# DVDO



### DVDO-Xtend-Pair70
4K@60Hz 444 HDR HDBaseT Extender

## User Manual

Version: V1.0.0

# Important Safety Instructions

**1.** Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

**6.** Clean this apparatus only with dry cloth.

**2.** Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

**7.** Unplug this apparatus during lightning storms or when unused for long periods of time.

**3.** To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

**8.** Protect the power cord from being walked on or pinched particularly at plugs.

**4.** Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

**9.** Only use attachments / accessories specified by the manufacturer.

**5.** Do not place sources of naked flames, such as lighted candles, on the unit.

**10.** Refer all servicing to qualified service personnel.

# **Table of Contents**

# Introduction

DVDO-Xtend-Pair70 is a slim HDBT transmitter receiver set with HDCP 2.2 compatibility. It supports resolutions up to 4K@60Hz 4:4:4 8bit, transporting 4K signal up to 40m/130ft and 1080P signal up to 70m/230ft over a single Cat X cable. It features bi-directional PoC. It also supports bi-directional IR and RS232 pass-through.

# Features

- Supports resolutions up to 4K@60Hz 4:4:4 8bit and HDCP 2.2.
- Supports HDR (High Dynamic Range), including HDR10 and Dolby Vision*.
- Over a Cat 6a/7 cable, HDBT transmits 4K@60Hz 4:4:4 8bit up to 40m/130ft and 1080P up to 70m/230ft.
- Over a Cat 5e/6 cable, HDBT transmits 4K@60Hz 4:4:4 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.

***Note**: DVDO-Xtend-Pair70 supports Dolby Vision only if the data rate is less than or equal to 10.2Gbps.

# Package Contents

Before you start the installation of the product, please check the package contents as below:

- DVDO-Xtend-Pair70 (Transmitter Receiver Set) x 1
- DC 18V 1A Power Adapter (with US, UK, EU, AU Pins) x 1
- IR Emitter x 1
- Broadband IR Receiver (30-50 KHz) x 1
- Phoenix Male Connectors (3.5mm, 3 Pins) x 2
- Mounting Brackets (with Screws) x 4
- User Manual x 1

# Specifications

| Technical | |
|---|---|
| Input/Output Signal Type | HDMI with 4K@60Hz 4:4:4, HDCP 2.2, HDR, 3D |
| Input/Output Resolution Supported | Up to 4096x2160@60Hz, including 4K@60Hz /4K@30Hz/1080P/1080i/720P |
| Deep color | • 4K: 8/10/12 bit<br>• 1080P: up to 16 bit |
| Maximum Data Rate | 18 Gbps |
| Maximum Pixel Clock | 600MHz |
| Audio Format Supported | Fully supports audio formats in HDMI 2.0 specification, including PCM, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, DTS:X |

| 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 |
| ESD Protection | Human-body Model:<br>±8kV (Air-gap discharge)/<br>±4kV (Contact discharge) |
| Power Supply | DC 18V 1A |
| Power Consumption (Max) | 13W (Pair, PoC) |
| Device Dimensions (W x H x D) | 136.4 mm × 15.2 mm × 74.2 mm/<br>5.37" x 0.60" x 2.92" each for TX/RX |
| Product Weight | 0.24kg/0.53lb each for TX/RX |

**Transmission Distance**

**Note:** The use of T568B straight-through Category cables is recommended.

| Cable Type | Range | Supported Video |
|---|---|---|
| HDMI | Input/Output:15m/50ft | 1080P@60Hz |
| | Input/Output:10m/33ft | 4K@60Hz 4:2:0 |
| | Input/Output: 5m/16ft | 4K@60Hz 4:4:4 |
| Cat 5e/6 | 60m/200ft | 1080P@60Hz |
| | 35m/115ft | 4K |
| Cat 6a/7 | 70m/230ft | 1080P@60Hz |
| | 40m/130ft | 4K |

# Panel Description

## Front Panel
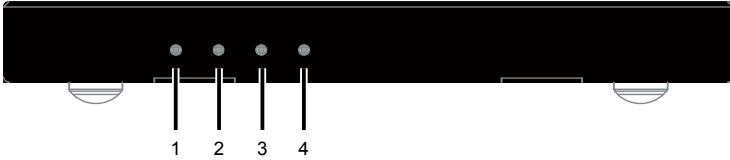


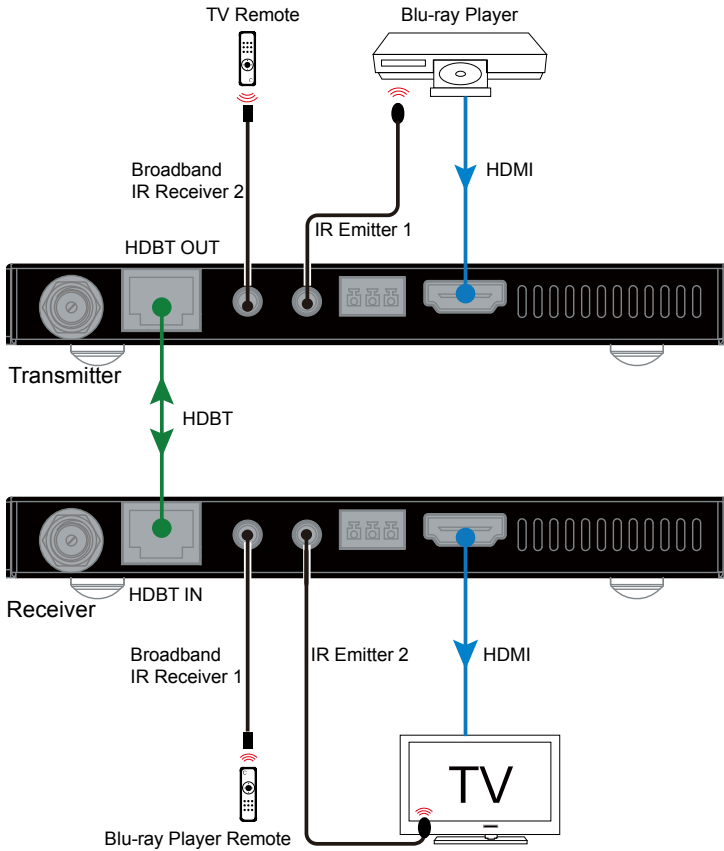| No. | Name | Description |
|-----|------|-------------|
| 1 | Power LED | **On/Off:** The device is powered on/off. |
| 2 | Status LED | • **Blinking:** The device is working properly.<br>• **Off:** The device is not working properly. |
| 3 | HDCP LED | • **On:** HDCP protected content is being transmitted.<br>• **Blinking:** Non-HDCP protected content is being transmitted.<br>• **Off:** No content is being transmitted. |
| 4 | Link LED | • **On:** HDBT link is normal.<br>• **Blinking/Off:** No HDBT link or link error. |

## Rear Panel

Transmitter
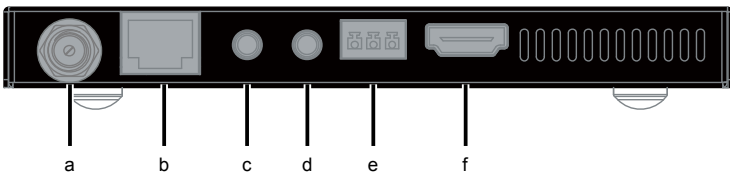


Receiver
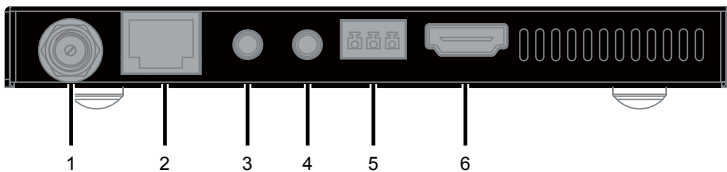
| No. | Name | Description |
|---|---|---|
| a & 1 | DC 18V | Connect to the power adapter. |
| b | HDBT OUT | Connect to the receiver via a Cat 5e/6/7 cable. |
| c & 3 | IR IN | Connect to the IR receiver provided. |
| d & 4 | IR OUT | Connect to the IR emitter provided. |
| e & 5 | RS232 | For RS232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

# Installation and Wiring

TV Remote

Blu-ray Player

Broadband
IR Receiver 2

HDMI

IR Emitter 1

HDBT OUT

Transmitter

HDBT

Receiver

HDBT IN

Broadband
IR Receiver 1

IR Emitter 2

HDMI

Blu-ray Player Remote
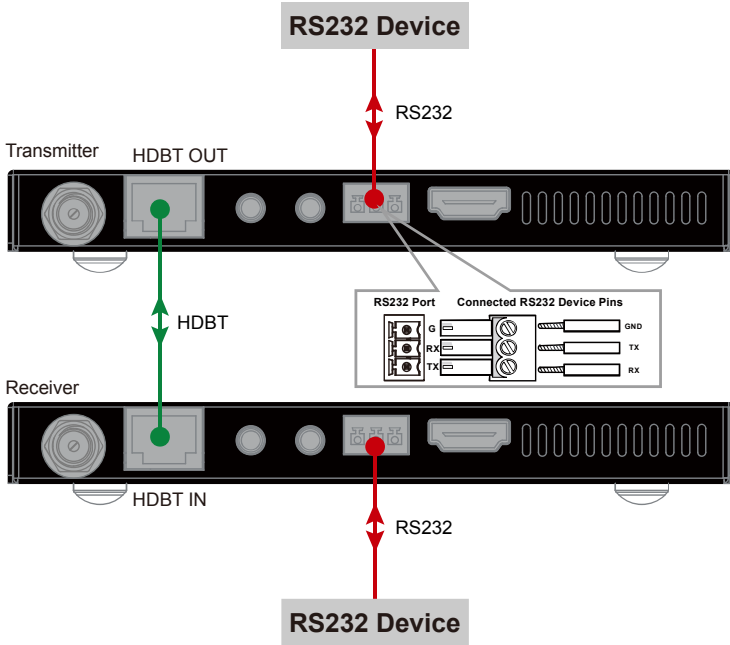
TV

# RS232 Operation

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

# Troubleshooting

1.  **No Power**

    - Ensure the device is powered on.
    - Ensure you use the power adapter provided in the package.

2.  **No Picture or Video Flash**

    - Ensure all devices are powered on, and all cables are qualified and connected properly. Ensure all the cables' lengths are within the maximum transmission distance (refer to **Specification** table).
    - Ensure all the LED indicators are normal.
    - When connecting source to display directly, ensure them can work properly.
    - Ensure the input resolution is supported by the device.
    - Ensure the input resolution is within 4K@30Hz when Dolby vision signal is input.

3.  **Weak or Not Working IR Signal**

    - Ensure the devices support IR control (not Bluetooth/WIFI).
    - Ensure you use the IR cables provided in the package, and install them correctly according to the wiring diagram.
    - Pay attention to the control angle and distance.

      | IR Cable | IR Emitter | IR Receiver |
      |---|---|---|
      | Suggested Angle | 0° | 0° |
      | Distance (Max) | 30cm | 8m |

    - When work with the third-party device, ensure it follows the pin definition below.
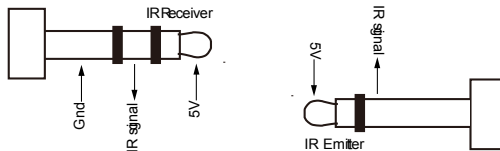
# Warranty Terms and Conditions

For the following cases we shall charge for the service(s) claimed for the products if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by us) labeled on the product has been removed, erased, replaced, defaced or is illegible.

2. The warranty has expired.

3. The defects are caused by the fact that the product is repaired, dismantled or altered by anyone that is not from an authorized service partner. The defects are caused by the fact that the product is used or handled improperly, roughly or not as instructed in the applicable User Guide.

4. The defects are caused by any force majeure including but not limited to accidents, fire, earthquake, lightning, tsunami and war.

5. The service, configuration and gifts promised by salesman only but not covered by normal contract.

6. We preserve the right for interpretation of these cases above and to make changes to them at any time without notice.

# DVDO