



# 4K 60Hz HDMI CAT Extender

## User's Guide



P/N: HD20Ext-BSC

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](http://www.gofanco.com). For technical support, please email us at [support@gofanco.com](mailto:support@gofanco.com). For drivers/manuals download, please go to [www.gofanco.com/downloads](http://www.gofanco.com/downloads).

## **Important Safety Notices**

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device
- Do not expose this unit to rain, heavy moisture, or liquid
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty
- Keep the product in a well-ventilated location to avoid damage from overheating

- Shut off power and make sure environment is safe before installation
- Do not plug the HDMI cables and IR cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports
- Use the included power adapter only. Make sure the specification matches if using 3rd-party DC power adapters

## **Introduction**

The 4K 60Hz HDMI CAT Extender extends HDMI transmissions up to 70 meters over a single CAT 6/6A/7 cable.

## **Features**

- Extends HDMI transmissions up to 50m (164ft) @4K and 70m (230ft) @1080p
- Supports UHD 4K/60Hz/4:4:4, HDR, 18Gbps bandwidth
- HDCP 2.2/1.4 compliant
- Supports EDID pass-through and 4K to 1080p auto scaling
- HDMI loop-out equipped on the TX, IR pass-through

- Near zero latency
- Lightning/Surge/ESD protection

## **Package Contents**

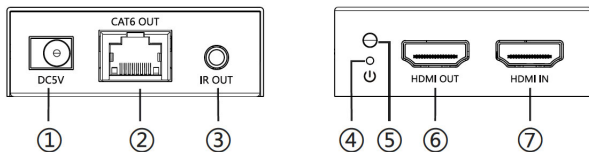
- 4K 60Hz HDMI CAT Extender (1 Transmitter & 1 Receiver)
- 1x IR Blaster cable and 1x IR Receiver cable
- 2x Power adapters (5VDC/500mA)
- User's guide

## **Installation Requirements**

1. HDMI source device (computer, DVD player, XBOX, PS3, etc)
2. HDMI display device (SDTV/Monitor, HDTV/Monitor, projector, etc.)
3. UTP/STP CAT6/6A/7 cable following IEEE-T568B wiring standard
4. HDMI cables (5m max)

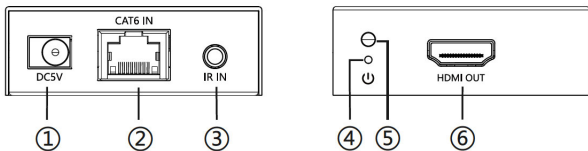
# Product Layout

## Transmitter TX Front and Rear Panel



1. **Power Jack:** Connects to the included power adapter
2. **RJ45 Out:** Connects to the Receiver's RJ45 In using a CAT 6/6A/7 cable
3. **IR Out:** Connects to the included IR Blaster cable to control the HDMI source device from the remote display location
4. **Reset Button:** Press the pin-hole reset button with a paper clip or similar sized item to reset the TX
5. **Power LED:** On when TX is powered on
6. **HDMI Out:** Connects to an HDMI display for local monitoring of the remote display
7. **HDMI In:** Connects to your HDMI source device

## Receiver RX Front and Rear Panel

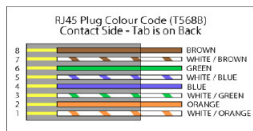
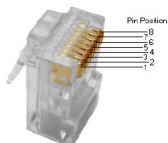


1. **Power Jack:** Connects to the included power adapter
2. **RJ45 In:** Connects to the Transmitter's RJ45 Out using a CAT 6/6A/7 cable
3. **IR In:** Connects to the included IR Receiver cable to control the HDMI source device from the remote display location
4. **Reset Button:** Press the pin-hole reset button with a paper clip or similar sized item to reset the RX
5. **Power LED:** On when RX is powered on
6. **HDMI Out:** Connects to an HDMI display

# CAT Cable Wiring

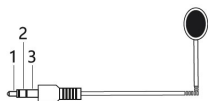
We suggest both RJ45 connectors be wired identically using T568B wiring standard for the best performance and compatibility.

Both connectors must be wired identically, to T568B standard.



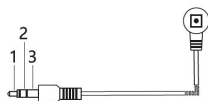
**Note:** You may use cat5e, cat6 UTP (cat6 preferred) in conjunction with the RJ45 output; however for best performance use cat6a or cat7 (particularly in electrically noisy environments). The maximum distances & transmission performance for HDMI and USB may be compromised by cable quality, patch panels, poor termination, wall plates, cable kinks and electrical interferences. Generally ensure the cat cable is solid copper core of 23AWG (avoid CCA type), in one straight run (avoid/minimise patches) and avoid close proximity to any noisy electrical sources.

# IR Cable Pin Definition



IR blaster

1. Power
2. IR Signal
3. Null



IR receiver

1. Power
2. IR Signal
3. Grounding

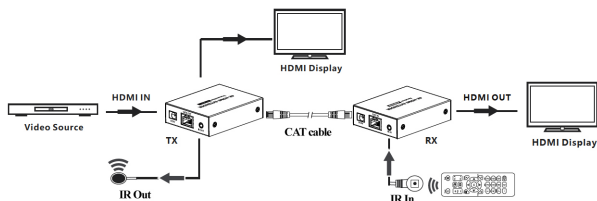
## Hardware Installation

1. Power off all devices including your HDMI source and HDMI display(s).
2. Connect your HDMI source device to the Transmitter's HDMI In connector with an HDMI cable (HDMI cable not included).
3. Optional: Connect your 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 cable to the Transmitter's IR Out port. Face the cable's emitter eye towards your HDMI source device's IR window. This connection is needed only if you need to control your HDMI source device from the remote display location.
5. Plug a CAT6 cable between the Transmitter's RJ45 Out and Receiver's RJ45 In.
6. Connect your HDMI display to the Receiver's HDMI Out connector with an HDMI cable (HDMI cable not included).



- Optional: Connect the IR Receiver cable to the Receiver's IR In port. This connection is needed only if you need to control your HDMI source device from the remote display location.
- Plug the included power adapters into the TX's and RX's power jack, then plug the power adapters into reliable power sources.
- Power on all connected devices.
- The HDMI extender is ready for use.

## Application Diagram



# Specifications

Items	Transmitter	Receiver
<b>Video</b>		
<b>Input interface</b>	1x HDMI Type A Female	1x RJ45 Female
<b>Output interface</b>	1x HDMI Type A Female 1x RJ45 Female	1x HDMI Type A Female
<b>HDMI Length</b>	≤5m	≤5m
<b>Maximum transfer rate</b>	18Gbps	
<b>Maximum transmission bandwidth</b>	600MHz	
<b>EDID passthrough</b>	Yes	
<b>Compatibility</b>	HDMI (Deep color, 4K, HDR, YUV 4:4:4)	
	HDCP 2.2, HDCP 1.4	
<b>Resolutions</b>	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720i@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 3840x2160@24/25/30/50/60Hz, 3440x1440, 2560x1440, 2560x1080, 2048x1080, 1920x1440, 1920x1080, 1280x960, 1280x800, 1280x768, 1680x1050, 1360x768, 1366x768, 1600x900, 1024x768, 800x600	
<b>Transmission distance</b>	4K transmission distance 50m 1080p transmission distance 70m	
<b>Audio</b>		
<b>Input interface</b>	1x HDMI Type A Female	N/A
<b>Output interface</b>	1x HDMI Type A Female	1x HDMI Type A Female
<b>Audio formats</b>	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1CH/Dolby Atmos	
<b>Command Signal</b>		
<b>IR interface</b>	1x 3.5mm IR OUT Female	1x 3.5mm IR IN Female
<b>Receiving range</b>	≤5m	

## **Disclaimer**

The product name and brand name may be registered trademarks of related manufacturers. TM and ® may be omitted on the user's guide. The pictures on the user's guide are just for reference, and there may be some slight differences with the actual products.

We reserve the right to make changes without prior notice to a product or system described herein to improve reliability, function, or design.



Thank you for choosing gofanco

[www.gofanco.com](http://www.gofanco.com)