

# Xperia™ U



ST25i, ST25a

XPERIA

# Purpose of this document

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Sony mobile 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

February 2012	First released version	Version 1
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## Sony Developer World

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# Product overview

## **Sony Xperia™ U – Powerful and personal**

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Get yourself a front row seat. Enjoy the sights and sounds of your favourite films and music bombarding your senses. On Xperia™ U's razor sharp Reality Display, and in 3D surround sound. Snap photos fast, film videos in super-sharp HD, and share them with your friends in a flash. Enjoy it all with super quick performance powered by a dual core processor. Let the true you shine through with super snazzy coloured bottom caps and a transparent band that changes colour to suit your themes, photos and album art.

### **Made for movies**

Watch every moment from every movie in crystal clear colours. See every smile from last year's party in true detail. Sheer video magic on the 3.5" Reality Display with Mobile BRAVIA® Engine. And with a dual-core processor at its heart, you'll enjoy super-fast performance whether surfing the web or enjoying the latest Hollywood blockbusters from Sony Entertainment Network.

### **Don't miss the hit**

Watching volleyball on the beach? Capture the smash, not the sand. Fire up the camera. Fire off the shots. From sleep to snap in just over a second. And with 5 megapixels and face detection you'll shoot that winning smile. Fancy something more moving? Why not film the whole tournament in razor sharp high definition?

### **Live the sound**

Start your own sing-a-long. Download that summer playlist. Enjoy it all in crisp and loud sound with xLoud and 3D surround sound Sony audio technology. Plug in your earphones, sit back and listen, as the deep bases and high trebles shoot around your head.

### **Add some shine to your life**

Watch the transparent band light up your life. It reflects your favourite artists' album arts with matching colours when you browse through your music, and changes to match the shades in your photos. Or why not choose a theme that matches the exchangeable cap? Then you'll see the transparent band light up in the same colour when you receive a call.

**Sony Entertainment Network<sup>1</sup>. Your ultimate source for digital entertainment**

Feasts for film fans, masses of music. Enjoy a catalogue with millions and millions<sup>2</sup> of songs from Music Unlimited. Or download your favourite hit movies from Video Unlimited. It's all on Sony Entertainment Network. No trips to the store. No late fees. Just pure entertainment. The best tracks from Music Unlimited. The latest movies from Video Unlimited – enjoy everything with one account. It's the perfect fit for a life full of entertainment.



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*1.Video Unlimited and Music Unlimited are not available in every market.  
2.The number of tracks available by country varies.*

## Signature features

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

### **Xperia™ 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.

### **Xperia™ 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.

### **Xperia™ Local connectivity**

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

Using Xperia 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.

### **Xperia™ 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.

## Facts – dimensions, weight, performance and networks<sup>1</sup>

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<b>Operating system</b>	Google™ Android™ 2.3 (Gingerbread)
<b>Processor</b>	1 GHz STE U8500 Dual Core
<b>Size</b>	112 x 54 x 12 mm
<b>Weight</b>	110 grams
<b>Available colours</b>	Black White
<b>Main screen</b>	
Colours	16,000,000 colour TFT
Resolution	854x480 pixels
Size (diagonal)	3.5 inches
Scratch-resistant	Yes – anti-reflection coating on mineral glass
<b>Input mechanisms</b>	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive (multi-touch)
Touch gesture	Yes – multi-touch, up to 4 fingers supported
<b>Memory</b>	
RAM	512 MB
System memory	2 GB
Phone memory	2 GB
Internal storage	4 GB
<b>Camera</b>	
Camera resolution	5 megapixel
Digital zoom	16x
Photo flash	Yes – LED
Video recording	Yes – HD 720p
Video chat camera	Yes
<b>Sensors</b>	
Accelerometer	Yes
Proximity sensor	Yes

*1. Performance metrics measured under laboratory conditions*






Ambient light sensor	Yes
Magnetometer	Yes – Compass
<b>Networks</b>	
ST25a	UMTS HSPA 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
ST25i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
<b>Data transfer speeds</b>	
GSM GPRS	Up to 107 kbps (download). Up to 85.6 kbps (upload)
GSM EDGE	Up to 296 kbps (download). Up to 236.8 kbps (upload)
UMTS HSPA cat 6 (upload)	Up to 5.76 Mbps
UMTS HSPA cat 10(download)	Up to 14.4 Mbps
<b>Talk time (GSM)</b>	Up to 6 hours and 36 minutes*
<b>Standby time (GSM)</b>	Up to 260 hours*
<b>Talk time (UMTS)</b>	Up to 5 hours and 36 minutes*
<b>Standby time (UMTS)</b>	Up to 472 hours*
<b>Music listening time</b>	Up to 45 hours
<b>Video playback time</b>	Up to 6 hours
<b>Battery</b>	1320 mAh, typical 1290 mAh, minimum




\* Values are according to GSM Association Battery Life Measurement Technique as performed in controlled laboratory conditions. Actual time may vary.

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



## Categorised feature list

 <p><b>Camera</b>            3D Sweep panorama™            5 megapixel camera            16x digital zoom            Auto focus            Face detection            Flash/Photo flash            Flash/Photo light            Front-facing camera (VGA)            Geotagging            HD video recording (720p)            Red-eye reduction            Self-timer            Send to web            Sweep Multi Angle            Sweep panorama™            Video light            Video recording</p>	 <p><b>Music</b>            Album art            Bluetooth™ stereo (A2DP)            Clear bass            Clear stereo            Manual equalizer            Music Player            PlayNow™ service*            SensMe™            TrackID™ music recognition*            xLoad™</p>	 <p><b>Internet</b>            Android Market™            Bookmarks            Google™ search*            Google Voice™ Search*            Google Maps™ for Mobile with Street view and Latitude™*            NeoReader™ barcode scanner            Web browser (WebKit™)</p>
 <p><b>Communication</b>            Call list            Conference calls            Facebook™ application*            Facebook inside Xperia™            Google Talk™ application*            Noise suppression            Xperia™ Timescape™            Speakerphone            Twitter™ (Timescape™ integration)*            Video chat ready</p>	 <p><b>Messaging</b>            Conversations            Email            Google Mail™*            Instant messaging            Multimedia messaging (MMS)            Predictive text input            Sound recorder            Text messaging (SMS)            Gesture input            Voice input</p>	 <p><b>Design</b>            Auto rotation            Keyboard (on-screen, QWERTY)            Picture wallpaper            Reality Display with Sony Mobile BRAVIA® Engine            Screenshot capturing            Touch screen            Live Wallpaper</p>

 <p><b>Entertainment</b>  Media browser  Radio (FM radio with RDS)  Sony Entertainment Network*  Video streaming  YouTube™*</p>	 <p><b>Organiser</b>  Alarm clock  Calculator  Calendar  Airplane mode  3D Album  Infinite button  Contacts  Setup guide  Stopwatch  Timer</p>	 <p><b>Connectivity</b>  3.5 mm audio jack (CTIA)  aGPS*  Bluetooth™ wireless technology  DLNA Certified®  Media Transfer Protocol support  Micro USB support  Modem  Native USB tethering  Media Go™*  Synchronisation via Microsoft®  Exchange ActiveSync®  USB High speed 2.0 support  USB mass storage  USB Host  Wi-Fi®  Wi-Fi® Hotspot functionality  Wisepilot™ turn-by-turn navigation*</p>
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\* 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 Developer World or your Sony 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 v1.0 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 which support at least one of the profiles above.

More information:

[www.sonymobile.com/developer](http://www.sonymobile.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	WEP 64 bit WEP 128 bit TKIP CCMP (AES) Open Authentication Shared Authentication EAP-SIM 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 Certified® (Digital Living Network Alliance)

Supported Device Classes	<p><b>M-DMS – Mobile Digital Media Server</b>  Media Types: Image, Video and Music  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.</p> <p><b>+PU+</b>  Media Types: Image, Video and Music  Summary: Play media saved in the phone on another device, such as TV or computer, using 2 box push technology. The feature +PU+ is integrated in Gallery application and Music application.</p> <p><b>M-DMP – Mobile Digital Media Player</b>  Media Types: Image, Video and Music  Summary: Play content stored on another device, for example a server or a PC, directly on the phone.</p>
Supported Bearers	Wi-Fi®
DRM Support	The Sony 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 GB18030 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.sonymobile.com/developer](http://www.sonymobile.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) v2.0
- 3GPP™ Control Plane location (incl. Emergency location)

Supported satellite systems:

GPS

## **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)
	AAC, AAC+, eAAC+	3GPP (.3gp), MP4 (.mp4, .m4a)
	AMR-NB, AMR-WB	3GPP (.3gp)
	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 Level 6, Advanced Simple Profile Level 5	3GPP (.3gp), MP4 (.mp4)
	H.264 High Profile Level 3.2	3GPP (.3gp), MP4 (.mp4)
	H.263 Profile 0, 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

Microsoft® Exchange ActiveSync® protocol version 12.1

Google Sync™

Related information:

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

## Web browser

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Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Adobe™ Flash™ 11* 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	Gzip HTTP/1.1 OMA Download 1.0 TLS 1.0 and SSL 3.0

\* Updates are distributed via Android market™.

Related information:

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

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