



PU-DVI1109TX & RX

DVI 5-Play HDBaseT™ Transmitter and Receiver
inc. PoC & 2x LAN, up to 100m

OPERATION MANUAL

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Version 1.1 August 2011

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE	SUMMARY OF CHANGE
v1.00	06/06/2017	First release

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1. INTRODUCTION

This HDBaseT DVI over CAT5e/6/7 Transmitter and Receiver set can transmit DVI video, analog audio, 2 LAN serving connections, control (RS-232 and IR) and Power over Cable (PoC) over a single CAT5e/6/7 cable up to 100m. The Transmitter can power the Receiver, via the PoC function, eliminating the need for a separate power supply providing greater flexibility in installations.

2. APPLICATIONS

- /// Household entertainment media sharing and control
- /// Lecture room display and control
- /// Showroom display and control
- /// Meeting room presentation and control
- /// Classroom display and control
- /// Any Smart AV Installation system

3. PACKAGE CONTENTS

Transmitter Package

- /// DVI to CAT5e/6/7 with LAN/PoC/IR Transmitter
- /// 1×IR Blaster
- /// 1×IR Receiver
- /// 24V DC Power Adaptor
- /// Operation Manual

Receiver Package

- /// CAT5e/6/7 to DVI with LAN/PoC/IR Receiver
- /// 1×IR Blaster
- /// 1×IR Receiver
- /// Operation Manual

Note: Units are sold separately

4. SYSTEM REQUIREMENTS

- /// Input DVI source equipment such as PC/Laptop and output display with DVI input.
- /// RS232 controlled device
- /// Ethernet equipped device

5. FEATURES

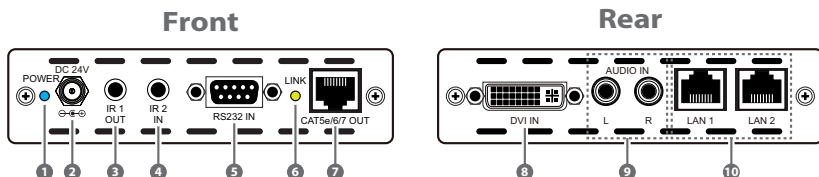
- /// Simultaneous transmission of uncompressed video and audio (1080p@60Hz/-Deep Color) over a single CAT5e/6/7 cable for up to 100 m (300 ft.).
- /// Supports High-definition Audio up to LPCM 7.1CH, Dolby TrueHD and DTS-HD Master Audio with HDMI to DVI adaptor
- /// Connect and share up to 4 LAN connections (2 at the Transmitter end, 2 at the Receiver end) at speeds up to 100 Mbps
- /// Supports Bi-directional IR control and RS-232 pass-through
- /// Supports 5Play™ convergence: HD video, audio & Control ports (IR and RS232)/LAN/PoC
- /// Installation friendly
- /// Single power supply powers both units, Receiver unit is powered through the Transmitter via PoC

Note:

1. *This system was tested with CAT6/23AWG cables, results may vary with cables of a different specification.*
2. *The PoC function is designed for powering compatible Receiver units only—non-PoC Receivers will need their own power supply. Receivers of another brand may not be compatible.*
3. *Supporting 4K2K resolution with DVI to HDMI adaptor cable.*

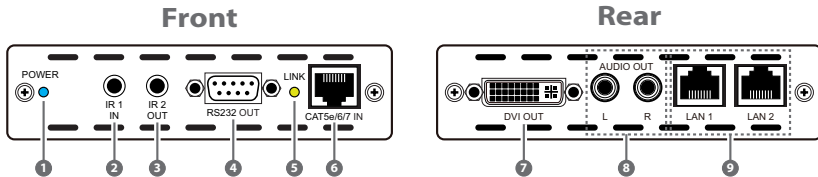
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



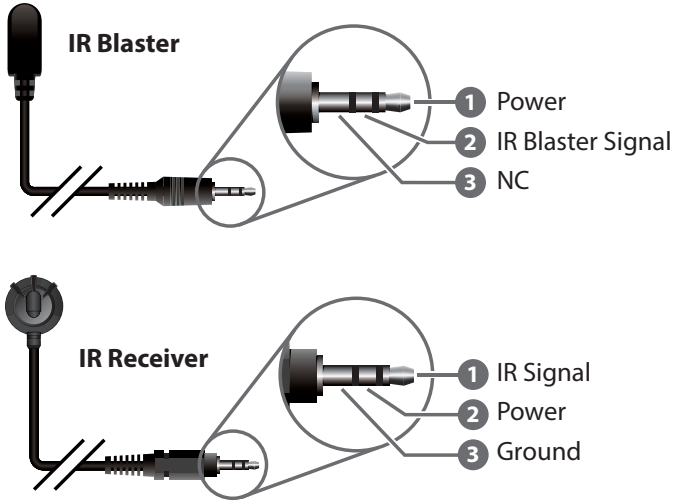
- 1 **Power LED:** This LED will illuminate when the 24V DC Adaptor is connected to the AC outlet.
- 2 **DC 24V:** Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet.
- 3 **IR 1 OUT:** Connect to the supplied IR Blaster cables for IR signal transmission. Place the IR Blaster in direct line-of-sight of the equipment to be controlled. The related IR Receiver port is IR1 IN.
- 4 **IR 2 IN :** 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. The related IR Transmitter port is IR2 OUT.
- 5 **RS-232 IN:** Connect to a PC/Laptop with a D-Sub 9-pin male cable for the transmission of RS-232 commands.
- 6 **Link LED:** The yellow LED will illuminate when both the input source and output display signals are connected through the CAT cable. When it blinks regularly it states the source is NOT sending a signal to the Transmitter but the Transmitter and Receiver are linked and if it blink irregularly it states an error has occurred.
- 7 **CAT5e/6/7 OUT:** Connect the Transmitter and Receiver via a single CAT5e/6 type cable for all data transmission.
- 8 **DVI IN:** Connect to the DVI equipped source equipment such as PC or Laptop.
- 9 **AUDIO IN L/R:** Connect from audio source equipment for audio signal output to L/R output on the Receiver side.
- 10 **LAN 1/2:** The LAN connections can be used to connect and share up to 4 Ethernet connections (2 at the Receiver end, 2 at the Transmitter end), including computers, routers and media servers.

6.2 Receiver Front and Rear Panels



- 1 **Power LED:** The LED will illuminate when the 24V DC Adaptor is connected to the AC outlet.
- 2 **IR 1 IN:** Connect to supplied the IR Receiver cables for IR signal reception. Place the IR Blaster in direct line-of-sight of the equipment to be controlled. The related IR Transmitter port is IR1 OUT.
- 3 **IR 2 OUT:** Connect to the supplied IR Blaster cables for IR signal transmission. Ensure that remote being used is within the direct line-of-sight of the IR Extender. The related IR Receiver port is IR2 IN.
- 4 **RS-232 OUT:** Connect to a RS-232 enabled device with a D-Sub 9-pin female cable for the transmission of RS-232 commands.
- 5 **Link LED:** The yellow LED will illuminate when both the input source and output display signals are connected through the CAT cable. When it blinks regularly it states the source is NOT sending a signal to the Transmitter but the Transmitter and Receiver are linked and if it blink irregularly it states an error has occurred.
- 6 **CAT5e/6/7 IN:** Connect the Transmitter and Receiver via a single CAT5e/6 type cable for all data transmission.
- 7 **DVI OUT:** Connect to a DVI equipped display or monitor to display the DVI input source signal.
- 8 **AUDIO OUT L/R:** Connect to active speakers or amplifier for audio signal output.
- 9 **LAN 1/2:** The LAN connections can be used to connect and share up to 4 Ethernet connections (2 at the Receiver end, 2 at the Transmitter end), including computers, routers and media servers.

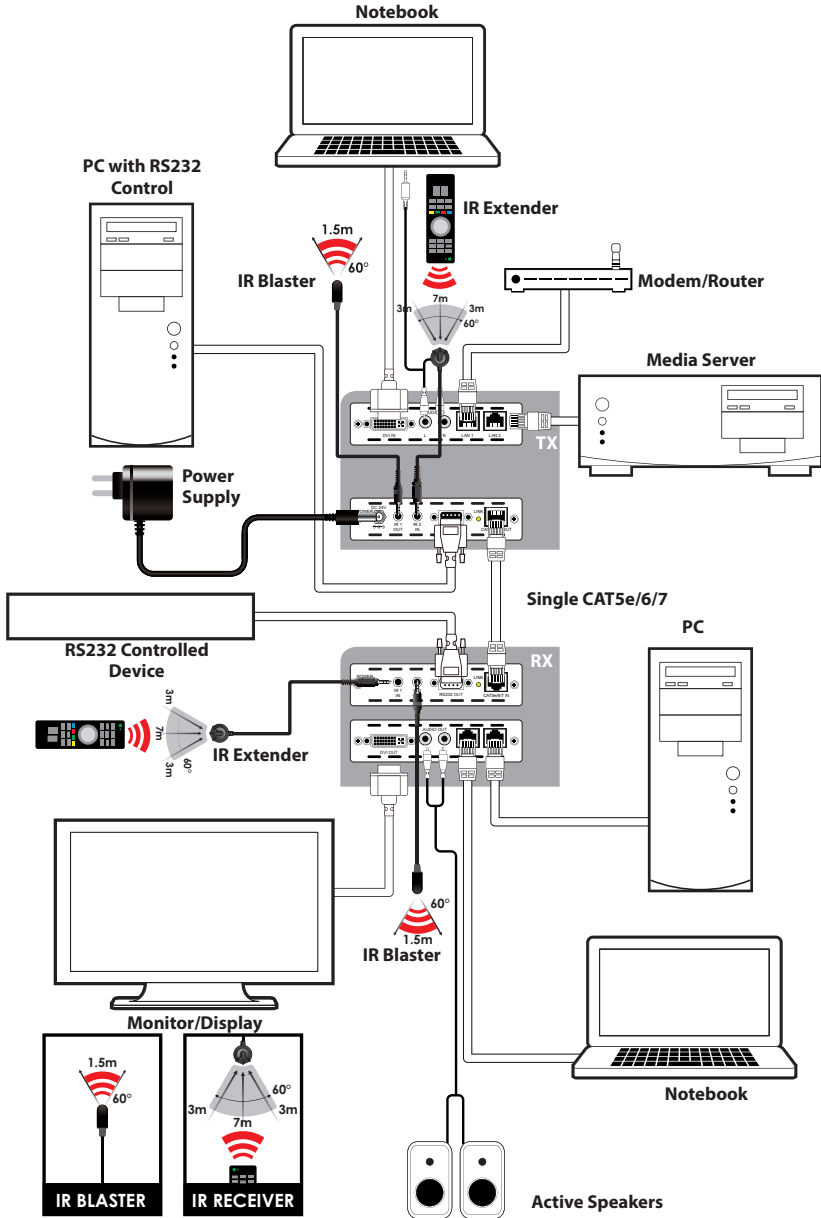
6.3 IR Cable Pin Assignment



6.4 D-Sub 9-Pin Definitions

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

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Video Bandwidth	340 MHz/10.2 Gbps
Ethernet Speed	100 Mbps
<i>Transmitter</i>	
Inputs	1×DVI , 2×Ethernet, 1 x L/R 1×RS-232, 1×IR Extender
Outputs	1×CAT5e/6/7, 1×IR Blaster
<i>Receiver</i>	
Inputs	1×CAT5e/6/7, 1×IR Extender
Outputs	1×DVI, 1×RS-232, 1 x L/R 2 ×Ethernet, 1×IR Blaster
DVI In/Out Cable Distance	Up to 6 Meters
CAT6 In/Out Cable Distance	Up to 100 Meters
DVI In/Out Supports Resolution	480i~1080p@50/60, 1080p@24, VGA~WUXGA(Dual Link DVI Not Supported)
IR Frequency	30~50 kHz
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Supply	24V/1.25 A DC (US/EU Standards, CE/FCC/UL certified)
Dimensions	125 mm(W) x 123 mm (D) x 30 mm (H)/Jacks Excluded 125 mm(W) x 135 mm (D) x 30 mm (H)/Jacks Included
Weight	384 g (TXC) 392 g (RXC)
Chassis Material	Aluminum
Silkscreen Color	Black
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	13W

9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
CAT7	Category 7 Cable
HDMI	High Definition Multimedia Interface
PoC	Power over Cable



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