

# Introduction

Congratulations and thank you for purchasing W Box Technologies 0E-HDMISP1X4.

0E-HDMISP1X4 is a 1 to 4 splitter for HDMI with 4K@60Hz 4:4:4 8bit which reliably distributes one HDMI input to four HDMI outputs. It also provides high-tech MIX EDID management and HDCP management which authenticates HDCP encryption between all devices, ensuring the HDMI source reliably outputs correct content for display.

0E-HDMISP1X4 is ideal for applications, such as offices, schools, conferences rooms, shopping malls, hotels or museums, which require the distribution of an HDMI source signal to four outputs.

Please follow the instructions in this manual to assure proper installation and to achieve the full performance and satisfaction you would expect from W Box Technologies.

# Features

- Slim appearance and space saving
- HDMI with 4K@60Hz 4:4:4 8bit and HDCP 2.2 compliant
- Distributes one HDMI source to four HDMI displays
- Supports signal transmission distance up to 33 feet (10 meters) at 4K@30Hz and 1080P, up to 10 feet (3 meters) at 4K@60Hz when used with standard HDMI cables.
- EDID rotary switch on panel for EDID management function.
- Reshapes marginal or noisy HDMI signals, ensuring a strong, stable digital signal

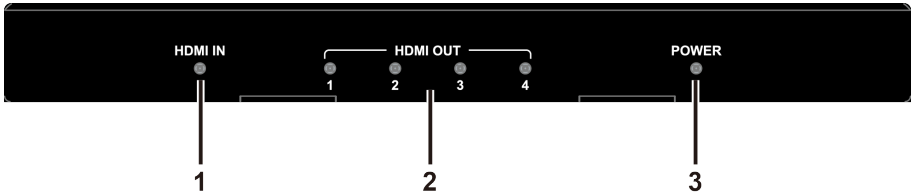
# Package Contents

Before you start the installation, please check the package contents:

- 1 x 0E-HDMISP1X4
- 1 x Power Adapter (DC 12V 1A)
- 1 x Phoenix male connector (3pin 3.5mm)
- 2 x Mounting Brackets
- 1 x User Manual
- 1 x Datasheet

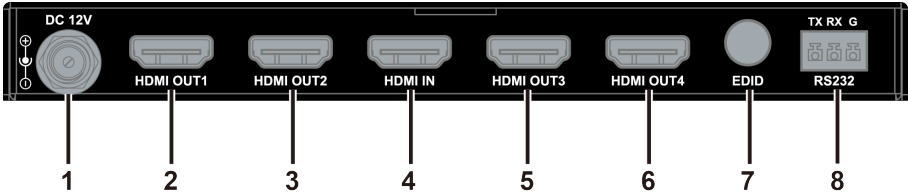
# Panel

## Front Panel



ID.	Name	Description
1	HDMI IN LED	<b>Steady blue:</b> When a source device is powered on and connected to the splitter. <b>OFF:</b> No source device is connected or it is powered off.
2	HDMI OUT LEDs	<b>Steady blue:</b> The HDMI displays is powered on and connected to corresponding output. <b>OFF:</b> No HDMI display is connected or it is powered off.
3	POWER LED	<b>Steady blue:</b> The splitter is powered on.

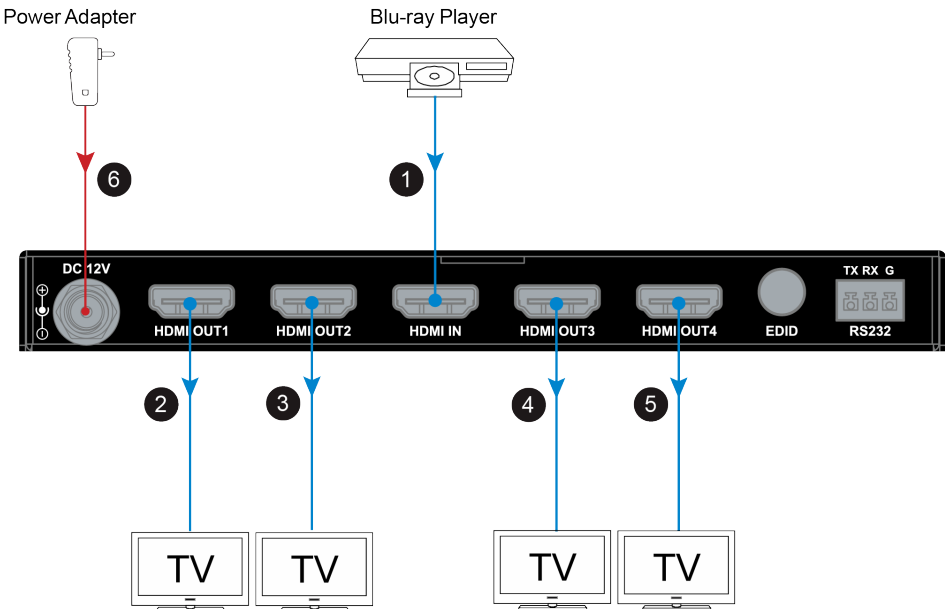
## Rear Panel



ID.	Name	Description
1	DC 12V Port	Connects to DC 12 V 1 A power adapter.
2	HDMI OUT1 Port	Connects to HDMI display using HDMI cable.
3	HDMI OUT2 Port	Connects to HDMI display using HDMI cable.
4	HDMI IN Port	Connects to an HDMI source using HDMI cable.
5	HDMI OUT3 Port	Connects to HDMI display using HDMI cable.
6	HDMI OUT4 Port	Connects to HDMI display using HDMI cable.
7	EDID Rotary Switch	For EDID management
8	RS232 port	For firmware upgrade

# Installation

1. Connect an HDMI source device (such as a Blu-ray player) to the splitter HDMI IN port. As show number 1 in figure.
2. Connect 4 HDMI displays (such as HD monitors) to the splitter HDMI OUT ports. As show number 2,3,4,5 in figure.
3. Toggle the EDID rotary switch to the proper position. For more information, please refer to EDID management section.
4. Connect the power adapter to DC 12V port. As show in figure 6.
5. Connect all the devices to their power adapter, power them on and start the operation.



# EDID Management

EDID (Extended Display Identification Data) is a data structure provided by a digital display to describe its capabilities to a video source.

0E-HDMISP1X4 supports MIX EDID, Fixed EDID and copy EDID functions, there is a EDID rotary switch on the panel, when connect multiple monitors at the same time, the device will contrast the EDID of all the displays and output the property timing depend on toggle the switch.

Please refer to the following table to set EDID:

Position	Description	Function
0	MIX EDID: Video compatibility and Audio quality	Outputs the minimum video resolution and the maximum audio channel.
1	MIX EDID: Video compatibility and Audio compatibility	Outputs the minimum video resolution and the minimum audio channel.
2	MIX EDID: Video quality and Audio quality.	Outputs the maximum video resolution and the maximum audio channel.
3	MIX EDID: Video quality and Audio compatibility	Outputs the maximum video resolution and the minimum audio channel.
4	3840x2160@30Hz_2 D_2CH with HDR	Fix it as native.
5	3840x2160@30Hz_2 D_5.1CH with HDR	Fix it as native.
6	3840x2160@30Hz_2 D_7.1CH with HDR	Fix it as native.

Position	Description	Function
7	1920x1080@60Hz_3 D_2CH with HDR	Fix it as native.
8	1920x1080@60Hz_3 D_5.1CH with HDR	Fix it as native.
9	1920x1080@60Hz_3 D_7.1CH with HDR	Fix it as native.
A	Copy EDID from output1	-
B	Reserved	-
C	Reserved	-
D	Reserved	-
E	Reserved	-
F	Reserved	-

Note: If EDID copy failed, output EDID: 1080P@60Hz with stereo audio.

# Troubleshooting

W Box Technologies products are designed to function trouble-free. Most problems that occur are due to simple issues. If you have trouble, please check the list of simple fixes below.

## Six Steps of Regular Troubleshooting Routine.

1. **Power:** Make sure all devices are powered on. (source, splitter, display devices)
2. **Indicator:** Make sure LED indicators of splitter are normal according to user manual.
3. **Devices:** Make sure picture can be shown normally when connecting source to display devices directly.
4. **Cable:** Plug in and out HDMI cable or change another HDMI cable. For 4K@30Hz or 1080P, HDMI cable should be less than 10m, for 4K@60Hz, HDMI cable should be less than 3m. Standard HDMI 2.0 cable is needed.
5. **EDID:** Because of the rotary switch for MIX EDID function, there are multiple video and audio output status, please do as the EDID Management section mentioned to make the monitors work properly.
6. **Compatibility:** Please test other source and display devices to determine whether it is a compatibility issue.

## Typical question

How to deal with video flash or cut off during the installation?

- Verify that all the indicators are solid on. If not, please check if the power adapter or HDMI cables are well connected.
- Verify that the display devices work properly and that the source device has normal signals output.



# Specification

<b>Technical</b>	
Input/Output Signal Type	HDMI with HDCP 2.2
Input/Output Resolution Supported	<p>SMPTE:            1280x720P<sup>1,2,3,4,5,6,7,8</sup>, 1920x1080I<sup>6,8</sup>,            1920x1080P<sup>1,2,3,4,5,6,7,8</sup>,            3840x2160<sup>2,3,5,6,8</sup>, 4096x2160<sup>2,3,5,6,8</sup>;</p> <p>VESA:            800x600<sup>8</sup>, 1024x768<sup>8</sup>, 1280x768<sup>8</sup>,            1280x800<sup>8</sup>, 1280x960<sup>8</sup>, 1280x1024<sup>8</sup>,            1360x768<sup>8</sup>, 1366x768<sup>8</sup>, 1400x1050<sup>8</sup>,            1440x900<sup>8</sup>, 1600x900<sup>8</sup>, 1600x1200<sup>8</sup>,            1680x1050<sup>8</sup>, 1920x1200<sup>8</sup>,</p> <p>1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz;</p>
Maximum Data Rate	18 Gpbs
Maximum Pixel Clock	600 MHz
<b>General</b>	
Power Supply	DC 12 V 1 A
Power Consumption	4 W (Max.)
Operating Temperature	+32°F to +113°F (0°C to +45°C) 10% to 90%, non-condensing
Storage Temperature	-4°F to +158°F (-20°C to +70°C) 10% to 90%, non-condensing
ESD Protection	Human Body Model: ±8 kV (air-gap discharge)/ ±4 kV (contact discharge)

Dimensions	6.6" x 2.75" x 0.71" (167 mm x 69.7 mm x 18 mm)
Weight	0.66b/0.30kg
Certification	CE, FCC, RoHS

# Limited Warranty

## 1. Limited Warranty

### a. General

Subject to the terms and conditions of this Limited Warranty, from the date of sale through the period of time for product categories specified in Section 1(b), ADI warrants its W Box Technologies products to be free from defects in materials and workmanship under normal use and service, normal wear and tear excepted. Except as required by law, this Limited Warranty is only made to Buyer and may not be transferred to any third party.

ADI shall have no obligation under this Limited Warranty or otherwise if:

- (i) The product is improperly installed, applied or maintained;
- (ii) The product is installed outside of stated operating parameters, altered, or improperly services or repaired;
- (iii) Damage is caused by outside natural occurrences, such as lightning, power surges, fire, floods, acts of nature, or the like.
- (iv) Defects resulting from unauthorized modification, misuse, vandalism, or other causes
- (v) Unrelated to defective materials or workmanship, or failures related to batteries of any type used in connection with the products sold hereunder.

ADI only warrants those products branded as W Box Technologies products and sold by ADI. Any other products branded by third parties are warranted by the third party manufacturer for a period as defined by the third party manufacturer, and ADI assigns to

Buyer those warranties and only those warranties extended by such third party manufacturers or vendors for non-ADI branded products. ADI does not itself warrant any non-ADI branded product and sells only on an as is basis in accordance with ADI’s terms and conditions of sale.

**b. Specific Warranties for product categories are as follows:**

<b>Product Categories</b>	<b>Warranty Period</b>
Soundbars	12 months
Walk Through Metal Detectors	12 months
Intrusion Wireless Communication Accessories	12 months
Analog Cameras	24 months
HD TVI Cameras and HD TVI DVR’s	24 months
Televisions	24 months
CCTV Power Supplies	24 months
In Ceiling Speakers	24 months
Amplifiers	24 months
Magnetic Locks	24 months
Request to Exit Devices	24 months
Surge Protection	24 months
UPS (uninterruptible power supplies)	24 months
Volume Controls	24 months
HDMI Distribution	24 months
Intrusion Audio Devices	30 months
Monitors	30 months

<b>Product Categories</b>	<b>Warranty Period</b>
Power and Relays	30 months
Hold-up Buttons	30 months
Video Baluns	30 months
DVR's, NVR's	60 months
IP Cameras	60 months
Racks	60 months
TV Mounts	60 months
PIR's	60 months
Analog Cables	Limited Lifetime
B Connectors	Limited Lifetime
Bus Terminals	Limited Lifetime
Extension Cords	Limited Lifetime
HDMI Cables	Limited Lifetime
Jacks, Cords and Intrusion Communication Accessories	Limited Lifetime
Patch Cables	Limited Lifetime
Patch Panels	Limited Lifetime
Raceway Conduit	Limited Lifetime
Wire Ties	Limited Lifetime
Magnetic Contacts	Limited Lifetime

## **2. EXCLUSION OF WARRANTIES, LIMITATION OF LIABILITY**

THERE ARE NO WARRANTIES OR CONDITIONS, EXPRESS

OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO CASE SHALL ADI BE LIABLE TO ANYONE FOR ANY (I) CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES ARISING OUT OF OR RELATING IN ANY WAY TO THE PRODUCT AND/OR FOR BREACH OF THIS OR ANY OTHER WARRANTY OR CONDITION, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY ADI'S OWN NEGLIGENCE OR FAULT AND EVEN IF ADI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES. Any product description (whether in writing or made orally by ADI or ADI's agents), specifications, samples, models, bulletin, drawings, diagrams, engineering sheets, or similar materials used in connection with the Buyer's order are for the sole purpose of identifying ADI's products and shall not be construed as an express warranty or condition. Any suggestions by ADI or ADI's agents regarding use, applications or suitability of the products shall not be construed as an express warranty or condition unless confirmed to be such in writing by ADI. ADI does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise, or that the products will in all cases provide adequate warning or protection. Buyer understands and will cause its customer to understand that a properly installed and maintained product is not insurance or guarantee that such will not cause or lead to personal injury or property loss. CONSEQUENTLY ADI SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON ANY CLAIM AT ALL INCLUDING A CLAIM THAT THE PRODUCT FAILED TO GIVE WARNING. However, if ADI is held liable whether directly or indirectly for any loss or damage with respect to the products it sells, regardless of cause or origin, its maximum liability shall not in any case exceed the purchase price of the product, which shall be fixed as

liquidated damages and not as a penalty and shall be the complete and exclusive remedy against ADI.

### **3. Limitation on Liability to Buyer's Customers.**

Buyer agrees to limit liability to its customers to the fullest extent permitted by law. Buyer acknowledges that ADI shall only be deemed to give consumers of its products such statutory warranties as may be required by law and at no time shall Buyer represent to its customers and/or users of ADI products that ADI provides any additional warranties. By accepting the products, to the fullest extent permitted by law, Buyer assumes all liability for, and agrees to indemnify and hold ADI harmless against and defend ADI from, any and all suits, claims, demands, causes of action and judgments relating to damages, whether for personal injury or to personal property, suffered by any person, firm, corporation or business association, including but not limited to, Buyer's customers and/or users of the products because of any failure of the products to detect and/or warn of the danger for which the goods were designed or any other failure of the products whether or not such damages are caused or contributed to by the sold or joint concurring negligence or fault of ADI.

### **4. Returns**

Subject to the terms and conditions listed below, during the applicable warranty period, ADI will replace Product or provide a credit at purchase at its sole option free of charge any defective products returned prepaid. Any obligations of ADI to replace Limited Lifetime warranty products pursuant to this warranty which result from defect are limited to the availability of replacement product. ADI reserves the right to replace any such products with the then currently available products, or provide a credit in its sole discretion. In the event Buyer has a problem with any ADI product, please call your local ADI branch for return instructions:

For US call 1-800-233-6261

For Canada call 877-234-7378

For Puerto Rico call 787-793-8830

Be sure to have the model number and the nature of the problem available. In the event of replacement, the return product will be credited to Buyer's account and a new invoice issued for the replacement item. ADI reserves the right to issue a credit only in lieu of replacement.

If any W Box Technologies product is found to be in good working order or such product's inability to function properly is a result of user damage or abuse, the product will be returned to Buyer in the same condition as received and Buyer shall be responsible for any return freight changes.

## **5. Governing Law**

The laws of State of New York apply to this Limited Warranty.

## **6. Miscellaneous**

Where any term of this Limited Warranty is prohibited by such laws, it shall be null and void, but the remainder of the Limited Warranty shall remain in full force and effect.