LBC-HDBT-Lite-Tx/Rx

LINK BRIDGE™ HDBASET
HDMI TRANSMISSION SYSTEM

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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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1.0 PRODUCT DESCRIPTION

The LBC-HBDT-Lite-Tx/Rx with HDMI video and RS-232 over Single CAT5e/6 transmitter and receiver set can send uncompressed audio/video over a single run of CAT5e/6 cable up to 60m with PoH (Power over HDBT) feature and the added benefit of control through the built-in RS-232 and IR ports.

Features

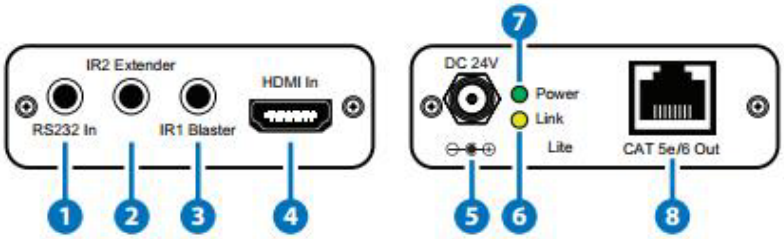
- HDMI 1.4 with 3D, 4k×2k support, HDCP & DVI Compliant
- Supports CEC bypass
- Simultaneous transmission of uncompressed data over a single 60m/ CAT5e/6 cable
- Uncompressed video 1080p, 60 Hz, 36-bit
- Audio support up to 7.1CH & Dolby TrueHD, DTS-HD
- RS-232 with baud rate up to 115200/sec

Package Contents

- 1×HDMI to CAT5e/6 (with IR/RS-232/PoH) Transmitter
- 1×CAT5e/6 to HDMI (with IR/RS-232/PoH) Reciever
- 1×IR Blaster
- 1×IR Receiver
- 1x3.5 to RS-232 female adapter
- 1x3.5 to RS-232 male adapter
- 1×24 V/1.25 A DC Power Adaptor
- Operation Manual

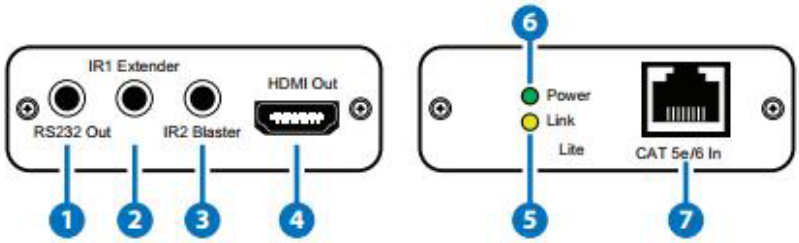
2.0 OPERATION CONTROLS AND FUNCTIONS

2.1 Transmitter Front and Rear Panels



1. **RS-232 In:** Connect to a PC or laptop with D-Sub 9 pin male cable for the transmission of RS-232 commands.
2. **IR 2 Extender:** Connect to the supplied IR receiver cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR extender.
3. **IR 1 Blaster:** 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.
4. **HDMI In:** Connect to HDMI source equipment such as a DVD or Blu-ray player.
5. **DC 24V:** Plug the 24 V DC power supply into the unit and connect the adaptor to an AC outlet. Only one side of power needs to be connected to activate both transmitter and receiver.
6. **Link LED:** The yellow LED will illuminate when both the input and output signals are connected.
7. **Power LED:** This blue LED will illuminate when the device is connected to a power supply.
8. **CAT5e/6 Out:** Connect to the reciever unit with a Single CAT5e/6 cable for tranmission of all data signals.

2.2 Receiver Front and Rear Panels



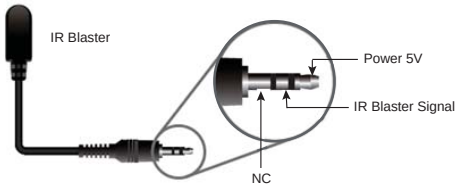
1. **RS-232 Out:** Connect to the device that is to be controlled (via D-Sub 9 pin female cable) by RS-232 commands.
2. **IR 1 Blaster:** Connect to the supplied IR blaster cable for IR signal transmission. Place the IR blaster in direct line of sight of the equipment to be controlled.
3. **IR 2 Extender:** Connect to the supplied IR receiver cables for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR extender.
4. **HDMI Out:** Connect to a HDMI source equipment such as a DVD or Blu-ray player.
5. **Link LED:** The yellow LED will illuminate when both the input and output signals are connected.
6. **Power LED:** This blue LED will illuminate when the device is connected to a power supply.
7. **CAT5e/6 In:** Connect to the receiver unit with a Single CAT5e/6 cable for tranmission of all data signals.

3.0 SERIAL CONTROL

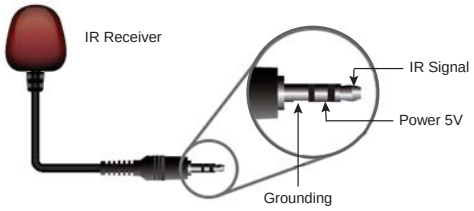
3.1 D-Sub Pin Assignment

Pin	Define TX/RX
1	N/C
2	TxD/RxD
3	RxD/TxD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

3.2 IR Blaster Cable Pin Assignment



3.3 IR Receiver Cable Pin Assignment



4.0 MAINTENANCE AND TROUBLESHOOTING

4.1 Maintenance

There is no operator maintenance other then 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-HDBT-Lite 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.

For electrical problems, perform the following troubleshooting procedures:

1. **If the POWER indicator is OFF, check for the following:**
   a. The line cord is plugged into the unit and your outlet has power.
2. **If the POWER indicator is ON, but the Link indicator is OFF, check for the following:**
   a. Make sure the appropriate cables are being used.
   b. Cable and cable connectors are not broken.
   c. For each unit, the transmit (TX) cable is connected to the other unit's receiver (RX).

3. If the POWER indicator and Link indicator are ON, but the channels are not operating, then:

a. Check to see that the attached user equipment is turned on.

b. Both ends of the link are connected to the corresponding equipment and to the same corresponding channel port.

c. Cable connections at both channels are securely fastened to each connector. Turn the power off, then back on to reset the link.

5.0 SPECIFICATIONS

Video Bandwidth	300MHz / 9Gbps
Transmitter Input	1xHDMI, 1xIR Extender, 1xRS-232
Transmitter Output	1×CAT5e/6, 1×IR Blaster
Receiver Input	1×CAT5e/6, 1×IR Extender
Receiver Output	1×HDMI, 1×RS-232, 1× IR Blaster
HDMI In/Out Cable Distance	Up to 10 Meters
CAT6 In/Out Cable Distance	Up to 60 Meters
HDMI In/Out Supports Resolution	480i~1080p@50/60, 1080p@24, VGA~WUXGA and 4K2K up to 20m
IR Frequency	30~50 kHz
ESD Protection	Human Body Model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Power Supply	24 V/1.25 A DC (US/EU Standards, CE/FCC/UL certified)
Dimensions	71 mm (W)×79 mm (D)× 23 mm (H)/each
Weight	120 g (TX), 126 g (RX)
Chassis Material	Metal
Silkscreen Color	Black
Power Consumption	13 W
Operating 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)
Power Supply	_24VDC @ 1.25 Amps (Max)

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-HDBT-Lite 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

Broadata 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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