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Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group
GSM/EDGE Radio Access Network;
Mobile Station (MS) conformance specification;
Part 6: Protocol Implementation eXtra Information for Testing
(PIXIT) proforma specification
(Release 6)**



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Keywords

3GPP, GSM, MS, PLMN, RADIO, TERMINAL,
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Contents

Foreword	5
Introduction	5
1 Scope	6
2 References.....	6
3 Definitions and abbreviations	7
3.1 Definitions	7
3.2 Abbreviations.....	7
4 Conformance to this PIXIT proforma specification.....	8
5 Guidance for completing the PIXIT proforma	8
5.1 Purposes and structure	8
5.2 Abbreviations and conventions	8
5.3 Instructions for completing the PICS proforma	9
Annex A (normative): Partial IXIT proforma	9
A.0 Introduction.....	9
A.1 Parameter values.....	9
A.5.1 Values f group 1.....	9
Annex B (informative): Change history.....	11

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (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 the present document, 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 or greater 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 document.

Introduction

The present document is part 6 of a multi-part deliverable covering the Digital cellular telecommunications system (GSM Phase2 and Phase 2+ Releases 1996, 1997, 1998, 1999, 3GPP Release 4, 3GPP Release 5, 3GPP Release 6 and 3GPP Release 7); Mobile Station (MS) conformance specification, as identified below:

- Part 1: Conformance specification
Reference: 3GPP TS 51.010-1.
- Part 2: Protocol Implementation Conformance Statement (PICS) pro forma specification.
Reference: 3GPP TS 51.010-2.
- Part 3: Layer 3 (L3) Abstract Test Suite (ATS).
Reference: 3GPP TS 51.010-3.
- Part 4: SIM Application Toolkit conformance specification.
Reference: 3GPP TS 11.10-4.
- Part 5: Inter-Radio-Access-Technology (RAT) (GERAN / UTRAN) interaction Abstract Test Suite (ATS)
Reference: 3GPP TS 51.010-6.
- Part 6: Protocol Implementation eXtra Information for Testing (PIXIT)**
Reference: 3GPP TS 11.10-4 (the present document).

1 Scope

The present document specifies and provides the Partial Protocol Implementation Extra Information for Testing (PIXIT) Proforma for the GSM/EDGE Radio Access Network Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification Conformance specification as defined in 3GPP TS 51.010-1 [6].

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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the relevant Release*.
 - For a GSM Phase 2+ Release 7 MS, references to GSM documents are to version 7.x.y, when available.
 - For a GSM Phase 2+ Release 6 MS, references to GSM documents are to version 6.x.y, when available.
 - For a GSM Phase 2+ Release 5 MS, references to GSM documents are to version 5.x.y, when available.
 - For a GSM Phase 2+ Release 4 MS, references to GSM documents are to version 4.x.y, when available.
 - For a GSM Phase 2+ Release 1999 MS, references to GSM documents are to version 8.x.y (for 01.-series to 12.-series) or (3.x.y for 21.-series to 35.-series), when available.
 - For a GSM Phase 2+ Release 1998 MS, references to GSM documents are to version 7.x.y, when available.
 - For a GSM Phase 2+ Release 1997 MS, references to GSM documents are to version 6.x.y, when available.
 - For a GSM Phase 2+ Release 1996 MS, references to GSM documents are to version 5.x.y, when available.
 - For a GSM Phase 2 MS, references to GSM documents are to version 4.x.y.

NOTE: References to 3GPP Technical Specifications and Technical Reports throughout this document shall be interpreted according to the Release shown in the formal reference in this clause, based upon the Release of the implementation under test.

Example 1: References for a Ph2 MS shall be interpreted as:

- [1] 3GPP TS 01.04 Ph2
- [2] 3GPP TS 02.02 Ph2
- etc

Example 2: References for a Re1-4 MS shall be interpreted as:

- [1] 3GPP TS 21.905 Re1-4
- [2] 3GPP TS 22.002 Re1-4
- etc

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

- [3] ISO/IEC 9646-1: "Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts".
- [4] ISO/IEC 9646-5: "Information technology - Open Systems Interconnection - Conformance testing methodology and Framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".
- [5] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance statement".
- [6] 3GPP TS 51.010-1: " Mobile Station (MS) conformance specification; Part 1: Conformance specification".
- [7] 3GPP TS 51.010-2: " Mobile Station (MS) conformance specification; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in GSM references, ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [5] and the following 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.

NOTE: 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.

Implementation eXtra Information for Testing (IXIT): A statement made by the supplier of an implementation or system claimed to conform to a given specification, providing information on the system implementation to facilitate system's testing.

NOTE: The IXIT can take several forms: protocol IXIT, profile IXIT, profile specific IXIT, information object IXIT, etc.

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

Protocol ICS (PICS): An ICS for an implementation or system claimed to conform to a given protocol specification.

Protocol IXIT (PIXIT): An IXIT for an implementation or system claimed to conform to a given protocol specification.

3.2 Abbreviations

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

ICS	Implementation Conformance Statement
IUT	Implementation Under Test
IXIT	Implementation eXtra Information for Testing
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
SCS	System Conformance Statement
SUT	System Under Test

4 Conformance to this PIXIT proforma specification

If it claims to conform to the present document, the actual PIXIT proforma to be filled in by a MS supplier should be technically equivalent to the text of the PIXIT proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

A PIXIT which conforms to this 3GPP TS shall be a conforming PIXIT proforma completed in accordance with the instructions for completion given in clause 5.

5 Guidance for completing the PIXIT proforma

5.1 Purposes and structure

The purpose of this PIXIT proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information needed to facilitate the testing of the implementation in a standardized manner.

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

- XXX

Editor's Note: At this stage of development of the current specification all PIXIT values are contained in one section; It may be expected that this section would be split in multiple sub sections combining related to a specific context values.

5.2 Abbreviations and conventions

The PIXIT proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [5]; duplication of standard introduction parts available in TS 51.010-2 [7] is avoided.

Item column

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

Parameter

The Parameter column provides the name of a respective item (e.g. parameters, timers, etc.)

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

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?".

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.

Whenever applicable the following common notations, defined in ISO/IEC 9646-7 [5], should be used:

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.

5.3 Instructions for completing the PICS proforma

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

Annex A (normative): Partial IXIT proforma

Notwithstanding the provisions of the copyright related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the partial IXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed partial IXIT.

A.0 Introduction

The partial IXIT proforma contained in the present document is provided for completion, when conformance testing is to be used for assessing a MS for compliance to the requirements of the Digital cellular telecommunications system (GSM Phase2 and Phase 2+ Releases 1996, 1997, 1998, 1999, 3GPP Release 4, 3GPP Release 5, 3GPP Release 6 and 3GPP Release 7) Mobile Station (MS) conformance specification.

The completed partial IXIT shall be used in conjunction with the completed PICS proforma provided in TS 51.010-2 [], as it adds precision to the information provided by the PICS. Due to this pairing some standard for a PXIT proforma information as specified in ISO/IEC 9646-7 [5], e.g. Identification summary, Implementation Under Test (IUT) identification, System Under Test (SUT) identification, Product supplier and Client is omitted in the current document.

A.1 Parameter values

A.5.1 Values f group 1

Editor's Note: At this stage of development of the current specification all PIXIT values are contained in the following table; It may be expected that this table would be split in multiple tables combining related to a specific context values.

Table A.1: Values for group 1

Item	Parameter	Mnemonic	Description	Value allowed	Supported value

Comments to Supported values :

Annex B (informative): Change history

Change history									
TSG #	TSG Doc	CR	Rev	Subject/Comment	Cat	Old	New	WG Doc	Work item