W550

Geared up for fun

Sony Ericsson

Preface

Purpose of this document

This White Paper will be published in several revisions as the phone is developed. Therefore, some of the headings and tables below contain limited information. Additional information and facts will be forthcoming in later revisions.

The aim of this White Paper is to give the reader an understanding of the main functions and features of the phone.

Note: This document contains general descriptions for this specific Sony Ericsson mobile phone.

People who can benefit from this document include:

• Operators
• Service providers
• Software developers
• Support engineers
• Application developers

Sony Ericsson Developer World

On www.SonyEricsson.com/developer, developers will find documentation and tools such as phone White Papers, Developers Guidelines for different technologies, SDKs and relevant APIs. The website also contains discussion forums monitored by the Sony Ericsson Developer Support team, an extensive Knowledge Base, Tips & Tricks, example code and news.

Sony Ericsson also offers technical support services to professional developers. For more information about these professional services, visit the Sony Ericsson Developer World website.

Document history

Change history		
2005-07-04	Version R1A	First published version.
2005-07-13	Version R2A	New product name.

Contents

July 2005

Product overview

W550 is the ultimate WALKMAN™ phone. A musical element can be found throughout. An advanced digital music player, enabling instant and easy access to favourite tracks with just one press on the WALKMAN™ key. A music track can be instantly played or paused, or swapped for another, with ease. W550 is a multitasking phone, enabling the use of other applications while continuing to listen to favourite tracks.

The W550 has a swivel action form factor and is full of nuances. Most usability is in closed mode and when needed, quick access to the ergonomic keypad is at your fingertips with the automatic swivel function for fast texting, typing in phone numbers or searching for particular media files. For synchronisation or transferring of files between the phone and a computer, a USB cable is provided in the kit.

You can store audio CD tracks in the phone or tune in to your favourite radio channel for music on the go. Catch the action in stills or capture it on video. There are wide-screen games backed up by external stereo speakers and console-like game buttons. For games developed for vertical game play you open up the W550 90 degrees and play them in angled gaming style instead. The fun stuff – pictures, themes, ringtones, music and videos – can be downloaded from web sites. Besides all the wappages out there, the W550 supports real Internet browsing letting you visit the Web sites you can't do without.

The W550 is geared up for fun. Are you?

Note: To be able to give updated information about the implemented technology and functionality of this product as soon as possible, this White Paper will be released in updated revisions.

Key features

1.8 inch colour screen

The 1.8 inch (176 x 220 pixels) full graphic 262k colour screen enhances viewing of high-quality content in the phone.

1.3 Mega pixel camera

With the 1.3 Mega pixel camera which includes 4x digital zoom and many user friendly features, taking pictures becomes easy and fun. The horizontal user interface adds a natural feel when it comes to handling the camera.

WALKMAN™ player

The WALKMAN™ player converts the phone into a portable MP3, MPEG4, H263 player. Play music and video clips, streamed or downloaded. The folder system enables you, for example, to organize your favourite songs into groups and create simple playlists. A play and pause function has been added.

Communicorder

By using the built in communicorder, a video recording can be captured and stored in the phone. A video clip can be shared as a picture message with friends or family. The W550 supports viewing video clips in full screen mode.

Built in photo light

Lighting conditions can be enhanced by using the built in photo light which is easily started from the settings menu when using the camera.

Style-Up™ covers

Change the look of the phone by switching covers to different styles and colours.

Gaming

Gaming is a very popular feature in mobile phones, and with Java™, users can download new games and skill levels to further enhance the entertainment experience. Several embedded games are included in the phone at purchase and two added action buttons to intensify the experience for the user whilst gaming.

Java™

Download additional applications which are, for example, information- and entertainment- based. This gives users a chance to personalize the functions and features in their phones, and developers the opportunity to create new applications.

HTML web browser support

Browse the Internet and look at the web sites in a different way with Access NetFront 3.3 – An HTML browser which supports a complete web standard suite.

Disc2Phone

You can create your own playlists and albums and transfer them to the phone. Music files can be transferred from a computer to the phone by using Disc2Phone software. Search for and select music on your computer or audio CDs and convert your existing audio tracks to MP3 format. Disc2Phone will be included on the CD in the box.

RDS FM Radio

The FM radio with RDS (Radio Data System) offers instant and easy access to FM radio channels. The RDS function brings information directly to the display, which is sent out by the currently tuned in radio station. Just plug in the handsfree that works as an antenna and start listening to desired music. The radio can also be used as an alarm signal.

Stereo widening

The Stereo Widening and Mega Bass™ effects improves the sound experience when listening to music through the external stereo speakers or the HPM 70 stereo portable handsfree headset that comes with the phone.

Bluetooth™ wireless technology

Several devices (simultaneous Bluetooth connections) can be connected to W550 using Bluetooth wireless technology up to 10 metres away. For example, the phone can be answered with a Bluetooth headset, when it rings and images can be sent to another phone at the same time. Several mobile phones can take part in a Bluetooth supported game and the phone and a computer can exchange data such as images, video clips, business e-cards, music files and calendar data.

Personal Information Management (PIM)

Stay up to date with everyday events by synchronizing phone contacts, calendar appointments and tasks in the phone with similar programs in a computer. The USB-cable which comes with the phone, the built in Infrared or Bluetooth feature can be used together with the synchronization software which is available on the CD in the kit or can be downloaded from www.SonyEricsson.com/support.

Images

Technologies in detail

This chapter offers a detailed description of the technologies available in this product.

Functions and features

The following table is a complete description of the features in W550. It also compares the product with one other Sony Ericsson product.

Feature	W550	K750i
3D games support	X	X
Alarm clock	X	X
Antenna The phone has a built-in antenna with an external connector to use with an advanced car handsfree accessory.	X	X
Backlight display Blue or other coloured backlight to illuminate the phone screen.	X	X
Battery	3.6V, 900 mAh, Lithium Polymer	3.6V, 900 mAh, Lithium Polymer
Battery charging time	At least 90% charged within 2 hours.	At least 90% charged within 2 hours.
Bluetooth™ wireless technology Wireless connectivity between devices. Range up to 10 meters.	X	X
Business card exchange Exchange contact information.	X	X
Calculator	X	X
Calendar Calendar with day, week and month views and reminders.	X	X
Call list View calls made, received and missed.	X	X
Camera	1.3 Megapixel	2.0 Megapixel
Camera button A dedicated camera button. Press once and the integrated camera activates.	X	X

Feature	W550	K750i
Chinese input method Text input methods based on Simplified or Traditional Chinese. Bopomofo, Pinyin or Stroke.	X	X
cHTML A mobile device adapted version of the standard Internet communications protocol HTML.	X	X
Clock Onscreen clock.	X	X
Co-branding area	7.25 x 23 mm	6.5 x 20.5 mm
Code memo A secure place to store all PIN codes and other information. To access Code memo, only one PIN code is needed.	X	X
Colour	Vibrant Orange Orchid White Universe Blue	Oxidized Black Blasted Silver
Contacts Phone book with fields for name, phone and fax numbers, e-mail address, street address, company, title.	X	X
Conference calls Support for multi-party calling.	X	X
Content online Downloadable pictures, games, themes, ringtones available online.	X	X
Connector cover Protects the system connector.	X	
Copyright protection - DRM DRM (Digital Rights Management) features the rights and copy protection of downloaded content (audio, pictures, music tones, video, entertainment features such as games, java applications etc.).	X	X

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Feature	W550	K750i
Cyber-shot camera menu Easy-to-use horizontal digital camera menu.	X	X
Design	Swivel action with dual front	Dual front
Device Management (DM) DM utilizes GPRS as bearer (basic network connectivity needs to be in place) of the provisioning data and allows the operator to access the phone and check and set different settings such as Network connectivity (GPRS), email, MMS, WAP and Java™. Device Management is achieved by supporting Over The Air provisioning 7.1 (OTA), OMA Client Provisioning 1.1 (CP) and OMA Device Management (DM) 1.2.	X	X
Digital zoom	4x	8x
Display Type: Size: Resolution: Technology: Colours displayed together: Backlight colour:	Full graphical 1.8 inches 176 x 220 pixels TFT 262,000 (18 bit) White	Full graphical 1.8 inches 176 x 220 pixels TFT 262,000 (18 bit) White
E-mail Built-in e-mail client with inbox, outbox, compose, send and other functions.	X	X
EMS (Enhanced Messaging) Text messaging (SMS) with support for pictures and sounds.	X	X
Exterior description Size: Volume: Weight:	93 x 46.5 x 22.5 mm 91 cm³ 120.1 g	100 x 46 x 20.5 mm 85 cm³ 99 g
Fast port A system connector which enables faster data transfer between the phone and a computer.	X	X

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Feature	W550	K750i
File manager Folder structure storage to help store and organize pictures, sounds and other phone content.	X	X
FM radio with RDS (Radio Data Support) FM radio with presets, auto and manual search. Portable handsfree is used as an antenna. The radio can also be used as an alarm signal.	X	X
Games embedded	X	X
GPRS General Packet Radio Services - a communications standard enabling packet data transfer similar to Internet - 28.8 kbps - 58.6 kbps. It is recommended to have GPRS to use MMS and content download services.	X	X
High Speed Data HSCSD - a communications standard enabling GSM data transfer 14.4 - 28.8 kbps.	X	X
Icon Desktop 12 A graphic icon desktop with 12 interactive icons.	X	X
Infrared port A wireless connector enabling to connect the phone to a laptop or other infrared device in order to share pictures, synchronize or use the phone as a modem.	X	X
Instant messaging (Wireless Village) Chat - several people can take part in a mobile messaging session.	X	X
Internet key A dedicated Internet button to connect to a pre-set home page.	X	
Java™ Support for J2ME™ technology.	Java 2, Micro Edition (J2ME™), Java 3D	Java 2, Micro Edition (J2ME™), Java 3D

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Feature	W550	K750i
Keypad	Keypad with 12 keys, 2 selection keys, clear and back keys, 4+1 way navigation, 2 game keys, volume side keys, separate on/off, play/pause button, camera key, operator key, WALKMAN™ key and slide lock key	17 keys, joystick, +- side keys, camera key and a play/pause button
Keypad lock Lock the phone keys so they do not activate a function in the phone.	X	X
Lunar calendar A calendar system used in China and other parts of Asia. A lunar month is determined by the period required for the moon to complete its full cycle of 29.5 days.	X	X
Mega Bass™ An audio feature which enhances bass frequencies for better overall music experience.	X	X
Memory (built-in) Phone memory that is free to use (depending on software configuration/file content).	Up to 256 MB	Up to 34 MB
Menu shortcuts A function making it possible to dedicate shortcuts to the most-used phone functions.	X	X
MMS (Multimedia messaging) Picture messaging with text and sound.	X	X
MMS video Support in the phone for sending video using MMS.	X	X
Modem GSM Internet dial-up support.	X	X

Feature	W550	K750i
Music mode All radio transmitters and receivers are inactivated, making it possible to use the phone only as a WALKMAN™ in airplanes, hospitals and other situations where using a mobile phone is not allowed.	X	
Music tones Music tones, also called master tones, are DRM protected music by original artists. Various digital audio formats are supported.	X	X
MusicDJ™ A sampler music tool with MIDI drum, guitar, keyboard, bass and brass loops in different music styles, which can be combined to create polyphonic ringtones.	X	X
Networks	GSM (R99) 900, 1800, 1900, E-GSM 900	GSM (R99) 900, 1800, 1900, E-GSM 900
OTA settings WAP, e-mail and other settings can be sent Over-The-Air to the phone.	X	X
Photo light (built-in) When lighting conditions are poor, activate the photo light.	X	X
PhotoDJ™ A drawing tool in the phone where new pictures can be drawn from scratch and existing pictures and photos can be altered.	X	X
Picture gallery A thumbnail image gallery where sections of several pictures can be seen in the display at the same time.	X	X
Picture phonebook Add pictures to the contacts. When someone calls, a picture of that person appears on screen.	X	X

Feature	W550	K750i
PlayNow™ Listen to music before you purchase and download to your phone.	X	X
PlayNow™ Games Preview games straight from the phone desktop in three clicks before you purchase and download.	X	
Play/Pause Button Music is only one click away. Play/Pause button allows listening to favourite tunes without having to move between menus.	X	X
Polyphonic voices	40	40
Predictive text input	X	X
QuickShare™ QuickShare™ is easy experience sharing. With an integrated camera a view can be captured and sent in seconds.	X	X
Screensaver	X	X
SIM card lock The possibility to protect the SIM card with a four-digit PIN code.	X	X
Sleep mode A power saving feature that minimizes battery power consumed when the phone is in standby.	X	X
SMS long (Text Messaging) Concatenated text messaging. This feature must be enabled when sending text messages with pictures and sounds attached (EMS).	X	X
Sony Ericsson Remote Update Service Download the latest version of the mobile phone software over the air.	X	X

Feature	W550	K750i
Sony Ericsson Update Service Connect the phone to an Internet connected computer, download the latest operator approved version of the mobile device software from the web, www.SonyEricsson.com/support and update the mobile device.	X	X
Sound recorder A mini recording device in the phone that can record voice messages or other sounds.	X	X
Speakerphone	X	X
Speed dialling Allocate contacts in the phone book to specific keys on the keypad.	X	X
Standby Time	Up to 400 hours	Up to 400 hours
Status view The display shows the network being used, time and other status information.	X	X
Stopwatch	X	X
Style-Up™ Covers Exchangeable covers.	X	
SVG Tiny 1.1 Scalable Vector Graphics for impressive animated wallpapers, menus and other graphic elements.	X	X
Synchronization PC Synchronize and share phone content with a computer.	X	X
SyncML A device communications standard that enables remote synchronization between devices.	X	X
Talk Time	Up to 9 hours	Up to 9 hours
Tasks Keeps track of important things to do.	X	X

Feature	W550	K750i
Themes display Phone menu texts and background graphics.	X	X
Timer Set the phone to alert after a specific time lapse.	X	X
USB connectivity support Connect the phone to a computer with a USB cable and the memory in the phone appears on the computer screen as a mass storage device.	X	X
Vibrating alert The phone vibrates when a call comes in.	X	X
Video player Record, play and transfer video clips to another phone or a computer via an available transfer method.	X	X
Video streaming Real time streaming of video, for example, live cam. Media can also be downloaded and saved in the phone memory.	X	X
VideoDJ™ Create video sequences by combining different clips and adding music and images.	X	X
Viewfinder display When using an in-phone camera or snap-on accessory camera, the picture can be previewed before it is captured.	X	X
Voice control Voice answer, reject and call. Assign voice commands to items in the phone book and when a call is made, the voice command can be used instead of pressing keys.	X	X
Voice mail Support for voice mail operator service including automatic answering and message recording.	X	X

Feature	W550	K750i
WALKMAN™ player Advanced digital music player. Supports playing music or video clips, streamed or downloaded.	X	
WALKMAN™ key Get direct access to your music files without having to move between the menus. Press the WALKMAN™ key to gain direct access to the WALKMAN™ player. Press to minimize to use other functions with music still playing.	X	
WAP 1.2.1 A mobile Internet standard to access specially designed Internet sites.	X	X
WAP 2.0 XHTML A mobile Internet standard to access specially designed Internet sites. WAP 2.0 supports colour and interactive lists.	X	X
WTLS Wireless Layer Transmission Security - encrypts confidential information such as credit card and bank account numbers. Necessary for mobile banking and shopping.	X	X

Facts and figures

This chapter offers readers a detailed listing of all the technical data relating to the product. Comprehensive descriptions of performance and technical characteristics are presented in table format for quick and easy access.

Technical specifications

General technical data

System	Tri-band GSM phase 2 recommendations. GSM (R99) 900 (CTR 19 and CTR 20), GSM 1800 (CTR 31 and CTR 32), GSM 1900 and e-GSM mode supported.
Speech coding	HR, FR, EFR, AMR supported where available, for high speech quality.
GSM SIM/ USIM card	GSM SIM - GSM 11.11, Small plug-in card, 1,8 V and 3 V.
Memory (user free)	Up to 256 MB (depending on software configuration/file content)

Performance and technical characteristics

Dimension	GSM 900/E-GSM 900	GSM 1800	GSM 1900
Frequency range (MHz)	TX: 880 – 915 RX: 925 – 960	TX: 1710 – 1785 RX: 1805 – 1880	TX:1850 –1910 RX:1930 – 1990
Channel spacing	200 kHz	200 kHz	200 kHz
Number of channels	174 Carriers *8 (TDMA)	374 Carriers *8 (TDMA)	299 Carriers *8 (TDMA)
Modulation	GMSK	GMSK	GMSK
TX Phase Accuracy	< 5° RMS Phase error (burst)	< 5° RMS Phase error (burst)	< 5° RMS Phase error (burst)
Duplex spacing	45 MHz	95 MHz	80 MHz
Frequency stability	+/- 0.1ppm	+/- 0.1ppm	+/- 0.1ppm
Voltage operation (nominal)	3.6 V	3.6 V	3.6 V
Transmitter RF power output	33 dBm Class 4 (2 W peak)	30 dBm Class 1 (1 W peak)	30 dBm Class 1 (1 W peak)
Transmitter RF power output	33 dBm Class 4 (2 W peak)	30 dBm Class 1 (1 W peak)	30 dBm Class 1 (1 W peak)
Transmitter Output impedance	50 ohm	50 ohm	50 ohm
Transmitter Spurious emission (according to specification)	< -36 dBm up to 1 GHz < -30 dBm over 1 GHz	< - 30 dBm	< - 30 dBm
Receiver RF sensitivity	Better than – 102 dBm	– 102 dBm	– 102 dBm
Receiver RX Bit error rate	< 2.4%	< 2.4%	< 2.4%

USSD technical data

Feature	Support
USSD support	GSM Phase 1/2 (Cross-phase compatibility)
Mode support -mode	UI-mode supported SAT initiated USSD supported
UI-mode details	• It is possible to scroll the text up and down in USSD messages. • It is possible to highlight embedded numbers and take actions accordingly.

GPRS technical data

Feature	Support
Compatible GPRS and SMG specifications	Release 99 according to ETSI specification.
Data rates	Multislot class 10 supported (4+2) CS-1, CS-2, CS-3, CS-4 9,050 bps, 13,400 bps, 15,600 bps, 21,400 bps supported (network-dependent).
Medium Access Modes	Dynamic allocation
Support of Packet Control Channels (PBCCH/PCCCH)	Yes
Network operation mode	NOM I, II, III
Support of GPRS/CS combined procedures	Yes
Network control mode	NC0 and 2
Support of access in 2 phases	Yes
Support of PRACH on 11 bits	Yes
Support of GPRS re-selection C31/C32	Yes
Support of static and dynamic addressing	Yes
Support of power control Uplink and Downlink	Uplink = yes, Downlink is a network feature.
Support of ciphering algorithms	GEA1, GEA2
Support of compression algorithms	Yes, V42bis and IP header compression.
Mode of operation	Class B and Class C modes of operation supported.

Feature	Support	
R Reference point	Physical layer: Support of RS232 PPP is supported as L2 layer in the R reference point Authentication algorithms PAP, CHAP supported	
IP connectivity	PDP type IP is supported IP termination in mobile or TE (laptop, PDA) supported	
PDP context	10 PDP context descriptions stored in mobile PDP context description is edited via application in mobile, AT-command or via OTA Simultaneous PDP contexts are supported, maximum 2.	
SIM	GPRS aware, as well as non-GPRS aware; SIM cards are supported.	
AT commands supported	AT+CGDCONT - DEFINE PDP CONTEXT AT+CGEQREQ - Quality of Service Profile (REQUESTED) AT+CGEQMIN - Quality of Service Profile (Minimum Acceptable) AT+CGATT - PACKET DOMAIN SERVICE ATTACH OR DETACH	AT+CGACT - PDP CONTEXT ACTIVATE OR DEACTIVATE AT+CGDATA - ENT

SIM AT services supported

Service	Mode	Support
CALL CONTROL BY SIM		Yes
MO SMS CONTROL		No
DATA DOWNLOAD TO SIM	Cell Broadcast SMS	Yes Yes
DISPLAY TEXT	Text of up to 240 characters (120 UCS2 coded).	Yes
	bit 1: 0 = normal priority	Yes
	1 = high priority	Yes
	bit 8: 0 = clear message after a delay	Yes
	1 = wait for user to clear message	Yes

Service		Mode	Support
GET INKEY		General: The GET_INKEY requires that the user confirms his/her choice	Yes
	bit 1:	0 = digits (0-9, *, # and +) only	Yes
		1 = alphabet set	Yes
	bit 2:	0 = SMS default alphabet	Yes
		1 = UCS2 alphabet	Yes
	bit 3:	0 = character sets defined by bit 1 and bit 2 are enabled	Yes
		1 = character sets defined by bit 1 and bit 2 are disabled and the Yes/No response is requested	Yes
GET INPUT		General: No. of hidden input characters	252
	bit 1:	0 = digits (0-9, *, # and +) only	Yes
		1 = alphabet set	Yes
	bit 2:	0 = SMS default alphabet	Yes
		1 = UCS2 alphabet	Yes
	bit 3:	0 = ME may echo user input on the display	Yes
		1 = user input not to be revealed in any way (see note)	Yes
	bit 4:	0 = user input to be in unpacked format	Yes
		1 = user input to be in SMS packed format	Yes
	bit 8:	0 = no help information available	Yes
		1 = help information available	Yes
LAUNCH BROWSER			Yes
MORE TIME			Yes
PLAY TONE			Yes
POLLING OFF			Yes
POLL INTERVAL			Yes
PROVIDE LOCAL INFORMATION		'00' = Location Information (MCC, MNC, LAC and Cell Identity)	Yes
		'01' = IMEI of the ME	Yes
		'02' = Network Measurement results	Yes
		'03' = Date, time and time zone (DTTinPLI)	Yes

Service	Mode		Support
	'04' - Language setting		Yes
	'05' - Timing setting		Yes
REFRESH	General: The reset option requests the user to wait while the phone restarts		Yes
	'00' =SIM Initialization and Full File Change Notification		Yes
	'01' = File Change Notification		Yes
	'02' = SIM Initialization and File Change Notification		Yes
	'03' = SIM Initialization		Yes
	'04' = SIM Reset		Yes
SELECT ITEM			Yes
SEND DTMF			Yes
SEND SHORT MESSAGE	bit 1:	0 = packing not required 1 = SMS packing by the ME required	Yes Yes
SEND SS			Yes
SEND USSD			Yes
SET UP CALL	General: Capability configuration Set-up speech call CallParty Subaddress DTMF support		Yes No Yes
	'00' = set up call, but only if not currently busy on another call		Yes
	'01' = set up call, but only if not currently busy on another call, with re-dial		Yes
	'02' = set up call, putting all other calls (if any) on hold		Yes
	'03' = set up call, putting all other calls (if any) on hold, with re-dial		Yes
	'04' = set up call, disconnecting all other calls (if any)		Yes
	'05' = set up call, disconnecting all other calls (if any), with re-dial		Yes
SET UP EVENT LIST	'00' = MT call		Yes
	'01' = Call connected		Yes
	'02' = Call disconnected		Yes
	'03' = Location status		Yes

Service	Mode	Support
	'04' = User activity	Yes
	'05' = Idle screen available	Yes
	'06' = Card reader status	Not Applicable
	'07' = Language selection	Yes
	'08' = Browser termination	Yes
	'09' = Data available	No
	'OA' = Channel status	No
SET UP IDLE MODE TEXT		Yes, 1 row of text is supported
SET UP MENU		Yes
TIMER MANAGEMENT		Yes
OPEN CHANNEL		No
CLOSE CHANNEL		No
RECEIVE DATA		No
SEND DATA		No
GET CHANNEL STATUS		No

User Interaction with SIM AT

Display text

Text of up to 240 characters (120 UCS coded) is supported.

Text clearing times are 5-20 seconds and a 60-second time-out limit for the user to clear the text. 'Key' responses:

- 'Long Back' – Proactive session terminated by user.
- 'Back' – Backward move in proactive session.

Any other key clears the display if the command is performed successfully.

Get inkey

Prompt for a one-character input. Pressing 'Ok' without entering a character gives warning message "Minimum 1 character". 'Key' responses:

- 'C' clears current character.
- 'Long Back' terminates the proactive session.
- 'Back' – Backward move in proactive session.
- 'OK' – Command performed successfully.

Get input

Prompt for character input. The phone will refuse to accept further input when maximum response length is exceeded. UI Maximum Response lengths:

- Digits Only – 160 characters.
- SMS default alphabet characters – 160 characters.
- Hidden Characters (digits only) – 20 characters.

'Key' responses:

- 'C' clears current character.
- 'Long Back' terminates the proactive session.
- 'Back' – Backward move in proactive session.
- 'OK' – Command performed successfully.

Select item

Scroll to highlight item for selection. 'Key' responses:

- Navigational key press down – Scroll down list.
- Navigational key press up – Scroll up list.
- Long 'Back' terminates proactive session.
- 'Back' – Backward move in proactive session.
- 'OK'– Command performed successfully.

Send short message

Default message "Sending message, please wait" can be replaced for the Alpha Identifier text, or suppressed completely if a null text is provided. Default responses are "MESSAGE FAILED" or "MESSAGE SENT". 'Key' responses:

- Long 'Back' or 'Back' ends the proactive session.

Set up call

If the ME is on a call when the command 'Set up Call', 'putting all other calls on hold' is sent, the user will see the text 'Setting up a call current call will be held'. If 'OK' is pressed the current call will be put on hold and the new call set up. If the ME is on a call when the command 'Set Up Call, disconnecting all other calls' is sent, the user will see the text 'Setting up a call current call will be disconnected'. If the 'OK' key is pressed the current call will be disconnected and the new call set up.

Set up menu

Incorporates a SIM Application Toolkit Menu Item into the ME's main menu structure.

If an Alpha Identifier is supplied in the Set Up Menu command, this is used as the SIM AT entry in the ME's main menu. If no alpha identifier is supplied and several items are found in the menu, a default title is used. If the SIM AT Menu Item is selected by pressing 'Select', all the items sent in the Set Up Menu command will be available for selection, in the same way as the Select Item command.

WALKMAN™ player

File types	Formats	Extensions
Audio file formats	AAC	
	MP3 (192 kbit/s for local playback)	.mp3
	MP4	.mp4
	M4A	.m4a
	3GP	.3gp
	(Audio encoded in AAC or AMR)	
	AMR	.amr
	WAV	.wav
	G-MIDI (level 1 with 40 voices polyphony)	.mid
Video file formats (including audio part)	MP4 (video: MPEG4, audio: AAC or AMR)	.mp4
	3GP (video: MPEG4 or H.263, audio: AAC or AMR)	.3gp
Streaming transport	RTSP according to 3GPP™	
Video coding	MPEG-4 Simple Visual Profile Level 0 H.263 Profile 0 Level 10	
Audio coding	AAC, AMR, MPEG layer 3	

File types	Formats	Extensions
Features	Automatic loop of songs in folder Automatic pause on telephone call.	
Ringtone file formats	MIDI (General MIDI 1, SP-MIDI) E-Melody I-Melody AMR-NB MP3 MP4 3GP M4A WAVE RHZ XMF	

1.3 Megapixel camera

Facts and figures	
Picture sizes (resolution)	1280 x 1024 640 x 480 160 x 120
Colour depth	24 bit (8 bit per RGB channel), 262k colours
Camera memory	Using phone memory, no memory dedicated to the camera only.
Digital zoom	4x zoom
Picture light	Yes
Night mode	Yes
Self-timer	Yes
Effects	Negative/ Solarize/ Sepia/ Black&White/ Off
White balance	Auto/ Incandescent/ Fluorescent/ Daylight/ Cloudy
Picture quality	Choose between Normal and Fine
Time and date	Add a time and date to a picture
Shoot mode	Normal/ Panorama/ Frames/ Burst
Video recorder	
Video sizes	176 x 144 128 x 96
Shoot mode	For picture message/ High quality video

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Pictures and animations

Formats	JPEG, BMP, GIF (including animated), PNG, WBMP and Scalable Vector Graphics (SVG)
Sharing via	IR, Bluetooth™, MMS, email or Cable.

Image decoders

Decoder	Details	Size	Colour depth	File format
GIF	87a/89a			
JPEG	ISO/IEC JPEG Baseline DCT Progressive DCT Non-differential Huffman coding Symbol 'SOF2'	VGA		JFIF v1.02 EXIF
BMP	The bitmap image format used by Windows®.	XRAM dependent, default is VGA	24 bit	
WBMP				
PNG				

Image encoders

Decoder	Details	Size	Colour depth	File format
GIF	89a			
JPEG	ISO/IEC JPEG Baseline DCT Non-differential Huffman coding Symbol 'SOF0'	VGA		JFIF v1.02
BMP	The bitmap image format used by Windows®.	XRAM dependent, default is VGA	24 bit	
WBMP				

Short Messaging Service

Feature	Support
SMS Centre Number	It is possible to pre-load the SMS Centre Number.
Pictures	It is possible to insert a picture or an icon into the text message. EMS compliant mobile handsets will be able to see the picture correctly.
Input methods	Predictive text input and multitap.
Reply to messages	It is possible to reply to received messages by SMS, MMS, phone call or email.
Copy, cut and paste words	Yes
Teaching of predictive words that are not in the predictive dictionary	Yes
Possibilities when creating a message:	
save a sent message in a "Sent items" folder	Yes
insert a line in the message	Yes
assign a validity period to the message	Yes
use pre-defined messages	Yes
Possibilities when receiving a message:	
reply to the sender	Yes (only to the sender, not to all or part of the message recipients).
forward the message	Yes
save the message on SIM	Yes
get delivery time and date	Yes
Possibilities of the previously sent message:	
delivery report of the message	Yes
forward the message	Yes
save the message on SIM	Yes
know the remaining capacity storage	No, but notification when 95% full
Possibilities of the previously received message:	
reply to the sender	Yes (only to the sender, not to all or part of the message recipients).
save the message in the Inbox	Yes
forward the message	Yes
know the remaining capacity storage	No, but notification when 95% full

Feature	Support
Supported ways for replying to a received SMS:	
via SMS	Yes
via MMS	Yes
via Email	Yes
via phone call (set up a call to the number contained in the message body)	Yes
via WAP call (go to the WAP address contained in the message body)	Yes
via USSD session	No
Possibility to offer the user the ability of sending an SMS to a list of recipients	Yes, using groups in Contacts or adding multiple separate recipients.
Possibility to write an email address as a recipient address	Yes, if SMS type = email.
SMS storage	On the SIM and in the phone.
Nokia Picture Messaging	Yes

Enhanced Messaging Service

Feature	Support
Level of compliance supported by the handset regarding the specifications described in release 99.	Enhanced Messaging Service (EMS) according to the standard 3GPP™ TS 23.040 v4.3.0, with the addition of the ODI feature from 3GPP™ TS 23.040 v5.0.0.
Number of messages that the handset is able to handle to generate a concatenated message	20
Capacity storage	200 and the space left on the SIM card.
Outgoing messages	It is possible to... • see how many short messages an EMS message consists of before sending it. • choose whether to send the message or not after writing it.
Incoming messages	• A signal is heard once all parts of the message have been received or when a timeout occurs. • It is possible to re-use the content of an EMS message. Sounds, pictures, and animations can be inserted in a new message, if the object is not protected using ODI.
Concatenated messages	A receipt is received in the handset when all parts of a concatenated message have been delivered.

Feature	Support
Insert objects	It is possible to add pictures, animations and sounds to an EMS message.
Sounds	Chimes high, chimes low, ding, tada, notify, drum, claps, fanfare, chords high, chords low.
I-melody	Yes, version 1.2.
Melodies	It is possible to... • send and receive melodies via EMS, if the melodies are not protected by copyright. • download melodies and commercial tunes from WAP/ WAP portals. • create melodies on WAP/WAP portals.
WBMP	Yes
Picture sizes	16x16 mm, 3 x32 mm, variable size in black and white.
Pictures	It is possible to... • edit pictures by using the phone keypad. • send and receive pictures via EMS, if the pictures are not protected by copyright. • create pictures on WAP/WAP portals. • download pictures from WAP/WAP portals. • receive pictures in enhanced messages originated by service providers.
Animations	The handset supports the following animations: Angry, Crying, Flirty, Happy, Kiss, Sad, Tongue, Wow, Confused, Devil, Glasses, Indifferent, Laughter, Sceptical and Wink. Plus the other nine animations defined in 3GPP™ TS 23.040 v4.3.0. It is possible to... • send and receive animations.
TP-PID field value given by the handset before sending an EMS message	0x00

Multimedia Messaging Service

Feature	Support
MMS/CSD parameters and MMS/GPRS parameters placement	MMS is bound to a WAP profile. A WAP profile is bound to a Data Account. A Data Account contains either CSD parameters or GPRS parameters.
Possibility to pre-configure the MMS parameters in factory	• MMS/CSD: Yes • MMS/GPRS: Yes
Possibility to configure the MMS parameters by OTA provisioning	• MMS/CSD: Yes • MMS/GPRS: Yes

Feature	Support
Possibility for all the parameters from the parameters set to be OTA provisioned at the same time	• MMS/CSD: Yes • MMS/GPRS: Yes
Possibility for only one parameter from the parameters set to be OTA provisioned	• MMS/CSD: No • MMS/GPRS: No
OTA provisioning solution	OTA Settings Specification v7.1 © Ericsson and Nokia
Supplier indication of realized interoperability tests between its MMS User Agent and MMS Relay/Server from other suppliers	Yes
Support of a standard or a proprietary procedure for OTA provisioning of MMS parameters	Proprietary
Functionalities that the user is able to set during message composition:	• message subject • message priority • email recipient address • message Cc recipient(s) address(es) • delivery report request • read report request • MSISDN recipient address
From where can the user insert multimedia elements into multimedia messages:	• File Manager • directly from camera • Contacts • Calendar
Possibility for sent messages to be memorized into a folder in handset memory	Yes
Actions that the user can perform after message notification:	• Auto Download • Always Ask
Actions that the user can perform after message retrieval:	• reply to the sender of the message SMS/MMS • reply to the sender and to Cc people SMS/MMS • forward the message MMS • delete the message • save message into terminal • call the sender of a message
Multimedia codecs/formats supported for audio	AMR
Multimedia codecs/formats supported for video	MPG4, 3GPP™, SDP
Multimedia codecs/formats supported for image	JPEG, GIF87, GIF89A, PNG, SVG, WBMP, BMP
Supported formats for message presentation:	• message body + attachments (email presentation) • SMIL version as described in OMA MMS IOP document version 1.2

Feature	Support
Maximum message size that can be handled by the handset for message	Content Class and Creation mode are applied. Also maximum size is possible to customize.
MMS User Agent will report problems to user in case of:	• message not sent causes no user subscription to service, if included in ResponseText (please see WAP209) • message not sent causes required functionality not supported by MMS Relay/Server, if included in ResponseText (please see WAP209) • message not sent causes insufficient credit (in case of prepaid charging), if included in ResponseText (please see WAP209)

Bluetooth™ technical data

Feature	Support
Bluetooth capability statement	This phone is manufactured to meet Bluetooth Specification 2.0
Bluetooth profiles	Basic Imaging Profile Dial-up Networking Profile File Transfer Profile Generic Access Profile Generic Object Exchange Profile Handsfree Profile Headset Profile Human Interface Device (HID) Profile Object Push Profile Personal Area Network Profile Serial Port Profile Synchronization Profile SyncML OBEX binding
Connectable devices	All products supporting Bluetooth™ spec. 1.1, or higher, and at least one of the profiles above.
Coverage area	Varies due to radio performance on remote device and the occurrence of obstacles. Up to 10 metres (33 feet).
Transmission power	2mW (3 dBm)
Frequency band	2.4 GHz - the unlicensed ISM band.
Power consumption	GSM host processor excluded: • Standby, Bluetooth On mode: <0.9mA • Voice mode: 24 mA • Data mode average: 25mA
Data transmission rate	Up to 600 kbps asynchronous and up to 350 kbps synchronous from an application level.

SyncML technical data

Feature	Support for Sync ML
SyncML compliance	The handset is fully SyncML 1.1 compliant (it passed SyncML Conformance testing).
Basic data formats	Contacts: vCard 2.1, Calendar: vCalendar 1.0, vTasks v1.0, vTodo v1.0, Notes: text/plain
Possibility for operators to extend SyncML functionality.	No
Possibility to synchronize other handsets using SyncML.	No
Transport method for SyncML messages.	HTTP, WSP (i.e. using a WAP connection), OBEX (IR, USB, Bluetooth)
Synchronization application placement.	Inside the handset.
Possibility for the user to configure login parameters (e.g. username and password) to access the remote database.	Yes
Configuration parameters that can be entered/modified by the user.	Server URL, Server UserID, Server PWD, Paths to databases (Calendar, Contacts, Tasks and Notes) UserID and PWD for Databases, Databases to be synchronized (on/off), WAP Account, Synchronization interval and Remote initiation. Can be provisioned with Ericsson Nokia OTA Settings Specification v7.1 and OMA Client provisioning v1.1.
Mechanisms used by the handset to capture changes made by the end user (i.e. how does the SyncML client in the handset know which changes were made to the address book).	It uses a change log where it marks the contact as updated.
Ability to deal with multiple servers.	Yes
Ability to perform conflict resolution actions.	No

Web browser technical data

Feature	Support in the browser
Back to previous page	Yes
Bearer type GPRS	Yes
Bearer type GSM Data	Yes, HSCSD, ISDN and analog.
Bookmarks	Yes, with folders and sorting supported.

Feature	Support in the browser
Bookmark Export/Import	Yes, can be sent and received using vBookmark format via Infrared, Bluetooth™, SMS, MMS and email.
Cache	Yes (size 300 kB).
Character sets *	UTF-8 (Default), UTF-16, USASCII, Latin1, UCS2. *) When creating WML applications, it is recommended to always save the page contents as UTF-8, and that this is clearly indicated in the pages before publishing. This ensures that the contents of the application can be viewed, regardless of character sets used in gateways and the phone. All characters are not supported in all phones. The software version depends on which market the phone is associated to. Also, please note that the phone may not support input on a WAP Service which uses certain characters (languages), even if those characters are supported for browsing in the phone.
Clear cache	Yes
Colour	Colour display
Home page	Yes, up to 10 different; one for each Internet profile.
HTML version for browser	XHTML, Mobile Profile 1.2
Hyperlinks in Text	Yes
Hyperlinks in Images	Yes
Image Animation	Yes
Image Formats	GIF (interlaced and non-interlaced) WBMP, no transparent layers, JPEG, PNG, BMP and SVG.
Network Settings	Up to 10 different settings available by selecting profile (Internet, Banking, Gateway etc.).
OTA Support	Yes
PPP Authentication	PAP, CHAP supported.
Reload page	Yes
Security	WTLS class 1-3 TLS version 1, Client authentication SSL version 3, Client authentication WIM on SIM ICC X.509 certificate support, WAP Profile WPKI OTA download of trusted certificates
Tables	Yes
User Agent Profiles	Yes, list of client characteristics - for example display size.
WAP/WML WAP *	WAP 2.0/WML 1.3
Internet profiles	Dynamic - up to 10 internet profiles, each with its own settings.

Operator technical data

Feature	Support for browser	
Web browser		
Version	2.0 baseline	
HTML	XHTML Mobile Profile	
Access NetFront 3.3	• HTML 4.01, XHTML 1.1 Including mobile profile • CSS 1 & CSS 2 (Partial) • ECMAScript 3rd edition (equal to Java script 1.5) • DOM level1, level2 and Dynamic HTML (Partial) • Graphic Formats: GIF, Animated GIF, JPEG, Progressive JPEG, PNG, MNG, BMP, WBMP	
PROVISIONING		
Provisioning types	**The Ericsson-Nokia OTA solution** Over the Air Settings Specification, v7.1 © Ericsson and Nokia	**OMA Client provisioning (v1.0)**
Total Parameter sets	10 (shared between the provisioning types). < or = 10 (total number of profiles).	
Parameter set list	name, homepage and homepage title (1st bookmark element), proxy/GW address, bookmarks (remaining bookmark elements), CSD phone number, CSD data rate, CSD dial type, GPRS APN, protocol authentication, GW authentication, secure connection on/off	name, homepage, proxy/GW address, CSD phone number, CSD data rate, CSD dial type, CSD response timer, GPRS APN, protocol authentication, GW authentication, GPRS QoS
Parameter sets include	CSD, GPRS (different sets).	
Factory pre-configuration	CSD, GPRS (possibility to lock a setting).	
OTA	CSD, GPRS configuration possible.	
Security mechanism		
Bearer	**The Ericsson-Nokia solution**	**OMA Client Provisioning**

Feature	Support for browser	
OTA via SMS	Operator verification through a code that can be included in the OTA configuration data. This code is shown to the user who can choose to install or not.	Uses security mechanism (SEC) methods according to WAP-183-ProvCont-20010724-a (see www.openmobilealliance.org).
Interface		

Bearer	**The Ericsson-Nokia solution**	**OMA Client Provisioning**
OTA via SMS	A question whether to install, with the code if available is asked. The user may have to choose to create a new profile or to replace an existing profile.	For NETWPIN the user is asked to accept to install received settings. For USERPIN, USERNETWPIN and USERPINMAC the user is subsequently asked to enter a PIN code that is a shared secret between the service provider and the user.
OTA via Cell Broadcast	-	The user is asked whether to accept the received settings or not.

Re-provisioning Interface	**The Ericsson-Nokia solution**	**OMA Client Provisioning**
OTA via SMS	Same interface as above.	If the settings previously installed were privileged or have higher priority, the settings might not be possible to install again unless the terminal is reset, otherwise as above.
OTA via Cell Broadcast		If the settings previously installed were privileged or have higher priority, the settings might not be possible to install again unless the terminal is reset, otherwise as above.
Carrier reset/provisioning	Yes, but not if the set is pre-configured in the factory and locked.	
SWIM	Not used for provisioning. The SWIM is only used for security, both WTLS connections and digital signatures.	
SWIM certificate	Both client and trusted certificates can be used for WTLS connections and digital signatures.	
Applicative provisioning		
Preferred bearer customization	Yes	
Email customization	Yes, but not through provisioning.	
Other applications/features	Yes (MMS, SyncML, Wireless Village).	
Technologies		

Feature	Support for browser
OMA Client provisioning	Yes, provisioning document v1.0.
Openwave OTA	No
Other	Yes. The Ericsson-Nokia solution. OTA Settings Specification v7.1.
Provisioning bearer	SMS, Cell Broadcast
Parameter sets available	< or = 10 (total number of Internet profiles)
Parameter sets for OTA modification	< or = 10 (total number of Internet profiles)
PUSH	
Content types	
Service Indication (SI)	Yes
Service Loading (SL)	Yes
Cache Operation (CO) content type	Yes
Session Initiation Application (SIA)	Yes
Man Machine Interface	
SI/content retrieval postponing	Yes
SI menu structure accessability	Messaging, Inbox
SL reception warning	The user can make a choice if a dialogue is wanted or not before loading the SL. Messaging/Settings/Push/Allow push msg/Always ask
SIA reception warning	Yes
Cache size limitations	The oldest push in the inbox will be discarded.
Number of push messages	Depending on the size of the push messages. Around 20 push messages with a size of 500 bytes can be stored.
Push de-activate	Yes (Messaging/Settings/Push/Allow push msg).
Dynamic push menu changes	No. There are no changes in the menus when activating/ deactivating push.
Security	
Mechanisms for push	None
Trust with PPG	Sending a SIA is the most trustful.
WSP push sessions	The White List is supported.
Denial of service/spoofing	
User agent profile	
UA profile content sent at beginning of WSP session	No

Feature	Support for browser
OA profile content size	
URL sent pointing to the UA profile at the beginning of WSP session	Yes
URL location	On the manufacturer Internet site.
WTAI	
WTA Make Call	Yes
WTA Send DTMF	Yes
WTA Add Phone Book	Yes
DOWNLOAD	
HTTP GET solution to download content	Yes
Other download content	Yes. No download limit when using HTTP protocol.
Download application/product memory check	Yes
Downloaded object solution	Yes. The user is informed where the content is saved and asked if it should be used at once or later.
UAP indication for downloading	Yes
Other features	Yes. Store, delete, forward, use, manage.
Object formats	Formats supported in the phone.
GRAPHICAL USER INTERFACE	
Man Machine Interface	
Selection keys	Yes
Separate/dedicated back or erase keys	Yes
Display backlight on when browsing	Yes
Predictive writing	Yes
"http://" string displayed automatically when entering URLs	Not displayed but the "http://" is added automatically to the URL.
Elements	
Pop-up menus	Yes, in XHTML.
Radio buttons	Yes, in XHTML.
Check boxes	Yes, in XHTML.
Buttons	Available as XHTML form controls.

Java™

Feature	Functionalities
Java 2, Micro Edition (J2ME™)	• CLDC 1.1 (JSR 139) • MIDP 2.0 (JSR 118) • Wireless Messaging API (JSR 120/205) • Mobile Media API (JSR 135) • Java™ Technology for the Wireless Industry (JSR 185) • Java™ API for Bluetooth™ (JSR 82) • PDA Optional Packages for J2ME™ Platform (JSR 75) • Web Services (JSR 172)
Java 3D	• Mascot Capsule Micro3D Version 3 • Mobile 3D Graphics API for J2ME™ (JSR 184)

Abbreviations

3GPP™

3rd Generation Partnership Project

AAC

Advanced Audio Coding

AMR

Adaptive Multi Rate.
Audio format for speech sounds.

API

Application Programming Interface

CS

Circuit Switched

CSD

Circuit Switched Data

DRM

Digital Rights Management; controlling copying and distribution of contents, with respect to intellectual property rights.

DTMF or Touch Tone

Dual Tone Multi-Frequency signal – codes sent as tone signals. Used for telephone banking, accessing an answering machine, etc.

e-GSM

Extended GSM. New frequencies specified by the European Radio Communications Committee (ERC) for GSM use when additional spectrum is needed (Network-dependent). It allows operators to transmit and receive just outside GSM's core 900 frequency band. This extension gives increased network capability.

EFR

Enhanced Full Rate, speech coding.

EMS

Enhanced Messaging Service. Allows the user to add simple pixel pictures and animations, sounds and melodies to a text message. The EMS 3GPP™ standard also includes text formatting.

ETSI

European Telecommunications Standards Institute.

FM

Frequency Modulation of the (radio) carrier wave.

FR

Full Rate, speech coding.

GIF

Graphics Interchange Format

GPRS

General Packet Radio Services

GSM

Global System for Mobile Communications. GSM is the world's most widely-used digital mobile phone system, now operating in over 100 countries around the world, particularly in Europe and Asia-Pacific.

The GSM system family includes GSM 850, GSM 900, GSM 1800 and GSM 1900. There are different phases of roll-out for the GSM system and GSM phones are either phase 1 or phase 2 compliant.

HR

Half Rate, speech coding.

HSCSD

High Speed Circuit Switched Data

HTML

HyperText Markup Language

HTTP

HyperText Transfer Protocol

IrDA

Infrared Data Association

JPEG

Joint photographer expert group

MIDI

Musical Instrument Digital Interface

ME

Mobile Equipment

MMI

Man-Machine Interface. See UI.

MP3

Short for "MPEG-1 layer 3", an effective audio coding scheme.

MPEG4/MPG4

MPEG-4 extends the earlier MPEG-1 and MPEG-2 algorithms with synthesis of speech and video, fractal compression, computer visualisation and artificial intelligence-based image processing techniques.

MT

Mobile Termination

ODI

Object Distribution Indicator

OMA

Open Mobile Alliance

OTA

Over-the Air Configuration. To provide settings for the phone by way of sending an SMS message over the network to the phone. This reduces the need for the user to configure the phone manually.

PDA

Personal Digital Assistant

PDP

Packet Data Protocol

PIM

Personal Information Management

PNG

Portable Network Graphic

RTSP

Real Time Streaming Protocol session control.

SI

Service Indication

SL

Service Loading.

SIM card

Subscriber Identity Module card – a card that must be inserted in any GSM-based mobile phone. It contains subscriber details, security information and memory for a personal directory of numbers. The card can be a small plug-in type or credit card-sized, but both types have the same functions. The phone uses the small plug-in card.

SMS

Short Messaging Service. Allows messages of up to 160 characters to be sent and received via the network operator's message centre to a mobile phone.

SP-MIDI

SP-MIDI stands for Scalable Polyphony MIDI.

SS

Supplementary Services

SSL

Secure Socket Layer

TLS

Transport Layer Security

UI

User interface

URL

Uniform Resource Locator.
The global address of documents and other resources on the World Wide Web.

USSD

Unstructured Supplementary Services Data

vCard

vCard automates the exchange of personal information typically found on a traditional business card, for use in applications such as Internet mail, voice mail, Web browsers, telephony applications, call centres, conferences, PIMs /PDAs, pagers, fax, office equipment, and smart cards. vCard is specified by IETF.

VGA

Video Graphics Array

WAP

Wireless Application Protocol. Handheld devices, low bandwidth, binary coded, a deck/card metaphor to specify a service. A card is typically a unit of interaction with the user, that is, either presentation of information or request for information from the user. A collection of cards is called a deck, which usually constitutes a service.

WAP Application

A collection of WML cards, with the new context attribute set in the entry card.

WAP service

A WML application residing on a web site.

WAV

Windows media audio.

WBMP

Wireless BitMap.
A graphic format optimized for mobile computing devices.

WML

Wireless Markup Language. A markup language used for authoring services, fulfilling the same purpose as HyperText Markup Language (HTML) does on the World Wide Web (WWW). In contrast to HTML, WML is designed to fit small handheld devices.

WMLScript

WMLScript can be used to enhance the functionality of a service, just as, for example, Java Script may be utilized in HTML. It makes it possible to add procedural logic and computational functions to WAP-based services.

WSP

Wireless Session Protocol

WTLS

Wireless Transport Layer Security

WWW

World Wide Web

XHTML

Extensible HyperText Markup Language

Related information

Documents

- Sony Ericsson User Guide

- AT Command Reference Manual

Links

- www.SonyEricsson.com
- www.SonyEricsson.com/support
- www.SonyEricsson.com/developer
- www.midi.org
- www.extendedsystems.com
- www.gsmworld.com
- www.bluetooth.com
- www.imc.org

- www.3gpp.org
- www.irda.org
- www.etsi.fr
- www.wapforum.org
- www.imc.org/pdi/
- www.syncml.org
- www.w3.org/TR/xhtml-basic/
- www.java.sun.com

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