gofanco®

PRO-HDExtIP-TX
PRO-HDExtIP-RX

4K HDMI over IP extender(TX/RX) with POE

User's Guide

PRO-HDExtIP-TX

PRO-HDExtIP-RX

1 YEAR WARRANTY   RoHS   FC   C E

Congratulations for owning a gofanco product. Our products aim to meet all your connectivity needs wherever you go.

Have fun with our products!

Please read this manual carefully before first use.

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 http://www.gofanco.com/download.

1. Introduction

The **PRO-HDExtIP-TX/RX** **HDMI2.0 over IP Multicast System with Video Wall support & PoE** support boosts up your video/audio transmission distance up to 120m(396ft) in UHD 4K2K format. With cost effective Ethernet cable, users can readily extend UHD sources from DVD players, Blu-ray Disc player, PS3, PC, and any other HDMI sources broadcasting to distant display monitors including HDMI or DVI enabled TV sets or LCD PC monitors. In addition, PRO-HDExtIP-TX/RX is HDCP compliant, and supports PoE, IR and RS-232 pass-through path.

With broadcasting management software and Gigabit Ethernet network switch (supporting IGMP), PRO-HDExtIP-TX/RX is a complete UHD video broadcasting solution for digital signage. It can transmit Full HD 4K2K60 HDMI video broadcasting over IP network. The broadcasting format can be Point to Point, Point to Many, and Multi-Casting. Multi-casting is based on Managed Gigabit Switch with 802.1Q VLAN function which provides control remotely and so multi video sources are allowed and supported.

2. Features

- Supports HDMI input up to 4K2K@60 4:4:4 8bits
- Supports HDMI output up to 4K2K@30 RGB
- Supports High Dynamic Range (HDR)
- HDMI 2.0a, HDCP 2.2 compliant
- Supports PoE (Power over Etherent)
- Flexible and scalable UHD Video Broadcasting by Gigabit Ethernet LAN/Switch(IGMP function required)
- one to one, one to many & multi-casting broadcasting architecture
- Bi-directional IR path, IR signal from 20KHz to 60KHz
- Full Duplex RS-232 control up to 115,200 bps through connector
- Up to 1,023 Groups Multi-Casting
- Latency: 1080P60: 23ms
- Supports Video Wall function
- Supports 180 and 270 clockwise image rotation
- Supports USB2.0

3. Package Contents

PRO-HDExtIP-TX

- 1x PRO-HDExtIP-TX
- 1x IR blaster cable
- 1x User Manual

PRO-HDExtIP-RX

- 1x PRO-HDExtIP-RX
- 1x IR receiver cable
- 1x User Manual

4. Specifications

Item	Description	
Technical	**PRO-HDExtIP-TX**	**PRO-HDExtIP-RX**
HDMI compliance	HDMI	
HDCP compliance	Yes	
Input Video support	Up to 4K2K@60 (4:4:4 8bits)	
Output Video support	Up to 4K2K@30 (RGB)	
Latency	2 frames (33 ms) maximum	
HDMI over UTP transmission [24-bit]	Ultra HD (4K2K60)-120m (396ft) [CAT.X]	
Audio support	Surround sound (up to 7.1ch) or stereo digital audio	
Input TMDS signal	1.2 Volts [peak-to-peak]	
Input DDC signal	5 Volts [peak-to-peak, TTL]	
ESD protection	Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]	
IR pass-thru	Full-duplex bi-directional	
RS-232 support	Yes	
Input	1x HDMI+2x 3.5mm+1x USB	1x RJ45+1x HDMI+1x 3.5mm
Output	1x RJ45+1x HDMI+1x 3.5mm	1x HDMI+2x 3.5mm+2x USB
In/ Out	1x DIN9	1x DIN9
HDMI source control	Controllable via IR pass-through from RX to TX and from TX to RX with IR extenders	
IR remote control	Electro-optical characteristics: = 25° / Carrier frequency: 20-60kHz	
HDMI connector	Type A [19-pin female]	
Min DIN connector	DIN-9	
RJ45 connector	WE/SS 8P8C with 2 LED indicators	
3.5mm connector	IR blaster & IR receiver	

| Mechanical		PRO-HDExtIP-TX	PRO-HDExtIP-RX
Housing		Metal enclosure	
Dimensions [L x D x H]	Model	170 x 101 x 29mm [6.7" x 3.9" x 1.1"]	170 x 101 x 29mm [6.7" x 3.9" x 1.1"]
	Package	198 x 137 x 74mm [7.8" x 5.4" x 2.9"]	198 x 137 x 74mm [7.8" x 5.4" x 2.9"]
	Carton	420 x 400 x 300mm [1'4"x 1'3" x 11.8"]	420 x 400 x 300mm [1'4"x 1'3" x 11.8"]
Weight	Model	451g [1lbs]	451g [1lbs]
	Package	744g [1.6lbs]	744g [1.6lbs]
Fixedness		Wall-mounting case with screws	
Power supply		5V 2A DC / 48V POE	
Power consumption		6 Watts [max]	5 Watts [max]
Operation temperature		0~40°C [32~104°F]	
Storage temperature		-20~60°C [-4~140°F]	
Relative humidity		20~90% RH [no condensation]	

5. Connection Diagram
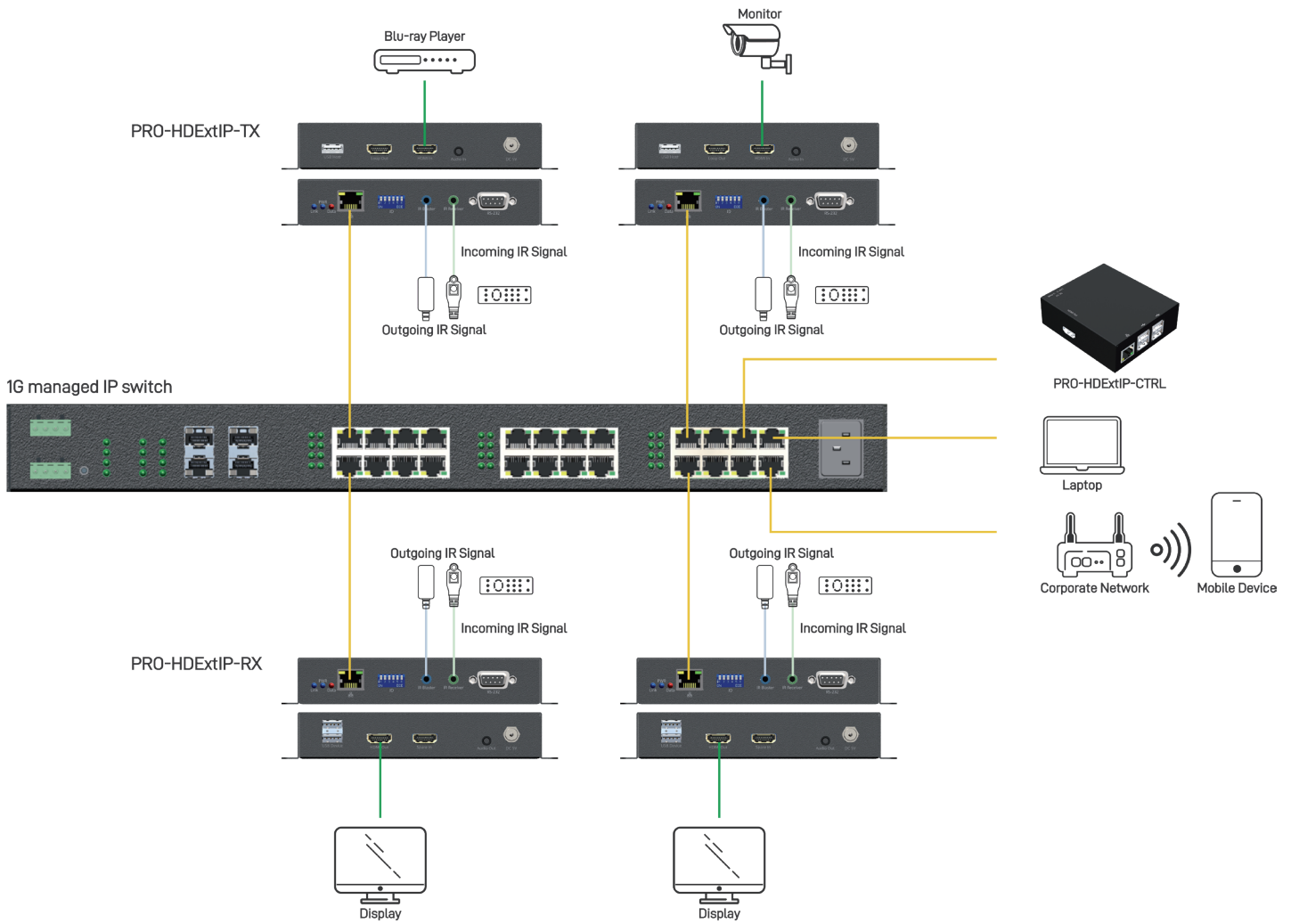
6. Panel Description

PRO-HDExtIP-TX

Front Panel
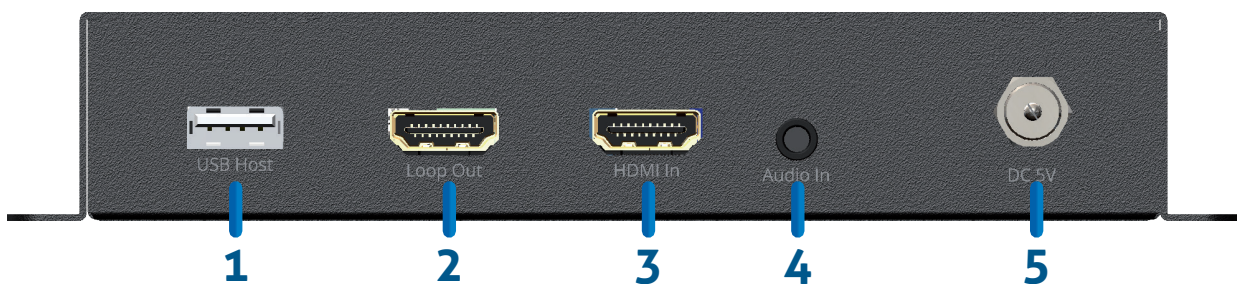
1. **USB:** Connect to upstream USB host

2. **HDMI loopout:** Connects to a HDMI display with a HDMI male-male cable.

3. **HDMI IN:** Connects to a HDMI source with a HDMI male-male cable

4. **Analog audio line in:** Connect to upstream speaker output

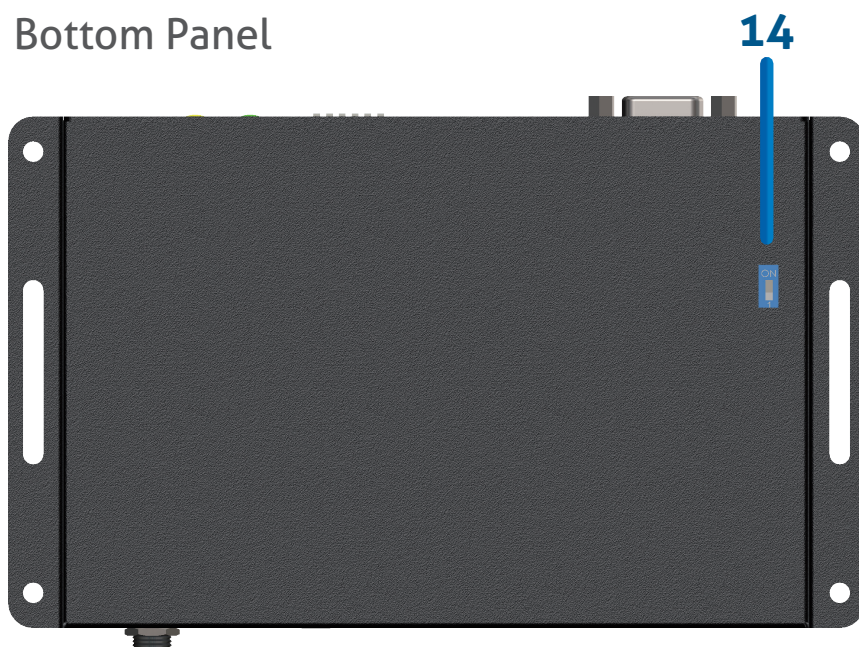5. **+5V DC:** Connect to 5V DC power supply
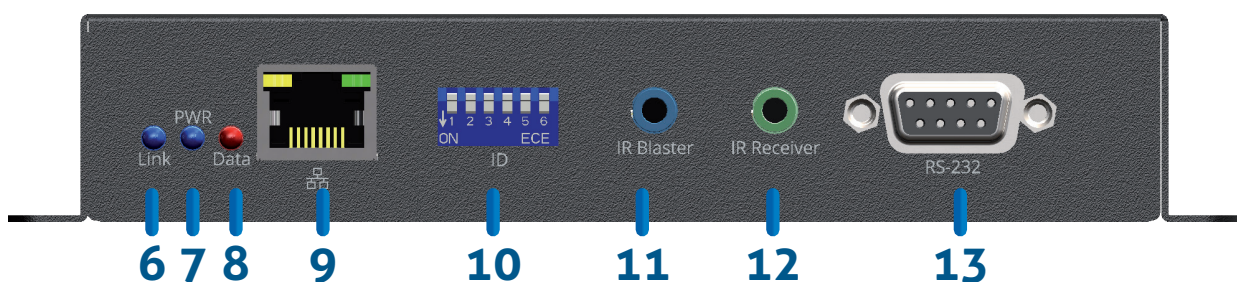
Rear Panel

6. **Link LED indicator:**
   [Blink] When unit connect a Cat-5/5e/6 cable
   [Shine] When transmitting unit connect to a HDMI source and linked to the receiving unit

7. **System LED indicator:**
   [Blink] When unit connect a power supply unit
   [Shine] After booting, when device become stably

8. **Info LED indicator:** When user click the LED button from software, the LED light will blink 30 seconds.

9. **RJ-45:** Gigabit Ethernet port

10. **Dip Switch:** Video channel selection

11. **IR Blaster:** Infrared 3.5mm socket for plugging in the extension cable of IR blaster

12. **IR Receiver:** Infrared 3.5mm socket for plugging in the extension cable of IR receiver

13. **RS-232:** Connect to PC serial port with a DSUB-9 male-male cable here

Bottom Panel

14

14. **Dip Switch:** RS-232 mode selection, [ON] debug mode; [OFF] bypass mode

PRO-HDExtIP-RX

Front Panel

USB Device	HDMI Out	Spare In	Audio Out	DC 5V
1	2	3	4	5
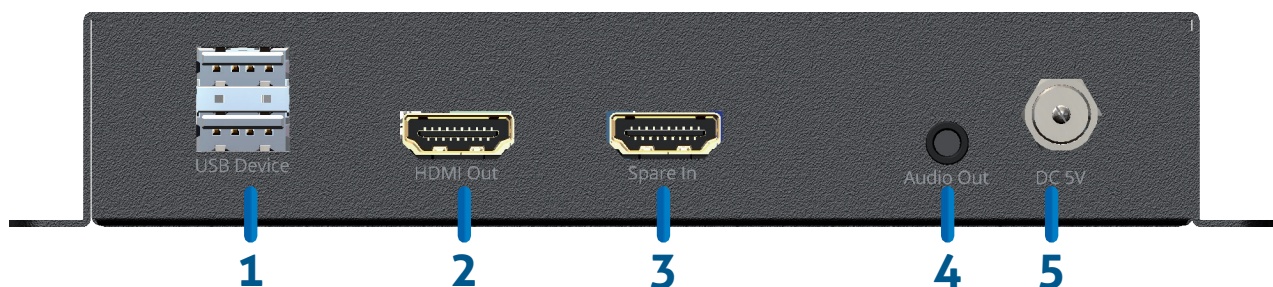
1. **USB(USB 2.0 downstream port):** Connect to USB flash driver or other USB devices

2. **HDMI OUT:** Connect to a HDMI display with a HDMI male-male cable

3. **HDMI IN:** Connects to a HDMI source with a HDMI male-male cable

4. **Analog audio line out:** Connect to downstream headphone output

5. **+5V DC:** Connect to 5V DC power supply
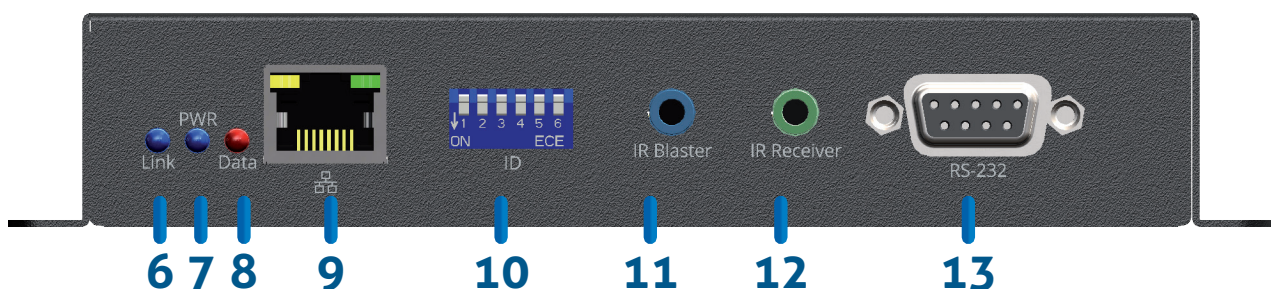
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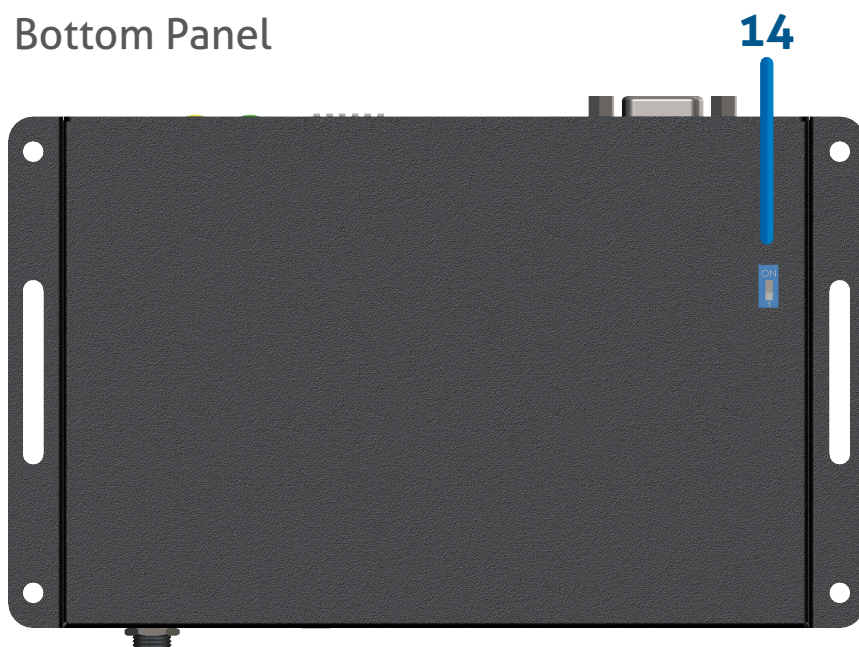13. **RS-232:** Connect to PC serial port with a DSUB-9 male-male cable here

Bottom Panel

14

14. **Dip Switch:** RS-232 mode selection, [ON] debug mode; [OFF] bypass mode

Notes: TX/RX group ID dip-switch setting

ID	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
0	↑	↑	↑	↑	↑	↑
1	↓	↑	↑	↑	↑	↑
2	↑	↓	↑	↑	↑	↑
3	↓	↓	↑	↑	↑	↑
4	↑	↑	↓	↑	↑	↑
5	↓	↑	↓	↑	↑	↑
6	↑	↓	↓	↑	↑	↑
7	↓	↓	↓	↑	↑	↑
8	↑	↑	↑	↓	↑	↑
9	↓	↑	↑	↓	↑	↑
10	↑	↓	↑	↓	↑	↑
11	↓	↓	↑	↓	↑	↑
12	↑	↑	↓	↓	↑	↑
13	↓	↑	↓	↓	↑	↑
14	↑	↓	↓	↓	↑	↑
15	↓	↓	↓	↓	↑	↑
16	↑	↑	↑	↑	↓	↑
17	↓	↑	↑	↑	↓	↑
18	↑	↓	↑	↑	↓	↑
19	↓	↓	↑	↑	↓	↑
20	↑	↑	↓	↑	↓	↑
21	↓	↑	↓	↑	↓	↑
22	↑	↓	↓	↑	↓	↑
23	↓	↓	↓	↑	↓	↑
24	↑	↑	↑	↓	↓	↑
25	↓	↑	↑	↓	↓	↑
26	↑	↓	↑	↓	↓	↑
27	↓	↓	↑	↓	↓	↑
28	↑	↑	↓	↓	↓	↑
29	↓	↑	↓	↓	↓	↑
30	↑	↓	↓	↓	↓	↑
31	↓	↓	↓	↓	↓	↑
32	↑	↑	↑	↑	↑	↓
33	↓	↑	↑	↑	↑	↓
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41	↓	↑	↑	↓	↑	↓
42	↑	↓	↑	↓	↑	↓
43	↓	↓	↑	↓	↑	↓
44	↑	↑	↓	↓	↑	↓
45	↓	↑	↓	↓	↑	↓
46	↑	↓	↓	↓	↑	↓
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48	↑	↑	↑	↑	↓	↓
49	↓	↑	↑	↑	↓	↓
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51	↓	↓	↑	↑	↓	↓
52	↑	↑	↓	↑	↓	↓
53	↓	↑	↓	↑	↓	↓
54	↑	↓	↓	↑	↓	↓
55	↓	↓	↓	↑	↓	↓
56	↑	↑	↑	↓	↓	↓
57	↓	↑	↑	↓	↓	↓
58	↑	↓	↑	↓	↓	↓
59	↓	↓	↑	↓	↓	↓
60	↑	↑	↓	↓	↓	↓
61	↓	↑	↓	↓	↓	↓
62	↑	↓	↓	↓	↓	↓
63	↓	↓	↓	↓	↓	↓

7. IR Pass-Through

IR Extenders

IR Blaster   **IR Receiver**

IR Sockets

IR BLASTER:
plug in the IR blaster to emit all IR command signals received from the IR receiver from the other end to control the devices corresponding to the IR signals.

IR RECEIVER:
plug in the IR receiver to receive all IR command signals from the IR remote controls of the corresponding devices.

⚠ **CAUTION**
Incorrect placement of IR Blaster and Receiver may result in the failure of the IR extenders. Please check carefully before plugging in the IR extender to the respective IR sockets. Warranty will not cover the damage.

Definition of IR Earphone Jack

1. IR Signal
2. Grounding

1 2

1. IR Signal [20-60 kHz]
2. Grounding
3. Power

1 2 3

IR Blaster   **IR Receiver**
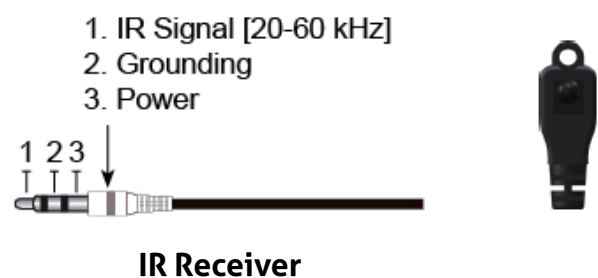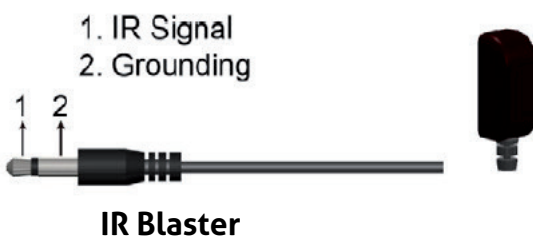
ℹ You can buy any IR extension cables in the market that are compatible to the definition of the IR sockets for the matrix if necessary for replacement use. However, IR cables longer than 2m (6-ft) may not work.

8. Limited Warranty

The SELLER warrants the **PRO-HDExtIP-TX/RX** HDMI2.0 over IP Multicast System with Video Wall support & PoE free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the PRO-HDExtIP-TX/RX features and specifications is subject to change without further notice.**

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