

3GPP TSG-Terminals WG1 meeting #1

Nice, France

1st-3rd February 1999

REPORT

1. Opening of the meeting

Mr Thomas opened the meeting at 09.10. The agenda was accepted.

2. Terms of reference of TSG WG1

Document T1-99002 was considered as the basis for the terms of reference for the group. After discussion, the terms of reference for TSG-T1 were drafted in Document T1-99009 and agreed in T1-99027.

The term “mobile station” should be made by TSG-S and as such a liaison statement was drafted by Mr Fenn in document T1-99014. This liaison statement was revised in T1-99015 and it was agreed that STF SMG would send it. [STF SMG note - it was later decided not to send the LS and find a definition in TSG-T].

3. Organisation of the work

It was agreed that there will be a plenary TSG-T1 and 3 sub-groups which will be known as:

TSG-T1/RF group,

TSG-T1/EMC group,

TSG-T1/signalling group.

It was clarified that the selection/reselection testing will be under the responsibility of the TSG-T1 signalling group.

4. Registration of Technical input to the work

Please see Annex 2 for the source of documents.

5. Initial Discussion on Harmonisation of Input

5.1 ARIB inputs

Mr Yokoyama presented three documents, firstly document T1-99004 and “Volume 4 ARIB specification of mobile station for 3G mobile system” to which the document refers. Chapters 9 and 13 relate to testing. Mr Yokoyama also presented Document T1-99005 “Baseline document proposal from ARIB SWG4 #1” and Document T1-99006 “Baseline document proposal from ARIB SWG4 #2” which show the contents of the ARIB specification and how it could relate to work in 3GPP TSGs.

It was agreed that RF test specifications will be in a stand-alone document, separate to the core requirements produced in TSG-RAN.

It was agreed that the contents list in Document T1-99006 will be used as a working assumption for 3GPP RF test specifications, although an additional chapter will be needed for TDD mode testing. Technical content will be based on the ARIB output and will use the GSM 11.10 layout of test cases.

It was agreed that ARIB will produce a first draft RF test specification outline document for an RF sub-group meeting on 8-9 March. It is the wish of ARIB that the documentation on RF testing is approved in April 99.

ARIB requested ETSI support for editing and document handling. Mr Williams said that PT SMG is supporting some STG meetings in the short term and the ETSI Board will make a decision about long term support.

5.2 ETSI inputs

Mr Howell presented Document T1-99003 which contains the contents list of GSM 11.10 and examples of an RF and signalling test. It was agreed that the GSM 11.10 would be used as a basis of discussion for the contents page of 3GPP protocol test specifications. Therefore the contents list of GSM 11.10 presented in Document T1-99003 was studied in detail and the a tentative list of chapters was identified (this can be found in document T1-99026).

In order to co-ordinate with TSG-RAN, Mr Fernandez and Mr Yokoyama kindly drafted an LS to TSG-R4 in document T1-99016 "liaison statement regarding MS conformance specification". This was modified in T1-99021 but later absorbed into T1-99026 which is an LS to several TSG groups containing the tentative list of protocol tests and some questions. It was agreed that STF SMG will distribute T1-99026 to the relevant TSG groups.

6. Appointment of Sub Working Group Chairmen

The election of the chairmen of TSG-T1 plenary and its subgroups will be held during the next TSG-T1 plenary meeting 12-16 April 1999.

Mr Yokoyama will be convenor for the RF subgroup.

Mr Thomas will be convenor for the signalling subgroup.

Mr Fenn will be convenor for the first meeting of the EMC subgroup.

7. Future meeting schedule

Meeting	Date	Venue	Host
TSG-T1/RF group	10-11 March 1999	Tokyo	ARIB
TSG-T1 (inc. RF, signalling and EMC groups). Plenary at beginning and end.	13-15 April 1999	Issy les Moulineaux	France Telecom

The RF subgroup may convene another meeting on 1-2 April if necessary.

Document T1-99019 is an activity plan for the RF subgroup. It was revised in document T1-99025 and agreed.

8. Any Other Business

8.1 Liaison statements from other groups

There were four liaison statements from other TSG groups concerning procedure.

Mr Neumann presented documents T199010 “Liaison statement on technical co-operation between 3GPP TSGs” and T1-99012 “Liaison statement on service development process”. These documents were supported. Mr Neumann elaborated document T1-99012 adding TSG-T1 to the source. The liaison statement in document T1-99022 was agreed and PT-SMG will send it.

Mr Park presented document T1-99011 “Liaison statement to TSG-T1 and T1 (EMC specifications)” for information.

Mr Neumann presented document T1-99013 “Draft proposals for managing the TSG project co-ordination”. T1-99010 is an answer to this document from TSG-T3. The notion of co-ordination between TSGs was agreed, but not to have officers. It was felt that co-ordination should be achieved by common meetings of TSGs and co-ordination should be mainly the responsibility of chairpersons.

8.2 Other relevant documents

Mr Park presented documents T1-99017 and T1-99018 for information. STF SMG was requested to put the RF tests from document T1-99026 into the table in T1-99018 before the next plenary meeting.

8.3 Document numbering and management

Mr Williams presented document T1-99028 and it was agreed that document numbering shall be in accordance with WOME recommendations and as follows:

For TSG-T1 plenary documents, T1-99xxx

For TSG-T1/RF group documents, T1R99xxx

For TSG-T1/Signalling group documents, T1S99xxx

For TSG-T1/EMC group documents, T1E99xxx

Document number allocation is the responsibility of the convenor but the convenor may choose to use the ETSI on-line application (<http://www.etsi.org>) or nominate the secretary to give numbers.

9. Close of the meeting

Mr Thomas closed the meeting at 16.00. He thanked ETSI for the excellent hospitality and STF SMG for supporting the meeting.

Attachments: T1-99026, T1-99027, T1-99029

Annex 1 List of participants

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Annex 2 List of documents

Doc numb	Source	Subject	Rev Doc	Result
T1-99001	Chairman	Draft agenda		noted
T1-99002	STF SMG	Terms of reference for SMG7		noted
T1-99003	STF SMG	Structure of test specifications		noted
T1-99004	ARIB	The latest Mobile Station specifications of ARIB		noted
T1-99005	ARIB	Baseline document proposal from ARIB SWG4 #1		noted
T1-99006	ARIB	Baseline document proposal from ARIB SWG4 #2		noted
T1-99007	ETSI PEX	Document structure for the GPRS test specifications		noted
T1-99008	Ericsson	Incorporation of material from ETSI & ARIB for 3GPP MS and BS radio		noted
T1-99009	STF SMG	Terms of reference for TSG-T1	027	
T1-99010	T3	LS technical cooperation between 3GPP TSGs		noted
T1-99011	T3	LS to TSG-T1 and T1 (EMC specifications)		noted
T1-99012	T3	LS on Service development process		noted
T1-99013	Fred Harrison	Draft proposals for managing the TSG project coordination		noted
T1-99014	Samsung	LS to TSG-S on definition of mobile station	015	
T1-99015	Samsung	revised 014		agreed LS
T1-99016	Motorola	LS regarding MS conformance specification	021	
T1-99017	NEC	Terms of Reference for SWG6 (Terminal Features and Performance)		noted
T1-99018	NEC	Work Program for TSG-T WG2		noted
T1-99019	RF ad-hoc	AdHoc Activity Plan proposal	025	
T1-99020	-	unused		-
T1-99021	Motorola	revised 016	inc. in 024	
T1-99022	Siemens	Enhancements to 012		agreed LS
T1-99023	ETSI PEX	Use of AT commands or other alternatives for MS testing		postponed
T1-99024	STF SMG	LS on Test specification structure and schedules	026	
T1-99025	RF ad-hoc	revised 025	029	
T1-99026	STF SMG	revised 024		agreed LS
T1-99027	STF SMG	revised 009		agreed ToR
T1-99028	STF SMG	Document number format and management		noted
T1-99029	RF ad-hoc	revised 025		agreed plan

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T1-99026

To: TSG-RAN, TSG-RAN WG2, TSG-RAN WG4, TSG-CN, TSG-SA, TSG-SA
WG4, TSG-T2, TSG-T3

From: TSG-T1

Subject: Test specification structure and schedule

TSG-T1 has considered the structure of the test specifications (excluding RF measurements) and the following list has been drafted. TSG-T1 relies on information about the core specifications and schedules from other groups. Please would all TSGs (and working groups) comment on the proposed list and supply information on specifications being drafted and their schedules.

Idle mode operations in a pure 3GPP environment
Multi-mode operations in idle mode
 - 2G/3G case
Layer 2 testing
MAC testing
RLC testing
Handoff procedures
 - single mode operation (FDD)
 - single mode operation (TDD)
 - multi mode operations (2G/3G case, FDD/TDD case)
Mobility procedures (re-using GSM 11.10?)
Call control procedures (re-using GSM 11.10?)
 -packet switched services
 -circuit switched services
Supplementary services (re-using GSM 11.10?)
Messaging services
Structured procedures
Bearer services
Speech quality (speech teleservice)
Speech transcoding functions
Multimedia service
Mobile Station features (MMI, VHE)
USIM/ME interface

In addition, **TSG-CN** is asked to consider if testing of mobility procedures, call control procedures and supplementary services can be based on GSM 11.10. Further, **TSG-SA WG4** is asked if they will develop testing of speech transcoding functions.

It was decided to base the initial RF test conformance procedures on the contents of sections 5 and 13 of ARIB volume 4. Therefore TSG-T1 asks **TSG-RAN WG4** if these sections are in line with the core

specifications and whether the core specifications are sufficiently stable for test specifications to be developed.

3GPP TSG-T1

MOBILE STATION TESTING

1 Responsibility

The task of 3GPP TSG-T1 is the drafting of the mobile station conformity specifications for the 3GPP standards. The definition of “mobile station” is given in [..].

2 Work Plan

The work plan initially includes :

- Measurement procedures for FDD
- Measurement procedures for TDD
- protocol testing
- some service testing

Identification of EMC requirements referring to international standards is a task of TSG T1.

3 Working Groups

EMC sub-group

RF measurements sub-group

Signalling sub-group

4 Liaisons

TSG-T1 has direct liaisons with SMG7, TSG-SA, TSG-CN, TSG-RAN, TSG-T2, TSG-T3, ARIB WG27 and if needed working groups reporting to these groups.

Agenda Item:

Source:RF spec Sub-Working Convener

Title: Sub-Working Activity Plan proposal (Revised Version – from T1-99025)

Document for:

Introduction

TSG-T1/RF group is organized in TSG-T1 #1 meeting. This is a proposal of activity for that group.

- Naming rule for Sub-Working Team:
This team is the first Sub-Working team in TSG-T1. So I propose the naming rule for Sub-Working Team in TSG-T1. Each team has a prefix "TSG-T1/" and put any name after that. This team is named "TSG-T1/RF" group according to this rule.

Responsibility

This Sub-working group is responsible for develop a baseline document according to the following agreements;

- 1) Test Items: based on chapter-5 and 13 (ARIB proposal) and the input from RAN-WG4
- 2) Document Structure: based GSM 11.10: covered chapter 12-19,21,22 (sub-section structure based on 11.10 Chapter-13 example)
Comments: The chapter 20 is initially handled by TSG-T1/protocol group. But the initial acquisition and handover from RF viewpoint will be included by TSG-T1/RF group.
- 3) The chapter 9 (ARIB) is used as is.

Schedules

- 1) Meeting schedule:
 - Mar/10,11/1999: Japan
 - Apr/1,2/1999: Japan (if needed)
 - Apr/13-15/1999: Europe
- 2) Report to TSG-T1
 - Apr/13-15: Europe
- 3) Document Draft
 - Feb/22/1999: ARIB/Convener is responsible for development

Deliverables

- Document 1: Test Specifications (RF specifications for FDD)
- Document 2: Test Specifications (RF specifications for TDD)
- Document 3: Logical Test Interface (FDD)
- Document 4: Logical Test Interface (TDD)

- Document numbering rules: to be decided.

The index of each document is shown in Annex-A,B,C, and D.

Discussion Items

- 1) What items should be discussed/coordinated with other TSG's or WG's.
If we can list items, we have to send a liaison or attend coordinate meeting.
- 2) The initial test conformance requirement will be based on Chapter-5 and 13 of ARIB Volume 4, until confirmation will be received from RAN WG4 on appropriate documentation.
- 3) Document draft
- 4) Requirements/Issues
 - Test Items (ARIB Chapter-5 and 13 based)
 - Document Structure (ETSI format)
 - Loopback protocols
 - FDD/TDD issues
 - Editor (ownership) for each document

Annex-A "Test Specification (RF specification for FDD)"

13. Test Specifications (RF specification for FDD)

13.1 RF Specification

13.1.1 Transmitting Characteristics

13.1.1.1 Frequency Stability

13.1.1.2 Maximum Output Power

13.1.1.3 Output Power Control

13.1.1.4 Adjacent Channel Leakage Power

13.1.1.5 Spurious Emission Power

13.1.1.6 Transmitting Intermodulation

13.1.1.7 Transmitting ON/OFF Ratio

13.1.1.8 Modulation Accuracy

13.1.1.9 DTX

13.1.2 Receiving Characteristics

13.1.2.1 Reference Sensitivity

13.1.2.2 Dynamic Range

13.1.2.3 Adjacent Channel Selectivity

13.1.2.4 Intermodulation Sensitivity

13.1.2.5 Spurious Response

13.1.2.6 RSSI Detection Range and Accuracy

13.1.2.7 SIR Measurement Range and Accuracy

13.1.2.8 Spurious Emission Power

13.2 Performance Requirements

13.2.1 Static Performance

13.2.2 Dynamic Performance

13.2.3 Synchronization Performance

13.2.4 Search of other Cells

13.3 Timing Requirements

13.3.1 Synchronization

13.3.2 Channel Timing Dependencies

13.3.3 Reception Timing

* Chapter number is TBD.

Annex-B "Test Specifications (RF specification for TDD)"

13. Test Specifications (RF specification for TDD)

13.1 RF Specification

13.1.1 Transmitting Characteristics

13.1.1.1 Frequency Stability

13.1.1.2 Maximum Output Power

13.1.1.3 Output Power Control

13.1.1.4 Adjacent Channel Leakage Power

13.1.1.5 Spurious Emission Power

13.1.1.6 Transmitting Intermodulation

13.1.1.7 Transmitting ON/OFF Ratio

13.1.1.8 Modulation Accuracy

13.1.1.9 DTX

13.1.2 Receiving Characteristics

13.1.2.1 Reference Sensitivity

13.1.2.2 Dynamic Range

13.1.2.3 Adjacent Channel Selectivity

13.1.2.4 Intermodulation Sensitivity

13.1.2.5 Spurious Response

13.1.2.6 RSSI Detection Range and Accuracy

13.1.2.7 SIR Measurement Range and Accuracy

13.1.2.8 Spurious Emission Power

13.2 Performance Requirements

13.2.1 Static Performance

13.2.2 Dynamic Performance

13.2.3 Synchronization Performance

13.2.4 Search of other Cells

13.3 Timing Requirements

13.3.1 Synchronization

13.3.2 Channel Timing Dependencies

13.3.3 Reception Timing

* Chapter number is TBD.

Annex-C “Logical Test Interface (FDD)”

9. Logical Test Interface (FDD)

9.1 Overview of Logical Interface

9.1.1 Logical Service model

9.1.2 List of logical service

9.1.3 Extension of logical test interface

9.1.4 Handling of Parameters/data

9.1.4.1 Object model of parameters/data

9.1.4.2 Setting and Retrieving Services Sequence

9.1.4.3 List of Settable/retrievable Parameters/data

9.1.5 Test Control Operation

9.1.5.1 Extension of the test control operation

9.1.5.2 Object model of test control operation

9.1.5.3 Sequence of test control operation

9.2 Underlying protocol and physical test interface

* Chapter number is TBD.

Annex-D "Logical Test Interface (TDD)"

9. Logical Test Interface (TDD)

9.1 Overview of Logical Interface

9.1.1 Logical Service model

9.1.2 List of logical service

9.1.3 Extension of logical test interface

9.1.4 Handling of Parameters/data

9.1.4.1 Object model of parameters/data

9.1.4.2 Setting and Retrieving Services Sequence

9.1.4.3 List of Settable/retrievable Parameters/data

9.1.5 Test Control Operation

9.1.5.1 Extension of the test control operation

9.1.5.2 Object model of test control operation

9.1.5.3 Sequence of test control operation

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