



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

EX-500-K

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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 life of your equipment.

Registration page

Please Activate your warranty by registering your 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

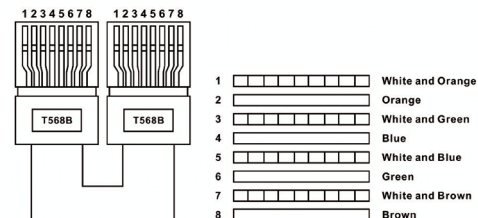
Or

Chat Live on www.orei.com

Send us an instant message now. Our Technical Support Team will respond momentarily. Available during live support hours.

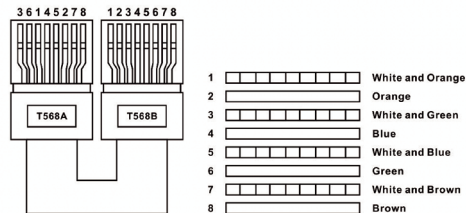
Caution

The extender need to follow direct interconnection method CAT cable.



Direct interconnection method

The extender will go into protection mode automatically and no video out when using cross interconnection method CAT cable.



Cross interconnection method

Introduction

The EX-500-K is a 4K@60Hz HDMI extender kit consisting of a sender and a receiver. The 4K@60Hz HDMI signal can be extended up to 120m via Category 6 and above network cables, supporting one-to-one connection, one-to-many connections via gigabit switch, or switch cascades. It also supports IR passback functions, and can be widely used in meetings, home entertainment, educational presentations, and other fields.



Features

1. High-definition and low-latency transmission.
2. Support up to 4096 x 2160@60Hz resolution, backward compatible.
3. Compatible with Cat5/5e/6 or above network cables, transmission distance of Cat6 cable is 120 meters.
4. Support one-to-one or one-to-many connections through the gigabit switch.
5. Support IR passback (20~60kHz).
6. Firmware can be upgraded through Micro USB.
7. Lightning protection, surge protection, ESD protection.
8. Supports stable 24/7 operation.

Package Contents

1.	EX-500-K Transmitter	1 pcs
2.	EX-500-K Receiver	1 pcs
3.	IR receiver extension cable	1 pcs
4.	IR blaster extension cable	1 pcs
5.	User manual	1 pcs
6.	DC 5V/1A	2pcs

Specifications

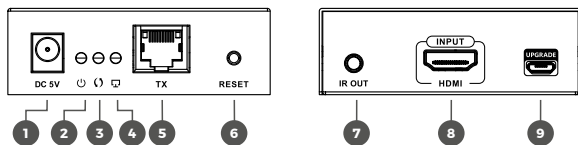
Item	Sender	Receiver
Video		
Input interface	1x HDMI	1x RJ45
Output interface	1x RJ45	1x HDMI
HDMI length	≤ 5m	≤ 5m
Maximum transfer rate	18Cbps	
Compatibility	HDMI 2.0	
	HDCP 1.4/HDCP 2.2	
Resolutions	4096x2160@24/30/50/60Hz, 3840x2160@24/30/50/60Hz, 1080P@24/25/30/50/60Hz, 720P@50/60Hz, 576P@60Hz, 480P@60Hz, 1920x1200, 1680x1050, 1600x900, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600	
Connection types	One-to-one connection One-to-many connection Switch cascading	
Transmission distance	CAT5 80m / CAT5E 100m / CAT6 120m	
Transmission latency	1080P: 80-130ms 4K@60Hz: 150-220ms	
Audio signal		
Input interface	1×HDMI	1×RJ45
Output interface	1×RJ45	1×HDMI
HDMI output	LPCM 2.0	
Command Signal		
IR interface	1x 3.5mm IR OUT	1x 3.5mm IR IN

Specifications

IR receiving range	≤ 5m	
IR frequency	20kHz-60kHz	
Power		
Power Supply	DC 5V/1A	DC 5V/1A
Power Consumption	TX ≤ 3.5W	RX ≤ 2.5W
Operating Environment		
Working temperature	- 20°C~60°C	
Storage temperature	- 30°C~70°C	
Humidity	0-90%RH (no condensation)	
Physical Properties		
Housing	Aluminium	
Weight	156g	154g
Color	Black	
Dimensions	96.8(L)*94(W)*23.7(H)mm	
Protection	ESD protection 1a Contact discharge level 2 (±4KV) 1b Air discharge level 3 (±8KV) Implementation of the standard: IEC61000-4-2	
	Lightning protection, Surge protection	

Operation controls and functions

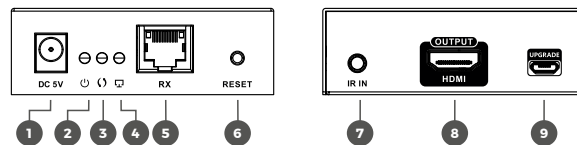
Transmitter



- 1 Power input(DC 5V/1A)
- 2 Power Light: The indicator will turn on when the power is turned on
- 3 Data transmission light
Light off: No data transmission
Steady on: The data is transmitting
- 4 Network link light
Light off: No Network connection
Steady on: Network connection is normal
- 5 RJ45 signal output
- 6 Reset
- 7 IR signal output to connect with blaster extension cable
- 8 HDMI signal input
- 9 Firmware upgrading

Operation controls and functions

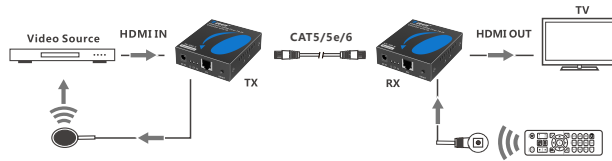
Receiver



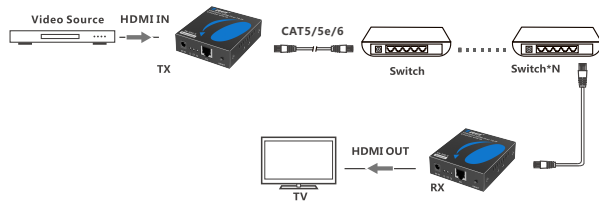
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Connection Diagram

One-to-one connection:



One-to-many connection:



Connection Diagram

Switch cascading:

