

White paper September 2009

**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		
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## **Sony Ericsson Developer World**

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## Product overview

### **Xperia<sup>™</sup> Pureness phone - Purity redefined**

Are you a leader or a follower? Ready to challenge communication trends? Then treat yourself to Xperia<sup>™</sup> Pureness<sup>™</sup>. Its illuminated see-through glass screen is designed to be a part of you, taking inspiration from light and air.

Simple and stylish, quiet and discrete, the Pureness™ phone is created for doing natural things like talking, texting and organizing your life well. It silently screams change and inspires new forms of expression, inspiring you to continue exploring the unknown.

#### Xperia<sup>™</sup> Services – pure pleasure

Pureness™ phone comes with first class Xperia™ Services tailored to your needs. That means there's always help at hand if you have a question about your phone.

Just call our dedicated support team and they will give you all the help you need, or swap the phone within 48 hours in most cases if you need to – wherever you are. And you can surf the dedicated website to find out about all the best tips and tricks.

Enjoy Xperia™ Pureness™. Better still, let it delight and surprise you.



# Facts – dimensions, weight, performance and networks

Size	102 x 43 x 13 mm	
Weight	70 grams	
Available colours	Black	
Screen		
Туре	64 step monochrome TFT, transparent	
Resolution	240x320 pixels	
Size (diagonal)	1.8 inches	
Scratch-resistant	Yes, hard coated	
Memory		
Phone memory	Up to 88 MB (phone memory) + up to 2 GB (media memory)	
Networks		
X5	UMTS HSPA 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900	
X5i	UMTS HSPA 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900 (Variant for China market)	
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 2.0 Mbps	
UMTS HSPA (Cat. 8 download)	Up to 7.3 Mbps	
Talk time (GSM)	Up to 7 hours 30 min	
Standby time (GSM)	Up to 350 hours	
Talk time (UMTS)	Up to 3 hours 30 min	
Standby time (UMTS)	Up to 350 hours	

## Full feature list - categorised list of features



#### Music

Album art
Bluetooth<sup>™</sup> stereo (A2DP)
MEGA BASS<sup>™</sup>
Music player
Music tones (MP3/AAC)
TrackID<sup>™</sup> application



#### Web

Access NetFront™ Web browser Bookmarks Google™ search Mouse pointer Pan & zoom HTML 4.01 XHTML 1.1



#### Communication

Call list Polyphonic ringtones Speakerphone Vibrating alert



#### Messaging

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



#### **Design**

Activity menu key Light Navigation key Picture wallpaper Wallpaper animation



#### **Entertainment**

FM radio Java<sup>™</sup> Video streaming Video viewing



#### **Organiser**

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



#### **Connectivity**

Bluetooth<sup>™</sup> technology Modem Synchronisation USB mass storage USB support USB High speed 2.0 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 <sup>™</sup> 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 Object Push Profile Personal Area Networking Profile Phonebook Access Profile Serial Port Profile Synchronisation Profile SyncML™ OBEX binding
Core version and supported core features	2.1+EDR
Connectable devices	All products supporting Bluetooth spec. 1.1, or higher, and at least one of the profiles listed above

More information:

www.sonyericsson.com/developer

www.bluetooth.com

## **Java**<sup>TM</sup>

Java™ Platform, Micro Edition	JSR-75 PDA Optional Packages for J2ME <sup>TM</sup> 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 <sup>TM</sup> Web Services Specification JSR-177 Security and Trust Services API for J2ME <sup>TM</sup> JSR-180 SIP API for J2ME <sup>TM</sup> JSR-184 Mobile 3D Graphics API for J2ME <sup>TM</sup> JSR 185 Java <sup>TM</sup> Technology for the Wireless Industry JSR-211 Content Handler API JSR-226 SVG API for J2ME <sup>TM</sup> JSR-229 Payment API JSR-234 Advanced Multimedia Supplements JSR-238 Mobile Internationalization API JSR-239 OpenGL ES JSR-248 Mobile Services Architecture 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, 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
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

## **Provisioning (OMA CP, OMA DM)**

OMA CP version 1.1

OMA DM version 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

## 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+  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) SMF (.mid); XMF (.xmf, .mxmf) XMF (.xmf) WAV (.wav) iMelody (.imy)
Audio Recording	Encoder format AMR-NB AAC-LC (only used for video recording)	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)
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 and 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 Adobe™ Flash Lite™ Audio/Video	
Protocol Compliancy	HTTP/1.1 TLS 1.0 and SSL 3.0 OMA Download 1.0	

Related information: www.access-company.com/products/mobile\_solutions

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