

**TOSHIBA ANNOUNCES FIRST HD DVD PLAYERS FOR THE EUROPEAN MARKET****HD-E1****HD-XE1**

**Berlin, September 1, 2006.** Toshiba today announces the launch of Europe's first commercially available stand-alone HD DVD players, launching a new era of high definition home entertainment and marking the arrival of the next generation DVD format.

Available from mid-November, the HD-E1 will be the first model to offer HD DVD quality to European videophiles, while the step-up HD-XE1, which will follow early in December, will deliver even more astonishing image and sound thanks to its state-of-the-art audio and video processing<sup>1</sup>. Representing the very latest in high definition technology and boasting a sleek, slim-line, matt-black design, both players offer exceptional value for money.

The two players support the playback of pre-recorded HD DVD discs, offering consumers stunning, digital, high definition picture quality far surpassing that delivered by standard DVD. HD DVD discs also offer crystal clear sound in three new sound formats<sup>1</sup>, as well as a whole new range of interactive features far more advanced than those available on the current DVD format<sup>2</sup>.

Both players are also backwards compatible with existing DVD and CD formats<sup>3</sup>, and the HD-XE1 can 'upscale' and output existing DVD content at 1080p for display on HD Ready LCD, Plasma panels and other HD TVs or monitors<sup>4</sup> via HDMI terminals.

### **Breathtaking Image Quality**

The HD-E1 and the HD-XE1 deliver breath-taking visual image quality. The HD DVD format delivers an image with a resolution much greater than standard DVD, giving exceptional levels of image detail and clarity.

Both players will also upscale traditional DVDs via the HDMI output to 720p and 1080i resolutions – with the HD-XE1 also offering 1080p upscaling – enabling consumers to rediscover their existing DVD collections in improved picture quality<sup>4</sup>.

### **Next Generation Surround Sound**

Clarity of image is only half the story; sound quality is also hugely enhanced with the HD-E1 and HD-XE1. On top of the audio formats already used in standard DVD, both models support the clarity and realism of three next generation surround-sound formats.

Dolby Digital Plus uses a higher bit rate (up to 3Mbps) to improve fidelity and bring increased realism to movie soundtracks; Dolby TrueHD and DTS-HD support very high bit rates and larger sampling rates to produce a stunning audio experience.

### **A Whole New World of Interactive Content**

The HD-E1 and HD-XE1 also open up a whole new world of interactivity available on HD DVD titles<sup>2</sup>. Advanced Navigation and Content features offer new and exciting ways to interact, for example:

- The ability to browse movie chapters with thumbnails while the movie plays, as well as navigating menu features without pausing playback
- Picture in Picture (PIP) with motion video functions, including the ability to play supplementary video over the main programme. This allows viewers to watch bonus content, such as a superimposed director's commentary or a documentary about the making of the movie, while the movie plays<sup>2</sup>
- Both players come with Ethernet terminals to take advantage of forthcoming bonus features or new functionalities offered by Advanced Navigation and Content features that require internet connectivity or plug-in accessories

Olivier Van Wynendaele, Deputy General Manager, HD DVD Products, Toshiba Europe, comments: "Since Toshiba commercialised the world's first DVD players in Japan in 1996, DVD has become one of the most successful consumer products in history. However, the arrival of HD TVs and HD broadcasts is fuelling demand for a higher quality format that can deliver next generation video and audio. HD DVD is such a format; it builds on consumer familiarity with DVD and is very competitively priced, yet offers an amazing home entertainment experience. It is the natural successor to DVD, and public reaction in Japan and the US indicates that consumers are already falling in love with HD DVD just like they did with its predecessor."

For further information consumers should contact Toshiba on 08704 424 424 or visit the website [www.toshibahddvd.co.uk](http://www.toshibahddvd.co.uk)

**ENDS**

For more information or photography, please contact:

Aleena Abrahamian or Claire Millington

Tel: 020 7792 7489, Email: [toshiba@nelsonbostock.com](mailto:toshiba@nelsonbostock.com)

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Notes:

1. Disc with HD DVD high definition content is required. Discs may require an HDCP capable HDMI™ or DVI input on your HD TV or HD monitor. User must set player resolution and may need to set display resolution to match resolution of disc content. Dolby® Digital Plus support for up to 5.1 channels, Dolby True HD support for up to 5.1 channels, and DTS-HD support for up to 5.1 channels of DTS® core only. Limited support for high sample rates (>48kHz).
2. Firmware update may be required for some interactive features depending on content, which may also require an always-on broadband internet connection. Some features may require additional bandwidth.
3. Some discs may not be compatible. If you experience compatibility problems, please contact Toshiba Customer Service.
4. Since upscaling is from standard definition video, image quality may not match that of an original high-definition source.
5. Some Twin Format Discs may not be compatible with all players.

\* Because HD DVD is a new format that makes use of new technologies, certain disc, digital connection and other compatibility issues are possible. If you experience compatibility problems, please contact Toshiba Customer Services.

\* While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice.

### **About Toshiba Information Systems (UK)**

Toshiba Information Systems UK Ltd (TIU) is one of the UK's largest electronics firms, employing 800 people and generating revenues of £600 million. The Consumer Products Division (CPD) of TIU brings to the home a range of world-class audio visual products including TVs, home cinema projectors and DVD players and systems. TIU created the home cinema market with the first range of Dolby Surround TVs in 1990.

### **About Toshiba Corporation**

Toshiba Corporation (Toshiba), a world leader in high technology, is a diversified manufacturer and marketer of advanced electronic and electrical products spanning information & communications equipment and systems, digital consumer products, electronic devices and components, power systems, industrial and social infrastructure systems, and home appliances.

Under its mid-term business plan, Toshiba is promoting initiatives for sustained growth that will support its continued development as a highly profitable group of companies active in both high growth and stable growth businesses. Toshiba has 172,000 employees worldwide and annual sales of over US\$54 billion. Visit Toshiba's web site at

[www.toshiba.co.jp/index.htm](http://www.toshiba.co.jp/index.htm)

**SPECIFICATIONS:**

	Model		HD-E1	HD-XE1
Launch Information	Recommended Retail Price (incl. VAT)		€599	€899
	Availability		November	December
Compatible Formats	HD DVD Video* <sup>1</sup>		yes	yes
	DVD Video		yes	yes
	DVD VR * <sup>2</sup>		yes	yes
	CD (CD-DA)		yes	yes
Compatible Discs	HD DVD Video		yes	yes
	Twin format Disc (HD DVD & DVD Video)		yes	yes
	DVD-ROM (Video)		yes	yes
	DVD-R (Video)		yes	yes
	DVD-R DL (Video)		yes	yes
	DVD-RW (Video/VR)		yes	yes
	CD (CD-DA)		yes	yes
	CD-R (CD-DA)		yes	yes
	CD-RW (CD-DA)		yes	yes
Video Specifications	Codecs	MPEG2	yes	yes
		MPEG4 AVC (H.264)	yes	yes
		VC1	yes	yes
	HD output resolutions	1080p	-	yes
		720p, 1080i	yes	yes
	DVD	PAL, NTSC	yes	yes
		SD upscale to HD resolution (via HDMI)	up to 1080i	up to 1080p
	297MHz/12bit Video DAC (analogue) outputs		-	yes
	Deep Colour (HDMI output) * <sup>3</sup>		-	yes

Audio Specifications	Codecs	Dolby Digital	yes (up to 5.1ch)	yes (up to 5.1ch)
		Dolby Digital Plus	yes (up to 5.1ch)	yes (up to 5.1ch)
		Dolby TRUE HD	yes (up to 5.1ch)	yes (up to 5.1ch)
		dtc	yes (up to 5.1ch)	yes (up to 5.1ch)
		dts-HD (core only)	yes (up to 5.1ch)	yes (up to 5.1ch)
		MPEG Audio	yes	yes
		PCM	yes (up to 5.1ch)	yes(up to 5.1ch)
Terminals	Video outputs	Composite	1	1 (gold plated)
		S-Video	1	1 (gold plated)
		Component	1	1 (gold plated)
	Audio outputs	Analogue 2ch	1	1 (gold plated)
		Analogue 5.1ch	-	1 (gold plated)
		Digital coaxial	-	1 (gold plated)
		Digital optical	1	1
	HDMI output Ver. 1.2	1	-	
	HDMI output Ver. 1.3 <sup>**3</sup>	-	1	
	Ethernet (10/100BASE)	1	1	
	Control (RS-232C)	-	1 (bi-directional)	
Extension Terminal	2	2		
Dimensions & Weight	Size	W430xD345xH65	TBD	
	Weight	TBD	TBD	

- \* 1. HD DVD discs containing high definition content at a field rate of 50Hz or a frame rate of 25Hz cannot be played on HD-E1 and HD-XE1 without a firmware update. Firmware update is expected in the future. Should you have any question about the frame rate of your disc, please contact the disc vendor.
- \* 2. CPRM compatible disc cannot be played.
- \* 3. Requires viewing with TVs or monitors and equipment compliant with Deep Colour feature based on HDMI 1.3. Some TVs or monitors may not be compatible. If you experience compatibility problems, please contact Toshiba Customer Service.

## **About HD DVD Format**

HD DVD is standardised by the DVD Forum, the international association of more than 200 companies. The forum approved the specifications of the HD DVD-ROM physical, file and application formats in August 2005. In addition to a versatility that enables support for diverse applications, including players, recorders, PCs and automotive devices, HD DVD's main features include:

**1)** The same disc structure as DVD, two 0.6mm-thick polycarbonate discs bonded back-to-back. This structure makes it easy for HD DVD to achieve backward compatibility with DVD hardware devices, and also assures a simple manufacturing process for discs and hardware devices, resulting in reasonable manufacturing costs.

**2)** Robust playability, with no need for a disc cartridge to protect against surface blemishes and fingerprints.

**3)** The ability to meet capacity demands. The DVD Forum has approved HD DVD-ROM discs with a data capacity of 15GB with a single-layer disc and 30GB with a dual-layer disc (1GB = 1 billion bytes).

HD DVD-R (Recordable) discs of single-layer 15GB (single-layer) and 30GB (dual-layer) as well as HD DVD-RW (Rewritable) of single-layer 15GB (single-layer) and 30GB (dual-layer) have also been approved. High data capacities are achieved by adopting a shorter wavelength blue-violet laser and advanced data processing technologies, assuring the ability to store large capacity data sources, including high definition images.

**4)** Using twin format disc technology (single-sided dual-layer; DVD 4.7GB and HD DVD 15GB), a single disc can store both HD DVD and DVD versions of a film, allowing consumers to immediately enjoy the standard definition movie on today's DVD players and to playback the same movie in HD on an HD DVD player at a later date<sup>5</sup>. A combination disc (double-sided dual-layer; DVD 8.5GB and HD DVD 30GB) is also already available.

**5)** Adoption of Advanced Navigation and Content features to enhance the entertainment of consumers.

**6)** Adoption of AACCS (Advanced Access Content)