

# White paper

November 2008

## T700

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Attractive outside. Intelligent inside



Sony Ericsson

# Preface

## Purpose of this document

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This White paper will be published in several revisions as the phone is developed. Therefore, some of the headings and tables in this document 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.

People who can benefit from this document include:

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

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# Sony Ericsson Developer World

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At [www.sonyericsson.com/developer](http://www.sonyericsson.com/developer), developers find the latest technical documentation and development tools such as phone White papers, Developers guidelines for different technologies, Getting started tutorials, SDKs (Software Development Kits) and tool plugins. The Web site also features news articles, moderated discussion forums offering free technical support and a Wiki community sharing expertise and code examples.

For more information about these professional services, go to the Sony Ericsson Developer World Web site.

## Document history

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### Change history

2008-11-28	Version 2	Second revision
2008-08-06	Version 1	First revision

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# Product overview

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T700 is an elegant and classic stick phone with powerful features and optimal performance. Despite the slim design, it offers a 3.2 megapixel camera with photo light as well as video recording and video playback. The generous and bright display offers a great viewing experience of high quality pictures, and the large navigation keys make it easy to navigate the menus. The built-in stereo speakers also offer a great music experience. T700 comes in a wide range of colours.

Features include:

- Playful illuminations with flash themes
- FM radio with RDS and track identification
- Photo fix to improve an under-exposed picture immediately
- 3.2 megapixel camera with fixed focus
- A memory card reader for Memory Stick Micro™ (M2™) memory cards
- 512 MB M2™ provided in the kit
- The ability to share images using mobile blogging
- Video blogging
- Web browser supporting HTML
- Magnetic mouse pointer for Web browsing
- PictBridge™ for printing pictures
- 3G/HSDPA/EDGE technology for voice and video telephony
- Slide shows with music, transitions and more
- 3D gaming
- Web feeds
- A stereo headset and USB cable provided in the kit

# Key features

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## **Stereo widening**

The Stereo widening effect improves the sound experience when listening to music through a stereo Bluetooth™ headset, external stereo speakers or stereo portable handsfree headsets.

## **TrackID™**

TrackID™ can identify a track playing on the built-in radio, or a track playing in the room. The phone samples a few seconds of the song, then connects to an online database, which identifies the song and returns title, artist and album information.

## **3.2 Megapixel camera**

The camera has 3.2-megapixels and includes 2.5x digital zoom with fixed focus, photo light and auto rotate. Photo fix lets you improve the quality of your photos while the vertical user interface allows for easier camera handling. The main camera captures video clips with 4x digital zoom, and stores them in the phone or on a memory card. A picture or video clip can be shared as a picture message or email message, or using any available transfer method, such as Bluetooth™. The phone supports Quarter Common Intermediate Format (QCIF) video recording.

## **2.0-inch colour screen**

The large 2.0-inch (240x320 pixels) full graphic QVGA 262k colour screen enhances viewing, facilitating high quality multimedia and entertainment.

## **Video camera**

The camera captures a video recording and saves it in the phone. A red light appears to indicate that the camera is recording. A video clip can be shared via a MMS message or email with friends and family, and can also be shared using any available transfer method, such as Bluetooth™ wireless technology. The phone supports QVGA size video recording.

## **Web feeds**

A RSS (Really Simple Syndication) reader is used in combination with the Internet browser. When browsing, the phone can receive feeds of frequently updated content, such as news headlines or podcasts.

## **Web feeds ticker**

News headlines subscribed through Web feeds can be seen with the phone in standby mode.

## **HTML Web browser support**

Browse the Internet and look at Web sites in a different way with Access NetFront™ 3.4, an HTML browser which supports a complete Web standard suite.

## **Landscape browsing support**

View Web pages in landscape mode.

## **Mobile blogging**

The user can send pictures and video clips using the Internet to show on a personal blog, allowing people easy access to view and comment on pictures and video clips.

## **Photo tags**

The user can tag photos to find them faster, when navigating through thousands of images. Photos and video clips are shown in an intuitive timeline view, and slide shows can play with music and moods.

The user can navigate through captured photos and thousands of downsized photos transferred from a computer. View captured photos and video clips in an intuitive timeline view. Play animated slide shows with music and different moods. Tag photos to find them faster.

## **Geo tagging**

When a photo is taken it is tagged with cell-id information, meaning the approximate location where the photo was taken can be shown on a map.

## **PictBridge™ – Camera printing**

Print pictures from the phone using the USB cable directly to a printer, without a computer or photo editing software.

## **Push email**

The phone supports push email, a method of pushing new email messages automatically to mobile devices. Push email increases mobile email usability, with email being delivered in the background (similar to SMS or MMS).

## **Media**

A unique Sony Ericsson media experience. All media can be accessed directly from the desktop. Navigate seamlessly through captured photos and video clips, pictures, photo tags, music, videos and more.

## **Music player**

Located in Media. Play downloaded music and audio. The navigation system enables the user to, for example, browse through favourite tracks and create playlists.

## **Video player**

Located in Media. Play saved and downloaded video clips.

## **Sony Ericsson Media Manager**

Music, photo and video clip management software is available on the CD included in the kit. Transfer music, video clips and photos to and from the phone. Prepare files for transfer even when the phone is not connected to a computer. Search for and select music on a computer or audio CDs and convert the existing audio tracks to formats suitable for mobile use, before transferring them to the phone. The user can also subscribe to feeds such as video and music podcasts.

## **PlayNow™ 5.0**

A unique and easy-to-use direct link for downloading ringtones, full track music, games, themes and wallpapers. PlayNow™ offers best-selling content for mobile download. Users can preview content before purchase. Users have access to a catalogue of millions of tracks from both international and local labels.

By combining the PlayNow™ catalogue with unique applications like TrackID™, users are presented with a My TrackID™ list and TrackID™ Charts by country, created by TrackID™ users around the world. These charts are based on what songs other users are searching for and want to hear the most. PlayNow™ supports MP3 and Windows Media DRM file formats for music.

## **Gaming**

Gaming is a very popular feature in mobile phones. At purchase there are premium quality 3D games preloaded. With Java™, users can download new games and skill levels to extend their entertainment experience.

## **Java™**

Users can download additional information and entertainment applications. This gives users a chance to personalize the functions and features in their phones, and developers the opportunity to create new applications. Java Platform 8.3.0 (JP-8.3.0) supports a range of new Java programming. These features include instant messaging (chat) and presence-based functionality, handling banking, payment transactions, user identification and authentication, through secure encryption technology.

## **Bluetooth™ wireless technology**

Several devices (simultaneous Bluetooth™ connections) can be connected up to 10 metres (33 feet) away using Bluetooth wireless technology. For example, when the phone rings, it can be answered with a Bluetooth headset, and images can be sent to another phone at the same time. Several mobile phones can take part in a Bluetooth-supported game. The phone and a computer can exchange data such as images, video clips, vCards, music files and calendar data. Bluetooth version 2.0 and Enhanced Data Rate (EDR) is supported.

## **Bluetooth™ audio streaming**

Listen to audio in compatible devices. By connecting a Bluetooth Advanced Audio Distribution Profile (A2DP) compatible accessory, such as a stereo Bluetooth headset or a Bluetooth music receiver, the user can enjoy high quality stereo audio streaming wirelessly from the phone. Many A2DP accessories also support the Bluetooth Audio Video Remote Control Profile (AVRCP).

## **USB 2.0 mass storage**

When connecting the phone to a computer using the provided USB cable, the memory in the phone appears on the computer screen as a removable disk. The user can then quickly and easily drag and drop items such as images, documents, music and video clips between folders in the phone and the computer.

## **Media Transfer Protocol (MTP)**

With Media Transfer Protocol the user can transfer media files and synchronize playlists when the phone is connected to the computer using the USB cable. The user can use MTP in Media transfer mode or Phone mode. MTP is supported by Windows Media Player 11 and higher in Windows XP and Windows Vista™.

## **Personal Information Management (PIM)**

Stay up-to-date with everyday events by synchronizing phone contacts, calendar appointments, tasks and notes in the phone with similar programs in a computer. The user can connect the phone to their computer with the included USB cable or the built-in Bluetooth feature. The synchronization software is available from the CD or from [www.sonyericsson.com/support](http://www.sonyericsson.com/support). The user can then smart search their contacts and call list for phone numbers or names from standby.

### **Common Internet File System (CIFS)**

The Common Internet File System enables file transfer to and from the phone. The phone acts as a file server which allows the user to copy and move files between their PC and the server. The user can use this feature when connected using the USB cable or the Bluetooth connection.

# Images

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# Technologies in detail

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This chapter includes short descriptions of the technologies available in this product compared to other Sony Ericsson products.

# Functions and features

The following includes short descriptions of the technologies available in T700 compared to G502 and Z780i.

Feature	T700	G502	Z780i
<b>3D games</b>	Yes	Yes	Yes
<b>3G enabled</b>	Yes	Yes	Yes
<b>Activity menu (multi-tasking)</b> The user can easily handle missed calls, new text and picture messages, task reminders, shortcuts and get quick access to favourite Internet bookmarks	Yes, with enhanced functionality for background applications	Yes, with enhanced functionality for background applications	Yes, with enhanced functionality for background applications
<b>Alarm clock</b> Set up to five individual times for single or recurring weekly alarms	Yes	Yes	Yes
<b>Backlight</b> White backlight to illuminate the phone screen	Yes	Yes	Yes
<b>Battery</b>	BST-33 3.6 V, 950 mAh, Lithium Polymer	BST-33 3.6 V, 950 mAh, Lithium Polymer	BST-38 3.6 V, 950 mAh, Lithium Polymer
<b>Battery charging time</b> At least 90% charged within 2 hours. Fully charged within 2.5 hours	Yes	Yes	Yes
<b>Bluetooth™ audio streaming</b> Listen to audio in compatible devices	Yes	Yes	Yes
<b>Bluetooth™ audio video remote control</b> Control music player functions from a Bluetooth™ accessory and control the volume in the accessory from the phone	Yes	Yes	Yes
<b>Bluetooth™ PAN</b> Connect the phone to the Internet using Bluetooth™ technology	Yes	Yes	Yes

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>Bluetooth™ wireless technology</b>  Wireless connectivity between devices within a range of up to 10 metres (33 feet). Support for specification of the Bluetooth System, version 2.0 and EDR	Yes	Yes	Yes
<b>Business card exchange</b>  Exchange contact information	Yes	Yes	Yes
<b>Calculator</b>	Yes	Yes	Yes
<b>Calendar</b>  Calendar with day, week and month views and reminders	Yes	Yes	Yes
<b>Call list</b>  View calls made and received	Yes	Yes	Yes
<b>Camera</b>	3.2 megapixel	2.0 megapixel	2.0 megapixel
<b>Camera file browser</b>  Browse the picture folder without leaving the camera function	Yes	Yes	Yes
<b>Camera shortcut key</b>	Yes	Yes	No
<b>Chinese input method</b>  Text input methods based on Simplified or Traditional Chinese: Bopomofo, Pinyin or Stroke	Yes	Yes	No
<b>Clock</b>  On-screen clock that keeps the time even when the phone is off	Yes	Yes	Yes
<b>Co-branding area</b>	22 x 7 mm	30 x 6 mm	TBD
<b>Code memo</b>  A safe place to save all PIN codes and other information. To access Code memo, only one PIN code is needed	Yes	Yes	Yes
<b>Colour</b>	Black on red Black on silver Shining silver	Premium Black Brilliant Hazel	Amethyst Silver Grand Onyx

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<p><b>Contacts</b></p> <p>Phonebook with fields for name, phone and fax numbers, instant messaging and presence information, email and Web site addresses, business title and company address, and personal address and birthday date</p>	Yes	Yes	Yes
<p><b>Conference calls</b></p> <p>Support for multiparty calling</p>	Yes	Yes	Yes
<p><b>Connector A1 (Fast port)</b></p>	Yes	Yes	Yes
<p><b>Content online</b></p> <p>Downloadable pictures, games, themes and ringtones</p>	Yes	Yes	Yes
<p><b>Copyright protection - DRM</b></p> <p>DRM (Digital Rights Management) features the rights and copy protection of downloaded content (audio, pictures, music tones, video clips and entertainment features such as games, Java applications and so on)</p>	Yes, OMA DRM 1.0 and OMA DRM 2.0, Microsoft DRM Janus, Windows DRM 10	Yes, OMA DRM 1.0 and OMA DRM 2.0	Yes, OMA DRM 1.0 and OMA DRM 2.0, Microsoft DRM Janus, Microsoft DRM Camese
<p><b>Device Management (DM)</b></p> <p>DM utilizes GPRS as a bearer (basic network connectivity needs to be in place) of the provisioning data and allows the operator to access the phone, check and send out different settings such as network connectivity (GPRS), email, MMS, Internet settings and Java™. Device Management is achieved by supporting OMA Client Provisioning 1.1 (CP) and OMA Device Management (DM) 1.2</p>	Yes	Yes	Yes
<p><b>Email</b></p> <p>Email client with inbox, outbox, compose, send and other functions</p>	Yes	Yes	Yes
<p><b>EMS (Enhanced messaging)</b></p> <p>Text messaging (SMS) with support for pictures and sounds</p> <p>Note: EMS is not available for operators who use unified messaging</p>	Yes	Yes	Yes

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>Exterior description</b>			
Size mm (length x width x thickness)	103.8 x 47.5 x 9.9	103 x 46 x 13.3	95 x 47.5 x 17
<b>Fast port</b>	Yes	Yes	Yes
A system connector which enables faster data transfer between the phone and a computer			
<b>File manager</b>	Yes, with enhanced functionality for camera content	Yes, with enhanced functionality for camera content	Yes, with enhanced functionality for camera content
Folder structure storage to help save and organize pictures, sounds and other phone content			
<b>Flash themes</b>	Yes	Yes	No
<b>Flight mode</b>	Yes	Yes	Yes
All phone radio transceivers are inactivated. Flight mode starts the phone so that only certain functions are available, such as the calendar, the music player or a game. The phone may then be used in some areas, such as aeroplanes or hospitals, where full mobile phone functionality is not allowed			
Bluetooth™ function availability in Flight mode	Yes	Yes	Yes
<b>FM radio with RDS</b>	Yes	Yes	Yes
FM radio with presets, auto and manual search			
<b>FM radio with TrackID™</b>	Yes	Yes	Yes
Identify tracks playing on the radio			
<b>Form factor</b>	Stick	Stick	Clamshell
<b>Games download</b>	Yes,	Yes	Yes
Add more games to the phone			
<b>Games embedded</b>	Yes	Yes	Yes
<b>Geo tagging</b>	Yes, geo data from cell-id	No	Yes, geo data from GPS
Photos are tagged with geo data and can be shown on a map			

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>Google Maps™ for mobile</b> Preloaded application with support for cell-id and GPS. View satellite imagery, find locations and calculate routes	Yes, no built-in GPS, but support for GPS Enabler HGE-100	Yes, no built-in GPS, but support for GPS Enabler HGE-100	Yes, built-in GPS
<b>GPRS</b> General Packet Radio Services – a communications standard, enabling packet data transfer of 21.4 Kbps per time slot. Multislot class 10 supported (4 timeslots max for RX, 2 timeslots max for TX, timeslot allocation limited to 5 for both RX, TX)	Yes	Yes	Yes
<b>GPS</b> Support for GPS Enabler HGE-100	Yes	Yes	Yes (built-in)
<b>High Speed Data</b> HSDPA – High Speed Downlink Packet Access	Yes	Yes	Yes
<b>Icon Desktop 12</b> A graphic icon desktop with 12 interactive icons	Yes	Yes	Yes
<b>Image formats</b>			
<b>5 MP</b> (2592×1944 pixels)	No	No	No
<b>3 MP</b> (2048×1536 pixels)	Yes	No	No
<b>2 MP</b> (1632×1224 pixels)	Yes	Yes	Yes
<b>1 MP</b> (1280×960 pixels)	Yes	Yes	Yes
<b>VGA</b> (640×480 pixels)	Yes	Yes	Yes
<b>Wireless Village/My friends</b> Chat – several people can take part in a mobile messaging session.	Yes	Yes	Yes
<b>Internet blogging</b> Share over the Internet on a personal Web site. The size of uploaded pictures is dependent on customizations	Yes	Yes	Yes

Feature	T700	G502	Z780i
<b>Internet browser</b>	Yes	Yes	Yes
Full HTML support, ECMA script, DOM level 1&2, CSS 1&2 and so on.	Yes	Yes	Yes
Support for AJAX.	Yes		Yes
Progressive download of video files.	Yes	Yes	Yes
Direct access to Bookmarks, Search Internet and Enter address	Yes	Yes	Yes
<b>Internet security</b>	Yes, SSL/TLS	Yes, SSL/TLS	Yes, SSL/TLS
Encrypts confidential information such as credit card and bank account numbers. Necessary for mobile banking and shopping			
<b>Java™</b>	Java 2, Micro Edition (J2ME™), Java 3D™	Java 2, Micro Edition (J2ME™), Java 3D™	Java 2, Micro Edition (J2ME™), Java 3D™
Support for J2ME™ technology			
Java Platform 8.3.0 (JP-8.3.0) Support for new Java programming features including banking, payment transactions, user identification and authentication through secure encryption technology	Yes	Yes	Yes
<b>Keys – front (navigation and more)</b>	4+1 navigation key	4+1 navigation key	4+1 navigation key
	2 (left + right) selection keys	2 (left + right) selection keys	2 (left + right) selection keys
	C (Clear) key	C (Clear) key and On/off key	C (Clear) key
	Activity menu key	Activity menu key	Activity menu key
	Red end key and On/off key	End key	Red end key
	Green call key	Call key	Green call key
		Multimedia (play/stop) on navigation key centre	Multimedia (play/stop) on navigation key centre
<b>Keys – keypad</b>	12 alphanumeric	12 alphanumeric	12 alphanumeric

Feature	T700	G502	Z780i
<b>External keys – side and top</b>	Volume/camera zoom key  Camera key	Volume/camera zoom key  Camera key	Volume key  Camera key  On/off key on top
<b>Lunar calendar</b>  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 and is available in Chinese phone variants	Yes	Yes	Yes
<b>Media</b>  A centre for all media content with horizontal and vertical navigation. You can view photos, listen to music and watch video clips	Yes	Yes	Yes
<b>Media player</b>	See Music player and Video player	See Music player and Video player	See Music player and Video player
<b>Mega Bass™</b>  An audio feature which enhances bass frequencies for better overall music experience	Yes	Yes	Yes
<b>Memory (built-in)</b>  Phone memory that is free to use (depending on software configuration and file content). Many applications share phone memory. The maximum amount of storage available for any one application, such as calendar entries, is affected by the amount of memory used by other applications, such as messaging, music, pictures and so on	Up to 25 MB	Up to 32 MB	Up to 64 MB
<b>Memory card reader (slot)</b>  A slot for inserting a micro peripheral storage device.  Memory card support: Memory Stick Micro™ (M2™)	Yes  Yes	Yes  Yes	Yes  No
<b>Menu shortcuts</b>  A function giving the ability to dedicate shortcuts to the most-used phone functions	Yes	Yes	Yes

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>MMS (Multimedia messaging)</b> Picture messaging with text and sound	Yes	Yes	Yes
<b>MMS video</b> Support in the phone for sending video clips using MMS	Yes	Yes	Yes
<b>Modem</b> Circuit Switched/Packet Switched Internet dial-up support	Yes	Yes	Yes
<b>MusicDJ™</b> 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	Yes	Yes	Yes
<b>Music listening time</b>	Up to 20 hours	Up to 25 hours	Up to 8 hours
<b>Music player 3.0</b> A digital music player with horizontal navigation. Play music the user has transferred or downloaded. The list structure system enables the user to, for example, organize favourite songs into groups and create simple playlists	Yes	Yes	Yes
<b>Music tones</b> Music tones, also called master tones, are DRM protected music by original artists. Various digital audio formats are supported	Yes	Yes	Yes
<b>My friends</b> See Instant messaging	Yes	Yes	Yes
<b>My Timezone</b> Select the time zone manually by country or city.	Yes	Yes	No

Feature	T700	G502	Z780i
<b>Networks</b>			
3G	UMTS 2100	UMTS 2100	UMTS 850, 1900, 2100 / UMTS 1700, 2100
HSDPA	HSDPA 2100	HSDPA 2100	Yes
GSM/GPRS/EDGE	GSM/GPRS 850/900/1800/1900 MHz, E-GSM 900  EDGE 850/900/1800/1900 MHz	GSM (R99) 900, 1800, 1900, E-GSM 900	GSM (R99) 850, 900, 1800, 1900, E-GSM 900
<b>Notes</b>	Yes	Yes	Yes
Make notes of things to remember. A note can be shown in standby.			
<b>OMA Data Synchronization (SyncML)</b>	Yes	Yes	Yes
A device communications standard that enables remote synchronization between devices	OMA DS 1.2 OMA DS 1.1.2 SyncML 1.2 SyncML 1.1	SyncML 1.2 SyncML 1.1	OMA DS 1.2 OMA DS 1.1.2
<b>OTA (Over The Air) settings</b>	Yes	Yes	Yes
Internet, email and other settings can be sent over the air to the phone	OMA CP 1.1		OMA CP 1.1
<b>PhotoDJ™</b>	Yes	Yes	Yes
A drawing tool in the phone where existing pictures can be altered			
<b>Photo fix</b>	Yes	Yes	Yes
Improves an under-exposed picture by calculating and adjusting the light balance			
<b>Photo light (built-in)</b>	Yes	No	No
When lighting conditions are poor, activate the photo light			
<b>PictBridge™</b>	Yes	Yes	Yes
Transfer images from the phone using the USB cable directly to a printer, without a computer or photo editing software			

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>Picture gallery</b> A thumbnail image gallery where several pictures can be viewed at the same time	Yes Use photo tags	Yes Use photo tags	Yes Use photo tags
<b>Picture phonebook</b> Add a picture to a saved contact. The picture appears on the screen when the saved contact calls	Yes	Yes	Yes
<b>PlayNow™ (direct link)</b> Listen to music before purchasing and downloading it to the phone	Yes	Yes	Yes
<b>PlayNow™ Games (direct link)</b> Download and purchase games straight from the phone desktop	Yes	Yes	Yes
<b>Polyphonic voices</b>	72	64	72
<b>Powersave</b> Default setting for display light	Yes	No	Yes
<b>Predictive text input</b>	Yes	Yes	No
<b>Push email</b>	Yes	Yes	Yes
<b>RSS reader</b>	See Web feeds	See Web feeds	See Web feeds
<b>Web feeds ticker</b> View news headers in standby	Yes	Yes	Yes
<b>Screen</b> Type: Size: Resolution: Technology: Colours displayed together: Backlight colour:	Full graphical 2.0 inches 320x240 pixels TFT, QVGA 262,000 (18 bit) White	Full graphical 2.0 inches 320x240 pixels TFT, QVGA 262,144 (18 bit) White	Full graphical 2.2 inches 320x240 pixels TFT, QVGA 262,000 (18 bit) White
<b>Screen saver</b>	Yes	Yes	Yes
<b>Self-portrait mirror</b>	Yes	No	No

Feature	T700	G502	Z780i
<p><b>Settings download (Ready to run)</b></p> <p>Set up functions that require a connection to the Internet such as the Internet browser and picture messaging. This function runs in the setup wizard or can also be chosen in the Settings menu. This function is not included in the setup wizard for customized phones</p>	Yes	Yes	Yes
<p><b>SIM card lock</b></p> <p>The ability to protect the SIM card with a four-digit to eight-digit PIN code</p>	Yes	Yes	Yes
<p><b>Smart search</b></p> <p>Search for numbers and contacts from standby by using the number keys. Call or send messages from a filtered list of search results</p>	Yes	Yes	Yes
<p><b>SMS long (Text messaging)</b></p> <p>Concatenated SMS text messaging</p>	Yes	Yes	Yes
<p><b>Sleep mode</b></p> <p>A power-saving feature that minimizes the battery power consumed when the phone is in standby</p>	Yes	Yes	Yes
<p><b>Sony Ericsson Remote Update service</b></p> <p>Download the latest operator-approved software over the air</p>	Yes	Yes	Yes
<p><b>Sony Ericsson Update service</b></p> <p>Connect the phone to an Internet-connected computer and download the latest operator-approved software from <a href="http://www.sonyericsson.com/support">www.sonyericsson.com/support</a></p>	Yes	Yes	Yes
<p><b>Sound recorder</b></p> <p>A recording device in the phone that can record voice messages or other sounds</p>	Yes	Yes	Yes
<p><b>Speakerphone</b></p>	Yes	Yes	Yes
<p><b>Speed dialling</b></p> <p>Allocate contacts in the phone book to specific keys on the keypad</p>	Yes	Yes	Yes

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>Standby time</b>	Up to:	Up to:	Up to:
GSM	370 hours	330 hours	350 hours
UMTS	360 hours	330 hours	350 hours
<b>Status view</b>	Yes	Yes	Yes
The screen shows the network being used, the time and other status information			
<b>Stereo speakers</b>	Yes	No	No
<b>Stopwatch</b>	Yes	Yes	Yes
<b>SVG Tiny</b>	Yes	Yes	Yes
Scalable Vector Graphics for impressive animated wallpapers, menus and other graphic elements			
<b>Synchronization PC</b>	Yes	Yes	Yes
Synchronize and share phone content with a computer			
<b>Talk time</b>	Up to:	Up to:	Up to:
GSM	9.5 hours	9 hours	9.5 hours
UMTS	4.5 hours	4.5 hours	4.5 hours
<b>Tasks</b>	Yes	Yes	Yes
Keeps track of important things to do			
<b>Themes</b>	Yes	Yes	Yes
Phone menu texts and background graphics			
<b>Timer</b>	Yes	Yes	Yes
Set the phone to alert after a specific time			
<b>TrackID™</b>			
Music recognition	Yes	Yes	Yes
Text search for artist, album, track, lyrics and so on	Yes	No	Yes
<b>USB connectivity support</b>	Yes	Yes	Yes
Connect the phone to a computer using the USB cable provided	USB 2.0 Hi-Speed	USB 2.0 Full-Speed	USB 2.0 Full-Speed

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>USB ethernet emulation</b>  Connect to the Internet using the phone or a computer	Yes	Yes	Yes
<b>Vibrating alert</b>  The phone vibrates when a call comes in	Yes	Yes	Yes
<b>Video blogging</b>  Share video clips over the Internet on a personal Web site. The size of uploaded video clips is dependent on customizations	Yes	Yes	Yes
<b>Video calling</b>	Yes	No	No
<b>VideoDJ™</b>  Create video sequences by combining different clips and adding music and images	Yes	Yes	Yes
<b>Video player</b>  Play video clips that have been transferred or downloaded. Transfer video clips to another phone or a computer using an available transfer method	Yes	Yes	Yes
<b>Video streaming</b>  Real-time streaming of video clips, for example, live cam. Media can also be downloaded and saved in the phone memory	Yes	Yes	Yes
<b>Viewfinder</b>  When using the camera, a picture can be previewed before it is captured	Yes	Yes	Yes
<b>Voice control</b>  Voice answer, reject and call. Assign voice commands to items in the phonebook. When a call is made, the voice command can be used instead of pressing keys	Yes	Yes	Yes
<b>Voicemail</b>  Support for the voicemail operator service including automatic answering and message recording	Yes	Yes	Yes

<b>Feature</b>	<b>T700</b>	<b>G502</b>	<b>Z780i</b>
<b>WAP 2.0 XHTML™</b>  A mobile Internet standard to access specially designed Internet sites. WAP 2.0 supports colour and interactive lists	Yes	Yes	Yes
<b>Web feeds</b>  Frequently updated content delivered as feeds using a Web site, for example, news headlines in the browser	Yes	Yes	Yes
<b>Weight</b>	78 g including battery	83.5 g including battery	96 g including battery

# Facts and figures

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This chapter offers 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

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## General technical data

System	Quad-band GSM Release 99 recommendations, GSM 850, GSM 900, e-GSM 900, GSM 1800, GSM 1900. Single band UMTS/HSDPA Release 5 recommendations, UMTS/HSDPA 2100 supported
Speech coding	HR, FR, EFR, AMR, supported where available, for high speech quality
GSM SIM/ UMTS USIM or ISIM card	GSM SIM-GSM 11.11, UMTS SIM-3GPP™ TS 31.101. Small plug-in card, 1.8 V and 3 V
Memory	Up to 25 MB internal (depending on software configuration/file content) plus extra slot for supported memory cards
Data transfer speeds	Up to 3.6 Mbps (downlink, HSDPA, cat 6) Up to 384 Kbps (uplink, WCDMA R99)

## Performance and technical characteristics

Property	WCDMA 2100
Frequency range (MHz)	TX:1920-1980 RX: 2110-2170
Channel spacing	5 MHz with 200 kHz channel rasters
Number of channels	277
Modulation	QPSK (WCDMA R99) QPSK/16 QAM (HSDPA)
TTI	10 ms (WCDMA R99) 2 ms (HSDPA)
TX phase accuracy	Error Vector Magnitude: <17.5%
Duplex spacing	190 MHz
Frequency stability	+/- 0.1 ppm
Voltage operation (nominal)	3.6 V
Transmitter RF power output	24 dBm Class 3 (0.25 W peak)
Transmitter output impedance	50 ohm
Transmitter spurious emission (according to specification)	< -36 dBm up to 1 GHz < -30 dBm over 1 GHz (according to 3GPP™ spec.)

<b>Property</b>	<b>WCDMA 2100</b>
Receiver RF sensitivity	Better than -106.7 dBm @ 12.2 kbps CS voice
Receiver RX bit error rate	< 0.1%

<b>Property</b>	<b>GSM 850</b>	<b>GSM 900/ E-GSM 900</b>
Frequency range (MHz)	TX: 824-849 RX: 869-894	TX: 880-915 RX: 925-960
Channel spacing	200 kHz	200 kHz
Number of channels	124 Carriers *8 (TDMA)	174 Carriers *8 (TDMA)
Modulation	GMSK	GMSK
TX Phase accuracy	< 5° RMS phase error (burst)	< 5° RMS Phase error (burst)
Duplex spacing	45 MHz	45 MHz
Frequency stability	+/- 0.1 ppm	+/- 0.1 ppm
Voltage operation (nominal)	3.6 V	3.6 V
Transmitter RF power output	33 dBm Class 4 (2 W peak)	33 dBm Class 4 (2 W peak)
Transmitter output impedance	50 ohm	50 ohm
Transmitter spurious emission (according to specification)	< -36 dBm up to 1 GHz < -30 dBm over 1 GHz	< -36 dBm up to 1 GHz < -30 dBm over 1 GHz
Receiver RF sensitivity	Better than -104 dBm	Better than -102 dBm
Receiver RX bit error rate	< 2.4%	< 2.4%

<b>Property</b>	<b>GSM 1800</b>	<b>GSM 1900</b>
Frequency range (MHz)	TX: 1710-1785 RX: 1805-1880	TX:1850-1910 RX:1930-1990
Channel spacing	200 kHz	200 kHz
Number of channels	374 Carriers *8 (TDMA)	299 Carriers *8 (TDMA)
Modulation	GMSK	GMSK
TX phase accuracy	< 5° RMS Phase error (burst)	< 5° RMS Phase error (burst)
Duplex spacing	95 MHz	80 MHz
Frequency stability	+/- 0.1 ppm	+/- 0.1 ppm
Voltage operation (nominal)	3.6 V	3.6 V
Transmitter RF power output	30 dBm Class 1 (1 W peak)	30 dBm Class 1 (1 W peak)

Property	GSM 1800	GSM 1900
Transmitter output impedance	50 ohm	50 ohm
Transmitter spurious emission (according to specification)	< -30 dBm	< -30 dBm
Receiver RF sensitivity	Better than -102 dBm	Better than -102 dBm
Receiver RX bit error rate	< 2.4%	< 2.4%

## USSD technical data

Feature	Support
USSD support	GSM Phase 1/2 (cross-phase compatibility)
Mode support	<ul style="list-style-type: none"> <li>• UI-mode supported</li> <li>• SAT initiated USSD supported</li> </ul>
UI-mode details	<ul style="list-style-type: none"> <li>• Ability to scroll the text up and down in USSD messages</li> <li>• Ability to highlight embedded numbers and take actions accordingly</li> </ul>

## GPRS technical data

Property	Support
Compatible GPRS/EDGE and SMG specifications	Release 99 according to ETSI specification
Data rates GPRS (per time slot)	Coding scheme CS-1: 9 Kbps CS-2:13.4 Kbps CS-3:15.6 Kbps CS-4:21.4 Kbps (network-dependent).
Data rates EDGE (per time slot)	Modulation & coding scheme (MCS) MCS-1 (GMSK): 8.0 Kbps MCS-2 (GMSK): 11.4 Kbps MCS-3 (GMSK): 14.8 Kbps MCS-4 (GMSK): 17.6 Kbps MCS-5 (8-PSK): 22.4 Kbps MCS-6 (8-PSK): 29.4 Kbps MCS-7 (8-PSK): 44.8 Kbps MCS-8 (8-PSK): 54.4 Kbps MCS-9 (8-PSK): 59.2 Kbps
Medium Access Modes	Dynamic allocation
Support of Packet Control Channels (PBCCH/PCCCH)	Yes
Network operation mode	NOM I, II, III

Property	Support
Support of GPRS/CS combined procedures	Yes
Network control mode	NC0 and NC2
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	GEA 1 and GEA 2
Support of compression algorithms	Yes, V42bis and IP header compression as defined in RFC 2507
Mode of operation	Class B and Class C modes of operation supported
R reference point	<ul style="list-style-type: none"> <li>Physical layer: support of RS232</li> <li>PPP is supported as L2 layer in the R reference point</li> <li>Authentication algorithms PAP, CHAP supported</li> </ul>
IP connectivity	<ul style="list-style-type: none"> <li>PDP type IP is supported</li> <li>IP termination in mobile or TE (laptop, PDA) is supported</li> </ul>
PDP context	<ul style="list-style-type: none"> <li>10 PDP context descriptions saved in the phone</li> <li>PDP context description is edited using application in the phone, AT-command or using OTA</li> <li>Simultaneous PDP contexts are supported, maximum 4</li> </ul>
SIM	GPRS aware, as well as non-GPRS aware, SIM cards are supported
AT commands	<p>Some of the supported commands:</p> <p>AT+CGDCONT - DEFINE PDP CONTEXT</p> <p>AT+CGEQREQ - Quality of Service Profile (REQUESTED)</p> <p>AT+CGEQMIN - Quality of Service Profile (Minimum Acceptable)</p> <p>AT+CGATT - PACKET DOMAIN SERVICE ATTACH OR DETACH</p> <p>AT+CGACT - PDP CONTEXT ACTIVATE OR DEACTIVATE</p> <p>AT+CGDATA - ENTER DATA STATE</p> <p>For more information, see <a href="http://www.sonyericsson.com/developer">www.sonyericsson.com/developer</a></p>

## SIM AT services supported

Service	Mode	Support
CALL CONTROL BY SIM		Yes
MO SMS CONTROL		Yes
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 1 = high priority	Yes Yes
	bit 8: 0 = clear message after a delay 1 = wait for user to clear message	Yes Yes
GET INKEY	General: The GET_INKEY requires that the user confirms his/her choice	Yes
	bit 1: 0 = digits (0-9, *, # and +) only 1 = alphabet set	Yes Yes
	bit 2: 0 = SMS default alphabet 1 = UCS2 alphabet	Yes Yes
	bit 3: 0 = character sets defined by bit 1 and bit 2 are enabled 1 = character sets defined by bit 1 and bit 2 are disabled and the Yes/No response is requested	Yes Yes
GET INPUT	General: no. of hidden input characters	252
	bit 1: 0 = digits (0-9, *, # and +) only 1 = alphabet set	Yes Yes
	bit 2: 0 = SMS default alphabet 1 = UCS2 alphabet	Yes Yes
	bit 3: 0 = ME may echo user input on the display 1 = user input not to be revealed in any way (see note)	Yes Yes
	bit 4: 0 = user input to be in unpacked format 1 = user input to be in SMS packed format	Yes Yes
	bit 8: 0 = no help information available 1 = help information available	Yes Yes
LAUNCH BROWSER		Yes
MORE TIME		Yes

Service	Mode	Support	
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	
	04 = Language setting	Yes	
	05 = Timing advance	Yes	
REFRESH	General: The reset option requests the user to wait while the phone restarts	Yes	
	00 = (U)SIM Initialization and Full File Change Notification	Yes	
	01 = File Change Notification	Yes	
	02 = (U)SIM Initialization and File Change Notification	Yes	
	03 = (U)SIM Initialization	Yes	
	04 = (U)SIM Reset	Yes	
	05 = USIM Application Reset	Yes	
	06 = 3G Session Reset	Yes	
SELECT ITEM		Yes	
SEND DTMF		Yes	
SEND SHORT MESSAGE	bit 1:	0 = packing not required	Yes
		1 = SMS packing by the ME required	Yes
SEND SS		Yes	
SEND USSD		Yes	

Service	Mode	Support
SET UP CALL	General: capability configuration	Yes
	Set-up speech call CallParty Subaddress	No
	DTMF support	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
SET UP EVENT LIST	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
	00 = MT call	Yes
	01 = Call connected	Yes
	02 = Call disconnected	Yes
	03 = Location status	Yes
	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	Yes	
OA = Channel status	Yes	
SET UP IDLE MODE TEXT		Yes, 1 row of text is supported
SET UP MENU		Yes
TIMER MANAGEMENT		Yes
OPEN CHANNEL		Yes
CLOSE CHANNEL		Yes
RECEIVE DATA		Yes

Service	Mode	Support
SEND DATA		Yes
GET CHANNEL STATUS		Yes

## User Interaction with SIM AT

### BIP – Open Channel:

A user confirmation is displayed by the default text “Open channel”, when no alpha identifier is present. Alpha identifier text replaces the default text when the Alpha Identifier is present & not null. No user indication is provided (transparent mode) when the alpha identifier is present and null.

### Display text

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

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

- End key – Proactive session terminated by user
- Back – Backward move in proactive session

MSK clears the screen if the command is performed successfully.

### Get inkey

Prompt for a one-character input. Pressing OK without entering a character gives warning message “Text too short”. Key responses:

- C – Clears current character
- End key – Terminates proactive session
- Back – Backward move in the proactive session
- OK – Command performed successfully

### Get input

Prompt for character input. The phone refuses 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
- End key – Terminate 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
- End key – Terminates proactive session
- Back – Backward move in proactive session
- OK – Command performed successfully

### Send short message

Alpha Identifier text is displayed, if it is present. Otherwise, there is no user indication if the customization for default text is not enabled. If the customization for default text is enabled, and there is no Alpha Identifier, the default message “Sending message” is displayed. Default responses are “Message failed” or “Message sent” for the customization enabled case with no Alpha Identifier.

Key responses:

- End key or Back ends the proactive session

### Set up call

If the user is on a call when the “Set up call, putting all other calls on hold” command is sent, the user sees the text “Let SIM card setup call”. The user can press OK for the current call to be put on hold and the new call to be set up.

If the user is on a call when the “Set up call, disconnecting all other calls” command is sent, the user sees the text “Let SIM card setup call”. The user can press OK for the current call to be disconnected and the new call to be set up.

## Set up menu

Incorporates a SIM Application Toolkit menu item into the 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 main menu. If null alpha identifier is supplied and

several items are found in the menu, the default title "ONLINE SERVICES" is used. If the SIM AT Menu Item is selected by pressing Select, all the items sent in the Set Up Menu command are available for selection, in the same way as the Select Item command.

# Entertainment

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## Audio and video

File types	Formats	Extensions
Audio (all listed audio file formats are supported ringtone file formats)	3GPAAC MP4 M4A MP3 AMR AMR-WB WAV SMF (Standard MIDI File format) RealAudio® 8 iMelody XMF (Mobile XMF supported) WMA	.3gp .aac .mp4 .m4a .mp3 .amr .awb .wav .mid .ra, .rm .imy .xmf, .mxmf .wma
Video (including audio part)	MP4 (Video: MPEG4 or H.264, Audio: AAC or AAC+ or eAAC+) 3GPP™ (Video: MPEG4, H.263 or H.264, Audio: AMR-NB, AMR-WB, AMR-WB+, AAC, AAC+ or eAAC+) RealVideo® 8, 9, 10 WMV	.mp4 .3gp .rv, .rm .wmv, .asf
Streaming transport	RTSP according to 3GPP™	
Video encoding	H.263 Profile 0, Level 10 MPEG-4 Visual Simple Profile Level 3	
Audio encoding	AMR-NB AAC (for video recording only)	

<b>File types</b>	<b>Decoder format</b>	<b>Supported in file format</b>
Video decoding	MPEG-4 Visual Simple Profile	3GP/MP4
	H.264 Baseline Profile	3GP/MP4
	H.263 Profile 0	3GP
	H.263, Profile 3	3GP
	RealVideo 8, 9, 10	RealVideo 8, 9, 10
	VC-1 (WMV9)	WMV
Audio decoding	MPEG-1/2/2.5, audio layer 3	MP3
	AAC	3GP/AAC/MP4/M4A
	AAC+	3GP/AAC/MP4/M4A
	eAAC+	3GP/AAC/MP4/M4A
	AMR-NB	3GP/AMR
	AMR-WB	3GP/AMR/AMR-WB
	AMR-WB+	3GP
	RealAudio Gecko/Sipro	RealAudio 8
	WMA version 2,7,8: Class 1	WMA
	WMA version 9: Level 3	WMA
	WMA Pro (profile M0a)	WMA
	General MIDI (GM)	SMF
	GML	SMF
	SP-MIDI	SMF, XMF
	DLS (Mobile DLS supported)	XMF
	Linear/A-law/ $\mu$ -law PCM	WAV

# Java™

Feature	Functionalities
<b>Java™ Platform, Micro Edition</b>	JSR-75 PDA Optional Packages for J2ME™ JSR-82 Bluetooth Wireless Technology API JSR 118 MIDP 2.0 JSR-120 Wireless Messaging API JSR-205 Wireless Messaging API 2.0 JSR-135 Mobile Media API 1.1 JSR 139 CLDC 1.1 JSR-172 J2ME™ Web Services Specification JSR-177 Security and Trust Services API for J2ME™ JSR-180 SIP API for J2ME™ JSR-184 Mobile 3D Graphics API for J2ME™ JSR 185 Java™ Technology for the Wireless Industry JSR-211 Content Handler API JSR-226 SVG API for J2ME™ JSR-229 Payment API JSR-234 Advanced Multimedia Supplements JSR-238 Mobile Internationalization API JSR-239 OpenGL ES JSR-248 Mobile Services Architecture JSR-256 Mobile Sensor API Nokia UI Extension API
<b>Java 3D</b>	Mascot Capsule Micro3D Version 3 JSR-239 OpenGL ES JSR-184 Mobile 3D Graphics API for J2ME™

## Imaging/Messaging

### 3.2 Megapixel camera

Facts and figures	
<b>Digital still camera (DSC)</b>	
True colour	Yes
Digital zoom	Main camera: 2.5x zoom Main camera when used for video call 3x zoom
Photo light	Improves lighting conditions when taking a photo or recording a video clip
Photo fix	Improves an under-exposed picture by calculating and adjusting the light balance
Still camera settings bar	

Shoot mode	Normal, Burst, Panorama, Frames
Picture sizes (resolution)	<b>3.2 MP</b> (2048x1536 pixels) <b>2 MP</b> (1632x1224 pixels) <b>1 MP</b> (1280x960 pixels) <b>VGA</b> (640x480 pixels) Note: MP = Megapixel
Night mode	Off, On
Light	Off, On
Self-timer	Off, On
White balance	Auto, Daylight, Cloudy, Fluorescent, Incandescent
Effects	Off, Black & white, Negative, Sepia
<b>Still camera setup</b>	
Picture quality	Normal, Fine
Review	On, Off
Add position	On, Off
Save to	Mem. card, Phone memory
Shutter sound	Sound 1, Sound 2, Sound 3, Sound 4, OFF
Image stabilizer	No
Reset settings	Yes
Reset counter	Yes
<b>Video recorder</b>	
Video size (resolution)	QVGA 320x240 pixels
Frame rate	30 fps (frames per second)
<b>Video camera settings bar</b>	
Video length	For Normal, For picture message
Focus	No, same as camera
Light	On, Off
Night mode	Off, On
Self-timer	Yes, same as camera
Effects	Yes, same as camera
White balance	Yes, same as camera
Metering mode	No, same as camera
Turn on/off microphone	Off, On
<b>Video camera setup</b>	

Image stabilizer	No
Reset settings	Yes, same as camera
Reset counter	Yes, same as camera
Save to	Yes, same as camera

## Video telephony

Night mode	Yes
Brightness	Yes
Layout	Yes
Light On	Yes
Video coding	H.263 MPEG-4 (Simple Visual Profile Level 0)
Audio coding	AMR

## Images

Images can be shared using a Bluetooth connection, MMS, email message or computer file transfer.

The image size is limited by the amount of free RAM.

Formats	Details
JPEG	<ul style="list-style-type: none"> <li>• ISO/IEC JPEG</li> <li>• Baseline DCT</li> <li>• Progressive DCT</li> <li>• Non-differential</li> <li>• Unlimited size</li> </ul>
GIF	<ul style="list-style-type: none"> <li>• 87a, 89a, support for interlacement, animation and transparency</li> <li>• Unlimited size</li> </ul>
BMP	Windows® bitmap format
PNG	Unlimited size
SVG	SVG Tiny 1.2
WBMP	<ul style="list-style-type: none"> <li>• Wireless bitmap</li> <li>• Unlimited size</li> </ul>

## Supported character set

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### Decoding text (Incoming MMS)

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US-ASCII	UTF-16
ISO-8859-1	KOI8-R
ISO-8859-2	GB2312
Windows-1251	GB 18030
ISO 10646 (UCS-2)	GB 13000
UTF-7	BIG-5
UTF-8	

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### Coding text (Outgoing MMS)

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UTF-8

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## Short Messaging Service

Feature	Support
SMS service centre number	The SMS service centre number can be preloaded
Pictures	A picture or icon can be inserted into the text message. EMS compliant mobile phones can see the picture correctly
Reply to messages	Received messages can be replied to SMS, MMS, voice message and email
<b>Input methods</b>	Predictive writing and multitap
Copy and paste words	Yes
Teaching of predictive words that are not in the predictive dictionary	Yes
<b>Options when creating a message</b>	
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 predefined messages	Yes
<b>Options when receiving a message</b>	
Reply to the sender	Yes
Forward the message	Yes
Save the message on the SIM card	Yes
Get the delivery time and date	Yes
<b>Options for the previously sent message</b>	
Delivery report of the message	Yes (if requested when sending)

<b>Feature</b>	<b>Support</b>
Forward the message	Yes
Save the message on the SIM card	Yes
Know the remaining capacity storage	Yes, > 95% full warning, capacity on SIM when saving to SIM
<b>Options for the previously received message</b>	
Reply to the sender	Yes
Save the message in the inbox	Yes
Forward the message	Yes
Know the remaining capacity storage	Yes, > 95% full warning, capacity on SIM when saving to SIM
<b>Supported ways for replying to a received SMS</b>	
Using SMS, MMS, voice message, email	Yes
Using phone call (set up a call to the number contained in the message body)	Yes
Using Web browser (go to the Web address contained in the message body)	Yes
Using a USSD session	No
Print using infrared	No
Option to enable the user to send a text message to a list of recipients	Yes
Option to write an email address as a recipient address	Yes, if email gateway is present
SMS storage	In the phone memory or on the SIM card
Capacity	Up to a 1,000 messages
Nokia Picture Messaging	Yes

## Enhanced Messaging Service

<b>Feature</b>	<b>Support</b>
Level of compliance supported by the phone 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 phone is able to handle to generate a concatenated message	10

<b>Feature</b>	<b>Support</b>
Outgoing messages	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 when all parts of the message have been received or when a time-out occurs. Option 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
Delivery report for concatenated messages	A receipt is received in the phone when all parts of a concatenated message have been delivered, if a delivery report is requested when it is being sent
Insert objects	Options 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	Receive (always), send using EMS (if not copyright protected). Download melodies and commercial tunes from the Web
WBMP	Yes
Picture sizes	16x16, 32x32 pixels, variable size in black and white
Pictures	Edit pictures using PhotoDJ™. Receive (always), send using EMS (if not copyright protected). Download pictures from the Web
Animations	There is support for the following animations: Angry, Crying, Flirty, Happy, Kiss, Sad, Tongue, Wow, Confused, Devil, Glasses, Indifferent, Laughter, Sceptical and Wink, as defined in 3GPP™ TS 23.040 v4.3.0. It is possible to send and receive animations
TP-PID field value given by the phone before sending an EMS message	0 x 00
EMS storage	In the phone memory or on the SIM card
Capacity	Up to a 1,000 messages

## Multimedia Messaging Service

Feature	Support
MMS/CSD parameters and MMS/GPRS parameters placement	MMS is bound to an MMS profile. A MMS profile is bound to a Data account. A data account contains either CSD parameters or GPRS parameters and possibly proxy settings
Option to pre-configure the MMS parameters in the factory	MMS/CSD: Yes MMS/GPRS: Yes
Option to configure the MMS parameters by OTA provisioning	MMS/CSD: Yes MMS/GPRS: Yes
Option for all the parameters from the parameters set to be OTA provisioned at the same time	MMS/CSD: Yes MMS/GPRS: Yes
Option for only one parameter, in the set of parameters, to be OTA provisioned	MMS/CSD: No MMS/GPRS: No
Supplier indication of realized interoperability tests between its MMS User Agent and MMS Relay/Server from other suppliers	Yes
Support of a standard procedure for OTA provisioning of MMS parameters	Yes, OMA Client Provisioning 1.1
Functionalities that the user is able to set during message composition	Message subject Message priority Email recipient address Message Cc, Bcc recipient(s) address(es) Delivery report request Read report request MSISDN recipient address Delivery time Validity period
Where can the user insert multimedia elements into multimedia messages	File Manager Photo album Camera Contacts Calendar Task Note Browser (vBookmark) VideoDJ™ PhotoDJ™ MusicDJ™ Sound recorder
Option for sent messages to be memorized in a folder in the phone memory	Yes

Feature	Support
Actions the user can perform after message retrieval	Reply to the sender of the message SMS/MMS Reply to the sender and to Cc, Bcc people SMS/MMS Forward the message Delete the message Save the message in a dedicated folder Call the sender of a message Save item Mark as unread Details
Multimedia codecs/formats supported for audio	AAC, AMR, MPEG Layer 3, Real 8, AWB, WAV, MP4, MIDI, iMelody, 3GPP™, XMF, M4A, WMA
Multimedia codecs/formats supported for video	MPG4, 3GPP™, SDP, Real 8, WMV
Multimedia codecs/formats supported for image	JPEG, GIF87, GIF89A, PNG, SVG, WBMP, BMP
Supported formats for message presentation	Message body plus attachments (email presentation). SMIL version as described in OMA MMS IOP document version 1.2
Maximum message size that can be handled by the phone	Content Class and Creation mode are applied. Maximum size can also be customized
Maximum number of objects supported in a message	30 objects is standard. This number can be increased through configuration
Maximum text size	5,000 characters/text
Storage capacity	Up to 500 messages

## Email client technical data

Feature	Support
Bearer type (IP)	Yes
Bearer type GSM Data (IP)	Yes, GPRS and HSCSD
Character sets	<ul style="list-style-type: none"> <li>• ISO: ISO-8859-1, ISO-8859-2, ISO-8859-5, ISO-8859-7, ISO-8859-9, ISO-8859-10</li> <li>• Windows: Windows-1251, Windows-1252, Windows-1254, Windows-1255, Windows-1258</li> <li>• US-ASCII</li> <li>• Unicode: UTF-7, UTF-8, UTF-16</li> <li>• Japanese: Shift_JIS, ISO-2022-JP</li> <li>• Cyrillic: KOI8-R</li> <li>• Simplified Chinese: GB2312, GB18030</li> <li>• Traditional Chinese: Big5</li> <li>• Thai: TIS-60</li> </ul>
OTA provisioning solution	Yes, OMA Client Provisioning 1.1

<b>Feature</b>	<b>Support</b>
Protocols	POP3 and IMAP4
Push email	IMAP IDLE (extension of IMAP4 Rev1), OMA Email Notification 1.0 and scheduled checking, Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and STARTTLS
HTML mail	Yes (tags removed)
Thumbnails image attachments	Yes
Message management	User selectable inbox size, save messages to the phone memory, arrange messages by date, size and email address
ESMTP	Yes
Background sending	Yes

## Connectivity

### Bluetooth™ technical data

<b>Dimension</b>	<b>Support</b>
Bluetooth™ capability statement	This phone supports Bluetooth Specification, version 2.0 with enhanced data rate (EDR)
Bluetooth profiles	<ul style="list-style-type: none"> <li>• Advanced Audio Distribution Profile</li> <li>• Audio/Video Remote Control Profile</li> <li>• Basic Imaging Profile</li> <li>• Dial-up Networking Profile</li> <li>• File Transfer Profile</li> <li>• Generic Access Profile</li> <li>• Generic Object Exchange Profile</li> <li>• Handsfree Profile</li> <li>• Headset Profile</li> <li>• Human Interface Device Profile</li> <li>• Object Push Profile</li> <li>• Personal Area Networking Profile</li> <li>• Phonebook Access Profile</li> <li>• Serial Port Profile</li> <li>• Synchronization Profile</li> <li>• SyncML OBEX binding</li> </ul>
Connectable devices	All products supporting Bluetooth spec. 1.1, or higher, and at least one of the profiles above

<b>Dimension</b>	<b>Support</b>
Coverage area	Varies due to radio performance between the connected devices and the occurrence of obstacles. Up to 10 metres (33 feet)
Transmission power	Class 1, typical +3 dBm or 2 mW
Frequency band	2.4 GHz – the unlicensed ISM band
Power consumption	GSM host processor excluded: <ul style="list-style-type: none"> <li>• Standby, Bluetooth On mode: &lt;0.6 mA</li> <li>• Voice to headset (HV3 master): 11 mA (7 mA with EDR functionality, 2EV3 master). Dependent on various parameters such as if the phone is master or slave</li> <li>• Data mode average: 27 mA at 172.8 Kbps symmetrical (DH1)</li> </ul>

## OMA Data Synchronization (SyncML™) technical data

<b>Feature</b>	<b>Support for Sync ML</b>
SyncML compliance	The phone is fully SyncML compliant, having passed SyncML Conformance testing. SyncML 1.2 or SyncML 1.1.2 is used depending on configuration and both are supported in server-alerted synchronization.
Basic data formats	Contacts: vCard 2.1, Calendar: vCalendar 1.0 (vEvent) Tasks: vCalendar 1.0 (vTodo) Notes: text/plain, Bookmarks:vBookmark 1.0
Option for operators to extend SyncML functionality	The device may be configured to include preset SyncML settings and to control whether SyncML 1.1 or SyncML 1.2 is used
Transport method for SyncML messages	HTTP, HTTPS, OBEX (USB, Bluetooth)
Option for the user to configure login parameters (for example, username and password) to access the remote database	Yes
Configuration parameters that can be entered/modified by the user	Server URL, Username, User PWD, Paths to databases (Calendar, Contacts, Notes, Tasks and Bookmarks), UserID and PWD for databases, Databases to be synchronized (On/Off), Internet profile, Synchronization interval, Server ID and Server PWD, permission to allow server-alerted synchronization and roaming options. Can be provisioned with OMA Client provisioning v1.1 and OMA Device Management v1.2
Ability to deal with multiple servers	Yes
Ability to perform conflict resolution actions	No

## Microsoft® Exchange ActiveSync®

Feature	Support for Exchange ActiveSync
Protocol version	The phone supports version 2.5 of Microsoft Exchange ActiveSync
Supported applications	Email, Calendar, Phonebook
Transport method used	HTTP, HTTPS
Possibility for the user to configure login parameters for remote server	Yes
Configuration parameters that can be entered/modified by the user	Server URL, username, domain name, password, applications to sync, email message size, email attachment size, email date range, message alert sound, calendar date range, interval sync, secure connection, roaming option
Ability to use multiple servers	No
Ability to perform conflict resolution	No

## Web browser technical data

Feature	Support in the browser
Bookmarks	Yes, with folders and sorting supported
Bookmark Export/Import	Yes, can be sent and received using vBookmark format using Bluetooth™, SMS, MMS and email
Browser compliancy	<ul style="list-style-type: none"> <li>• HTML ver. 4.01</li> <li>• XHTML Basic 1.0</li> <li>• XHTML 1.1, Module-based XHTML</li> <li>• XHTML Mobile profile</li> <li>• WML 1.3</li> <li>• Cascading Style Sheets, level 2 revision 1, CSS 2.1 Specification</li> <li>• Wireless CSS Specification, Version 26-Oct-2001 (WAP-239-WCSS-20011026-a)</li> <li>• ECMA-script according to specifications found at <a href="http://www.ecma-international.org/publications/standards/Stnindex.htm">http://www.ecma-international.org/publications/standards/Stnindex.htm</a></li> <li>• ECMAScript Mobile Profile</li> <li>• AJAX (Asynchronous JavaScript and XML)</li> <li>• Document Object Model Level 2 (DOM 2)</li> <li>• Scalable Vector Graphics, Mobile SVG Profile: SVG Tiny, version 1.2</li> </ul> <p>For further details, see the <i>WAP User Agent strings and profiles for Sony Ericsson mobile phones</i> Developers guidelines at Developer World <a href="http://developer.sonyericsson.com">http://developer.sonyericsson.com</a></p>
Browser version	Access NetFront 3.4
Cache	Yes (size 2 MB 300 KB and 1 MB flash)

Feature	Support in the browser
Character sets *	<p>Most standard character sets, among others UTF-8 (Default), UTF-16, USASCII, Latin1, UCS2.</p> <p>For updated and detailed information, see the <i>WAP User Agent strings and profiles for Sony Ericsson mobile phones</i> Developers guidelines at Developer World  <a href="http://developer.sonyericsson.com">http://developer.sonyericsson.com</a></p> <p>* When creating pages, always save the page contents as UTF-8.</p>
Clear cache	Yes, persistent. By user interaction, at SIM card change or master reset
Frames	Full Frame support: Frames, IFrames
Image formats and animations	GIF (interlaced and non-interlaced) WBMP, JPEG, PNG, BMP and SVG. Animated GIFs, animated SVG and Flash
Schemes	Wtai, mailto:, smsto:, tel, rtsp, http, https
Streaming	Progressive download, RTSP, Java script controls
Web feeds	Ticker, podcasts, enclosures, OPML import. No support for ATOM
<b>User agent profile</b>	
User Agent Profiles	<p>Yes, list of client characteristics, for example, screen size.</p> <p>For details, see the <i>WAP User Agent strings and profiles for Sony Ericsson mobile phones</i> Developers guidelines at Developer World  <a href="http://developer.sonyericsson.com">http://developer.sonyericsson.com</a></p>
URL sent pointing to the UA profile at the beginning of browser session	<p>Yes. For details, see the <i>WAP User Agent strings and profiles for Sony Ericsson mobile phones</i> Developers guidelines at Developer World  <a href="http://developer.sonyericsson.com">http://developer.sonyericsson.com</a></p>
<b>Download</b>	
OMA download functionality	Yes
HTTP GET solution to download content. Uses browser for download	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. Save, delete, forward, use, manage
Object formats	All formats can be downloaded and saved, but only formats supported by the phone can be used by the phone
Resume	Yes
Background download	Yes

<b>Feature</b>	<b>Support in the browser</b>
Progressive download	Yes
Streaming	Yes
<b>Browser navigation</b>	
Selection keys	Yes. Two selection keys and centre navigation key
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
“www” added automatically when entering URLs	No
Combined Search/Go To input field	Intelligent input field changes appearance (Search or Go to) depending on user input. “www”, “.com” and other URL syntax can be used to trigger the Go To appearance
<b>Internet network features</b>	
Bluetooth (as local connection)	Yes
Infrared (as local connection)	No
Network settings	Yes
PPP Authentication	PAP, CHAP supported
Security	HTTPS authentication TLS version 1 SSL version 3 WIM on SIM ICC X.509 certificate support, Mobile Profile WPKI OTA download of trusted certificates
USB (as local connection)	Yes
<b>PUSH</b>	
<b>Content types</b>	
Service Indication (SI)	Yes
Service Loading (SL)	Yes
Cache Operation (CO) content type	No
Session Initiation Application (SIA)	Yes

<b>Feature</b>	<b>Support in the browser</b>
<b>Man Machine Interface</b>	
SI/content retrieval postponing	Yes
SI menu structure accessibility	Messaging, Inbox
SL reception warning	The user can make a choice if a dialogue is wanted or not before loading the SL
SIA reception warning	Yes
Cache size limitations	The oldest push in the inbox is discarded
Number of push messages	Depends on the size of the push messages. Around 20 push messages with a size of 1024 bytes URL and 1024 bytes Indications for Service Indication can be saved
Push deactivate	Yes
Dynamic push menu changes	No, there are no changes in the menus when activating/deactivating push
<b>Security</b>	
Mechanisms for push	None
Trust with PPG	Sending a SIA is the most reliable
WSP push sessions	No
HTTP push sessions	The White List (a setting to allow push messages only from certain addresses) is supported for IP address
SMS connection-less push	The White List (a setting to allow push messages only from certain addresses) is supported for SMS Center
Denial of service/spoofing	Setting to select when to allow push messages: Always, always ask or never. There is also a setting to select whether to allow push messages from all senders or only from certain addresses (the White List)

## Client provisioning

<b>Feature</b>	<b>Support</b>
<b>Provisioning types</b>	OMA Client provisioning (v1.1)
Total Parameter sets	10 (shared between the provisioning types) < or = 10 (total number of data accounts)

<b>Feature</b>	<b>Support</b>																						
Parameter set list	<table> <tr> <td>name</td> <td>name</td> </tr> <tr> <td>homepage and homepage title (1st bookmark element)</td> <td>homepage</td> </tr> <tr> <td>proxy/GW address</td> <td>proxy/GW address</td> </tr> <tr> <td>bookmarks (remaining bookmark elements)</td> <td>CSD phone number</td> </tr> <tr> <td>CSD phone number</td> <td>CSD data rate</td> </tr> <tr> <td>CSD data rate</td> <td>CSD dial type</td> </tr> <tr> <td>CSD dial type</td> <td>CSD response timer</td> </tr> <tr> <td>GPRS APN</td> <td>GPRS APN</td> </tr> <tr> <td>protocol authentication</td> <td>protocol authentication</td> </tr> <tr> <td>GW authentication</td> <td>GW authentication</td> </tr> <tr> <td>secure connection on/off</td> <td>GPRS QoS</td> </tr> </table>	name	name	homepage and homepage title (1st bookmark element)	homepage	proxy/GW address	proxy/GW address	bookmarks (remaining bookmark elements)	CSD phone number	CSD phone number	CSD data rate	CSD data rate	CSD dial type	CSD dial type	CSD response timer	GPRS APN	GPRS APN	protocol authentication	protocol authentication	GW authentication	GW authentication	secure connection on/off	GPRS QoS
name	name																						
homepage and homepage title (1st bookmark element)	homepage																						
proxy/GW address	proxy/GW address																						
bookmarks (remaining bookmark elements)	CSD phone number																						
CSD phone number	CSD data rate																						
CSD data rate	CSD dial type																						
CSD dial type	CSD response timer																						
GPRS APN	GPRS APN																						
protocol authentication	protocol authentication																						
GW authentication	GW authentication																						
secure connection on/off	GPRS QoS																						
Parameter sets include	CSD, GPRS (different sets)																						
Factory pre-configuration	CSD (option to lock a setting) GPRS																						
Factory pre-configuration	CSD, GPRS (configuration possible)																						
<b>OTA</b>	CSD, GPRS configuration																						
<b>Security mechanism</b>																							
<b>Bearer</b>	<b>OMA Client provisioning</b>																						
OTA via SMS	Uses security mechanism (SEC) methods according to OMA-WAP-ProvCont-v1_1-20050428-C (see <a href="http://www.openmobilealliance.org">www.openmobilealliance.org</a> )																						
<b>Interface</b>																							
<b>Bearer</b>	<b>OMA Client provisioning</b>																						
OTA via SMS	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																						
Re-provisioning Interface	OMA Client provisioning																						
OTA via SMS	If the settings previously installed were privileged or have higher priority, it might not be possible to install the settings 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 WAP security, both SSL/TLS connections and digital signatures																						
<b>Applicative provisioning</b>																							
Preferred bearer customization	Yes																						

<b>Feature</b>	<b>Support</b>
Other applications/features	Yes. MMS, OMA Data Synchronization, Wireless Village, OMA Device Management, Streaming
<b>Technologies</b>	
OMA Client provisioning	Yes, Client provisioning version 1.1
Openwave OTA	No
Other	No
Provisioning bearer	SMS
Parameter sets available	Yes
Parameter sets for OTA modification	Yes

# Abbreviations

## **3GPP™**

3rd Generation Partnership Project

## **AAC**

Advanced Audio Coding

## **AAC+**

High Efficiency AAC v.1

## **AMR**

Adaptive Multi Rate. Audio format for speech sounds

## **AMR-NB**

Adaptive Multi Rate Narrow Band

## **AMR-WB**

Adaptive Multi Rate Wide Band

## **API**

Application Programming Interface

## **Bluetooth PAN**

Bluetooth Personal Area Network

## **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 and so on

## **EDGE**

Enhanced Data Rates for GSM Evolution

## **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 the GSM core 900 frequency band. This extension provides increased network capability

## **eAAC+**

High Efficiency AAC v.2

## **EDR**

Enhanced Data Rate

## **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 most widely used digital mobile phone system in the world, now operating in over 100 countries, 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

**HSDPA**

High Speed Downlink Packet Access

**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

**MP**

Megapixel

**MP3**

MPEG-1 layer 3". An audio coding scheme

**MPEG4/MPG4**

Moving Picture Experts Group. MPEG-4 is a standard used primarily to compress audio and visual digital data

**MT**

Mobile Termination

**ODI**

Object Distribution Indicator

**OMA**

Open Mobile Alliance

**OTA**

Over The Air

**PDA**

Personal Digital Assistant

**PDP**

Packet Data Protocol

**PIM**

Personal Information Management

**PNG**

Portable Network Graphic

**QCIF**

Quarter Common Intermediate Format

**RDS**

Radio Data System

**RSS**

Really Simple Syndication

**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**

Scalable Polyphony MIDI

**SS**

Supplementary Services

**SSL**

Secure Socket Layer

**TLS**

Transport Layer Security

**TTI**

Transmission Time Interval

**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, voicemail, 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

**WAV**

Waveform Audio Format

**WMA**

Windows Media Audio

**WMA Pro**

Windows Media Audio Professional

**WBMP**

Wireless BitMap. A graphic format optimized for mobile computing devices

## **WCDMA**

Wideband Code Division Multiple Access

## **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

## **WWW**

World Wide Web

## **XHTML**

Extensible HyperText Markup Language

## **XML**

Extensible Markup Language

# Related information

## Documents

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- Sony Ericsson User guide
- Sony Ericsson FAQ
- AT Command Reference Manual
- WAP 2.0 Specifications

## Links

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- [www.sonyericsson.com](http://www.sonyericsson.com)
- [www.ericsson.com/mobilityworld](http://www.ericsson.com/mobilityworld)
- [www.midi.org](http://www.midi.org)
- [www.extendedsystems.com](http://www.extendedsystems.com)
- [www.gsmworld.com](http://www.gsmworld.com)
- [www.bluetooth.com](http://www.bluetooth.com)
- [www.imc.org](http://www.imc.org)
- [www.3gpp.org](http://www.3gpp.org)
- [www.irda.org](http://www.irda.org)
- [www.etsi.fr](http://www.etsi.fr)
- [www.openmobilealliance.org](http://www.openmobilealliance.org)
- [www.imc.org/pdi](http://www.imc.org/pdi)
- [www.w3.org/TR/xhtml1-basic](http://www.w3.org/TR/xhtml1-basic)
- [www.java.sun.com](http://www.java.sun.com)
- [www.sonyericsson.com/updateservice](http://www.sonyericsson.com/updateservice)
- [www.sonyericsson.com/support](http://www.sonyericsson.com/support)

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