



<http://wiki.homerecz.com>

.....	1
.....	1
.....	1
.....	1
.....	5
.....	5
.....	5
1080P	5
8bit , 24	5
12bit , 30	5
.....	5
.....	7
.....	7
.....	7
.....	7

1080P

8bit , 24

$$\begin{aligned} 1920 \times 1080 &= &= 2073600 \text{ px} \\ 1 \quad \text{Color bit } 8\text{bit} * \text{RGB} &= 8 \text{ bit} \times 3 \text{ color} \\ 1 \quad 24 &= 24\text{fps} \end{aligned}$$

$$2073600\text{px} \times 8\text{bit} \times 3\text{color} \times 24\text{fps} = 1,194,393,600 = 1194\text{Mbps} = 1.2\text{Gbps}$$

12bit , 30

$$\begin{aligned} 1920 \times 1080 &= &= 2073600 \text{ px} \\ 1 \quad \text{Color bit } 12\text{bit} * \text{RGB} &= 12 \text{ bit} \times 3 \text{ color} \\ 1 \quad 30 &= 24\text{fps} \end{aligned}$$

$$2073600\text{px} \times 12\text{bit} \times 3\text{color} \times 30\text{fps} = 2239,488,000 = 2239\text{Mbps} = 2.23\text{Gbps}$$

Resolution/fps	Chroma	Color Bit Depth	Eff. Data Rate	Speed
SD 480/60i	4:2:0	8	0.81Gbps	Standard
SD 576/50i	4:2:0	8	0.81Gbps	Standard
HD 720/50-60p	4:2:0/4:2:2	8	2.23Gbps	Standard
HD 1080/50-60i	4:2:0/4:2:2	8	2.23Gbps	Standard
FHD 1080/24-30p	4:2:0/4:2:2	8, 10 or 12	2.23Gbps	Standard
FHD 1080/50-60p	4:2:0/4:2:2	8, 10 or 12	4.455Gbps	High Speed
	4:4:4/RGB	8	4.455Gbps	High Speed
UHD 4K/24-30p	4:2:0/4:2:2	8, 10 or 12	8.91Gbps	High Speed
	4:4:4/RGB	8	8.91Gbps	High Speed
	4:4:4/RGB	10	11.14Gbps	Premium
UHD 4K/48-60p	4:4:4/RGB	12	13.37Gbps	Premium
	4:2:0*	8	8.91Gbps	Premium
	4:2:0*	10	11.14Gbps	Premium
	4:2:0*	12	13.37Gbps	Premium
	4:2:0/4:2:2	8, 10 or 12	17.82Gbps	Premium
	4:4:4/RGB	8	17.82Gbps	Premium
UHD 4K/100-120p	4:4:4/RGB	10	20.05Gbps	Ultra
	4:4:4/RGB	12	24.06Gbps	Ultra
	4:2:0/4:2:2	8, 10 or 12	32.08Gbps	Ultra
	4:4:4/RGB	8	32.08Gbps	Ultra
5K/24-30p	4:4:4/RGB	10 HDR	40.1Gbps	Ultra
	4:4:4/RGB	12	48.11Gbps	Ultra
	4:2:0/4:2:2	8, 10 or 12	11.88Gbps	Premium
5K/48-60p	4:4:4/RGB	8	11.88Gbps	Premium
	4:4:4/RGB	10	14.85Gbps	Premium
	4:4:4/RGB	12	17.82Gbps	Premium

Resolution/fps	Chroma	Color Bit Depth	Eff. Data Rate	Speed
5K/48-60p	4:2:0/4:2:2	8, 10 or 12	20.05Gbps	Ultra
	4:4:4/RGB	8	20.05Gbps	Ultra
	4:4:4/RGB	10	25.06Gbps	Ultra
	4:4:4/RGB	12	30.07Gbps	Ultra
5K/100-120p	4:2:0/4:2:2	8, 10 or 12	40.1Gbps	Ultra
	4:4:4/RGB	8	40.1Gbps	Ultra
	4:4:4/RGB	10	50.12Gbps	Ultra#
	4:4:4/RGB	12	60.14Gbps	Ultra#
8K/24-30p	4:2:0/4:2:2	10 or 12	32.08Gbps	Ultra
	4:4:4/RGB	10	40.1Gbps	Ultra
	4:4:4/RGB	12	48.11Gbps	Ultra
8K/48-60p	4:2:0*	10	40.1Gbps	Ultra
	4:2:0*	12	48.11Gbps	Ultra
	4:2:0/4:2:2	10 or 12	64.15Gbps	Ultra#
	4:4:4/RGB	10	80.19Gbps	Ultra#
	4:4:4/RGB	12	96.23Gbps	Ultra#
8K/100-120p	4:2:0/4:2:2	10 or 12	128.3Gbps	Ultra#
10K/24-30p	4:2:0/4:2:2	10 or 12	40.1Gbps	Ultra
	4:4:4/RGB	10	50.12Gbps	Ultra#
	4:4:4/RGB	12	60.14Gbps	Ultra#
10K/48-60p	4:2:0/4:2:2	10 or 12	80.19Gbps	Ultra#
	4:4:4/RGB	10	100.24Gbps	Ultra#
	4:4:4/RGB	12	120.29Gbps	Ultra#
10K/100-120p	4:2:0*	10	100.24Gbps	Ultra#
	4:2:0*	12	120.29Gbps	Ultra#

* YC_BC_R 4:2:0 sampling mode (Y420VDB)

Display Stream Compression (DSC) automatically applied to operate within 48Gbps link

NOTE: HDMI 2.1 supports 8-, 10-, 12- & 16-bit color options, with support for static and dynamic HDR



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