HDMI FORUM

HDMI 2.1 SPECIFICATION ANNOUNCEMENT

HDMI Forum and HDMI Licensing Administrator, Inc.
Support and develop future versions of the HDMI Specification

Support the eco-system of interoperable HDMI-enabled devices

Foster broader industry participation in the development of future versions of the HDMI Specification
The organization brings together the world’s leading manufacturers of consumer electronics, personal computers, mobile devices, cables and components.
BROAD SPECTRUM OF 83 GLOBAL MEMBER COMPANIES
Membership in the HDMI Forum is open to any interested company wishing to become a member.

Companies are encouraged to apply and help shape the future of HDMI technology.
GROWING RANGE OF HDMI DEVICES

- Flat Panel TV
- DVD & Blu-ray player/recorder
- TV Set Top Box
- Media Stick
- Projector
- AV Receiver
- Video Game Console
- VR solution
- Digital Still Camera
- Digital Camcorder
- Wearable Camera

- Discrete Adapter Solution
- Desktop PC
- Notebook PC
- PC Tablet
- LCD PC Monitor
- Notebook PC Docking Station
- Smart Phone
- Media Tablet
- Karaoke Player
- Health Care AV

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HDMI-ENABLED DEVICES

6 billion HDMI-enabled devices have shipped since 2003

750 million HDMI-enabled devices are expected to have shipped in 2016

IHS Markit - Millions of Units
HDMI 2.1
HIGHER RESOLUTIONS
FASTER REFRESH RATES
48G CABLE
DYNAMIC HDR
eARC
GAME MODE VRR
HIGHER RESOLUTIONS
FASTER REFRESH RATES
HDMI technology enables end-to-end 8K and 4K solutions with higher refresh rates with a single cable for a seamless integration with the HDMI eco-system.
8K60

8K delivers a super-immersive viewing experience

60Hz enables smooth and sharp viewing of content with high-speed action
**Higher Resolutions and Faster Refresh Rates**

4K120

Ultra fast-motion UHD images are crisp and razor sharp - especially sports, action movies, high-performance gaming and VR.
Multiple resolution support includes 5K and 10k resolutions for PC displays, digital signage, surveillance, and various commercial and industrial AV solutions.

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<th>Resolutions and Refresh Rates</th>
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<td>4K50/60</td>
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<td>5K50/60</td>
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<td>8K50/60</td>
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<td>10K50/60</td>
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Both uncompressed and compressed bandwidth are supported and enabled to deliver a full range of features.

Supports the latest color spaces such as BT.2020 with 10 or more bit colors now at higher frame rates, and also supports 12, 14, and 16 bit color.
DYNAMIC HDR
The HDMI 2.1 specification supports multiple static and dynamic HDR solutions
HDR enhances video images with an extended dark to bright contrast range for deeper blacks and brighter whites, greater detail in both the dark and bright parts in the same image, and greater detail within an extended color space.
Dynamic HDR enables a noticeable progression in overall video image quality from SDR to static HDR, and now static HDR to dynamic HDR.
Movies and other content will be able to take advantage of HDR’s expanded contrast ranges, brightness levels, and heightened levels of detail—and now have them optimized on a scene-by-scene or even a frame-by-frame basis.
Static HDR uses a single image descriptor in metadata that is a compromise that applies to every scene and every frame of the whole movie.
Dynamic HDR ensures every moment of a video is displayed at its ideal values for depth, detail, brightness, contrast, and wider color gamuts—on a scene-by-scene or even a frame-by-frame basis.

Dynamic HDR image descriptor in metadata can be specific to each individual scene... or even on a frame-by-frame basis.
48G CABLE
48G Cable

Ensures high-bandwidth dependent features are delivered including enhanced video and audio performance, and accounting for new EMI characteristic
48G CABLE SUPPORT FOR HDMI 2.1

Supports the full range of uncompressed HDMI 2.1 Specification features including 8K video with HDR

Enables up to 48Gbps bandwidth
48G Cable Advantages

A more reliable high quality cable for robust, higher-bandwidth performance, and exceptionally low EMI

Utilizes existing HDMI connectors Types A, C and D

Includes the HDMI Ethernet Channel

Cable is backwards compatible and can be used with the existing installed base of billions of HDMI devices

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eARC
eARC (Enhanced Audio Return Channel)

eARC supports the most advanced audio formats and enables advanced audio signal control capabilities
HDMI-Enabled Support for Highest Quality Audio

Home theater enthusiasts will have the ability to seamlessly utilize HDMI connectivity with AVRs and utilize a range of the highest quality audio formats available.

Consumers that want to easily enhance their UHD viewing will now have access to the most advanced audio formats through a simple-to-setup HDMI-enabled sound bar system.
eARC Object-Based Audio Support

eARC supports the most advanced audio formats such as object-based audio.

Object-based audio provides an immersive multi-dimensional experience and enhanced audio detail and depth.
Advanced control enables users to plug any HDMI-enabled device into an HDMI 2.1-enabled TV and audio device, and the TV will automatically detect and identify the device.
GAME MODE VRR
Game Mode VRR

produces a more fluid and better detailed gameplay experience

Features variable refresh rate (VRR), and synchs up source and display
3D graphics processor transmits and displays video frames at the moment it is rendered, without being constrained to a fixed output or frame rate.

Each frame is rendered, delivered and displayed at its optimal quality.

Frames transmitted and displayed as soon as rendered without restraints.
GAME MODE VRR ADVANTAGE

Reduces or eliminates...

• Game interaction lag
• Frame stutter, skipping, and freezing
• Frame tearing
Supports the Advanced Game Eco-System

Enables HDMI devices to support the most advanced extreme gaming features

More HDMI-enabled products can be utilized for advanced gaming

HDMI-enabled devices can include gaming consoles, PCs, laptops, PC monitors, VR gear, and UHD TVs
For More Information: www.hdmiforum.org
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