

Sony Ericsson mix Walkman™ phone



Purpose of this document

Sony Ericsson product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

Document history

Version

June 2011	Second released version	Version 3
-----------	-------------------------	-----------

Sony Ericsson Developer World

For the latest Sony Ericsson technical documentation and development tools, go to www.sonyericsson.com/developer

This White paper is published by:

Sony Ericsson Mobile Communications AB,
SE-221 88 Lund, Sweden

www.sonyericsson.com

© Sony Ericsson Mobile Communications AB, 2010-2011. All rights reserved. You are hereby granted a license to download and/or print a copy of this document.

Any rights not expressly granted herein are reserved.

Third released version (June 2011)
Publication number:1251-9788.1

This document is published by Sony Ericsson Mobile Communications AB, without any warranty*. Improvements and changes to this text necessitated by typographical errors, inaccuracies of current information or improvements to programs and/or equipment, may be made by Sony Ericsson Mobile Communications AB at any time and without notice. Such changes will, however, be incorporated into new editions of this document. Printed versions are to be regarded as temporary reference copies only.

This document may reference services or applications provided by third parties. Use of such programming or services may require separate registration with the third party provider and may be subject to additional terms of use. For applications accessed on or through a third-party website, please review such website's terms of use and applicable privacy policy in advance. Sony Ericsson does not warrant or guaranty the availability or performance of any third-party websites or offered services.

Some features described in this document are not supported by all networks and/or service providers in all areas. Please contact your network operator or service provider to determine availability of any specific service or feature and whether additional access or usage fees apply.

*All implied warranties, including without limitation the implied warranties of merchantability or fitness for a particular purpose, are excluded. In no event shall Sony Ericsson or its licensors be liable for incidental or consequential damages of any nature, including but not limited to lost profits or commercial loss, arising out of the use of the information in this document.

Table of contents

Product overview	4
Sony Ericsson Mix Walkman™ phone	4
Facts – dimensions, weight, performance and networks	5
Categorised list of features	7
Technologies in detail	8
Device-to-device communications (local)	8
Bluetooth™ wireless technology	8
Wi-Fi™	8
Java™	9
Messaging	10
(MMS) Multimedia Messaging Service.....	10
Email	10
Multimedia (audio and video)	11
Web browser	12
Trademarks and acknowledgements	13

Product overview

Sony Ericsson Mix Walkman™ phone

King of pop. Queen of soul. Check if your favourite track is up next. Just press the Zap key to zap in to what's coming and get a quick burst of the chorus. Found what you want? Just press Zap again and your track starts from the beginning. Invite your friends to a music quiz. Or a sing along. Sony Ericsson Mix Walkman™ phone comes with a full touch screen and dedicated Walkman™ and Zap keys.

Turn on the tones – it's Karaoke time

Does your voice shatter hearts? Or shatter glass? Press the microphone key and start a Karaoke session. Find your track, start the show and sing away. Until the crowd pay you to go away. With the built-in stereo speakers and stereo headset you can rock all around the clock. With or without an audience.

Why pay? Use Wi-Fi™*

Chat a lot. Save a lot. Post the party on Facebook™. Follow your favourite rock star on Twitter™. Or discuss who'll win the football final on Google Talk™. Just use Wi-Fi™. You'll often find it for free. Want to compare and rate new songs with your friends? Add your five best friends from your phonebook to the Friends app and see at a glance what they're thinking. On Facebook™, in mails and by text.

Every phone has a colour lining

Some bands sound good. The exchangeable bands for Sony Ericsson Mix Walkman™ phone look great. And with two in the box you can choose a look to match your music. All on a small, playful, loveable Walkman™ phone.



**Not all Wi-Fi hotspots are free of charge.*

Facts – dimensions, weight, performance and networks










Operating system	ST-E RTKE OS
Processor	STE 4910
Size	95.8 x 52.8 x 14.3 mm
Weight	88 grams
Available colours	Black (Pink cloud band on black phone; Pink band on black phone; Green bird band on black phone; Green band on black phone)
Main screen	
Colours	262,144k colour TFT
Resolution	400x240 pixels (WQVGA)
Size (diagonal)	3 inches
Scratch-resistant	Yes
Input mechanisms	
Text input	Quick text (Zi)
Touch screen	Capacitive (single touch)
Touch gesture	Single touch
Handwriting recognition	Yes
Memory	
Internal phone storage	Up to 256 MB (up to 100 MB of user-accessible memory)
Expansion slot	microSD™, up to 32 GB
Camera	
Camera resolution	3.2 megapixel
Video recording	Yes – QVGA
Sensors	
Accelerometer	Yes
Proximity sensor	Yes
Networks	
WT13i	GSM GPRS/EDGE 850/900/1800/1900

Data transfer speeds	
GSM GPRS	Up to 115 kbps
GSM EDGE	Up to 200 kbps
Talk time (GSM)	9 hours 40 minutes*
Standby time (GSM)	465 hours*
Music listening time	Up to 13 hours*
Video playback time	Up to 4 hours
Battery	1000 mAh

* According to GSM Association Battery Life Measurement Technique.

Note: Battery performance may vary depending on network conditions and configuration, and phone usage.

Categorised list of features

 <p>Camera 3 megapixel camera Send to web Video recording</p>	 <p>Music Bluetooth™ stereo (A2DP) Media player Music tones (MP3/AAC) PlayNow™ service* SensMe™ TrackID™ music recognition Walkman™ player</p>	 <p>Internet Bookmarks Google™ search Web browser (Obigo™ Q7)</p>
 <p>Communication Call list Conference calls Facebook™ application Polyphonic ringtones Speakerphone Twitter™ application Vibrating alert Friends application Google Talk Multiple IM</p>	 <p>Messaging Conversations Email Instant messaging Multimedia messaging (MMS) Predictive text input Sound recorder Text messaging (SMS)</p>	 <p>Design Auto rotation Four-corner Home screen Keyboard (on-screen, 12-key) Picture wallpaper Touchscreen</p>
 <p>Entertainment Java™ Radio (FM radio with RDS) Video viewing YouTube™*</p>	 <p>Organiser Alarm clock Calculator Calendar Flight mode Notes Phonebook Stopwatch Timer</p>	 <p>Connectivity 3.5 mm audio jack Bluetooth™ technology Micro USB support USB mass storage USB High speed 2.0 support USB support Wi-Fi™</p>

*This service is not available in all markets.

Technologies in detail

NOTE: The information outlined below is general, levels of compliance to standards and specifications may vary between products and markets. For more information, contact Sony Ericsson Developer World or your Sony Ericsson contact person where applicable.

Device-to-device communications (local)

Bluetooth™ wireless technology

Bluetooth™ profiles supported	Generic Access Profile Headset Profile Handsfree Profile Object Push Profile Advanced Audio Distribution Profile AVRCP V1.0
Core version and supported features	Version 2.1
Connectable devices	All products support at least one of the profiles above.

More information:

www.sonyericsson.com/developer

www.bluetooth.com

Wi-Fi™

Supported standards	IEEE 802.11b/g and Wi-Fi™
Connectable devices	Wi-Fi™ or WAPI access points
Frequency band	2.4 GHz
Data transmission rate	Up to 54 Mbps
Security	WEP 64 bit, 128 bit WPA-PSK, WPA2-PSK WAPI-PSK WAPI-Certificate
Encryption	TKIP, AES

Java™

Java™ Platform, Micro Edition	JSR-75 PDA Optional Packages JSR-118 (MIDP 2.0) J2ME Mobile Information Device Profile JSR-120 J2ME Wireless Messaging API JSR-135 J2ME Mobile Media API JSR-139 (CLDC 1.1) Connected Limited Device Configuration JSR-172 J2ME Web Services Specification JSR-185 Java Technology for the Wireless Industry JSR-211 Content Handler API JSR-256 Mobile sensor API
-------------------------------	--

Messaging

(MMS) Multimedia Messaging Service

According to OMA Multimedia Messaging Service v1.0 + SMIL

Email

Bearer type (IP)	GSM Data (IP) and GPRS
Character sets	BIG5 GB2312 Simplified Chinese ISO2022JP ISO-8859-1 ISO-8859-10 Nordic ISO-8859-2 Eastern Europe ISO-8859-7 Greek ISO-8859-9 Turkish KOI8 Shift JIS UCS-2 / ISO10646 UCS2 USASCII UTF-8 UTF-16 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1255 Hebrew Note: GB2312 is available in Simplified Chinese variants only, that is, Mainland China variants. BIG5 is only available in Traditional Chinese variants, that is, Hong Kong and Taiwan variants.
OTA provisioning solution	OMA Client Provisioning 1.1
Protocols	POP3, SMTP and IMAP4

Multimedia (audio and video)

Audio Playback	Decoder format AAC, AAC+, eAAC+ AMR-NB, AMR-WB MP3	Supported in file format 3GP (.3gp), AAC (.aac), MP4 (.mp4) AMR (.amr) MP3 (.mp3)
Ringtone Playback	Decoder format AAC, AAC+, eAAC+ MP3 MIDI WMA	Supported in file format 3GP (.3gp), AAC (.aac), MP4 (.mp4), MP3 (.mp3) SMF (.mid) WMA (.wma)
Audio Recording	Encoder format AMR-NB	Supported in file format AMR (.amr)
Image Playback	Decoder format 1, 4, 8, 16, 24, 32 bpp and RLE encoded formats Single and multi-frame, bitmap mask support (GIF87a format and GIF89a format) Joint Photographic Experts Group Portable Network Graphics Bitmap mask support Wireless Bitmap	Supported in file format BMP (.bmp) GIF (.gif) JPEG (.jpg) PNG (.png) WBMP (.wbmp)
Image Capture	Encoder format Joint Photographic Experts Group	Supported in file format JPEG (.jpg)
Video Playback	Decoder format MPEG-4 Visual Simple Profile H.263 Profile 0	Supported in file format 3GP (.3gp); MP4 (.mp4)
Video Recording	Encoder format Video: MPEG-4 Visual Simple Profile Audio: AAC-LC	Supported in file format 3GP (.3gp)

Web browser

Browser version	Obigo™ Q7
Bookmarks	Sorting supported
Bookmark export/import	Bookmarks can be sent and received in vBookmark format using Bluetooth™ technology, SMS, MMS and email
Navigation/rendering	Full page PC rendering
Search	Internet Search
Browser compliancy	HTML version 4.01 XHTML Basic version 1.0 XHTML version 1.0 XHTML Mobile Profile version 1.1 WML 1.1, 1.2.1 and 1.3 CSS 2.1 ECMAScript Mobile Profile 1.0 DOM 2.0
Protocol Compliancy	HTTP/1.1

Trademarks and acknowledgements

The Liquid Identity and Liquid Energy logos, Sensme, PlayNow and TrackID are trademarks or registered trademarks of Sony Ericsson Mobile Communications AB. Sony, "make.believe" and Walkman are trademarks or registered trademarks of Sony Corporation. Ericsson is a trademark of Telefonaktiebolaget LM Ericsson.

TrackID is powered by Gracenote Mobile MusicID. Gracenote and Gracenote Mobile MusicID are trademarks or registered trademarks of Gracenote, Inc. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Sony Ericsson is under licence.

microSD is trademark or registered trademark of SanDisk Corporation. XHTML is a registered trademark of the W3C.

Wi-Fi is a trademark or registered trademark of the Wi-Fi Alliance.

Twitter is a trademark or registered trademark of Twitter, Inc. Facebook is a trademark or registered trademark of Facebook, Inc. Obigo is a registered trademark of Obigo AB – a Teleca company. Windows is a trademark or registered trademark of Microsoft Inc.

YouTube, Google™, Google Talk™ are trademarks or registered trademarks of Google, Inc. All other company and product names may be trademarks of the respective companies with which they are associated.

Java, JavaScript and Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

End-user license agreement for Sun Java Platform, Micro Edition

1. Restrictions: Software is confidential copyrighted information of Sun and title to all copies is retained by Sun and/or its licensors. Customer shall not modify, decompile, disassemble, decrypt, extract, or otherwise reverse engineer Software. Software may not be leased, assigned, or sublicensed, in whole or in part.

2. Export Regulations: Software including technical data, is subject to U.S. export control laws, including the U.S. Export Administration Act and its associated regulations, and may be subject to export or import regulations in other countries. Customer agrees to comply strictly with all such regulations and acknowledges that it has the responsibility to obtain licenses to export, re-export, or import Software. Software may not be downloaded, or otherwise exported or re-exported (i) into, or to a national or resident of, Cuba, Iraq, Iran, North Korea, Libya, Sudan, Syria (as such listing may be revised from time to time) or any country to which the U.S. has embargoed goods; or (ii) to anyone on the U.S. Treasury Department's list of Specially Designated Nations or the U.S. Commerce Department's Table of Denial Orders.

3. Restricted Rights: Use, duplication or disclosure by the United States government is subject to the restrictions as set forth in the Rights in Technical Data and Computer Software Clauses in DFARS 252.227-7013(c) (1) and FAR 52.227-19(c) (2) as applicable.

Some features described herein require supporting services. Usage charges may apply for such services.

All other trademarks and copyrights are the property of their respective owners.