OREI EX-165C

OREI EX-165C HDMI over Ethernet Extender User Manual

Model: EX-165C

1. INTRODUCTION

The OREI EX-165C HDMI over Ethernet Extender allows you to transmit HDMI signals up to 165 feet (50 meters) over a single Cat5e/Cat6/Cat7 Ethernet cable. This device supports Full HD 1080p resolution and includes features such as a local HDMI loop out, bi-directional IR control, and Power over Cable (POC) functionality.

Figure 1: OREI EX-165C HDMI Extender units (Transmitter and Receiver)

Key Features:

- Extends HDMI signals up to 165 feet (50m) using a single Cat5e/Cat6/Cat7 Ethernet cable.

- Supports Full HD 1080p video resolution at 60Hz.
- Features a local HDMI loop out on the transmitter for connecting a display near the source.
- Includes bi-directional IR control for managing source devices from the receiver location or vice-versa.
- Power over Cable (POC) functionality, requiring only one power adapter for either the transmitter or receiver unit.
- Compatible with various devices including Blu-ray players, gaming consoles (PS3, Xbox 360), satellite boxes, laptops, and tablets.
- Robust metal housing designed to reduce EMI/RFI interference.
- Plug and Play installation with no drivers required.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1x HDMI Extender Transmitter Unit (EX-165C)
- 1x HDMI Extender Receiver Unit (EX-165C)
- 1x Power Adapter (DC 5V)
- 1x IR Transmitter Cable
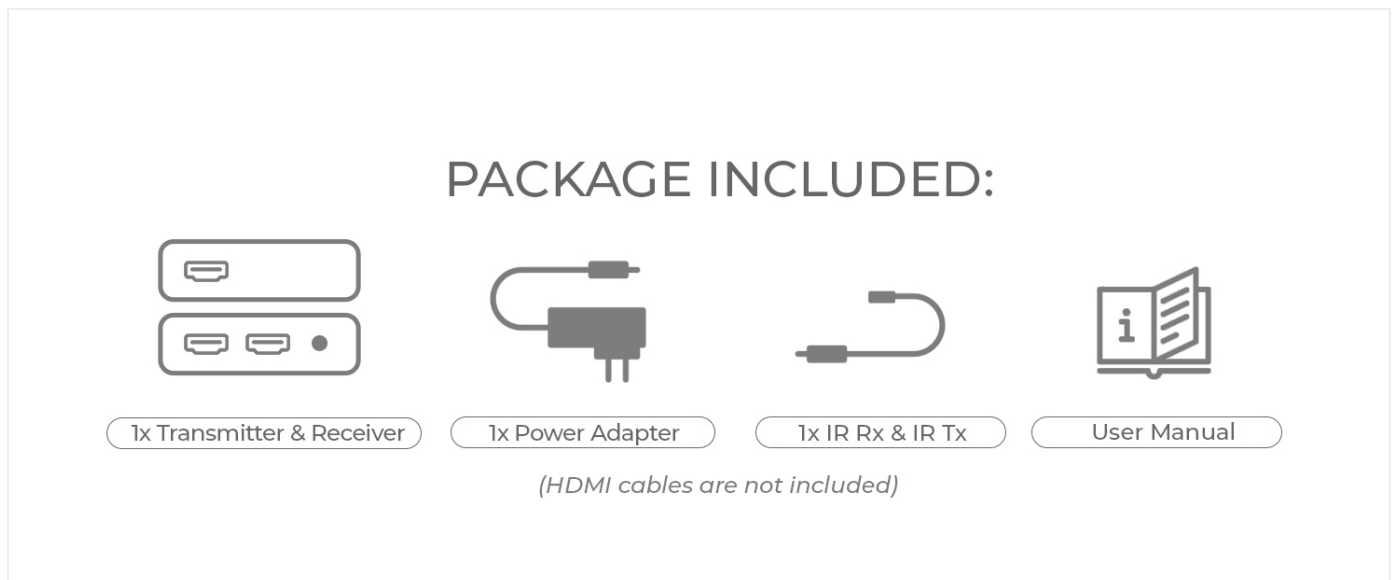- 1x IR Receiver Cable
- 1x User Manual

Figure 2: Package Contents

3. SETUP INSTRUCTIONS

Follow these steps to set up your OREI EX-165C HDMI Extender:

1. **Connect the HDMI Source:** Plug an HDMI cable from your source device (e.g., Blu-ray player, game console) into the **HDMI IN** port on the Transmitter unit.
2. **Connect Local Display (Optional):** If you wish to have a local display near your source, connect an HDMI cable from the **HDMI OUT (Loop)** port on the Transmitter unit to your local display.
3. **Connect Ethernet Cable:** Connect a single Cat5e/Cat6/Cat7 Ethernet cable (up to 165 feet / 50 meters) from the **CAT OUT** port on the Transmitter unit to the **CAT IN** port on the Receiver unit. *Note: For optimal performance, use high-quality shielded (STP) Cat6 cable. This device requires a direct point-to-point connection and will not work over your home network.*
4. **Connect Remote Display:** Plug an HDMI cable from the **HDMI OUT** port on the Receiver unit to your remote

display (e.g., TV, projector).

5. **Connect IR Cables:**

   - For IR control of the source device from the remote display location: Connect the IR Receiver cable to the **IR IN** port on the Receiver unit and position its eye to receive signals from your remote control. Connect the IR Transmitter cable to the **IR OUT** port on the Transmitter unit and position its emitter over the IR sensor of your source device.

   - For IR control of the remote display from the source location (bi-directional): Connect the IR Receiver cable to the **IR IN** port on the Transmitter unit and position its eye to receive signals from your remote control. Connect the IR Transmitter cable to the **IR OUT** port on the Receiver unit and position its emitter over the IR sensor of your remote display.

6. **Power On:** Connect the provided 5V DC power adapter to either the Transmitter unit or the Receiver unit. Due to Power over Cable (POC) functionality, only one power adapter is required. The other unit will receive power through the Ethernet cable.

7. **EDID Settings:** The Transmitter unit features an EDID switch. Set the EDID switch to use the directly connected monitor as the source for resolution information, especially during initial setup or troubleshooting. Once a stable signal is achieved, you may switch it back to the remote monitor if desired, unless the pass-through monitor is permanently attached.
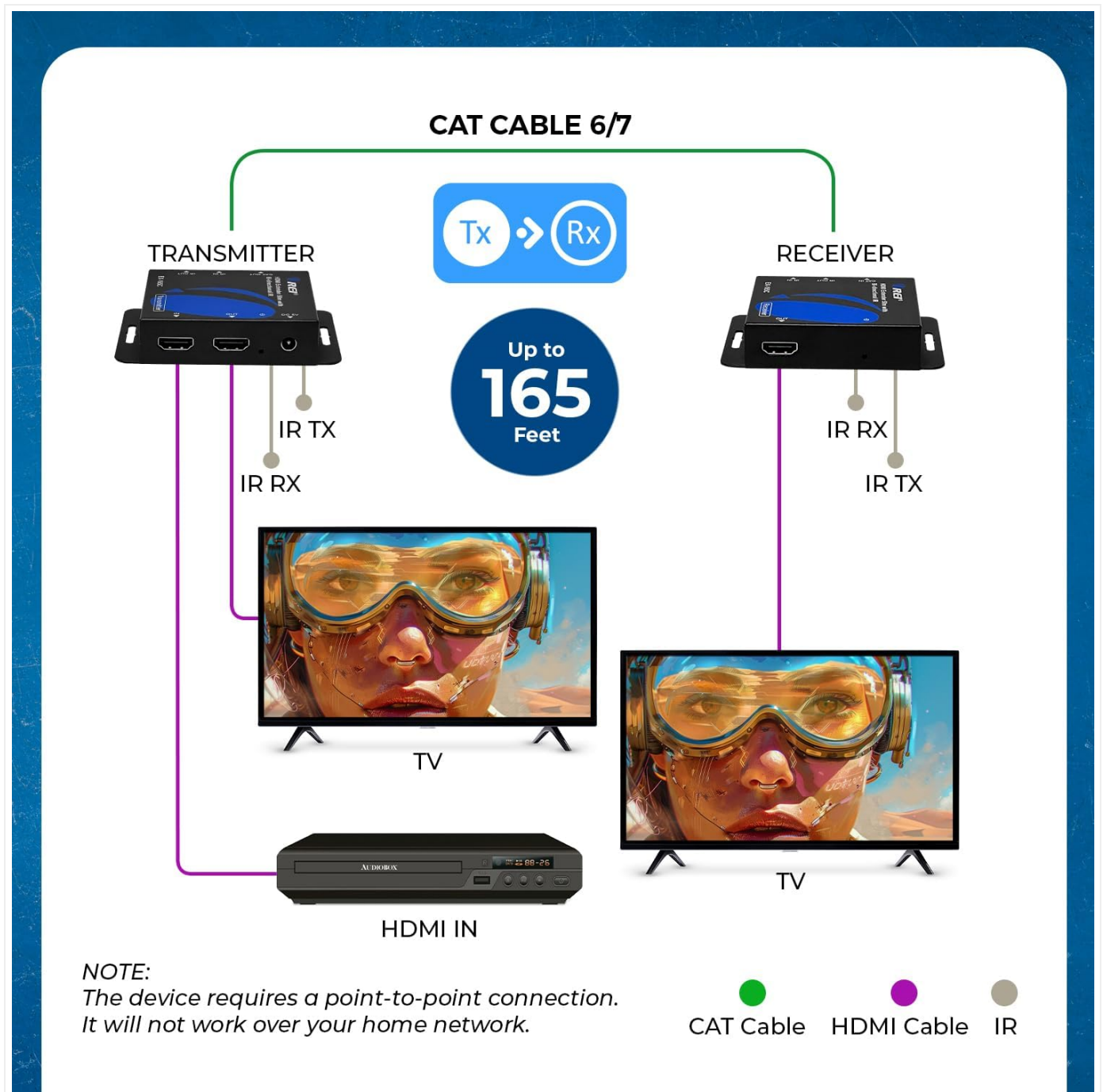
Figure 3: Typical Connection Diagram

Figure 4: Power Over Cable (POC) Functionality

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Video 1: OREI HDMI Extender EX-165C Overview and Basic Setup (0:41)

4. OPERATING INSTRUCTIONS

Once all connections are made and power is supplied, the extender system should automatically detect and transmit the HDMI signal.

Signal Transmission:

- Ensure both the source device and the display devices are powered on.
- The extender units will establish a connection and transmit the video and audio signal to the remote display.

- If using the HDMI loop out, the local display will also show the source content.

IR Control:

- To control your source device from the remote display location, point your remote control at the IR Receiver eye connected to the Receiver unit. The signal will be transmitted via the Ethernet cable to the IR Transmitter connected to your source device.
- To control your remote display from the source location, point your remote control at the IR Receiver eye connected to the Transmitter unit. The signal will be transmitted via the Ethernet cable to the IR Transmitter connected to your remote display.

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Video 2: Detailed Setup and Operation of OREI HDMI Extender (7:42)

5. MAINTENANCE

The OREI EX-165C HDMI Extender is designed for reliable operation with minimal maintenance. To ensure longevity and optimal performance:

- Keep the units in a cool, dry environment, away from direct sunlight, heat sources, and moisture.
- Clean the units with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- Ensure all cables are securely connected and not under strain.
- Avoid blocking ventilation openings on the units.

6. TROUBLESHOOTING

If you encounter issues with your OREI EX-165C HDMI Extender, refer to the following common solutions:

- **No Video/Audio Signal:**

  - Verify all HDMI and Ethernet cables are securely connected.
  - Ensure both the transmitter and receiver units are powered on (check LED indicators).
  - Confirm the Cat5e/Cat6/Cat7 cable is a direct point-to-point connection and not routed through a network switch or router.
  - Test with a different, shorter Ethernet cable to rule out cable issues.
  - Check the EDID switch setting on the transmitter. Try setting it to use the local display's EDID for a stable signal, especially during initial setup.
  - Cycle power to both the extender units and connected source/display devices.

- **Flickering or Poor Picture Quality:**

  - Ensure you are using a high-quality Cat6 or Cat7 cable, especially for longer distances. Some Cat5e cables may not provide optimal performance for 1080p over 165 feet.
  - Adjust the EQ (equalization) settings if available on your specific model (refer to the physical unit for any small switches). For longer cables, start with higher strength settings and gradually reduce; for shorter cables, start low and increase. Cycle power after each adjustment and wait for signal sync.
  - Reduce the resolution of the source device to see if the signal stabilizes.

- **IR Control Not Working:**

  - Ensure the IR Receiver eye is positioned correctly to receive signals from your remote control.
  - Verify the IR Transmitter emitter is directly over the IR sensor of the device you intend to control.

- Check that the IR cables are securely plugged into the correct ports (IR IN on the receiving end, IR OUT on the transmitting end).

- **Power Issues (POC):**

  - If only one power adapter is used, ensure it is connected to either the transmitter or receiver. Both units should power on.
  - If cycling power to the receiver unit when POC is active, unplug both its power adapter (if connected) and the Ethernet cable to ensure a full reset.

Important Note: It is highly recommended to test your setup with all cables and devices before performing any permanent installation or routing cables through walls or ceilings.

7. SPECIFICATIONS

Feature	Description
Model Number	EX-165C
Brand	OREI
Max Extension Distance	165 feet (50 meters) over Cat5e/Cat6/Cat7 cable
Supported Resolutions	Up to 1080p@60Hz (including 480i/p, 576i/p, 720p)
Video Bandwidth	4.95 Gbps
HDMI Compliance	HDMI 1.3, HDCP 1.4
Audio Formats	PCM7.1, Dolby TrueHD, DTS HD Master Audio
IR Control	Bi-directional
Power Supply	DC 5V (Power over Cable - POC)
Product Dimensions (each unit)	3.7" (L) x 2.7" (W) x 0.78" (H)
Item Weight (Transmitter)	168g / 5.92oz
Item Weight (Receiver)	165g / 5.82oz
Housing Material	Metal
Color	Black
Compatible Devices	Blu-ray, PS3, Xbox 360, Satellite Boxes, Laptops, Tablets, PCs, Projectors

Figure 5: Compact Size and Technical Specifications

8. WARRANTY AND SUPPORT

OREI stands behind the quality of its products. The EX-165C HDMI Extender comes with:

- **12-Month Manufacturer's Warranty:** Covers defects in materials and workmanship under normal use.

- **Lifetime OREI Tech Support:** Access to technical assistance for the lifespan of your product.
- **Local Support:** OREI offers lifetime local support, being based in the U.S.A.

For technical assistance or warranty claims, please visit the official OREI website or contact their customer support.

Figure 6: OREI Support Information

Related Documents - EX-165C

H220262说明号（OREI）：0106020147623 备注： 材质：100克书纸 尺寸：111x146mm 装订方式：骑马钉	[OREI UHD-IPC230-WPE 4K@60Hz HDR HDMI Wall Plate Extender User Manual](#) User manual for the OREI UHD-IPC230-WPE 4K@60Hz 18Gbps 4:4:4 HDR HDMI Wall Plate Extender. Details features, specifications, operation, and connection diagrams for extending HDMI signals over Cat6 cable up to 70 meters.
18Gbps CAT 50M with USB-C/HDMI Wall Plate Transmitter User Manual VER 1.1	[18Gbps CAT 50M USB-C HDMI Wall Plate Transmitter User Manual](#) User manual for the 18Gbps CAT 50M Wall Plate Transmitter with USB-C and HDMI inputs. Details features, specifications, operation, and connectivity for extending video signals up to 50m over CAT6.
备注 H20002说明书（OREI） 物料编号:0106020147617 材质:100克书纸 尺寸:111x146mm 装订方式:骑马钉	[OREI ipcolor 4K HDR HDMI 1x8 Splitter Extender Over 70 Meter Cat6 User Manual](#) This user manual provides detailed information on the OREI ipcolor 4K HDR HDMI 1x8 Splitter Extender, including features, specifications, function settings, and connection diagrams. It supports zero latency transmission, up to 4K@60Hz resolution, and transmission distances up to 70 meters over Cat6/6A/7 cables.

HDMI Extender over single 50m/164ft UTP Cables with IR Control User manual VER: 1.1	[OREI EX-170C HDMI Extender User Manual](#) User manual for the OREI EX-170C HDMI Extender over single 50m/164ft UTP Cables with IR Control. This manual provides an introduction, package contents, features, specifications, panel descriptions, connection diagrams, and operating instructions for the device.
	[OREI UHD-IPC165-K 4K HDMI Extender with Loop Out - User Manual](#) User manual for the OREI UHD-IPC165-K, a 4K@60Hz 18Gbps 4:4:4 HDR HDMI Extender over Cat6 cable up to 50 meters, featuring loop out and IR control.
HDMI Splitter 1x8 Over CAT5E/CAT6 50m User Manual	[OREI HDMI Splitter 1x8 Over CAT5E/CAT6 50m User Manual](#) User manual for the OREI HDMI Splitter 1x8, extending HDMI signals up to 50m over CAT5E/CAT6 cables. Features include 1080p support, EDID control, and IR extension.