# Table of Contents

ZVconnectTM 1

Wireless Presentation System 1
  System Description 3
  Features 4
    Receiver Unit 4
    Transmitter Unit 5
  Operating Guide 6
    Receiver Installation 6
    Synchronization of Transmitter to a Receiver 7
    Screen Mirroring (One source to receiver) 12
    Dual Screen Mirroring (Two sources to receiver) 13
      Dual Screen Mirroring Details (Long click button for Dual Screen mode) 14
      Screen Switching in Dual Screen Mode 15
      Dual Screen Mode from 3rd Device 16
    Transmitter Factory Reset 18
    Battery Status 19
    Battery Charging 20
  Optional Charging Stand 21
  Specifications 22
    Transmitters 22
    Receiver 23
      Certifications and Warranty 23
    Part Numbers 24
    Frequently Asked Questions 25
    Disclaimers 27
System Description

The ZVconnect provides a simple, robust conference room video solution. The transmitter plugs directly into your laptop’s video output, and the receiver into the HDMI video input of your display. No drivers or software to install. No USB limitations. No WiFi network required. Just plug the transmitter into the source and you are ready to go.

A minimal system consists of:

- Video Source (Up to 1080p)
- ZVconnect transmitter device
- Display with HDMI input
- ZVconnect receiver device
Features

Receiver Unit

Note: The Receiver unit red rim was added to units manufactured in June 2021. Units manufactured prior to this date had a silver rim the same as the Transmitter units.

Blue Flash (1s) : Ready to Play
Blue Flash (100ms) : Channel Scanning

HDMI Connector

Power LED

Status LED

Setting Button

USB Type-C Connector for DC 5V power
Transmitter Unit

HDMI or USB-C Connector

Status LED

Purple: Booting
Purple Flash: Factory Reset mode
Blue: Ready to Play
Blue Flash (1s): Transmitting
Blue Flash (100ms): Setting mode
Red: no HDMI source
Red Flash (300ms): Checking receiver connection

Power Button

Battery Indicator

Note: Please see the Battery Charging information on page 19 for different Status LED information

Setting / Transmit Button

USB Type-C Connector for DC 5V power
**Operating Guide**

**Receiver Installation**

1. Connect ZVconnect Receiver to HDMI input of display
2. Connect 5V/2A power to ZVconnect receiver
3. Status light will turn blue. Wait for status light to flash. (About 30 seconds)
4. Ready to Play
Synchronization of Transmitter to a Receiver

You will need to Synchronize or “Pair” a Transmitter to a Receiver. This is done by putting the Receiver into Pairing Mode and synchronizing it with desired Transmitters.

Step 1:
Connect the Receiver to the display’s HDMI input and then connect power adapter (5V2A) to the USB-C port of the receiver.

Step 2:
LED of the Receiver center button will turn blue for a few seconds and flash for about 30 seconds. The “Ready to play” message will appear in the bottom left corner of the display.
Step 3:
Press Receiver’s center button for 3 seconds. After initialization the “Ready to pair” message will be shown on the lower left corner of the display. The Receiver is now in pairing mode.
Step 4:
With no source connected to the Transmitter; press the Transmitter’s power button for 3 seconds to power on Transmitter. LED will turn purple while booting.

Important: Do not connect a source to the Transmitter during this synchronization procedure.

While LED is still purple; press and hold the center button until the LED becomes flashing blue and then release it. (LED will flash red before it starts flashing blue) The Transmitter will now pair with the Receiver. When the pairing is successful, a “Synchronizing is completed” message will appear in the upper right corner of the display. The LED on the Transmitter will turn flashing red after this process. Transmitter is now ready, but you must complete step 5 below.
You can synchronize up to 254 transmitters with a single receiver. Example below shows screen after 3 Transmitters have been synchronized consecutively.

**Note:** The Transmitter will stay synchronized to the specific Receiver after power down. In fact, the Transmitter will stay synchronized to the Receiver until manually paired with another receiver.
Step 5:
Once pairing is completed, press and hold the Receiver’s center button until you see “Initializing” in the status field to exit pairing mode. After a few moments of “Channel scanning” this will return to “Ready to play”.

Important: You will not be able to transmit video from a Transmitter to Receiver until the Receiver is taken out of pairing mode. It must be “Ready to play”.

SSID: ZVconnect-cc4b736f8850
Channel: 149
Status: Ready to play
Screen Mirroring (One source to receiver)

Once the receiver has completed the boot process the screen shown to the left will appear on the display. The status should be “Ready to play”

Connect either an HDMI or USB-C transmitter to a source.
Power on the transmitter
Wait for the status LED to turn blue
Press the settings/transmit button once.
The display will indicate that the transmitter is connecting.
Transmitter status button will flash blue to indicate it is actively transmitting to receiver.
Dual Screen Mirroring (Two sources to receiver)

It is possible to connect two transmitters to a single receiver simultaneously and display the images side by side on the display. This process requires at least two transmitters that are synced to the same receiver.
Dual Screen Mirroring Details (Long click button for Dual Screen mode)

1. **Device A** enters Dual Screen mode when **A** is long clicked:
   - Color rainbow screen is normal.

2. **Device B** enters Dual Screen mode when **B** is long clicked:
   - Color rainbow screen is normal.
   - Screen B appears on the right side of screen A.

3. **Device C** does not enter Dual Screen mode when **C** is long clicked:
   - Only 2 devices are available.
Long click -> Device Exits Dual Screen
Short Click -> Device turns to full screen mode

A or B Short click

A or B Short click

Color rainbow screen is normal
Switch to full screen of Device C. Dual Screen mode for Device A and Device B is cancelled.

Dual Screen Mode from 3rd Device

A or B Long click
Choose Device A or Device B and end Dual Screen mode

Color rainbow screen is normal
Color rainbow screen is normal

Device C enters Dual Screen mode

Color rainbow screen is normal
Transmitter Factory Reset

To factory reset the transmitter, please follow these steps.

1. Ensure Transmitter is not connected to a Source.
2. Power on the Transmitter. LED will cycle from solid purple while booting to flashing red.
3. Press and hold the center button until the LED flashes blue. (About 2-3 seconds)
4. Now press and hold the center button until the LED turns off. Unit powers itself off.
5. Power on the Transmitter. LED will cycle from solid purple to slow flashing purple.
6. Unit is now reset and in standby mode.

If there is an active Receiver unit in range, the Transmitter will now automatically pair/sync to that Receiver. Flashing purple will turn to solid red when this procedure completes.

If there is no active Receiver unit in range, the Transmitter will continue to slowly flash purple unit it eventually self powers off. The next time a Receiver unit is in range, it will automatically pair/sync to that unit.
Battery Status

The transmitter units have an integrated rechargeable battery. The status of the battery is indicated by a series of LED lights on the side of the unit.

Battery Status Lights

Two green plus One orange = Battery Charge 80% - 100%
One green plus One orange = Battery Charge 20% - 80%
One orange = Battery Charge less than 20%

Note: Battery status lights are not illuminated when the transmitter is turned off.
Battery Charging

To charge transmitter units follow the procedure below:

1. Power off the transmitter
2. Plug the USB-C charging cable into the transmitter
3. Connect other end of charging cable to appropriate USB charging block and power
4. The Status LED will turn Red while the transmitter is charging
5. The Status LED will turn off when the transmitter is fully charged
Optional Charging Stand

There is an optional charging stand available for the transmitter devices (Part # ZVCCHARGE) that can hold and charge up to 4 ZVconnect transmitters at one time.

Note that the ZVconnect transmitter LED will remain red while the unit is actively charging and will turn off when the unit is fully charged. The Charging Stand also has indicator lights. Purple to indicate the ZVconnect transmitter is charging and Blue to indicate the ZVconnect transmitter is fully charged.
# Specifications

## Transmitters

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ZVCTXHDMI</th>
<th>ZVCTXUSBC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description/Interface</strong></td>
<td>Wireless transmitter with HDMI interface</td>
<td>Wireless transmitter with USB-C interface</td>
</tr>
<tr>
<td><strong>In the box</strong></td>
<td>Transmitter, USB cable, 2A USB power block</td>
<td>Transmitter, USB cable, 2A USB power block</td>
</tr>
<tr>
<td><strong>Video Codec</strong></td>
<td>H.265</td>
<td>H.265</td>
</tr>
<tr>
<td><strong>Resolution Support</strong></td>
<td>Up to 1920 x 1080 @60Hz input*</td>
<td>Up to 1920 x 1080 @60Hz input*</td>
</tr>
<tr>
<td><strong>WLAN</strong></td>
<td>IEEE802.11a/b/g/n/ac 5 Ghz (5.150 ~ 5.850 Ghz)</td>
<td>IEEE802.11a/b/g/n/ac 5 Ghz (5.150 ~ 5.850 Ghz)</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>WPA2 AES-CCMP</td>
<td>WPA2-AES-CCMP</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>2-channel stereo</td>
<td>2-channel stereo</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>Battery or DC Adapter 5V/1A</td>
<td>Battery or DC Adapter 5V/1A</td>
</tr>
<tr>
<td><strong>Latency</strong></td>
<td>&lt; 200ms</td>
<td>&lt; 200ms</td>
</tr>
<tr>
<td><strong>Transmission Distance</strong></td>
<td>40+ feet</td>
<td>40+ feet</td>
</tr>
<tr>
<td><strong>Battery life</strong></td>
<td>6 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td><strong>Battery charging time</strong></td>
<td>4 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>6.7in x 2.8in x 1.2in</td>
<td>6.7in x 2.8in x 1.2in</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.27 lbs</td>
<td>0.26 lbs</td>
</tr>
</tbody>
</table>

*Input Resolution reduced to 30Hz for transmission. Scaled back to 60Hz at Receiver*
Receiver

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ZVCRXHDMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description/Interface</td>
<td>Wireless receiver with HDMI interface</td>
</tr>
<tr>
<td>In the box</td>
<td>Receiver, USB cable, 2A USB power block</td>
</tr>
<tr>
<td>Video Codec</td>
<td>H.265</td>
</tr>
<tr>
<td>Resolution</td>
<td>3840 x 2160 @30/60Hz*, 1920 x 1080 @60Hz*,</td>
</tr>
<tr>
<td>WLAN</td>
<td>IEEE802.11a/b/g/n/ac</td>
</tr>
<tr>
<td></td>
<td>5 Ghz (5.150 ~ 5.850 Ghz)</td>
</tr>
<tr>
<td>Security</td>
<td>WPA2 AES-CCMP</td>
</tr>
<tr>
<td>Audio</td>
<td>2-channel stereo</td>
</tr>
<tr>
<td>Power</td>
<td>DC Adapter 5V/2A</td>
</tr>
<tr>
<td>Latency</td>
<td>&lt; 200ms</td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.7in x 2.8in x 1.2in</td>
</tr>
<tr>
<td>Weight</td>
<td>0.13 lbs</td>
</tr>
</tbody>
</table>

*Input Resolution reduced to 30Hz for transmission. Scaled back to 60Hz at Receiver.

Certifications and Warranty

<table>
<thead>
<tr>
<th>Standard</th>
<th>CE</th>
<th>RoHS</th>
<th>FCC</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>Yes</td>
<td></td>
<td></td>
<td>1 year</td>
</tr>
<tr>
<td>RoHS</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rev 20230215  Page 23 of 27
# Part Numbers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Short Description</th>
<th>Long Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZVCCHARGE</td>
<td>ZVconnect charging stand/cradle for up to 4 ZVconnect transmitters</td>
<td>Charging cradle unit to simultaneously charge up to 4 ZVconnect transmitter units. Includes cradle and power supply/cable.</td>
</tr>
<tr>
<td>ZVCKITH</td>
<td>ZVconnect wireless system room kit with HDMI transmitters</td>
<td>ZVconnect wireless room kit with HDMI transmitters. Includes 1 receiver unit and 2 transmitter units with HDMI inputs. Also includes 3 USB cables, 3 2A USB power blocks</td>
</tr>
<tr>
<td>ZVCKITM</td>
<td>ZVconnect wireless system room kit with HDMI and USB-C transmitter</td>
<td>ZVconnect wireless room kit with HDMI transmitters. Includes 1 receiver unit, 1 transmitter unit with USB-C input and 1 transmitter unit with HDMI input. Also includes 3 USB cables, 3 2A USB power blocks.</td>
</tr>
<tr>
<td>ZVCKITU</td>
<td>ZVconnect wireless system room kit with USB-C transmitters</td>
<td>ZVconnect wireless room kit with HDMI transmitters. Includes 1 receiver unit and 2 transmitter units with USB-C inputs. Also includes 3 USB cables, 3 2A USB power blocks.</td>
</tr>
</tbody>
</table>

**Note:** Part numbers can be followed by region codes. -EU = European Union, -UK = United Kingdom. Examples: ZVCKITM-EU and ZVCKITM-UK

EU units contain EU style USB power blocks  
UK units contain UK style USB power blocks  
No region code indicates US style USB power blocks
Frequently Asked Questions

Question: Can I just leave the Transmitter connected to USB power and transmit indefinitely?
Answer: Yes you can

Question: Does the ZVconnect support playing HDCP content?
Answer: Yes it does.
Rx: HDCP 2.2
Tx HDMI: HDCP 1.4
Tx USB-C: HDCP 1.3

When HDCP 2.2 content is connected to the Tx, it will convert it to 1.4 and 1.3

Question: Does the dual mirroring mode support audio?
Answer: No, dual mirroring mode only supports video.

Question: What frequency range is used by ZVconnect?
Answer: ZVconnect uses a 5GHz frequency. (Between 5.2 GHz and 5.8 GHz)

Question: How many available channels are available in this 5.2 GHz to 5.8 GHz range for the ZVconnect receiver to use?
Answer: There are 7 available channels: Channels 36, 44, 48, 149, 153, 157 and 161.

Question: What compression does the ZVconnect use?
Answer: The ZVconnect uses H.265 compression.

Question: What is the battery life of the Transmitter?
Answer: 6+ hours of continuous transmitting.

Question: What is the transmission range?
Answer: 40+ feet.
**Question:** How many transmitters can sync to a receiver at one time?

**Answer:** Up to 254. (Only a max of 2 can display at any given time)

**Question:** What is the latency of the transmission?

**Answer:** Average latency is between 150ms and 200ms.

**Question:** Can a transmitter sync to more than one receiver at a time?

**Answer:** No, the transmitters can only sync to one receiver at a time.

**Question:** What devices is the transmitter compatible with?

**Answer:** ZeeVee has tested a wide range of devices including the following: MacBook’s, Windows PC’s, Lenovo Thinkpads, Dell Chromebook, Google Pixelbooks, Android Phones and Tablets, Samsung Galaxy S9/S10, Microsoft Xbox One X, Sony Blu-Ray players, Apple TV.

**Question:** What brands of displays has the receiver been tested with?

**Answer:** ZeeVee has tested with displays from the following manufacturers: Benq, Dell, Haier, Hannspree, Insignia, LG, Monoprice, Optoma, Philips, Samsung, Sharp, Sony, ViewSonic and Visio.
Disclaimers

ZeeVee has striven to insure that this document is accurate and represents the described products fully. Although, ZeeVee assumes no responsibility for errors found, should any be found, please contact support@zeevee.com and corrections will be issued as appropriate.

ZeeVee hardware designs are property of ZeeVee.

Components, sub-assemblies, and methods utilized in the designs are free of any encumbrances or appropriate licenses and rights have been obtained by ZeeVee for the use in the described products in the intended manner.

ZeeVee software is the sole property of ZeeVee except within the restrictions and guidelines of any open-source or public-license component utilized. ZeeVee represents that normal usage of the product in a typical customer installation is fully within the granted rights and privileges of any licensed component. Visit www.zeevee.com for further details.

The specifications of the described products may change at any time without notice.

ZeeVee forbids unauthorized disassembly, reverse-engineering, duplication, or any other attempt to recreate all or portions of the hardware or software outside of any use explicitly authorized in writing by ZeeVee.

Trademarks

All trademarks are the property of their respective owners.

Copyright

This document is copyrighted with all rights reserved. This document or any portion contained may not be reproduced or copied by any means - graphically, mechanically, or electronically - without express written authorization of ZeeVee.

© 2020 ZeeVee, Inc. All rights reserved.