



A White Paper by NSI

HDMI 2.1 Features, Definitions & Version Comparison

Rev. 180201

HDMI 2.1 provides a host of features not available in earlier HDMI versions. This white paper compares and defines those features, as well as provides comparative look at each HDMI version's maximum transmission bandwidth and supported signal resolution.

Features	HDMI Version						
	1	1.1	1.2	1.3	1.4	2.0	2.1
Consumer Electronic Control (CEC)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVD-Audio	No	Yes	Yes	Yes	Yes	Yes	Yes
Super Audio CD (DSD)	No	No	Yes	Yes	Yes	Yes	Yes
Auto Lip-Sync Correction	No	No	No	Yes	Yes	Yes	Yes
Dolby TrueHD / DTS-HD Master Audio	No	No	No	Yes	Yes	Yes	Yes
Next Generation CEC Commands	No	No	No	Yes	Yes	Yes	Yes
3D Video	No	No	No	No	Yes	Yes	Yes
Ethernet Channel	No	No	No	No	Yes	Yes	Yes
Audio Return Channel (ARC)	No	No	No	No	Yes	Yes	Yes
4 Audio Streams	No	No	No	No	No	Yes	Yes
2 Video Streams (Dual View)	No	No	No	No	No	Yes	Yes
Hybrid Log-Gamma (HLG) HDR OETF	No	No	No	No	No	Yes	Yes
Static HDR	No	No	No	No	No	Yes	Yes
Dynamic HDR	No	No	No	No	No	No	Yes
Enhanced Audio Return Channel (eARC)	No	No	No	No	No	No	Yes
Variable Refresh Rate (VRR)	No	No	No	No	No	No	Yes
Quick Media Switching (QMS)	No	No	No	No	No	No	Yes
Quick Frame Transport (QFT)	No	No	No	No	No	No	Yes
Auto Low Latency Mode (ALLM)	No	No	No	No	No	No	Yes
Display Stream Compression (DSC)	No	No	No	No	No	No	Yes
Signal Performance	1	1.1	1.2	1.3	1.4	2.0	2.1
Maximum Transmission Bandwidth	4.95G	4.95G	4.95G	10.2G	10.2G	18G	48G
Maximum Supported Signal Resolution	1080p	1080p	1080p	4K 30	4K 30	4K 60	8K

Feature

Dynamic HDR

Enhanced Audio Return Channel (eARC)

Variable Refresh Rate (VRR)

Quick Media Switching (QMS)

Quick Frame Transport (QFT)

Auto Low Latency Mode (ALLM)

Display Stream Compression (DSC)

Function

High dynamic range information is transmitted to the display frame by frame, creating superior image performance by allowing for finer control of brightness and color levels.

Provides the direct connectivity of sources, displays and sound systems, creating a simpler approach to integrating and using multichannel audio in the home.

Allows dynamic display refresh rates that can continuously and seamlessly vary on the fly, thereby eliminating image artifacts, stuttering and tearing.

Eliminates signal delays that result in blank screens when switching between and/or selecting sources.

Reduces signal latency for smoother no-lag gaming and real-time interactive virtual reality.

Allows for the optimum latency setting to automatically be set for smoother, lag-free uninterrupted viewing and interactivity.

Automatically compresses signals to achieve ultra-high resolutions and frame rate combinations.