



# HB-T-HDMI

The HB-T-HDMI and HB-R-HDMI offer an easy solution for extending UltraHD or HD HDMI signals up to 100 meters over Cat 5 (or better) cable, utilizing the industry standard HDBaseT protocol. Bi-directional IR and RS-232 for device control is also supported, making these Mini-Converters ideal in a variety of scenarios including: fixed installation AV, digital signage, live events, postproduction/network/studio environments and on-set.

\$ US MSRP

<https://www.aja.com/products/hb-t-hdmi>

## Video Formats

- (4K) 4096 x 2160P 50, 59.94, 60 (8-bit 4:2:0)
- (4K) 4096 x 2160P 23.98, 24, 25, 29.97, 30
- (UltraHD) 3840 x 2160P 50, 59.94, 60 (8-bit 4:2:0)
- (UltraHD) 3840 x 2160P 23.98, 24, 25, 29.97, 30
- (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1080p 23.98, 24, 25, 29.97, 50, 59.94, 60
- (HD) 1080i 25, 29.97
- (HD) 720p 25, 29.97, 50, 59.94, 60
- (SD) 625i
- (SD) 525i

**Note:** Wide range of VESA formats supported for pass through see associated chart on VESA formats

## Video Input

- HDMI 1.4b

## Video Output

- HDBaseT (RJ-45)
- CAT 5e 70m (230 ft) or CAT 6a 100m (328 ft)
- 4K/UltraHD signals require Cat 6a to achieve 100m cable run (HD signals can run the full 100m on Category 5e cable)

## Video Displays

- HDBaseT Cable Run Performance for 4K/UltraHD/HD

W x H	Frame Rate	Color Sampling	Max. Cable Length		Max. Bit Depth
			Cat 5e/6	Cat 6a/7	
1920 x 1080	< 30 fps	4:2:2	100 meters	100 meters	16-bit
	> 30 fps	4:2:2	100 meters	100 meters	12-bit
		4:2:2	70 meters	100 meters	16-bit
2048 x 1080	< 30 fps	4:2:2	100 meters	100 meters	16-bit
	> 30 fps	4:2:2	100 meters	100 meters	12-bit
		4:2:2	100 meters	100 meters	16-bit
HB-T-HDMI - Spec Sheet	1920 x 1080	4:2:2	70 meters	100 meters	16-bit

W x H	Frame Rate	Color Sampling	Max. Cable Length		Max. Bit Depth
			Cat 5e/6	Cat 6a/7	
3840 x 2160	< 30 fps	4:4:4	70 meters	100 meters	8-bit
	> 30 fps	4:2:0	70 meters	100 meters	8-bit
4096 x 2160	< 30 fps	4:4:4	70 meters	100 meters	8-bit
	> 30 fps	4:2:0	70 meters	100 meters	8-bit

## VESA Displays

- VESA Display Resolutions and Performance

W x H	Frame Rate	Color Sampling	Max. Cable Length		Bits Per Pixel
			Cat 5e/6	Cat 6a/7	
640 x 480	to 85 fps	4:4:4	100 meters	100 meters	24-bits
800 x 600	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1024 x 768	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1152 x 768	-	4:4:4	100 meters	100 meters	24-bits
1280 x 768	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1280 x 800	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1280 x 1024	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1360 x 768	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1366 x 768	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1400 x 1050	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1440 x 900	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1600 x 1200	to 75 fps	4:4:4	100 meters	100 meters	24-bits
	85 to 120 fps	4:2:0	70 meters	100 meters	24-bits
1680 x 1050	to 85 fps	4:4:4	100 meters	100 meters	24-bits
	120 fps	4:4:4	70 meters	100 meters	24-bits
1920 x 1200	to 120 fps	4:4:4	100 meters	100 meters	24-bits
1920 x 1440	to 60 fps	4:4:4	70 meters	100 meters	24-bits
2560 x 1600	60_RB	4:4:4	70 meters	100 meters	24-bits

## Audio Input

- 8-channels (4 pairs) of embedded audio supported
- Rates supported: 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz

## Audio Output

- HDBaseT embedded audio

## RS-232

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- 1 x 3.5mm TRS Input for RS-232/VISCA bidirectional signals

## IR

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- 1 x 3.5mm TRS Input for IR Input
- 1 x 3.5mm TRS Input for IR Output

## Size (w x d x h)

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- 4.25" x 3.125" x 1.0" (108mm x 79.4mm x 25mm)

## Weight

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- 0.4 lbs (0.2 kg)

## Power

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- +5 to 20V DC regulated, 6 watts max., AJA external power supply model DWP-U-R1, 100-240V, 50/60 Hz universal input

## Environment

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- Safe Operating Temperature: 0 to 40 C (32 to 104 F)
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 10-90% noncondensing
- Operating Altitude: <3,000 meters (<10,000 feet)