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## OREI EX-165C+

# OREI 4K HDMI Extender EX-165C+ Instruction Manual

Model: EX-165C+ | Brand: OREI

## 1. INTRODUCTION

The OREI EX-165C+ HDMI Extender allows for the transmission of a 1080P HDMI signal up to 50 meters (165 feet) using a single Cat5e/6/7 Ethernet cable. This device is compliant with HDMI 1.4 and HDCP 1.4 standards, ensuring compatibility with a wide range of audio-visual equipment. It features a one-way IR pass-through for remote control of source devices, an HDMI loop output on the transmitter for local monitoring, and Power Over Cable (POC) functionality, simplifying installation by requiring power only at the transmitter unit.

## 2. WHAT'S IN THE BOX

- 1 x HDMI Extender Transmitter Unit
- 1 x HDMI Extender Receiver Unit
- 1 x IR Blaster Cable
- 1 x IR Receiver Cable
- 1 x 5V DC Power Adapter
- 1 x User Manual



Image: The OREI EX-165C+ HDMI Extender package contents, showing the transmitter and receiver units, IR cables, and power adapter.

### 3. PRODUCT OVERVIEW

#### 3.1 Transmitter Unit (TX)

The transmitter unit connects to your HDMI source device and features an HDMI input, an HDMI loop output for local display, a Cat port for the Ethernet cable, an IR Out port for the IR Blaster, and a DC 5V power input.

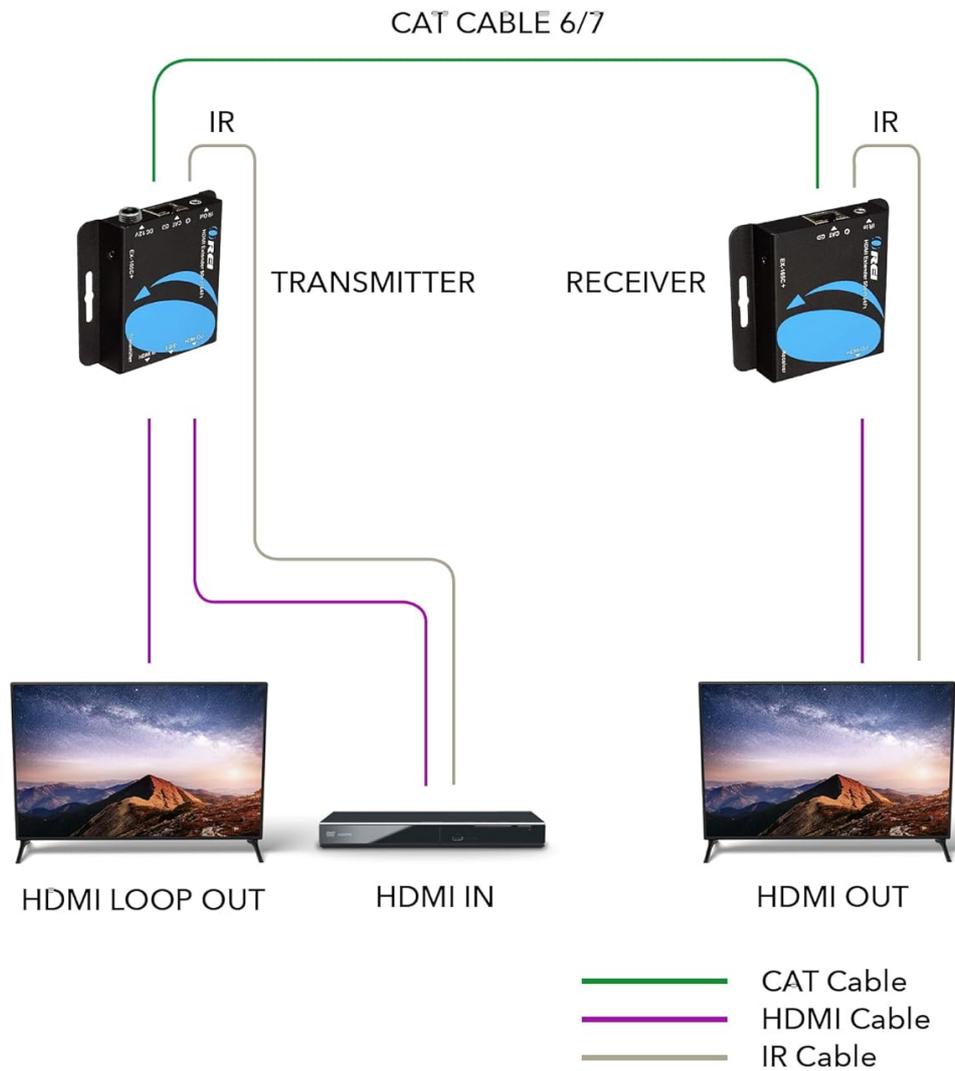


Image: Side view of the transmitter unit, highlighting its various ports.

### 3.2 Receiver Unit (RX)

The receiver unit connects to your HDMI display and features an HDMI output, a Cat port for the Ethernet cable, and an IR In port for the IR Receiver. This unit is powered via Power Over Cable (POC) from the transmitter, eliminating the need for a separate power adapter at the display location.



CAT CABLE



Extends the HDMI signal  
up to 165 feet (50 meters)

For best picture quality use high  
quality CAT5E/CAT6 cable

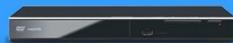


Image: Side view of the receiver unit, highlighting its various ports.

## 4. SETUP INSTRUCTIONS

1. **Connect HDMI Source:** Connect an HDMI cable from your source device (e.g., PC, game console, Blu-ray player) to the **HDMI IN** port on the Transmitter unit.
2. **Connect Local Display (Optional):** If local monitoring is desired, connect an HDMI cable from the **HDMI LOOP OUT** port on the Transmitter unit to a local HDMI display.
3. **Connect Ethernet Cable:** Use a single Cat5e/6/7 Ethernet cable to connect the **CAT** port on the Transmitter unit to the **CAT** port on the Receiver unit. Ensure the cable is of good quality for optimal performance and distance.
4. **Connect HDMI Display:** Connect an HDMI cable from the **HDMI OUT** port on the Receiver unit to your remote HDMI display (e.g., TV, projector).
5. **Connect IR Cables:**
  - Connect the IR Blaster cable to the **IR OUT** port on the Transmitter unit and position the IR emitter near the IR sensor of your source device.
  - Connect the IR Receiver cable to the **IR IN** port on the Receiver unit and position the IR receiver in

a location where it can receive signals from your remote control.

6. **Apply Power:** Connect the provided 5V DC power adapter to the **DC 5V** port on the Transmitter unit. The Receiver unit will be powered automatically via Power Over Cable (POC).
7. **Power On Devices:** Power on your HDMI source device and all connected displays. The extender should automatically establish the connection.

# EX-165C+

## TECHNICAL SPECIFICATIONS



Image: A diagram illustrating the connection process for the OREI EX-165C+ HDMI Extender.

### Setup Video Guide

Your browser does not support the video tag.

Video: A detailed guide on how to set up and use the OREI EX-165C+ HDMI Extender.

## 5. OPERATING INSTRUCTIONS

Once properly set up, the OREI EX-165C+ HDMI Extender operates automatically. The HDMI signal from your source device will be transmitted over the Ethernet cable to the remote display. The HDMI loop output on the transmitter allows for simultaneous viewing on a local display.

## 5.1 IR Pass-Through

The IR pass-through function allows you to control your HDMI source device from the remote display location. Point your remote control at the IR Receiver connected to the Receiver unit. The signal will be transmitted back to the IR Blaster connected to the Transmitter unit, which will then control your source device.

# SUPPORTS IR TRANSMISSION

Compatible with Roku,  
TV, Apple TV, Cable Box,  
BluRay, DVD Player



Image: Illustration of the IR transmission feature, showing compatibility with various devices.

## 5.2 Supported Resolutions

The extender supports a range of HDMI resolutions and frequencies, ensuring high-quality video transmission:

- 480i @ 60Hz
- 480p @ 60Hz
- 576i @ 60Hz
- 576p @ 50Hz
- 720p @ 50/60Hz
- 1080i @ 50/60Hz
- 1080P @ 50/60Hz

It utilizes M-Jpeg compression for efficient transmission with minimal image quality loss.

## 6. MAINTENANCE

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To ensure the longevity and optimal performance of your OREI EX-165C+ HDMI Extender, follow these maintenance guidelines:

- Keep the units in a cool, dry place away from direct sunlight, heat sources, and moisture.
- Clean the units with a soft, dry cloth. Do not use liquid or aerosol cleaners.
- Ensure all cables are securely connected and not under strain. Avoid bending cables sharply.
- Periodically check for firmware updates on the OREI website, if available, to ensure the best performance and compatibility.

## 7. TROUBLESHOOTING

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If you encounter issues with your HDMI extender, refer to the following common troubleshooting steps:

- **No Picture/Signal:**
  - Ensure all HDMI and Ethernet cables are securely connected.
  - Verify that the power adapter is correctly connected to the Transmitter unit and that the power indicator light is on.
  - Check if the HDMI source device and display are powered on and set to the correct input.
  - Test the HDMI cables directly between the source and display to rule out cable issues.
  - Ensure the Ethernet cable is a Cat5e/6/7 cable and is not damaged. Try a shorter cable if possible.
  - Reduce the resolution of the source device to see if a signal is established.
- **IR Remote Control Not Working:**
  - Ensure the IR Blaster is positioned directly over the IR sensor of the source device.
  - Ensure the IR Receiver is positioned to receive signals from your remote control.
  - Check that the IR cables are securely plugged into the correct ports on both the Transmitter and Receiver units.
  - Verify that the remote control itself is functioning correctly (e.g., fresh batteries).
- **Poor Picture Quality/Flickering:**
  - Use a high-quality Cat6 or Cat7 Ethernet cable, especially for longer distances.
  - Ensure the Ethernet cable is not running parallel to power lines or other sources of electromagnetic interference.
  - Check if the resolution and refresh rate of the source device are within the supported specifications of the extender and display.

## 8. SPECIFICATIONS

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Feature	Detail
Product Dimensions	2.8 x 2.6 x 1 inches
Item Weight	1.08 pounds
Manufacturer	Orei
Item Model Number	EX-165C+

Date First Available	August 1, 2019
Color	Black
Connector Type	HDMI
Compatible Devices	Personal Computer
Cable Type	HDMI



Image: Detailed technical specifications and dimensions of the extender units.

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please contact OREI directly. You can reach them via email at [info@orei.com](mailto:info@orei.com). Please refer to the official OREI website or the product packaging for the most up-to-date warranty terms and conditions.

