



ELE8086

USER MANUAL

HI-DEFINITION A/V ROUTING SYSTEM



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

Congratulations on your purchase of our ELEMENT8086 high-definition (HD) wireless audio/video (AV) transmission system. The device can be wirelessly connected from any HD source device to an HD display device such as TV, projector, HD disc player, game machine, recorder and set-top box. With the device, you can enjoy HD quality video anywhere in your home or office without the expense mess or hassle of HD cables.

Product Features

- Instant wireless HD AV transmission;
- Transmission range in the vacancy indoor environment 15m;
- 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, DOLBY DIGITAL
RF communication system	MIMO
Modulation mode	OFDM
Maximum transmission power	12dBm
Image transmission distance	≥ 15 m
Image delay	<1 ms
Transmission/receiving antenna mode	Built-in
Operating frequency	5.1~5.9GHz
IR carrier modulation frequency supported	100-240V AC mains, 5V 2A DC power
Storage temperature	-20~80 °C
Operating 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 1



Adapter x 1
USB wire x 1



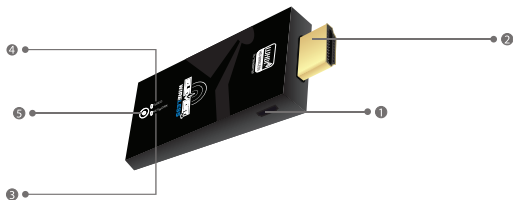
HDMI Cable



Power supply x 1

Structure

Transmitter



① USB Input Port

The port is used to connect the 5V/1A power adapter supplied which is powered by USB AB15V/1A1 and positive outside and negative inside.

2 HDMI Input Port

This port is used to connect to a video cable supporting the HSMI 1.3 protocol or connected to PC directly.

3 Wireless Network Status Indicator

If this indicator turns green after the power supply is connected it indicates that the wireless network connection has been made successfully.

If this indicator flashes, it indicates that the device is faulty.

Please consult the Troubleshooting section of this manual.

4 Video Status Indicator

If this indicator turns green after an HDMI cable is connected, it indicates that the video connection has been made successfully.

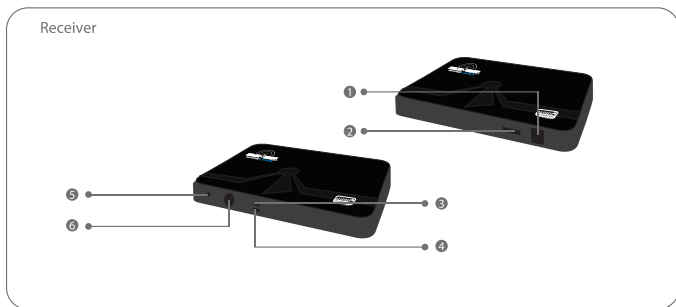
If the indicator does not turn green, it indicates that video connection fails to be made.

5 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 may deteriorate. 2) Enable the code matching function:

Press and hold the key on the transmitter and the receiver for 3 seconds at the same time, the codes of each machines will be automatically synchronized.



❶ Power Input Port

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

❷ HDMI Input Port

This input is used to connect a video cable supporting the HDMI 1.3 protocol.

❸ Wireless Network Status Indicator

If the indicator turns green after the power supply is connected, it indicates that the wireless network connection has been made successfully. If the indicator does not turn green, it indicates that the network connection has failed to be made, if this indicator flashes, it indicates that the device is faulty. Please consult the Troubleshooting section of this manual.

❹ Video Status Indicator

If this indicator turns green after an HDMI cable is connected, it indicates that the video connection has been successfully, if this indicator does not turn green, it indicates that video connection failed to be made.

❺ Code Key

This key functions to: 1) Enhance transmission distance when the 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, may deteriorate. 2) Enable the code matching function: Press and hold this key for 3 seconds at the same time, the codes of each machine will be automatically synchronized.

❻ IR Remote Receiving Window

This 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 the window.

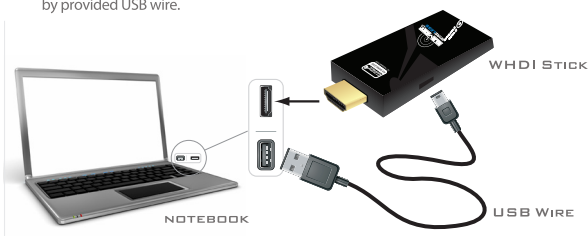
Installation and Use

* It is recommended to place a transmitter and a receiver vertical 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

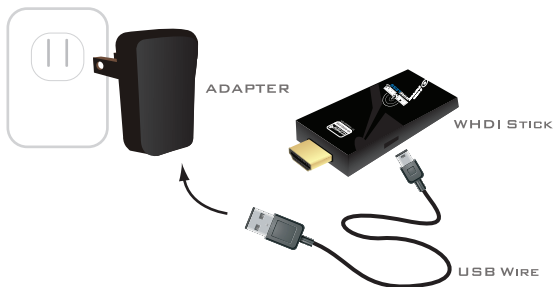
1 WHDI Stick Transmitter for Notebook.

- (1) Connect the HDMI input port of stick to the HDMI output port of notebook.
- (2) Connect the USB input ports of stick to the USB port of notebook by provided USB wire.

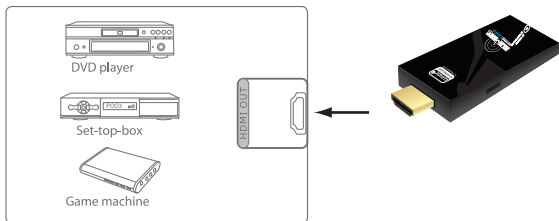


NOTE: To avoid affecting the transmission distance and image effects, do not place any articles on or beside the transmitter.

- 2) The wireless network status indicator will turn on after the transmitter power supply is connected, and wireless network is made successfully.



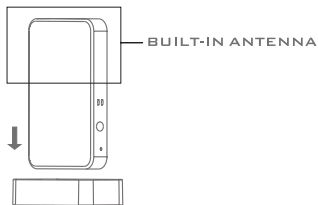
- 3) The video status indicator will turn ON after the transmitter is connected to the video output socket of the HD source with an HD AV cable.



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

Installation and Use for Receiver

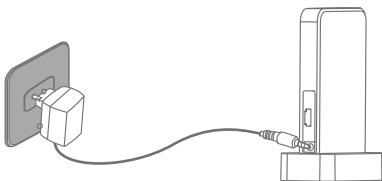
1. Install the receiver on another base and place the receiver beside an HD display device in another room.



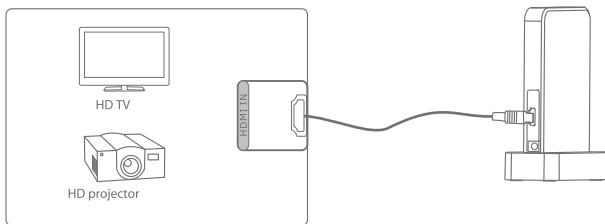
NOTE:

- * Make sure the antenna is facing upwards.
- * To avoid affecting the transmission distance and image effect, it is recommended that you do not place any article on or beside the receiver.
- * The transmission distance between the transmitter and the receiver is 30 meters at most. If signals are obtained by penetrating a wall, the transmission effect will most likely be reduced in distance and quality.

- 2) The wireless network status indicator will turn on after the receiver power supply is connected, and wireless network connection is made successfully.



- 3) Connect the receiver to the HD display device with a standard HD AV cable. The video status indicator on the receiver will turn on after video connection is made successfully. Images will then begin to appear on the display device.













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

SPECIFICATIONS

Transmitter	Transmission Frequency	5.1~5.9GHz
	Frequency Stability	±4PPM
	Bandwidth	40MHz
	Transmission Power	≥3dBm
	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	≥15m
	Power Supply	5V _{DC}
	Consumption Current	0.5A±10%
	Dimensions (W x D x H)	96 x 29 x 14.5 (mm)
	Approx. Weight	36g (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 _{DC}
	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.

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

Symptom	Possible Reasons/Solutions
The network connection status indicator is OFF even after I have waited for the devices to initiate and the transmitter is within 30 meters of the receiver. Why?	Please confirm whether or not the codes of the transmitter and the receiver match with each other. If not, manually match their codes. For details on the code matching method, refer to the relevant description in this manual.
How come the network connection status indicators on both the transmitter and receiver are OFF even after both devices have been powered on?	Possibly the transmitter and receiver are too far away or there are too many obstacles interfering with the transmission signal. Please adjust the position of one or both devices.
Why isn't my display device receiving any signals?	Please check whether the receiver is properly connected to the TV in addition, check to make sure the input source of the TV is set to HDMI.
Images appear on TV normally but I'm unable to hear any sounds, why?on TV.	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>How come 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 aren't any images output when the transmitter is connected to a blu-ray disc player and the receiver is connected to a PC display or a projector?</p>	<p>The playback requirements for blu-ray disc playing 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 both the transmitter and the receiver flash ready and no images appear on TV?</p>	<p>Power on the transmitter or the receiver off and then on again. If you power on the device many times and the fault cannot be rectified, possibly the device is damaged. Please contact the original manufacturer for repair.</p>
<p>Why is there so much noise (interference) on the image displayed on TV?</p>	<p>Possibly the transmitter and receiver are too far away from each other, or there are many obstacles interfering with the transmission signal. Please adjust the position of both devices. Additionally, you may achieve better results if you place both devices vertically.</p>
<p>Why can't my player be connected remotely through the IR extension function?</p>	<p>Please ensure that the IR remote connection is correctly installed to the transmitter and this connector is opposite the IR receiving window of the player. In addition, this product only supports the IR control in the 38KHz mode.</p>

Why are no images displayed on TV after the transmitter and receiver have been powered on?

It may take 15-30 seconds for indication 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

Both the network connection status indicator and video connection status indicator on the transmitter are ON, but the video connection status indicator on the receiver is not

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.



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.



FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates often and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However there is no guarantee that interference will not occur in a particular installation if this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to connect the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate this equipment. (Example: use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antennas or transmitter.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

- 1) This device may not cause harmful interference and
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Cautions

The manufacturer is not responsible for any radio or TV interference cause by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.