

WHITE PAPER

Sony Ericsson Satio

August 2009



Sony Ericsson

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

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Product overview

The perfect way to sharing perfect pictures

It's moments that make life really special. So why not share them the easy way? Use Satio to talk through photos, watch the action and share all your experiences with the best mobile audio-visual experience around. Like living life to the full? You'll love seeing it through Satio.

Touch, camera, action

Snapping perfect pictures just got simple. Take stunning, high-resolution shots in exact detail with the 12.1 megapixel camera, intuitive touch focus and Xenon flash. Share them on your social networking site, produce huge prints, or use your creativity to crop, rotate and manipulate them how you want. Like the view? Tell everyone by adding comments directly onto pictures.

Enjoy the view

Tap directly into your favourite TV series, videos, podcasts and tracks with the unique full-touch media menu. Tap directly into your favourite TV series, videos, podcasts and tracks with the unique full-touch media menu. Scroll around and easily find what you want with the flick of a finger. Enjoy it yourself, or why not send to your friends to brighten up their day? It's what you'd call your magic touch.

Widescreen wonder

Feast your eyes on films and share the laughs in wide-screen action on the razor-sharp 3.5 inch display. And all the videos, music, games and applications you want are just one tap away at PlayNow™ arena* for you to download at the fastest possible speed with Turbo 3G or Wi-Fi™. Now it's even more difficult to keep your eyes off your phone.









Facts – dimensions, weight, performance and networks

Size	112 x 55 x 13 mm
Weight	126 grams
Available colours	Black Silver Bordeaux
Main screen	
Colours	16,777,216 color TFT touchscreen
Resolution	360 x 640 pixels
Size (diagonal)	3.5 inches
Memory	
Phone memory	Up to 68 MB
Memory card support	SanDisk microSD™
Networks	
Satio U1i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Satio U1a	UMTS HSPA 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Satio U1	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900 (Variant without Wi-Fi for China market)
Data transfer speeds	
GSM GPRS	Up to 91.2 kbps (download)
GSM EDGE	Up to 236.8 kbps (download)
UMTS HSPA (upload)	Up to 2 Mbps (uplink, HSUPA, cat 5)
UMTS HSPA (download)	Up to 7.2 Mbps (downlink, HSDPA, cat 8)
Talk time (GSM)	
	Up to 11 hours Up to 4 hours 30 mins (4.5 hours) according to GSM Association Battery Life Measurement Technique
Standby time (GSM)	
	Up to 360 hours Up to 300 hours according to GSM Association Battery Life Measurement Technique

Talk time (UMTS)	Up to 4 hours 50 mins Up to 3 hours 30 mins (3.5 hours) according to GSM Association Battery Life Measurement Technique
Standby time (UMTS)	Up to 340 hours Up to 290 hours according to GSM Association Battery Life Measurement Technique
Video call time	Up to 2 hours 20 mins (2.3 hours)

Full feature list – categorised list of features

 <p>Camera 12.1 megapixel camera 16x digital zoom Auto focus BestPic™ Face detection Geo tagging Image stabiliser Photo fix Picture blogging Red-eye reduction Smile detection Touch capture Video blogging Video light Video recording Xenon flash</p>	 <p>Music Album art Bluetooth™ stereo (A2DP) Media player Music player Music tones (MP3/AAC) PlayNow™ PlayNow™ plus TrackID™</p>	 <p>Web WebKit web browser Bookmarks Google™ search Pan & zoom Web feeds Web search (from standby) HTML 4.01</p>
 <p>Communication Call list Conference calls Polyphonic ringtones Speakerphone Vibrating alert Video calling Video calling (main camera)</p>	 <p>Messaging Conversations Email Microsoft Exchange ActiveSync® Handwriting recognition Instant messaging Picture messaging (MMS) Predictive text input Sound recorder Text messaging (SMS)</p>	 <p>Design Auto rotate Media browser Picture wallpaper S60 5th edition Symbian OS™ Touchscreen</p>



Entertainment

3D games
 FM radio
 Java
 Video streaming
 Video viewing
 YouTube™



Organiser

Alarm clock
 Calculator
 Calendar
 Document readers
 Flight mode
 Notes
 Phone book



Connectivity

A-GPS
 Bluetooth™ technology
 Google Maps™
 Modem
 PictBridge
 Synchronisation
 TV out
 USB mass storage
 USB High speed 2.0 support
 USB MTP
 Wi-Fi™ (Note: not available in
 China market)

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 Developers 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 Dial-up Networking Profile File Transfer Profile Generic Access Profile Generic Object Exchange Profile Handsfree Profile Headset Profile Object Push Profile Phonebook Access Profile Serial Port 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

<http://www.bluetooth.com>

Wi-Fi™

Wi-Fi™ is a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections. Wi-Fi™ hotspots exist in an increasing number of locations e.g airports, hotels, cafés and bistros. If a mobile phone supports Wi-Fi™, it can be used to utilise high data transfer rates and lower calling costs.

Supported standards	IEEE 802.11b/g and Wi-Fi™
Connectable devices	Wi-Fi™ access points
Frequency band	2.4 GHz
Security	WPA/WPA2 EAP-TLS PEAP EAP-MSCHAPv2 EAP-TTLS EAP-GTC EAP-SIM EAP-AKA WEP 802.1X WPS
Encryption	WEP, TKIP and AES
Power save	IEEE Power Save WMM UAPSD
QoS	WMM™

Java™

Java™ Platform, Micro Edition	JSR-75 PDA Optional Packages for J2ME™ JSR-82 Bluetooth Wireless Technology API JSR-118 MIDP 2.1 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-179 Location API JSR-184 Mobile 3D Graphics API for J2ME™ JSR-211 Content Handler API JSR-226 SVG API for J2ME™ JSR-234 Advanced Multimedia Supplements JSR-248 Mobile Services Architecture JSR-256 Mobile Sensor API (accelerometer) Nokia UI Extension API Capuchin eSWT
Java 3D	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	<p>US-ASCII UTF-7 UTF-8 UTF-16 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-R GB18030 Simplified Chinese GB2312 Simplified Chinese BIG5 ISO2022JP Windows 1251 Cyrillic Windows 1252 Windows 1254 Turkish Windows 1255 Hebrew Windows 1258 Vietnamese Shift JIS</p> <p>Note: GB2312 is only available in Simplified chinese variants only, i.e. China variants. (TBD)</p> <p>BIG5 is only available in Traditional chinese variants, i.e. Hong Kong and Taiwan variants. (TBD)</p>
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, Microsoft Exchange ActiVSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and START-TLS
HTML mail	Yes

Graphics acceleration

This phone supports OpenGL ES 1.1 and OpenGL ES 2.0 Khronos APIs for native applications.

Positioning – location based services

Supported standards: A-GPS, SUPL

JSR-179 (Location API 1.0)

OMA Secure User Plane Location (SUPL) v1.0

Nokia Landmark Exchange format (LMX) - for sharing locations using MMS

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, notes as text/plain

Microsoft Exchange ActiveSync® protocol version 2.5

Microsoft Exchange ActiveSync® protocol version 12 (third party supplier)

Related information

www.sonyericsson.com/developer

Multimedia (audio and video)

Audio Playback	Decoder format Audio decoding MPEG-1/2/2.5, audio layer 3 AAC, AAC+, eAAC+ AMR-NB WMA version 2,7,8: Class 1 WMA version 9: Level 3 WMA Pro (profile M0a) General MIDI (GM) GML SP-MIDI Linear/A-law/.-law PCM iMelody RealAudio	Supported in file format MP3 (.mp3) 3GP (.3gp); AAC (.aac); MP4 (.mp4); M4A (.m4a) 3GP (.3gp); AMR (.amr) WMA (.wma) WMA (.wma) WMA (.wma) SMF (.mid) SMF (.mid) SMF(.mid); XMF (.xmf, .mxmf) WAV (.wav) iMelody (.imy) RA (.ra)
Audio Recording	Encoder format AMR-NB AAC-LC	Supported in file format AMR (.amr) MP4 (.mp4)
Video Playback	Decoder format MPEG-4 Visual Simple Profile H.264 Baseline Profile H.263 Profile 0 VC-1 (WMV9) RealVideo 8, 9, 10	Supported in file format 3GP (.3gp); MP4(.mp4) 3GP (.3gp); MP4(.mp4) 3GP (.3gp) ASF (.asf, .wmv) RM(.rm), RAM(.ram), RV(.rv)
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 (wbxml triggers and metering)

Web browser

Browser version	WebKit, S60 5th edition
Bookmarks	Folders supported
Bookmark export/import	Bookmarks can be sent and received using vBookmark format using Bluetooth™, SMS, MMS and email
Navigation/rendering	Full page PC rendering, Overview mode & Visual Histor Landscape/portrait rendering Multiple Windows
Search	Internet Search Find on web page
Web widgets	S60 5.0 WRT (Web Run Time) Web Widgets
Browser plugins	FlashLite™ SVG-T Audio/Video
Web feeds	Feeds detection in Browser Feeds reader Podcasting
Web albums	Publish to Picasa™ Publish to website
Browser compliancy	HTML version. 4.01 OMA Browsing 2.1 CSS 2.1 JavaScript 1.5 (ECMA-262 3rd Edition) HTTPXMLRequest AJAX
Protocol Compliancy	HTTP/1.1 TLS 1.0 and SSL 3.0 OMA Download 1.0/2.0 RSS 2.0

www.sonyericsson.com/developer

<http://webkit.org/>

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