

# HD SENDER™



Model:CB6608/CB6620

## 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.



# HD SENDER™

## USER MANUAL

HI-DEFINITION WIRELESS A/V ROUTING SYSTEM



Model:CB6608/CB6620

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

## Technical Specifications

Video formats supported	TV: 1080i, 720p, 576p, 480p PC: VGA(640X480), SVGA(800X600), XGA(1024X768)*
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	5150-5250MHz (Japan), 5725-5850MHz (Europe/USA)
Operating power supply	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



## Structure

Transmitter



### ① Power Input Port

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

② HDMI Input Port

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

③ Output Interface for IR Remote Signals  
No function now.

④ 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 does not turn green, it indicates that wireless 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.

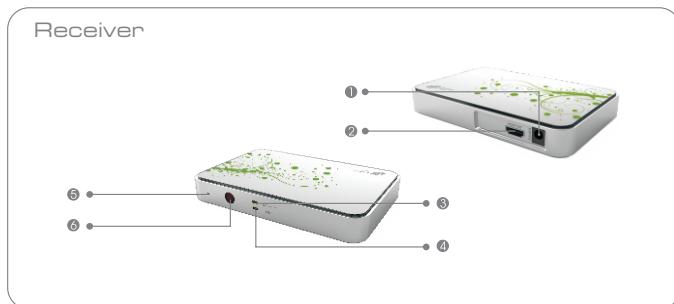
⑤ Video Status Indicator

If this indicator turns green after an HDMI cable is connected, it indicates that the video connection has been made successfully; if this indicator does not turn green, 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, may deteriorates; 2. Enable the code matching function: Press and hold this key on the transmitter and the receiver for 3 seconds at the same time, the codes of each machines will be Automatically synchronized.

Receiver



① 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.

② HDMI Output Port

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

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 does not turn green, it indicates that the wireless 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.

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 this 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 deteriorates; 2. Enable the code matching function: Press and hold this key on the transmitter and the receiver for 3 seconds at the same time, the codes of each machines will be automatically synchronized.

⑥ IR Remote Receiving Window

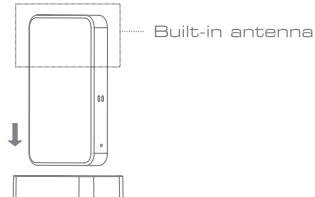
No function now.

## Installation and Use

- \* It is recommended to place both the transmitter and the 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 and effect will be impacted.

### Installation for Transmitter

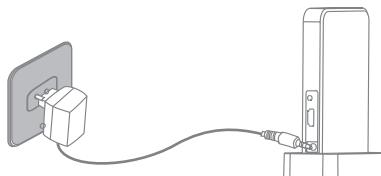
1. Install the transmitter on a base and then place the transmitter in a suitable position beside an HD video source.



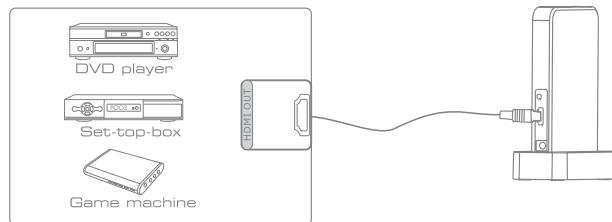
Note:

- \* Make sure the antenna is facing upwards.
- \* To avoid affecting the transmission distance and image effect, do not place any article on or beside the transmitter.

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



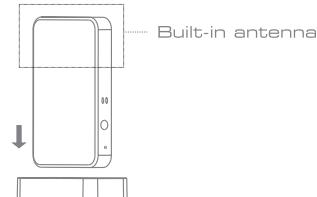
3. The video status indicator will turn ON after the transmitter is connected to the video output socket of the HD source with an HD AV cable.



\* Any video source with an 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.

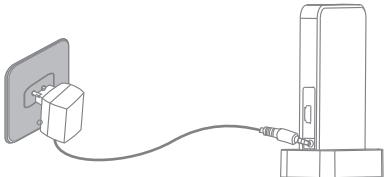


Note:

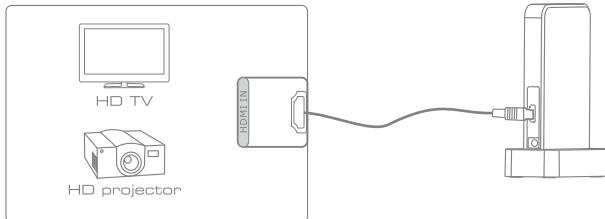
- \* Make sure the antenna is facing upwards.
- \* To avoid affecting the transmission distance and image effect, it is recommended that you do not place any article on or beside the receiver.

\* 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 an HDMI video input Interface can be connected.

## Meanings of Indicator Statuses

Indicator	Indicator status	Working status
Wireless connection status indicator (transmitter)	Green (on) Off Flash rapidly	<ul style="list-style-type: none"> <li>→ The transmitter is connected successfully in the wireless mode</li> <li>→ The transmitter has failed to connect in the wireless mode</li> <li>→ The device is faulty</li> </ul>
Video indicator (transmitter)	Green on Off	<ul style="list-style-type: none"> <li>→ The video source is connected successfully</li> <li>→ The video source has failed to connect</li> </ul>
Wireless connection (receiver)	Green (on) Off Flash rapidly	<ul style="list-style-type: none"> <li>→ The receiver is connected successfully in the wireless mode</li> <li>→ The receiver has failed to connect in the wireless mode</li> <li>→ The device is faulty</li> </ul>
Video indicator (receiver)	Green (on) Off	<ul style="list-style-type: none"> <li>→ The display device is connected successfully</li> <li>→ The display device has failed to connect</li> </ul>

## SPECIFICATIONS

Transmitter

Items	Model:CB6608/CB6620
Transmission Frequency	5150-5250MHz (Japan), 5725-5850MHz (Europe/USA)
Frequency Stability	±4PPM
Bandwidth	40MHz
Transmission Power	≥12dBm
System Latency	≤1ms
Sending	4 channels for sending
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)
Receiving Frequency	5150-5250MHz (Japan), 5725-5850MHz (Europe/USA)
RF communication system	MIMO
Modulation mode	OFDM
Frequency stability	±4PPM
Bandwidth	40MHz
Receiving Sensitivity	≤-65dBm
System latency	≤1ms
Receiving channel	5 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

Receiver

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

## Troubleshooting

Symptom	Possible Reasons/Solutions
Why are no images displayed on TV after the transmitter and receiver have been 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.
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.
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 relevant description in this manual.
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 ON and no images appear on TV.	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.

Why is not 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?	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.
How come sound is output from the TV normally but no images appear?	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.
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?	The playback requirements for blu-ray disc players 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.
What can I do when the network connection status indicators on both the transmitter and the receiver flash rapidly and no images appear on TV?	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.
	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.

## 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, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular occurrence 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 correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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 user's authority to operate this equipment. (Example-use only shielded interface cables when connecting to computer or peripheral devices).

## Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with part 15 of FCC RF Rules. Operation is subject to the following two conditions:

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

**This equipment complies with FCC RF radiation exposure limits set forth an uncontrolled environment.**

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter

### Caution!

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

## EU statement

Declaration of Conformity Hereby, manufacturer's company name, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.