OREI®

UHD-EXM500-K

**4K@60Hz HDMI Over 1G
IP Extender with IR**

USER MANUAL

Table of Contents

Thank you for purchasing this product

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, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the service life of your equipment.

Please Activate your warranty by registering our product through the link below - **www.orei.com/register**

Technical Support
Need Help?
Our experienced Technical Support Team is here for you to answer your questions, give technical advice or help troubleshoot your project to get you installed on time and on budget. Call, email or chat with us now.

OREI Live Technical Support Hours
US team (US/Canada/Mexico): Monday-Friday, 9 a.m. - 6 p.m. Central Time **Support Email** - info@orei.com |**Support Number** - 877-290-5530

Or

Chat Live on www.orei.com
Send us an instant message now. Our Technical Support Team will respond momentarily. Available during live support hours.

Introduction

The UHD-EXM500-K consists of a Transmitter and Receiver allowing you to extend HDMI audio/video signal to another location up to 500 Feet away using a CAT6/7 cable. The extender features ipcolor STREAM technology for high-definition and low-latency transmission. The device supports video resolutions up to 4K@60Hz. It features an HDMI output on the Transmitter to connect a display at the source. The extender can be connected one-to-one through a CAT cable or one-to-many via a network switch. It also work with multiple switch cascades. Features One-way IR transmission from Receiver to the Transmitter; enabling control of the source device from the Receiver end. The device also supports control through RS-232.

1. Features ipcolor STREAM technology for high-definition audio/video transmission with low-latency.
2. Video resolutions up to 4K@60Hz.
3. Compatible with Cat5/5e/6 or above network cables. For extending signal up to 120M(500Feet) use CAT6 Round -Shielded cable.
4. Supports one-to-one or one-to-many connections through a network switch.
5. Additional Receivers can be added to the setup via a network switch or through a network switch cascade as well.
6. Features HDMI output on the Transmitter to connect a display at the source.
7. One-way IR transmission (20~60kHz) from the Receiver to the Transmitter: enabling source device control from the Receiver end.
8. The device also supports control through RS-232.
9. Micro USB ports on the device can be used for Firmware upgrades.
10. Lightning protection, surge protection, ESD protection.

1.	Transmitter	1pc
2.	Receiver	1pc
3.	IR Blaster Cable	1pc
4.	IR Receiver Cable	1pc
5.	Mounting Ear	4pc
6.	Screws	10pc
7.	Grounding Screw	1pc
8.	RS-232 Terminal Block	2pc
9.	DC5V/1A Power Adapter	1pc
10.	User Manual	1pc

Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 1.4/2.2
Video Bandwidth	18 Gbps
Video Resolution	4K@24/30/50/60Hz, 2560x1440@60Hz, 2560x1600@60Hz, 1080p@50/60Hz, 720p@50/60Hz, 1920x1200@60Hz
Color Space	RGB YUV 4:4:4 YUV 4:2:2 YUV 4:2:0
Color Depth	12 Bit
HDR	Pass Through
HDMI Audio Formats	PCM 2.0, LPCM 5.1/7.1, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS ES 6.1, DTS HRA, DTS HD Master, DTS:X
Transmission Distance	120M (500 Feet)
Protection	Lightning, Surge and ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2

Specifications

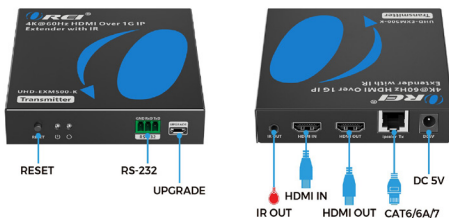| Connection	

Transmitter	Inputs: 1 × HDMI [19-pin female]
	Outputs: 1 × HDMI [19-pin female]
	            1 × CAT port [RJ45]
	            1 × IR OUT [3.5mm Stereo Mini-jack]
	Controls: 1 × RS-232 [3-pin phoenix connector]
	            1 × SERVICE [Micro USB, Up-grade port]

Receiver	Inputs: 1 × IR IN [3.5mm Stereo Mini-jack] 1 × CAT port [RJ45] Output: 1 × HDMI [19-pin female] Control: 1 × SERVICE [Micro USB, Update port]

Specifications

Mechanical	
Housing	Iron
Silkscreen Color	Black
Dimensions	Transmitter & Receiver: 106mm (L) × 103mm (W) × 20.6mm (H)
Weight	Transmitter: 254g, Receiver: 242g
Power Consumption	Transmitter: ≤ 4.5W, Receiver: ≤ 2.5W
Power Supply	Input: AC 100-240V 50/60Hz Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Operating Temperature	-4~140˚F / -20~60˚C
Storage Temperature	-22~160˚F / -30~70˚C
Relative Humidity	0~90% RH (Non-condensing)

Transmitter

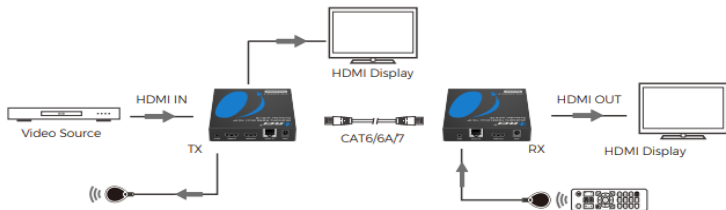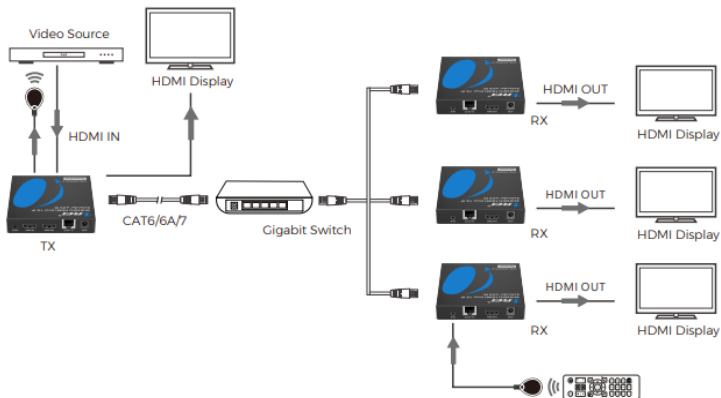| No.	Name	Function Description
1.	Reset	To Factory Reset the unit
2.	RS-232	RS-232 Control Port
3.	Upgrade	Micro-USB port for Firmware upgrades
4.	IR Out	Connect the IR Blaster cable and place it next to the source device
5.	HDMI IN	Connect a source device such as DVD Player, Streaming Device, etc.
6.	HDMI OUT	Connect a display such as TV, Monitor, Projector, etc.
7.	CAT OUT	CAT output to connect a CAT5/6 cable.
8.	DC5V Barrel Connector	Barrel connection to connect the power adapter
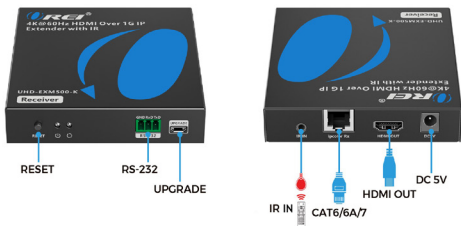
Receiver

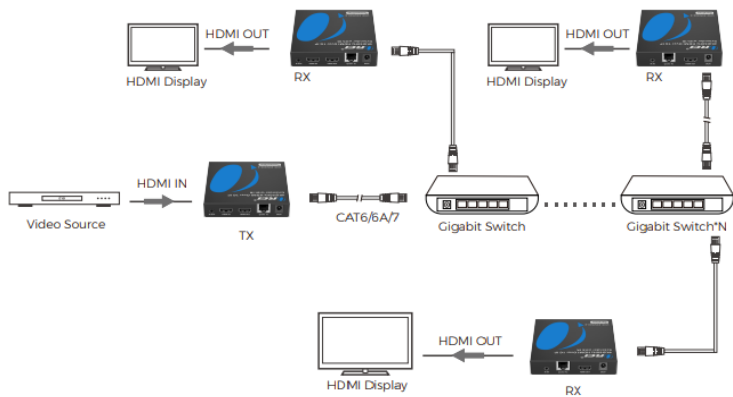| No.	Name	Function Description
1.	Reset	To Factory Reset the unit
2.	RS-232	RS-232 Control Port
3.	Upgrade	Micro-USB port for Firmware upgrades
4.	IR In	Connect the IR Receiver cable and place it next to the display
5.	CAT IN	CAT input to connect a CAT5/6 cable.
6.	HDMI OUT	Connect a display such as TV, Monitor, Projector, etc.
7.	DC5V Barrel Connector	Barrel connection to connect the power adapter.

One-to-one Connection:

HDMI Display

Video Source → HDMI IN → TX → CAT6/6A/7 → RX → HDMI OUT → HDMI Display

One-to-many Connection (Through Network Switch):

Video Source

HDMI Display

HDMI IN

TX → CAT6/6A/7 → Gigabit Switch → RX → HDMI OUT → HDMI Display

RX → HDMI OUT → HDMI Display

RX → HDMI OUT → HDMI Display

Application Example

One-to-many Connection (Cascade of Network Switches):

FAQs & Troubleshooting

No Video Output from the Receiver End

Try the following:
1. Check if the Power and Link indication LEDs are lighting on both ends
2. Change the HDMI cable going to the display
3. Change the CAT cable
4. Check if the HDMI OUT on the Transmitter is working or not
5. Try pressing the Reset button on the Receiver

No Video Output from the Receiver End and the Transmitter HDMI OUT

Try the following:
1. Check if the Power and Link indication LEDs are lighting on both ends
2. Change the HDMI cables
3. Change the CAT cable
4. Check if the HDMI OUT on the Transmitter is working or not

Not getting 4K@60Hz output on the Receiver end

Try the following:
1. Check if the settings on the display are set to 4K
2. Change the HDMI cable to one that supports 4K@60Hz
3. Check the length of the CAT cable. If it is longer than 120M, 4K resolution will not transmit perfectly
4. Check if the HDMI OUT on the Transmitter is working or not
5. Check if the video output setting from the source is set to 4K

FAQs & Troubleshooting

Can I extend multiple screen with this product?

No, this product does not extend to multiple screens. It will duplicate the input sources to multiple outputs.

Can I extend beyond the mentioned distance?

Yes, you will be able to get a signal beyond the mentioned distance but the quality of the video decreases with increase in the distance and that too when using with shielded CAT6 cable.

How can I upgrade the firmware?

You can upgrade the firmware by connecting the PC & this device via a Micro-USB cable. Check the 'Downloads' section on the product page on the website for firmware updates.

Can I input the output of this product to another extender implement a daisy chain setup?

Yes, you can daisy chain this extender with another set of the same model. However, this model supports One-to-many Over IP connection, so you only need to purchase additional Receivers to add more displays.

What types of HDMI & CAT cables I should use with this product?

We recommend you to use High-Quality HDMI cables under 30 feet& Round-Shielded CAT6 cables.

FAQs & Troubleshooting

How can I purchase additional Transmitter & Receivers?

You can check out our website to purchase replacement parts or contact our support team through the 'Contact Us' page and they will help you out.

I am unable to get the remote to work with IR, how to connect the IR Blaster & IR Receiver?

The IR Blaster should be connected to the IR out port on the Transmitter and the IR Receiver should be connected to the IR in on the Receiver.

Here's a quick overview of how the IR connection works on our extenders:

Still have some questions?

Please feel free to contact us at: info@orei.com. OR Fill out the form on the 'Contact Us' page on the website.

Our team will be more than happy to help you.

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