

4K/60Hz Super Slim HDBaseT Extender Kit



SUP-BB-HDBT70-KIT USER MANUAL

Important Safety Information

- 1. Read, follow, and keep these instructions.
- 2. Heed all warnings.
- Do not use this product near water. Keep away from wet places, such as: spas, pools, sinks, laundries, wet basements, etc.
- 4. When cleaning, unplug the unit and wipe with a dry cloth. Do not use damp cloths, cleaning fluids, or aerosols which may result in electric shock, fire, or unit damage.
- Operate this product using only the included power supply and/or power cable. Use of an unapproved power implement may impair performance, damage the product, or cause fires.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- Only use attachments/accessories specified by AV Access to avoid fire, shock, or other hazards.
- To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
- 11. Unplug this product during lightning storms or when unused for long periods of time.
- 12. Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could result in electric shock, damage to the unit, or other hazards.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. CAUTION

TO REDUCT THE RISK OF ELECTRIC SHOCK DO NOT OPEN ENCLOSURE OR EXPOSE TO RAIN OR MOISTURE. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Contents

| mportant Safety Information | |
|-----------------------------|----|
| Introduction | 3 |
| Features | 3 |
| Package Contents | 3 |
| Panel Description | 4 |
| Transmitter | 4 |
| Receiver | 5 |
| Specifications | 6 |
| Installation and Wiring | 7 |
| Installation | 7 |
| Wiring | 7 |
| RS232 Operation | 10 |

Introduction

SUP-BB-HDBT70-KIT is a slim transmitter receiver pair, which can extend HDMI 1080P@60Hz signals up to 70m/230ft and 4K@60Hz (chroma sub-sampling 4:2:0 8-bit only) signals up to 40m/130ft via a single Cat 6a/7 cable. SUP-BB-HDBT70-KIT features bi-directional PoC. It also supports bi-directional IR and RS232 pass-through.

Features

- Supports resolutions up to 4K@60Hz 4:2:0 8bit and HDCP 2.2.
- Over a Cat 6a/7 cable, extends 4K@60Hz 4:2:0 8bit up to 40m/130ft and 1080P up to 70m/230ft.
- Over a Cat 5e/6 cable, extends 4K@60Hz 4:2:0 8bit up to 35m/115ft and 1080P up to 60m/200ft.
- Bi-directional PoC, one power adapter at either transmitter or receiver side can power both units.
- Supports bi-directional IR and RS232 pass-through.

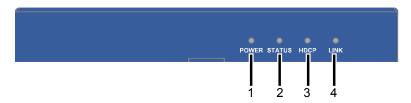
Package Contents

- 1 x SUP-BB-HDBT70 Transmitter
- 1 x SUP-BB-HDBT70 Receiver
- 1 x DC 18V Power Cord with EU Pins
- 1 x IR Emitter
- 1 x Broadband IR Receiver (30-50kHz)
- 2 x Phoenix Connector (3 Pins, 3.5mm)
- 4 x Mounting Brackets (with Screws)

Panel Description

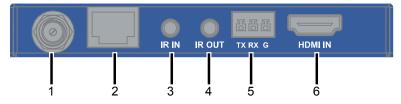
Transmitter

Front Panel



| No. | Name | Description | |
|-----|---------------------------------------|---|--|
| | On: The device is powered on. | | |
| | 1 POWER LED | Off: The device is powered off. | |
| 2 | | On: The device is working properly. | |
| 2 | STATUS LED | Off: The device is not working properly. | |
| | 3 HDCP LED | • On: HDCP protected content is being transmitted. | |
| | | • Blinking: Non-HDCP protected content is being | |
| 3 | | transmitted. | |
| | Off: No content is being transmitted. | | |
| | | On: HDBT link is normal. | |
| 4 | 4 LINK LED | Blinking/Off: No HDBT link or link error. | |

Rear Panel



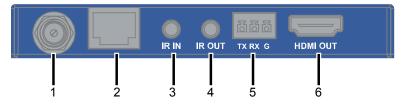
| No. | Name | Description | |
|-----|----------|---|--|
| 1 | DC 18V | Connect to the DC 18V power cord provided. | |
| 2 | HDBT OUT | Connect to the receiver via a Cat 5e/6/7 cable. | |
| 3 | IR IN | Connect to the IR receiver provided. | |
| 4 | IR OUT | Connect to the IR emitter provided. | |
| 5 | RS232 | For RS232 pass-through. | |
| 6 | HDMI IN | Connect to an HDMI source. | |

Receiver

Front Panel

| No. | Name | Description | |
|-----|------------|---|--|
| 1 | POWER LED | On: The device is powered on. Off: The device is powered off. | |
| 2 | STATUS LED | On: The device is working properly. Off: The device is not working properly. | |
| 3 | HDCP LED | On: HDCP protected content is being transmitted. Blinking: Non-HDCP protected content is being transmitted. Off: No content is being transmitted. | |
| 4 | LINK LED | On: HDBT link is normal. Blinking/Off: No HDBT link or link error. | |

Rear Panel



| No. | Name | Description | |
|-----|----------|--|--|
| 1 | DC 18V | Connect to the DC 18V power cord provided. | |
| 2 | HDBT OUT | Connect to the transmitter via a Cat 5e/6/7 cable. | |
| 3 | IR IN | Connect to the IR receiver provided. | |
| 4 | IR OUT | Connect to the IR emitter provided. | |
| 5 | RS232 | For RS232 pass-through. | |
| 6 | HDMI IN | Connect to an HDMI source. | |

Specifications

| Technical | |
|--------------------------------------|---|
| Input/Output Port | Transmitter: 1 x HDMI IN; 1 x HDBT OUT; 1 x RS232; 1 x DC 18V IN Receiver: 1 x HDMI OUT; 1 x HDBT IN; 1 x RS232; 1 x DC 18V IN |
| Input/Output Signal Type | HDMI with 4K@60Hz 4:2:0, HDCP 2.2 |
| Input/Output Resolution Supported | Up to 4096x2160@60Hz, including 4K@60Hz/4K@30Hz/1080P/1080i/720P Note: 4096x2160/3840x2160@50/60Hz is based on chroma sub-sampling 4:2:0 8-bit only. |
| Audio Format Supported | Supports multichannel audio up to PCM 7.1, Dolby True HD, DTS HD Master Audio, Dolby Atmos and DTS:X |
| Maximum Data Rate | 10.2Gbps |
| Maximum Pixel Clock | 340MHz |
| Control Method | IR, RS232 |

| General | | |
|-----------------------|--|--|
| Operating Temperature | 0°C to 45°C (32°F to 113°F) | |
| Storage Temperature | -20°C to 70°C (-4°F to 158°F) | |
| Humidity | 10% to 90%, non-condensing | |
| | Human-body Model: | |
| ESD Protection | ±8kV (Air-gap discharge)/ | |
| | ±4kV (Contact discharge) | |
| Power Supply | DC 18V 1A | |
| Power Consumption | 8.88W (Pair, PoC) (Max) | |
| Device Dimension | 108.8mm x 15mm x 64.2mm (4.3" x 0.6" x 2.5") (mounting | |
| (W x H x D) | brackets not included) each for TX/RX | |
| Net Weight | 0.18kg/0.40lb each for TX/RX | |

Transmission Distance

Note: Straight-through category cable of T568B standard is recommended.

| Cable Type | Range | Supported Video |
|------------|-----------|-------------------------|
| Cat 5e/6 | 60m/200ft | |
| Cat 6a/7 | 70m/230ft | Up to 1080P@60Hz, 36bpp |
| Cat 5e/6 | 35m/115ft | 1080P@60Hz, 48bpp |
| Cat 6a/7 | 40m/130ft | 4K@60Hz, 4:2:0, 24bpp |

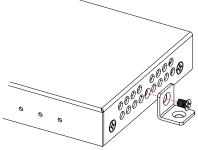
Installation and Wiring

Installation

CAUTION: Before installation, please ensure the device is disconnected from the power source.

Steps to install the switcher on a suitable location:

- 1. Attach the installation bracket to the enclosure using the screws provided in the package separately.
- 2. The bracket is attached to the enclosure as shown.



- 3. Repeat steps 1-2 for the other side of the transmitter.
- Install the unit in the mounting rack using the screws (provided by others).
- 5. Repeat steps 1-4 to install the receiver.

Wiring

WARNING: Before wiring, ensure all units are DISCONNECTED from power. Otherwise, circuitry damage or physical injury may be caused.

Steps for device wiring:

 Connect video source Connect an HDMI source (such as PC, Blu-ray player, Apple TV, 4K media player, etc) to the HDMI IN port of transmitter. 2. Connect HDMI OUT

Connect an HDMI display device (such as TV, projector, LED/LCD display) to the HDMI OUT port of receiver.

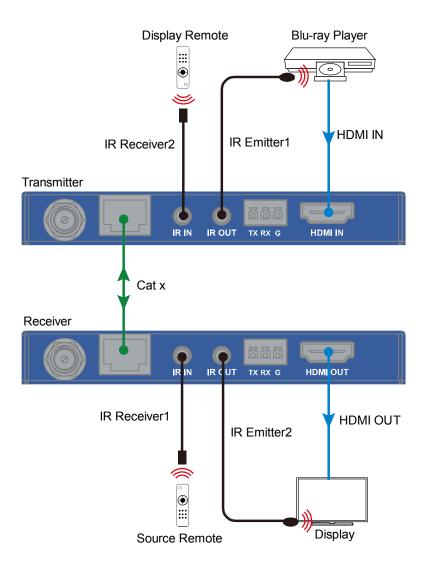
- Connect HDBT OUT Connect HDBT OUT of the transmitter to HDBT IN of the receiver with a Cat 5e/6/7 cable.
- 4. Connect for additional control options:
 - RS232 pass-through: Connect a RS232 master device (or slave device) to RS232 port of the transmitter, and a RS232 slave device (or master device) to RS232 port of the remote receiver for bi-directional RS232 pass-through.
 - IR pass-through: Connect an IR emitter (or IR receiver) to the IR connector of the transmitter, and an IR receiver (or IR emitter) to IR connector of the receiver for bi-directional IR pass-through.
- 5. Connect the DC 18V power cord provided to the transmitter.

6. Power on all attached devices.

When all is set, check if all LED indicators on switcher are normal to ensure installation is successful. For LED indication, please refer to Panel

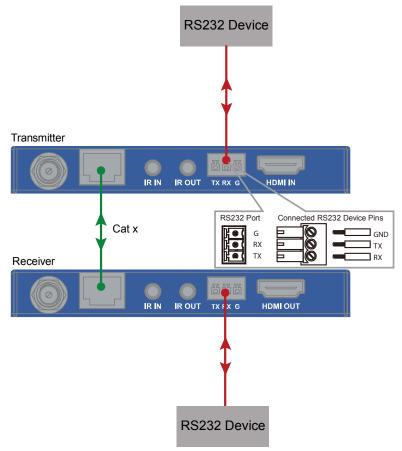
Description section.

See below application diagram:



RS232 Operation

RS232 ports can be used for bi-directional RS232 signal pass-through between the transmitter and receiver.





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