

# XPERIA™ arc S



LT18i, LT18a

# Purpose of this document

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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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## Version

August 2011	First released version	Version 1
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# Sony Ericsson Developer World

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# Product overview

## Sony Ericsson Xperia™ arc S

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### **Be entertained. At the speed of delight**

Get what you want without the wait. Switch on. Start games. Download your favourite videos and apps. And enjoy them in an instant. Sony Ericsson Xperia™ arc S has a 1.4 GHz turbo processor that gives you all the fun you want. Just faster. You could say multi-tasking at the speed of delight.

### **Make scenes pop out of the screen. In 3D**

Straddle the peaks. Dive into the depths. Make your breathtaking mountain panoramas look, well, breathtaking. Select the 3D Sweep Panorama function and catch the scene. Now show it on a 3D TV. Amaze your mates with true depth, clarity and realism. For once they'll stay awake when you show your holiday snaps.

### **Shoot it sharp. Show it sharper**

View fashion videos. Catch premier football action. Or marvel at how beautiful your baby is. In a multitude of colors on the sharp, vivid 4.2" Reality Display with Mobile BRAVIA® Engine. Shoot crystal-clear stills and your own funny home videos in 8.1 megapixels. Camera. Action. Don't worry about the lights. With the Exmor R™ for mobile image sensor your night scenes turn out bright, even when it's getting dark.

### **Love at first touch**

Super-slim, super fast, and just super gorgeous, the curves of Sony Ericsson Xperia™ arc S fit snugly in your hand. What's your colour? Pure white? Gloss black? Or maybe your style is more silver, blue or pink? Get the latest colours outside with the latest Android version on the inside. And it's full of Android apps to help you chat, chill, enjoy trivia, or find the nearest cool place – where you belong of course.



## Sony Ericsson signature features

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Sony Ericsson Xperia™ arc S comes with a range of Sony Ericsson features as standard. Below is a summary of the key signature features.

### **Sony Ericsson Timescape™**

#### **The place to meet your friends**

The Timescape™ application manages all your communication with one person in one place. You can effortlessly browse by category your Facebook™, Twitter™, email and text communications, as well as view your photos. Now everything is all together and in chronological order, so you don't have to open different applications to see what's going on.

#### **Infinite button**

##### **Everything you want – from everywhere**

Tap the infinite button in the Timescape™ application and smart filter each category of communication by person. For example, when viewing a text message from a friend in Timescape™, tap the infinite button to view a list of all chat messages with that friend.

### **Sony Ericsson Sync**

#### **Your mobile life on the web**

Synchronise your phone data using Sony Ericsson Sync so that you always have a backup. While you're at it, match your phone contacts with your Facebook™ contacts. All your synchronised phone data is right at your fingertips and in your account on [www.sonyericsson.com](http://www.sonyericsson.com).

### **Sony Ericsson Local connectivity**

#### **More control over your media**

Using Sony Ericsson Local connectivity, you can exercise more control over how media files get transferred and stored. For example, you can select MTP mode to transfer files if you want to limit the risk of data corruption or select MSC mode if you want to have more control over the data storage.

### **Sony Ericsson Home screen application**

#### **The place you call Home**

Customise your Home screen with widgets, shortcuts, folders, themes, wallpaper and other items. Where's best for you? Email top right? Music player bottom left? You decide. With four extensions to your Home screen, you've got plenty of space to put things where you want. Just remember to flick left or right to find them.

*\* 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 on your device without negatively impacting performance. With the ready availability of the Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.*

**\*\* NOTE:** Some of the services mentioned above may not be available in all markets.

## Facts – dimensions, weight, performance and networks

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<b>Operating system</b>	Google™ Android™ 2.3 (Gingerbread)
<b>Processor</b>	1.4 GHz Qualcomm Snapdragon MSM8255
<b>GPU</b>	Adreno 205
<b>CPU</b>	1.4 G
<b>Size</b>	125 × 63 × 8.7 mm
<b>Weight</b>	117 grams
<b>Available colours</b>	Midnight Blue Misty Silver Gloss Black Sakura Pink Pure White
<b>Main screen</b>	
Colours	16,777,216 colour TFT
Resolution	854×480 pixels
Size (diagonal)	4.2 inches
Scratch-resistant	Yes – Shatter proof sheet on mineral glass
<b>Input mechanisms</b>	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive (multi-touch)
Touch gesture	Yes – multi-touch
<b>Memory</b>	
Internal phone storage	1 GB (up to 320 MB user-accessible memory)
RAM	512 MB
Expansion slot	microSD™, up to 32 GB
<b>Camera</b>	
Camera resolution	8.1 megapixel
Digital zoom	16x
Video zoom	16x
Photo flash	Yes – LED
Video recording	Yes – HD 720p
<b>Sensors</b>	

Accelerometer	Yes	
Proximity sensor	Yes	
Ambient light sensor	Yes	
Magnetometer	Yes	
<b>Networks</b>		
LT18i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900	
LT18a	UMTS HSPA 800 (Band VI), 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900	
<b>Data transfer speeds</b>		
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 10 (download)	Up to 14.4 Mbps	
<b>Hearing Aid Compatibility (HAC)</b>		
<b>Variant</b>	<b>M-Rating</b>	<b>T-Rating</b>
LT18	M3	T1
<b>Talk time (GSM)</b>	Up to 7 hours 25 mins*	
<b>Standby time (GSM)</b>	Up to 460 hours*	
<b>Talk time (UMTS)</b>	Up to 7 hours 35 mins*	
<b>Standby time (UMTS)</b>	Up to 460 hours*	
<b>Music listening time</b>	Up to 37 hours	
<b>Video playback time</b>	Up to 6 hours 25 mins	
<b>Battery</b>	1500 mAh	




\* Values are according to GSM Association Battery Life Measurement Technique.

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

## Categorised feature list

 <p><b>Camera</b>            3D sweep panorama            8.1 megapixel camera            16x smart zoom            Aperture f/2.4            Auto focus            Face detection            Flash/LED            Geo tagging            HD video recording (720p)            Image stabiliser            Red-eye reduction            Scene detection            Self-timer            Send to web            Smile detection            Sweep panorama            Sony Exmor R™ CMOS sensor            Touch capture            Touch focus            Video light            Video recording            Video stabiliser</p>	 <p><b>Music</b>            Album art            Bluetooth™ stereo (A2DP)            Music tones (MP3/AAC)            PlayNow™ service*            Sony Ericsson Music Player            TrackID™ music recognition*            xLOUD™ Experience</p>	 <p><b>Internet</b>            Android Market™**            Bookmarks            Google™ search*            Google Voice™ Search*            Pan &amp; zoom            Web browser (WebKit)</p>
 <p><b>Communication</b>            Call list            Conference calls            Facebook™ application*            Facebook inside Xperia™ 2.0            Google Talk™*            Noise Shield            Polyphonic ringtones            Sony Ericsson Timescape™            Speakerphone            Twitter™ (Timescape™ integration)*            Vibrating alert</p>	 <p><b>Messaging</b>            Conversations            Email            Google Mail™*            Instant messaging            Multimedia messaging (MMS)            Predictive text input            Sound recorder            Text messaging (SMS)</p>	 <p><b>Design</b>            Auto rotation            Keyboard (on-screen, QWERTY)            Live wallpaper            Picture wallpaper            Reality Display with Mobile BRAVIA® Engine            Screenshot capturing            Swipe to write            Touch screen</p>



 <p><b>Entertainment</b>  3D games  Accelerated Adobe Flash Video  Media browser  Motion gaming  Radio (FM radio with RDS)  Sony Entertainment Networks*  Video streaming  YouTube™*</p>	 <p><b>Organiser</b>  Alarm clock  Calculator  Calendar  Document readers  E-Manual  Flight mode  Google Calendar™*  Google Gallery 3D*  Infinite button  Phonebook  Setup guide  Widget manager</p>	 <p><b>Connectivity</b>  3.5 mm audio jack  aGPS*  Bluetooth™ technology  DLNA Certified™  Google Latitude™*  Google Maps™ with Street View*  HDMI support  Media Transfer Protocol support  Micro USB support  Modem  Native USB tethering  Synchronisation via Facebook™*  Synchronisation via Google Sync™*  Synchronisation via Sony Ericsson Sync  Synchronisation via Exchange ActiveSync®  USB mass storage  USB High speed 2.0 support  USB OTG  Wi-Fi®  Wi-Fi® Hotspot functionality</p>
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\* 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 on your device without negatively impacting performance. With the ready availability of the Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.

# 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)

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### 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	Bluetooth 2.1 + EDR
Connectable devices	Products supporting at least one of the profiles above.

More information:

[www.sonyericsson.com/developer](http://www.sonyericsson.com/developer)

[www.bluetooth.com](http://www.bluetooth.com)

**Wi-Fi®**

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	CCMP (AES) EAP-TLS EAP-TTLS/MSCHAPv2 Open Authentication Shared Authentication PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC TKIP WEP 64 bit WEP 128 bit WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise
Encryption	WEP, TKIP and AES
Power save	WMM-UAPSD QoS, WMM

**DLNA Certified™ (Digital Living Home Alliance)**

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 files can then be accessed from other DLNA Certified™ clients.
Supported Bearers	Wi-Fi®
DRM Support	The Sony Ericsson DLNA Certified™ implementation does not support DRM-protected content.

## Messaging

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### MMS (Multimedia Messaging Service)

According to OMA Multimedia Messaging Service v1.0 + SMIL

### 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 (POPS/IMAPS) and STARTTLS port methods
HTML mail	Yes (read only)

More information:

[www.sonyericsson.com/developer](http://www.sonyericsson.com/developer)

[www.openmobilealliance.org](http://www.openmobilealliance.org)

## Positioning – location based services

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Supported standards:

- OMA Secure User Plane Location (SUPL) v1.0
- 3GPP™ Control Plane location (incl. Emergency location)
- Qualcomm® GPSTOneXtra™

Supported satellite systems:

GPS

GLONASS\*

*\* **NOTE:** GPS and GLONASS are used together to calculate the position. With both systems active, the accuracy and robustness of the positioning is better in most conditions. The usage of GLONASS as an additional system is transparent both to users and developers, and the benefits are automatically available to applications currently using the Satellite Positioning API (“GPS Provider” in Android terminology).*

## Provisioning (OMA CP)

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OMA CP version 1.1

## Multimedia (audio, image and video)

<b>Audio Playback</b>	<b>Decoder format</b>	<b>Supported in file format</b>
	Audio decoding MPEG-1/2/2.5, audio layer 3	MP3 (.mp3), 3GPP (.3gp), MP4 (.mp4, .m4a)
	AAC, AAC+, eAAC+	3GPP (.3gp), MP4 (.mp4)
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4)
	General MIDI (GM)	SMF (.mid)
	Linear PCM 16bit	WAV (.wav)
	OTA	OTA (.ota)
	Ogg vorbis	Ogg vorbis (.ogg)
<b>Audio Recording</b>	<b>Encoder format</b>	<b>Supported in file format</b>
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4), AMR (.amr)
	AMR-NB, AMR-WB, AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps	3GPP (.3gp), MP4 (.mp4)
<b>Image Playback</b>	<b>Decoder format</b>	<b>Supported in file format</b>
	1, 4, 8, 16, 24 and 32 bpp and RLE encoded formats	BMP (.bmp)
	Single and multi-frame, bitmap mask support (GIF87a format and GIF89a format)	GIF (.gif)
	Joint Photographic Experts Group	JPEG (.jpg)
	Portable Network Graphics Bitmap mask support	PNG (.png)
	Wireless Bitmap	WBMP (.wbmp)
<b>Image Capture</b>	<b>Encoder format</b>	<b>Supported in file format</b>
	Joint Photographic Experts Group	JPEG (.jpg)
<b>Video Playback</b>	<b>Decoder format</b>	<b>Supported in file format</b>
	MPEG-4 Visual Simple Profile, Advanced Simple Profile Level 6	3GPP (.3gp), MP4 (.mp4)
	H.264 High Profile Level 3.1	3GPP (.3gp), MP4 (.mp4)
	H.263 Profile 0, Profile 3 Level 70	3GPP (.3gp)

<b>Video Recording</b>	<b>Encoder format</b>	<b>Supported in file format</b>
	Video H.263 Profile 0, H.264 Baseline Profile Audio: AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps, AMR-NB	3GPP (.3gp), MP4 (.mp4)
<b>Audio/Video Streaming</b>	Streaming transport	RTSP according to 3GPP™ HTTP streaming
<b>DRM</b>	DRM (Digital Rights Management) – features the rights and copy protection of downloaded content	OMA DRM 1.0

## **Synchronisation (OMA DS, EAS, Google Sync™)**

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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](http://www.sonyericsson.com/developer)



## Web browser

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Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Adobe™ Flash™ 10.3* Full page PC rendering Landscape/portrait rendering Pan & Zoom
Search	Internet Search
Browser compliancy	CSS 2.0 CSS 2.1 CSS 3.0 DOM 2.0 DOM 3.0 HTML version. 4.0 HTML version. 5.0 JavaScript 1.7/ECMA-script 262 3rd edition WebGL 1.0 XHTML Basic version 1.0 XHTML 1.1
Supported Device API	Geo-location API
Protocol compliancy	HTTP/1.1 Gzip OMA Download 1.0 TLS 1.0 and SSL 3.0

\* Updates are distributed via Android market™.

Related information:

[www.sonyericsson.com/developer](http://www.sonyericsson.com/developer)

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