



**UHD12-EX230-K**

**4K HDMI™ Extender Splitter  
1x2 Over CAT6 70m**

USER MANUAL

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## 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.

# Registration Page

Please Activate your warranty by registering our product through the link below - [www.orei.com/register](http://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.

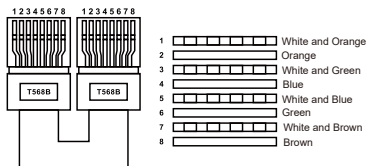
### OREI Live Technical Support Hours

US team (US/Canada/Mexico): Monday-Friday, 9 a.m. - 5 p.m. Central Time **Support Email** - [info@orei.com](mailto:info@orei.com) |

**Support Number** - 877-290-5530

### Caution

The product requires the use of straight through CAT cables with TIA-568B standard. Please connect in direct interconnection method and do not cross connect.



**Direct Interconnection Method**

# Introduction

The UHD12-EX230-K HDMI Extender Splitter allows you to send media up to 230ft away at 4K resolution over CAT6/7 cables. It is HDCP 2.2 compliant with 18Gbps video bandwidth. Extend media up to 230ft/70m at 4K@30Hz and 197ft/60m at 4K@60Hz. HDMI loop output at the Transmitter allows you to connect a display near the source. Advanced EDID management allows better compatibility. Power over cable technology simplifies installation as only one power adapter is needed which connects to the Transmitter. Its compact design makes it ideal for any personal or commercial setups.



# Features & Package Contents

1. HDCP 2.2 compliant
2. Video resolution up to 4K@60Hz
3. 18Gbps video bandwidth
4. Extend media up to 197ft/60m at 4K@60Hz and up to 230ft/70m at 4K@30Hz
5. Loop output to connect a local display
6. Power over Cable technology; only requires power adapter at the Transmitter end
7. Advanced EDID management
8. Compact design for easy installation

## Package Contents

|    |                           |       |
|----|---------------------------|-------|
| 1. | UHD12-EX230-K Transmitter | 1pcs  |
| 2. | Receiver                  | 2pcs  |
| 3. | Mounting Ears             | 6pcs  |
| 4. | Machine Screw (KM3*4)     | 12pcs |
| 5. | Power Adapter             | 1pcs  |
| 6. | User Manual               | 1pcs  |

# Specifications

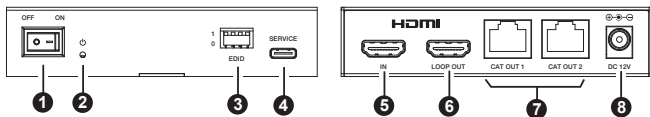
| Technical             |  |
|-----------------------|--|
| HDMI Compliance       | HDMI 2.0b  |
| HDCP Compliance       | HDCP 2.2   |
| Video Bandwidth       | 18Gbps   |
| Video Resolution      | 480i60, 576i50, 480p60, 576p50, 720p50/60, 1080i50/60, 1080p24/25/30/50/60; 640x480@60, 1024x768@60, 1280x768@60, 1280x800@60, 1280x1024@60, 1360x768@60, 1440x900@60, 1680x1050@60, 1920x1200@60RB; 3840x2160(4K)@24/25/30/50/60; 4096x2160(4K)@24/25/30/50/60; |
| Color Depth           | 8-bit,10-bit,12-bit(1080p@60Hz)<br>8-bit (4K2K@60Hz YUV4:4:4)<br>8-bit,10-bit,12-bit(4K2K@60Hz YCbCr 4:2:2/4:2:0)  |
| Color Space           | RGB, YCbCr 4:4:4 / 4:2:2 YUV 4:2:0   |
| Audio Formats         | LHDMI Loop Out: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD<br>Remote End: LPCM 2.0, Dolby 5.1, DD+7.1, DTS 5.1   |
| HDR                   | HDR10, HDR10+, Dolby Vision, HLG   |
| Transmission Distance | 230ft/70m for 4K@30Hz via a single CAT6 cable<br>197ft/60m for 4K@60Hz via a single CAT6 cable   |
| ESD Protection        | IEC 61000-4-2:<br>±8kV (Air-gap discharge) & ±4kV (Contact discharge)  |

# Specifications

| Connection            |  |
|-----------------------|--|
| Transmitter           | Input: 1× HDMI [Type A, 19-pin Female]<br>Output: 1× HDMI [Type A, 19-pin Female]<br>2× CAT [RJ45]<br>Control: 1× USB-C [Update port]            |
| Receiver              | Input: 1× CAT [RJ45]<br>Output: 1× HDMI [Type A, 19-pin Female]  |
| Mechanical            |  |
| Housing               | Metal Enclosure  |
| Color                 | Black  |
| Dimensions            | Transmitter:<br>L: 110mm / 4.33in   W: 70mm / 2.75in   H: 24.5mm / 0.96in<br>Receiver:<br>L: 81mm / 3.18in   W: 49mm / 1.92in   H: 25mm / 0.98in |
| Weight                | Transmitter: 241g / 8.5oz<br>Receiver: 116g / 4.09oz   |
| Power Consumption     | 7.4W (Max)   |
| Power Supply          | Input: AC 100-240V 50/60Hz, Output: DC 12V/1A<br>(US/EU standards, CE/FCC/UL certified)  |
| Operating Temperature | 32~104°F / 0~40°C  |
| Storage Temperature   | -4~140°F / -20~60°C  |
| Operating Humidity    | 20%~80% relative humidity, non-condensing  |
| Storage Humidity      | 10%~90% relative humidity, non-condensing  |

# Operation Controls and Functions

## Transmitter:

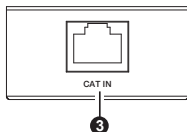
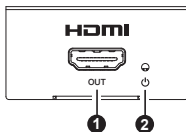


| No. | Name            | Function Description   |
|-----|-----------------|--|
| 1.  | Power switch    | Press this switch to power on/off the transmitter.   |
| 2.  | Power LED       | When the transmitter is powered on, the red LED will light up.                                       |
| 3.  | EDID DIP switch | Use the DIP switch to set EDID. <b>1 is Up and 0 is Down.</b><br>* EDID list is available on Page 9. |
| 4.  | SERVICE         | Firmware update port.  |
| 5.  | HDMI IN         | Connect a media device such as a DVD Player, set-top box, etc.                                       |
| 6.  | HDMI LOOP OUT   | Connect a display device such as a TV or Monitor.  |
| 7.  | CAT OUT (1~2)   | Connect a CAT6/7 cable. The other end connects to the Receivers.                                     |
| 8.  | DC 12V          | Connect the included power adapter.  |



# Operation Controls and Functions

## CAT Receiver



| No. | Name      | Function Description   |
|-----|-----------|--|
| 1.  | HDMI OUT  | Connect a display device such as a TV or Monitor.                  |
| 2.  | POWER LED | When the receiver is powered on, the red LED will light up.        |
| 3.  | CAT IN    | Connect a CAT6/7 cable. The other end connects to the Transmitter. |

### \* EDID Setting List: 1=UP | 0=DOWN

[DIP]=1111: 4K60(444), 2.0CH, [DIP]=1110: 4K60(444), 5.1CH

[DIP]=1101: 4K60(444), 7.1CH, [DIP]=1100: 4K60(444)\_HDR, 2.0CH

[DIP]=1011: 4K60(444)\_HDR, 5.1CH, [DIP]=1010: 4K60(444)\_HDR, 7.1CH

[DIP]=1001: 4K30, 2.0CH, [DIP]=1000: 4K30, 5.1CH

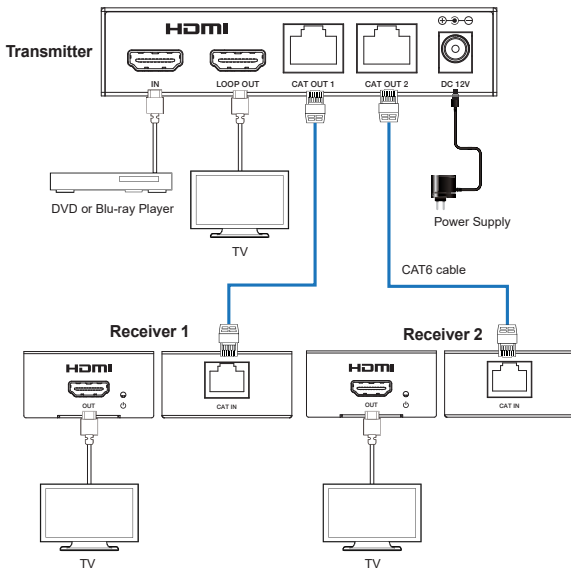
[DIP]=0111: 4K30, 7.1CH, [DIP]=0110: 1080P, 2.0CH

[DIP]=0101: 1080P, 5.1CH, [DIP]=0100: 1080P, 7.1CH

[DIP]=0011: 1920x1200, 2.0CH, [DIP]=0010: 1280x800, 2.0CH

[DIP]=0001: 1024x768, 2.0CH, [DIP]=0000: Copy TX loop out EDID

# Application Example



**HDMI**™  
HIGH-DEFINITION MULTIMEDIA INTERFACE

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# FAQs & Troubleshooting

## 1. No output

Try a lower resolution from the source device  
Try changing the CAT cable  
Try changing the EDID settings  
Check if the HDMI OUT on the Transmitter is also having the same issue

## 2. Can I use this to extend my PC display to multiple locations?

You can use this device to duplicate your PC screen to multiple locations. However, it will not extend them.

### ***Still have some questions?***

Please feel free to contact us at: [info@orei.com](mailto: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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