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# gofanco HDExtIPv2 HDMI IP Extender User Guide

Contents

gofanco HDExtIPv2 HDMI IP Extender

Thank you for purchasing from gofanco. Our products aim to meet all your connectivity needs wherever you go. For optimum performance and safety, please read the instructions carefully and keep this User's Guide for future reference. If you need more information about our products, please visit **www.gofanco.com**. For technical support, please email us at **support@gofanco.com**. For drivers/manuals download, please go to **www.gofanco.com/downloads**.

Package Contents
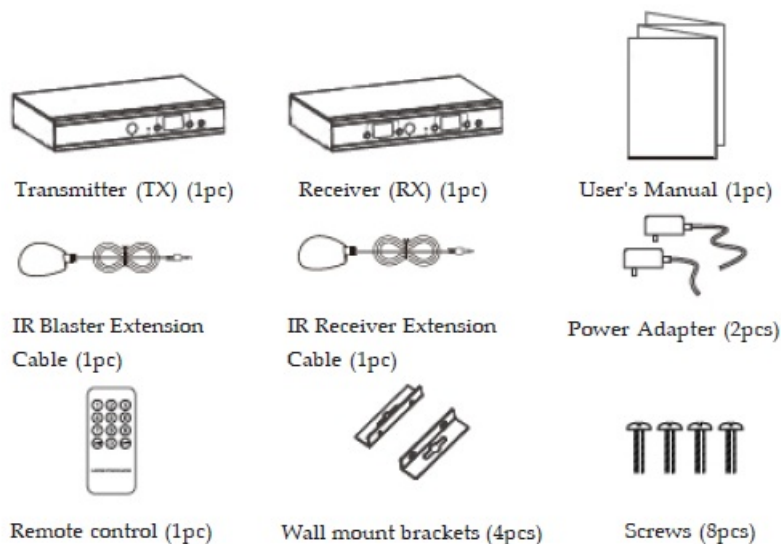
Introduction

The HDMI Extender 1080p extends high definition 1080p HDMI signals from a source device to a display device through economical CAT5e/6 cabling up to 120 meters using advanced HDBitT over IP technology.

Features

- Transmits HDMI signals from source device to display device up to 120 meters using economical CAT5e/6

cabling

- Supports IR remote control function to control the source device from long distances
- Offers scalable matrix configuration, combining up to 40 TX/RX units (5 TX's max). Additional Transmitter units (part# HDExtIPv2-TX) and Receiver units (part# HDExtIPv2-RX) are sold separately
- Supports up to 1080p@60Hz resolution
- Allows computer software control, remote control, or push button control, to select/switch between HDMI source devices

Installation Requirements

1. HDMI source device (computer, DVD player, etc.)
2. HDMI display device (SDTV/Monitor, HDTV/Monitor, projector, etc.)
3. UTP/STP CAT5e/6 cable following IEEE-568B wiring standard

Product Layout
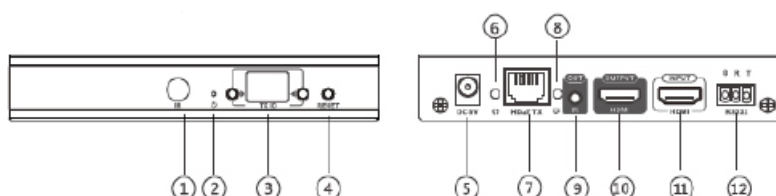
1. IR Window	Receives IR signals from the included remote control to set/select the channel
2. Power LED	On when transmitter is powered on
3. TX ID	Displays transmitter's ID number
4. Reset Button	Press the button to reset the transmitter
5. Power Jack	Connects to the included power adapter
6. Data LED	Blinks when data transmission is detected
7. RJ45 Output	Connects to the receiver's RJ45 Input using a CAT5e/6 cable
8. Link LED	Lights up when RJ45 signal detected
9. IR Output	Connects to the IR Blaster extension cable
10. HDMI Out	Connects to a local HDMI display
11. HDMI Input	Connects to the HDMI source device
12. RS232	RS232 pass through
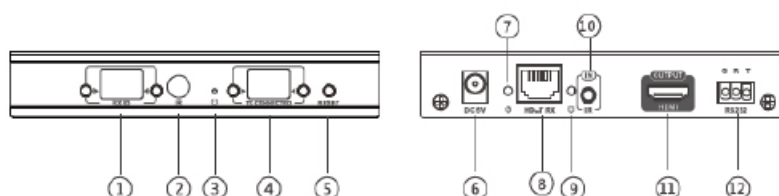
1. RX ID	Displays the receiver's ID number
2. IR Window	Receives IR signals from the included remote control to set/select the channel
3. Power LED	On when receiver is powered on
4. TX Connected	Displays transmitter's ID number for device pairing
5. Reset Button	Press the button to reset the receiver
6. Power Jack	Connects to the included power adapter
7. Data LED	Blinks when data transmission is detected
8. RJ45 Input	Connects to the transmitter's RJ45 Output using a CAT5e/6 cable
9. Link LED	Lights up when RJ45 signal detected
10. IR Input	Connects to the IR receiver extension cable
11. HDMI Out	Connects to a HDMI display
12. RS232	RS232 pass through

Hardware Installation

We recommend CAT5e/6 with 100% copper wiring and IEEE-T568B wiring standard.

One to One Configuration

1. Power off all devices including your HDMI source and HDMI display(s).
2. Connect your HDMI source device to the Transmitter's HDMI Input connector with an HDMI cable (HDMI cable not included).
3. **Optional:** Connect an HDMI display to the Transmitter's HDMI out connector with an HDMI cable (HDMI cable not included) for local monitoring of the HDMI signal.
4. **Optional:** Connect the IR Blaster Extension Cable to the Transmitter's IR output port. Face the eye towards your HDMI source device's IR window. This connection is needed only if you need to control your HDMI source from the remote location.
5. Plug your CAT5e/6 cable between the Transmitter's RJ45 Output and Receiver's RJ45 Input.
6. Connect your HDMI display to the Receiver's HDMI output connector with an HDMI cable (HDMI cable not included).
7. **Optional:** Connect the IR Receiver Extension Cable to the Receiver's IR input port. This connection is needed only if you need to control your HDMI source device from the remote location.
8. Plug the included power adapters into the Transmitter's and Receiver's power jacks, then plug both power adapters into a reliable power source.
9. Power on all connected devices.
10. The HDMI extender is ready for use.

Network Configuration
Dedicated IGMP Gigabit Ethernet switches are recommended for the best performance and reliability. When connecting to an existing LAN environment, it's recommended to configure a VLAN dedicated to these transmitter(s) and receiver(s) to avoid traffic collision with other networking devices. The transmitter's and

receiver's default IP adress is 192.168.1.210 and 192.168.1.220 respectively. If your existing network is DHCP enabled, the transmitter(s) and receiver(s) will be assigned with IP addresses automatically when connected and turned on. Press the reset button on each transmitter and receiver if an IP address is not assigned automatically.

1. Power off all devices.
2. Connect your HDMI source device to the Transmitter's HDMI Input connector with an HDMI cable (HDMI cable not included).
3. **Optional**: Connect a HDMI display to the Transmitter's HDMI out connector with an HDMI cable (HDMI cable not included) for local monitoring of the HDMI signal.
4. **Optional**: Connect the IR Blaster Extension Cable to the Transmitter's IR output port. Face the eye towards your HDMI source device's IR window. This connection is needed only if you need to control your HDMI source from the remote location.
5. Plug your CAT5e/6 cable between the Transmitter's RJ45 Output and a switch or router on your IP network.
6. Connect your HDMI display to the Receiver's HDMI ouput connector with a HDMI cable (HDMI cable not included).
7. **Optional**: Connect the IR Receiver Extension Cable to the Receiver's IR input port. This connection is needed only if you need to control your HDMI source device from the remote location.
8. Plug your CAT5e/6 cable between the receiver's RJ45 Input and a switch or router on your IP network.
9. Plug the included power adapters into the Transmitter's and Receiver's power jacks, then plug both power adapters into a reliable power source.
10. Power on all connected devices.
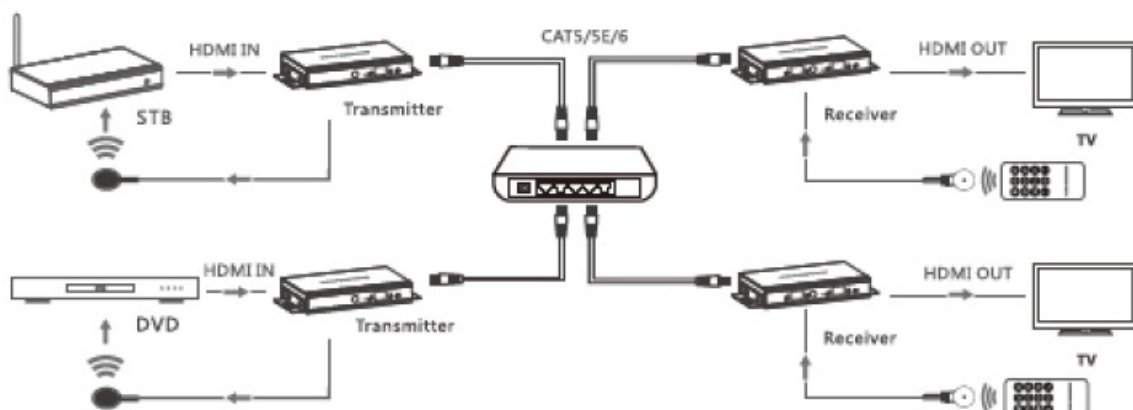11. The HDMI extender is ready for use.

Connection Diagram

One to One Configuration

Network Configuration
Up to 40 combined Transmitters/Receivers units (5 Transmitters max).

Resetting to Default IP Address

The Transmitter's default IP address is 192.168.1.210, the Receiver's default IP address is 192.168.1.220. If you need to reset the units to the default IP address simply disconnect the TX or RX unit from the IP network, then quickly press the Reset button. Wait several seconds and power off and on the units.

IR User Guide

IR Extension Cables
The IR Blaster extension cable should be plugged into the IR Out port of the transmitter and the IR Receiver extension cable should be plugged into the IR In port of the receiver. The emitter of the IR Blaster extension cable should be placed as close to the IR receiver window of the source device.

Remote Control
Use the included remote control to set/select the TX ID on the transmitter and the TX connected ID on the receiver for device pairing..

Device ID Control User Guide

Push Button Control
Press the left or right button control to change the Device ID and Connection ID to the desired number. To connect to the desired HDMI source device, set the Receiver's TX Connected ID to match the Transmitter's TX ID for successful device pairing

Computer Control User Guide

The HDbitT E-Matrix Control application is compatible with Windows only. Download it from **www.hdbitt.com/download-matrix**.

1. Connect your Windows computer to the Ethernet network.
2. For non-DHCP networks: Change your computer's IP address to 192.168.1.xxx (xxx can be 0 to 255, excluding 210 & 220), the same subnet as your TX and RX unit. For DHCP enabled networks: Enable DHCP on your computer and connect it to the network. (Note: If DHCP is enabled simply plug into your network)
3. Open the application downloaded earlier, the interface is displayed, see Figure 1.
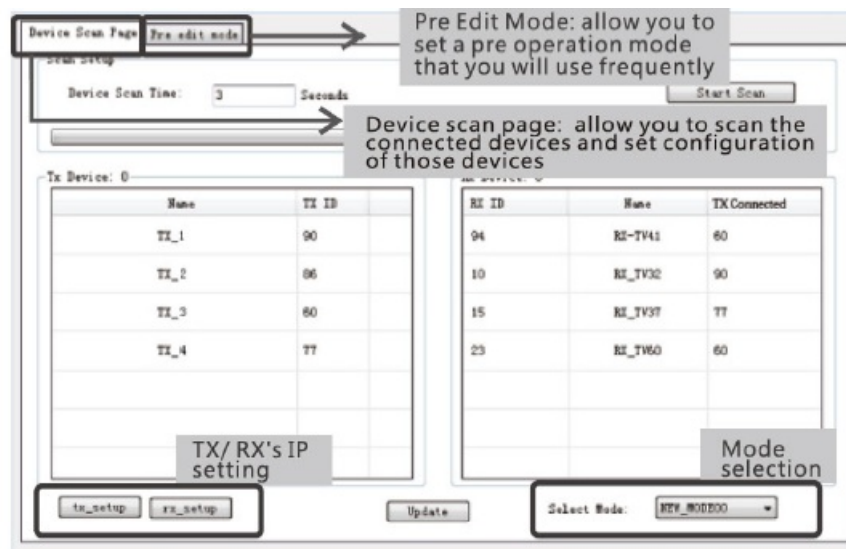
Note: If the Matrix Control appplication is not working properly. Close and restart it to clear the previous settings.

IP Setting

The Transmitter's default IP address is 192.168.1.210, the Receiver's default IP address is 192.168.1.220. There is no need to change the IP address even when multiple transmitters and/or receivers are connected to your IP network simultaneously. However, if a change is needed follow the steps below. Note: The examples show TX unit settings, the steps for RX unit are the same.
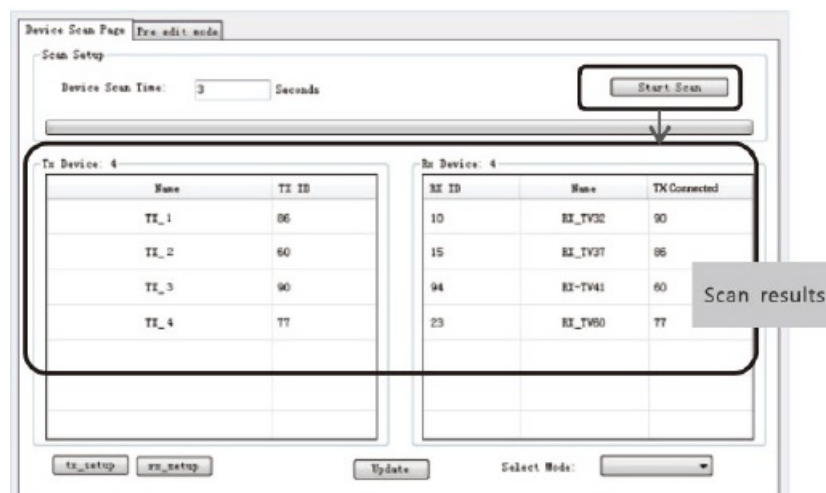
1. Click Tx_setup, see Figure 2.
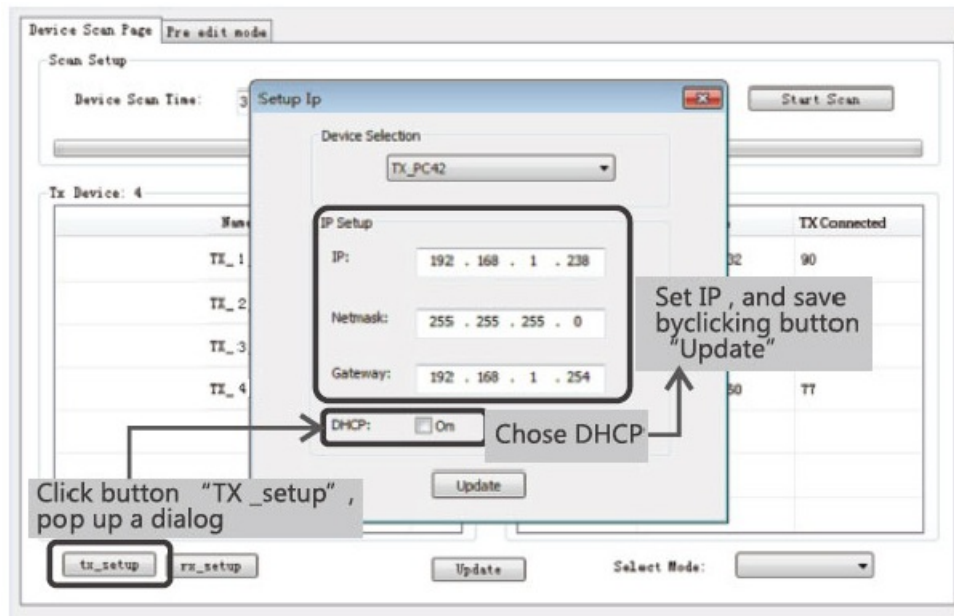
2. Enter the desired IP address, click Update to save the changes.
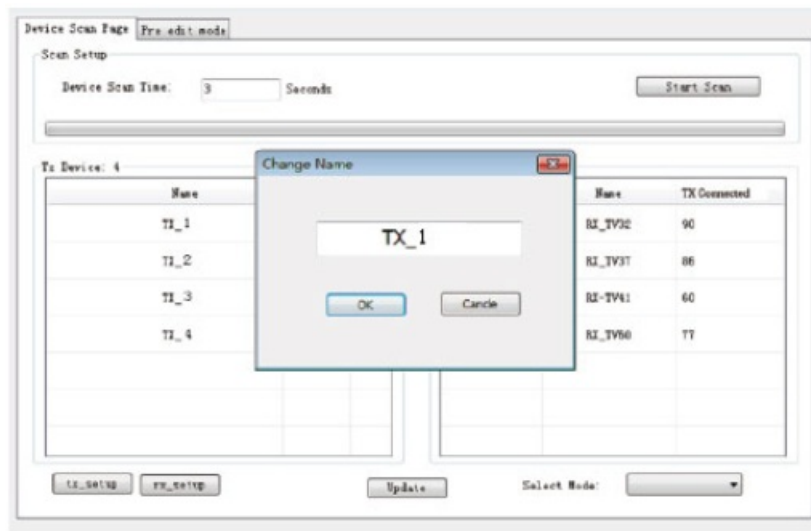
Device Name

Use this section to change the device name.

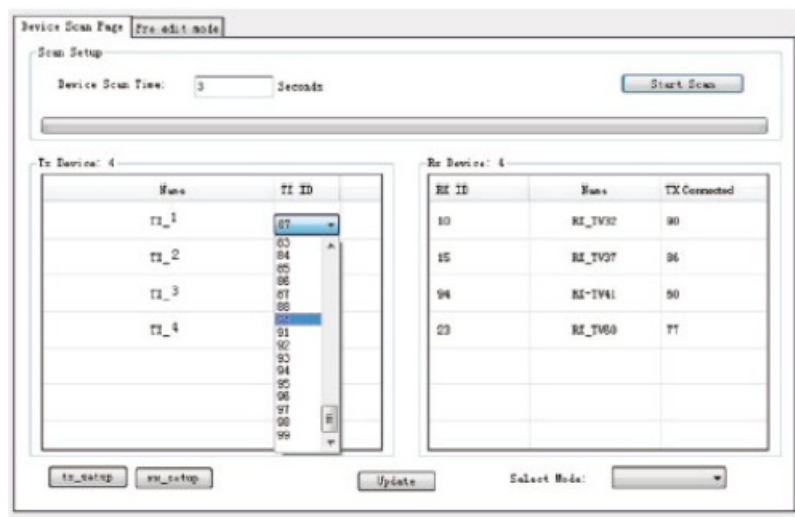1. Click Start Scan to open the editing window, see Figure 3.

2. Double click on a TX unit to update, then click OK to save the changes, see Figure 4.

Device ID

1. Click on TX ID of the device you want to change, select an available ID from the drop down box, see Figure 5.
2. Click Update to save the changes.

Operating Modes
An operating mode is a group of input and output devices allowing easy selection of desired viewing outcome quickly and stress free.

1. Click on Pre edit mode tab.
2. Select the input and output IDs.
3. Enter a name for the operating mode, then press OK to save.
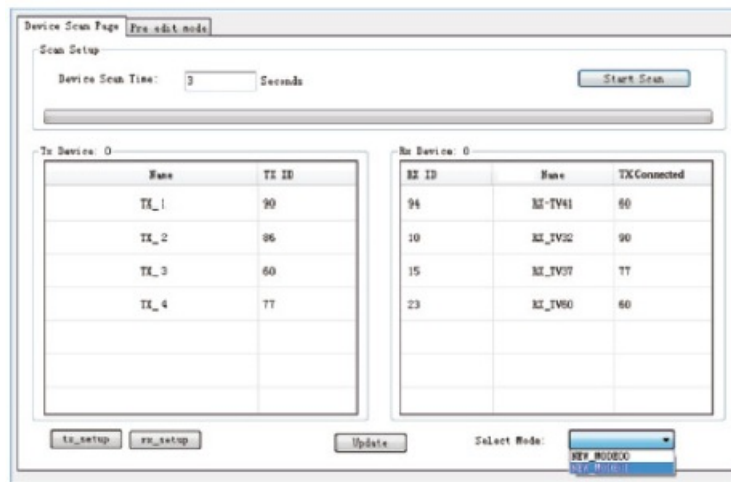
FAQ & Solutions

If the extender is not working properly, please press the reset button on both the transmitter and receiver. Doing this will usually solve any problems.

- Q1: The TV displays "Waiting for connection":

  A1:

    - Please check the power supply of both transmitter and receiver is connected and powered on.
    - Please check the receiver's TX Connected ID matches the transmitter's TX ID.
    - Please make sure all of the transmitter's TX IDs are different.
- Q2: TV displays "Please check the transmitter input signal":

  A2:

    - Check HDMI source signal input. Connect the HDMI source directly to the display to verify the signal output.
    - Check the HDMI cable connection or use a different HDMI cable.
- Q3: The remote display is not stable:

  A3:Please make sure the switch/router and LAN are IGMP compliant and functioning.

Specifications

Item	Specifications
Compliance	HDMI 1.3 & HDCP 1.2
Matrix Configuration	256 units combined, limited to 100 Transmitters (TX)
Network Bandwidth	18Mbps
Protocol	HDBitT
Compression	H.264
Lag	<0.5s
Resolution	1080p@60Hz
Audio Support	PCM
TMDS Signal	0.7 – 1.2Vp-p
DDC Signal	5Vp-p
Loop-out on TX	One HDMI loop-out on TX
IR Passthrough	Yes
IR Frequency Range	20KHz-60KHz
Operating Temperature	32° – 140° F (0° – 60° C)
Power Adapter	Output: 5VDC/2A
Power Consumption	TX: $\leq$4W / RX: $\leq$4W
Product Dimensions	5.5″ (L) x 3.3″ (W) x 0.94″ (H)
Weight	TX: 0.57 lbs / RX: 0.55 lbs
Color	Black

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Documents / Resources

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HDExtIPv2, HDExtIPv2-TX, HDExtIPv2-RX, HDExtIPv2 HDMI IP Extender, HDExtIPv2, HDMI IP Extender, IP Extender, Extender