Introducing HDMI 1.4 Specification Features

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Forward-looking Statements

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Announcing features of the upcoming HDMI 1.4 specification

- HDMI Ethernet Channel
- Audio Return Channel
- 3D Support
- 4K x 2K Support
- More Color Spaces
- New Connectors
a success story....
850 Licensed Adopters

Source: 04/2009, HDMI, LLC
Adopters by Geographic Distribution

HDMI Adopters Distribution

- EU/ROW: 14%
- China: 29%
- Taiwan: 25%
- US: 16%
- Japan: 8%
- Korea: 8%

Source: 04/2009, HDMI, LLC
One Billion Unit Installed Base…

Source: 12/2008, In-Stat

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100% HDMI Adoption

2009 Digital Televisions
2010 Blu-ray Players
2012 DVD Players

Source: 12/2008, In-Stat
Why has HDMI succeeded?

Simplicity | Reliability | Performance
Our Vision

HDMI is positioned to enable new consumer experiences by continuing to evolve ahead of the market.

By focusing on the core principles of simplicity, reliability, and performance, manufacturers and consumers will always have a single digital connection that meets all of their needs wherever HD is consumed.
Looking Ahead

evolve ahead of the market

simplicity, reliability, and performance

wherever HD is consumed
A New Era of Broadband Convergence
Heightened Viewing Experience
High-Definition Everywhere
Simplicity, Ease of Use
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Broadband Convergence: 2009
The Next Evolution in CE

24% of all consumer electronic devices will require Ethernet

100% of game consoles and digital media adapters will have network capabilities

80% of Blu-ray devices will have network capabilities

72% of PVR/DVRs will have network capabilities
HDMI Ethernet Channel

Consolidation of HD video, audio, and data in a single cable

Enables high speed bi-directional communication

Enables IP-based applications over HDMI

Transfer speeds up to 100Mbps
HDMI Ethernet Channel: Use Case
HDMI Ethernet Channel: Use Case

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HDMI Ethernet Channel: Use Case

Internet connection sharing

Device-to-device content distribution

Enables “recording” over HDMI

Enables current and future IP-based applications such as DNLA, UPnP, IPTV, LiquidHD™ and others

All over a single HDMI cable

HDMI 1.4 defines new cables:

Standard HDMI Cable with Ethernet
High Speed HDMI Cable with Ethernet

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Simplicity, Ease of Use

Adds an audio channel that enables “upstream” audio connections via HDMI

Simplifies the audio connection between the TV and Audio/Video Receiver

Helps reduce yet another cable within the home

Audio Return Channel
Audio Return Channel: Use Case

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Audio Return Channel: Use Case

- Built-in Tuner
- Audio Cable
- HDMI
- HDMI

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Audio Return Channel: Use Case

With Audio Return Channel

Simplifies cabling by combining the upstream audio capability into a single HDMI cable
Heightened Viewing Experience: 3D over HDMI

Defines common 3D formats and resolutions
3D support for up to 1080p resolution
Supports many 3D techniques:
- Full side-by-side
- Half side-by-side
- Frame alternative
- Field alternative
- Line alternative
- Left + Depth
- Left + Depth + Gfx + Gfx Depth

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Heightened Viewing Experience:
Support for 4K x 2K Resolution

Same resolution as many state of the art digital theaters
Up to 4 times the resolution of 1080p

3840x2160 24Hz | 25Hz | 30Hz
4096x2160 24Hz

480p
720p
1080i/p

4K x 2K (4096 x 2160)
Heightened Viewing Experience: Real-Time Content Signaling

Enables real-time signaling of content types between display and source devices

Enables the TV to optimize picture settings based on content type

Enables simple, automated picture setting selection with no user intervention

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Heightened Viewing Experience: Support for Additional Color Spaces

Supports digital still camera (DSC) - specific color spaces

- sYCC601
- AdobeRGB
- AdobeYCC601

Enables HDTV’s to reproduce the rich, natural, lifelike colors from digital still cameras (DSC)

Enables consistency and accuracy between DSCs and HDTVs
Smaller, portable devices are becoming sources of HD content.
High-Definition Everywhere: Micro HDMI Connector

Smaller, portable devices are becoming sources of HD content.

Significantly smaller connector for portable devices
Full 19-pin design
Supports same electrical performance as the HDMI Standard & Mini connectors
Enables compact devices to have all the benefits of HDMI
High-Definition Everywhere: Automotive Connection System

An **Automotive Connection System** designed specifically for in-vehicle HD distribution

New **interlocking** connector for internal connections

A more **robust** connection specification to withstand the rigors of an automotive environment

vibrations, heat, noise, etc.
HDMI 1.4 Launch Timeline and Activities

HDMI 1.4 Specification was released to the public on June 5, 2009

Future press tours, including technology demonstrations of a selection of HDMI 1.4 enhancements, are planned for Asia (Taipei on 7/13, Beijing on 7/15, Seoul on 7/17), Europe (TBD) and US (TBD) in Q3, 2009

For more information on HDMI 1.4 please visit http://www.hdmi.org/manufacturer/hdmi_1_4.aspx

One Cable, One Standard
Simplicity | Reliability | Performance

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Questions and Answers

Thank you!

Questions and Answers

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