

HDMI data rates for 4K HDR formats



| Resolution | Frame rate | Chroma Subsampling Source | Bit Depth per channel | HDR formats | HDMI Data Rate | Required link speed | HDBaseT compatible |
|----------------|----------------------------------|---------------------------|-----------------------|--------------------|-------------------|---------------------|--------------------|
| 3840x2160p UHD | 23.98 , 24, 25, 29.97, 30 | 4:2:0 [^] | 8 | none | 8.91Gbps | 9.0Gbps | Yes |
| | | | 10 | HDR-10/HDR-10+/HLG | | | |
| | | | 12 | Dolby Vision | | | |
| | | 4:2:2 | 8 | none | 8.91Gbps | 9.0Gbps | Yes |
| | | | 10 | HDR-10/HDR-10+/HLG | | | |
| | | | 12 | Dolby Vision | | | |
| | | 4:4:4 | 8 | none | 8.91Gbps | 9.0Gbps | Yes |
| | | | 10 | HDR-10/HDR-10+/HLG | 11.14Gbps | 18Gbps | with compression* |
| | | | 12 | Dolby Vision | 13.37Gbps | 18Gbps | with compression* |
| 3840x2160p UHD | 48, 50, 59.94, 60 | 4:2:0 | 8 | none | 8.91Gbps | 9.0Gbps | Yes |
| | | | 10 | HDR-10/HDR-10+/HLG | 11.14Gbps | 18Gbps | No |
| | | | 12 | Dolby Vision | 13.37Gbps | 18Gbps | No |
| | | 4:2:2 | 8 | none | 17.82Gbps | 18Gbps | with compression* |
| | | | 10 | HDR-10/HDR-10+/HLG | | | with compression* |
| | | | 12 | Dolby Vision | | | with compression* |
| | | 4:4:4 | 8 | none | 17.82Gbps | 18Gbps | with compression* |
| | | | 10 | HDR-10/HDR-10+/HLG | 20.05Gbps# | 24-48Gbps HDMI 2.1 | No |
| | | | 12 | Dolby Vision | 24.06Gbps# | 24-48Gbps HDMI 2.1 | No |

[^] 4:2:0 encoding is not supported at 23.98-30fps. Source content in these formats, such as UHD Blu-ray and OTT services, will be encoded in a 12-bit 4:2:2 container in HDMI.

* HDBaseT with VESA DSC compression is fundamentally compatible with HDR-10, HDR-10+ & Dolby Vision, but check with the vendor. It is also necessary to check with your vendor for compatibility where other forms of compression or compression-alternative solutions including color space conversion (CSC) are employed.

Anticipated data rates using upcoming HDMI 2.1 methodology.