

XPERIA arc



LT15i, LT15a

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		
January 2011	First released version	Version 1
January 2011	Second released version	Revision 1
February 2011	Third released version	Revision 2
February 2011	Fourth released version	Revision 3
February 2011	Fifth released version	Revision 4
February 2011	Sixth released version	Revision 5

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, 2009-2011. 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.

Sixth released version (February 2011)
Publication number: 1246-7666

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.

*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 Xperia™ arc – Life just got more brilliant	4
Facts – dimensions, weight, performance and networks	5
Application overview list	7
Full feature list	8
1. Signature features	8
2. Categorised features	9
Technologies in detail	11
Device-to-device communications (local)	11
Bluetooth wireless technology	11
Wi-Fi™	12
DLNA (Digital Living Home Alliance)	13
Messaging	14
MMS (Multimedia Messaging Service).....	14
Email	14
Positioning – location based services	15
Provisioning (OMA CP)	15
Multimedia (audio, image and video)	16
Synchronisation (OMA DS, EAS, Google Sync™)	17
Web browser	17
Trademarks and acknowledgements	18

Product overview

Sony Ericsson Xperia™ arc – Life just got more brilliant

See the Rio Carnival in vivid colours. The low sun in high contrast. Home videos. Professional stills. Classic car chases. Sharp, crisp and clear on the 4.2" super wide multi-touch Reality display, driven by the Sony Mobile BRAVIA™ Engine™. Show everything off to your friends, even outdoors, with less reflection. For hours and hours thanks to low power consumption. It's time to put the real back into life.

The centre of attraction. You

Pick up the phone. Now strike a pose. Slim, sleek and strong, Xperia™ arc adds a touch of sharp to your smart. Take hands-on handsome. Add premium materials. Stir in some beautiful curvature. Squeeze down to just 8.7 mm. And you've got a wafer thin smartphone that fits nicely in your hand. Designed for style icons.

Shoot. Show. Shine

Document your dramas on YouTube™, your stills on Picasa™. Shoot it. Show it. In stunning HD direct on your TV. Fancy the film without the noir? The Exmor R™ for mobile sensor captures movies and stills in low light and turns them into shining epics.

Android. Even more in store

Need a co-pilot? Suggestions for dinner? Review the restaurant. Or find the petrol station with Google Places™. Don't know where it is? Get directions from Google Maps™. Or maybe getting fit is your thing? Xperia™ arc is loaded with apps for Android™. But you can always pop in the store for more. Thousands more actually. From Android Market™. Whatever you want for whatever makes you smile.



Facts – dimensions, weight, performance and networks

Operating system	Google™ Android™ 2.3 (Gingerbread)
Processor	1 GHz Qualcomm MSM8255
GPU	Adreno 205
Size	125 x 63 x 8.7 mm
Weight	117 grams
Available colours	Midnight Blue Misty Silver
Main screen	
Colours	16,777,216 colour TFT
Resolution	854 x 480 pixels
Size (diagonal)	4.2 inches
Scratch-resistant	Yes - Shatter proof sheet on mineral glass
Input mechanisms	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive (multi-touch)
Touch gesture	Yes - multi-touch
Memory	
Phone memory	Up to 320 MB
Memory card support	microSD™, up to 32 GB
Camera	
Camera resolution	8.1 megapixel
Smart zoom	Up to 2.46x
Photo flash	Yes - LED
Video recording	Yes - HD 720p
Sensors	
Accelerometer	Yes
Proximity sensor	Yes
Ambient light sensor	Yes
Magnetometer	Yes

Networks	
LT15i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
LT15a	UMTS HSPA 800 (Band VI), 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS	Up to 86 kbps
GSM EDGE	Up to 237 kbps
UMTS HSPA cat 6 (upload)	Up to 5.8 Mbps
UMTS HSPA cat 8 (download)	Up to 7.2 Mbps
Talk time (GSM)	Up to 6 hours 55 min*
Standby time (GSM)	Up to 430 hours*
Talk time (UMTS)	Up to 7 hours*
Standby time (UMTS)	Up to 400 hours*
Music listening time	Up to 31 hours
Video playback time	Up to 7 hours 25 min
Battery	1500 mAh

*According to GSM Association Battery Life Measurement Technique.

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

Application overview list

Sony Ericsson signature applications

Sony Ericsson Home screen application
Sony Ericsson Timescape™

Sony Ericsson services

PlayNow™ service *
TrackID™ application
Sony Ericsson Local Connectivity
Sony Ericsson Sync

Open Handset Alliance™ applications

Alarm clock
Browser
Calculator
Calendar
Email
Messaging

Other applications

Facebook™ *

**The service is not available in all markets.*

Full feature list

1. Signature features

Sony Ericsson Timescape™

The place to meet your friends

The Timescape™ application manages all your communication with one person in one place. Browse through your conversations the bright way to check out your Facebook™, Twitter™, photos, emails, and texts. Now they're all kept together so you don't have to open loads of different applications to see what's going on.

Infinite button

Everything you want – from everywhere

Find out all about your friends in a flash. Press the infinite button in the Timescape™ application and smart filter everything that's going on with each person.

Sony Ericsson Sync

Make your mobile life available on the web

Synchronise your phone data with Sony Ericsson Sync. Match your phone contacts with your contacts on Facebook™. All your synchronised phone data is right at your fingertips – in your account on www.sony-ericsson.com.

Sony Ericsson Local connectivity

A great experience of transferring media file

Get a great experience of transferring media file. In Sony Ericsson Local connectivity, you can choose between USB mass-storage device class (MSC) mode and Media Transfer Protocol (MTP) mode. You may either choose MSC mode to have absolute control of the storage or you may choose MTP mode to focus on transferring media files without risk of data corruption. Experience more with MTP via USB cable.

Sony Ericsson Home screen application







Your Home screen – just like home

Where's best for you? Email top right? Music player bottom left? You decide. Put your favourites in thumb's reach. Messages. Calls. Web. Music. YouTube™**. Your favourite apps from Android Market™* or the PlayNow™ service**. What you want, where you want.

** Applications from the Android Market™ vary widely in size, from less than 100 KB for small utilities to 3-4 MB for full games, music player applications, or other major offerings. The average size, if a representative selection of useful and fun applications is selected, is about 1 MB. This mean that, on average, more than 100 applications can be downloaded and used without problems. With the ready availability of Android Market™ in the phone, it is also very easy to delete and later reinstall infrequently used applications.*




***The service is not available in all markets.*

2. Categorised features

 <p>Camera 8.1 megapixel camera 2.46x smart zoom Aperture f/2.4 Auto focus Face detection Face recognition Flash / LED Geo tagging HD video recording (720p) Image stabiliser Red-eye reduction Scene detection Self-timer Send to web Smile detection Sony Exmor R™ CMOS sensor Touch capture Touch focus Video light Video recording Video stabiliser</p>	 <p>Music Album art Bluetooth™ stereo (A2DP) Music tones (MP3/AAC) PlayNow™ service * Sony Ericsson Music Player TrackID™ music recognition application</p>	 <p>Internet Android Market™** Bookmarks Google™ search* Google Voice™ Search* Pan & zoom Web browser (WebKit)</p>
 <p>Communication Call list Conference calls Facebook™ application* Google Talk™* Noise Shield Polyphonic ringtones Sony Ericsson Timescape™ Speakerphone Twitter™ (Timescape™ integration) Vibrating alert</p>	 <p>Messaging Conversations Email Google Mail™* Instant messaging Picture messaging (MMS) Predictive text input Sound recorder Text messaging (SMS)</p>	 <p>Design Auto rotate Keyboard (onscreen, QWERTY) Picture wallpaper Reality display with Sony Mobile BRAVIA® Engine Touchscreen Wallpaper animation</p>

* This service is not available in all markets.

** Applications from the Android Market™ vary widely in size, from less than 100 KB for small utilities to 3-4 MB for full games, music player applications, or other major offerings. The average size, if a representative selection of useful and fun applications is selected, is about 1 MB. This means that, on average, more than 100 applications can be downloaded and used without problems. With the ready availability of Android Market™ in the phone, it is also very easy to delete and later reinstall infrequently used applications.

 <p>Entertainment 3D games Media browser Motion gaming Radio (FM radio with RDS) Video streaming YouTube™*</p>	 <p>Organiser Alarm clock Calculator Calendar Document readers E-Manual Flight mode Google Calendar™* Google Gallery 3D™* Infinite button Phone book Setup Wizard Widget manager</p>	 <p>Connectivity 3.5 mm audio jack aGPS Bluetooth™ technology DLNA Google Latitude™* Google Maps™ with Street View* HDMI support Media Transfer Protocol support Micro USB support Modem Synchronisation via Facebook™ Synchronisation via Google Sync* Synchronisation via Sony Ericsson Sync Synchronisation: Exchange ActiveSync® USB mass storage USB High speed 2.0 support Wi-Fi™</p>
--	--	--

* This service is not available in all markets.

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 v1.2 Audio/Video Remote Control Profile v.1.0 Handsfree Profile v1.5 Headset Profile v1.1 Object Push Profile v1.1 Phonebook Access Profile v1.0
Core version and supported core features	2.1+EDR, Advanced Audio
Connectable devices	Products supporting at least one of the profiles above.

More information:

www.sonyericsson.com/developer

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. Mobile phones that support Wi-Fi can facilitate high data transfer rates and lower calling costs.

Supported standards	IEEE 802.11b/g/n and Wi-Fi™.
Connectable devices	Wi-Fi™ access points
Frequency band	2.4 GHz
Data transfer rate	Up to 72 Mbit/s
Security	WEP 64 bit WEP 128 bit TKIP CCMP (AES) Open Authentication Shared Authentication EAP-TLS EAP-TTLS/MSCHAPv2 PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise
Encryption	WEP, TKIP and AES
Power save	WMM-UAPSD QoS, WMM

DLNA (Digital Living Home Alliance)

DLNA is a term used to describe an inter-device media transfer technology. Designed to allow an array of devices in the home to communicate and share content and experiences. DLNA devices can include Hi-Fi equipment, TVs and PCs.

Supported Device Classes	M-DMS – Mobile Digital Media Server Media Types: Images Summary: The digital media server exposes the media files in your phone to a Wi-Fi™ network. The media can then be accessed from other DLNA clients.
Supported Bearers	Wi-Fi™
DRM Support	The Sony Ericsson DLNA implementation does not support DRM protected content.

Messaging

MMS (Multimedia Messaging Service)

MMS 1.0 is supported.

Email

Bearer type (IP)	GPRS, EGPRS, UMTS
Character sets	BIG5 Traditional Chinese GB2312 Simplified Chinese ISO-2022-JP Japanese ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO 8859-11 KOI8-R Cyrillic Shift_JIS Japanese USASCII UTF-16 UTF-8 Windows® 874 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3 and IMAP4
Push email	Microsoft® Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and START-TLS
HTML mail	Yes (read only)

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Positioning – location based services

Supported standards:

OMA Secure User Plane Location (SUPL) v1.0

3GPP™ Control Plane location (incl. Emergency location)

Qualcomm® GPSOneXtra

Provisioning (OMA CP)

OMA CP version 1.1

Multimedia (audio, image and video)

Audio Playback	Decoder format Audio decoding MPEG-1/2/2.5, audio layer 3 AAC, AAC+, eAAC+ AMR-NB AMR-WB General MIDI (GM) Linear PCM OTA Ogg vorbis	Supported in file format MP3 (.mp3) 3GPP (.3gp); MP4 (.mp4, .m4a) 3GPP (.3gp); AMR (.amr) 3GPP (.3gp); AMR (.amr) AMRWB (.awb) SMF (.mid) WAV (.wav) OTA (.ota) Ogg vorbis (.ogg)
Audio Recording	Encoder format AMR-NB	Supported in file format AMR-NB (.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.264 High Profile H.263 Profile 0	Supported in file format 3GPP (.3gp); MP4 (.mp4) 3GPP (.3gp); MP4 (.mp4) 3GPP (.3gp)
Video Recording	Encoder format - Video: H.263 Profile 0, H.264 Baseline Profile -Audio: AAC-LC, AMR-NB	Supported in file format 3GPP (.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

Synchronisation (OMA DS, EAS, Google Sync™)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2.

OMA Data Formats: vCard 2.1, vCalendar 1.0.

Microsoft® Exchange ActiveSync® protocol version 2.5

Microsoft® Exchange ActiveSync® protocol version 12

Google Sync™

Related information:

www.sonyericsson.com/developer

Web browser

Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Pan & Zoom Landscape/portrait rendering Full page PC rendering* Adobe™ Flash™ 10.1
Search	Internet Search
Browser compliancy	HTML version 4.0 HTML version 5.0 XHTML Basic version 1.0 XHTML 1.1 CSS 2.0 CSS 2.1 CSS 3.0 JavaScript 1.7/ECMA-script 262 3rd edition DOM 2.0 DOM 3.0
Supported Device API	Geo-location API
Protocol compliancy	HTTP/1.1 TLS 1.0 and SSL 3.0 Gzip

Related information:

www.sonyericsson.com/developer

Trademarks and acknowledgements

The Liquid Identity and Liquid Energy logos, PlayNow, TrackID, Xperia and Timescape are trademarks or registered trademarks of Sony Ericsson Mobile Communications AB. Sony, "make.believe", Exmor R and Sony Mobile BRAVIA engine are trademarks or registered trademarks of Sony Corporation. Ericsson is a trademark of Telefonaktiebolaget LM Ericsson.

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. TrackID is powered by Gracenote Mobile MusicID. Gracenote and Gracenote Mobile MusicID are trademarks or registered trademarks of Gracenote, Inc.

Google, Google Calendar, Google Gallery 3D, Google Latitude, Google Maps, Google Places, Google Talk, Google Search, Google Sync, Google Mail, Picasa, YouTube, Google Voice, Android and Android Market are trademarks or registered trademarks of Google, Inc. Facebook is a trademark or registered trademark of Facebook, Inc. Twitter is a trademark or a registered trademark of Twitter, Inc.

Wi-Fi is a trademark or registered trademark of the Wi-Fi Alliance. DLNA is a trademark or registered trademark of the Digital Living Network Alliance. MicroSD is a trademark or registered trademark of SanDisk Corporation. XHTML is a registered trademark of the W3C.

Microsoft, Windows, Exchange ActiveSync are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe Flash is a trademark or registered trademark of Adobe Systems Incorporated in the United States and/or other countries. 3GPP™ is a trademark of ETSI.

Qualcom is a trademark or registered trademark of Qualcomm, Inc.

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