



PU-515PL-TX & RX HDBaseTTM LITE Extender Set with PoE & 2-way IR

Dbaser Life Extender Set with FOE & 2-way





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Version 1.1

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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
v1.01	25/10/2013	First release
v1.02	22/08/2019	Updates to Specifications





CONTENTS

1. Introduction	6
2. Applications	6
3. Package Contents	6
4. System Requirements	6
5. Features	7
6. Operation Controls and Functions	8
6.1 Transmitter Front and Rear Panels	8
6.2 Receiver Front and Rear Panels	9
6.3 D-Sub 9-Pin Definitions	10
6.4 IR Cable Pin Assignment	10
7. Connection Diagram	11
8. Specifications	12
8.1 Technical Specification	12
8.2 CAT5e/6/7 Cable Specification	13
9. Acronyms	14





1. INTRODUCTION

The HDBaseT[™] HDMI over single CAT5e/6 with bi-directional IR, RS-232 & PoC Transmitter and Receiver set can make your home or office set-up more efficient and easy to use. Uncompressed video and audio can be transmitted up to 70 metres at 1080p or 40 metres at 4K. with the PoC function and added benefit of controls through the built-in RS-232 and IR ports. This family design of HDBaseT technology allows a full usage of HDMI and controls over CAT5e/6/7.

2. APPLICATIONS

- III Domestic HDMI installations
- III University lecturing systems
- Retail showroom systems
- Conference presentation and control

3. PACKAGE CONTENTS

Transmitter Package

- III 1×HDMI over Single CAT5e/6/7 Transmitter with PoC
- /// 1×IR Blaster
- III 1×3.5 mm Mini-jack to RS-232 Female Cable
- # 24 V/1.25 A DC Power Adaptor
- **III** Operation Manual

Receiver Package

- III 1×HDMI over Single CAT5e/6/7 Receiver with PoC
- /// 1×IR Extender
- III 1×3.5 mm Mini-jack to RS-232 Male Cable
- **III** Operation Manual

4. SYSTEM REQUIREMENTS

HDMI source equipment such as a DVD or Blu-ray player and HDMI equipped display (TV or monitor). HDMI and CAT5e/5/7 connection cables.





5. FEATURES

III HDMI 1.x and DVI 1.0 compliant

- **III** HDCP compliant
- Supports HDMI 3D and 4K x 2K features
- **III** Supports HDCP repeater and CEC bypass
- Supports distance up to 70m/229ft at 1080p and 40m/131ft at 4K through CAT5e/6/7 cable
- HDMI input resolutions up to 4K@60Hz (YUV 4:2:0, 8-bit) or 4K@30Hz(YUV 4:4:4, 8-bit)
- Supports pass-through of audio formats including LPCM 2.0/5.1/7.1, and Bitstream over HDMI
- Supports HDBaseT Lite Technology
- **III** Installation friendly

Note

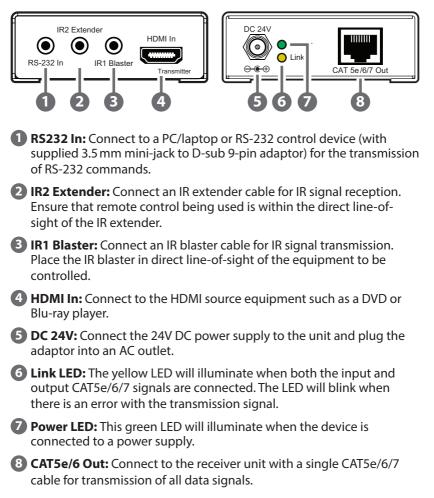
- 1. This system was tested with CAT-6E/23AWG cables, results may vary with cables of a different specification.
- 2. The PoC function is designed for powering compatible receiver units only—do not use with non-PoC receivers or receivers of another brand.



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6. OPERATION CONTROLS AND FUNCTIONS

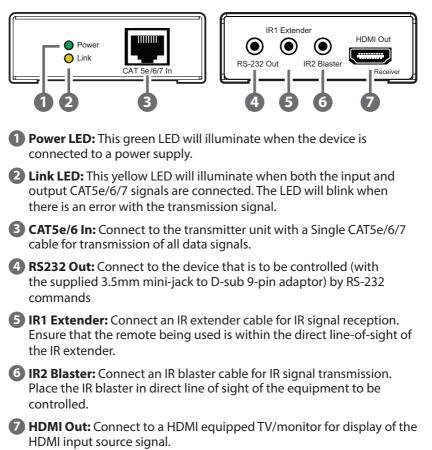
6.1 Transmitter Front and Rear Panels







6.2 Receiver Front and Rear Panels

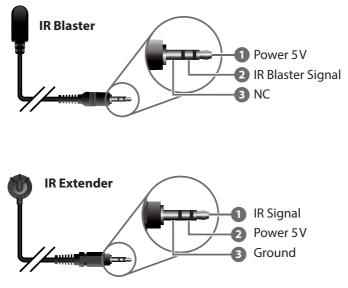




6.3 D-Sub 9-Pin Definitions

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

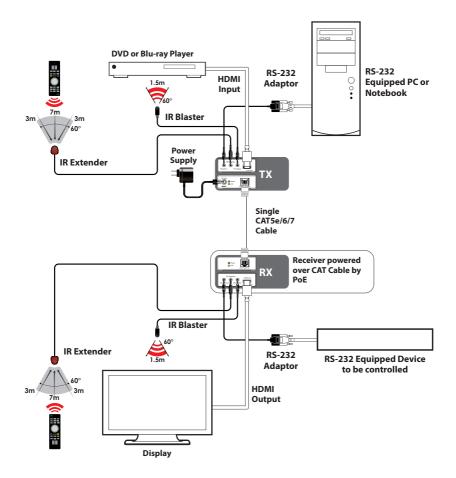
6.4 IR Cable Pin Assignment







7. CONNECTION DIAGRAM



/// 11



8. SPECIFICATIONS

8.1 Technical Specification

Video Bandwidth	340 MHz/10.2 Gbps		
Transmitter			
Input	1×HDMI, 1×IR Extender, 1×RS-232		
Output	1×RJ45, 1×IR Blaster		
Receiver			
Input	1×RJ45, 1×IR Extender		
Output	1×HDMI, 1×IR Blaster, 1×RS-232		
IR Frequency	30 – 50 kHz (30 – 60 kHz under ideal conditions)		
Baud Rate	Up to 115200/sec		
Power Supply	24V/1.25A DC (US/EU standards, CE/FCC/UL certified)		
ESD Protection	Human Body Model:		
	±8kV (air-gap discharge)		
	±4kV (contact discharge)		
D'			
Dimensions	71 mm(W) x 79 mm(D) x 23 mm(H)/each		
Dimensions	71 mm(W) x 79 mm(D) x 23 mm(H)/each 71 mm(W) x 73.5 mm(D) x 23 mm(H)/each		
Weight			
	71 mm(W) x 73.5 mm(D) x 23 mm(H)/each		
Weight	71 mm(W) x 73.5 mm(D) x 23 mm(H)/each 120 g/TX, 126 g/RX		
Weight Chassis Material	71 mm(W) x 73.5 mm(D) x 23 mm(H)/each 120 g/TX, 126 g/RX Metal		
Weight Chassis Material Silkscreen Colour	71 mm(W) x 73.5 mm(D) x 23 mm(H)/each 120 g/TX, 126 g/RX Metal Black		
Weight Chassis Material Silkscreen Colour Operating Temperature	71 mm(W) x 73.5 mm(D) x 23 mm(H)/each 120 g/TX, 126 g/RX Metal Black 0°C ~ 40°C / 32°F ~ 104°F		





8.2 CAT5e/6/7 Cable Specification

	1080p		4K30	4K60	
Cable Length	8-bit	12-bit	(4:4:4) 8-bit	(4:4:4) 8-bit	
High Speed HDMI Cable					
HDMI Input	15m	10m	5m	5m	
HDMI Output	15m	10m	5m	5m	
Ethernet Cable					
Cat.5e/6	60m		35m		
Cat.6a/7	70m		40m		

1080p (FHD Video)

- Up to 1080p@60Hz, 12-bit colour
- Data rates lower than 5.3Gbps or below 225MHz TMDS clock

4K30 (UHD Video)

- 4K@24/25/30Hz & 4K@50/60Hz (4:2:0), 8-bit colour
- Data rates higher than 5.3Gbps or above 225MHz TMDS clock but below 10.2Gbps



9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition multimedia Interface
IR	Infrared



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