

# Wireless Display Transmitter & Receiver

Model Name: EH-WD9906



Version 0.1

10/29/2023

# Revision History

Rev	Date	Reason for Changes
x.00	2023/0x/xx	• 1 <sup>st</sup> first release
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## 1.0 Introduction

### 1.1 Brief

This document provides an overview of the requirements for the EH-WD9906. EH-WD9906 is a pair of Full HD wireless display transmitter & receiver. It integrates powerful video encoder/decoder and 5Ghz Wi-Fi module with high sensitivity antennas to provide the high-performance screen mirroring function.

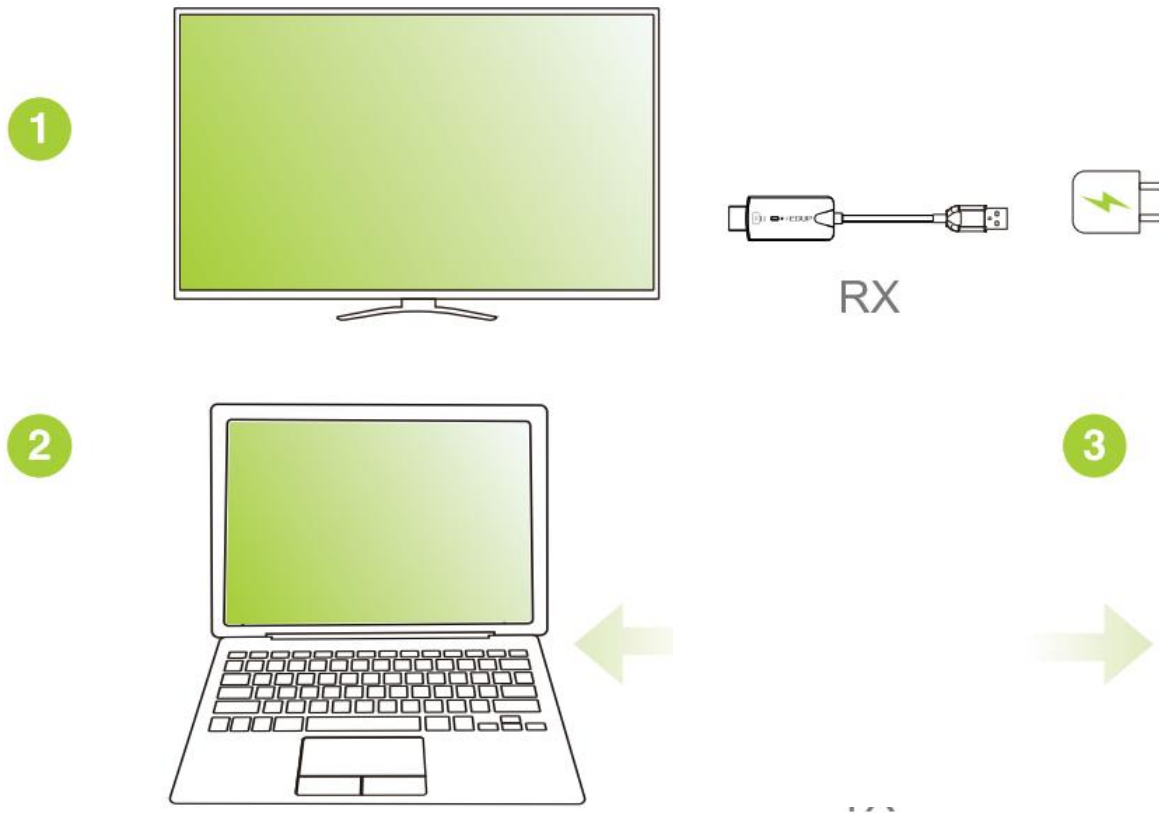
<b>Transmitter</b>	
Main Chip	AM8360D
Model	EH-WD9906 Transmitter
Network	IEEE 802.11n 5GHz 1T1R
Interface	HDMI
Max. Resolution	1920x1080
Function	Screen Mirror/Extend
Color	White
Power	DC5V/0.5A

<b>Receiver</b>	
Model	EH-WD9906 Receiver
Main Chip	AM8268D
Network	IEEE 802.11n 5GHz 1T1R
Interface	HDMI
Max. Resolution	1920x1080
Function	Screen Mirror/Extend
Color	White
Power	DC5V/0.5A

### 1.2 Product Feature

- **Wi-Fi:**
  - IEEE 802.11n 5GHz 1T1R
- **Full HD Output**
- **Screen Mirror**
- **Screen Extend (Windows/macOS)**
- **Netflix App support (The standalone receiver cannot display DRM streaming)**
- **Proprietary Protocol**
- **Long Distance**
- **Low Power Consumption**
- **Low Latency**
- **CSA (Channel switch announcement) supported, auto channel switch if current channel jamming.**

### 1.3 Installation



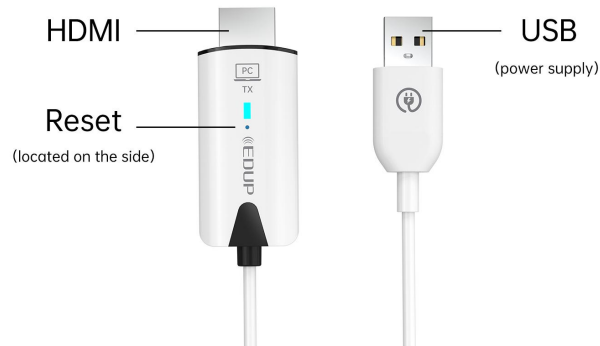
1. EH-WD9906 Receiver : Connect EH-WD9906 Receiver to your TV and power on by an independent 5V/1A adapter.
2. EH-WD9906 Transmitter: Power and connect the HDMI connector to your Laptop/MacBook supporting HDMI port. Wait a few seconds until the flashing light of EH-WD9906 Transmitter stops, then it will start mirroring automatically.
3. Stop/Restart Mirror: Unplug/ Re-plug EH-WD9906 Transmitter to stop mirroring or restart mirroring.

## 1.4 Manually Pair (If needed)

### 1. Turn on pairing mode for the receiver

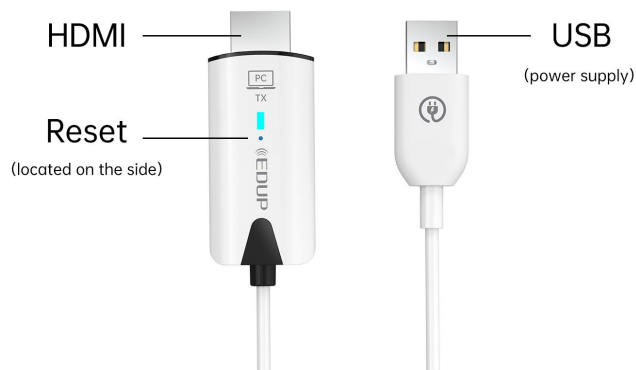
- (1) Power up the receiver by an external adapter (5V/1A).
- (2) Plug the receiver to the HDMI port on the monitor.
- (3) Press the button through the pin hole on the receiver for 5 seconds.

Release when the screen shows “Release the button to pair with”.



### 2. Press the button on Transmitter

Plug Transmitter on laptop or mobile to provide power. Press the button through the pin hole on Transmitter for 5 seconds to complete pairing while the screen shows “Ready to pair”. After paired, it will start casting automatically.



## 2.0 Requirements

The following sections is to identify the detailed requirements of the EH-WD9906 Transmitter Hand EH-WD9906 Receiver .

## 2.1 Hardware Specification

### 2.1.1 Main Component

<b>EH-WD9906 Transmitter</b>	<b>Hardware Component</b>	<b>Detailed Description</b>
2.1.1.1	Main Chip	<ul style="list-style-type: none"><li>• AM8360D</li></ul>
2.1.1.2	Wi-Fi	<ul style="list-style-type: none"><li>• AM9421</li></ul>
2.1.1.3	Flash	<ul style="list-style-type: none"><li>• SNOR 8 MB</li></ul>
<b>EH-WD9906 Receiver</b>		
2.1.1.4	Main Chip	<ul style="list-style-type: none"><li>• AM8268D</li></ul>
2.1.1.5	Wi-Fi	<ul style="list-style-type: none"><li>• AM9421</li></ul>
2.1.1.6	Flash	<ul style="list-style-type: none"><li>• SNOR 8 MB</li></ul>

### 2.1.2 Hardware Interface

<b>EH-WD9906 Transmitter</b>	<b>Feature</b>	<b>Detailed Description</b>
2.1.2.1	HDMI Interface	<ul style="list-style-type: none"><li>• HDMI 1.4a with HDCP 1.4</li></ul>
2.1.2.2	USB Interface	<ul style="list-style-type: none"><li>• Only for power input (5V/1A USB adapter)</li></ul>
2.1.2.3	Button (Pin hole)	<ul style="list-style-type: none"><li>• Press 5s for paring the EH-WD9906 Receiver R-1 as the display device shows "Ready to pair"</li></ul>
<b>EH-WD9906 Receiver</b>		
2.1.2.4	HDMI Interface	<ul style="list-style-type: none"><li>• HDMI 1.4a with HDCP 1.4</li></ul>
2.1.2.5	USB Interface	<ul style="list-style-type: none"><li>• Only for power input (5V/1A USB adapter)</li></ul>
2.1.2.6	Button (Pin hole)	<ul style="list-style-type: none"><li>• Press 5s to start the pairing process</li></ul>

### 2.1.3 LED Indicator for

<b>EH-WD9906 Transmitter</b>	<b>Status</b>	<b>Detailed Description</b>
LED Light	Solid	<ul style="list-style-type: none"> <li>Device is connected to RX successfully and is able to be operated properly.</li> </ul>
	Blinking (Slow)	<ul style="list-style-type: none"> <li>The device is ready and trying to connect to RX as Receiver is being connected up.</li> </ul>
	Blinking (Fast)	<ul style="list-style-type: none"> <li>The device is processing to pair with RX.</li> </ul>
	Light off	<ul style="list-style-type: none"> <li>The device has malfunctioned, OR no power input.</li> </ul>
<b>EH-WD9906 Receiver</b>		
LED Light	Solid	<ul style="list-style-type: none"> <li>Device is connected to 5V/1A power successfully.</li> </ul>

### 2.1.4 Electrical Characteristic

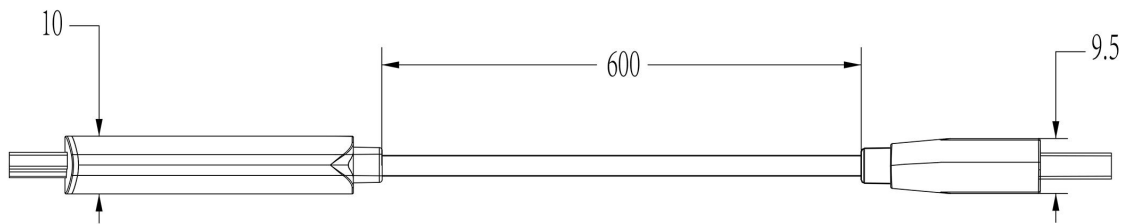
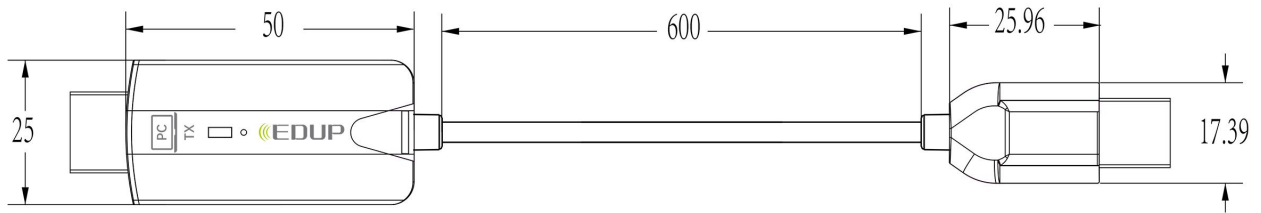
<b>EH-WD9906 Transmitter</b>	<b>Feature</b>	<b>Detailed Description</b>
2.1.4.1	Power Input	<ul style="list-style-type: none"> <li>5V/0.5A</li> </ul>
2.1.4.2	Power Consumption	<ul style="list-style-type: none"> <li>1.5 W</li> </ul>
<b>EH-WD9906 Receiver</b>		
2.1.4.3	Power Input	<ul style="list-style-type: none"> <li>DC 5V/0.5A</li> </ul>
2.1.4.4	Power Consumption	<ul style="list-style-type: none"> <li>1.5W</li> </ul>



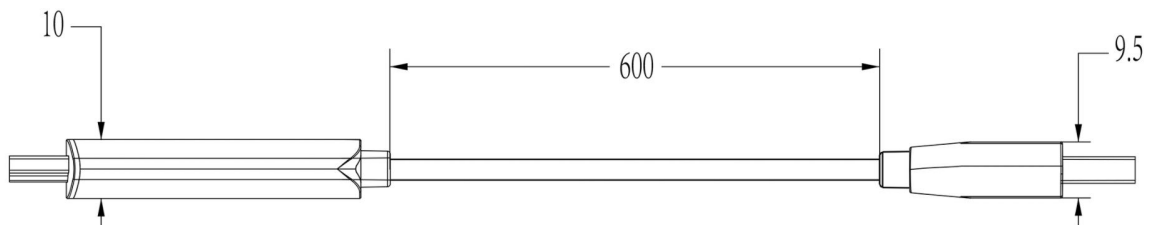
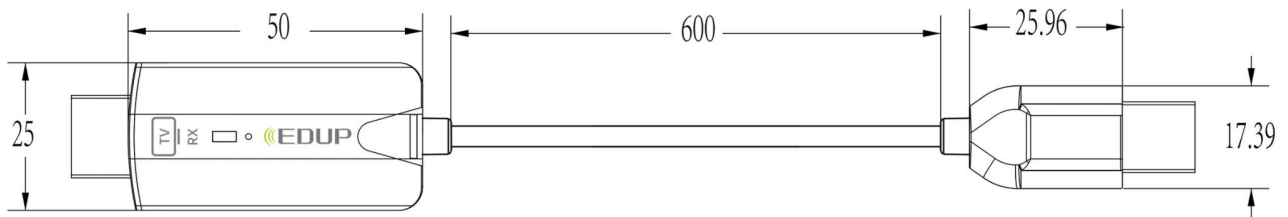
## 2.2 Mechanical Requirements

### 2.2.1 Dimension

#### 2.2.1.1 EH-WD9906 Transmitter



#### 2.2.1.2 EH-WD9906 Receiver



## 2.3 Environmental Requirements

	<b>Feature</b>	<b>Detailed Description</b>
2.3.1	Operating Temperature Conditions	<ul style="list-style-type: none"><li>The product is capable of continuous reliable operation when operating in ambient temperature of 0 °C to +35°C.</li></ul>
2.3.2	Non-Operating Temperature Conditions	<ul style="list-style-type: none"><li>Neither subassemblies is damaged nor the operational performance be degraded when restored to the operating temperature after exposing to storage temperature in the range of -20 °C to +70 °C.</li></ul>
2.3.3	Operating Humidity conditions	<ul style="list-style-type: none"><li>The product is capable of continuous reliable operation when subjected to relative humidity in the range of 10% and 90% non-condensing.</li></ul>
2.3.4	Non-Operating Humidity Conditions	<ul style="list-style-type: none"><li>The product is not be damaged nor the performance be degraded after exposure to relative humidity ranging from 5% to 90% non-condensing.</li></ul>