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# Full HD HDMI Over IP Extender - 150m

Thank you for purchasing from gofanco. Our products aim to meet all our connectivity needs wherever you go. For optimum performance and safety, please read the instructions carefully and keep this User's Manual for future reference. If you need more information about our products, please visit www.gofanco.com.

For technical support, email us at support@gofanco.com.
For drivers or manual download, please go to www.gofanco.com/downloads.

## Important Safety Notices

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device.
- Do not expose this unit to rain, heavy moisture, or liquid.
- Do not put any items into the device or attempt to modify its operation.
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty.
- Keep the product in a well-ventilated location to avoid damage from overheating.
- Shut off power and make sure environment is safe before installation.
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports.
- Use the included power adapters only. Make sure the specification matches if using 3rd-party DC power adapters.

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# Table of Contents

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# 1. Introduction

Full HD HDMI Over IP Extender - 150m extends high definition 1080p HDMI signals over CAT5e/6/7 cable up to 150m (492ft) with IR support. It supports a direct 1-to-1 connection or 1-to-many over IP networks.

# 2. Features

- Extends HDMI audio/video signals up to 492ft (150m) over a single CAT5e/6/7 cable
- Supports resolutions up to 1080p@60Hz
- Support stereo audio from HDMI and extractor audio for PCM 2CH via 3.5mm jack on both TX & RX
- Direct 1-to-1 connection or 1-to-many over a dedicated Gigabit Ethernet switch or cascading switches. Additional Receivers (part# EXHDIP-150RX) are sold separately
- Supports IR signal extension - control a media player from a remote location with the included IR Blaster and IR Receiver cables
- Includes 2 power adapters to ensure a steady flow of power and data transmission

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# 3. Package Contents

## Kit (EXHDIP-150)

- Full HD HDMI Over IP Extender - 150m (TX & RX)
- IR Blaster and IR Receiver cables (2 pcs)
- Power adapter (2 pcs)
- User Manual

## Receiver (EXHDIP-150RX)

- Full HD HDMI Over IP Extender - 150m (RX)
- IR Receiver cables (1 pcs)
- Power adapter (1 pcs)
- User Manual

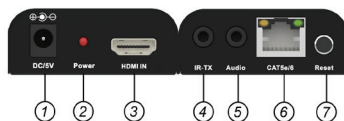gofanco®

# 4. Product Layout

## 4.1 Transmitter Layout



*Figure 1: Transmitter Layout*

| No. | Name | Function Description |
|-----|------|---------------------|
| 1 | DC/5V | Connects to the included power adapter |
| 2 | Power LED | On when the Transmitter is powered |
| 3 | HDMI IN | Connects to your HDMI source with an HDMI cable (cable not included) |
| 4 | IR-TX | Connects to the IR transmitter cable |
| 5 | Audio | Sereo audio output port |
| 6 | CAT5e/6 | Connects to the RJ45 of the Receiver using a CAT cable |
| 7 | Reset | Press 5 sec to rese the transmitter video signal |

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## 4.2 Receiver Layout



*Figure 2: Receiver Layout*

| No. | Name | Function Description |
|-----|------|----------------------|
| 1 | IR-RX | Connects to the IR Receiver cable |
| 2 | Audio | Sereo audio output port |
| 3 | CAT5e/6 | Connects to the RJ45 of the Transmitter using a CAT cable |
| 4 | DC/5V | Connects to the included power adapter |
| 5 | Power LED | On when the Receiver is powered |
| 6 | HDMI OUT | Connects to your HDMI display with an HDMI cable (cable not included) |

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# 5. Specifications

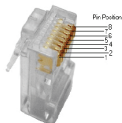| | |
|---|---|
| HDMI Signal | HDMI 1.3 and HDCP 1.2 compatible |
| Resolution | 480p@60Hz, 576p@50Hz, 720p@50/60Hz, 1080i@24/50/60Hz, 1080p@24/50/60Hz |
| Network Cable | Low resistance, oxygen free, 100% copper (Cat5e/Cat6/Cat6A/Cat7) |
| Transmission Distance | Up to 492ft (150m) @ 1080p60Hz |
| IR Remote Control | Supportss 20-60KHz wide frequency remote control |
| Operating Temperature | 5° to 131° F (-15° to 55° C) |
| Storage Temperature | - 4° to 140° F (-20° to 60° C) |
| Operating Humidity | 10% to 80% relative humidity |
| Power Adapter | 5VDC/1A (output) |
| Power Consumption | TX: 4W; RX: 4W |
| Dimensions | 2.96" (L) x 0.87" (H) x 3.04" (W)  (TX & RX) |
| Weight | Tx: 0.26 lbs; Rx: 0.26 lbs |
| Color | Black |

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# 6. Hardware Installation

1. Power off all devices including your HDMI source and HDMI display(s).

2. Connect your HDMI source device to the Transmitter's HDMI IN connector with an HDMI cable (HDMI cable not included).

3. Optional: Connect the IR blaster cable to the Transmitter's IR-TX port. Face the eye towards your HDMI source device's IR sensor. This connection is needed only if you need to control your HDMI source from the remote location.

4. Plug your Cat5e/6 cable between the Transmitter's CAT5e/6 output and Receiver's CAT5e/6 Input.

5. Connect your HDMI display to the Receiver's HDMI OUT connector with a HDMI cable (HDMI cable not included).

6. Optional: Connect the IR Receiver cable to the Receiver's IR-IN port. This connection is needed only if you need to control your HDMI source device from the remote location.

7. Plug the included power adapters into the Transmitter's and Receiver's power jacks, then plug both power adapters into a reliable power source.

8. Power on all connected devices.

9. The HDMI extender is ready for use.

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# 7. CAT Cable Wiring

We suggest both CAT5e/6 connectors be wired identically using T568B wiring standard for the best performance and compatibility.

Both connectors must be wired identically, to T568B standard.



*Note:* You may use cat5e, cat6 UTP (cat6 preferred) in conjunction with the HDBitT output; however for best performance use cat6a or cat7 (particularly in electrically noisy environments).   The maximum distances & transmission performance for HDMI and HDBT may be compromised by cable quality, patch panels, poor termination, wall plates, cable kinks and electrical interferences.   Generally ensure the cat cable is solid copper core of 23AWG (avoid CCA type), in one straight run (avoid/minimise patches) and avoid close proximity to any noisy electrical sources.

# 8. Application Diagram

## 8.1  1-to-1 Connection

Direct connection between the Transmitter and Receiver or through a Gigabit LAN via a dedicated gigabit switch.

If deployed within an existing network, create a VLAN to segregate our devices (Transmitter and Receiver) from the rest of the network devices.



*Figure 3: 1-to-1 Direct Connection Application Diagram*

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# 8. Application Diagram (Continued)

## 8.2 1-to-Many Connection

A dedicated gigabit switch is recommended. If deployed within an existing network, create a VLAN to segregate our devices (Transmitter and Receivers) from the rest of the network devices.
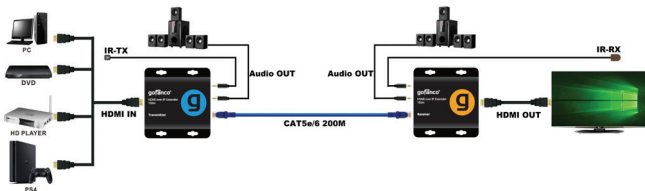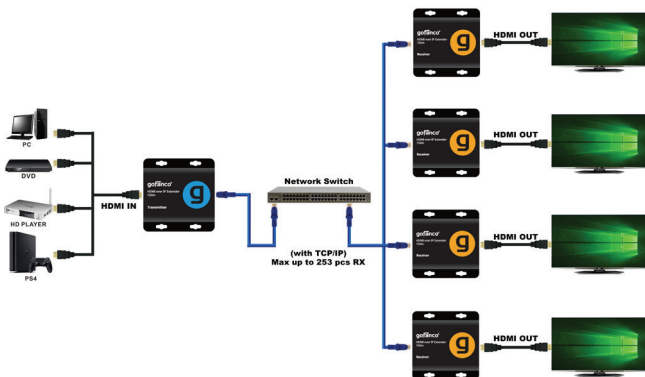


*Figure 4: 1-to-Many Connection Application Diagram*

**Notes:**

- Many-to-Many Connection: A smart switch is required. Create a separate VLAN for each Transmitter and its corresponding Receivers. Each VLAN can only have 1 Transmitter.

- Additional Receivers, part number is EXHDIP-150RX, sold separately.

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# 9. FAQ & Solutions

Q: What if my display shows "Please check the TX and RX connection"on the screen?

A: 1. Please check if the power adapters of Transmitter (TX) and Receiver (RX) are connected and powered on.

   2. Check the network cable (CAT5e/6) is firmly connected between the TX and RX.

Q: The remote display appear, "X" on the Transmitter X left:

A: 1. Please make sure the HDMI source device is connected to the Transmitter (TX) unit and powered on.

   2. Use different HDMI cables.

Q: The remote display appear, "X" between Transmitter & Receiver:

A: 1. Please check the network cable is tight for connect.

Q: The extender is not working properly:

A: 1. Please check the cable lengths below:
      - HDMI cables: Up to 5m.
      - Network cables (CAT5e/6): Up to 150m.

   2. Press the reset button 5 sec on the Transmitter and reconnect.

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# 10. IR Application

**Description:**

<u>HDMI Source Device Control from TX Location</u>

1. Connect the IR Blaster cable to the Transmitter's IR-TX port. Face the eye towards your HDMI source device's IR sensor.

2. Connect the IR Receiver cable to the Receiver's IR-RX port.

## 10.1 IR Pin Definition



IR RECEIVER    IR BLASTER

*Figure 5: IR Cable Pin Definition*

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## 11. Disclaimer

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