HDMI over CAT6 Transmitter & Receiver with IR & RS232 - ID# 15179

Operation Manual

Introduction

The HDMI Extender over single CAT5e/6 incorporating IR and RS-232 signal transfer allows for a more efficient system setup and is easy to install.

Uncompressed video and audio can be transmitted to distances of up to 60 meters (1080p) and supports High Definition Audio and 3D signals.

Designed with HDBaseT technology for greater flexibility in custom installations with full HDMI and control signal transfer over a single CAT5e/6 cable..

Features

- HDMI 1.4 with 3D, 4K×2K support, HDCP and DVI compliant
- Complies with the HDBaseT-Lite class
- Supports HDMI (including HDCP) over a single CAT5e/6 up to 60m
- Full HD resolution support (1080p@60Hz/36-bit), 3D and 4Kx2K over 40m and PC resolution support (VGA to WUXGA) over CAT5e/6 cable
- HDMI input up to 15m with 8-bit resolution or 10 m with 12-bit resolution
- HDMI output up to 15 m with 8/12-bit resolution
- Multiple control interfaces such as RS-232 with baud rate up to 115200/sec and IR
- Supports HDCP repeater and CEC bypass
- Supports High Definition LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission
- Compact size with stylish design

Applications

- Residential entertainment sharing and control
- University lecture hall display and control
- Retail sales display and control
- Meeting room presentation and control
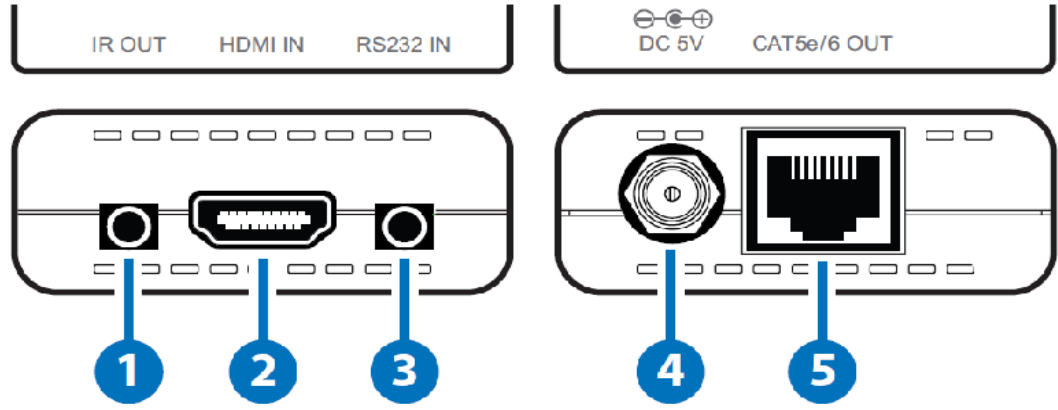- Commercial advertising display and control

System Requirements

HDMI source equipment such as DVD/Blu-ray player/PC and TV/monitor/projector with HDMI input and HDMI to CAT5e/6 cables.

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**Operation Controls
and Functions**

Transmitter Front and Rear Panel

IR OUT   HDMI IN   RS232 IN   DC 5V   CAT5e/6 OUT

① ② ③   ④ ⑤

1. IR OUT/Blaster
Connect to the supplied IR blaster for IR signal transmission to the source
equipment. Place the IR blaster in direct line-of-sight of the equipment to be
controlled.
2. HDMI IN
Connect to the HDMI input source devices such as a DVD player or a Set-top
Box with HDMI cable or DVI to HDMI cable.
3. RS-232 IN
Connect the 3.5mm mini-jack to D-Sub 9-pin female adaptor cable (included
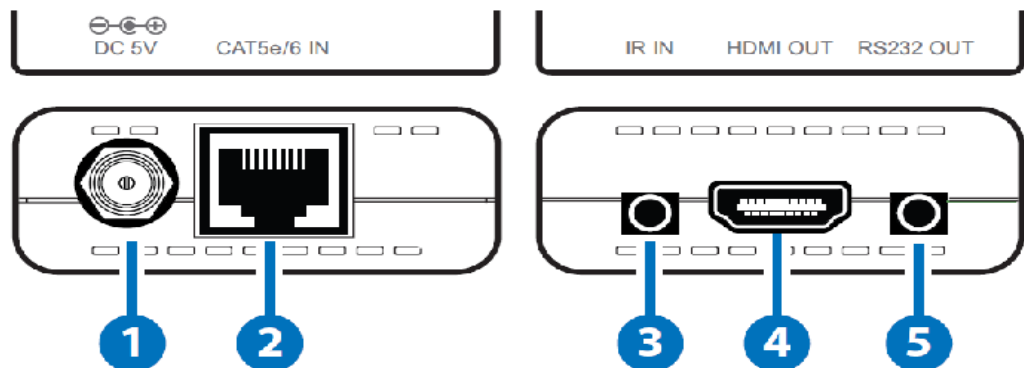in the package) to a PC or laptop for the transmission of RS-232 commands.
4. DC 5V
Plug the 5V DC power supply into the unit and connect the adaptor to an AC
outlet.
5. CAT5e/6 OUT
Connect to the receiver unit with a single CAT5e/6 cable for transmission of
all data signals.

Back Panel

DC 5V   CAT5e/6 IN   IR IN   HDMI OUT   RS232 OUT

① ②   ③ ④ ⑤

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1. DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

2. CAT5e/6 IN

Connect to the transmitter unit with a single CAT5e/6 cable for transmission of all data signals.

3. IR IN/Extender

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.
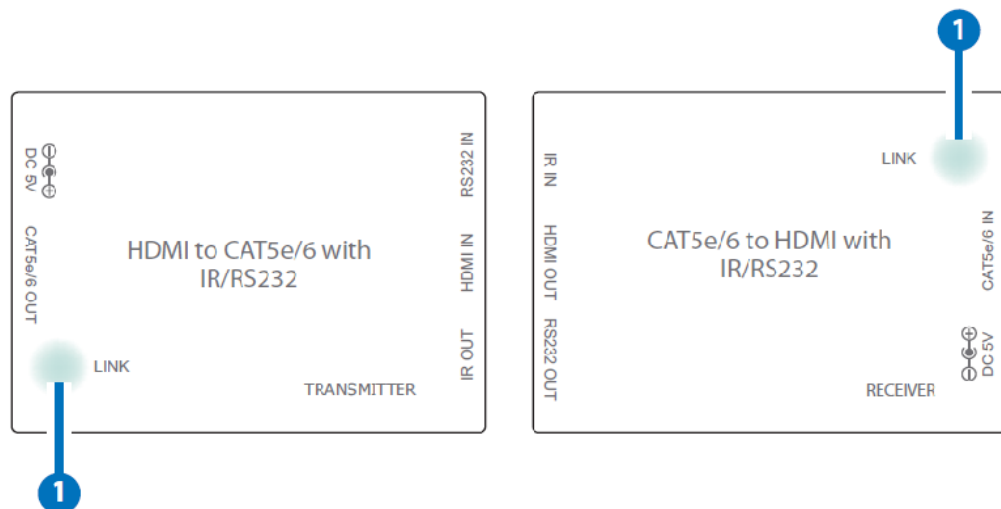
4. HDMI OUT

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

5. RS232 OUT

Connect the 3.5mm mini-jack to D-Sub 9-pin male adaptor cable (included in the package) to a PC or control system with D-Sub 9-pin cable for the transmission of RS-232 commands.

Transmitter and Receiver Top Panels

1. LINK LED: This LED will illuminate in blue when the devices are connected with a CAT5e/6 cable. If the data transmission has an error the LED will blink.

IR Pin Assignment

IR Blaster

1 Power 5 V
2 IR Blaster Signal
3 NC

IR Extender

1 IR Signal
2 Power 5 V
3 Ground
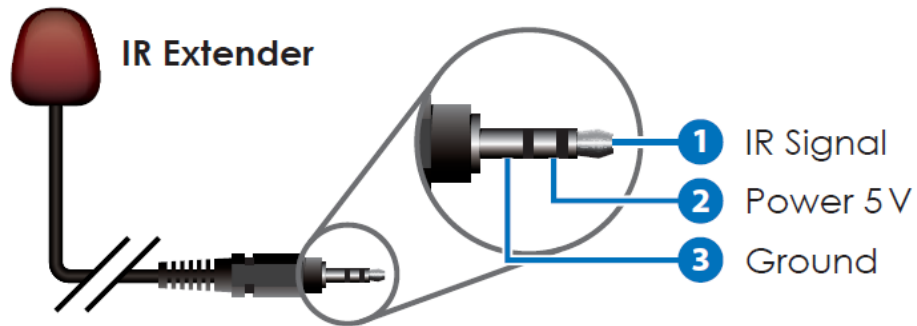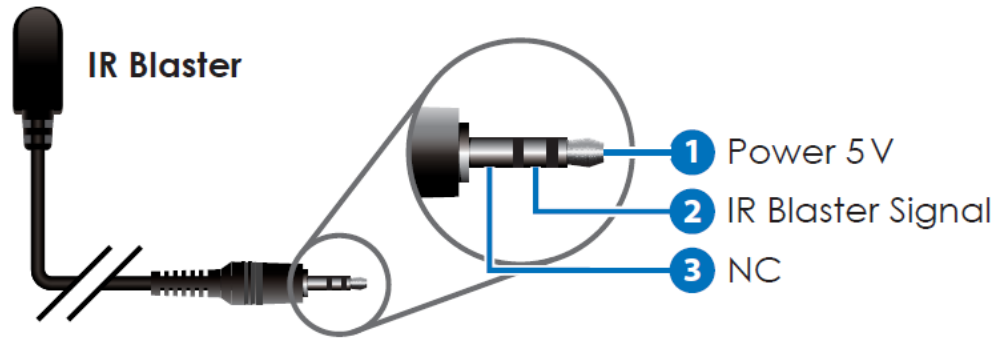
D-Sub 9-Pin Definitions

Pin	Definitions
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

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Connection Diagram

Blu-ray Player

PC

1.5m

IR Blaster

60°

RS-232
Cable

Power
Supply

TXL

CAT5e/6
(60m)

Power
Supply

RXL

IR Extender

HDMI Cable

RS-232
Cable

60°

3m   7m   3m

HD Monitor

3rd Party Equipment
requiring RS-232 Control

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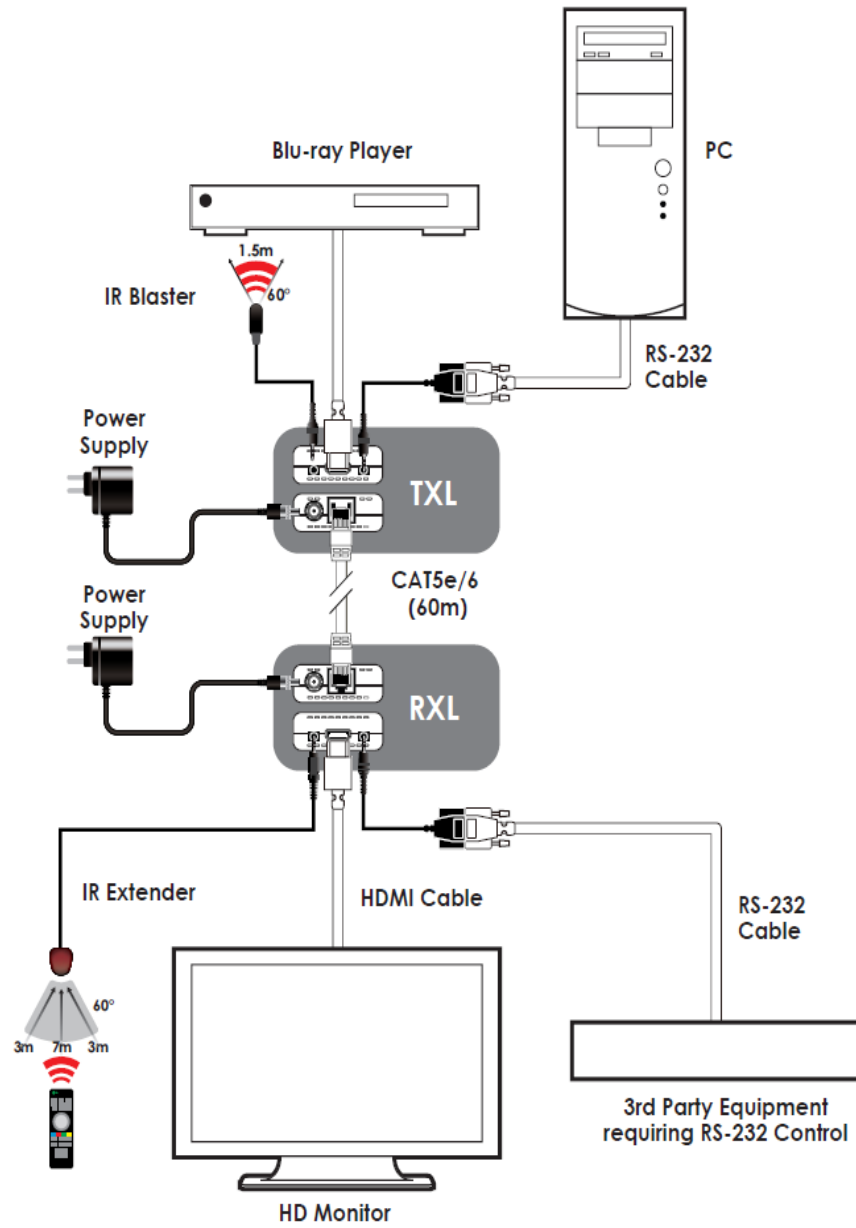
Specifications

Video Bandwidth	300 MHz/10.2 Gbps
Transmitter Input	1×HDMI, 1×RS-232
Output	1×RJ45, 1×IR Blaster
Receiver Input	1×RJ45, 1×IR Extender
Output	1×HDMI, 1×RS-232
ESD Protection	Human Body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Supply	2×5 V/2.6 A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	55 mm (W)×82 mm(D)×22.5 mm (H)/each
Weight	56 g (TX), 64 g (RX)
Chassis Material	Plastic
Silkscreen Color	White
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 Consumption	3 W (TX), 5.5 W (RX)