



Blackbird™ 4K HDBaseT™ Extender Kit



P/N 41097

User's Manual

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.

INTRODUCTION

This Blackbird™ 4K HDBaseT™ Extender Kit allows you to extend 4K@60Hz HDMI® video signals to distances up to 394 feet (120 meters) over a single Cat6 Ethernet cable. It complies with the HDMI 2.0 and HDCP™ 2.2 specifications and supports up to 18Gbps bandwidth. It supports the Power over Cable (PoC) feature, allowing either the transmitter or receiver to receive its power from the other device over the connecting Ethernet cable.

The transmitter includes an HDMI loop output for connecting a local display and the receiver includes an analog audio output for connecting an external amplifier or powered speakers for amplification of audio de-embedded from the HDMI signal. It supports bidirectional IR and RS-232 pass-through and includes two IR transmitters, two IR receivers, and 2 Euroblock connectors for the RS-232 connections.

FEATURES

- Compliant with the HDMI® 2.0, HDCP™ 2.2/1.4, and DVI™ 1.0 standards
- Supports 18Gbps bandwidth
- Extends 4K@60Hz video to distances up to 394 feet (120 meters) and 1080p@60Hz signals to distances up to 492 feet (150 meters)
- Includes an HDMI loop pass-through output on the transmitter
- Includes a stereo analog audio output on the receiver for separate amplification of audio de-embedded from the HDMI signal
- Supports bidirectional IR, RS-232, and CEC pass-through
- Supports HDR, HDR10+, Dolby Vision™, and Hybrid Log-Gamma (HLG)
- Supports the Power over Cable (PoC) feature

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 problem 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.

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x HDBaseT™

Transmitter

1x HDBaseT Receiver

2x IR Transmitter

2x IR Receiver

4x Mounting Ears

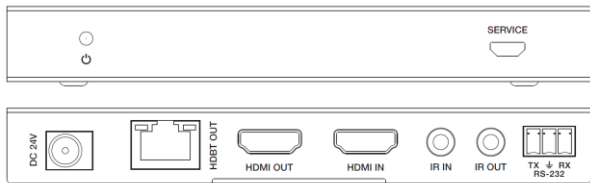
2x 3-pin Euroblock
Terminals

1x AC Power Adapter
(24 VDC, 1A)

1x User's Manual

PRODUCT OVERVIEW

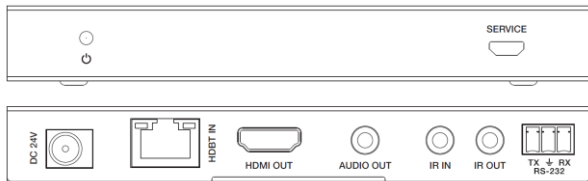
Transmitter



- : The LED illuminates red when power is applied.
- **SERVICE:** Micro USB port for performing firmware updates.
- **DC 24V:** DC barrel connector for connecting the included AC power adapter. Note that this extender kit supports the Power over Cable (PoC) feature and therefore only includes a single AC power adapter.
- **HDBT OUT:** RJ45 jack for connecting a Cat6 Ethernet cable (not included) to the receiver.
 - The LED on the left indicates the HDBaseT™ connection status. It illuminates fully when there is a good connection to the receiver, flashes when the connection is poor, and is dark when there is no connection.

- The LED on the right indicates the data status. It illuminates fully when the HDMI® signal contains HDCP™, flashes when the signal does not have HDCP, and is dark when there is no HDMI signal.
- **HDMI OUT:** HDMI loop pass-through output for connecting a local display.
- **HDMI IN:** HDMI input port for connecting the video source device (e.g., DVD player, cable box, Blu-ray Disc™ player, etc.).
- **IR IN:** 3.5mm jack for connecting one of the included IR receivers.
- **IR OUT:** 3.5mm jack for connecting one of the included IR transmitters.
- **RS-232:** 3-pin terminal block for RS-232 pass-through to or from the receiver.

Receiver

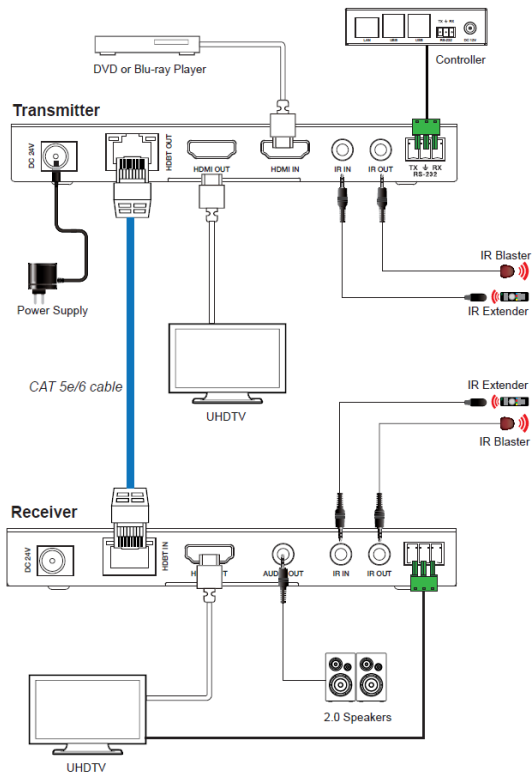


- **Power:** The LED illuminates red when power is applied.
- **SERVICE:** Micro USB port for performing firmware updates.
- **DC 24V:** DC barrel connector for connecting the included AC power adapter. Note that this extender kit supports the Power over Cable (PoC) feature and therefore only includes a single AC power adapter.
- **HDBT IN:** RJ45 jack for connecting a Cat6 Ethernet cable (not included) from the transmitter.
 - The LED on the left indicates the HDBaseT™ connection status. It illuminates fully when there is a good connection to the transmitter, flashes when the connection is poor, and is dark when there is no connection.
 - The LED on the right indicates the data status. It illuminates fully when the HDMI® signal contains

HDCP™, flashes when the signal does not have HDCP, and is dark when there is no HDMI® signal.

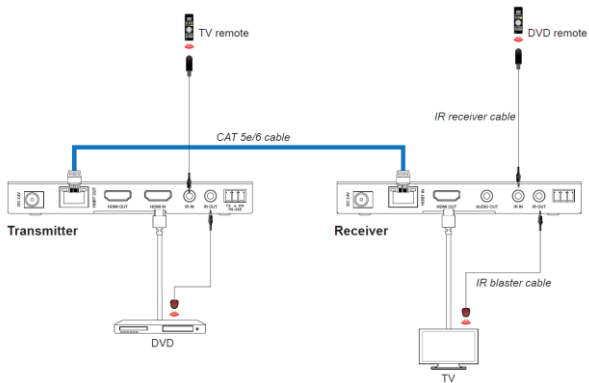
- **HDMI OUT:** HDMI port for connecting an HDMI display.
- **AUDIO OUT:** 3.5mm stereo analog jack for connecting an amplifier or powered speakers for separate amplification of audio de-embedded from the HDMI signal.
- **IR IN:** 3.5mm jack for connecting one of the included IR receivers.
- **IR OUT:** 3.5mm jack for connecting one of the included IR transmitters.
- **RS-232:** 3-pin terminal block for RS-232 pass-through to or from the transmitter.

SAMPLE CONNECTION DIAGRAM



IR PASS-THROUGH

The following diagram illustrates the connection and operation of IR pass-through.



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.

SPECIFICATIONS

Model	41097
Maximum Video Resolution	4K@60Hz YCbCr 4:4:4, including 4K@30Hz YCbCr 4:4:4, 1080p@60Hz, all HDMI 3D formats, and PC video up to 1920x1200
Supported Color Spaces	RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
HDMI® Version	2.0

HDCP™ Version	2.2 and 1.4
Video Bandwidth	18Gbps
Color Depth	8/10/12-bit: 1080p@60Hz, 4K@30Hz, 4K@60Hz YCbCr 4:2:2/4:2:0 8-bit: 4K@60Hz YCbCr 4:4:4
Transmission Method	HDBaseT™
Maximum Transmission Distances	4K@60Hz: 394 feet (120 meters) 1080p@60Hz: 492 feet (150 meters)
Maximum HDMI® Cable Length	4K@60Hz: 10 feet (3 meters) 4K@30Hz: 32 feet (10 meters) 1080p@60Hz: 49 feet (15 meters)
Input Power	24 VDC, 1A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	9.36 watts
Operating Temperature	+32 ~ +104°F (0 ~ +40°C)
Storage Temperature	-4 ~ +140°F (-20 ~ +60°C)

Operating Humidity	20 ~ 90% RH, noncondensing
Dimensions (each)	5.5" x 2.6" x 0.7" (140 x 65 x 18 mm)
Transmitter Weight	5.6 oz. (160g)
Receiver Weight	5.5 oz. (155g)

REGULATORY COMPLIANCE

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 Industry 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.

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HDMI®, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

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