Yari™
U100i, U100a

Sony Ericsson

make.believe

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		
May 2009	First released version	Revision 1
June 2009	Second released version	Revision 2
August 2009	Third released version	Revision 3
September 2009	Fourth released version	Revision 4

Sony Ericsson Developer World

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

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Product overview

Twist, tilt, turn, smash – gesture gaming is here

Jump into the next generation of mobile gaming. Forget about pushing buttons. Gesture gaming on Yari you make the moves in front of the camera and get right in the middle of the action. Nothing to hold, nothing to twist – except your body. Time to move like you've never moved on a mobile before. How's your left hook by the way?

Share the fun with friends
How do you want to play today? Do some squats to build up your strength, shake to bowl a strike, or control the car with dedicated gaming buttons. You choose. It's time to challenge your friends to hours of awesome fun. Yari gets the whole group hooked on the action – both on and off the screen.

More games for your mobile
What's your favourite place? Bubble Town? Fancy yourself as a guitar legend? Or want to get fit? Yari packs some great pre-loaded games for you to enjoy. And with a direct link to PlayNow™ arena you can choose from hundreds of great titles that are guaranteed to banish boredom forever. Yari has built-in speakers to let you enjoy games and music in superb stereo.

Facts – dimensions, weight, performance and networks

Size	100 x 48 x 15.7 mm
Weight	115 grams
Available colours	Achromatic Black Cranberry White
Main screen	
Colours	262,144 colour TFT
Resolution	240x320 pixels
Size (diagonal)	2.4 inches
Memory	
Phone memory	Up to 60 MB
Memory card support	SanDisk microSD™
Networks	
U100i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
U100a	UMTS HSPA 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS (Class 10 CS4)	Up to 80 kbps (download). Up to 40 kbps (upload)
GSM EDGE (Class 10 MCS9)	Up to 247 kbps (download). Up to 123 kbps (upload)
UMTS HSPA (cat. 5 upload)	Up to 1.8 Mbps
UMTS HSPA (cat. 8 download)	Up to 7.2 Mbps
Talk time (GSM)	Up to 5 hours 12 mins (5.20 hours) according to GSM Association Battery Life Measurement Technique
Standby time (GSM)	Up to 325 hours according to GSM Association Battery Life Measurement Technique
Talk time (UMTS)	Up to 3 hours 48 mins (3.80 hours) according to GSM Association Battery Life Measurement Technique
Standby time (UMTS)	Up to 365 hours according to GSM Association Battery Life Measurement Technique

Full feature list – categorised list of features

Camera
5 megapixel camera
4x digital zoom
Auto focus
Face detection
Geo tagging
Photo feeds
Photo fix
Photo light
Picture blogging
Smile detection
Video blogging
Video light
Video recording

Music
Album art
Bluetooth™ stereo (A2DP)
Media player
MEGA BASS™
Music tones (MP3/AAC)
PlayNow™ service
PlayNow™ plus service
SensMe™ application
Shake control
Stereo speakers
TrackID™

Web
Access NetFront™ Web browser
Bookmarks
Mouse pointer
Google™ search
Pan & zoom
Web feeds
Web search (from standby)
HTML 4.01
XHTML 1.1

Communication
Call list
Polyphonic ringtones
Speakerphone
Vibrating alert
Video calling

Messaging
Conversations
Email
Microsoft Exchange ActiveSync®
Instant messaging
Picture messaging (MMS)
Predictive text input
Sound recorder
Text messaging (SMS)
Unified messaging

Design
Activity menu key
Auto rotate
Light
Media browser
Navigation key
Picture wallpaper
Wallpaper animation

Entertainment
3D games
Dedicated gaming keys
FM radio
Gesture gaming
Java
Motion gaming
Music call
Tracker
Video streaming
Video viewing
Walk mate
YouTube™

Organiser
Alarm clock
Calculator
Calendar
Flight mode
Notes
Phone book
Stopwatch
Tasks
Timer

Connectivity
A-GPS
Bluetooth™ technology
Google Maps™
Modem
PictBridge
Synchronisation
USB mass storage
USB support

Technologies in detail

***NOTE**: The information outlined below is general and 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	Advanced Audio Distribution Profile Audio/Video Remote Control Profile Basic Imaging Profile Dial-up Networking Profile File Transfer Profile Generic Access Profile Generic Object Exchange Profile Handsfree Profile Headset Profile Human Interface Device Profile Object Push Profile Personal Area Networking Profile Phonebook Access Profile Serial Port Profile Synchronisation Profile SyncML™ OBEX binding
Connectable devices	All products supporting Bluetooth spec. 1.1, or higher, and at least one of the profiles above

More information:

www.sonyericsson.com/developer

www.bluetooth.com

Java™

Java™ Platform, Micro Edition	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 (accelerometer) Nokia UI Extension API
Java 3D	Mascot Capsule Micro3D Version 3 JSR-239 OpenGL ES JSR-184 Mobile 3D Graphics API for J2ME™

Messaging

(MMS) Multimedia Messaging Service

According to OMA Multimedia Messaging Service v1.2 + SMIL

Email

Bearer type (IP)	GSM Data (IP) GPRS and HSCSD
Character sets	USASCII UTF-7 UTF-8 UTF-16 UTF-17LE UTF-16BE UCS-2 / ISO10646 UCS2 ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO-8859-10 Nordic ISO-8859-11 Thai ISO-8859-15 Western MR5 KOI8 GB18030 Simplified Chinese GB2312 Simplified Chinese BIG5 ISO2022JP Windows 1251 Cyrillic Windows 1252 Windows 1254 Turkish Windows 1255 Hebrew Windows 1258 Vietnamese Shift JIS Note: GB2312 is only available in Simplified chinese variants only, i.e. China variants. BIG5 is only available in Traditional chinese variants, i.e. Hong Kong and Taiwan variants.
OTA provisioning solution	OMA Client Provisioning 1.1
Protocols	POP3, SMTP and IMAP4
Push email	IMAP IDLE (extension of IMAP4 Rev1), OMA Email Notification 1.0 and scheduled checking, Exchange ActivSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and START-TLS
HTML mail	Yes

More information: www.sonyericsson.com/developer, www.openmobilealliance.org

Positioning – location based services

Supported standards

JSR-179 (Location API 1.0)

OMA Secure User Plane Location (SUPL) v1.0

3GPP Control Plane location (incl. Emergency location)

Provisioning (OMA CP, OMA DM)

OMA CP version 1.1

OMA DM version 1.1.2, 1.2

Related information:

www.sonyericsson.com/developer

Synchronisation (OMA DS, EAS)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0, vBookmark 1.0, notes as text/plain

Microsoft Exchange ActiveSync® protocol version 2.5

Related information:

www.sonyericsson.com/developer

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Multimedia (audio and video)

Audio Playback	**Decoder format** Audio decoding MPEG-1/2/2.5, audio layer 3 AAC, AAC+, eAAC+ AMR-NB AMR-WB AMR-WB+ WMA version 2,7,8: Class 1 WMA version 9: Level 3 WMA Pro (profile M0a) General MIDI (GM) GML SP-MIDI DLS (Mobile DLS supported) Linear/A-law/.-law PCM iMelody	**Supported in file format** MP3 (.mp3) 3GP (.3gp); AAC (.aac); MP4 (.mp4, .m4a) 3GP (.3gp); AMR (.amr) 3GP (.3gp); AMR (.amr) ; AMR-WB (.awb) 3GP (.3gp); AMR (.amr) ; AMR-WB (.awb) WMA (.wma) WMA (.wma) WMA (.wma) SMF (.mid) SMF (.mid) SMF (.mid); XMF (.xmf, .mxmf) XMF (.xmf) WAV (.wav) iMelody (.imy)
Audio Recording	**Encoder format** AMR-NB AAC-LC	**Supported in file format** AMR (.amr) MP4 (.m4a)
Video Playback	**Decoder format** MPEG-4 Visual Simple Profile H.264 Baseline Profile H.263 Profile 0 VC-1 (WMV9)	**Supported in file format** 3GP (.3gp); MP4 (.mp4) 3GP (.3gp); MP4 (.mp4) 3GP (.3gp) ASF (.asf, .wmv)
Video Recording	**Encoder format** - Video: H.263 Profile 0 - Audio: AMR-NB" - Video: MPEG-4 Visual Simple Profile - Audio: AAC-LC"	**Supported in file format** 3GP (.3gp) MP4 (.mp4)
Audio/Video Streaming	Streaming transport	RTSP according to 3GPP™
DRM	DRM (Digital Rights Management) features the rights and copy protection of downloaded content.	OMA DRM 1.0, 2.0, 2.1 Microsoft DRM Janus

Web browser

Browser version	Access NetFront™ 3.5
Bookmarks	Folders and sorting supported
Bookmark export/import	Bookmarks can be sent and received using vBookmark format using Bluetooth™, SMS, MMS and email
Navigation/rendering	Pan & Zoom Landscape/portrait rendering Full page PC rendering
Search	Internet Search Find on page
Browser compliancy	HTML 5.0 Canvas HTML version 4.01 XHTML™ Basic version 1.0 XHTML™ version 1.1 XHTML™ Mobile Profile version 1.1 WML 1.3 CSS 2.1 WCSS Version 26-Oct-2001 ECMA-script 262 3rd edition ECMAScript Mobile Profile 1.0 HTTPXMLRequest AJAX DOM 2.0 SVG Tiny, version 1.2
Browser plugin	SVG-T Flash Lite Audio/Video
Web feeds	Feeds detection in Browser Feeds reader Podcasting
Web albums	Publish to Picasa Publish to a social site Publish to Blogger
Protocol Compliancy	HTTP/1.1 TLS 1.0 and SSL 3.0 OMA Download 1.0 RSS 2.0

Related information: *www.access-company.com/products/mobile_solutions*

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