Intelligent AV Distribution

WIRELESS PRESENTATION SYSTEM

User Guide
Updated November 2020

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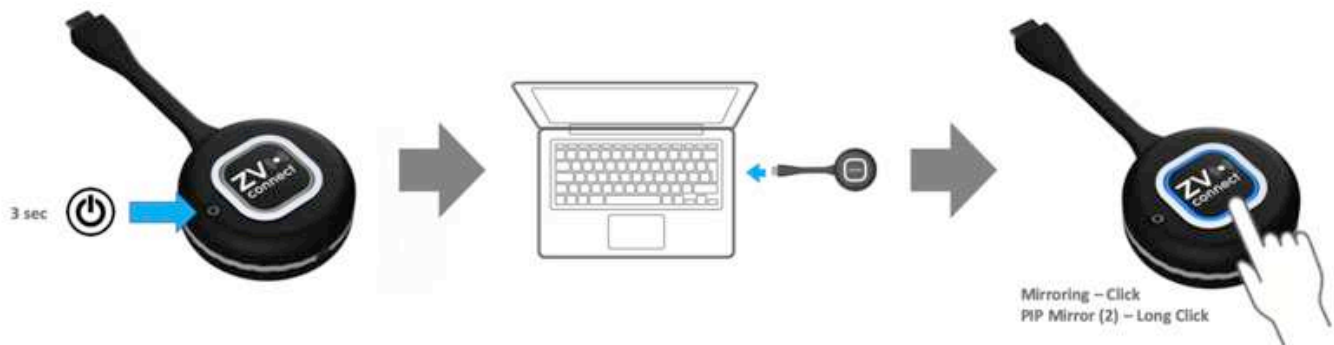
System Description

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.
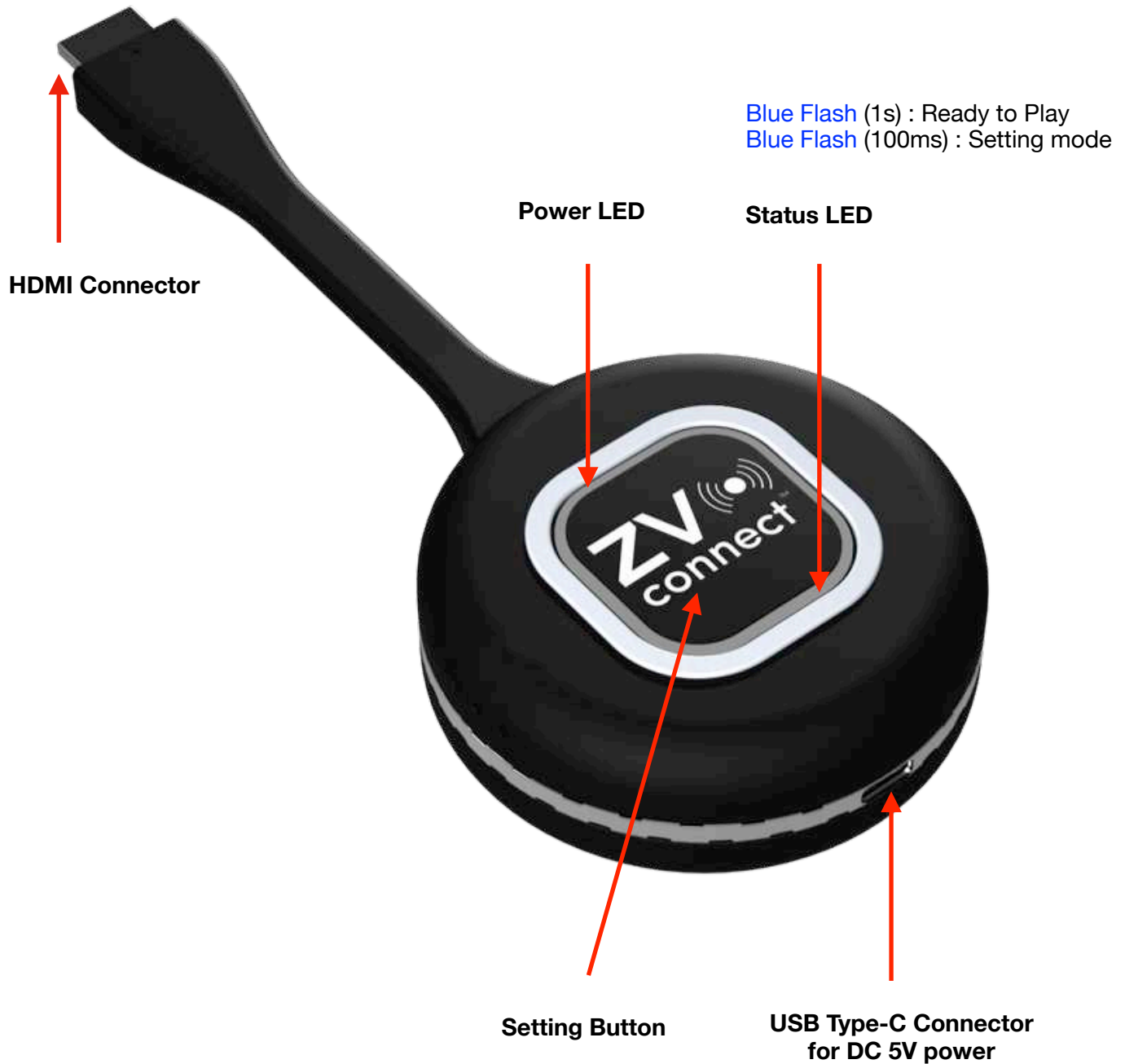
A minimal system consists of:

- Video Source (Up to 1080p)
- ZVconnect transmitter device

- Display with HDMI input
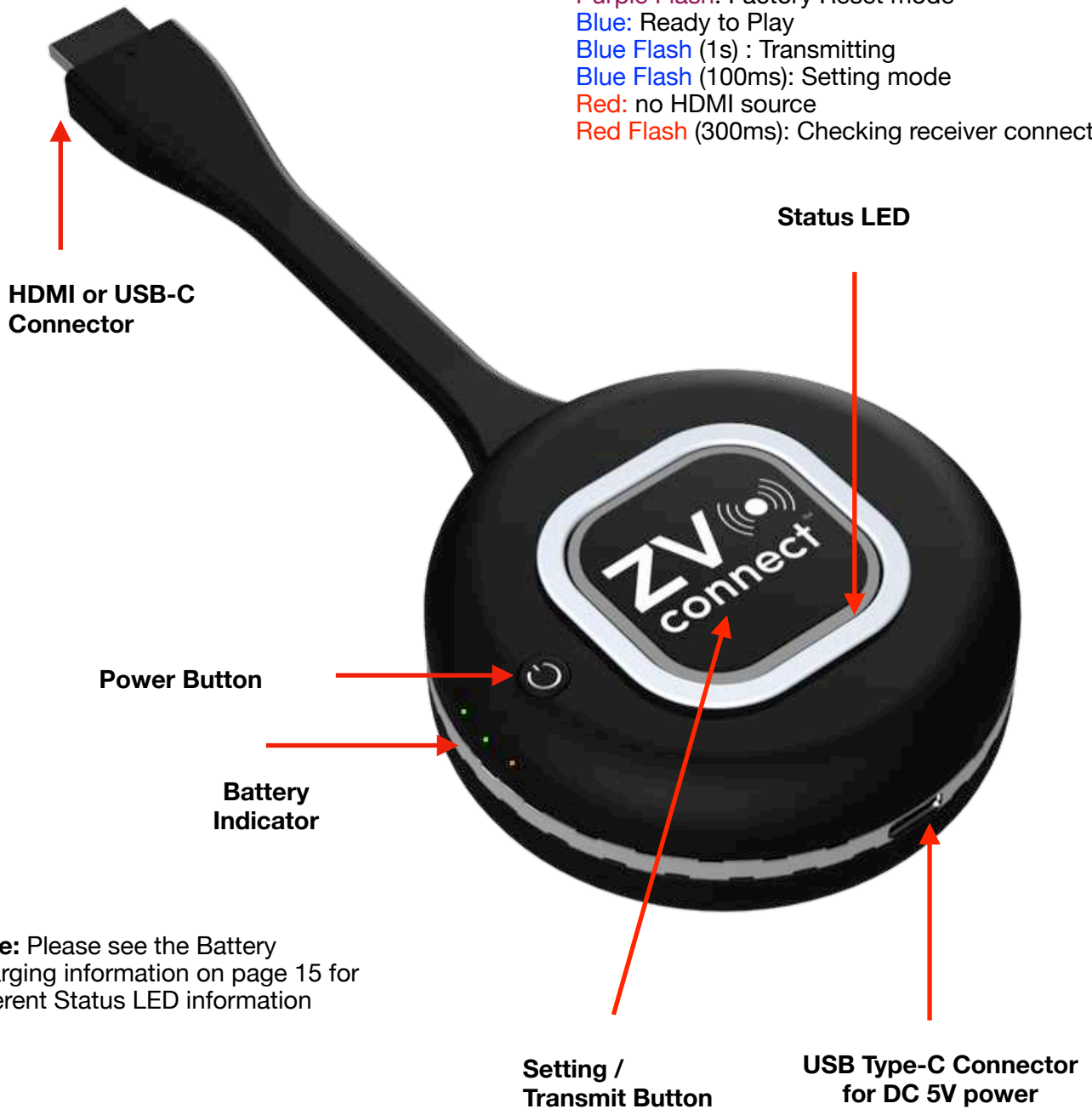- ZVconnect receiver device

Features

Receiver Unit

HDMI Connector

Power LED

Status LED

Blue Flash (1s) : Ready to Play
Blue Flash (100ms) : Setting mode

Setting Button

USB Type-C Connector for DC 5V power

Transcription Unit

Transmitter Unit

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

Status LED

HDMI or USB-C Connector

Power Button

Battery Indicator

Note: Please see the Battery Charging information on page 15 for different Status LED information

Setting / Transmit Button

USB Type-C Connector for DC 5V power

Operating Guide

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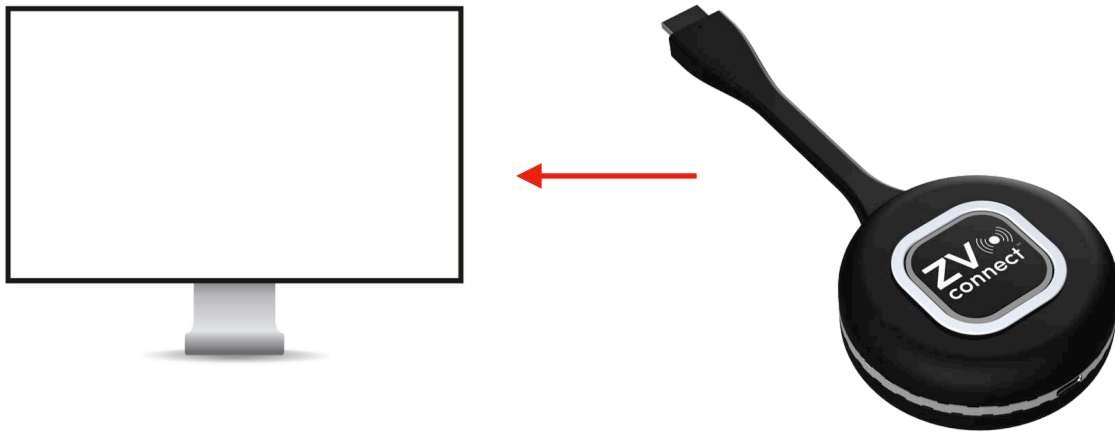
1. Connect ZVconnect Receiver to HDMI input of display
2. Connect 5V/2A power to ZVconnect receiver
3. Status light will turn blue. Wait for status light to flash. (About 30 seconds)
4. Ready to Play
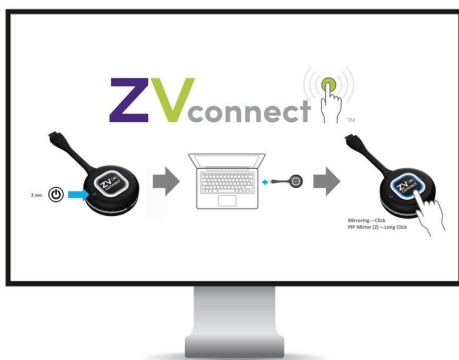
Transmitter Installation

1. Disconnect transmitter from any source
2. Power the transmitter on by holding power button for about 3 seconds
3. Wait for transmitter to complete booting and LED to turn Red.
4. Press and hold the center button until Blue LED flashes (About 3 seconds)
5. Release the center button and then press and hold the center button again until Blue LED turns off. (Transmitter turns off)
6. Power the transmitter back on. This will cause the transmitter to sync to receiver.

Note: This process will enable the transmitter to sync to different receiver units.

Example:

Transmitter is synced to Receiver #1.
Follow process above and the Transmitter will sync to Receiver #2.
Repeat the process to switch back to Receiver #1.

(This assumes more than one Receiver in range of the transmitter)

Transmitters will stay synced to the same Receiver thru power cycles.

Factory Reset:

To factory reset the transmitter: Starting with transmitter powered off, hold the center button in first, now hold the power button in and hold both buttons until you see the LED flash purple. (About 15 seconds) Once LED flashes Purple the unit has been factory reset. Unit will now auto synchronize to any RX currently in range. If there is no RX unit in range, the transmitter LED will continue to flash purple. To exit Reset Mode, follow the instructions for Synchronizing to a specific receiver starting on page 11 of this document.   Perform step #4 from the flashing purple LED status. Hold the setting button until it flashes blue.

Synchronization to specific Receiver

In cases where there are multiple Receiver units in range, you will want to Synchronize or Pair a Transmitter to a specific Receiver. This is done by putting the Receiver into Pairing Mode and synchronizing it with desired Transmitters.
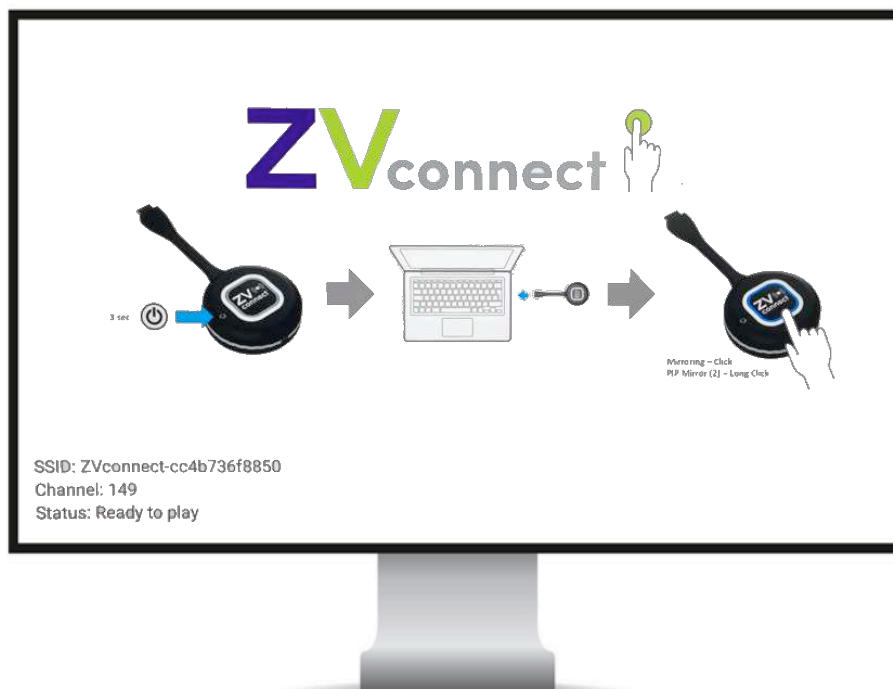
Step 1:

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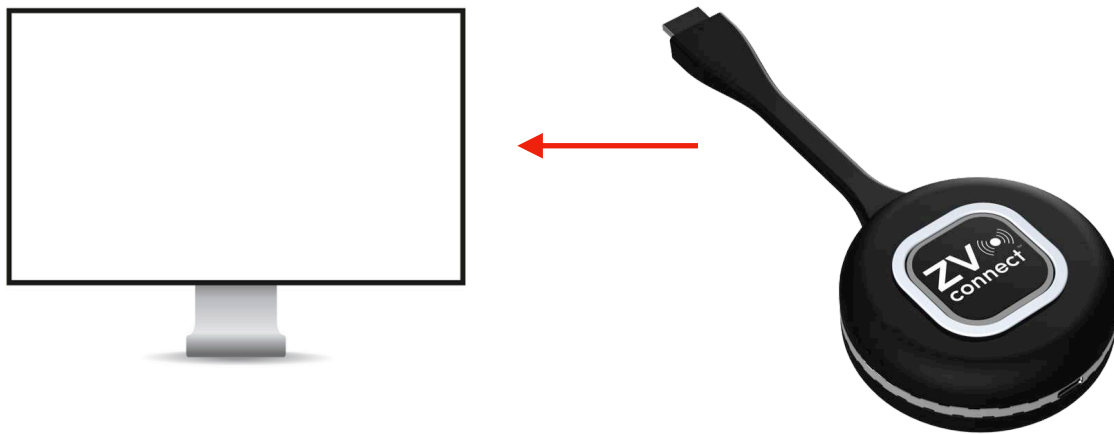

Step 2:

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.

SSID: ZVconnect-cc4b736f8850
Channel: 149
Status: Ready to pair
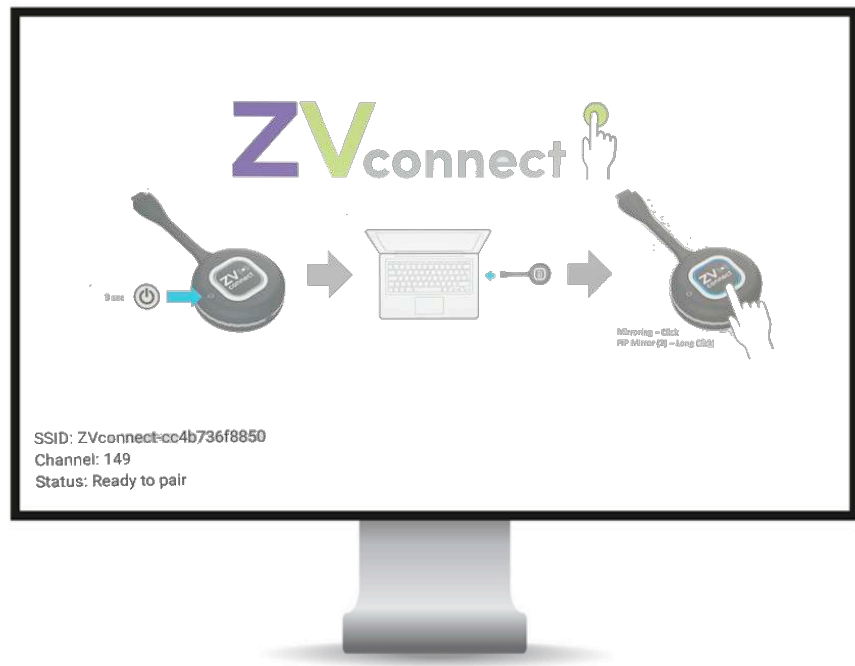
Step 4:
Press the Transmitter's power button for 3 seconds and wait until the LED of the center button becomes flashing **red**.

Press and hold the center button until the LED become flashing **blue** and then release it. The Transmitter will now pair with the Receiver. When the pairing process is successfully completed, "Synchronizing is completed" message will appear in the upper right corner of the display.
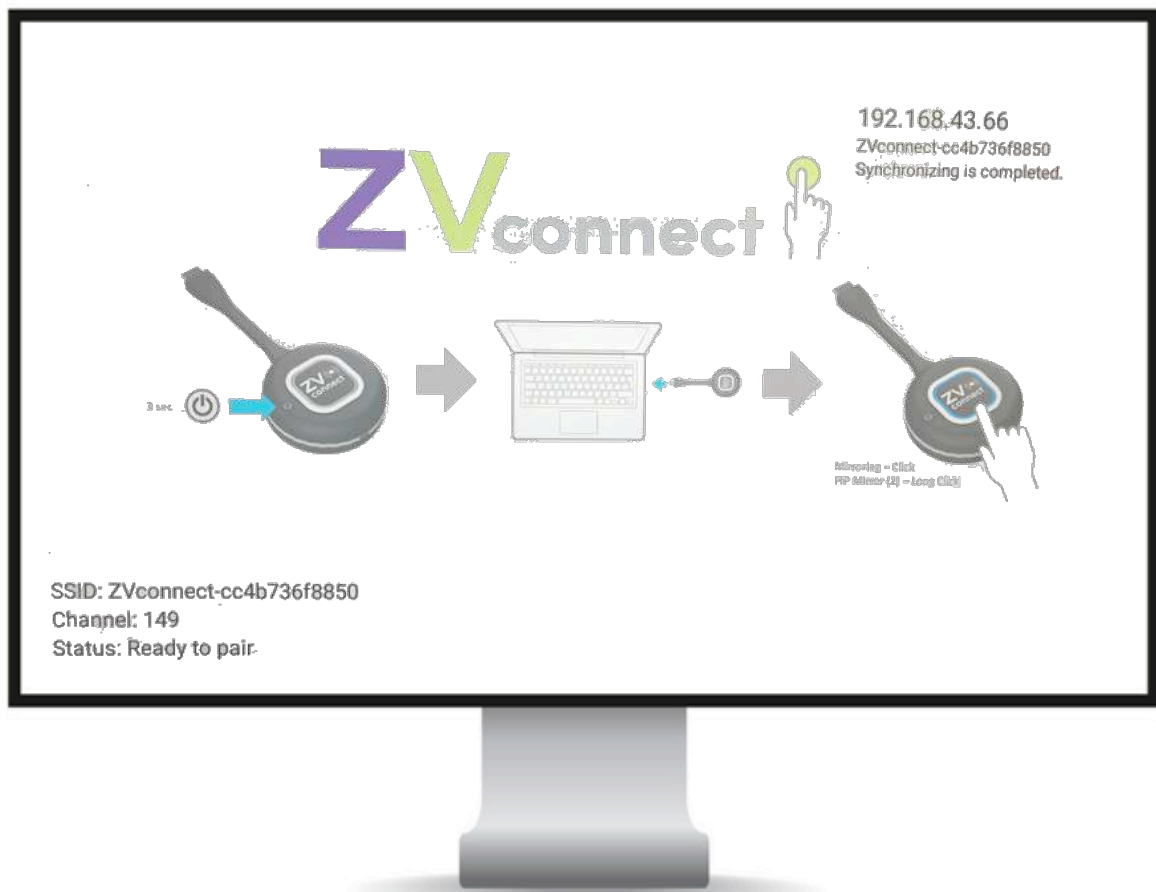
Step 5:
Once pairing is completed, press the Receiver's center button until you see the "initialization" in the status field to exit pairing mode.

Important: You will not be able to transmit video from a Transmitter to Receiver until the Receiver is taken out of pairing mode.
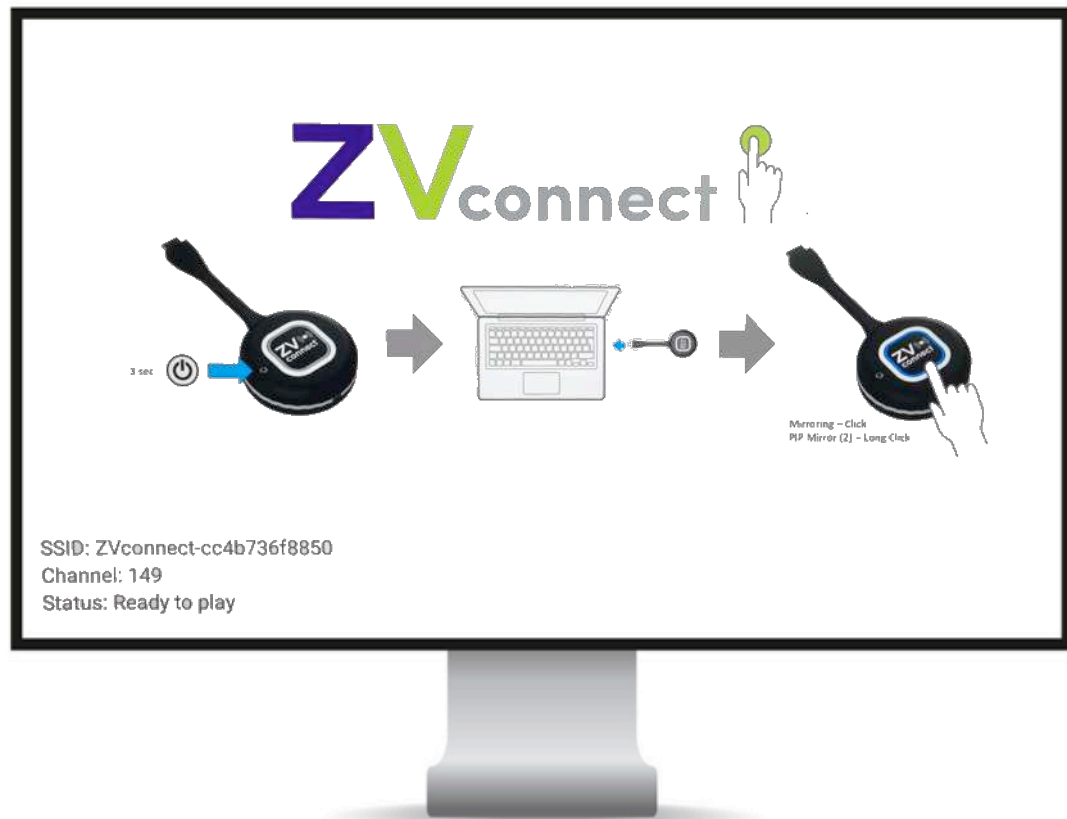
Transmitter Factory Reset:
To factory reset the transmitter: Starting with transmitter powered off, hold the center button in first, now hold the power button in and hold both buttons in for about 15 seconds. Once LED flashes Purple the unit has been factory reset. Unit will now auto synchronize to any RX currently in range. If there is no RX unit in range, the transmitter LED will continue to flash purple. To exit Reset Mode, follow the instructions for Synchronizing to a specific receiver starting on page 11 of this document.   Perform step #4 from the flashing purple LED status. Hold the setting button until it flashes blue. Be sure to perform step #5 to take the Receiver out of Pairing mode

Screen Mirroring
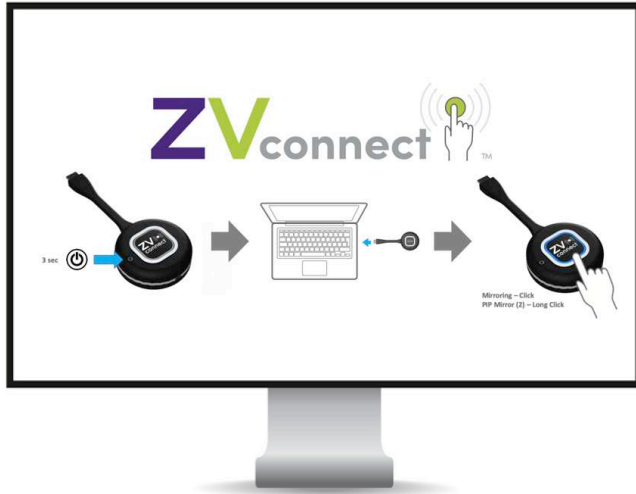
Once the receiver has completed the boot process the screen shown to the left will appear on the display.

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.
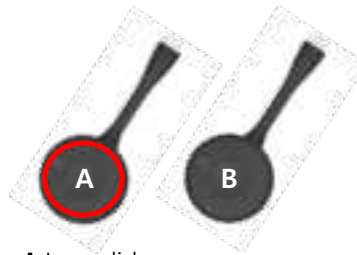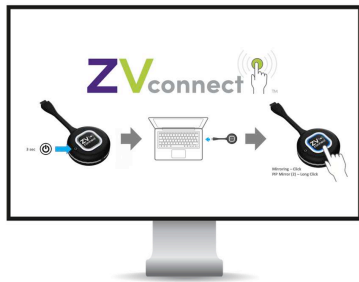
Dual Screen Mirroring

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.
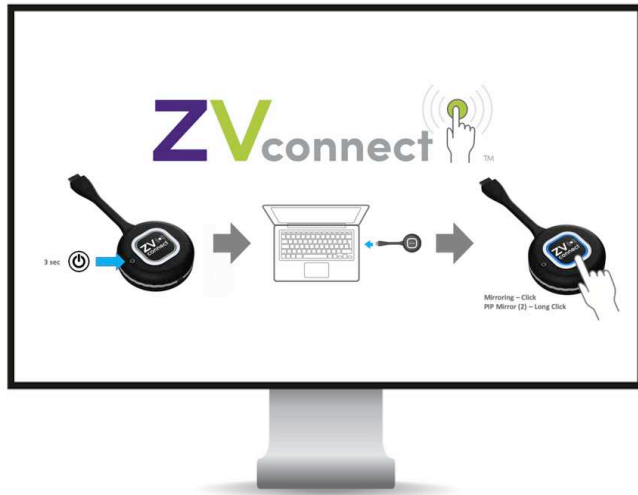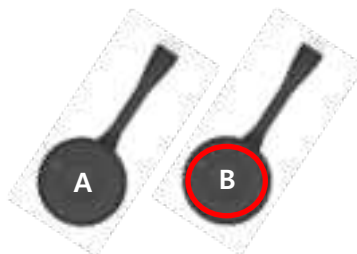
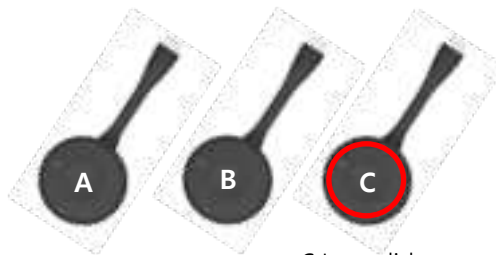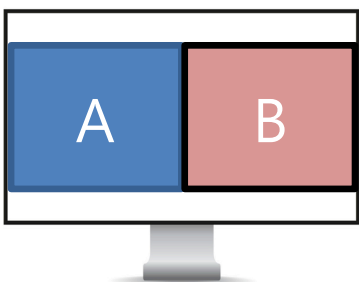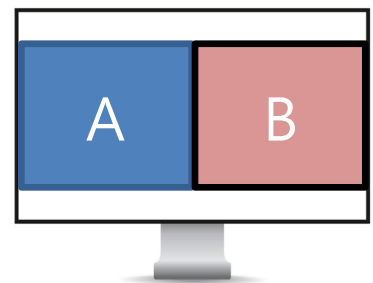# Dual Screen Mirroring Details (Long click button for Dual Screen mode)

A Long click
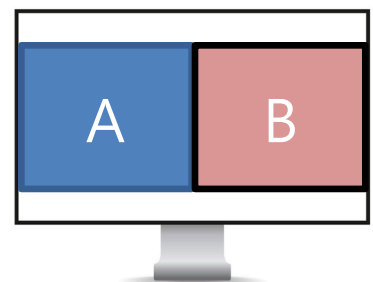
Device **A** enters Dual
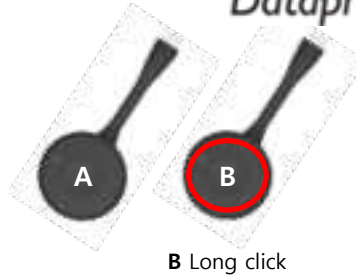Screen mode

B Long click

Device **B** enters Dual Screen mode
-> Screen **B** appears on the
right side of screen A

C Long click

Device **C** does not enter Dual
Screen mode.
Only 2 devices are available.
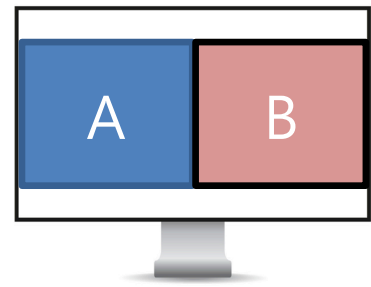
Device A is full screen, and long click Device B
-> Both devices enter Dual Screen mode.

Device **A** on the left side, and Device **B** on the right side.

Screen Switching in Dual Screen Mode

Long Click -> Device Exits Dual Screen
Short Click -> Device turns to full screen mode
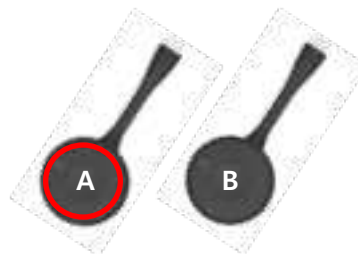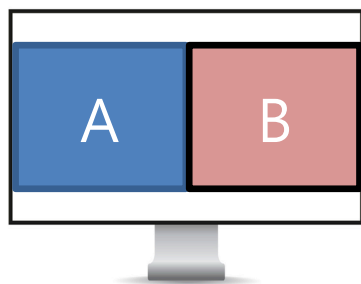
Device **A** exits from Dual Screen mode
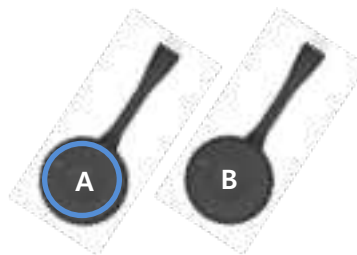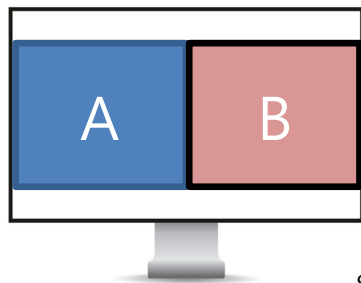
Split screen switches to full screen and cancels Dual screen mode**.**
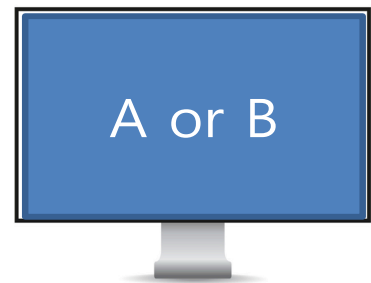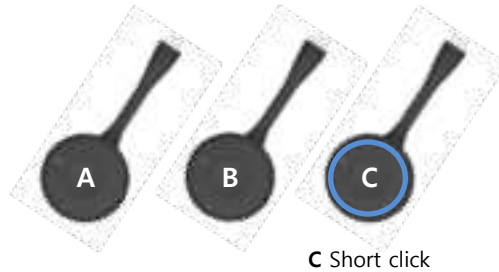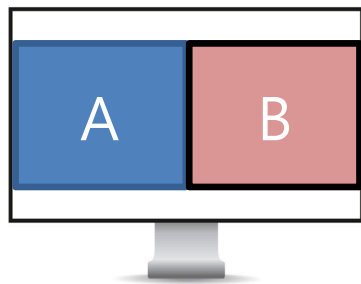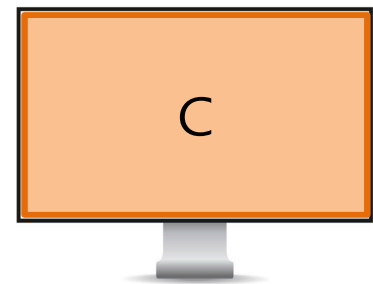
Switch to full screen of Device **C**.
Dual Screen mode for Device A
and Device B is cancelled.

Dual Screen Mode from 3rd Device
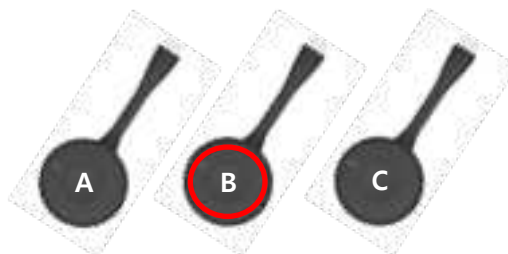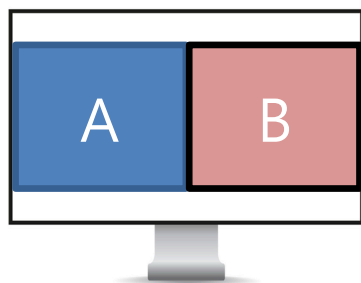
A or B Long click

Choose Device **A** or Device **B** and end
Dual Screen mode
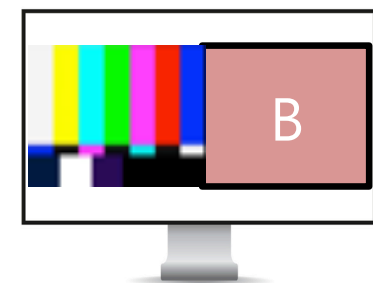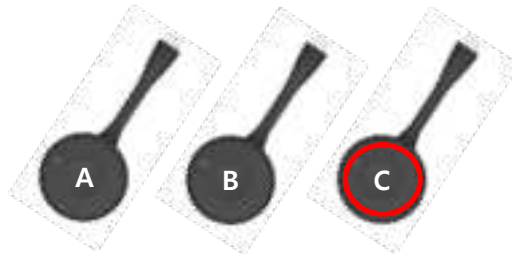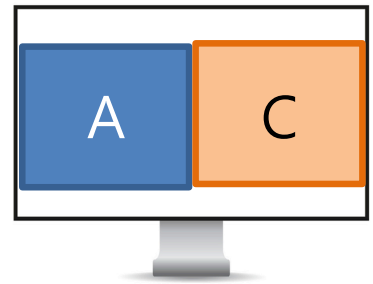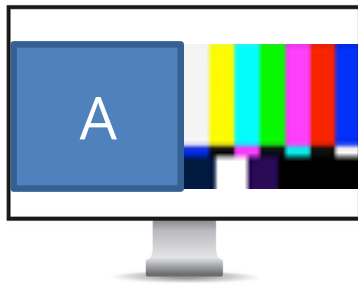
C Long click
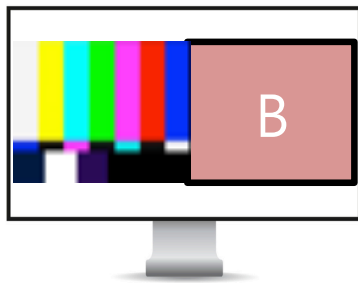
Device **C** enters Dual Screen mode
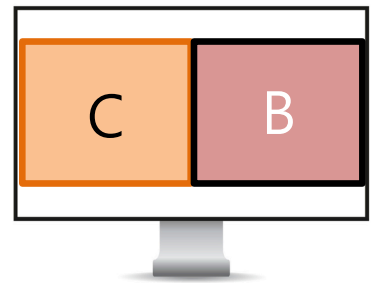
Battery Status

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

Charging   **Fully Charged**

Optional Charging Stand

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

Best.nr. 20103556

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.

ZVconnect is charging   ZVconnect is fully charged

Specifications

Transmitters

Model Number	20103554	20103555
Description/Interface	Wireless transmitter with HDMI interface	Wireless transmitter with USB-C interface
In the box	Transmitter, USB cable, 2A USB power block	Transmitter, USB cable, 2A USB power block
Video Codec	H.265	H.265
Resolution Support	Up to 1920 x 1080 @60Hz input*	Up to 1920 x1080 @60Hz input*
WLAN	IEEE802.11a/b/g/n/ac 5 Ghz (5.150 ~ 5.850 Ghz)	IEEE802.11a/b/g/n/ac 5 Ghz (5.150 ~ 5.850 Ghz)
Security	WPA2 AES-CCMP	WPA2-AES-CCMP
Audio	2-channel stereo	2-channel stereo
Power	Battery or DC Adapter 5V/1A	Battery or DC Adapter 5V/1A
Latency	< 200ms	< 200ms
Transmission Distance	40+ feet	40+ feet
Battery life	6 hours	6 hours
Battery charging time	4 hours	4 hours
Dimensions	6.7in x 2.8in x 1.2in	6.7in x 2.8in x 1.2in
Weight	0.27 lbs	0.26 lbs

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

Receiver

Model Number	20103553
Description/Interface	Wireless receiver with HDMI interface
In the box	Receiver, USB cable, 2A USB power block
Video Codec	H.265
Resolution	3840 x 2160 @60Hz*, 1920 x 1080 @60Hz*, 1920 x 1200 @60Hz*
WLAN	IEEE802.11a/b/g/n/ac 5 Ghz (5.150 ~ 5.850 Ghz)
Security	WPA2 AES-CCMP
Audio	2-channel stereo
Power	DC Adapter 5V/2A
Latency	< 200ms
Dimensions	6.7in x 2.8in x 1.2in
Weight	0.13 lbs

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

Certifications and Warranty

Standard	CE	Yes
	RoHS	Yes
	FCC	Yes
Warranty	1 year	

Part Numbers

Part Number	Short Description	Long Description
20103553	ZVconnect wireless receiver with HDMI interface	ZVconnect wireless receiver with HDMI output. Includes receiver unit, USB cable and 2A USB power block.
20103554	ZVconnect wireless transmitter with HDMI interface	ZVconnect wireless transmitter with HDMI input. Includes transmitter unit, USB cable and 2A USB power block.
20103555	ZVconnect wireless transmitter with USBC interface	ZVconnect wireless transmitter with USB-C input. Includes transmitter unit, USB cable and 2A USB power block.
20103556	ZVconnect charging stand/ cradle for up to 4 ZVconnect transmitters	Charging cradle unit to simultaneously charge up to 4 ZVconnect transmitter units. Includes cradle and power supply/cable.
20103558	ZVconnect wireless system room kit with HDMI transmitters	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
20103559	ZVconnect wireless system room kit with HDMI and USB-C transmitter	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.
20103560	ZVconnect wireless system room kit with USB-C transmitters	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.

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: 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 Chrombooks, 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.

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