

XPERIA™ mini



ST15i, ST15a

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

| | | |
|-----------|-------------------------|-----------|
| July 2011 | Second released version | Version 2 |
|-----------|-------------------------|-----------|

Sony Ericsson Developer World

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This White paper is published by:

Sony Ericsson Mobile Communications AB,
SE-221 88 Lund, Sweden

www.sonyericsson.com

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Second released version (July 2011)
Publication number: 1247-9039.1

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Product overview

Xperia™ mini – Catch the action in crisp, clear HD

The world's smallest* Android™ smartphone with HD video recording has auto focus and a photo flash, so that even dark environments look bright. You can watch a show or enjoy YouTube™ clips in true colours and high contrast on the Reality Display with Mobile BRAVIA® ENGINE. Everything looks brighter through a large, 3-inch scratch-resistant multi-touch mineral glass screen.

Flick to it. Then pick it. With your thumb

Xperia mini is loaded with good things, so why not have them just a thumb's length away? Add up to four apps in each corner of your Home screen and you're ready for action. Not enough? Get loads more. Actually 150,000 more on Android Market™. All squeezed into a compact phone that's just bursting with power from the fast 1 GHz processor.

Apps, maps and friends

Late for your friends? Don't be. Just use Google Maps™ to point you in the right direction and you'll be there before they are. Xperia™ mini comes with lots more - like Google Talk™ - so that you can chat with friends from everywhere.

Facebook everywhere in Xperia™ mini

Don't forget anyone's birthday. With Facebook inside Xperia you get all your friends' birthdays directly in your calendar. Share status, likes, recommendations and more from the music player and photo gallery. Put the Music and Video Discovery widget on your Home screen and see all your Facebook friends' latest music and video recommendations. View the video. Then "like" it. Instant enjoyment.

* "Smallest" is defined by the height and width dimensions of the Xperia™ mini compared with other available phones on the market as of June 2011.



Facts – dimensions, weight, performance and networks

| | |
|--------------------------|--|
| Operating system | Google™ Android™ 2.3 (Gingerbread) |
| Processor | 1 GHz Qualcomm Snapdragon™ QSD8255 |
| Size | 88 x 52 x 16 mm |
| Weight | 99 grams |
| Available colours | Black White Blue* Dark pink* |
| Main screen | |
| Colours | 16,777,216 colour TFT |
| Resolution | 320x480 pixels |
| Size (diagonal) | 3 inches |
| Scratch resistant | Yes |
| Input mechanisms | |
| Text input | Quick text (Zi), On-screen QWERTY and 12 key |
| Touch screen | Capacitive (multi-touch) |
| Touch gesture | Yes – multi-touch |
| Gesture control | Yes |
| Memory | |
| Internal phone storage | 1 GB (up to 320 MB user free memory) |
| RAM | 512 MB |
| Expansion slot | microSD™, up to 32 GB |
| Camera | |
| Camera resolution | 5 megapixel |
| Digital zoom | 8x |
| Photo flash | Yes – LED |
| Video recording | Yes – HD 720p |
| Sensors | |
| Accelerometer | Yes |
| Proximity sensor | Yes |
| Ambient light sensor | Yes |

| | |
|--------------------------------------|---|
| Magnetometer | Yes |
| Networks | |
| ST15i | UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900 |
| ST15a | UMTS HSPA 800 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900 |
| Data transfer speeds | |
| GSM GPRS | GSM GPRS: Up to 86 kbps |
| GSM EDGE | GSM EDGE: Up to 237 kbps |
| UMTS HSPA cat 6 (upload) 6 QPSK | Up to 5.76 Mbps |
| UMTS HSPA cat 8 (download) 8 QPSK | Up to 7.2 Mbps |
| Talk time (GSM) | Up to 4 hours 30 min** |
| Standby time (GSM) | Up to 340 hours** |
| Talk time (UMTS) | Up to 4 hours 30 min** |
| Standby time (UMTS) | Up to 320 hours** |
| Music listening time | Up to 25 hours |
| Video playback time | Up to 6 hours |
| Battery | 1200 mAh |

* Available in bundling propositions.

** 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 Music player
Sony Ericsson Timescape™

Sony Ericsson services

PlayNow™ service*
TrackID™ application
Sony Ericsson Sync

Other applications

Facebook™*
Wisepilot™ turn-by-turn navigation (free trial version)*

**This 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™, MySpace™, 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 for transferring media files

Transfer your media files in an easy way. Using Sony Ericsson Local connectivity, you can choose between USB mass-storage device class (MSC) mode and Media Transfer Protocol (MTP) mode. Choose MSC mode if you want to have absolute control of the storage or choose MTP mode if you want to transfer media files without risk of data corruption. Experience more with MTP using a 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 within thumb's reach. Use the unique interface to drag and drop the applications into the corners of your Home screen. Messaging, calls, web, music, YouTube™ or your favourite apps from Android Market™ or from the PlayNow™ service. What you want, where you want.

** Applications from 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 Android Market™ application 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 5 megapixel camera 8x digital zoom 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 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 xLOUD™</p> |  <p>Internet *Android Market** Bookmarks Google™ search Google Voice Search* NeoReader™ barcode scanner 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 Multimedia messaging (MMS) Predictive text input Sound recorder Text messaging (SMS)</p> |  <p>Design Auto rotation Four-corner Home screen Keyboard (on-screen, 12 key) Keyboard (on-screen, QWERTY) Live wallpaper Picture wallpaper Reality Display with Mobile BRAVIA® ENGINE Touchscreen</p> |

* This service is not available in all markets.

** Applications from 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 Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.

| | | |
|---|--|---|
|  <p>Entertainment 3D games Media browser 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 Phonebook Setup guide Widget manager</p> |  <p>Connectivity 3.5 mm audio jack aGPS* Bluetooth™ technology DLNA Certified™ Google Latitude™* Google Maps™ with Street View* Media Transfer Protocol support Micro USB support Modem Native USB tethering Synchronisation via Facebook™* Synchronisation via Google™ Sync* Synchronisation via Sony Ericsson Sync Synchronisation: Microsoft® Synchronisation: Microsoft® Exchange ActiveSync® USB mass storage USB High speed 2.0 support Wi-Fi® Wi-Fi® Hotspot functionality Wisepilot™ turn-by-turn navigation*</p> |
|---|--|---|

* The 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 | Advanced Audio 2.1 + EDR |
| Connectable devices | Products supporting at least one of the profiles above |

More information:

www.sonyericsson.com/developer

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 transmission rate | Up to 72 Mbps |
| 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 |

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 KOI8-R Cyrillic Shift_JIS Japanese USASCII UTF-16 UTF-8 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 | Supported in file format |
| | 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) |
| Audio Recording | Encoder format | Supported in file format |
| | 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) |
| Image Playback | Decoder format | Supported in file format |
| | 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) |
| Image Capture | Encoder format | Supported in file format |
| | Joint Photographic Experts Group | JPEG (.jpg) |
| Video Playback | Decoder format | Supported in file format |
| | 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) |
| Video Recording | Encoder format | Supported in file format |
| | 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) |

| | | |
|------------------------------|---|---|
| Audio/Video Streaming | Streaming transport | RTSP according to 3GPP™ HTTP streaming |
| 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 OMA Download 1.0 |

* Updates are distributed via Android market.

Related information:

www.sonyericsson.com/developer

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