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HDMI EXTENDER

HDMI 18Gbps 1x8 HDBaseT Splitter(150m)

AHDSP-V2018CHDB



PRODUCT DESCRIPTION

This 18Gbps HDMI 1x8 HDBaseT Splitter can distribute 1 source signal to any 8 display devices.

Support video resolution up to 4K2K@60Hz 4:4:4.

It is designed with 1 HDMI loop output and 4 HDBaseT outputs. The HDMI signal transmission distance can be extended up to 120 meters at the resolution of 4K2K@60Hz, or 150 meters at 1080P@60Hz via a single CAT6/ 6a/7 cable.

The product supports IR and RS-232 signal pass-through, audio extract function and advanced EDID management.

PRODUCT KEY FEATURES

- HDMI 2.0b, HDCP 2.2 and DVI 1.0 compliant
- Support 18Gbps video bandwidth
- Support video resolution up to 4K2K@50/60Hz 4:4:4
- Support HDR, HDR10+, HLG and Dolby vision
- Support up to 7.1CH HD audio pass-through
- Support digital and analog audio de-embedded output
- Extend the signal transmission distance up to 120 meters at the resolution of 4K2K@60Hz, 150 meters at 1080P@60Hz via a single CAT6/6a/7 cable
- Support 1 HDMI input, 1 HDMI loop output and 4 HDBaseT outputs.
- IR, RS-232 routed to HDBaseT output
- Advanced EDID management
- Support one-way POC function (only from transmitter to receiver)

SPECIFICATIONS

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2/1.x
Video Bandwidth	594MHz/18Gbps
Video Resolution	Up to 4k2k@60Hz 4:4:4
Color Depth	8-bit, 10-bit, 12-bit(1080p@60Hz) 8-bit (4K2K@60Hz YUV4:4:4) 8-bit, 10-bit, 12-bit(4K2K@60Hz YCbCr 4:2:2/4:2:0)
Color Space	RGB 4:4:4, YCbCr 4:4:4 / 4:2:2 / 4:2:0
HDR	Support HDR, HDR10+, HLG, Dolby vision
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus(DD+), DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X
Coaxial Audio Formats	PCM2.0, Dolby Digital / Plus, DTS 2.0/5.1
Analog Audio Formats	PCM 2.0CH
ESD Protection	Human body model—±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Input	1×HDMI Type A (19-pin female)
Output	1×HDMI Type A (19-pin female) 8xHDBaseT OUT [RJ45] 1x Coaxial Audio OUT [RCA] 1xL/R Audio OUT [5-pin phoenix connector]
Control	1×RS-232 (3-pin phoenix connector) 1x EDID DIP switch [5-pin] 1xIR IN [3.5mm Stereo Mini-jack] 1xIR OUT [3.5mm Stereo Mini-jack]
Mechanical	
Housing	Metal Enclosure
Silkscreen Color	Black
Dimensions	Transmitter: 440mm(W) × 130mm(D) × 44mm(H) Receiver: 140mm(W) × 65mm (D) × 18mm (H)
Weight	Transmitter: 1.62kg Receiver: 246g
Power Supply	Input: AC 100 - 240V 50/60Hz, Output: DC 24V/3.75A (US/EU standards, CE/FCC/UL certified)
Power Consumption	72W
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

Operation Controls and Functions

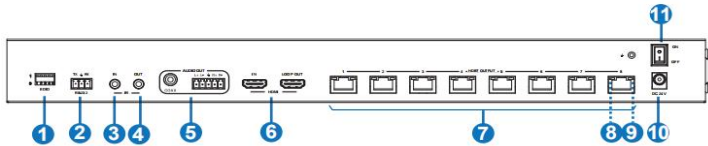
Transmitter Panel

Front Panel



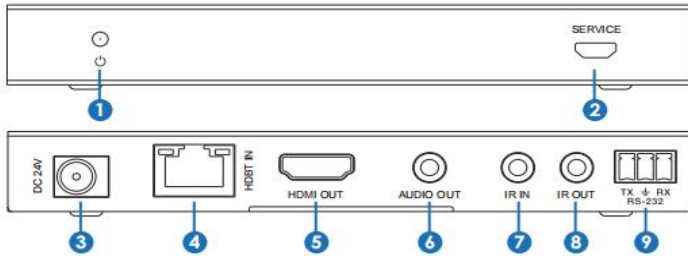
No.	Name	Function Description
1	POWER LED	When the device is powered on, the red power LED will be on.
2	IN LED	When the HDMI IN port connects an active source device, the green LED will be on.
3	LOOP LED	When the HDMI LOOP OUT port connects an active display device, the green LED will be on.
4	OUT(1~4) LED	When the HDBT OUTPUT port connects an HDBaseT Receiver, the corresponding green OUT LED will be on.

Rear Panel



No.	Name	Function Description
1	EDID DIP switch	Used to set EDID mode. Please refer to Section "6. EDID Mode" for details.
2	RS-232	Connect to a PC or control system via a 3-pin phoenix connector cable for three functions: 1, Firmware update; 2, Control the Splitter via RS-232 commands; 3, RS-232 signal pass-through (from transmitter to receiver or from receiver to transmitter).
3	IR IN	Connect to IR receiver cable, the IR receive signal will emit to "IR OUT" port of the HDBaseT Receiver.
4	IR OUT	Connect to IR blaster cable, the IR emit signal is from "IR IN" port of the HDBaseT Receiver.
5	AUDIO OUT (COAX, L/R)	Coaxial/balanced audio output port, conned to amplifier or speaker.
6	HDMI port	IN: HDMI input port, connect to HDMI source device such as DVD or set-top box with an HDMI cable. LOOP OUT: HDMI loop output port, connect to the HDMI display device such as TV or Monitor with an HDMI cable.
7	HDBT OUTPUT port (1~8)	Connect to the HDBT IN port of the HDBaseT receiver with a CAT cable.
8	Connection Signal Indicator lamp (Green)	- Illuminating: Transmitter and Receiver are in good connection status. - Flashing: Transmitter and Receiver are in poor connection status. - Dark: Transmitter and Receiver are not connected.
9	Data Signal Indicator lamp (Orange)	- Illuminating: HDMI signal with HDCP. - Flashing: HDMI signal without HDCP. - Dark: No HDMI signal.
10	DC 24V	Plug the DC 24V power supply into the unit and connect the adaptor to an AC outlet. (Note: The transmitter can power the receiver via a CAT cable.)
11	POWER switch	Press this switch to power on/off the device.

HDBaseT Receiver



No.	Name	Function Description
1	Power Indicator	When the receiver is powered on, the power indicator will be on.
2	SERVICE port	Used for firmware update.
3	DC 24V	Plug DC 24V/1A power supply into the unit and connect the adapter to an AC outlet. (Note: The HDBaseT receiver also can be powered by the transmitter via a CAT cable.)
4	HDBT IN	Connect to the HDBT OUTPUT port on the transmitter with a CAT cable.
5	Connection Signal Indicator lamp (Green)	<ul style="list-style-type: none"> - Illuminating: Transmitter and Receiver are in good connection status. - Flashing: Transmitter and Receiver are in poor connection status. - Dark: Transmitter and Receiver are not connected.
6	Data Signal Indicator lamp (Orange)	<ul style="list-style-type: none"> - Illuminating: HDMI signal with HDCP. - Flashing: HDMI signal without HDCP. - Dark: No HDMI signal.
7	HDMI OUT	HDMI output port, connect to HDMI display device such
8	AUDIO OUT	Audio output port, connect to <u>amplifier</u> or speaker.
9	IR IN	Connected to the IR Receiver cable. The IR signal will send to the IR OUT port of the transmitter.
10	IR OUT	Connect to the IR blaster cable, the IR signal is from IR IN port of the transmitter.
11	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will pass-through from transmitter to receiver or from receiver to transmitter

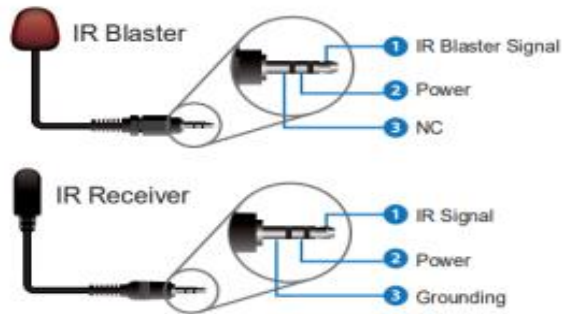
IR Pin Definition



IR Receiver



IR Blaster



Note: When the angle between the IR receiver and the remote control is $\pm 45^\circ$, the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is $\pm 90^\circ$, the transmission distance is 0-8 meters.