

LBC-HDBT2-T/R-48

LINK BRIDGE™ HDBASET 2.0
HDMI TRANSMISSION WITH
48V PoH OVER 100M



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SAFETY INSTRUCTIONS AND COMPLIANCE DECLARATIONS

PLEASE OBSERVE THE FOLLOWING SAFETY
PRECAUTIONS

SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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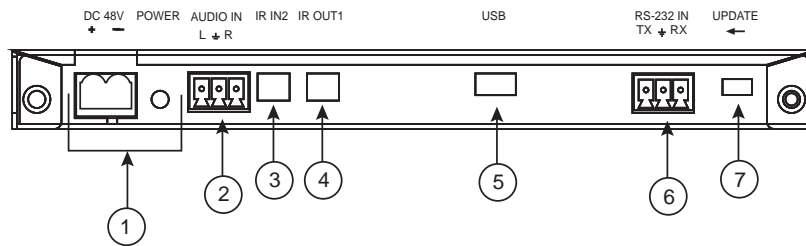
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1.0 PRODUCT DESCRIPTION

- Compliant to HDBaseT 2.0 specs
- Extend HDMI Signals up to 100 meters Over One CAT 5e/6 Cable
- Supports Full HDTV Video Resolutions up to 4K2K@30Hz
- Fully Uncompressed Video & Audio Provides Zero Loss of Quality
- Supports True DDC/EDID/HDCP Transmission
- Video/Audio+IR+Data+Ethernet+USB+ARC, Over 1 CAT 5e/6 Cable
- 48V PoH from transmitter (PSE) to receiver (PD)
- TX-PSE (providing power), RX-PD (receiving power)
- HDMI 1.4 and HDCP 2.2 compliant
- Supports both RS232 and IR Control Data

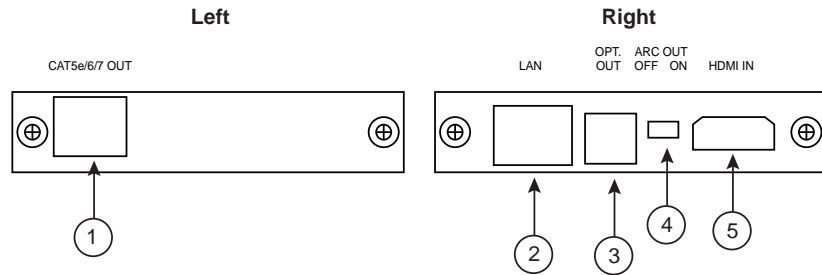
2.0 OPERATION CONTROLS AND FUNCTIONS

2.1 Transmitter Front Panel



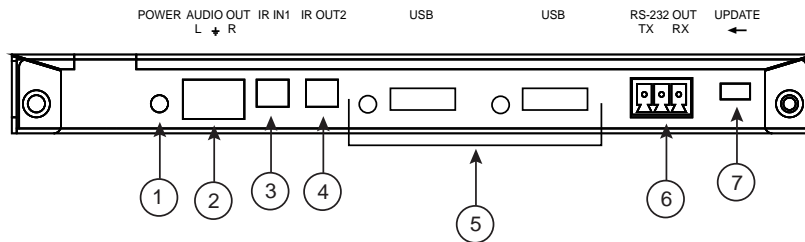
- 1. DC 48V and POWER LED:** Plug the 48V DC power supply into the unit and connect the adaptor to an AC outlet and the LED will illuminate.
- 2. AUDIO IN L/R:** Connect with audio source equipment such as PC or CD player for audio signal sending to Receiver's AUDIO OUT L/R.
- 3. IR IN 2:** Connect to the supplied IR Extender cable for IR signal reception. Ensure that remote being used is within the direct line- of-sight of the IR Extender.
- 4. IR OUT 1:** Connect to the supplied IR Blaster Cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.
- 5. USB:** Connect from PC or Laptop for data transmit to or control from the Receiver's USB slots.
- 6. RS-232 IN TX/RX:** Connect to a PC or Laptop with 3-pin Relay cable for the transmission of RS-232 commands. For receiving command from Receiver side, the TX and Rx pin must be reversed.
- 7. UPDATE:** This is reserved for firmware update use only. Switch this deep switch to left for firmware update use, under normal operation, leave the switch on right. Update procedure may be done from the same RS-232 port for both Transmitter and Receiver.

2.2 Transmitter Left and Right Panels



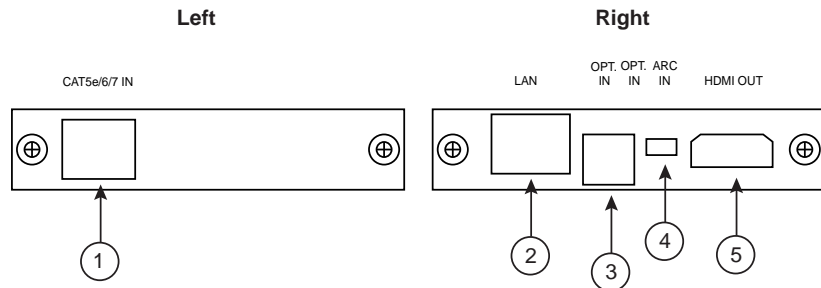
1. **CAT5e/6/7 OUT:** Connect to the Receiver unit with a single CAT5e/6/7 cable for transmission of all data signals. Under proper connection the green LED will illuminate to indicate PoE activated. The yellow LED will illuminate to indicate successful connection between Transmitter and Receiver, when it blink irregularly it represent the link error or when not illuminate it means no link with Reciever.
2. **LAN:** Connect to an internet or network connection. The yellow LED will illuminate to represent the link with Receiver is steady, when it blink irregularly it represent the link error or when not illuminate it means no link with Receiver. The green LED will illuminate to represent the Ethernet speed is with 100Mbit/s.
3. **OPT. OUT:** Connect to speaker for audio signal output from Receiver's OPTICAL IN.
4. **ARC OUT OFF/ON SWITCH:** Switch this dip switch to allows ARC (Audio Return Channel) function to be activate or not. Switch to OFF to disable ARC function. Switch to ON allows Receiver's HDMI output audio to be routed back and output to both HDMI IN and Optical OUT on the transmitter side.
Note: When ARC switch to ON, depending on the connected devices of the HDMI OUT & Optical in, the ARC input/output transmission distance may be varied. It is suggested to use cable within 2 meters long to ensure the best audio quality.
5. **HDMI IN:** Connect to HDMI source equipment such as a DVD or Blu-ray player.

2.3 Receiver Front Panel



1. **POWER LED:** This LED will illuminate when device is connected with power supply.
2. **AUDIO OUT L/R:** Connect to speaker with RCA input for audio signal output.
3. **IR IN 1:** Connect to the supplied IR Extender cable for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR Extender.
4. **IR OUT 2:** Connect to the supplied IR Blaster cable for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled.
5. **USB:** Connect to USB peripheral devices such as printer, keyboard, flash driver or ...etc. for data receiving or sending back to Transmitter.
6. **RS-232 OUT TX/RX:** Connect to the device that is to be controlled via 3-pin Relay cable by RS-232 commands. For sending command to Transmitter side, the TX and Rx pin must be reversed.
7. **UPDATE:** This is reserved for firmware update use only. Switch this deep switch to left for firmware update use, under normal operation, leave the switch on right. Update procedure may be done from the same RS-232 port for both Transmitter and Receiver.

2.4 Receiver Left and Right Panels



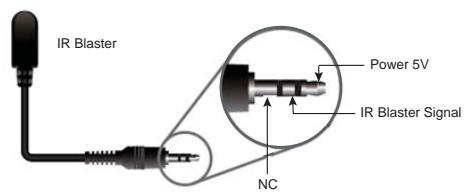
1. **CAT5e/6/7 IN:** Connect to the Transmitter unit with a single CAT5e/6/7 cable for transmission of all data signals. The yellow LED will illuminate to represent the link from Receiver is steady, when it blinks irregularly it represents the link error or when not illuminated it means no link with Receiver. The green LED will illuminate to represent the PoE function active.
2. **LAN:** Connect to a PC or Laptop to the internet or network connection. The yellow LED will illuminate to represent the link with Transmitter is steady, when it blink irregularly it represent the link error or when not illuminate it means no link with Receiver. The green LED will illuminate to represent the Ethernet speed is with 100Mbit/s.
3. **OPT. IN:** Connect to audio source equipment such as DVD or Blu-ray player for audio signal sending to Transmitter's OPTICAL OUT.
4. **ARC IN or OPT. IN SWITCH:** Switch this switch to select ARC channel. Switch to ARC in to use HDMI OUT's audio or switch to Optical IN to use Optical 1's audio.

Note: Depending on the connected devices of the HDMI OUT & Optical in, the ARC input/output transmission distance may be varied. It is suggested to use cable within 2 meters long to ensure the best audio quality.

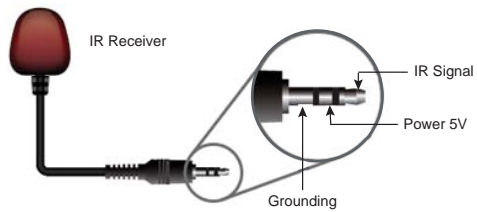
5. **HDMI OUT:** Connect to a HDMI equipped TV/monitor for display of the HDMI input source signal.

3.0 SERIAL CONTROL

3.1 IR Blaster Cable Pin Assignment



3.2 IR Receiver Cable Pin Assignment



4.0 MAINTENANCE AND TROUBLESHOOTING

4.1 Maintenance

There is no operator maintenance other than keeping the units clean. However, observe the following light indicators to make sure that the unit is working properly:

4.2 Troubleshooting

If the LBC-HDBT2-T/R-48 units do not operate properly after installation, check for possible cable breaks, loose connections, and incorrect cable connections. If problems persist that may be fiber related, contact BCI at 1-800-214-0222 for further assistance.

5.0 SPECIFICATIONS

VIDEO/AUDIO

HDMI	Version 1.4 with 3D, 4kx2k support
Video Resolution	Up to 4K2K @ 30Hz
Protocol	DDC/EDID Capable, HDCP 2:2
Video Bandwidth	300MHz / 10.2Gbps
Audio Formats	Supports up to 7.1CH & Dolby TrueHD, DTS-HD Master Audio
Audio Sampling Rate	32KHz to 192KHz
HDMI/Audio Connector	HDMI Female plug

DATA

Serial Control	RS232
Data Rate	Up to 115.2Kbaud
Connector	Terminal block

IR

Data Rate	30 - 50KHz
In/Out Connectors	3.5mm Stereo

ETHERNET

Ethernet Speed	100 Mbps
LAN Connector	RJ45

HDBT TRANSMISSION

Cable Type	CAT 5e/6 or higher
Number of Cables	1
Connector/ Distance	RJ-45 / Up to 100m

PHYSICAL

Dimensions	7.09"(W) x 3.15"(D) x 0.63"(H)
Power Consumption	+48VDC @ 0.9 Amps (Max.)
Operating Temperature	0 to +40°C
Humidity	20 to 90% RH, Non-Condensing

6.0 SERVICE PROCEDURE

6.1 Replacement Policy

Standard products found defective on arrival (DOA) will be replaced, based on availability, within 24 to 48 hours anywhere in the U.S. Please call Customer Service at **800-214-0222** for information.

6.2 Return/Repair Service

The LBC-HDBT2-T/R-48 System contains no user serviceable components. If you have a problem with your unit, please contact the Customer Service Department. To facilitate our return/repair processing please contact Broadata Communications, Inc. to obtain a Return Material Authorization (RMA). Please include the following information:

- Product model number
- Serial Number
- Complete description of problem
- Hardware installation description

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(310) 530-1416
(310) 530-5958 (Facsimile)
e-mail: CustomerService@Broadatacom.com
Website: www.broadatacom.com

7.0 LIMITED WARRANTY

Broaddata Communications, Inc. (BCI) warrants, for a period of one year from date of shipment, each product sold shall be free from defects in material and workmanship. BCI will correct, either by repair, or at BCI's election, by replacement, any said products that in our sole discretion prove to be defective and are returned to the manufacturing location within 30 days after such defect is ascertained. All warranties are limited to defects arising under normal use and do not include malfunctions or failure resulting from misuse, abuse, neglect, alterations, electrical power problems, usage not in accordance with product instructions, improper installation, or damage determined by BCI to have been caused by the Buyer or repair made by a third party. Limited warranties granted on products are to the initial customer end-user and are not transferable. OUR LIABILITY UNDER THIS WARRANTY SHALL IN ANY CASE BE LIMITED TO THE INVOICE VALUE OF THE PRODUCT SOLD AND BCI SHALL NOT BE LIABLE TO ANYONE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM THE USE OF ITS PRODUCTS OR THE SALE THEREOF. We make NO WARRANTY AS TO THE MERCHANTABILITY OF ANY GOODS, OR THAT THEY ARE FIT FOR ANY PARTICULAR PURPOSE OR END APPLICATION NOR DO WE MAKE ANY WARRANTY, EXPRESSED OR IMPLIED OTHER THAN AS STATED ABOVE.

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