HDBaseT to Dual 4K HDMI Scaler with Audio Re-embedding - ID# 15462

Operation Manual

CONVERTERS.TV

Introduction

This HDBaseT to HDMI Scaler can receive uncompressed audio/video along with control, Ethernet, and extra audio data over a single run of Cat.5e/6/7 cable up to 100m. While the HDBaseT input is limited to a maximum of 4K@60Hz (4:2:0), this unit can automatically convert or scale the input to output at 4K@60Hz (4:4:4) depending on the detected capability of the connected display. Simple 6G HDMI test patterns are also available to be output for easy testing of local equipment. Control of remote devices is possible via bi-directional RS-232, IR ports as well as a LAN connection. Digital OAR (Optical Audio Return) support at 48Khz and a balanced analog audio output provides users with additional audio flexibility. The 48V PoH design can receive power from the connected Transmitter (PSE), eliminating the need for a local power supply, however power via 5V power supply is also supported if needed.

Features

- Supports the HDBaseT 2.0 specification
- Supports 4K video over a single Cat.7 cable up to 100m/328ft and Cat.5e/6 cable up to 70m/295ft
- HDBaseT 5Play™ convergence: High-Definition (HD) Video and Audio, 100BaseT Ethernet, PoH and Control (Bi-directional IR/RS-232 pass-through)
- Fully compliant with HDMI 1.4, and compatible with HDMI 2.0 (4K@60Hz, YUV 4:2:0)
- HDMI with 6G 4K support and HDCP 2.2 compliance
- Supports HDMI to DVI conversion
- Support signal bypass on both outputs or output B can upscale 1080p signals to 4K and output A can downscale a 4K signal to 1080p (same framerate is maintained)
- 4K UHD (4:2:0) to 4K UHD (4:4:4) conversion
- Test pattern generation at select resolutions for on-site display testing
- Integrated EDID management
- Supports data rates up to 6Gbps (600MHz) and Deep Color up to 1080p, 48-bit
- Supports UHD resolutions including: 3840x2160@24/25/30Hz, 3840x2160@50/60Hz (4:4:4) & 4096x2160@24/25/30Hz, 4096x2160@50/60Hz (4:4:4)
- Supports LPCM 2.0/5.1/7.1, Dolby Digital 5.1, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos and DTS-HD Master Audio (Bypass)
- Supports OAR (Optical Audio Return) and DAC audio balance conversion
- Supports optical sampling rates up to 48kHz
- OSD with instant I/O resolution display
- 10/100 Ethernet network support
- Supports RS-232 baud rates from 110~115200bps

Note: When displaying 4K HDR, or an equivalent signal, an appropriate display is required in order to obtain the best image. The use of "Premium High Speed HDMI" cables is highly recommended.

Applications

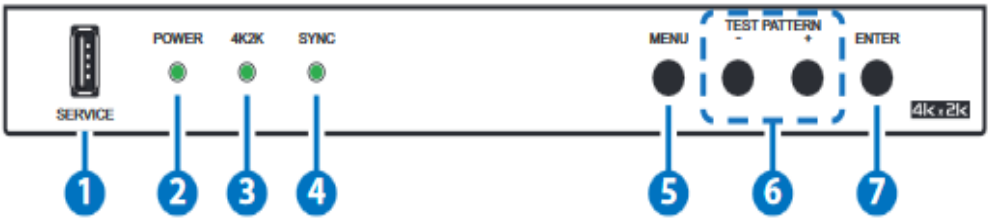
- Live events needing dual output formats and signal extension
- Hotel ballroom with extension and audio breakout
- On-site equipment testing

System Requirements

- A compatible HDBaseT™ transmitter is required as a video source.
  An HDBaseT™ transmitter equipped with Optical Audio Return (OAR) channel support and 48v PoH are strongly recommended.
- HDMI receiving equipment such as HDTVs, monitors or audio amplifiers.

Operating Functions and Controls

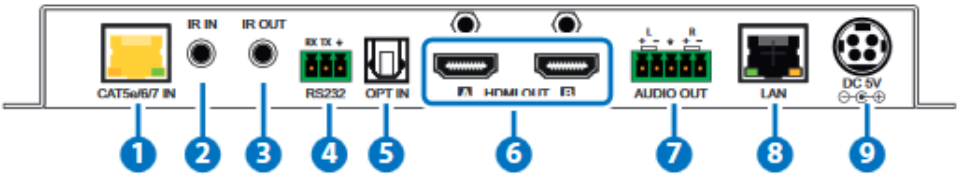
Front Panel



1. SERVICE:
This slot is reserved for firmware update use only.
2. POWER:
This LED will illuminate to indicate the unit is on and receiving power.
3. 4K2K:
This LED will illuminate to indicate the input source contains a 4K UHD signal.
4. SYNC:
This LED will illuminate when a live input source is detected.
5. MENU:
Press to enter the OSD menu, or to back out from menu items. Once within the OSD press this button a second time to exit. Press and hold this button together with the "-" button for 3 seconds to reset the unit back to factory defaults.

6. TEST PATTERN +/-:
Outside of the OSD, press these buttons to select a pattern to instantly display on the outputs. Press and hold both buttons simultaneously to instantly switch the test pattern output timing to 1280x720@60Hz. Within the OSD menu, press to move up and down or adjust selections within menus.
7. ENTER:
Press to confirm a selection or to go deeper into a menu item.
Note:
Press and hold the ENTER and MENU buttons for 3 seconds to enter into firmware update mode. The LEDs will illuminate in sequence from left to right to indicate the unit is in update mode. Plug a USB thumb drive containing the updated firmware in the root directory into the SERVICE port. The LEDs will turn off to indicate the update process is proceeding. If the update procedure is completed successfully all LEDs will illuminate together. If the update fails then no LEDs will illuminate. The unit will automatically reboot after approximately 10 seconds. After completing the upgrade process please verify the firmware version within the OSD menu under “INFORMATION.”

Rear Panel



1. CAT5e/6/7 IN:
Connect to the Transmitter unit with a single Cat.5e/6/7 cable for transmission of all data signals. The yellow LED will illuminate to indicate a successful data connection between the Transmitter and Receiver. The green LED will illuminate to indicate when PoH is active.
2. IR IN:
Connect to the provided IR Extender to extend the IR control range of remotely located devices. Ensure that the remote being used is within direct line-of-sight of the IR Extender.
3. IR OUT:
Connect to the provided IR Blaster to transmit IR signals to devices within direct line-of-sight of the IR Blaster.
4. RS-232:
Connect to the device you wish to control via a 3-pin adapter cable to receive RS-232 commands from the Transmitter. For sending commands to the Transmitter side, depending on your equipment’s pinout, the Tx and Rx pins might need to be reversed.
5. OPT. IN:
Connect to the optical audio output of a device such as a media player or game console using an appropriate optical cable. The audio will be sent back to the Transmitter via the OAR

(Optical Audio Return) feature.

6. HDMI OUT:

Connect to HDMI TVs, monitors or amplifiers for digital video and audio output. The selected output resolution can be different for each HDMI port. A test pattern can also be displayed.

7. AUDIO OUT:

Connect to powered speakers, an audio amplifier, mixer, or DSP for balanced stereo analog output extracted from an HDMI source with LPCM 2.0 audio. (balance audio spec. TBA)

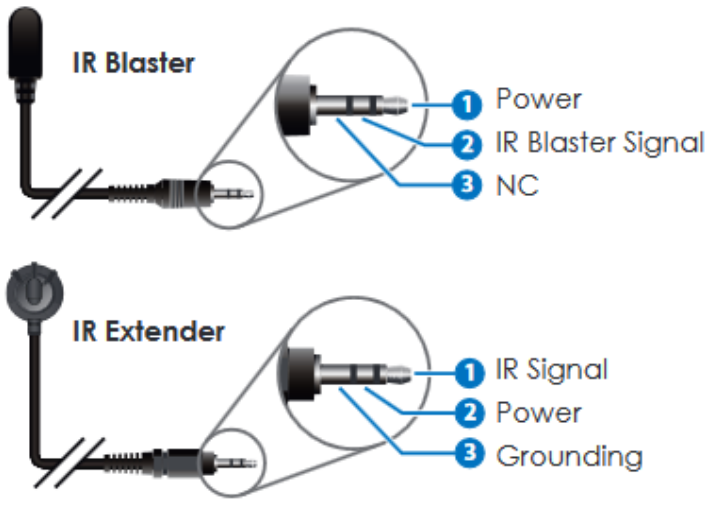
8. LAN:

Connect to an Ethernet supporting device or to your local network as appropriate. The yellow LED will illuminate to indicate a successful LAN connection between the Transmitter and Receiver, however, if the yellow LED blinks irregularly it indicates a data link error. The green LED will illuminate when the connected Ethernet speed is 100Mbit/s.

9. DC 5V:

Plug the 5V DC power adapter into the unit and connect it to an AC wall outlet for power. (Not required if the unit is being powered by a 48v PoH Transmitter)

IR Cable Pin Assignments



OSD Menu

1st level	2nd level	3rd level	4th level
OUTPUT	OUTPUT A	INPUT 4K2K	**PASS THROUGH**
			DOWN 1080P*3
			FIX 4K2K(RGB444)*4
			FIX 4K2K(YUV444)*5
			AUTO *6
	OUTPUT B	INPUT 1080P	**PASS THROUGH**
			UP 4K2K*1
			UP 4K2K(YUV420)*2
		INPUT 4K2K	**PASS THROUGH**
			FIX 4K2K(RGB444)
			FIX 4K2K(YUV444)
			4K2K COLOR AUTO
EDID	INTERNAL 4K(3G-2CH)	YES/NO	
	INTERNAL 4K(420-2CH)	YES/NO	
	INTERNAL 1080P(2CH)	YES/NO	
	EXTERNAL OUT A	YES/NO	
	EXTERNAL OUT B	YES/NO	
	EXTERNAL OUT A (2CH)	YES/NO	
	EXTERNAL OUT B (2CH)	YES/NO	
HDCP	HDCP		

	SUPPORT OFF		
	REFER TO SOURCE		
	REFER TO DISPLAY		
OSD	DISPLAY INFO	ON	
		OFF	
	OSD TIME OUT	OFF	
		5 SEC.	
		10 SEC.	
		15 SEC.	
		20 SEC.	
		25 SEC.	
		30 SEC.	
		35 SEC.	
		40 SEC.	
TEST PATTERN A	MODE	**OFF**	
		ON	
		AUTO PATTERN	
		AUTO TIMING	
	PATTERN	**WHITE COLOR**	
		RED COLOR	
		GREEN COLOR	
		BLUE COLOR	
		MAGENTA COLOR	
		YELLOW COLOR	
		CYAN COLOR	
		COLOR BAR	
		RAMP	
		TOGGLE	
	RESOLUTION	720X480P@60	

		720X576P@50	
		1280X720P@50	
		1280X720P@60	
		1920X1080P@50	
		1920X1080P@60	
		3840X2160P@24	
		3840X2160P@25	
		3840X2160P@30	
		4096X2160P@24	
		4096X2160P@25	
		4096X2160P@30	
	HDCP	**DISABLE**	
		ENABLE	
	SWITCH TIME	**10 SEC**	
		20 SEC	
		30 SEC	
		40 SEC	
		50 SEC	
		1 MIN.	
		2 MIN.	
		3 MIN.	
		5 MIN.	
	AUTO TIMING SELECT	720X480P@60	**YES**/NO
		720X576P@50	YES/**NO**
		1280X720P@50	YES/**NO**
		1280X720P@60	**YES**/NO
		1920X1080P@50	YES/**NO**
		1920X1080P@60	**YES**/NO
		NEXT PAGE	
		3840X2160P@24	YES/**NO**
		3840X2160P@25	YES/**NO**
		3840X2160P@30	YES/**NO**
		4096X2160P@24	YES/**NO**

		4096X2160P@25	YES/**NO**
		4096X2160P@30	YES/**NO**
		PREVIOUS PAGE	
TEST PATTERN B	MODE	**OFF**	
		ON	
		AUTO PATTERN	
		AUTO TIMING	
	PATTERN	**WHITE COLOR**	
		RED COLOR	
		GREEN COLOR	
		BLUE COLOR	
		MAGENTA COLOR	
		YELLOW COLOR	
		CYAN COLOR	
		COLOR BAR	
		RAMP	
		TOGGLE	
	RESOLUTION	720X480P@60	
		720X576P@50	
		1280X720P@50	
		1280X720P@60	
		1920X1080P@50	
		1920X1080P@60	
		3840X2160P@24	
		3840X2160P@25	
		3840X2160P@30	
		4096X2160P@24	
		4096X2160P@25	
		4096X2160P@30	
		3840X2160P@50	

		3840X2160P@60	
		4096X2160P@50	
		4096X2160P@60	
	HDCP	DISABLE	
		ENABLE	
	SWITCH TIME	**10 SEC.**	
		20 SEC.	
		30 SEC.	
		40 SEC.	
		50 SEC.	
		1 MIN	
		2 MIN	
		3 MIN	
		5 MIN	
	AUTO TIMING SELECT	720X480P@60	**YES**/NO
		720X576P@50	YES/**NO**
		1280X720P@50	YES/**NO**
		1280X720P@60	**YES**/NO
		1920X1080P@50	YES/**NO**
		1920X1080P@60	**YES**/NO
		NEXT PAGE	
		3840X2160P@24	YES/**NO**
		3840X2160P@25	YES/**NO**
		3840X2160P@30	YES/**NO**
		4096X2160P@24	YES/**NO**
		4096X2160P@25	YES/**NO**
		4096X2160P@30	YES/**NO**
		3840X2160P@50	YES/**NO**
		3840X2160P@60	YES/**NO**
		4096X2160P@50	YES/**NO**
		4096X2160P@60	YES/**NO**
		PREVIOUS PAGE	
INFORMATION	RESOLUTION	INPUT	XXX

		OUTPUT A	XXX
		OUTPUT B	XXX
	HDCP	OUTPUT A	DISABLE/ENABLE
		OUTPUT B	DISABLE/ENABLE
	FIRMWARE	SYSTEM VERSION	VX.XX
		VALENS VERSION	VX.XX.XX.X
FIRMWARE UPDATE	**NO**		
	YES		
FACTORY SETTING	**NO**		
	YES		

***1 UP 4K2K**
Input → Output conversion rules
1920x1080p@24Hz → 3840x2160@24Hz
1920x1080p@25Hz → 3840x2160@25Hz
1920x1080p@30Hz → 3840x2160@30Hz
1920x1080p@50Hz → 3840x2160@50Hz
1920x1080p@60Hz → 3840x2160@60Hz

***2 UP 4K2K (YUV420)**
Input → Output conversion rules
1920x1080p@50Hz (RGB, YCbCr 4:4:4,YCbCr 4:2:2) → 3840x2160@50Hz (YCbCr 4:2:0)
1920x1080p@60Hz (RGB, YCbCr 4:4:4,YCbCr 4:2:2) → 3840x2160@60Hz (YCbCr 4:2:0)

***3 DOWN 1080P**
Input → Output conversion rules
3840x2160@24Hz → 1920x1080p@24Hz
3840x2160@25Hz → 1920x1080p@25Hz
3840x2160@30Hz → 1920x1080p@30Hz
3840x2160@50Hz → 1920x1080p@50Hz
3840x2160@60Hz → 1920x1080p@60Hz
4096x2160@24Hz → 1920x1080p@24Hz
4096x2160@25Hz → 1920x1080p@25Hz
4096x2160@30Hz → 1920x1080p@30Hz
4096x2160@50Hz → 1920x1080p@50Hz
4096x2160@60Hz → 1920x1080p@60Hz

***4 FIX 4K2K(RGB 444)**
Input → Output conversion rules
3840x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@24Hz (RGB)

3840x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@25Hz (RGB)
3840x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@30Hz (RGB)
3840x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 3840x2160@50Hz (RGB)
3840x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 3840x2160@60Hz (RGB)
4096x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@24Hz (RGB)
4096x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@25Hz (RGB)
4096x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@30Hz (RGB)
4096x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 4096x2160@50Hz (RGB)
4096x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 4096x2160@60Hz (RGB)

***5 FIX 4K2K(YUV444)**
Input → Output conversion rules
3840x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@24Hz (YCbCr 4:4:4)
3840x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@25Hz (YCbCr 4:4:4)
3840x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 3840x2160@30Hz (YCbCr 4:4:4)
3840x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 3840x2160@50Hz (YCbCr 4:4:4)
3840x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 3840x2160@60Hz (YCbCr 4:4:4)
4096x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@24Hz (YCbCr 4:4:4)
4096x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@25Hz (YCbCr 4:4:4)
4096x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2) → 4096x2160@30Hz (YCbCr 4:4:4)
4096x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0) → 4096x2160@50Hz (YCbCr 4:4:4)
4096x2160@60Hz (RGB, YCbCr 444, YCbCr 4:2:2, YCbCr 4:2:0) → 4096x2160@60Hz (YCbCr 444)

***6 AUTO**
Input → Output conversion rules
(1) If the input is RGB and the output supports RGB
3840x2160@24Hz (RGB) → 3840x2160@24Hz (RGB)
3840x2160@25Hz (RGB) → 3840x2160@25Hz (RGB)
3840x2160@30Hz (RGB) → 3840x2160@30Hz (RGB)
3840x2160@50Hz (RGB) → 3840x2160@50Hz (RGB)
3840x2160@60Hz (RGB) → 3840x2160@60Hz (RGB)
4096x2160@24Hz (RGB) → 4096x2160@24Hz (RGB)
4096x2160@25Hz (RGB) → 4096x2160@25Hz (RGB)
4096x2160@30Hz (RGB) → 4096x2160@30Hz (RGB)

4096x2160@50Hz (RGB) → 4096x2160@50Hz (RGB)
4096x2160@60Hz (RGB) → 4096x2160@60Hz (RGB)

(2) If the input is YUV 4:4:4, and the output can support it, then the output will be YUV 4:4:4. If the input is YUV 4:4:4, and the output can't support it, then the output will be converted to RGB.
3840x2160@24Hz (YCbCr 4:4:4) → 3840x2160@24Hz (RGB, YCbCr 4:4:4)
3840x2160@25Hz (YCbCr 4:4:4) → 3840x2160@25Hz (RGB, YCbCr 4:4:4)
3840x2160@30Hz (YCbCr 4:4:4) → 3840x2160@30Hz (RGB, YCbCr 4:4:4)
3840x2160@50Hz (YCbCr 4:4:4) → 3840x2160@50Hz (RGB, YCbCr 4:4:4)
3840x2160@60Hz (YCbCr 4:4:4) → 3840x2160@60Hz (RGB, YCbCr 4:4:4)
4096x2160@24Hz (YCbCr 4:4:4) → 4096x2160@24Hz (RGB, YCbCr 4:4:4)
4096x2160@25Hz (YCbCr 4:4:4) → 4096x2160@25Hz (RGB, YCbCr 4:4:4)
4096x2160@30Hz (YCbCr 4:4:4) → 4096x2160@30Hz (RGB, YCbCr 4:4:4)
4096x2160@50Hz (YCbCr 4:4:4) → 4096x2160@50Hz (RGB, YCbCr 4:4:4)
4096x2160@60Hz (YCbCr 4:4:4) → 4096x2160@60Hz (RGB, YCbCr 4:4:4)

(3) If the input is YUV 4:2:2, and the output can support it, then the output will be YUV 4:2:2. If the output does not support YUV 4:2:2 but does support YUV 4:4:4, then the output will be YUV 4:4:4. If the output does not support YUV 4:2:2 or 4:4:4, then the output will be RGB.
3840x2160@24Hz (YCbCr 4:2:2) → 3840x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
3840x2160@25Hz (YCbCr 4:2:2) → 3840x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
3840x2160@30Hz (YCbCr 4:2:2) → 3840x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
3840x2160@50Hz (YCbCr 4:2:2) → 3840x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
3840x2160@60Hz (YCbCr 4:2:2) → 3840x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
4096x2160@24Hz (YCbCr 4:2:2) → 4096x2160@24Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
4096x2160@25Hz (YCbCr 4:2:2) → 4096x2160@25Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
4096x2160@30Hz (YCbCr 4:2:2) → 4096x2160@30Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
4096x2160@50Hz (YCbCr 4:2:2) → 4096x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
4096x2160@60Hz (YCbCr 4:2:2) → 4096x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:2)

(4) If the input is YUV 4:2:0, and the output is not 6G capable, then the output will be YUV 4:2:0. If the output is 6G capable and supports YUV 4:4:4, then the output will be YUV 4:4:4. If the output is 6G capable, but does not support YUV 4:44, then the output will be RGB.
3840x2160@50Hz (YCbCr 4:2:0) → 3840x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:0)
3840x2160@60Hz (YCbCr 4:2:0) → 3840x2160@60Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:0)
4096x2160@50Hz (YCbCr 4:2:0) → 4096x2160@50Hz (RGB, YCbCr 4:4:4, YCbCr 4:2:0)
4096x2160@60Hz (YCbCr 4:2:0) → 4096x2160@60Hz (RGB, YCbCr 4:4:4,

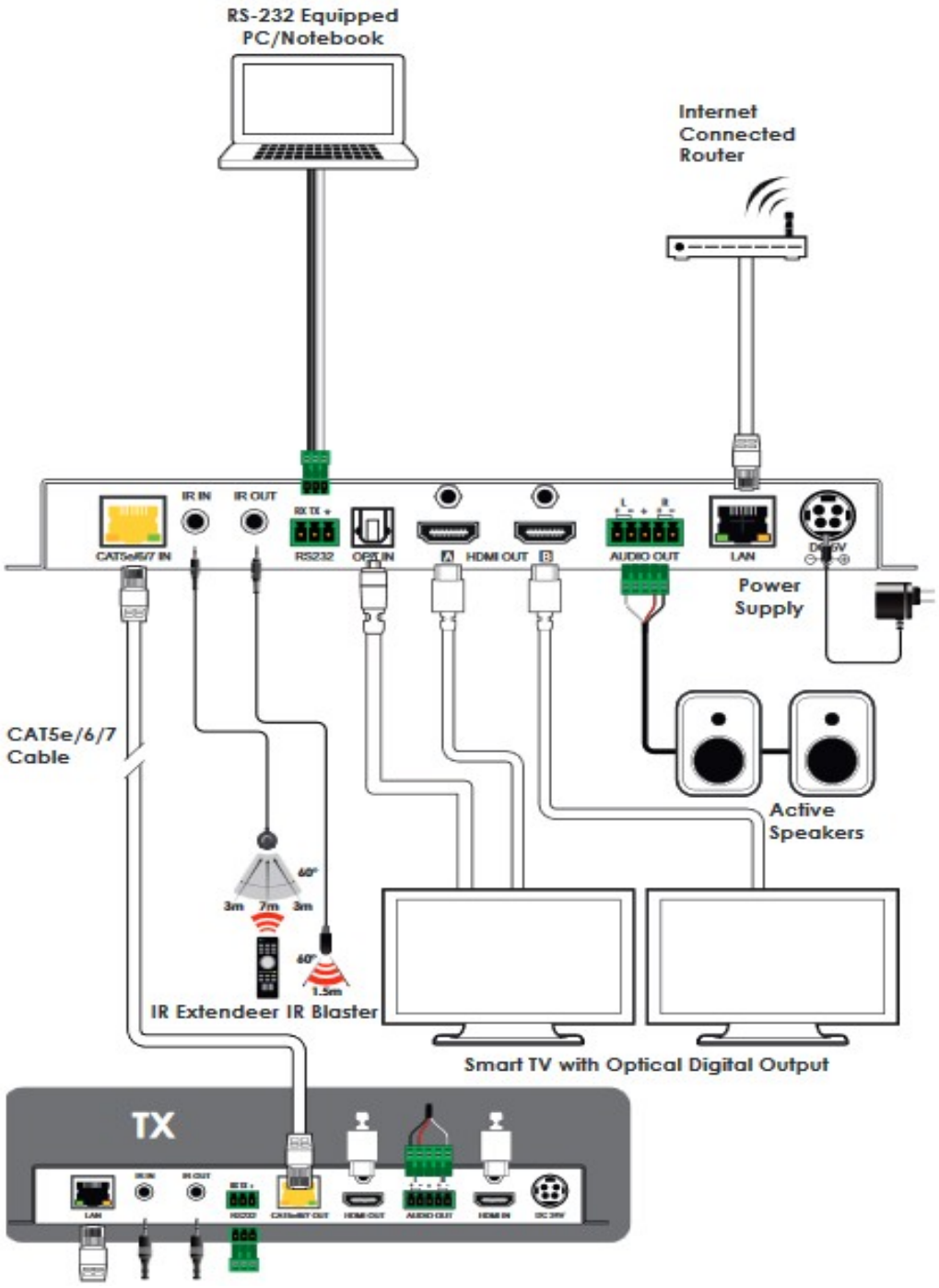
YCbCr 4:2:0)
Default settings are in Italic bold font
Note:
When input timing is non-VESA compliant the OSD may be disabled.
To get into the OSD menu in this case, please press the hot key combination to enter into test pattern mode and operate the OSD menu while the test pattern is displaying.

Specifications

Input Video Bandwidth	340MHz/10.2Gbps
Output Video Bandwidth	600MHz/18G
Input Ports	1 x CAT5e/6/7, 1 x IR 1 x LAN, 1 x RS-232, 1 x IR, 1 x USB (Service), 1 x Optical
Output ports	2 x HDMI, 1 x IR 1 x L/R (Balance Audio)
IR Frequency	20~60kHz
Baud Rate	Up to 115200bps
Power Supply	5VDC/2.6A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human Body model: ± 8kV (air-gap discharge) ± 4kV (contact discharge)
Dimensions	231.5W x 25H x 117D(mm)
Weight	670g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0℃~40℃ / 32℉ ~ 104℉
Storage temperature	-20℃~60℃ / -4℉ ~ 140℉
Relative Humidity	20~90% RH (no condensation)
Power Consumption	13.86w

Note:
HDMI cable distance can be impacted by the materials and design of the cable used. The use of “Premium High Speed HDMI” cables is highly recommended.

Connection Diagram



Video Supports Specification

DVI and HDMI Supported (Hz)	Input	Output
720x480i@60	√	√
640x480p@60	√	√
720x576i@50	√	√
720x576p@50	√	√
800x600@56/60/72/75/85	√	√
1024x768@60/70/75/85	√	√
1280x720p@50/60	√	√
1280x768@60/75	√	√
1280x800@60/75	√	√
1280x1024@60/75	√	√
1366x768@60	√	√
1400x1050@60/75	√	√
1440x900@60/75	√	√
1600x900@60	√	√
1600x1200@60	√	√
1680x1050@60	√	√
1920x1080i@50/60	√	√
1920x1080p@24/25/30/50/60	√	√
1920x1200@60	√	√
3840x2160@24/25/30/50/60	√	√
4096x2160@24/25/30/50/60	√	√

Audio Specification

Input Level/ Freq	Output Terminal	Output Level	THD+N	Frequency Response	SNR	Crosstalk
HDMI 0dBFS/ 1KKHz	HDMI	0dB~-1dB	<0.01%	±1dB	>80dB	<-80dB
	L/R	Vrms±10%	<0.1%	±3dB	>70dB	<-60dB
Optical 0dBFS	HDMI	TBA	TBA	TBA	TBA	TBA
	L/R	TBA	TBA	TBA	TBA	TBA

Compatible Transmitter family Device

HDBaseT TX	Power
ID# 15461 (CSC-6012TX)	24V(PSE)
ID# 15179 (CH-513TXL)	5V
(CH-507TX)	24V(BD)
ID# 15374 (CH-1527TX)	48V(PSE)
ID# 15426 (CH-1529TX)	48V(PSE)

CAT5eCat.5e/6/7 Cable Specification

Cable Type	Range	Pixel Clock Rate	Video Data Rate	Supported Video Formats
CAT5e/6/7	100m	≤225 MHz	≤5.3 Gbps (HD Video)	Up to 1080p@60 Hz, 36-bit, 3D (data rates lower than 5.3 Gbps or below 225 MHz TMDS clock).
	70 m/ CAT5e/6 100 m/ CAT7	>225 MHz	>5.3 Gbps (Ultra HD Video)	4K2K, 60Hz, YUV 4:2:0 Video formats

HDBaseT Features

HDBaseT Feature	Support
ARC	YES
Video & Audio	YES
IR	YES
RS-232	YES
Receive Power from TX	YES
LAN	YES