Tehničke specifikacije sučelja javne pokretne elektroničke komunikacijske mreže HT-Hrvatske telekomunikacije d.d. za korištenje usluga putem telekomunikacijske terminalne opreme

Ovaj dokument opisuje tehničke specifikacije sučelja javne pokretne elektroničke komunikacijske mreže HT-Hrvatske telekomunikacije d.d. (dalje u tekstu: T-Mobile mreža) za korištenje usluga putem telekomunikacijske terminalne opreme. Sukladno promjenama i razvoju u T-Mobile mreži dokument je podložan promjenama i dopunama. HT-Hrvatske telekomunikacije d.d., Savska cesta 32, Zagreb (dalje u tekstu: HT), ne odgovora za bilo koju štetu radi korištenja stare verzije ovog dokumenta, eventualnih omaški u tekstu dokumenta ili radi neusklađenih podataka iz dokumenata. Pozivamo sve korisnike dokumenta da se prije korištenja podataka iz ovog dokumenta kao i u slučaju bilo kakvih pitanja prilikom korištenja ovim dokumentom obrate HT-u.

Zagreb, siječanj 2010. godine

1. Opće odredbe

HT je izradio ovaj dokument temeljem članka 5. stavka 1. Pravilnika o radijskoj opremi i telekomunikacijskoj terminalnoj opremi („Narodne Novine“, broj 112/2008).

Ovaj dokument koristi referentne dokumente međunarodnih normizacijskih institucija za opis sučelja T-Mobile mreže putem kojih se pružaju usluga krajnjim korisnicima.

Sučelje T-Mobile mreže na koje se odnosi ovaj dokument općenito se definira kao zračno sučelje (engl. *air inteface*).

U T-Mobile mreži, za priključivanje i korištenje telekomunikacijske terminalne opreme koriste se isključivo sučelja koja su definirana tehničkim specifikacijama relevantnih međunarodnih institucija ETSI, 3GPP i IEEE.

Svi relevantni podaci o navedenim organizacijama i način korištenja tehničkih specifikacija koje su navedene u ovom dokumentu, podliježe uvjetima korištenja o kojima se detalji mogu naći na sljedećim Internetskim stranicama:
www.etsi.org, www.3gpp.org, www.ieee.org

HT zadržava pravo izmjena specifikacija sučelja iz ovog dokumenta prateći razvoj tehnologija i usluga u svojoj pokretnoj elektroničkoj komunikacijskoj mreži, a sukladno međunarodnim normama.

2. Frekvencijski spektar koji se koristi za pružanje javnih elektroničkih komunikacijskih usluga u T-Mobile mreži

GSM	GSM TDMA FDD (E-GSM):	930,3 – 932,7 MHz i 885,3 – 887,7 MHz
	GSM TDMA FDD (P-GSM):	941,1 – 953,1 MHz i 896,1 – 908,1 MHz
	GSM TDMA FDD (DCS):	1835,1 – 1843,5 MHz i 1740,1 – 1748,5 MHz
UMTS	CDMA FDD:	2110 – 2125 MHz i 1920 - 1935 MHz
	CDMA TDD:	1900 - 1905 MHz
WLAN		2400 - 2483.5 MHz

3. Popis normi

3.1 ETSI serija GSM specifikacija

Serija 3 GSM specifikacija

1.	Network Functions	03.01
2.	Network Architecture	03.02
3.	Numbering, Addressing and Identification	03.03
4.	Signalling Requirements Relating to Routing of Calls to Mobile Subscribers	03.04
5.	Hand-over Procedures	03.09
6.	GSM PLMN Network Connection Types	03.10
7.	Technical Realization of Supplementary Services	03.11
8.	Location Registration Procedures	03.12
9.	Operation of Discontinuous Reception (DRX/Sleep Mode) in the GSM System	03.13
10.	Dual Tone Multi Frequency (DTMF) Signalling	03.14
11.	Basic call handling, Technical Realization	03.18
12.	Functions related to Mobile Station (MS) in idle mode and group receive mode	03.22
13.	Security-Related Network Functions	03.20
14.	Universal Geographical Area Description (GAD)	03.32
15.	Alphabets and Language Specific Information for GSM	03.38
16.	Technical Realization of the Point-to-point Short Message Service	03.40
17.	Technical Realization of SMS CB	03.41
18.	Technical Realization of Facsimile Group 3 transparent	03.45
19.	Example Protocol Stacks for interconnecting Cell Broadcast Centre (CBC) and Base Station Controller (BSC)	03.49
20.	GPRS – Service Description – Stage 2	03.60
21.	GPRS – Overall Description of the GPRS Radio Interface – Stage 2	03.64

Serija 4 GSM specifikacija

1.	Mobile Station – Base Station System (MS-BSS) Interface – General aspects and principles	04.01
2.	GSM PLMN Access Reference Configuration	04.02
3.	Channel Structures and Access Capabilities	04.03
4.	MS-BSS Layer 1 – General Requirements	04.04
5.	MS-BSS Data Link Layer – General Aspects	04.05
6.	MS-BSS Data Link Layer Specification	04.06
7.	Mobile Radio Interface Signalling Layer 3 - General Aspects	04.07
8.	Mobile Radio Interface Layer 3 Specification	04.08
9.	Mobile Radio Interface Layer 3 Supplementary Services	04.10
10.	Point-to-point Short Message Service Support on Mobile Radio Interface	04.11
11.	Cell Broadcast Short Message Service Support on Mobile Radio Interface	04.12
12.	Rate Adaptation on MS-BSS Interface	04.21
13.	"Radio Link Protocol" for Data and Telematic Services on the MS-BSS Interface	04.22
14.	GPRS MS-BSS Interface, RLC/M	04.60
15.	GPRS Mobile Station-Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) Layer Specification	04.64

16.	GPRS Mobile Station-Serving GPRS Support Node (MS-SGSN) Subnetwork Dependent Convergence Protocol (SNDCP)	04.65
17.	Mobile Radio Interface Layer 3 - SS Specification - Formats and Coding	04.80

Serija 5 GSM specifikacija

1.	Physical Layer on the Radio Path (General Description)	05.01
2.	Multiplexing and Multiple Access on the Radio Path	05.02
3.	Channel Coding	05.03
4.	Modulation	05.04
5.	Radio Transmission and Reception	05.05
6.	Radio Subsystem Link Control	05.08
7.	Radio Subsystem Synchronization	05.10

Serija 6 GSM specifikacija

1.	Speech Processing Functions (General Description)	06.01
2.	GSM Full Rate Speech Transcoding	06.10
3.	Speech Extrapolation	06.11
4.	Comfort Noise Aspects	06.12
5.	Discontinuous Transmission (DTX) for Full Rate Speech Traffic Channels	06.31
6.	Voice Activity Detection	06.32
7.	Enhanced Full rate (EFR) speech processing functions general description	06.51
8.	ANSI-C code for the GSM Enhanced Full Rate (EFR) speech codec	06.53
9.	Test sequences for the GSM Enhanced Full Rate (EFR) speech codec	06.54
10.	Enhanced Full Rate (EFR) Speech Transcoding	06.60
11.	Substituting and muting of lost frames for EFR Speech Traffic Channels	06.61
12.	Comfort noise aspects for EFR speech traffic channels	06.62
13.	Discontinuous transmission (DTX) for EFR speech traffic channels	06.81
14.	Voice Activity Detection (VAD) for EFR speech traffic channels	06.82

Serija 7 GSM specifikacija

1.	General (On Terminal Adaptation Functions for MSs)	07.01
2.	Terminal Adaptation Functions for Services Using Asynchronous Bearer Capabilities	07.02
3.	Terminal Adaptation Functions for Services Using Synchronous Bearer Capabilities	07.03

Serija 9 GSM specifikacija

1.	Interworking between the Public Land Mobile Network (PLMN) supporting GPRS and Packet Data Networks (PDN)	09.61

3.2 3GPP serija 3G Release 1999 UMTS specifikacija

Oznaka	Naslov
21.101	Technical Specifications and Technical Reports for a UTRAN-based 3GPP system
21.111	USIM and IC card requirements
21.133	3G security; Security threats and requirements
21.801	Specification drafting rules
21.810	Report on multi-mode UE issues; ongoing work and identified additional work
21.900	Technical Specification Group working methods
21.904	User Equipment (UE) capability requirements
21.905	Vocabulary for 3GPP Specifications
21.910	Multi-mode UE issues; categories, principles and procedures
21.978	Feasibility Technical Report; CAMEL Control of VoIP Services
22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)
22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)
22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)
22.004	General on supplementary services
22.011	Service accessibility
22.016	International Mobile Equipment Identities (IMEI)
22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification
22.024	Description of Charge Advice Information (CAI)
22.030	Man-Machine Interface (MMI) of the User Equipment (UE)
22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1
22.032	Immediate Service Termination (IST); Service description; Stage 1
22.034	High Speed Circuit Switched Data (HSCSD); Stage 1
22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1
22.041	Operator Determined Call Barring
22.042	Network Identity and Time Zone (NITZ) service description; Stage 1
22.057	Mobile Execution Environment (MExE) service description; Stage 1
22.060	General Packet Radio Service (GPRS); Service description; Stage 1
22.066	Support of Mobile Number Portability (MNP); Stage 1
22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1
22.071	Location Services (LCS); Stage 1
22.072	Call Deflection (CD); Stage 1
22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1
22.079	Support of optimal routeing; Stage 1
22.081	Line Identification supplementary services; Stage 1
22.082	Call Forwarding (CF) Supplementary Services; Stage 1
22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1
22.084	MultiParty (MPTY) supplementary service; Stage 1
22.085	Closed User Group (CUG) supplementary services; Stage 1
22.086	Advice of Charge (AoC) supplementary services; Stage 1
22.087	User-to-user signalling (UUS); Stage 1
22.088	Call Barring (CB) supplementary services; Stage 1
22.090	Unstructured Supplementary Service Data (USSD); Stage 1
22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1
22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1
22.094	Follow Me service description - Stage 1
22.096	Name identification supplementary services; Stage 1
22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1
22.100	UMTS Phase 1

Oznaka	Naslov
22.101	Service aspects; Service principles
22.105	Services and service capabilities
22.115	Service Aspects Charging and billing
22.121	Service aspects; The Virtual Home Environment; Stage 1
22.129	Handover requirements between UTRAN and GERAN or other radio systems
22.135	Multicall; Service description; Stage 1
22.140	Multimedia Messaging Service (MMS); Stage 1
22.945	Study of provision of fax service in GSM and UMTS
22.971	Automatic establishment of roaming relationships
22.975	Advanced addressing
23.002	Network architecture
23.003	Numbering, addressing and identification
23.007	Restoration procedures
23.008	Organisation of subscriber data
23.009	Handover procedures
23.011	Technical realization of Supplementary Services
23.012	Location management procedures
23.014	Support of Dual Tone Multi Frequency (DTMF) signalling
23.015	Technical realization of Operator Determined Barring (ODB)
23.016	Subscriber data management; Stage 2
23.018	Basic Call Handling; Technical realization
23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2
23.032	Universal Geographical Area Description (GAD)
23.034	High Speed Circuit Switched Data (HSCSD); Stage 2
23.035	Immediate Service Termination (IST); Stage 2
23.038	Alphabets and language-specific information
23.039	Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)
23.040	Technical realization of Short Message Service (SMS)
23.041	Technical realization of Cell Broadcast Service (CBS)
23.042	Compression algorithm for SMS
23.057	Mobile Execution Environment (MExE); Functional description; Stage 2
23.060	General Packet Radio Service (GPRS) Service description; Stage 2
23.066	Support of GSM Mobile Number Portability (MNP) stage 2
23.067	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 2
23.072	Call Deflection Supplementary Service; Stage 2
23.078	customized Applications for Mobile network Enhanced Logic (CAMEL); Stage 2
23.079	Support of Optimal Routeing (SOR); Technical realization; Stage 2
23.081	Line Identification supplementary services; Stage 2
23.082	Call Forwarding (CF) Supplementary Services; Stage 2
23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2
23.084	MultiParty (MPTY) Supplementary Service; Stage 2
23.085	Closed User Group (CUG) Supplementary Service; Stage 2
23.086	Advice of Charge (AoC) Supplementary Service; Stage 2
23.087	User-to-User Signalling (UUS) supplementary service; Stage 2
23.088	Call Barring (CB) Supplementary Service; Stage 2
23.090	Unstructured Supplementary Service Data (USSD); Stage 2
23.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 2
23.093	Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2
23.094	Follow Me Stage 2

Oznaka	Naslov
23.096	Name Identification Supplementary Service; Stage 2
23.097	Multiple Subscriber Profile (MSP) Phase 1; Stage 2
23.101	General UMTS Architecture
23.107	Quality of Service (QoS) concept and architecture
23.108	Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)
23.110	UMTS Access Stratum Services and Functions
23.116	Super-Charger technical realization; Stage 2
23.119	Gateway Location Register (GLR); Stage2
23.121	Architectural requirements for Release 1999
23.122	Non-Access-Stratum functions related to Mobile Station (MS) in idle mode
23.127	Virtual Home Environment (VHE) / Open Service Access (OSA); Stage 2
23.135	Multicall supplementary service; Stage 2
23.140	Multimedia Messaging Service (MMS); Functional description; Stage 2
23.171	Location Services (LCS); Functional description; Stage 2 (UMTS)
23.814	Separating RR and MM specific parts of the MS Classmark
23.908	Technical report on Pre-Paging
23.909	Technical report on the Gateway Location Register
23.910	Circuit switched data bearer services
23.911	Technical report on Out-of-band transcoder control
23.912	Technical report on Super-Charger
23.923	Combined GSM and Mobile IP mobility handling in UMTS IP CN
23.930	Iu Principles
23.972	Circuit switched multimedia telephony
24.002	GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration
24.007	Mobile radio interface signalling layer 3; General Aspects
24.008	Mobile radio interface Layer 3 specification; Core network protocols; Stage 3
24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects
24.011	Point-to-Point (PP) Short Message Service (SMS) support on Mobile Radio Interface
24.022	Radio Link Protocol (RLP) for circuit switched bearer and teleservices
24.030	Location Services (LCS); Supplementary service operations; Stage 3
24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 3
24.072	Call Deflection Supplementary Service; Stage 3
24.080	Mobile radio Layer 3 supplementary service specification; Formats and coding
24.081	Line Identification Supplementary Service; Stage 3
24.082	Call Forwarding supplementary service; Stage 3
24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3
24.084	MultiParty (MPTY) Supplementary Service; Stage 3
24.085	Closed User Group (CUG) Supplementary Service; Stage 3
24.086	Advice of Charge (AoC) Supplementary Service; Stage 3
24.087	User-to-User Signalling (UUS); Stage 3
24.088	Call Barring (CB) Supplementary Service; Stage 3
24.090	Unstructured Supplementary Service Data (USSD); Stage 3
24.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 3
24.093	Call Completion to Busy Subscriber (CCBS); Stage 3
24.096	Name Identification Supplementary Service; Stage 3
24.135	Multicall supplementary service; Stage 3
25.101	User Equipment (UE) radio transmission and reception (FDD)
25.102	User Equipment (UE) radio transmission and reception (TDD)
25.104	Base Station (BS) radio transmission and reception (FDD)
25.105	Base Station (BS) radio transmission and reception (TDD)

Oznaka	Naslov
25.113	Base station and repeater electromagnetic compatibility (EMC)
25.123	Requirements for support of radio resource management (TDD)
25.133	Requirements for support of radio resource management (FDD)
25.141	Base Station (BS) conformance testing (FDD)
25.142	Base Station (BS) conformance testing (TDD)
25.201	Physical layer - general description
25.211	Physical channels and mapping of transport channels onto physical channels (FDD)
25.212	Multiplexing and channel coding (FDD)
25.213	Spreading and modulation (FDD)
25.214	Physical layer procedures (FDD)
25.215	Physical layer; Measurements (FDD)
25.221	Physical channels and mapping of transport channels onto physical channels (TDD)
25.222	Multiplexing and channel coding (TDD)
25.223	Spreading and modulation (TDD)
25.224	Physical layer procedures (TDD)
25.225	Physical layer; Measurements (TDD)
25.301	Radio Interface Protocol Architecture
25.302	Services provided by the physical layer
25.303	Interlayer procedures in Connected Mode
25.304	User Equipment (UE) procedures in idle mode and procedures for cell reselection in connected mode
25.305	User Equipment (UE) positioning in Universal Terrestrial Radio Access Network (UTRAN); Stage 2
25.306	UE Radio Access capabilities definition
25.307	Requirements on UEs supporting a release-independent frequency band
25.321	Medium Access Control (MAC) protocol specification
25.322	Radio Link Control (RLC) protocol specification
25.323	Packet Data Convergence Protocol (PDCP) specification
25.324	Broadcast/Multicast Control (BMC)
25.331	Radio Resource Control (RRC) protocol specification
25.401	UTRAN overall description
25.402	Synchronisation in UTRAN Stage 2
25.410	UTRAN Iu Interface: General Aspects and Principles
25.411	UTRAN Iu interface layer 1
25.412	UTRAN Iu interface signalling transport
25.413	UTRAN Iu interface Radio Access Network Application Part (RANAP) signalling
25.414	UTRAN Iu interface data transport & transport signalling
25.415	UTRAN Iu interface user plane protocols
25.419	UTRAN Iu-BC interface: Service Area Broadcast Protocol (SABP)
25.420	UTRAN Iur Interface: General Aspects and Principles
25.421	UTRAN Iur interface Layer 1
25.422	UTRAN Iur interface signalling transport
25.423	UTRAN Iur interface Radio Network Subsystem Application Part (RNSAP) signalling
25.424	UTRAN Iur interface data transport & transport signalling for CCH data streams
25.425	UTRAN Iur interface user plane protocols for CCH data streams
25.426	UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams
25.427	UTRAN Iur and Iub interface user plane protocols for DCH data streams
25.430	UTRAN Iub Interface: General Aspects and Principles
25.431	UTRAN Iub interface Layer 1
25.432	UTRAN Iub interface: signalling transport
25.433	UTRAN Iub interface NBAP signalling
25.434	UTRAN Iub interface data transport & transport signalling for CCH data streams

Oznaka	Naslov
25.435	UTRAN Iub interface user plane protocols for CCH data streams
25.442	UTRAN implementation-specific O&M transport
25.832	Manifestations of Handover and SRNS relocation
25.833	Physical layer items not for inclusion in Release 99
25.853	Delay budget within the access stratum
25.921	Guidelines and principles for protocol description and error handling
25.922	Radio Resource Management Strategies
25.925	Radio Interface for Broadcast/Multicast Services
25.931	UTRAN Functions, examples on signalling procedures
25.941	Document structure
25.942	RF system scenarios
25.944	Channel coding and multiplexing examples
25.993	Typical examples of Radio Access Bearers (RABs) and Radio Bearers (RBs) supported by Universal Terrestrial Radio Access (UTRA)
26.071	AMR speech Codec; General description
26.073	AMR speech Codec; C-source code
26.074	AMR speech Codec; Test sequences
26.090	AMR speech Codec; Transcoding Functions
26.091	AMR speech Codec; Error concealment of lost frames
26.092	AMR speech Codec; comfort noise for AMR Speech Traffic Channels
26.093	AMR speech Codec; Source Controlled Rate operation
26.094	AMR Speech Codec; Voice Activity Detector for AMR Speech Traffic Channels
26.101	Mandatory speech codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec frame structure
26.102	Adaptive Multi-Rate (AMR) speech codec; Interface to Iu and Uu
26.103	Speech codec list for GSM and UMTS
26.104	ANSI-C code for the floating-point Adaptive Multi-Rate (AMR) speech codec
26.110	Codec for circuit switched multimedia telephony service; General description
26.111	Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324
26.131	Terminal acoustic characteristics for telephony; Requirements
26.132	Narrow band (3,1 kHz) speech and video telephony terminal acoustic test specification
26.911	Codec for Circuit switched Multimedia Telephony Service;Terminal Implementor's Guide
26.912	Codec for Circuit switched Multimedia Telephony Service; Quantitative performance evaluation of H.324 Annex C over 3G
26.915	Echo Control For Speech and Multi-Media Services
26.975	Performance characterization of the Adaptive Multi-Rate (AMR) speech codec
27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)
27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities
27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities
27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)
27.007	AT command set for 3G User Equipment (UE)
27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol
27.060	Packet domain; Mobile Station (MS) supporting Packet Switched services
27.103	Wide Area Network Synchronization
27.901	Report on Terminal Interfaces - An Overview
27.903	Discussion of synchronization standards
29.002	Mobile Application Part (MAP) specification
29.007	General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)
29.010	Information Element Mapping between Mobile Station - Base Station System (MS - BSS) and Base Station

Oznaka	Naslov
	System - Mobile-services Switching Centre (BSS - MCS) Signalling Procedures and the Mobile Application Part (MAP)
29.011	Signalling Interworking for Supplementary Services
29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols
29.016	Serving GPRS Support Node SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification
29.018	General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) – Visitors Location Register (VLR); Gs interface layer 3 specification
29.060	General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface
29.061	Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)
29.078	customized Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification
29.108	Application of the Radio Access Network Application Part (RANAP) on the E-interface
29.119	GPRS Tunnelling Protocol (GTP) specification for Gateway Location Register (GLR)
29.120	Mobile Application Part (MAP) specification for Gateway Location Register (GLR); Stage 3
29.198	Open Service Architecture (OSA) Application Programming Interface (API) - Part 1
29.994	Recommended infrastructure measures to overcome specific Mobile Station (MS) and User Equipment (UE) faults
29.998	Open Services Architecture API part 2
31.101	UICC-terminal interface; Physical and logical characteristics
31.102	Characteristics of the USIM application
31.110	Numbering system for telecommunication IC card applications
31.111	Universal Subscriber Identity Module Application Toolkit (USAT)
31.120	UICC-terminal interface; Physical, electrical and logical test specification
31.121	UICC-terminal interface; Universal Subscriber Identity Module (USIM) application test specification
31.122	Universal Subscriber Identity Module (USIM) conformance test specification
32.005	Telecommunications management; Charging management; 3G call and event data for the Circuit Switched (CS) domain
32.015	Telecommunications management; Charging management; 3G call and event data for the Packet Switched (PS) domain
32.101	Telecommunication management; Principles and high level requirements
32.102	Telecommunication management; Architecture
32.104	Telecommunication management; 3G Performance Management
32.106-1	Telecommunication management; Configuration Management (CM); Part 1: Concept and requirements
32.106-2	Telecommunication management; Configuration Management (CM); Part 2: Notification Integration Reference Point (IRP): Information Service (IS)
32.106-3	Telecommunication management; Configuration Management (CM); Part 3: Notification Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)
32.106-4	Telecommunication management; Configuration Management (CM); Part 4: Notification Integration Reference Poin (IRP); Common Management Information Protocol (CMIP) Solution Set (SS)
32.106-5	Telecommunication management; Configuration Management (CM); Part 5: Basic CM Integration Reference Point (IRP): Information model (including Network Resource Model (NRM)
32.106-6	Telecommunication management; Configuration Management (CM); Part 6: Basic CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)
32.106-7	Telecommunication management; Configuration Management (CM); Part 7: Basic CM Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)
32.106-8	Telecommunication management; Configuration Management (CM); Part 8: Name convention for Managed Objects
32.111-1	Telecommunication management; Fault Management; Part 1: 3G fault management requirements
32.111-2	Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point (IRP): Information Service (IS)

Oznaka	Naslov
32.111-3	Telecommunication management; Fault Management; Part 3: Alarm Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)
32.111-4	Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)
33.102	3G security; Security architecture
33.103	3G security; Integration guidelines
33.105	Cryptographic Algorithm requirements
33.106	Lawful interception requirements
33.107	3G security; Lawful interception architecture and functions
33.120	Security Objectives and Principles
33.901	Criteria for cryptographic Algorithm design process
33.902	Formal Analysis of the 3G Authentication Protocol
33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms
34.108	Common test environments for User Equipment (UE) conformance testing
34.109	Terminal logical test interface; Special conformance testing functions
34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)
34.122	Terminal conformance specification, Radio transmission and reception (TDD)
34.123-1	User Equipment (UE) conformance specification; Part 1: Protocol conformance specification
34.123-2	User Equipment (UE) conformance specification; Part 2: Implementation conformance statement (ICS) specification
34.123-3	User Equipment (UE) conformance specification; Part 3: Abstract test suites (ATSs)
34.124	Electromagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment
34.901	Test Time Optimisation based on statistical approaches; Statistical theory applied and evaluation of statistical significance
34.907	Report on electrical safety requirements and regulations
34.925	Specific Absorption Rate (SAR) requirements and regulations in different regions
35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications
35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification
35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data
35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data
44.001	Mobile Station - Base Station System (MS - BSS) Interface General Aspects and Principles
44.003	Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities
44.004	Layer 1 - General Requirements
44.005	Data Link (DL) Layer General Aspects
44.006	Mobile Station - Base Stations System (MS - BSS) Interface Data Link (DL) Layer Specification
44.012	Short Message Service Cell Broadcast (SMSCB) Support on the Mobile Radio Interface
44.013	Performance Requirements on Mobile Radio Interface
44.014	Individual equipment type requirements and interworking; Special conformance testing functions
44.018	Mobile radio interface layer 3 specification; Radio Resource Control (RRC) protocol
44.021	Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface
44.031	Location Services (LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC) Radio Resource LCS Protocol (RRLP)
44.035	Location Services (LCS); Broadcast network assistance for Enhanced Observed Time Difference (E-OTD) and Global Positioning System (GPS) positioning methods
44.060	General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/MAC) protocol
44.064	Mobile Station - Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) Layer Specification
44.065	Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)
44.071	Location Services (LCS); Mobile radio interface layer 3 LCS specification
44.901	External network assisted cell change (NACC)

3.3. IEEE serija 802.11 WLAN specifikacija

Oznaka	**Naslov**
IEEE 802.11, 1999 Edition (ISO/IEC 8802-11: 1999)	IEEE Standards for Information Technology – Telecommunications and Information Exchange between Systems – Local and Metropolitan Area Network – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
IEEE 802.11b-1999 Supplement to 802.11-1999	Wireless LAN MAC and PHY specifications: Higher speed Physical Layer (PHY) extension in the 2.4 GHz band
802.11b-1999/Cor1-2001	IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications—Amendment 2: Higher-speed Physical Layer (PHY) extension in the 2.4 GHz band—Corrigendum1
IEEE 802.11d-2001, Amendment to IEEE 802.11-1999, (ISO/IEC 8802-11)	Information technology–Telecommunications and information exchange between systems–Local and metropolitan area networks–Specific requirements–Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Specification for Operation in Additional Regulartory Domains
IEEE 802.11e-2005	IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Amendment 8: Medium Access Control (MAC) Quality of Service Enhancements
IEEE 802.11F-2003	IEEE Recommended Practice for Multi-Vendor Access Point Interoperability via an Inter-Access Point Protocol Across Distribution Systems Supporting IEEE 802.11 Operation
IEEE 802.11g-2003	IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications—Amendment 4: Further Higher-Speed Physical Layer Extension in the 2.4 GHz Band
IEEE 802.11i-2004 Amendment to IEEE Std 802.11, 1999 Edition (Reaff 2003)	IEEE Standard for Information technology–Telecommunications and information exchange between system–Local and metropolitan area networks?Specific requirements--Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications–Amendment 6: Medium Access Control (MAC) Security Enhancements Interpretation