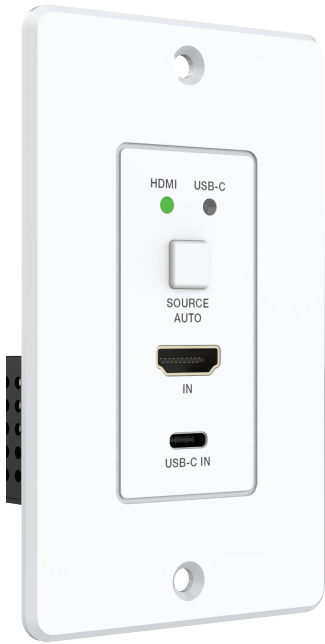
NEXIS

4K60 2x1 HDBT Extender with USB-C/HDMI™ Inputs

HW150C





User Manual

VER 1.0

Thank you for purchasing this product

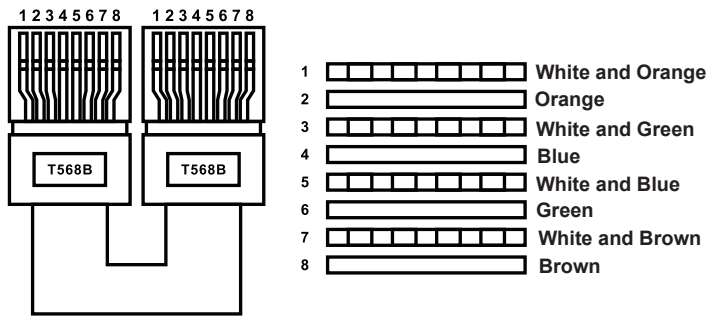
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Caution

The product requires the use of UTP connectors. Please connect in direct interconnection method and do not cross connect.



Direct Interconnection Method

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1. Introduction

This product can extend HDMI/USB-C signals up to 150m/492ft for 1080P @60Hz, or 120m/394ft for 4K2K@60Hz (4:4:4) via a single CAT6/6A cable. The wall-plate transmitter features one HDMI input and one USB-C input port, supporting manual and automatic switching modes. The box receiver features one HDMI output and one 3.5mm de-embedding audio output. It supports bi-directional PoC and bi-directional IR, RS-232 signal transmission.

The multifunctional extender can be widely used in scenarios of demonstration, video conference, multimedia teaching and other HDMI signal extension occassions.

2. Features

- ☆ DP 1.4, HDCP 2.2 compliant
- ☆ The transmitter with 1-Gang US size wall plate supports two inputs: 1× HDMI and 1× USB-C
- ☆ Video resolution is up to 4K2K@60Hz 4:4:4, and video bandwidth is 18Gbps
- ☆ Support auto switching and manual switching
- ☆ The maximum transmission distance via CAT6/6A cable is up to: 120m/394ft for 4K2K@60Hz 4:4:4 signal; 150m/492ft for 1080P@60Hz 4:4:4 signal
- ☆ Support audio format: LPCM 7.1CH, Dolby TrueHD and DTS-HD Master Audio
- ☆ Support HDR, HDR10, HDR10+, Dolby Vision, HLG pass-through
- ☆ Bi-directional IR, RS-232 and CEC control signal transmission
- ☆ Support bi-directional PoC

3. Package Contents

① 1× 4K60 2x1 HDBT Extender (Transmitter)
② 1× 18Gbps HDMI over HDBaseT Extender (Receiver)
③ 1× 24V/1A Multinational Power Supply
④ 1× IR Blaster Cable (1.5m)
⑤ 1× IR Wideband Receiver Cable (1.5m)
⑥ 1× 2-pin 3.5mm Phoenix Connector (Male)
⑦ 2× 3-pin 3.5mm Phoenix Connector (Male)
⑧ 1× 3-pin 3.81mm Phoenix Connector (Male)
⑨ 2× Mounting Ear
⑩ 4× Machine Screw (KM3*4)
⑪ 1× User Manual

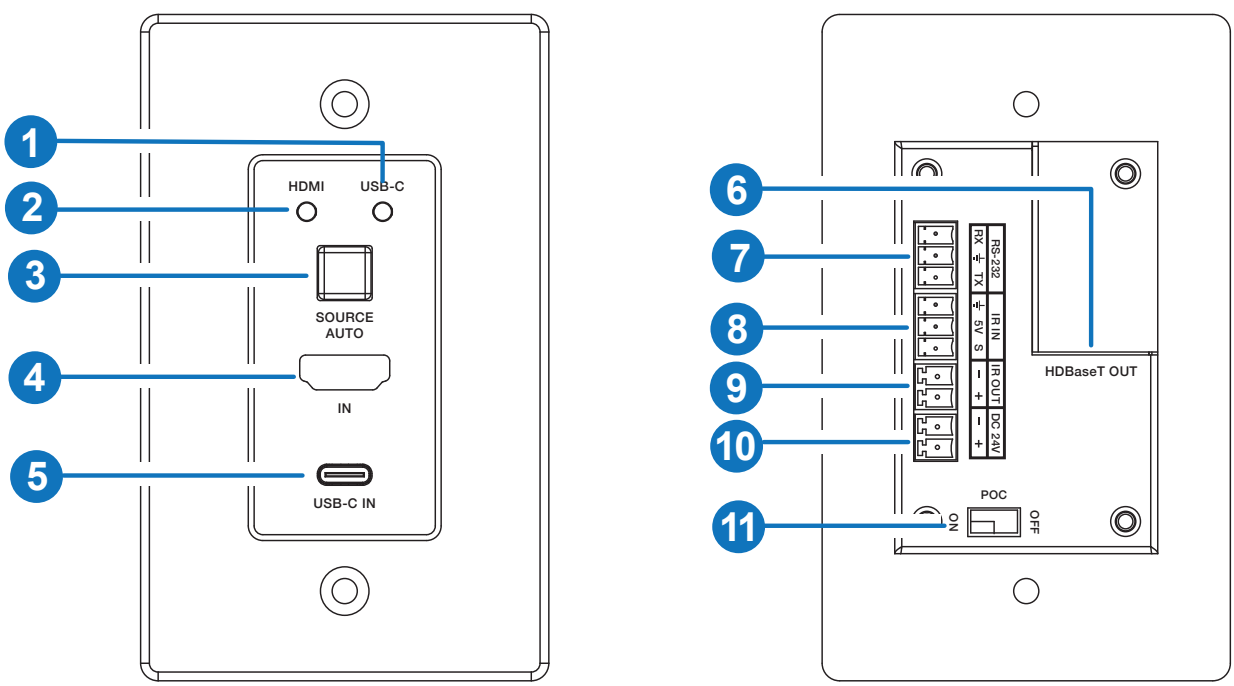
4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@60Hz 4:4:4 Including all 3D TV format Including all resolution in computer such as 1920x1200
Color Depth	8-bit,10-bit,12-bit
Color Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
HDMI Audio Format	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus (DD+), DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X
L/R Audio Format	LPCM 2.0CH
IR Level	5Vp-p
IR Frequency	Wideband 20K-60KHz
Transmission Distance	Up to 120m/394ft for 4K2K@60Hz 4:4:4 via CAT6/6A cable Up to 150m/492ft for 1080P@60Hz 4:4:4 via CAT6/6A cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1× USB-C IN [USB Type C, 24-pin female] 1× HDMI IN [HDMI Type A, 19-pin female] Output: 1× HDBT OUT [RJ45] Control: 1× RS-232 [3-pin 3.5mm phoenix connector] 1× IR IN [3-pin 3.5mm phoenix connector] 1× IR OUT [2-pin 3.5mm phoenix connector]
Receiver	Input: 1× HDBT IN [RJ45, 8-pin female] Output: 1× HDMI OUT [HDMI Type A, 19-pin female] 1× AUDIO OUT [3.5mm stereo mini-jack] Control: 1× IR IN [3.5mm stereo mini-jack] 1× IR OUT [3.5mm stereo mini-jack] 1× RS-232 [3-pin phoenix connector] 1× SERVICE [Mini-USB, update port]

Mechanical	
Housing	Transmitter/Receiver: Metal Enclosure
Color	Transmitter: White + Black; Receiver: Black
Dimensions	Transmitter: 69.8mm [W] × 39mm [D] × 114mm [H] Receiver: 140mm [W] x 65mm [D] x 18mm [H]
Weight	Transmitter: 203g, Receiver: 155g
Power Supply	Input: AC 100-240V 50/60Hz; Output: DC 24V/1A (US/EU standard, CE/FCC/UL certified)
Power Consumption	Transmitter: 4.5W (Max); Receiver: 4.7W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

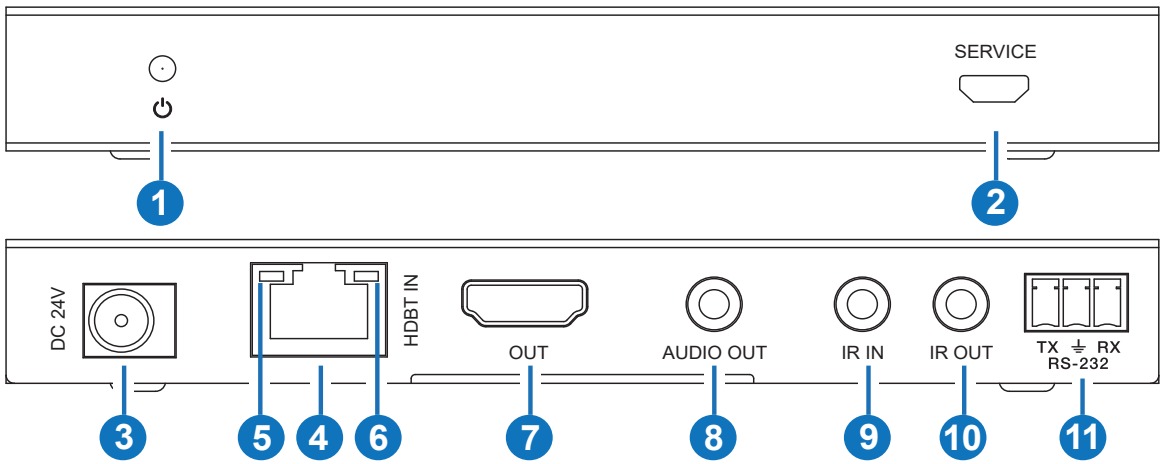
5. Operation Controls and Functions

5.1 Transmitter Panel



No.	Name	Function Description
1	USB-C LED	The green LED will be on when USB-C input is selected as the input channel.
2	HDMI LED	The green LED will be on when HDMI input is selected as the input channel.
3	SOURCE/AUTO button & indicator	Press to switch the two input sources: USB-C and HDMI. Long press for 3 seconds to enable or disable auto switching function. The indicator will be blue when auto switching is enabled.
4	HDMI IN	HDMI input port, supporting video signal up to 4K60 4:4:4.
5	USB-C IN	USB-C input port, supporting video signal up to 4K60 4:4:4.
6	HDBaseT OUT	Connects to the HDBT IN port on Receiver with CAT6/6A cable.
7	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will pass-through from transmitter to receiver or from receiver to transmitter.
8	IR IN	IR input port for receiving the signal of IR remote.
9	IR OUT	IR output port for control of source device. This IR output signal is from the IR IN port of receiver.
10	DC 24V	DC 24V/1A power supply input port. *Note that the extender supports PoC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, the other one doesn't need power supply.*
11	PoC ON/OFF	PoC switch. Switch to ON to enable PoC function; switch to OFF to disable PoC, and the transmitter is powered from local power supply at this time.

5.2 Receiver Panel



No.	Name	Function Description
1	Power LED	Red LED indicates that the receiver is powered on.
2	SERVICE	Firmware update port.
3	DC 24V	DC 24V/1A power supply input port. *Note that the extender supports PoC function, it means that either transmitter or receiver is powered on by 24V/1A power adapter, the other one doesn't need power supply.*
4	HDBT IN	Connects to the HDBT OUT port on Transmitter with CAT6/6A cable.
5	Connection Signal Indicator	▪ On: Transmitter and receiver are in good connection status. ▪ Flashing: Transmitter and receiver are in poor connection status. ▪ Off: Transmitter and receiver are not connected.
6	Data Signal Indicator	▪ On: There is HDMI signal with HDCP. ▪ Flashing: There is HDMI signal without HDCP. ▪ Off: There is no HDMI signal.
7	HDMI OUT	HDMI signal output for display.
8	AUDIO OUT	3.5mm stereo connector for analog audio output.
9	IR IN	IR signal input port for receiving the signal of IR remote.
10	IR OUT	IR signal output port for control of display device. This IR output signal is from the IR IN port of transmitter.
11	RS-232	3-pin Phoenix connector for RS-232 command transmission. The RS-232 command will pass-through from transmitter to receiver or from receiver to transmitter.

6. IR Pin Definition

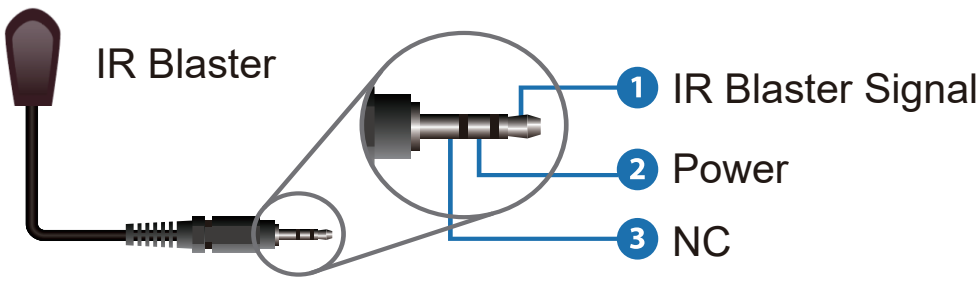
IR Receiver and Blaster pin's definition is as below:

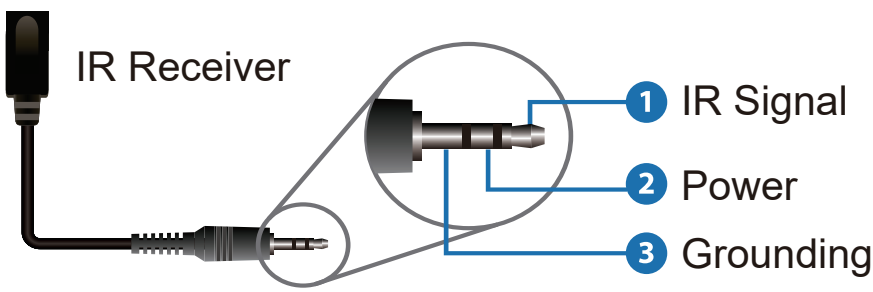


IR RECEIVER



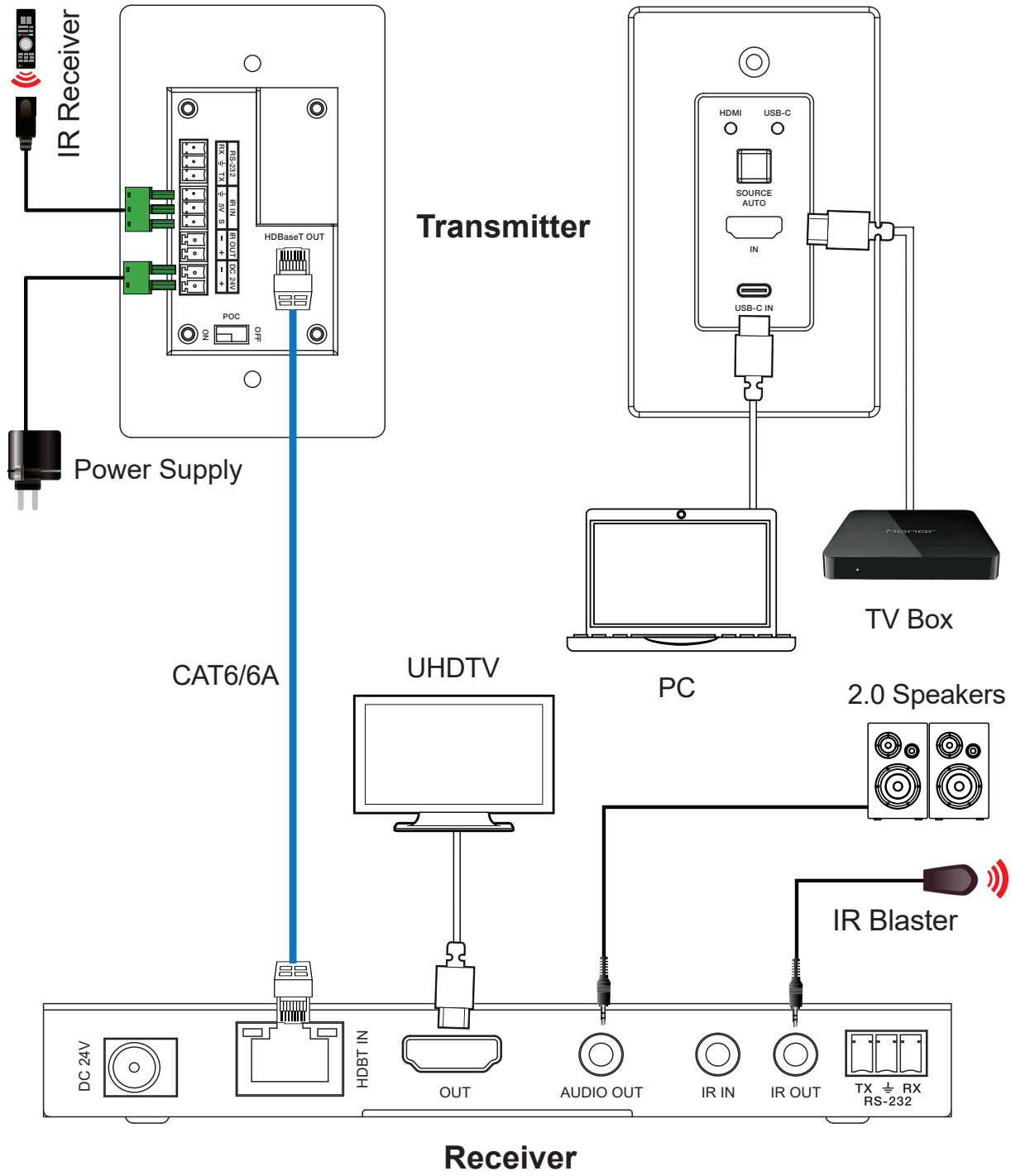
IR BLASTER





Note: *When the angle between the IR receiver and the remote control is ± 45 °, the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is ± 90 °, the transmission distance is 0-8 meters.*

7. Application Example



HIGH-DEFINITION MULTIMEDIA INTERFACE

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