iTrans NeoLink-H70L

HDMI 4K60 NeoLink Extenders, 70m w/ Loopout

Hardware User Manual V1.0



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Important Safety Instructions:

- To prevent electric shock, please ensure that all apparatus is properly grounded.
- Do not hot plug when it is working.
- Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
- Place the device in a well-ventilated area, do not block any ventilation openings.
- Do not expose this apparatus to rain or place it near water. Any liquid that goes into the apparatus may cause a failure, fire, or electric shock.
- Do not place the device on an uneven or unstable surface. The device may fall resulting in a malfunction.
- Never insert anything metallic into the open parts of this apparatus. This may cause a danger of electric shock.
- If a three-party power supply is used, please ensure that the power supply specifications meet the product requirements.

1. Introduction

This HDMI Extender kit is designed to transmit high-definition video and audio signals up to 230 ft (70 m) at 4K@60Hz resolution over a single CAT6 cable, delivering uncompressed, zero-latency transmission between the transmitter and receiver. It features an HDMI loop-out port and supports advanced functionalities including HDR10, IR passthrough, and 3.5mm audio output. As a highly reliable, ultra-high-definition transmission solution, it is ideal for security monitoring, home theaters, broadcasting, training environments, and more.

2. Features

- Zero-latency transmission.
- Extend **4K@60Hz** HDMI signal up to **70m/230ft** over Cat6/6A/7 cable
- The receiver supports **3.5mm stereo output**.
- Support **HDR10**.
- Support EDID passthrough and auto downscaling.
- **The transmitter features an HDMI loop-out port**.
- **Supports IR passthrough for remote control extension**.
- Support **PoC** Network Cable Power Supply, **Only TX Power Supply is Needed**.
- Lightning protection, surge protection, ESD protection.

3. PACKAGE CONTENTS

- 1× HDMI Transmitter
- 1× HDMI Receiver
- 1× User Manual
- 1× IR receiver extension cable
- 1× IR blaster extension cable
- 1× 5V DC 2A Power Adapter (US/EU/UK/AU)
- 4× Wall-Mount Brackets
- 10× Screw

4. SPECIFICATIONS

Items	Transmitter	Receiver
Video		
Input interface	1x HDMI Type A Female	1x RJ45 Female
Output interface	1x HDMI Type A Female 1x RJ45 Female	1x HDMI Type A Female
HDMI Length	≤5m	≤5m
Maximum transfer rate	18Gbps	
Maximum transmission bandwidth	600MHz	
EDID passthrough	Yes	
Compatibility	HDMI 2.0 (Deep color, 4K, HDR, YUV4:4:4)	
	HDCP 2.2	
Resolutions	720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 3840x2160@24/25/30/50/60Hz, 4096x2160@24/25Hz, 1280x960, 1280x800, 1280x768, 1680x1050, 1360x768, 1366x768, 1600x900, 1024x768, 800x600	
Transmission distance	CAT6/6A/7≤70m	
Audio		
Input interface	1x HDMI Type A Female	N/A
Output interface	1x HDMI Type A Female	1x HDMI Type A Female 1x 3.5mm L/R Female
Audio formats	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1CH/Dolby Atmos	
Command Signal		
IR interface	1x 3.5mm IR OUT Female	1x 3.5mm IR IN Female
Receiving range	≤5m	

Infrared frequency	20KHz~60KHz	
Power		
Power Supply	DC5V/2A	PoC (Powered by TX)
Power Consumption	TX+RX<8W	
Operating Environment		
Working temperature	- 20℃~60℃	
Storage temperature	- 30℃~70℃	
Humidity	0~90%RH (no condensation)	
Physical Properties		
Housing	Aluminium	
Weight	148g	148g
Color	Black	
Dimensions	85.0(L)*75.5(W)*16.5(H)mm	
Protection	ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2	
	Lightning protection, Surge protection	

5. Installation Requirements

Item	Description	Requirement
Signal source	Devices with HDMI port (PC, DVD, NVR, etc.)	HDMI cable ≤5m
Cable	CAT6/6A/7，following standard IEEE-568B	CAT6/6A/7≤70m
Display device	TVs, projectors, etc. with HDMI port	HDMI cable ≤5m

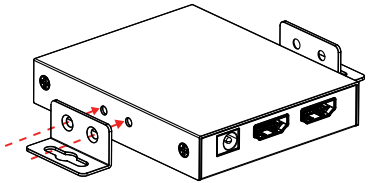
Note:

• Ensure the device is disconnected from the power supply before installation.

• The recommended installation height is within 6.5ft (2m) above the ground.

Installing Wall-Mount Brackets

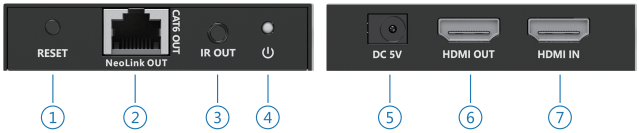
1. Attach a wall-mount bracket to one side of the enclosure using the included screws.



2. Repeat the above step for the other side of the device.
3. Mount the brackets at the desired location using user-supplied screws (not included).

6. Panel Description

6.1 Transmitter



#	Name	Description
①	Reset	Press to restart the device
②	NeoLink OUT	Connect with CAT6/6A/7 network cable
③	IR OUT	Connect with IR blaster extension cable
④	Power indicator	When there is power and no HDMI signal, the indicator will flash, when there is HDMI signal, the indicator will light solid
⑤	DC5V	Connect with DC 5V power adapter
⑥	HDMI OUT	Connect with local HDMI display device with HDMI cable
⑦	HDMI IN	Connect with HDMI source device with HDMI cable

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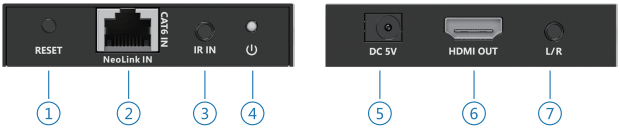
6.2 Receiver



#	Name	Description
①	Reset	Press to restart the device
②	NeoLink IN	Connect with CAT6/6A/7 network cable
③	IR IN	Connect with IR receiver extension cable
④	Power indicator	When there is power and no HDMI signal, the indicator will flash, when there is HDMI signal, the indicator will light solid
⑤	DC5V	PoC, only TX power supply is needed
⑥	HDMI OUT	Connect with HDMI display device with HDMI cable
⑦	L/R	Connect with 3.5mm port earphone or speaker

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7. Installation Procedures

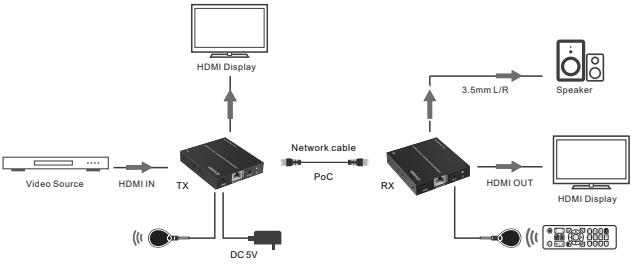
7.1 How to make a network cable



Follow the standard of IEEE-568B:

1-white and orange	2-orange	3-white and green	4-blue
5-white and blue	6-green	7-white and brown	8-brown

7.2 Connection Diagrams

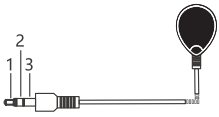


7.3 Connection Instructions

1) Connect the source device to the HDMI IN port of the transmitter with an HDMI cable, and connect the HDMI OUT port of the receiver to the display device with another HDMI cable.
2) Use a Cat6/6A/7 cable to connect the RJ45 port of the transmitter and receiver.
3) If using HDMI loop out, connect the display device to the HDMI OUT port of the transmitter.
4) If using IR passthrough, the IR blaster extension cable should plug in the IR OUT port of the transmitter, the IR receiver extension cable should plug in the IR IN port of the receiver.

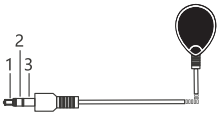
5) If you need to output audio additionally, connect the speaker to the L/R port with a 3.5mm stereo audio cable.
6) Plug the power supply into the devices to get started.

7.4 IR User Guide



IR blaster

1. Power
2. IR Signal
3. Null



IR receiver

1. Power
2. IR Signal
3. Grounding

1) IR blaster extension cable should plug in the IR OUT port of the transmitter or receiver, IR receiver extension cable should plug in the IR IN port of the transmitter or receiver.
2) The emitter of the IR blaster extension cable should be as close as possible to the IR receiving window of the source device.
3) Point the remote control at the receiving head of the IR receiver extension cable to operate.

8. FAQ

Q: The devices are connected correctly, but why is there no image displayed?

A:

1) Please make sure the HDMI cable meets the transmission requirements. (e.g. 4K HDMI cable)
2) Please check and make sure the network cable is connected well.
3) Restart the transmitter or receiver by pressing the reset button.

Q: Why does the display occasionally have a black screen?

A:

1) Check if the length of the cable is within the specified range.
2) Reset the transmitter or receiver to re-built the connection.

Q: Why is the display color abnormal or no sound?

A:

1) Reset the transmitter or receiver to re-built the connection.
2) Check if the HDMI cables are connected well.
3) Reconnect the network cable.