XPERIA™

X10
X10i, X10a

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		
November 2009	First released version	Version 1
November 2009	Second released version	Revision 1
December 2009	Third released version	Revision 2
April 2010	Fourth released version	Revision 3
June 2010	Fifth released version	Revision 4
September 2010	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.*

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September 2010

Product overview

Everyone. Everywhere. Right where you want them.

Love having your friends close? Don't let distance keep you apart. Pull out the Xperia™ X10 and weave your social web, any time, any place with the Sony Ericsson Timescape™ application. One window for Facebook™, Twitter™, messages and all your friends. Lots of friends? One press of the infinite button and you'll see everything that's been going on with each person.

The new stage for showbiz
Bored? Add horror to your rock, enjoy an epic or see stars — all from one spot. Sony Ericsson Mediascape tells you what's happening in the highlife with all your music, videos and photos in one place, just waiting to be enjoyed. Hungry for more? Press the infinite button and the fun continues.

Never forget a face
The Xperia™ X10 recognizes up to five faces in any photo and automatically stores them under your friends in your phone, so you can post them on your page, or simply show them off. Who says image isn't everything?

Open for the future
Whether you want to work out, go out, or just chill out, you can download any application you want direct from Android Market™. Tired of what's inside? Just customize the X10 to make it uniquely yours. And that's just the start. Every new update downloads right to your phone, making it better all the time. So you'll have a hard time trying to rate when it's out of date.

Facts – dimensions, weight, performance and networks

Operating system	Google™ Android™ Eclair version 2.1
Processor	1 GHz Qualcomm Snapdragon™ QSD8250
Size	119 x 63 x 13 mm
Weight	135 grams
Available colours	Sensuous Black Luster White
Main screen	
Colours	65,536-colour TFT
Resolution	480x854 pixels
Size (diagonal)	4.0 inches
Scratch-resistant	Yes. Shatter proof sheet on mineral glass
Input mechanisms	
Motion sensor	Accelerometer
Text input	Quick text, Onscreen QWERTY keyboard
Touch screen	Capacitive (single touch)
Memory	
Phone memory	1 GB internal Up to 32 GB external
Memory card support	microSD™, up to 32 GB
Networks	
Variant 1	UMTS HSPA 900, 1700, 2100 GSM GPRS/EDGE 850, 900, 1800, 1900
Variant 2	UMTS HSPA 800, 850, 1900, 2100 GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS	Up to 85.6 kbps
GSM EDGE	Up to 236.8 kbps
UMTS HSPA (upload)	Up to 2.0 Mbps (uplink, Cat 5)
UMTS HSPA (download)	Up to 7.2 Mbps (downlink, Cat 8)

Talk time (GSM)	Up to 10 hours 4 hours 50 min according to GSM Association Battery Life Measurement Technique
Standby time (GSM)	Up to 415 hours 315 hours according to GSM Association Battery Life Measurement Technique
Talk time (UMTS)	Up to 8 hours 5 hours 50 min according to GSM Association Battery Life Measurement Technique
Standby time (UMTS)	Up to 425 hours 330 hours according to GSM Association Battery Life Measurement Technique

Application overview list

Sony Ericsson signature applications
Sony Ericsson Timescape™
Sony Ericsson Mediascape
Sony Ericsson Home application
8.1 megapixel camera with Face recognition
Contacts with dialer, Call log, Favorites

Sony Ericsson services
PlayNow™ arena*
TrackID™
Sony Ericsson Sync

Open Handset Alliance™ applications
Alarm clock
Browser
Calculator
Calendar
Email
Messaging

Google applications
Android Market™ Client
Gmail™
Google Calendar™
Google Maps™ with Street View
Google Media Uploader
Google Phone-top Search
Google Search widget
Google Sync™
Google Talk™
Google Voice Search™
YouTube™

Other applications
Moxier™ Sync Application set
Microsoft® Office Viewer
Quadrapop game
Wisepilot™ turn-by-turn navigation (free trial version)*
Backup and Restore
PC Companion

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.

Sony Ericsson Mediascape
Now that's entertainment
Mediascape is the smart way to get all the music, photos and videos you want from your favourite friends and artists. It accesses content from everywhere – your phone, YouTube™, PlayNow™ applications* – and presents everything for you.

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. In Mediascape the infinite button presents all the information you want about your favourite celebrities and artists.

8.1 megapixel camera with Face recognition
Detects up to five faces in any photo.

Sony Ericsson Home

Sony Ericsson Sync

Contacts with dialer, Call log, Favorites

PlayNow™ services are not available in all markets.

2. Categorised features

Camera
8.1 megapixel camera
Up to 16x digital zoom
Continuous Auto focus
Face recognition
Geo tagging
Image and video stabilizer
Photo and video light
Send to web (photo and vide upload)
Smile detection
Video recording (HD 720p)
Scene detection
Recent shot tray

Music
Album art
Bluetooth™ stereo (A2DP)
Media player
Music tones (MP3/AAC)
PlayNow™
TrackID™

Web
Bookmarks (webpage thumnails)
Geo Location
Pan & zoom
Web search (from standby)
Web feeds
WebKit web browser
HTML 5.0
XHTML 1.1

Communication
Call list
Polyphonic ringtones
Sony Ericsson Timescape™
Speakerphone
Vibrating alert
Wisepilot™

Messaging
Conversational Messaging (SMS/MMS)
Email
Exchange ActiveSync®
Picture messaging (MMS)
Predictive text input
Text messaging (SMS)
Video messaging (MMS)

Design
Auto rotate
Picture wallpaper
Touchscreen

Entertainment
3D games
Media browser
Quadrapop game
Sony Ericsson Mediascape
Video streaming
Video viewing

Organiser
Alarm clock
Calculator
Calendar
Email
Flight mode
Infinite button
Office suite
Phonebook with dialer
Sony Ericsson Home with digital clock widget

Connectivity
3.5 mm audio jack
A-GPS
Bluetooth™ technology
Micro USB connector
Moxier™ sync application set
USB support
vCard
Wi-Fi™ (802.11 b/g)

3. Google applications

Google
Android Market™ Client
Gmail™
Google Calendar™
Google Maps™ with Street View
Google Media Uploader
Google Phone-top Search
Google Search widget
Google Sync™
Google Talk™
Google Voice Search
YouTube™

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 Generic Access Profile Generic Object Exchange Profile Handsfree Profile Headset Profile Object Push Profile Phone Book Access Profile Service Discovery Application Profile Serial Port Emulation Serial Port Profile
Core version and supported core features	2.1+EDR
Connectable devices	All products supporting Bluetooth spec. 2.0 and 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	Wi-Fi™ certified. When applicable, 802.11g is prioritized over 802.11b.
Connectable devices	Wi-Fi™ access points
Frequency band	2.4 GHz
Data transmission rate	54 Mbit/s
Security	Open Open WEP Shared WEP WAPI WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise
Encryption	TKIP and AES
Power save	WMM-UAPSD QoS, WMM

Messaging

MMS (Multimedia Messaging Service)

MMS 1.0 is supported.

Email

Bearer type (IP)	GPRS, EGPRS, UMTS
Character sets	USASCII UTF-8 UTF-7 UTF-16 ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO-2022-JP Japanese Shift_JIS Japanese BIG5 Traditional Chinese GB2312 Simplified Chinese KOI8-R Cyrillic Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3, IMAP4 and SMTP
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

Multimedia

Audio & 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 WMA version 9 WMA Pro (profile M0a) General MIDI (GM) GML SP-MIDI DLS (Mobile DLS supported) Linear PCM iMelody RTTTL/RTX OTA Ogg vorbis	**Supported in file format** MP3 (.mp3) 3GPP (.3gp); MP4 (.mp4, .m4a) 3GPP (.3gp); AMR (.amr) 3GPP (.3gp); AMR (.amr) AMRWB (.awb) WMA (.wma, .asf) WMA (.wma, .asf) WMA (.wma, .asf) SMF (.mid) SMF (.mid) SMF (.mid); XMF (.xmf, .mxmf) XMF (.xmf) WAV (.wav) iMelody (.imy) RTTTL/RTX (.rtttl, .rtx) OTA (.ota) Ogg vorbis (.ogg) Note: All listed audio file formats are supported ringtone file formats
Video Playback	**Decoder format** MPEG-4 Visual Simple Profile H.264 Baseline Profile H.263 Profile 0 VC-1 (WMV9)	**Supported in file format** 3GPP (.3gp); MP4 (.mp4) 3GPP (.3gp); MP4 (.mp4) 3GPP (.3gp) WMV (.wmv, .asf)
Audio/Video Streaming	Streaming transport	RTSP according to 3GPP™
Video encoding	**Encoder format** MPEG-4 Visual Simple Profile AAC	**Supported in file format** MP4 (.mp4)
Audio encoding	**Encoder format** AMR-NB	**Supported in file format** AMR-NB (.amr)
DRM	DRM (Digital Rights Management) — features the rights and copy protection of downloaded content.	OMA DRM 1.0

Synchronisation (OMA DS, EAS)

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

Related information:

www.sonyericsson.com/developer

Web browser

Browser version	Android OHD Browser (WebKit version AppleWebKit/530.17)
Navigation/rendering	Pan & Zoom* Landscape/portrait rendering* Full page PC rendering* Double-tap zoom * Adobe™ Flash™ is not supported.
Search	Internet Search Find on page
Browser compliancy	HTML version. 5.0 XHTML 1.1 CSS 2.1 ECMA-script 262 3rd edition HTTPXMLRequest AJAX DOM 2.0
Protocol compliancy	HTTP/1.1 TLS 1.0 and SSL 3.0

Related information:

www.sonyericsson.com/developer

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