



HDMI™ Extender 70m

USER MANUAL

EX-170C

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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**

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 | **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 EX-170C can extend high definition video/audio signal and IR control signal up to 230ft/70m for 1080p resolution, and 131ft/40m for 4K30 resolution via a single CAT6 cable, which can achieve zero-delay, uncompressed long-distance transmission between the transmitter and receiver. This extender with HDMI loop output can be cascaded to the next extender, supporting resolution up to 4K@30Hz. It supports EDID copy function (you can choose local or remote EDID). It supports audio formats up to PCM7.1, Dolby True HD, DTS HD.

This product can be widely used in multimedia conference halls, TV teaching and large-screen displays.

Features

1. HDCP 1.4 and DVI 1.0 compliant
2. Support video resolution up to 4k2k@30Hz YUV 4:4:4
3. The maximum transmission distance via a single CAT6/5E cable is as follows:
CAT6: 230ft/70m for 1080p, 131ft/40m for 4K30
CAT5E: 197ft/60m for 1080p, 115ft/35m for 4K30
4. Support copying EDID from receiver display or loop out display
5. Allow for cascading via additional HDMI loop out port
6. Support one-way PoC functionality (from transmitter to receiver)
7. One-way IR signal transmission
8. Compact design for easy and flexible installation

Package Contents & Specifications

Package Contents

1.	EX-170C Transmitter	1 pcs
2.	EX-170C Receiver	1 pcs
3.	IR Blaster Cable (1.5m)	1 pcs
4.	IR Receiver Cable (1.5m)	1 pcs
5.	12V/1A DC Power Adapter	1 pcs
6.	User Manual	1 pcs

Specifications

Technical	
HDMI Compliance	HDMI 1.4
HDCP Compliance	HDCP 1.4
Video Bandwidth	10.2Gbps
Video Resolution	Up to 4K@30Hz
Audio Formats	Up to 7.1CH HD audio
Input TMDS Signal	3.3 volts
Input DDC Signal	5.0 volts/P-P
ESD Protection	IEC 61000-4-2: ± 8 kV (air-gap discharge) ± 4 kV (contact discharge)

Specifications

Connection

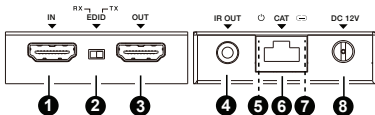
Transmitter	Input: 1 × HDMI IN [Type A, 19-pin female] Outputs: 1 × HDMI OUT [Type A, 19-pin female] 1 × IR OUT [3.5mm Stereo Mini-jack] 1 × CAT [RJ45, 8-pin female]
Receiver	Inputs: 1 × IR IN [3.5mm Stereo Mini-jack] 1 × CAT [RJ45, 8-pin female] Output: 1 × HDMI OUT [Type A, 19-pin female]

Mechanical

Housing	Metal Enclosure
Color	Black
Dimensions	79.5mm[W] × 69mm[D] × 16.5mm[H]
Weight	Transmitter: 132g, Receiver: 130g
Power Supply	DC 12V/1A
Power Consumption	Transmitter: 1.86W, Receiver: 0.87W
Operation Temperature	32 - 104°F / 0 - 40°C
Storage temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

Operation Controls and Functions

Transmitter Panel



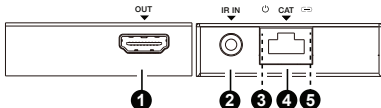
No.	Name	Function Description
1.	HDMI IN	HDMI signal input port, connected to HDMI source device such as DVD or Set-top box.
2.	EDID DIP switch	The switch is used for selecting EDID: Switch to the right position, and the extender will copy HDMI loop out display EDID information to signal source; Switch to the left position, and the extender will copy the display EDID of the Receiver to signal source.
3.	HDMI OUTPUT	HDMI signal loop out port, connected to HDMI display device such as HDTV.

Operation Controls and Functions

No.	Name	Function Description
4.	IR OUT	Connect to IR blaster cable, and the IR signal is from the IR IN port of the receiver.
5.	Power LED	When the transmitter is powered on, the LED will be on.
6.	CAT	CAT output port. Connect to the CAT input port of the receiver with CAT5E/6 cable.
7.	Digital signal indicator	▪ Light on: HDMI signal with HDCP. ▪ Light flashing: HDMI signal without HDCP. ▪ Light off: No HDMI signal.
8.	DC 12V	DC 12V power supply port.

Operation Controls and Functions

Receiver Panel



No.	Name	Function Description
1.	HDMI OUTPUT	HDMI signal output port, connected to HDMI display device such as HDTV or Monitor.
2.	IR IN	Connect to IR receiver cable, the IR signal will be emit to the IR OUT port of the transmitter.
3.	Power LED	When the receiver is powered on, the LED will be on.
4.	CAT	CAT input port. Connect to the CAT output port of the transmitter with CAT5E/6 cable.
5.	Digital signal indicator	- Light on: HDMI signal with HDCP. - Light flashing: HDMI signal without HDCP. - Light off: No HDMI signal.

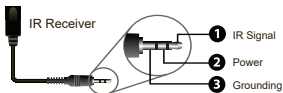
Operation Controls and Functions

IR Pin Definition

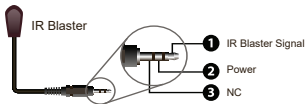
IR Receiver and Blaster pin's definition is as below:



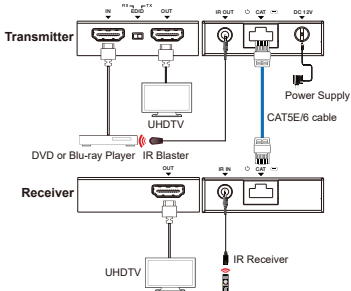
IR RECEIVER



IR BLASTER



Application Example



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

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