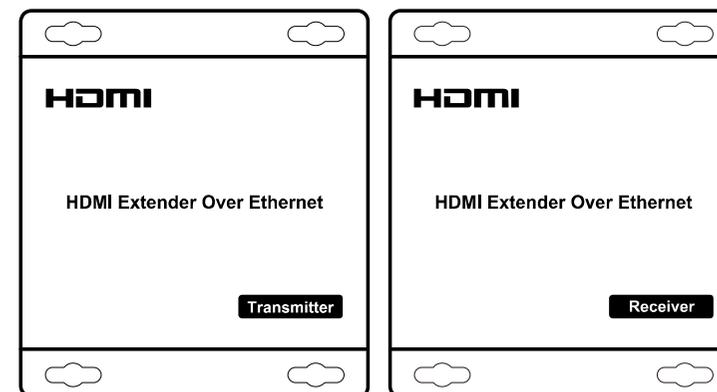


# HDMI Extender over Ethernet

## Operating Instructions



### Dear Customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

### FEATURES

- Extends 1080p HDMI signals up to 120m over a single UTP Cat5e/6 cable
- Support Point-to-Point, Point-to-Many and Many-to-Many network configuration
- HDCP compliant
- Can be cascaded for many layers by adding 10G more Ethernet switches
- With wideband IR (38-56kHz) control to the source
- Support TCP/IP protocol
- With mounting ears

### NOTICE

Our company reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

## TABLE OF CONTENTS

- Specifications
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- Connecting and Operating
- Typical Application
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## SPECIFICATIONS

Operating Temperature Range	-5 to +35°C(+23 to +95°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Input Video Signal	0.5-1.0 Volts P-P
Input DDC Signal	5 volts p-p(TTL)
Support Video Format	DTV/HDTV:480i/576i/480P/576P/720P/1080P
Video Output	HDMI
Transmission Distance	1080P 8-bit 120m(Maximum) over single CAT5E/6 /24AWG/Solid
Power consumption	TX:3watts; RX:3watts((Maximum)
IR Frequency	38kHz-56kHz
Dimension (L×W×H)	103.5x93.5x24.6mm
Net Weight	Receiver:220g,Transmitter:220g
TX	Default IP address:192.168.168.55 MAC address:00:0b:78:00:60:01
RX	Default IP address:192.168.168.56 MAC address:00:0b:78:00:60:02

Note1: Specifications are subject to change without notice. Mass and dimensions are approximate.

Note2: one TX to many RX or many TX connect to many RX, IP and MAC address must be different.

## PACKING CONTENTS

- 1) Main Unit. Transmitter & Receiver
- 2) Power adapter DC 5V/1A x2 PCS
- 3) IR-TX cable & IR-RX cable
- 4) Operating Instructions

### MAIL-IN SERVICE

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

### LIMITED WARRANTY LIMITS AND EXCLUSIONS

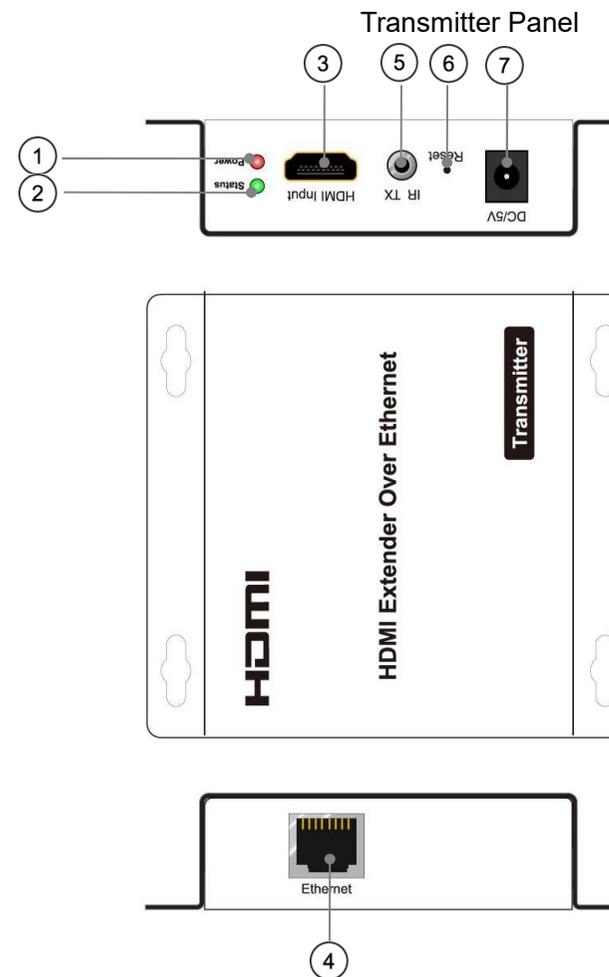
1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment,

or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

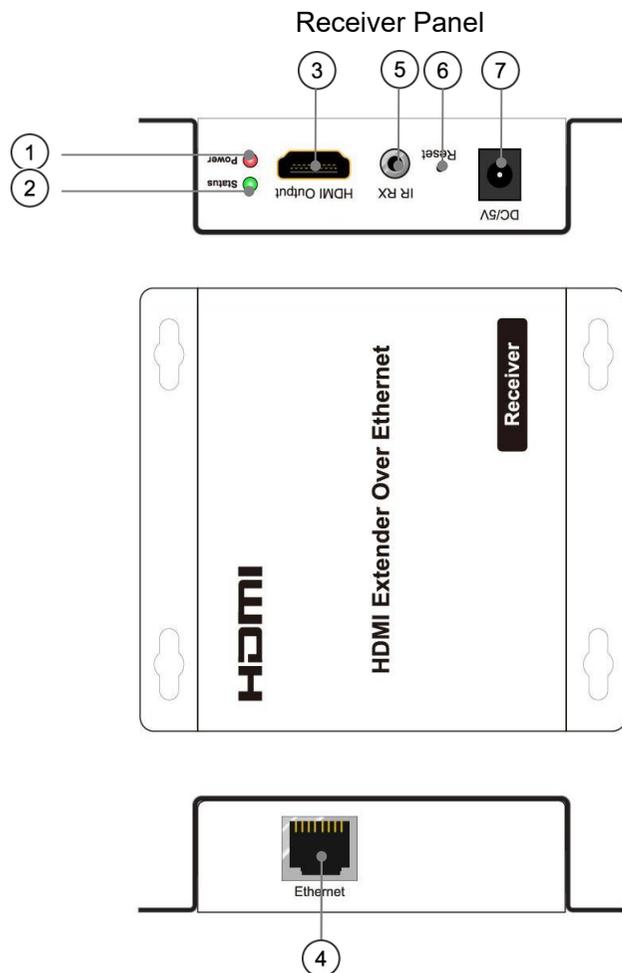
2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

### PANEL DESCRIPTIONS



- ① Indicator of power input
- ② Status of signal connection
- ③ HDMI input
- ④ Ethernet port
- ⑤ IR-TX port
- ⑥ Reset button
- ⑦ Power input port



- ① Indicator of power input
- ② Status of signal connection
- ③ HDMI output
- ④ Ethernet port
- ⑤ IR-RX port
- ⑥ Reset button
- ⑦ Power input port

## MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

## PRODUCT SERVICE

### 1) Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;
- (e) The unit has been dropped or the cabinet damaged.

**2) Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

**3) Replacement parts:** When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

**4) Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

## WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor" ) will, for the length of the period indicated as below, **(Parts(2)Year, Labor(90) Days)** which starts with the date of original purchase ("Limited Warranty period"), at its option either(a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

### Setup HDMI TX and HDMI RX

A HTTP server is embedded in each TX and RX. you can setup IP address for HDMI extender via web browser.

The default IP address of the **TX is 192.168.168.55**, **MAC address is: 00:0b:78:00:60:01**.

The default IP address of the **RX is 192.168.168.56**, **MAC address is: 00:0b:78:00:60:02**.

**Step 1:** Assign the PC (or laptop) IP address on the computer : “Control Panel”→” Network Connections”→”Local Area Connections Status”→”Properties”→”Internet Protocol (TCP/IP)”, Type the IP address field with 192.168.168.11 (0-255) and Subnet mask with 255.255.255.0. After that press OK to save the configuration.

**Note:** The IP address of PC should be different from the IP address of TX and RX.

**Step 2:** Use an Ethernet Cable to connect the PC (or laptop) and the extender. the power LED for the extender is red and the status LED becomes green.

**Step 3:** please Ping the connected device through the sequence on computer: “Start”→”Run”→ input “CMD”→ input “ping 192.168.168.55” for TX or input “ping 192.168.168.56” for RX, you will receive the reply if the connection is established.

**Step 4:** Login in IE :192.168.168.55 (default IP for TX) or 192.168.168.56(default IP for RX), You can setup IP address, subnet mask, gateway, and MAC address for the TX and RX.

Please set IP address for each TX and each RX, IP:192.168.168.XX (XX:1-255. all IP address for TX and RX must be different .

Please set MAC address for TX and RX, MAC:00:0b:78:XX:XX-XX (XX:01-FF), The MAC address for each TX and each RX must be different .

**Step 5:** After click “Apply” button, the green LED light on the device will go out, you have successfully set IP address for TX and RX now.

**Note:** if you need to restore the device to it’s factory default settings, please power on the device, the red light becomes lighting, waiting about 10 seconds, the green LED light starts working, at this time to press the reset button about 5-10 seconds, then the green light will go out, you have successfully restored IP address to factory IP address now.

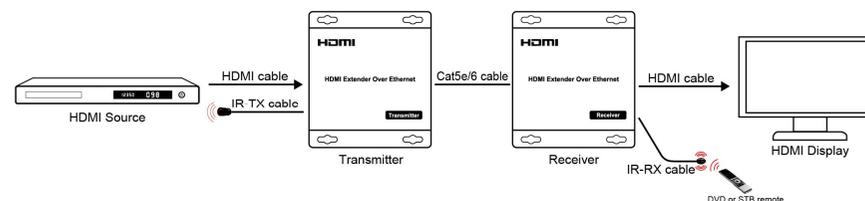
### CONNECTING AND OPERATING

- 1) Connect the HDMI signal source (Such as DVD, STB etc) to HDMI Transmitter.
- 2) Connect CAT5e or 6 cables to both the Ethernet of the transmitter and Ethernet port of the Receiver. (The cables must follow the standard of EIA-TIA 568B).
- 3) Connect the HDMI display (Such as HD-LCD, HD-DLP) into the Receiver.
- 4) Connect the power supply into Power port.
- 5) Connect the IR TX cable into IR TX port on the back panel and affix the emitter onto the source IR windows.
- 6) Connect IR-RX cable into IR-RX port on the receiver and affix the IR receiver in direct line of site with the handheld remote control. It is recommended to affix the receiver on the display frame /bezel or the display stand.

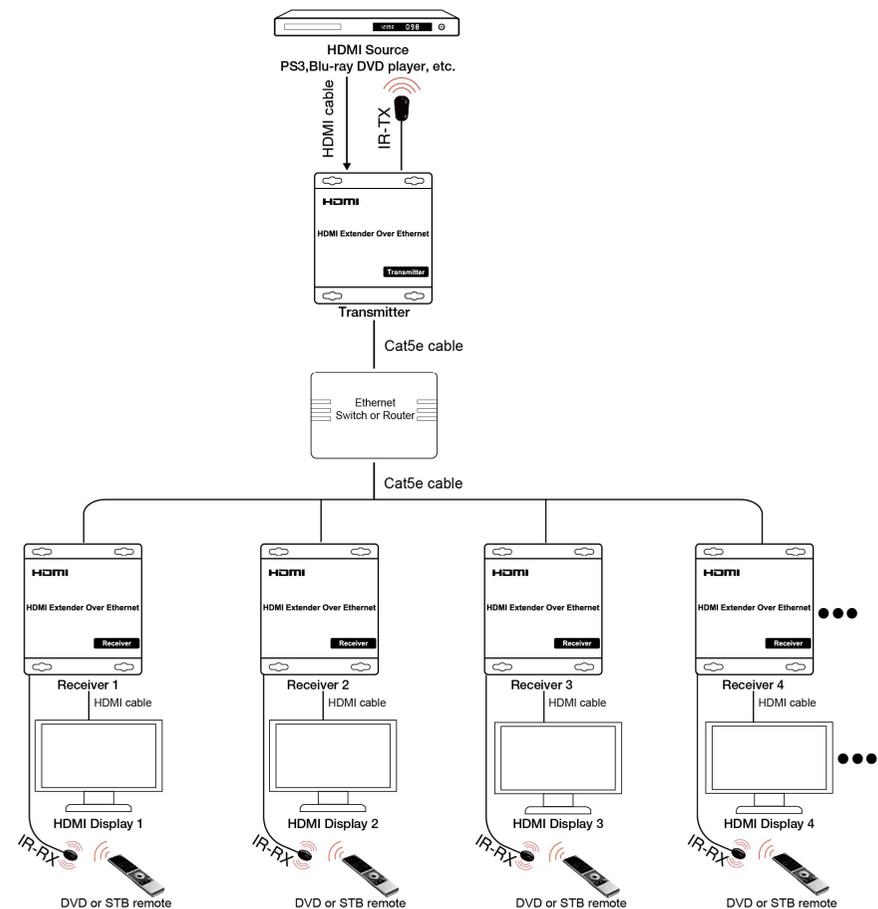
Attention: Insert/Extract cables gently.

### TYPICAL APPLICATION

#### 1) One to One

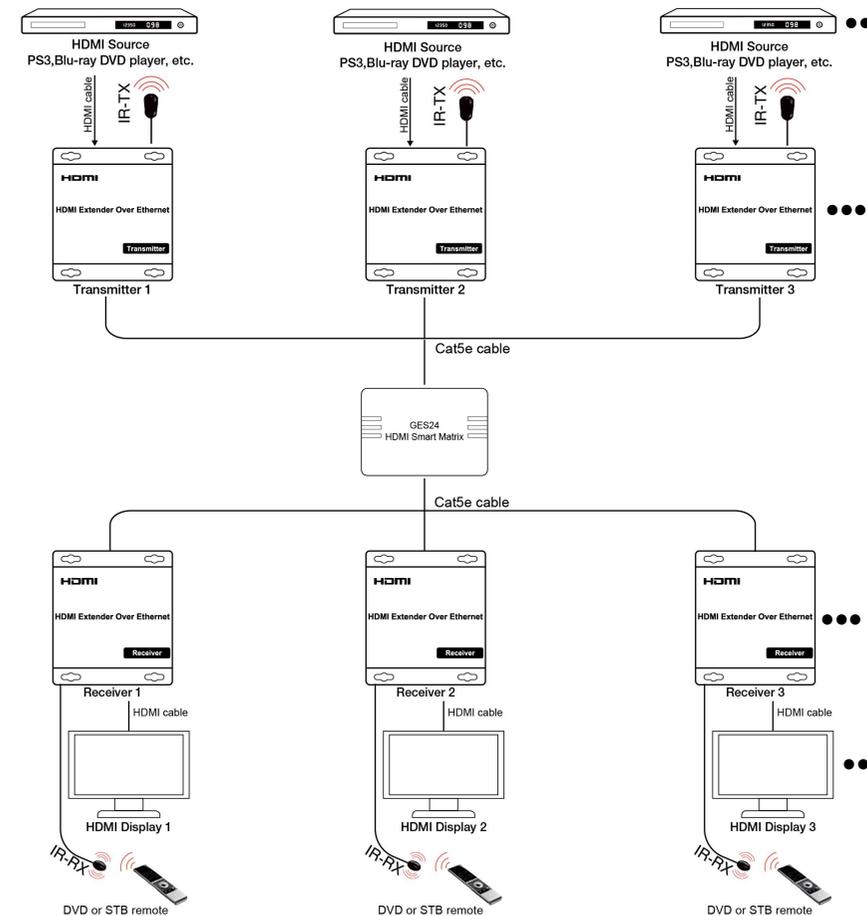


## 2). One to many



 **Note** Connect HDMI Transmitter port and Receiver ports to the Ethernet Switch

## 3). Many to many



 **Note**

1. Connect HDMI TX ports with GES24 port, also connect HDMI RX ports with GES24 ports. (GES24 is a specified Vlan switch for this extender).
2. A HTTP server is embedded in TX and RX, you can setup IP address for RX via web browser. Please refer to "Setup HDMI TX and RX" in page 8.