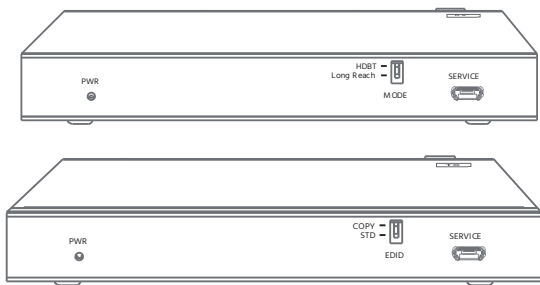


BLACKBIRD™



Monoprice™ 18G HDBaseT 150M 4K60 Extender with KVM USB 2.0

P/N **44570**
User Manual

Thank You for Purchasing this Product

To ensure optimum performance and safety, read the following instructions before connecting, operating, or adjusting the product. Keep this manual for future reference.

Surge Protection Device Recommended

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

Safety Warnings and Guidelines

Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind. Do not place drinks or other containers with moisture on or near the device.
- If moisture does get in or on the device, immediately unplug it from the power outlet and allow it to fully dry before reapplying power.
- Do not touch the device, the power cord, or any other connected cables with wet hands.
- Do not expose this device to excessive vibration.
- Do not subject the product to extreme force, shock, or fluctuations in temperature or humidity.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near a heat source, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.

- This device ventilates excessive heat through the slots and openings in the case.
- Do not block or cover these openings. Ensure that the device is in an open area where it can get sufficient airflow to keep from overheating.
- Prior to operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the device.
- Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.
- Ensure that power is turned off and disconnected before making any electrical connections.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.

Table of Contents

Introduction.....	4
Features.....	4
Package Contents.....	5
Operation Controls and Functions.....	5
Transmitter Panel.....	5
Receiver Panel.....	7
IR Pin Definition.....	8
Application Example.....	9
Specifications.....	10

1. Introduction

The 18Gbps HDBaseT Extender is a versatile device that allows you to extend the HDMI signal, bi-directional IR control signal, and USB KVM signal up to 150m away using just a single CAT6 cable. It does this by converting the HDMI signal to a standard HDBaseT signal, which can be transmitted via a LAN cable. With its bi-directional IR signal pass-through function, you can easily control source devices or display devices from the remote end. It supports video resolution up to 4K2K@60Hz YUV 4:4:4 and also comes with USB 2.0 transmission and POC function. This extender can be used in a variety of fields, including video conference systems, multimedia signal broadcasting, HDMI signal extension, and more.

2. Features

- HDMI 2.0b and HDCP 2.2 compliant
- 18Gbps Video Bandwidth
- Up to 4K2K@60Hz YUV 4:4:4 Video Resolution
- With Mode DIP switch to select HDBaseT Mode & Long Reach Mode

HDBaseT Mode:

USB supports USB 2.0 transmission (support connecting with USB camera, USB flash drive and other devices); the audio & video signal transmission distance can be extended up to 328ft/100m for 4K60

Long Reach Mode:

USB only supports HID (Human Interface Device) device; the audio & video signal transmission distance can be extended up to 492ft /150m for 1080P or 394ft/120m for 4K60

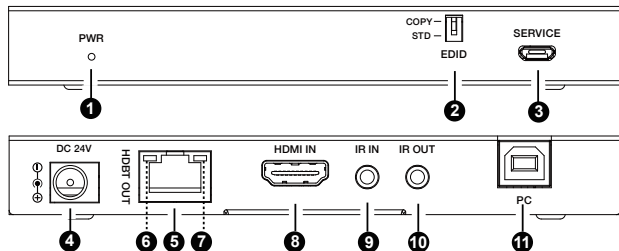
- Bi-Directional IR Signal and USB KVM Signal pass-through
- Bi-Directional POC (Power over Cable) Function
- USB 2.0 Transmission
- EDID Management
- Compact design for easy and flexible installation

3. Package Contents

- 1 × 18Gbps HDBaseT Extender (Transmitter)
- 1 × 18Gbps HDBaseT Extender (Receiver)
- 1 × IR Blaster cable (1.5 meters)
- 1 × IR Wideband Receiver cable (1.5 meters)
- 4 × Mounting Ears
- 8 × Machine Screws (KM3*4)
- 1 × 24V/1A Locking Power Supply
- 1 × User Manual

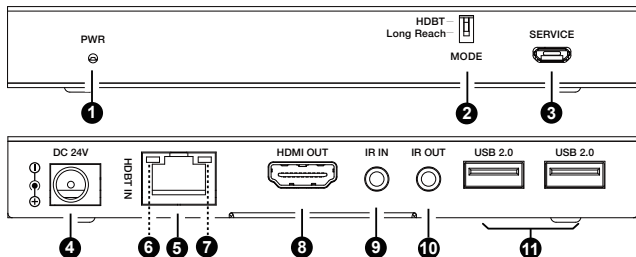
4. Operation Controls and Functions

Transmitter Panel



No.	Name	Function Description
1	PWR LED	The red LED is on when the Transmitter is powered on.
2	EDID DIP switch	Used for audio EDID setting (dial to COPY by default). COPY: Copy the EDID of the HDMI OUT port of the Receiver. STD: Default 1080P 2CH
3	SERVICE	Firmware update port.
4	DC 24V	DC 24V/1A power input port. Note that the extender supports the POC function, which means that either Transmitter or Receiver is connected to a 24V/1A power supply, the other doesn't need a power supply.
5	HDBT OUT	HDBT output port, connecting to the HDBT IN port of the Receiver with CAT6 cable.
6	Link Signal Indicator (Green)	• Illuminating: Transmitter and Receiver are in good connection status. • Flashing: Transmitter and Receiver are in poor connection status. • Dark: The transmitter and Receiver are not connected.
7	Data Signal Indicator (Yellow)	• Illuminating: HDMI signal with HDCP. • Flashing: HDMI signal without HDCP. • Dark: No HDMI signal.
8	HDMI IN	HDMI signal input port, connecting to HDMI source device such as DVD play or Set Top Box.
9	IR IN	When connecting to the IR receiver cable, the IR receive signal will emit to the IR OUT port of the Receiver.
10	IR OUT	When connecting to the IR blaster cable, the IR emits a signal from the IR IN port of the Receiver.
11	PC	USB-B port, connecting to PC.

Receiver Panel

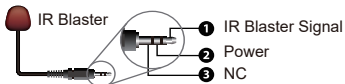
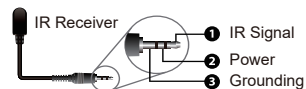


No.	Name	Function Description
1	PWR LED	The red LED is on when the Receiver is powered on.
2	MODE DIP switch	Used for Mode switching (dial to HDBT by default). HDBT: Switching to the HDBaseT Mode. Long Reach: Switching to the Long Reach Mode.
3	SERVICE	Firmware update port.
4	DC 24V	DC 24V/1A power input port. Note that the extender supports the POC function, which means that either Transmitter or Receiver is connected to a 24V/1A power supply, the other doesn't need a power supply.
5	HDBT IN	HDBT input port, connecting to the HDBT OUT port of the Transmitter with CAT6 cable.
6	Link Signal Indicator (Green)	• Illuminating: Transmitter and Receiver are in good connection status. • Flashing: Transmitter and Receiver are in poor connection status. • Dark: The transmitter and Receiver are not connected.

No.	Name	Function Description
7	Data Signal Indicator (Yellow)	• Illuminating: HDMI signal with HDCP. • Flashing: HDMI signal without HDCP. • Dark: No HDMI signal.
8	HDMI OUT	HDMI signal output port, connecting to HDMI display device such as TV or monitor.
9	IR IN	Connect to the IR receiver cable. The IR signal will send to the IR OUT port of the Transmitter.
10	IR OUT	Connect to the IR blaster cable, the IR signal is from IR IN port of the Transmitter.
11	USB 2.0 ports	Two USB-A ports, connecting to USB 2.0 devices. (The maximum output current of a single USB 2.0 port is 500mA, exceeding which it will not work.)

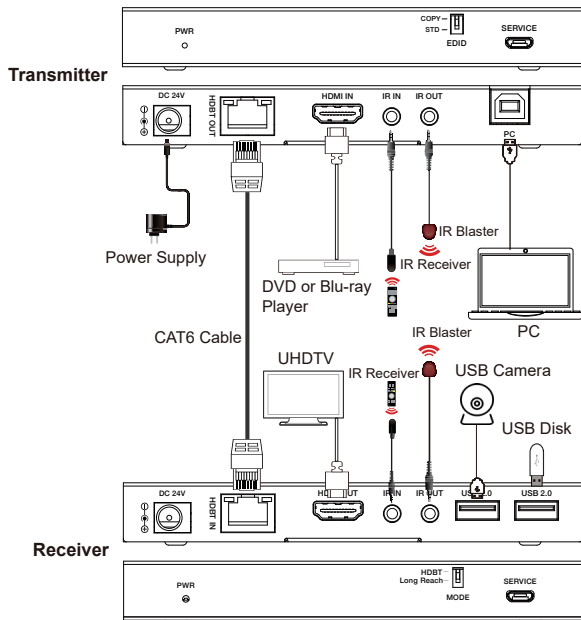
IR Pin Definition

IR Receiver and Blaster pin's definition as below:



Note: When the angle between the IR receiver and the remote control is $\pm 45^\circ$, the transmission distance is 0-5 meters; When the angle between the IR receiver and the remote control is $\pm 90^\circ$, the transmission distance is 0- 8 meters.

5. Application Example



6. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
USB Compliance	USB 2.0
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@60Hz YUV 4:4:4
Transmission Distance	1080P@60--150m, 4K60 --120m
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8-bit, 10-bit, 12-bit (1080P) 8-bit (4K60) 8-bit, 10-bit, 12-bit (4K24/30)
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio Format	LPCM 7.1CH, Dolby True HD and DTS-HD Master
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1 × HDMI IN [Type A, 19-pin female] 1 × IR IN [3.5mm Stereo Mini-jack] 1 × SERVICE [Micro-USB] 1 × USB [USB-B, 4-pin female] Output: 1 × HDBT OUT [RJ45] 1 × IR OUT [3.5mm Stereo Mini-jack]
Receiver	Input: 1 × HDBT IN [RJ45 with light] 1 × IR IN [3.5mm Stereo Mini-jack] 1 × SERVICE [Micro-USB] Output: 1 × HDMI OUT [Type A, 19-pin female] 1 × IR OUT [3.5mm Stereo Mini-jack] 2 × USB 2.0 [USB-A, 4pin female]

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter/Receiver: 140mm (W)×65mm (D)×18mm (H)
Weight	Transmitter:245g, Receiver: 249g
Power Supply	DC 24V/1A; Support bi-directional POC function
Power Consumption	13.2W (Max.)
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)

Customer Service

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problems with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website www.monoprice.com or via email at support@monoprice.com. Check the website for support times and links.

Technical Support

Monoprice™ is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever

need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website www.monoprice.com or through email by sending a message to tech@monoprice.com. Check the website for support times and links. To download the latest drivers, firmware, manuals, etc., go to www.monoprice.com and type 44570 into the search bar. If available, support files are linked at the bottom of the product page.

Notice for FCC



This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful

interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice for ISED Canada

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



Dolby is a trademark of Dolby Laboratories.

The Adopted Trademarks HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.

All other trademarks, registered trademarks, or service marks are the property of their respective owners.

Monoprice™ and all Monoprice logos are trademarks of Monoprice Inc.



TECHNOLOGY AT PRICES THAT MAKE SENSE

www.monoprice.com

Need Help? We're here for you!

Contact us: www.monoprice.com/contactus

Product pictures are for reference only.

Specifications described herein are subject to change without prior notification. Monoprice™ and all Monoprice logos are trademarks of Monoprice Inc.

Copyright © 2023 Monoprice, Inc. All rights reserved.

Monoprice, Inc.

1 Pointe Drive, Suite 400 Brea,
CA 92821 – USA

www.monoprice.com