



# USER MANUAL

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HI-DEFINITION A/V ROUTING SYSTEM

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VERSION 1.0

PLEASE READ THIS USER MANUAL CAREFULLY BEFORE USING THIS PRODUCT.  
FAILURE TO UNDERSTAND OPERATION PROCEDURES MAY RESULT IN INJURY.

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## Brief Introduction

Thank you for choosing our ELEMENT8085 high-definition (HD) wireless audio/video (AV) transmission system devices. The device can be wirelessly connected from an HD source device to an HD display device such as TV, projector, HD disc player, game machine, recorder, and set-top-box at home. With the device, you can enjoy HD video anywhere at home. In addition, you are relieved from the cost and hassle of running cables to complete your installation.

## Product Features

- Instant wireless HD AV transmission;
- Transmission range indoors 30m;
- Supports video HDMI interface at a maximum of 1080P 60 Hz;
- Supports HDMI1.3 and HDCP1.2 protocols;
- Supports EDID function;
- Supports CEC function (for the receiving and display devices);
- Supports IR extension transmission function;
- Transmission power 12 dBm;
- Supports point-to-point transmission function which can currently be expanded to point to multi-point or multi-point to multi-point transmission function;
- Supports AES128-bit image encryption function;
- Supports reverse back-transmission channel at the maximum rate of 100 kbs;
- Supports OSD display;
- Supports WHDI 1.0 specification.

## Technical Specifications

Video formats supported	TV : 1080p, 1080i, 720p, 576p, 480p PC: VGA(640X480), SVGA(800X600), XGA(1024X768), SXGA(1280X1024)
Audio formats supported	PCM,DTS, DOLBY DIGITAL
RF communication system	MIMO
Modulation mode	OFDM
Maximum transmission power	12dBm
Image transmission distance	≥ 30m
Image delay	<1 ms
Transmission/receiving antenna mode	Built-in
Operating frequency	5.1~5.9GHz
IR carrier modulation frequency supported	38KHz
Operating power supply	100-240V AC mains, 5V 2A DC power
Storage temperature	-20~80 °C
Storage temperature	-10~50 °C

\* The working frequency band may vary with the relevant laws in different countries or regions.

## Packing List



HD wireless video transmitter x 1



HD wireless video receiver x 1



Base x 2



IR remote extension connector x 1



Power supply x 2

## Structure

### Transmitter



### ❶ Power Input Port

This port is connected to the 5V/2A power adapter 5.5mm in diameter and positive outside and nega

which is tive inside.

## 2 HDMI Input Port

This port is connected to a video cable supporting the HDMI1.3 protocol.

## 3 Output Interface for IR Remote Signals

This interface is connected to an IR extension cable for extending the IR remote receiving function.

## 4 Wireless Network Status Indica

If this indicator turns green after the power supply is connected, it indicates that wireless network connection is made successfully; if this indicator is not ON, it indicates that wireless network connection fails to be made; if this indicator flashes, it indicates that the device is faulty.

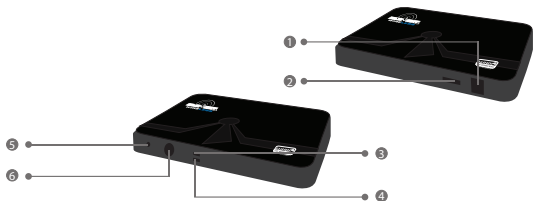
## 5 Video Status Indica

If this indicator turns green after an HDMI cable is connected, it indicates that video connection is made successfully; if this indicator is not ON, it indicates that video connection fails to be made.

## 6 Code Key

This key functions to: 1. Enhance transmission distance: When the distance between a transmitter and a receiver exceeds the transmission distance, press this key on the transmitter or receiver to enhance the transmission distance. The picture quality, however, deteriorates; 2. Enable the code matching function: Press this key on the transmitter and the receiver for 3 seconds at the same time, the codes of the machines will be matched again automatically.

Connector



## ❶ Power Input Port

This port is connected to the 5V/2A power adapter which is 5.5mm in diameter and positive outside and negative inside. HDMI input port

This port is connected to a video cable supporting the HDMI1.3 protocol.

## ❷ Output Interface for IR Remote Signals

This interface is connected to an IR extension cable for extending the IR remote receiving function.

## ❸ Wireless Network Status Indicator

If this indicator turns green after the power supply is connected, it indicates that wireless network connection is made successfully; if this indicator is not ON, it indicates that wireless network connection fails to be made; if this indicator flashes, it indicates that the device is faulty.

## ❹ Video Status Indicator

If this indicator turns green after an HDMI cable is connected, it indicates that video connection is made successfully; if this indicator is not ON, it indicates that video connection fails to be made.

## ❺ Code Key

This key functions to: 1. Enhance transmission distance: When the distance between a transmitter and a receiver exceeds the transmission distance, press this key on the transmitter or receiver to enhance the transmission distance. The picture quality, however, deteriorates; 2. Enable the code matching function: Press this key on the transmitter and the receiver for 3 seconds at the same time, the codes of the machines will be matched again automatically.

## ❻ IR Remote Receiving Window

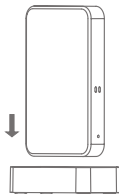
Its function is the same as that of the remote receiving window on a set-top-box. The video source can be controlled remotely by pointing at this window.

## Installation and Use

\* It is recommended to place a transmitter and a receiver vertically or horizontally at the same time during installation. If the transmitter and the receiver are placed across each other, for example the transmitter is put vertically and the receiver is placed horizontally, the image transmission distance may be affected.

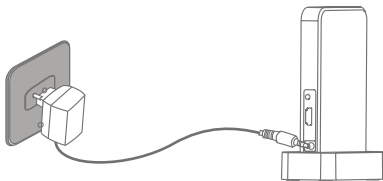
### Installation for Transmitter

1. Install the transmitter on a base and then place the transmitter in a suitable position beside an HD video source.

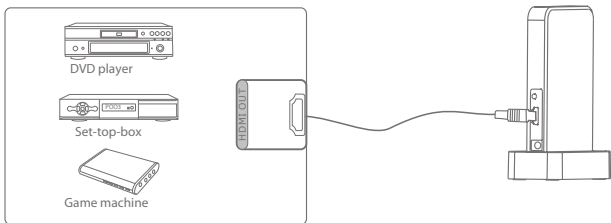


Note:

- \* Put the antenna end upward.
  - \* Do not place any article on the transmitter or beside it to avoid affecting the transmission distance and image effect.
2. The wireless network status indicator is ON after the transmitter power supply is connected and wireless network connection is made successfully.



3. The video status indicator is ON after the transmitter is connected to the video output socket of the HD source with an HD AV cable.



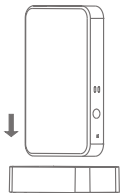
\* Any video source with the HDMI video output interface can be connected.

4. Connect the IR remote extension connector to the IR remote signal output hole of the transmitter.



#### Installation and Use for Receiver

1. Install the receiver on another base and place the receiver beside an HD display device in another room.

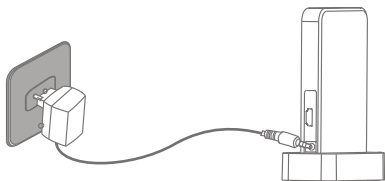


#### Note:

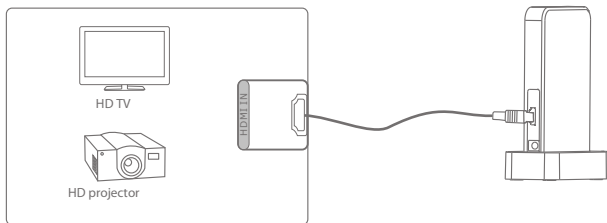
- \* Put the antenna end upward.
- \* It is not recommended that you place any article on the receiver or beside it to avoid affecting the receiving distance and image effect.

\* The transmission distance between the transmitter and the receiver is 30 meters at most. If signals are obtained by penetrating a wall, the transmission distance and may be affected.

2. The wireless network status indicator is ON after the receiver power supply is connected and wireless network connection is made successfully.



3.3. Connect the receiver to the HD display device with a standard HD AV cable. The video status indicator on the receiver is ON after video connection is made successfully. Images appear on the display device.













\* Any display device with the HDMI video input Interface can be connected.

4. The video source can be controlled remotely by pointing the remote control at the IR receiving window on the receiver.

Note: This product matches only with an IR remote control in the 38 KHz carrier modulation mode.

## Meanings of Indicator Statuses

Indicator	Indicator status	Working status
Wireless connection status indicator (transmitter)	 Green on  Off  Flash rapidly	→ The transmitter is connected successfully in the wireless mode → The transmitter fails to be connected in the wireless mode → The device is abnormal
Video indicator (transmitter)	 Green on  Off	→ The video source is connected successfully → The video source fails to be connected
Wireless connection (receiver)	 Green on  Off  Flash rapidly	→ The receiver is connected successfully in the wireless mode → The receiver fails to be connected in the wireless mode → The device is abnormal
Video indicator (receiver)	 Green on  Off	→ The display device is connected successfully → The display device fails to be connected

## SPECIFICATIONS

Transmitter	Transmission Frequency	5.1~5.9GHz
	Frequency Stability	±4PPM
	Bandwidth	40MHz
	Transmission Power	≥12dBm
	Receiving Sensitivity	≤-75dBm
	System Latency	≤1ms
	Sending/receiving channel	4 channels for sending/1 channel for receiving
	HD video protocol	HDMI 1.3
	HD video encryption protocol	HDCP 1.2
	Unobstructed Effective Range	≥30m
	Power Supply	5V <sub>DC</sub>
	Consumption Current	2A ±10%
	Dimensions (W x D x H)	148 x 97 x 18 (mm)
	Approx. Weight	440g (including the base)
Receiver	Receiving Frequency	5.1~5.9GHz
	RF communication system	MIMO
	Modulation mode	OFDM
	Frequency stability	±4PPM
	Bandwidth	40MHz
	Transmission Power	≥15dBm
	Receiving Sensitivity	≤-65dBm
	System latency	≤1ms
	Sending/receiving channel	1 channel for sending/4 channels for receiving
	HD video protocol	HDMI 1.3
	HD video encryption protocol	HDCP 1.2
	Unobstructed Effective Range	≥30m
	Power Supply	5V <sub>DC</sub>
	Consumption Current	2A ±10%
Dimensions (W x D x H)	148 x 97 x 18 (mm)	
Approx. Weight	436g (including the base)	
Operating Temperature	-10 °C~50 °C	
Storage Temperature	-20 °C~80 °C	
Operating Humidity	15~85%RH	

\* All the specifications are subject to minor change without prior notice.

Symptom	Possible Reasons/Solutions
Why no images are displayed on TV after the transmitter and receiver are powered on?	It may take 15-30 seconds for initiation and connection after the transmitter and receiver are powered on. Please wait patiently. If no images appear after 1 minute, check whether the connection between the transmitter and the player as well as the connection between the receiver and the TV are made properly. Further troubleshooting can be made by referring to the conditions of device status indicators.
Why are the network connection status indicators on the transmitter and receiver not ON after both devices are powered on for a long period of time?	Possibly the transmitter and receiver are too far away or there are too many obstacles. Please adjust the position of both devices.
Why is the network connection status indicator not ON after I wait for a long period of time although the transmitter is near the receiver?	Please confirm that whether codes of the transmitter and the receiver match with each other. If not, manually match their codes. For the code matching method, refer to relevant description in this manual.
Both the transmitter network connection status indicator and video connection status indicator are ON, but the video connection status indicator is not ON and no images appear on	Please confirm whether the definition of images output by the player meets the requirements for this product. If not, Connect the player to the TV directly. Adjust the definition to a suitable one, and then connect the transmitter to the receiver.

<p>Why no signals are input to the TV?</p>	<p>Please check whether the receiver is properly connected to the TV. In addition, adjust the input source of the TV to the HDMI interface connected to the receiver.</p>
<p>Images appear on TV normally but no voice is output.</p>	<p>Please confirm whether the player is muted or whether the audio output is configured correctly. Please configure your player by referring to the audio format supported by the product and then power on the transmitter again.</p>
<p>Sound is output from the TV normally but no images appear.</p>	<p>Please check whether the connection between the transmitter and the player as well as the connection between the receiver and the TV are made properly. Unplug and then plug the HDMI cable connected between the transmitter and the receiver.</p>
<p>Why no images are output when the transmitter is connected to a blu-ray disc player and the receiver is connected to a PC display or a projector. However, why images can be output when another TV is connected?</p>	<p>The play requirements for blu-ray discs comply with the HDCP protocol specifications. Please confirm whether your display device supports the HDCP protocol. If not, the blu-ray disc cannot be played.</p>
<p>What can I do when the network connection status indicators on the transmitter and the receiver flash rapidly and no images appear on TV?</p>	<p>Power on the transmitter or the receiver again. If you power on the device for many times and the fault cannot be rectified, possibly the device is damaged. Please contact the original manufacturer for repair.</p>

Why there are so many noises or mosaics on the image displayed on TV?

Possibly the transmitter and receiver are too far away or there are many obstacles. Please adjust the position of both devices. In addition, to achieve better receiving effect, it is recommended that you place both devices vertically.

Why cannot my player be controlled remotely through the IR extension function

Please ensure that the IR remote connector is correctly connected to the transmitter and this connector is opposite the IR receiving window of the player. In addition, this product supports only the IR control in the 38 KHz mode.

## FCC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Cautions

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus. Turn off the Camera/Monitor if the system is not in use. The adapter is used as the disconnect device from the mains. The adapter shall remain readily operable. The Camera/Monitor can only be completely disconnected from the mains by unplugging the adapter. Do not cut the DC power cable of the apparatus to fit with



## EU Environmental Protection

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

