, A.5.4	M		TSPC_3G_RF_FDD_raster
8	MS Power Class 1 (+33 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_FDD_pw_1
9	MS Power Class 2 (+27 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_FDD_pw_2
10	MS Power Class 3 (+24 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_FDD_pw_3
11	MS Power Class 4 (+21 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_FDD_pw_4
O.01 At least one of these items shall be supported					

Table A.4.5.1.2: TDD RF Baseline Implementation Capabilities

Prerequisite: A.1/2 OR A.1/3 OR A.1/5 OR A.1/6					
Item	**TDD RF Baseline Implementation Capabilities**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Chip rate 3.84 Mcps	25.102, A.5.1	M		TSPC_3G_RF_TDD_rate
2	Frequency band: 1900-1920 MHz	25.102, A.5.2	M		TSPC_3G_RF_TDD_band_19
3	Frequency band: 2010-2025 MHz	25.102, A.5.2	M		TSPC_3G_RF_TDD_band_20
4	Frequency band: Other spectrum	25.102, A.5.2	O		TSPC_3G_RF_TDD_band_other
		Supported value:			
5	Carrier raster	25.101, A.5.4	M		TSPC_3G_RF_TDD_raster
6	MS Power Class 1 (+33 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_TDD_pw_1
7	MS Power Class 2 (+27 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_TDD_pw_2
8	MS Power Class 3 (+24 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_TDD_pw_3
9	MS Power Class 4 (+21 dBm)	25.101, A.6.2.1	O.01		TSPC_3G_RF_TDD_pw_4
O.01 At least one of these items shall be supported					

A.4.5.2 Physical Layer Baseline Implementation Capabilities

A.4.5.2.1 FDD mode Physical Layer Baseline Implementation Capabilities

Table A.4.5.2.1.1: Physical Layer UE procedures and measurements

Prerequisite: A.1/1 OR A.1/3 OR A.1/4 OR A.1/6					
Item	**Physical Layer UE procedures and measurements**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Support for network and access node selection	25.214, 4.1, 4.2, 4.3	M		TSPC_3G_fdd_node_sel
2	Cell selection and reselection	25.215, 6.1.5, 7.1.1.1	M		TSPC_3G_fdd_cell_sel&resel
3	Support for network contact and registration	25.214, 4.4, 4.5, 6	M		TSPC_3G_fdd_nwk_cont&reg
4	Power control	25.214, 5.1.1 25.215, 6.1.1, 6.1.3	M		TSPC_3G_fdd_pwr_ctrl
5	Channel coding	25.212, 4.1, 4.2	M		TSPC_3G_ch_cod
6	Spreading and Scrambling Code Generation	25.213, 4.3	M		TSPC_3G_fdd_cod_gen
7	Code de-spreading and de-scrambling	25.213, 5.2	M		TSPC_3G_fdd_de_spre&scram
8	Modulation	25.213, 4.4	M		TSPC_3G_fdd_mod
9	Support for downlink Transmit Diversity (Open Loop mode)	25.211, 5.3.1	M		TSPC_3G_fdd_dl_tx_div

Table A.4.5.2.1.2: Transport channel necessary for the UE procedures and measurements

Prerequisite: A.1/1 OR A.1/3 OR A.1/4 OR A.1/6					
Item	**Transport channel**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Broadcast channel (BCH)	25.211, 4.2.1, 6	M		TSPC_3G_fdd_BCH
2	Paging channel (PCH)	25.211, 4.2.3, 6	M		TSPC_3G_fdd_PCH
3	Random access channel (RACH)	25.211 4.2.4, 6	M		TSPC_3G_fdd_RACH
4	Forward access channel (FACH)	25.211, 4.2.2, 6	M		TSPC_3G_fdd_FACH

Table A.4.5.2.1.3: Physical channels necessary for the UE procedures and measurements

Prerequisite: A.1/1 OR A.1/3 OR A.1/4 OR A.1/6					
Item	**Physical channel**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Primary Common Control Physical Channel (Primary CCPCH)	25.211, 5.3.3.1, 6	M		TSPC_3G_fdd_pCCPCH
2	Secondary Common Control Physical Channel (Secondary CCPCH)	25.211, 5.3.3.1, 6	M		TSPC_3G_fdd_sCCPCH
3	Physical Random Access Channel (PRACH)	25.211 5.2.2, 6	M		TSPC_3G_fdd_PRACH
4	Synchronisation Channel (SCH)	25.211, 5.3.3.3, 6	M		TSPC_3G_fdd_SCH
5	Acquisition Indication Channel (AICH)	25.211, 5.3.3.6, 6 25.221	M		TSPC_3G_fdd_AICH

A.4.5.2.2 TDD mode Physical Layer Baseline Implementation Capabilities

Table A.4.5.2.2.1: Physical Layer UE procedures and measurements

Prerequisite: A.1/2 OR A.1/3 OR A.1/5 OR A.1/6					
Item	**Physical Layer UE procedures and measurements**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Support for network and access node selection	25.224, 6.5, 6.6	M		TSPC_3G_tdd_node_sel
2	Cell selection and reselection	25.225, 6.1.1, 6.1.3, 6.1.5, 6.1.9, 7.1.1.1	M		TSPC_3G_tdd_cell_sel&resel
3	Support for network contact and registration	25.224, 6.4	M		TSPC_3G_tdd_nwk_cont&reg
4	Power control	25.224, 6.3.3.1	M		TSPC_3G_tdd_pwr_ctrl
5	Channel coding	25.222, 6.1, 6.2	M		TSPC_3G_tdd_ch_cod
6	Spreading and Scrambling Code Generation	25.223, 6, 7	M		TSPC_3G_tdd_cod_gen
7	Code de-spreading and de-scrambling	25.223, 6, 7	M		TSPC_3G_tdd_de_spre&scram
8	Modulation	25.223, 5	M		TSPC_3G_tdd_mod
9	Support for downlink Transmit Diversity	25.221, 6.8	M		TSPC_3G_tdd_dl_tx_div

Table A.4.5.2.2.2: Transport channel necessary for the UE procedures and measurements

Prerequisite: A.1/2 OR A.1/3 OR A.1/5 OR A.1/6					
Item	**Transport channel**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Synchronisation channel (SCH)	25.221, 4.1.2	M		TSPC_3G_tdd_SCH
2	Broadcast channel (BCH)	25.211, 4.2.1, 6	M		TSPC_3G_tdd_BCH
3	Paging channel (PCH)	25.211, 4.2.3, 6	M		TSPC_3G_tdd_PCH
4	Random access channel (RACH)	25.211 4.2.4, 6	M		TSPC_3G_tdd_RACH
5	Forward access channel (FACH)	25.211, 4.2.2, 6	M		TSPC_3G_tdd_FACH

Table A.4.5.2.2.3: Physical channels necessary for the UE procedures and measurements

Prerequisite: A.1/2 OR A.1/3 OR A.1/5 OR A.1/6					
Item	**Physical channel**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Common Control Physical Channel (Primary CCPCH)	25.221, 5.3.1, 6	M		TSPC_3G_tdd_CCPCH
2	Physical Random Access Channel (PRACH)	25.221, 5.3.2, 6	M		TSPC_3G_tdd_PRACH
3	Physical Synchronisation Channel (PSCH)	25.221, 5.4, 6	M		TSPC_3G_tdd_PSCH

A.4.5.3 Layer 2/3 Baseline Implementation Capabilities (access stratum)

Table A.4.5.3.1: UE Procedures

Item	UE Procedures	Ref.	Status	Support	Mnemonic
1	Support for PLMN selection	25.304, 5.2, 9.4, 9.5, 9.6, 9.7	M		TSPC_3G_UEproc_PLMN_sel
2	Support for location registration	25.304, 5.2, 9.4, 9.5, 9.6, 9.7	M		TSPC_3G_UEproc_loc_reg
3	Discontinuous reception (DRX) [TBD]		M		TSPC_3G_UEproc_DRX
4	Paging	25.331, 10.1.3.2	M		TSPC_3G_UEproc_Paging
5	Cell selection and reselection	25.304, 5.3	M		TSPC_3G_UEproc_Cell_sel&resel
6	System information reception	25.304, 6.1 25.331, 10.1.6.1	M		TSPC_3G_UEproc_Sys_info_Rx
7	Idle mode measurements	25.304, 7	M		TSPC_3G_UEproc_Idle_meas
8	Cell update	25.303, 7.3.2	M		TSPC_3G_UEproc_Cell_update
9	RRC connection establishment	25.303, 7.1.1	M		TSPC_3G_UEproc_RRC_con_estab
10	RRC status	25.331, 10.1.4.10	M		TSPC_3G_UEproc_RRC_status
11	RRC connection release	25.303, 7.1.4	M		TSPC_3G_UEproc_RRC_con_rel
12	Direct transfer	25.331, 10.1.7.3	M		TSPC_3G_UEproc_Direct_tranf

Table A.4.5.3.2: RRC messages [TBD]

Item	RRC messages	Ref.	Status	Support	Mnemonic
1	Paging type 1	25.331, 10.1.3.2	M		TSPC_3G_RRCmsg_paging
2	System information	25.331, 10.1.6.1	M		TSPC_3G_RRCmsg_Sys_info
3	Cell update	25.331, 10.1.1.3	M		TSPC_3G_RRCmsg_Cell_upd
4	Cell update confirm	25.331, 10.1.1.4	M		TSPC_3G_RRCmsg_Cell_upd_cnf
5	RNTI reallocation complete	25.331, 10.1.1.12	M		TSPC_3G_RRCmsg_RMTI_realloc
6	RRC connection request	25.331, 10.1.4.6	M		TSPC_3G_RRCmsg_Con_req
7	RRC connection setup	25.331, 10.1.4.7	M		TSPC_3G_RRCmsg_Con_setup
8	RRC connection setup complete	25.331, 10.1.4.8	M		TSPC_3G_RRCmsg_Con_setup_cnf
9	RRC connection reject	25.331, 10.1.4.9	M		TSPC_3G_RRCmsg_Con_ref
10	RRC status	25.331, 10.1.4.10	M		TSPC_3G_RRCmsg_status
11	RRC status ack	25.331, 10.1.4.11	M		TSPC_3G_RRCmsg_status_ack
12	RRC connection release	25.331, 10.1.4.4	M		TSPC_3G_RRCmsg_Con_rel
13	RRC connection release complete	25.331, 10.1.1.5	M		TSPC_3G_RRCmsg_Con_rel_com
14	Direct transfer	25.331, 10.1.7.3	M		TSPC_3G_RRCmsg_Direct_transf

[Editor's note: This information is not explicitly included in TR21.904 v0.0.4. It is included as comments to UE baseline procedures.]

Table A.4.5.3.3: RLC modes [TBD]

Item	RLC modes	Ref.	Status	Support	Mnemonic
1	Transparent mode (TM)	25.322, 4.2.1.1	M		TSPC_3G_TM
2	Unacknowledged mode (UM)	25.322, 4.2.1.2	M		TSPC_3G_UM
3	Acknowledged mode (AM)	25.322, 4.2.1.3	M		TSPC_3G_AM

[Editor's note: This information is not explicitly included in TR21.904 v0.0.4. It is included as comments to UE baseline procedures.]

Table A.4.5.3.4: Logical channels necessary for UE procedures

Item	Logical channels	Ref.	Status	Support	Mnemonic
1	Synchronisation control channel (SCCH)	25.301, 5.3	C01		TSPC_3G_SCCH
2	Broadcast control channel (BCCH)	25.301, 5.3	M		TSPC_3G_BCCH
3	Paging control channel (PCCH)	25.301, 5.3	M		TSPC_3G_PCCH
4	Common control channel (CCCH)	25.301, 5.3 25.321, 9.2.1.2	M		TSPC_3G_CCCH
5	Dedicated control channel (DCCH)	25.301, 5.3 25.321, 9.2.1.1	M		TSPC_3G_DCCH
C01 IF A.1/2 OR A.1/3 OR A.1/5 OR A.1/6 THEN M ELSE N/A					

Table A.4.5.3.5: Transport channels necessary for UE procedures

Item	Transport channels	Ref.	Status	Support	Mnemonic
1	Synchronisation channel (SCH)	25.301, 5.2	C01		TSPC_3G_SCH
2	Broadcast channel (BCH)	25.301, 5.2	M		TSPC_3G_BCH
3	Paging channel (PCH)	25.301, 5.2	M		TSPC_3G_PCH
4	Random access channel (RACH)	25.301, 5.2 25.321, 11.2	M		TSPC_3G_RACH
5	Forward access channel (FACH)	25.301, 5.2	M		TSPC_3G_FACH
C01 IF A.1/2 OR A.1/3 OR A.1/5 OR A.1/6 THEN M ELSE N/A					

Table A.4.5.3.6: Layer 2 Data Flows [TBD]

Item	Layer 2 Data Flows	Ref.	Status	Support	Mnemonic
1	Data flow for BCCH mapped to BCH	25.301, 5.3.3.1	M		TSPC_3G_flow_BCCH_BCH
2	Data flow for PCCH mapped to PCH	25.301, 5.3.3.2	M		TSPC_3G_flow_PCCH_PCH
3	Data flow for CCCH mapped to FACH	25.301, 5.3.3.4	M		TSPC_3G_flow_CCCH_FACH
4	Data flow for CCCH mapped to RACH	25.301, 5.3.3.4	M		TSPC_3G_flow_CCCH_RACH
5	Data flow for DCCH mapped to FACH (AM)	25.301, 5.3.3.5	M		TSPC_3G_flow_DCCH_FACH_AM
6	Data flow for DCCH mapped to RACH (AM)	25.301, 5.3.3.5	M		TSPC_3G__flow_DCCH_RACH_AM
7	Data flow for DCCH mapped to FACH (UM)	25.301, 5.3.3.5	M		TSPC_3G_flow_DCCH_FACH_UM
8	Data flow for DCCH mapped to RACH (UM)	25.301, 5.3.3.5	M		TSPC_3G_flow_DCCH_RACH_UM

[Editor's note: This information is not included in TR21.904 v0.0.4.]

Table A.4.5.3.7: RLC Sub Layer [TBD]

Item	RLC Sub Layer	Ref.	Status	Support	Mnemonic
	RLC Sub Layer	25.322	M		

[Editor's note: This information is not included in TR21.904 v0.0.4.]

Editor's note: According to LS R2(99)998, the entire 25.322 should be considered as part of the baseline implementation capabilities. Two exceptions to this have been identified:

- *RLC toolbox [FFS]*

- *RLC header compression should not be considered.*

Table A.4.5.3.8: MAC Sub Layer PDU format and procedures [TBD]

Item	MAC Sub Layer PDU format and procedures	Ref.	Status	Support	Mnemonic
1	MAC-PDU for mapping DCCH to RACH/FACH	25.321, 9.2.1.1	M		TSPC_3G_PDU_DCCH
2	MAC-PDU for mapping CCCH to RACH/FACH	25.321, 9.2.1.2	M		TSPC_3G_PDU_CCCH
3	RACH transmission procedure	25.321, 11	M		TSPC_3G_proc_RACH_reTx

[Editor's note: This information is not explicitly included in TR21.904 v0.0.4. It is included as comments to UE baseline procedures.]

A.4.5.4 Layer 3 Baseline Implementation Capabilities (non-access stratum)

A.4.5.4.1 UMTS Circuit Switched (CS) mobility management

Table A.4.5.4.1.1: MM common procedures

Item	MM common procedures	Ref.	Status	Support	Mnemonic
1	TMSI reallocation procedure	24.008, 4.3.1	M		
2	Authentication procedure	24.008, 4.3.2	M		
3	Identification procedure	24.008, 4.3.3	M		
4	IMSI detach procedure	24.008, 4.3.4	M		
5	Abort procedure	24.008, 4.3.5	M		
6	MM information procedure	24.008, 4.3.6	O		

Table A.4.5.4.1.2: MM specific procedures

Item	MM specific procedures	Ref.	Status	Support	Mnemonic
1	Location updating procedure	24.008, 4.4.1	M		
2	Periodic updating procedure	24.008, 4.4.2	M		
3	IMSI attach procedure	24.008, 4.4.3	M		
4	Generic Location Updating procedure	24.008, 4.4.4	M		

Table A.4.5.4.1.3: MM connection management procedures

Item	MM connection management procedures	Ref.	Status	Support	Mnemonic
1	MM connection establishment	24.008, 4.5.1.1	M		
2	MM connection establishment for emergency call	24.008, 4.5.1.5	C01		
3	MM re-establishment	24.008, 4.5.1.6	C02		
4	Paging response procedure	24.008	M		
5	Network initiated MM connection establishment	24.008, 4.5.1.3	O		
6	MM connection release	24.008, 4.5.3	M		
C01 IF A.4.4.2.1/1 THEM M ELSE N/A C02 IF "CC supported" THEM M ELSE ??					

Editor's note: Some additional information may be added to cover "CC supported", etc

A.4.5.4.2 UMTS Packet Switched (PS) mobility management

Table A.4.5.4.2.1: GMM common procedures

Item	GMM common procedures	Ref.	Status	Support	Mnemonic
1	P-TMSI reallocation procedure	24.008, 4.7.6	M		
2	Authentication and ciphering procedure	24.008, 4.7.7	M		
3	Identification procedure	24.008, 4.7.8	M		
4	Paging procedure	24.008, 4.7.9	M		
5	GMM status procedure	24.008, 4.7.10	M		
6	GMM support for anonymous access	24.008, 4.7.11	O		
7	GMM Information procedure	24.008, 4.7.12	O		

Table A.4.5.4.2.2: GMM specific procedures

Item	GMM specific procedures	Ref.	Status	Support	Mnemonic
1	GPRS attach procedure	24.008, 4.7.3.1	M		
2	Combined GPRS attach procedure	24.008, 4.7.3.2	C01		
3	MS initiated GPRS detach procedure	24.008, 4.7.4.1	M		
4	MS initiated Combined GPRS detach procedure	24.008, 4.7.4.1.3	C01		
5	Network initiated GPRS detach procedure	24.008, 4.7.4.2	M		
6	Normal and periodic routing area updating Procedure	24.008, 4.7.5.1	M		
7	Combined routing area updating Procedure	24.008, 4.7.5.2	C01		
C01 IF A.4.4.1.2/1 AND A.4.4.1.2/2 AND ("Class A" OR "Class B") THEM M ELSE ??					

Editor's note: Some additional information may be added to cover "Class A", "Class B", etc

A.4.5.5 Security Baseline Implementation Capabilities

Table A.4.5.5.1: Security Baseline Implementation Capabilities

Item	Security Baseline Implementation Capabilities	Ref.	Status	Support	Mnemonic
1	User Identity Confidentiality: temporary identity	33.102, 6.1	M		TSPC_3G_
2	User Identity Confidentiality: permanent identity - cleartex	33.102, 6.2	M		TSPC_3G_
3	User Identity Confidentiality: permanent identity - encryption	33.102, 6.2	M		TSPC_3G_
4	Authentication and key agreement protocol	33.102, 6.3	M		TSPC_3G_
5	Authentication and key agreement algorithms	33.102, 6.3	O		TSPC_3G_
6	Data confidentiality	33.102, 6.6	M		TSPC_3G_
7	Cipher indicator	33.102, 5.5	M		TSPC_3G_
8	Hooks for network wide encryption	33.102, 8.2	M		TSPC_3G_
9	Data integrity of signalling elements	33.102, 6.4	M		TSPC_3G_
10	Mobile Equipment Identification	33.102, 5.1.5	M		TSPC_3G_
11	User-to-USIM Authentication	33.102, 5.3.1	M		TSPC_3G_
12	USIM-Terminal Link	33.102, 5.3.2	O		TSPC_3G_
13	Secure messaging between the USIM and the network	33.102, 5.4.1	O		TSPC_3G_

A.4.5.6 USIM Baseline Implementation Capabilities

Table A.4.5.6 USIM capability [TBD]

Item	Bearer Services	Ref.	Status	Support	Mnemonic
1			O		
2			O		
3			O		
101	SIM application toolkit (SAT)	22.121	O		
102	Mobile station execution environment (MExE)	22.121	O		
103	Location services (LCS)	22.121	O		

A.4.6 Service Implementation Capabilities

A.4.6.1 Service Implementation capabilities to facilitate conformance testing

Table A.4.6.1.1: Service Implementation capabilities for conformance test purposes

Item	Service Implementation capabilities for conformance test purposes	Ref.	Status	Support	Mnemonic
1	Down-link reference measurement channel 64 kbps (FDD)	25.101 A.2.3	O		
2	Down-link reference measurement channel 144 kbps (FDD)	25.101 A.2.4	O		
3	Down-link reference measurement channels 384 kbps (FDD)	25.101 A.2.5	O		
4	Packet switched data measurement channel (FDD)	25.101 A.3	O		
5	Down-link (>12.2 kbps) reference measurement channels and Packet-switched measurement channels (TDD) [TBD]	25.102 [TBD]	O		
Note: Support of the following reference measurement channels is optional depending on the Terminal Service Capabilities for a given terminal.					

A.4.6.2 Physical Layer Service Implementation Capabilities

A.4.6.2.1 FDD mode Physical Layer Service implementation capabilities for support of the default speech service and of CS data services up to 64 kbps

Table A.4.6.2.1.1: FDD mode Physical Layer UE and measurement

Item	FDD mode Physical Layer UE and measurement	Ref.	Status	Support	Mnemonic
1	Handover	25.215, 6.1.1, 6.1.4, 6.1.5, 6.1.9, 7.1.1.2, 7.1.2, 7.1.3 25.212, 4.4			
2	Power control	25.214, 5.1.2, 5.2.3 25.215, 6.1.1, 6.1.3, 6.1.6, 6.1.7			
3	Multiplexing and Channel Coding	25.212, 4.2.3.2, 4.2.4 – 4.2.15, 4.3			
4	Modulation	25.213, 4.4.3			
5	Spreading and Scrambling Code Generation	25.213, 4.3			
6	Code de-spreading and de-scrambling	25.213, 5.2			
7	Support for downlink Transmit Diversity	25.211, 5.3.2 25.214, 8			
8	Support for Site Selection Diversity Transmission	25.214, 5.3.2.4			

Table A.4.6.2.1.2: Transport channels required

Item	Transport channel required	Ref.	Status	Support	Mnemonic
1	Dedicated channel (DCH)	25.211, 4.1.1, 6			

Table A.4.6.2.1.3: Physical channels required

Item	Transport channel required	Ref.	Status	Support	Mnemonic
1	Dedicated Physical Data Channel (DPDCH)	25.211, 5.2.1, 5.3.2, 6			
2	Dedicated Physical Control Channel (DPCCH)	25.211, 5.2.1, 5.3.2, 6			

A.4.6.2.2 TDD mode Physical Layer Service implementation capabilities for support of the default speech service and of CS data services up to 64 kbps

Table A.4.6.2.2.1: TDD mode Physical Layer UE and measurement

Item	TDD mode Physical Layer UE and measurement	Ref.	Status	Support	Mnemonic
1	Handover	25.225, 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.9, 7.1.1.2, 7.1.2			
2	Dynamic Channel Allocation	25.225, 7.1.3			
3	Power control	25.22, 44.3 25.225, 6.1.4, 6.1.7			
4	Multiplexing and Channel Coding	25.222, 6.2.3.2, 6.2.4 – 6.2.11, 6.3			
5	Spreading and Scrambling Code Generation	25.223, 6			
6	Code de-spreading and de-scrambling	25.223, 6			
7	Support for downlink Transmit Diversity	25.221, 5.2.4 25.224, 4.8			
8	Timing Advance	25.224, 4.4			
9	Discontinuous transmission	25.224, 4.7			

Table A.4.6.2.2.2: Transport channels required

Item	Transport channel required	Ref.	Status	Support	Mnemonic
1	Dedicated channel (DCH)	25.221, 4.1.1, 6			
2	USCH	25.221, 6.2.8			

Table A.4.6.2.2.3: Physical channels required

Item	Transport channel required	Ref.	Status	Support	Mnemonic
1	Dedicated Physical Channel (DPCH)	25.221, 5.2, 6			
2	PUSCH	25.221, 5.5			

A.4.6.3 Layer 2/3 (access atratum) service implementation capabilities

[TBD]

A.4.6.4 L3 (non-access atratum) service implementation capabilities

Table A.4.6.4.1: UMTS Call Control

Prerequisite: "Call Control"					
Item	**UMTS Call Control**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Mobile originating call establishment	24.008, 5.2.1	C01		
2	Mobile terminating call establishment	24.008, 5.2.2	C01		
3	Call clearing	24.008, 5.4.2-4	C01		
4	In-band tones and announcements	24.008, 5.5.1	C01		
5	Status procedure	24.008, 5.5.3	C01		
6	DTMF protocol control procedure	24.008, 5.5.7	C02		
C01 IF A.4.4.1.2/1 THEN M ELSE N/A C02 IF A.4.4.1.2/1 AND A.4.4.2.1/1 THEN M ELSE N/A					

Table A.4.6.4.2: UMTS Session Management

Prerequisite: "Session Management"					
Item	**UMTS Session Management**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	PDP context activation	24.008, 6.1.3.1	C01		
2	PDP context modification procedure	24.008, 6.1.3.2	C01		
3	PDP context deactivation procedure	24.008, 6.1.3.3	C01		
4	AA PDP context activation	24.008, 6.1.3.4	C02		
5	AA PDP context deactivation	24.008, 6.1.3.5	C02		
6	Receiving a SM STATUS message by a SM entry	24.008, 6.1.3.6	C01		
C01 IF A.4.4.1.2/2 THEN M ELSE N/A C02 IF A.4.4.1.2/2 THEN O ELSE N/A					

Table A.4.6.4.3: SMS

Item	**SMS**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	CM procedure	24.011, 5	C01		
2	SM-RL procedure	24.011, 6	C01		
3	Message format on BTS-MS I/F	[FFS]	C02		
C01 IF A.4.4.2.1/4 THEN M ELSE N/A C02 IF A.4.4.2.1/5 THEN M ELSE N/A					

Table A.4.6.4.4: Supplementary Services

Prerequisite: "At least one SS supported"					
Item	**Supplementary Services**	**Ref.**	**Status**	**Support**	**Mnemonic**
1	Generic procedure for the control of SS	24.010, 2	M		
2	SS support feature	24.010, 3	M		

Annex B (normative): Test case applicability

The applicability of each individual test is identified in the following table.

Table B.1: Applicability of tests

Clause	Title	Applicability	Cat.
34121/4.2	Maximum output power	C01	R
34121/4.3	Frequency stability	C01	R
34121/4.4.1	Open Loop Power Control in the Uplink	C01	R
34121/4.4.2	Closed Loop Power Control in the Uplink	C01	R
34121/4.4.3	Minimum output power	C01	R
34121/4.5.1	Transmit off power	C01	R
34121/4.5.2	Transmit on/off time mask	C01	R
34121/4.6	DTX	C01	R
34121/4.7	Occupied bandwidth	C01	R
34121/4.8	Spectrum emission mask		
34121/4.9.1	ACLR/ leakage power due to modulation	C01	R
34121/4.9.2	ACLR / leakage power due to switching	C01	R
34121/4.10	Spurious emissions	C01	R
34121/4.11	Transmit intermodulation	C01	R
34121/4.12.2	Transmit modulation accuracy	C01	R
34121/4.12.3	Transmit modulation peak code domain error	C01	R
34121/5.2	Receiver reference sensitivity level	C01	I
34121/5.3	Maximum input level	C01	I
34121/5.4	Adjacent channel selectivity	C01	I
34121/5.5	Blocking characteristics	C01	I
34121/5.6	Spurious response	C01	I
34121/5.7	Intermodulation characteristics	C01	I
34121/5.8	Spurious emissions	C01	R
34121/6.2.1	Demodulation of paging channel	C01	I
34121/6.2.2	Demodulation of forward access channel	C01	I
34121/6.2.3	Demodulation of dedicated channel	C01	I
34121/6.3.1	Demodulation of DCH in Multi-path Fading Propagation conditions, Single link performance	C01	I
34121/6.4.1	Demodulation of DCH in Moving Propagation conditions, Single Link performance		
34121/6.5.1	Demodulation of DCH in Birth-Death Propagation conditions, Single Link performance		
34121/6.6.1	Inter-Cell Soft Handover Performance		
34121/6.6.2	Inter frequency handover	C01	I
34121/6.7.1	Timing synchronisation	C01	I
34121/6.7.2	Channel timing dependencies	C01	I
34121/6.7.3	Reception timing	C01	I
34121/6.8.1	Demodulation of DCH in open-loop transmit diversity mode		
34121/6.8.2	Demodulation of DCH in feedback transmit diversity mode		
34121/6.8.3	Demodulation of DCH in Site Selection Diversity Transmission mode		
34121/6.9	Inner loop power control in downlink		
34121/6.10	Outer loop power control in downlink		
34122/4.2	Maximum Output Power	C02	
34122/4.3	Frequency Stability	C02	
34.122/4.4.1	Open Loop Power Control	C02	
34.122/4.4.2	Inner loop power control	C02	
34.122/4.4.3	Minimum output power	C02	
34.122/4.5.1	Transmit OFF Power	C02	
34.122/4.5.2	Transmit ON/OFF Time mask	C02	
34.122/4.6.1	Occupied bandwidth	C02	
34.122/4.6.2.1	Spectrum emission mask	C02	
34.122/4.6.2.2	Adjacent Channel Leakage power Ratio (ACLR)	C02	
34.122/4.6.3	Spurious emissions - Transmiter	C02	
34.122/4.7	Transmit Intermodulation	C02	
34.122/4.8.1	Modulation Accuracy	C02	
34.122/4.8.2	Peak code domain error	C02	
34.122/5.2	Reference Sensitivity Level	C02	
34.122/5.3	Maximum Input level	C02	
34.122/5.4	Adjacent Channel Selectivity (ACS)	C02	
34.122/5.5	Blocking Characteristics	C02	
34.122/5.6	Spurious Response	C02	
34.122/5.7	Intermodulation Characteristics	C02	
34.122/5.8	Spurious Emissions - Receiver	C02	

34.122/6.2.1.1	Demodulation of Paging Channel	C02	
34.122/6.2.1.2	Demodulation of Paging Channel	C02	
34.122/6.2.1.3	Demodulation of Dedicated Traffic Channel	C02	
34.122/6.2.2.1	Single Link Performance	C02	
34.122/6.2.2.2	Multi Link Performance	C02	
34.122/6.3.1	Synchronization Performance	C02	
34.122/6.3.2	Inter-Frequency Handover.	C02	
34.122/6.4.1	Synchronization	C02	
C01 IF A.1/1 OR A.1/3 OR A.1/4 OR A.1/6 THEN M ELSE N/A C02 IF A.1/2 OR A.1/3 OR A.1/5 OR A,1/6 THEN M ELSE N/A			

History

Document history		
Date	**Version**	**Comments**
June 1999	v0.0.3	Created and agreed at T1 signalling #3. Note: TR21.9xx, v0.0.3 (TSG T; Terminal capability requirements) was used for its elaboration.
June 1999	v0.0.4	Agreed at T1 RF #5.
July 1999	v0.0.5	Change of TS number
August 1999	v0.0.6	Changes to Applicability of RF tests, update of supplementary and bearer services, modification of the chip rate.
Sept 1999	v0.0.7	Changes suggested in LS R2#6(99)998, T1-99095, update with latest versions, references.
Oct 1999	v0.0.8	Update based on TR 21.904 v0.0.4 and comments from TSG T1/Sig #5
Nov 1999	v0.0.9	Updated with TR 21.904 v1.0.2 and guidelines from TSG SA #5 (use of "UE" instead of "MS" and relate "mandatory" to "core requirement"). Applicability table updated with tests in 34.121 and 34.122.
Dec 1999	v1.0.0	Approved at T1#5 to be presented at T#6 for information

This clause shall be the last one in a document. The preceding page break is part of the master location for history clauses which is bookmarked "historytable".

History box entries

The rows below contain valid entries for the history box.

Substitute <V.m.t.e>, <MMMM yyyy> , <PPP> XX, and yyyy-mm-dd accordingly.

Document history		
Edition x	<MMMM yyyy>	Publication as <old doctype> <old docnumber>
<Vm.t.e>	<MMMM yyyy>	Publication