HD-DVD vs Blu Ray.

January, 2006
Blu Ray vs HD-DVD

For the last three years major consumer electronics companies together with Hollywood movie content providers, software developers, game platforms develop is in the competition to develop new movie/game/software disk format that will replace current DVD disk today. Unfortunately two competing camps Blu Ray and HD-DVD do not have any plans to merge yet and go full steam to the market with players and content. We at Key Digital® would like to inform our customers so informed preparation for this major new disk format.
# Blu Ray vs HD-DVD Comparison

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Blu Ray</th>
<th>HD-DVD</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk capacity</td>
<td>Single layer disc – 25 GB</td>
<td>Single layer disc – 20 GB</td>
<td>Both may support up to 54 GB</td>
</tr>
<tr>
<td>Video Compression</td>
<td>MPEG2</td>
<td>H264, VC-1, MPEG2</td>
<td>H264 and VC-1 are next generation compression and use higher compression ratio than MPEG2</td>
</tr>
<tr>
<td>Audio formats</td>
<td>All Digital Audio formats</td>
<td>All Digital Audio formats</td>
<td></td>
</tr>
<tr>
<td>Play time</td>
<td>Two hours+ HDTV</td>
<td>Two hours+ HDTV</td>
<td></td>
</tr>
<tr>
<td>AV Quality</td>
<td>Very high</td>
<td>Very high</td>
<td></td>
</tr>
<tr>
<td>Price suggested at CES2006</td>
<td>$1,800</td>
<td>$499</td>
<td>Price suggestions at this stage are very preliminary</td>
</tr>
<tr>
<td>Output Video interface for 1080i/720p</td>
<td>HDMI only</td>
<td>HDMI only</td>
<td>Hard commitment on HDMI only output for HDTV is identical from both camps</td>
</tr>
<tr>
<td>1080p Output capability</td>
<td>Yes</td>
<td>Yes</td>
<td>Both formats committed to allow 1080p output format for HDMI interface</td>
</tr>
<tr>
<td>Output Video interface for 480i/480p</td>
<td>Component</td>
<td>Component</td>
<td>Component output may not be available altogether</td>
</tr>
<tr>
<td>Game platform support</td>
<td>PlayStation</td>
<td>XBOX</td>
<td></td>
</tr>
<tr>
<td>Rollout schedule</td>
<td>Similar to HD-DVD, full production 3Q/2006</td>
<td>Starting March 2006 x10,000/month, full production 3Q/2006</td>
<td>Quantities to manufacture are very preliminary</td>
</tr>
<tr>
<td>Content availability</td>
<td>Major Hollywood committed</td>
<td>Major Hollywood and Microsoft committed</td>
<td>Content providers alliances will shift as format winner become apparent. Today a few studios pronounced to be ready for both formats. Most studios support one format either Blue Ray or HD-DVD</td>
</tr>
</tbody>
</table>

**Note:**
- Quantities to manufacture are very preliminary.
Blu Ray vs HD-DVD Comparison

From the table above it is clear that for the “early adapter” or high-end consumer will have to make a choice to buy Blu Ray or HD-DVD or both formats in order to view all possible HDTV movies developed.

This customer does not have to buy separate display. However to view HDTV the native resolution of the display has to be equal or better then HDTV and display must have an HDMI input.
HD-DVD and Blu Ray also show a significant trend in the Consumer Electronics:

Component interface will be replaced by HDMI for true HDTV content from other content media providers: Cable, Satellite, Personal Computers, Internet. Since it is clear that Microsoft will support one of these formats (HD-DVD today) the access to Internet copy protected HDTV streaming will probably be available through Windows and HDMI interfaces on the PC’s. It is very interesting that HDMI is backward compatible to DVI – now standard digital interface for PC’s. Therefore HDMI capable PC’s equipped with HD-DVD players will work well as media centers for HDTV content or regular PC’s through DVI.
We at Key Digital are fully aware of shift in HDTV interface.

We prepared enabling and connectivity products to allow smooth and high quality shift to the new digital interface HDMI:
iSync HD™ / iSync Pro™

10x1 analog Video, HDMI and Audio format switcher/processor. High performance Switchers/Processor/Scaler loaded with image and audio processing features and cost effective. 1080p output HDMI capability.
HDMI4x1™ Processor/Switcher with Processing

High-Performance 4 Inputs to 1 output Switcher/Processor/Scaler.
High performance Switchers/Processor/Scaler loaded with image processing and audio switching features and cost effective. 1080p output HDMI capability.
**HDMI4x1™ Processor/Switcher without Processing**

High-Performance 4 Inputs to 1 output Switcher.

High performance Switcher loaded with image and audio switching features and cost effective. 1080p input and output HDMI capability.
HDMI2x4™ Switcher / Distribution Amplifier

High-Performance 2x1 Switcher merged with 4 Output HDMI Distribution Amplifier. Loaded with image and audio switching features and cost effective. 1080p input and output HDMI capability.
8x1 Analog Video, HDMI and Audio Switcher/Processor Plug-In Card for Pioneer CMX Plasma Displays.
High-Performance Switcher/Processor/Scaler card loaded with image and audio processing features.
Blu Ray vs HD-DVD

HD Leeza®

10x1 Analog Video, HDMI/DVI and Audio Switcher/Processor.
High-Performance Switcher/Processor/Scaler card loaded with image and audio processing features.
1080p Output with HDMI/DVI capability.
HDMI Blaster™

*Special Extender for HDMI Connectivity.*
High-Performance Switcher/Processor/Scaler card loaded with image and audio processing features.
1080p Output with HDMI/DVI capability.
HD Python™ HDMI Cables

High-Quality HDMI Cables Up to 75 Feet in length. 1080p Capable.

- HD Python™ 3 (3 feet)
- HD Python™ 6 (6 feet)
- HD Python™ 12 (12 feet)
- HD Python™ 16 (16 feet)
- HD Python™ 20 (20 feet)
- HD Python™ 30 (30 feet)
- HD Python™ 40 (40 feet)
- HD Python™ 50 (50 feet)
- HD Python™ 75 (75 feet)