

**TSG-RAN Meeting #25  
PALM SPRINGS, CA USA, 7 - 9 September 2004**

**RP-040383**

**Agenda Item: 7.1**

**Source: RAN**

**Title: Proposed update of Section 5.3.2**

**Document for: Approval**

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**5.3.2 Detailed specification of the radio interface**

The standards contained in this section are derived from the global core specifications for IMT-2000 contained at <http://ties.itu.int/u/itu-r/ede/rsg8/wp8f/rtech/GCSrev4//5-3/>.

**5.3.2.1 25.200 series**

**5.3.2.1.1 25.201 Physical layer – General description**

This specification describes the documents being produced by the TSG RAN WG 1. This specification gives also a general description of the physical layer of the UTRA radio interface.

Release 99		Document No.	Version	Status	Issued date	Location <sup>(1)</sup>
(2)	<a href="#">ATIS</a>					
(2)	CCSA					
	ETSI					
	<del>TTA</del>					
	TTA					
Release 4		Document No.	Version	Status	Issued date	Location <sup>(1)</sup>
(2)	<a href="#">ATIS</a>					
(2)	CCSA					
	ETSI					
	<del>TTA</del>					
	TTA					
Release 5		Document No.	Version	Status	Issued date	Location <sup>(1)</sup>
(2)	<a href="#">ATIS</a>					
(2)	CCSA					
	ETSI					
	<del>TTA</del>					
	TTA					
Release 6		Document No.	Version	Status	Issued date	Location <sup>(1)</sup>
(2)	<a href="#">ATIS</a>					
(2)	CCSA					
	ETSI					
	<del>TTA</del>					
	TTA					

(1) The relevant SDOs should make their reference material available from their Web site.

(2) This information was supplied by the recognized external organizations and relates to their own deliverables of the transposed global core specification.

#### NOTE BY THE SECRETARIAT

Similar tables will appear under each of the following sub-sections of § 5.3.2. In accordance with the established procedure for updating this Recommendation, the SDO's information will be submitted to ITU by 31 May ~~2004~~ 2005 and included in these tables when the final text is sent out for approval.

#### 5.3.2.1.2 25.221 Physical channels and mapping of transport channels onto physical channels (TDD)

This specification describes the characteristics of the Layer 1 transport channels and physical channel in the TDD mode of UTRA. The main objectives of the document are to be a part of the

full description of the UTRA Layer 1, and to serve as a basis for the drafting of the actual technical specification (TS).

#### **5.3.2.1.3 25.222 Multiplexing and channel coding (TDD)**

This specification describes multiplexing, channel coding and interleaving for UTRA physical layer TDD mode.

#### **5.3.2.1.4 25.223 Spreading and modulation (TDD)**

This specification describes the characteristics of the spreading and modulation in the TDD mode. The main objectives of the document are to be a part of the full description of the Layer 1, and to serve as a basis for the drafting of the actual technical specification (TS).

#### **5.3.2.1.5 25.224 Physical layer procedures (TDD)**

This specification describes the physical layer procedures in the TDD mode of UTRA.

#### **5.3.2.1.6 25.225 Physical layer – Measurements (TDD)**

This specification describes the description of the measurements done at the UE and network in order to support operation in idle mode and connected mode for TDD mode.

### **5.3.2.2 25.300 series**

#### **5.3.2.2.1 25.301 Radio interface protocol architecture**

This specification describes an overview and overall description of the UE-UTRAN radio interface protocol architecture. Details of the radio protocols will be specified in companion documents.

#### **5.3.2.2.2 25.302 Services provided by the physical layer**

This specification describes a technical specification of the services provided by the physical layer of UTRA to upper layers.

#### **5.3.2.2.3 25.303 Interlayer procedures in connected mode**

This specification describes informative interlayer procedures to perform the required tasks.

This specification attempts to provide a comprehensive overview of the different states and transitions within the connected mode of a UMTS terminal.

#### **5.3.2.2.4 25.304 UE procedures in idle mode and procedures for cell reselection in connected mode**

This specification describes the overall idle mode process for the UE and the functional division between the non-access stratum and access stratum in the UE. The UE is in idle mode when the connection of the UE is closed on all layers, e.g. there is neither an MM connection nor an RRC connection.

This specification describes also examples of inter-layer procedures related to the idle mode processes and describes idle mode functionality of a dual mode UMTS/GSM UE.

#### **5.3.2.2.5 25.305 Stage 2 Functional Specification of UE positioning in UTRAN (LCS)**

This document specifies the stage 2 of the UE Positioning function of UTRAN, which provides the mechanisms to support the calculation of the geographical position of a UE.

#### **5.3.2.2.6 25.306 UE Radio Access capabilities definition**

This document identifies the parameters of the access stratum part of the UE radio access capabilities. Furthermore, some reference configurations of these values are defined. The intention is that these configurations will be used for test specifications.

#### **5.3.2.2.7 25.307 Requirements on UE supporting a release-independent frequency band**

This document specifies requirements on UEs supporting a frequency band that is independent of release.

#### **5.3.2.2.8 25.308 UTRA High Speed Downlink Packet Access – Overall Description (Stage 2)**

This document is a technical specification of the overall support of High Speed Downlink Packet Access in UTRA.

#### **5.3.2.2.9 25.321 Medium access control (MAC) protocol specification**

This specification describes the MAC protocol.

#### **5.3.2.2.10 25.322 Radio link control (RLC) protocol specification**

The specification describes the RLC protocol.

#### **5.3.2.2.11 25.323 Packet Data Convergence Protocol (PDCP) protocol**

This document provides the description of the Packet Data Convergence Protocol (PDCP). PDCP provides its services to the NAS at the UE or the relay at the Radio Network Controller (RNC). PDCP uses the services provided by the Radio Link Control (RLC) sublayer.

#### **5.3.2.2.12 25.324 Broadcast/Multicast Control (BMC) Services**

This document provides the description of the Broadcast/Multicast Control Protocol (BMC). This protocol adapts broadcast and multicast services on the radio interface.

#### **5.3.2.2.13 25.331 Radio resource control (RRC) protocol specification**

This specification describes the radio resource control protocol for the radio system. The scope of this specification contains also the information to be transported in a transparent container between source RNC and target RNC in connection to SRNC relocation.

#### **[5.3.2.2.14 25.346 Introduction of the Multimedia Broadcast Multicast Service \(MBMS\) in the Radio Access Network](#)**

[This document is a technical specification of the overall support of Multimedia Broadcast and Multicast Services in UTRA.](#)

### **5.3.2.3 25.400 series**

#### **5.3.2.3.1 25.401 UTRAN overall description**

This specification describes the overall architecture of the UTRAN, including internal interfaces and assumptions on the radio and  $I_u$  interfaces.

#### **5.3.2.3.2 25.402 Synchronization in UTRAN Stage 2**

This document constitutes the stage 2 specification of different synchronisation mechanisms in UTRAN and on  $U_u$ .

### **5.3.2.3.3 25.410 UTRAN I<sub>u</sub> interface: General aspects and principles**

This specification describes an introduction to the 25.41x series of technical specifications that define the I<sub>u</sub> interface for the interconnection of the radio network controller (RNC) component of the UTRAN to the core network.

### **5.3.2.3.4 25.411 UTRAN I<sub>u</sub> interface Layer 1**

This specification describes the standards allowed to implement Layer 1 on the I<sub>u</sub> interface.

The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

### **5.3.2.3.5 25.412 UTRAN I<sub>u</sub> interface: Signalling transport**

This specification describes the standards for Signalling Transport to be used across Iu Interface.

### **5.3.2.3.6 25.413 UTRAN I<sub>u</sub> interface: RANAP signalling**

Specifies the signalling between the CN and the UTRAN over the I<sub>u</sub> interface.

### **5.3.2.3.7 25.414 UTRAN I<sub>u</sub> interface data transport and transport signalling**

This specification describes the standards for user data transport protocols and related signalling protocols to establish user plane transport bearers over the Iu interface.

### **5.3.2.3.8 25.415 UTRAN I<sub>u</sub> interface user plane protocols**

This specification describes the protocols being used to transport and control over the I<sub>u</sub> interface, the I<sub>u</sub> user data streams.

### **5.3.2.3.9 25.419 UTRAN I<sub>u-bc</sub> interface: Cell broadcast protocols between CBC and RNC**

This document specifies the Service Area Broadcast Protocol (SABP) between the Cell Broadcast Centre (CBC) and the Radio Network Controller (RNC).

### **5.3.2.3.10 25.420 UTRAN I<sub>ur</sub> interface: General aspects and principles**

This specification describes an introduction to the TSG RAN TS 25.42x series of technical specifications that define the I<sub>ur</sub> interface. It is a logical interface for the interconnection of two radio network controller (RNC) components of the UTRAN.

### **5.3.2.3.11 25.421 UTRAN I<sub>ur</sub> interface: Layer 1**

This specification describes the standards allowed to implement Layer 1 on the I<sub>ur</sub> interface.

The specification of transmission delay requirements and O&M requirements are not in the scope of this document.

### **5.3.2.3.12 25.422 UTRAN I<sub>ur</sub> interface: Signalling transport**

This specification describes the standards for Signalling Transport to be used across Iur Interface.

### **5.3.2.3.13 25.423 UTRAN I<sub>ur</sub> interface: RNSAP signalling**

This specification describes the radio network layer signalling procedures between RNCs in UTRAN.

### **5.3.2.3.14 25.424 UTRAN I<sub>ur</sub> interface: Data transport and transport signaling for common transport channel data streams**

This specification describes a description of the UTRAN RNS-RNS ( $I_{ur}$ ) interface data transport and transport signaling for common transport channel data streams.

#### **5.3.2.3.15 25.425 UTRAN $I_{ur}$ interface user plane protocols for common transport channel data streams**

This specification describes a description of the UTRAN RNS-RNS ( $I_{ur}$ ) interface user plane protocols for common transport channel data streams.

#### **5.3.2.3.16 25.426 UTRAN $I_{ur}$ and $I_{ub}$ interface data transport and transport signalling for DCH data streams**

This specification describes the transport bearers for the DCH data streams on UTRAN  $I_{ur}$  and  $I_{ub}$  interfaces. The corresponding transport network control plane is also specified. The physical layer for the transport bearers is outside the scope of this TS.

#### **5.3.2.3.17 25.427 UTRAN $I_{ur}$ and $I_{ub}$ interface: User plane protocol for DCH data streams**

This specification describes the UTRAN  $I_{ur}$  and  $I_{ub}$  interfaces user plane protocols for dedicated transport channel data streams.

#### **5.3.2.3.18 25.430 UTRAN $I_{ub}$ interface: General aspects and principles**

This specification describes an introduction to the TSG RAN TS 25.43x series of UMTS technical specifications that define the  $I_{ub}$  interface. The  $I_{ub}$  interface is a logical interface for the interconnection of Node B and radio network controller (RNC) components of the UTRAN.

#### **5.3.2.3.19 25.431 UTRAN $I_{ub}$ interface Layer 1**

This specification describes the standards allowed to implement Layer 1 on the  $I_{ub}$  interface.

The specification of transmission delay requirements and O&M requirements is not in the scope of this document.

#### **5.3.2.3.20 25.432 UTRAN $I_{ub}$ interface: Signalling transport**

This specification describes the signalling transport related to NBAP signalling to be used across the  $I_{ub}$  interface. The  $I_{ub}$  interface is a logical interface for the interconnection of Node B and radio network controller (RNC) components of the UTRAN. The radio network control signalling between these nodes is based on the Node B application part (NBAP).

#### **5.3.2.3.21 25.433 UTRAN $I_{ub}$ interface: NBAP signalling**

This specification describes the standards for NBAP specification to be used over  $I_{ub}$  interface.

#### **5.3.2.3.22 25.434 UTRAN $I_{ub}$ interface: Data transport and transport signalling for common transport channel data streams**

This specification describes a description of the UTRAN RNC-Node B ( $I_{ub}$ ) interface data transport and transport signalling for CCH data streams.

#### **5.3.2.3.23 25.435 UTRAN $I_{ub}$ interface: User plane protocols for common transport channel data streams**

This specification describes a description of the UTRAN RNC-Node B ( $I_{ub}$ ) interface user plane protocols for common transport channel data streams.

#### **5.3.2.3.24 25.442 UTRAN implementation specific O&M transport**

This specification describes the transport of implementation specific O&M signalling between Node B and the management platform in case that the transport is routed via the RNC.

### **5.3.2.3.25 25.450 UTRAN I<sub>upc</sub> interface general aspects and principles**

The present document is an introduction to the TSG RAN TS 25.45z series of UMTS Technical Specifications that define the I<sub>upc</sub> Interface. The I<sub>upc</sub> interface is a logical interface for the interconnection of Standalone SMLC (SAS) and Radio Network Controller (RNC) components of the Universal Terrestrial Radio Access Network (UTRAN) for the UMTS system.

### **5.3.2.3.26 25.451 UTRAN I<sub>upc</sub> Interface Layer 1**

The present document specifies the standards allowed to implement Layer 1 on the I<sub>upc</sub> interface.

### **5.3.2.3.27 25.452 UTRAN I<sub>upc</sub> Interface: Signalling Transport**

The present document specifies the signalling transport related to PCAP signalling to be used across the I<sub>upc</sub> interface.

### **5.3.2.3.28 25.453 UTRAN I<sub>upc</sub> interface PCAP signalling**

The present document specifies the *Positioning Calculation Application Part (PCAP)* between the Radio Network Controller (RNC) and the Stand-alone SMLC (SAS).

### **5.3.2.3.29 25.460 UTRAN I<sub>uant</sub> Interface: General Aspects and Principles**

This document is an introduction to the TSG RAN TS 25.46x series of UMTS Technical Specifications that define the I<sub>uant</sub> Interface. The logical I<sub>uant</sub> interface is a Node B internal interface between the implementation specific O&M function and the Remote Electrical Tilting (RET) Antenna Control unit function of the Node B.

### **5.3.2.3.30 25.461 UTRAN I<sub>uant</sub> Interface: Layer 1**

This document specifies the standards allowed to implement Layer 1 on the I<sub>uant</sub> interface. The specification of transmission delay requirements and O&M requirements are not in the scope of the present document.

### **5.3.2.3.31 25.462 UTRAN I<sub>uant</sub> Interface: Signalling Transport**

This document specifies the signalling transport related to RETAP signalling to be used across the I<sub>uant</sub> interface.

### **5.3.2.3.32 25.463 UTRAN I<sub>uant</sub> Interface: Remote Electrical Tilting (RET) Antennas Application Part (RETAP) Signalling**

This document specifies the *Remote Electrical Tilting Application Part (RETAP)* between the implementation specific O&M function and the RET Antenna Control unit function of the Node B. It defines the I<sub>uant</sub> interface and its associated signaling procedures.

## **5.3.2.4 25.100 series**

### **5.3.2.4.1 25.102 UE radio transmission and reception (TDD)**

This document establishes the minimum RF characteristics of the UTRA User Equipment (UE) operating in the TDD mode. The values in the TS make no allowance for measurement uncertainty in conformance testing. Test limits to be used for conformance testing are specified separately in the UE conformance test specifications TS 34.122.

#### **5.3.2.4.2 25.123 Requirements for support of radio resource management (TDD)**

This specification describes the requirements for support of radio resource management for TDD including requirements on measurements in UTRAN and the UE as well as on node dynamic behaviour and interaction, in terms of delay and response characteristics.

#### **5.3.2.4.3 25.105 BTS radio transmission and reception (TDD)**

This specification describes the minimum RF characteristics of the TDD mode of UTRA. The values in the TS make no allowance for measurements uncertainties in conformance testing. Test limit to be used for conformance testing are specified separately in the base station conformance test Specification TS 25.142.

#### **5.3.2.4.4 25.142 Base station conformance testing (TDD)**

This specification describes the radio frequency (RF) test methods and conformance requirements for UTRA base transceiver stations (BTS) operating in the TDD mode. These have been derived from, and are consistent with, the core UTRA specifications specified in the requirements reference sub-clause of each test. The maximum acceptable measurement uncertainty is specified in the TS for each test, where appropriate.

#### **5.3.2.4.5 25.113 Base station EMC (see Note 1)**

This specification describes the assessment of base stations and associated ancillary equipment in respect of electromagnetic compatibility (EMC).

NOTE 1 – This specification does not include the antenna port immunity and emissions.

#### **5.3.2.5 34.100 Series**

##### **5.3.2.5.1 34.108 Common Test Environments for User Equipment (UE) Conformance Testing**

This document contains definitions of reference conditions and test signals, default parameters, reference Radio Bearer configurations, common requirements for test equipment and generic set-up procedures for use in UE conformance tests.

##### **5.3.2.5.2 34.109 Logical Test Interface (TDD and FDD)**

This document specifies for User Equipment (UE), in UMTS system, for FDD and TDD modes, those UE functions that are required for conformance testing purposes.

##### **5.3.2.5.3 34.122 Terminal Conformance Specification, Radio Transmission and Reception (TDD)**

This document specifies the Radio Frequency (RF) test methods and conformance requirements for UTRA User Equipment (UE) operating in the TDD mode. These have been derived from, and are consistent with, the core UTRA specifications. The maximum acceptable measurement uncertainty is specified in the TS for each test, where appropriate.

##### **5.3.2.5.4 34.123-1 UE Conformance Specification, Part 1- Conformance specification**

This document specifies the protocol conformance testing for the 3<sup>rd</sup> Generation User Equipment (UE). This is the first part of a multi-part test specification.

##### **5.3.2.5.5 34.123-2 UE Conformance Specification, Part 2- ICS**

This document provides the Implementation Conformance Statement (ICS) proforma for 3<sup>rd</sup> Generation User Equipment (UE), in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 and ETS 300 406. This document also



specifies a recommended applicability statement for the test cases included in TS 34.123-1. These applicability statements are based on the features implemented in the UE.

#### **5.3.2.5.6 34.124 Electromagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment**

This document establishes the essential EMC requirements for “3<sup>rd</sup> generation” digital cellular mobile terminal equipment and ancillary accessories in combination with a 3GPP user equipment (UE).

#### **5.3.2.6 Core network aspects**

##### **5.3.2.6.1 23.108 Mobile radio interface Layer 3 specification core network protocols Stage 2**

This specification describes the procedures used at the radio interface for call control (CC), mobility management (MM) and session management (SM). It shall hold examples of the structured procedures.

##### **5.3.2.6.2 23.110 UMTS access stratum; services and functions**

This specification describes the basis of the detailed specifications of the protocols which rule the information flows, both control and user data, between the access stratum and the parts of UMTS outside the access stratum, and of the detailed specifications of the UTRAN. These detailed specifications are to be found in other technical specifications.

##### **5.3.2.6.3 23.122 Functions related to mobile stations (MS) in idle mode and group receive mode**

This specification describes an overview of the tasks undertaken by a mobile station (MS) when in idle mode, that is, switched on but not having a dedicated channel allocated, e.g. not making or receiving a call, or when in group receive mode, that is, receiving a group call or broadcast call but not having a dedicated connection. It also describes the corresponding network functions.

##### **5.3.2.6.4 24.007 Mobile radio interface signalling Layer 3: General aspects**

This specification describes the principal architecture of Layer 3 and its sub-layers on the GSM Um interface, i.e. the interface between mobile station (MS) and network; for the CM sub-layer, the description is restricted to paradigmatic examples, call control, supplementary services, and short message services for non-GPRS services. It also defines the basic message format and error handling applied by the Layer 3 protocols.

##### **5.3.2.6.5 24.008 Mobile radio interface Layer 3 specification; core network protocols – Stage 3**

This specification describes the procedures used at the radio interface for call control (CC), mobility management (MM) and session management (SM).

The procedures currently described are for the call control of circuit-switched connections, session management for GPRS services, mobility management and radio resource management for circuit-switched and GPRS services.

##### **5.3.2.6.6 24.011 Point-to-point (PP) short message service (SMS); support on mobile radio interface**

This specification describes the procedures used across the mobile radio interface by the signaling Layer 3 function short message control (SMC) and short message relay function (SM-RL) for both circuit-switched GSM and GPRS.

##### **5.3.2.6.7 23.060 General packet radio service (GPRS) service description – Stage 2**

This specification describes a general overview over the GPRS architecture as well as a more detailed overview of the MS – core network protocol architecture. Details of the protocols will be specified in companion documents.

#### **5.3.2.6.8 24.022 Radio link protocol (RLP) for circuit-switched bearer and television**

This specification describes the radio link protocol (RLP) for data transmission over the UMTS PLMN. RLP covers the Layer 2 functionality of the ISO OSI reference model (IS 7498). It is based on ideas contained in IS 3309, IS 4335 and IS 7809 (HDLC of ISO) as well as ITU-T Recommendations X.25, Q.921 and Q.922 (LAP-B and LAP-D, respectively). RLP has been tailored to the special needs of digital radio transmission. RLP provides to its users the OSI data link service (IS 8886).

#### **5.3.2.6.9 24.010 Mobile radio interface Layer 3 – Supplementary services specification – General aspects**

In this specification the general aspects of the specification of supplementary services at the Layer 3 radio interface shall be given. Details will be specified in other documents.

#### **5.3.2.6.10 24.080 Mobile radio interface Layer 3 supplementary service specification – formats and coding**

This specification describes the coding of information necessary for support of supplementary service operation on the mobile radio interface Layer 3. Details will be specified in other documents.

#### **5.3.2.7 Terminal aspects**

##### **5.3.2.7.1 21.111 USIM and IC card requirements**

This specification describes the requirements of the USIM (universal subscriber identity module) and the IC card (UICC). These are derived from the service and security requirements defined in the respective specifications. The document is the basis for the detailed specification of the USIM and the UICC, and the interface to the terminal.

##### **5.3.2.7.2 22.112 USAT Interpreter - Stage 1**

This document specifies a system to make Mobile Operator services, based on USAT functionality and USIM based security functionality, available to an internet environment. This is achieved by specifying the necessary components and protocols for a secure narrow band channel between the internet application and an USAT Interpreter on the USIM.

##### **5.3.2.7.3 31.101 UICC-Terminal Interface; Physical and Logical Characteristics**

This document specifies the interface between the UICC and the Terminal for 3G telecom network operation. This includes the requirements for the physical characteristics of the UICC, the electrical interface between the UICC and the Terminal, the initial communication establishment and the transport protocols, the communication commands and the procedures and the application independent files and protocols.

##### **5.3.2.7.4 31.102 Characteristics of the USIM Application**

This document defines the USIM application for 3G telecom network operation. The present document specifies, command parameters, file structures and content, security functions and the application protocol to be used on the interface between UICC (USIM) and ME.

### **5.3.2.7.5 31.103 Characteristics of the ISIM Application**

This document defines the ISIM application for 3G telecom network operation. The present document specifies, command parameters, file structures and content, security functions and the application protocol to be used on the interface between UICC (ISIM) and ME.

### **5.3.2.7.6 31.110 Numbering system for telecommunication IC card applications**

This document describes the numbering system for Application IDentifiers (AID) for 3G telecommunication Integrated Circuits (IC) card applications. The numbering system provides a means for an application and related services offered by a provider to identify if a given card contains the elements required by its application and related services.

### **5.3.2.7.7 31.111 USIM application toolkit (USAT)**

This document defines the interface between the UICC and the Mobile Equipment (ME), and mandatory ME procedures, specifically for "USIM Application Toolkit".USAT is a set of commands and procedures for use during the network operation phase of 3G, in addition to those defined in TS 31.101.

### **5.3.2.7.8 31.112 USIM Application Toolkit (USAT) interpreter architecture**

This document defines the overall architecture for the USAT Interpreter system including the role models, system architecture and information flow.

### **5.3.2.7.9 31.113 USAT Interpreter Byte Codes**

This document specifies the byte codes that are recognised by an USAT Interpreter. The primary purpose of the byte codes is to provide efficient programmatic access to the SIM Application Toolkit commands.

### **5.3.2.7.10 TS 31.115 Secured packet structure for (U)SIM Toolkit applications**

This document specifies the structure of the Secured Packets in implementations using Short Message Service and Cell Broadcast Service. It is applicable to the exchange of secured packets between an entity in a 3G or GSM PLMN and an entity in the (U)SIM.

### **5.3.2.7.11 31.116 Remote APDU Structure for (U)SIM Toolkit applications**

This document defines the remote management of files and applets on the SIM/USIM.

### **5.3.2.7.12 31.120 Physical, Electrical and Logical Test Specification**

This document tests the physical, electrical and logical requirements as specified in TS 31.101.

### **5.3.2.7.13 31.121 UICC-Terminal Interface; USIM Application Test specification**

This document provides the UICC-Terminal Interface Conformance Test Specification between the 3G Terminal and USIM (Universal Subscriber Identity Module) as an application on the UICC and the Terminal for 3G telecom network operation.

### **5.3.2.7.14 31.122 USIM Conformance Test Specification**

The present document provides the Conformance Test Specification for a UICC defined in TS 31.101 with Universal Subscriber Identity Module (USIM) defined in 3G TS 31.102.

### [5.3.2.7.15](#) **31.130 (U)SIM API for Java Card**

[This document defines the \(U\)SIM Application Programming Interface extending the “UICC API for Java Card™”. This API allows to develop a \(U\)SAT application running together with a \(U\)SIM application and using GSM/3G network features.](#)

### **5.3.2.7.136** **31.131 'C' Language Binding to USIM API**

This document includes information applicable to (U)SIM toolkit application developers creating applications using the C programming language ISO/IEC 9899 [7]. The present document describes an interface between toolkit applications written in the C programming language and the (U)SIM in order to realize the co-operation set forth in TS 42.019 [4]. In particular, the API described herein provides the service of assembling proactive commands and disassembling the responses to these commands for the application programmer.

### **5.3.2.7.147** **22.048 Security mechanisms for (U)SIM application toolkit - stage 1**

This document provides standardised security mechanisms in conjunction with the SIM Application Toolkit for the interface between a 3G or GSM PLMN Entity and a UICC at the functional level.

### **5.3.2.7.185** **23.048 Security mechanisms for (U)SIM application toolkit - stage 2**

This document specifies the structure of the Secured Packets in a general format and in implementations using Short Message Service Point to Point (SMS-PP) and Short Message Service Cell Broadcast (SMS-CB).

### **5.3.2.7.196** **23.038 Alphabets and language specific information**

This specification describes the language specific requirements for the terminals including character coding.

### **5.3.2.7.2017** **23.040 Technical realization of the short message service (SMS)**

This specification describes the point-to-point short message service (SMS).

### **5.3.2.7.2118** **23.041 Technical realization of cell broadcast service (CBS)**

This specification describes the point-to-multipoint cell broadcast service (CBS).

### **5.3.2.7.2219** **23.042 Compression algorithm for text messaging services**

This specification describes the compression algorithm for text messaging services.

### **5.3.2.7.230** **23.057 Mobile Execution Environment (MExE) - stage 2**

This TS describes the functional capabilities and the security architecture of the Mobile Execution Environment.

### **5.3.2.7.241** **23.140 Multimedia Messaging Service – stage 2**

This TS describes the MMS network architecture, the application protocol framework and the technical realization of service features needed to support the non-realtime Multimedia Messaging Service.

### **5.3.2.7.252** **27.005 Use of data terminal equipment – Data circuit terminating; equipment (DTE-DCE) interface for cell broadcast service (CBS)**

This specification describes three interface protocols for control of SMS functions within a GSM mobile telephone from a remote terminal via an asynchronous interface.

**5.3.2.7.263 27.007 AT command set for the user equipment (UE)**

This specification describes a profile of AT commands and recommends that this profile be used for controlling mobile equipment (ME) functions and GSM network services from a terminal equipment (TE) through terminal adaptor (TA).

**5.3.2.7.274 27.010 Terminal equipment to mobile station (TE-MS) multiplexer protocol**

This specification describes a multiplexing protocol between a mobile station and an external data terminal for the purposes of enabling multiple channels to be established for different purposes (e.g. simultaneous SMS and data call).

**5.3.2.7.285 27.103 Wide area network synchronization standard**

This specification provides a definition of a wide area synchronization protocol. The synchronization protocol is based upon IrMC Level 4 for Release 1999. The synchronization protocol is based upon SyncML from Release 4 onwards.

**5.3.2.7.296 23.227 Application and user interaction in the UE; Principles and specific requirements**

This Technical Specification defines the principles for scheduling resources between applications in different application execution environment (e.g. MexE, USAT etc.) and internal and external peripherals (e.g. infra-red, Bluetooth, USIM, radio interface, MMI, memory etc.).

**5.3.2.8 System aspects**

IMT-2000 CDMA TDD specification also includes the following documents which are useful and related to this Recommendation.

See § 5.1.2.8.1 to 5.1.2.8.653.

**5.3.2.9 Vocabulary****5.3.2.9.1 21.905 Vocabulary**

Document 21.905 is a collection of terms and abbreviations related to the baseline documents defining the objectives and systems framework. This document provides a tool for further work on the technical documentation and facilitates their understanding.

5.3.2.9.2 SDO's complete system standard

Release 99	Location
<a href="#">ATIS</a>	
<del>CWTS</del> <a href="#">CCSA</a>	
ETSI	
<del>TT</del>	
TTA	
Release 4	Location
<a href="#">ATIS</a>	
<del>CWTS</del> <a href="#">CCSA</a>	
ETSI	
<del>TT</del>	
TTA	
Release 5	Location
<a href="#">ATIS</a>	
<del>CWTS</del> <a href="#">CCSA</a>	
ETSI	
<del>TT</del>	
TTA	
<a href="#">Release 6</a>	<a href="#">Location</a>
<a href="#">ATIS</a>	
<a href="#">CCSA</a>	
<a href="#">ETSI</a>	
<del>TT</del>	
<a href="#">TTA</a>	