

APOLLO



User Manual

v1.4

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Device Connectivity

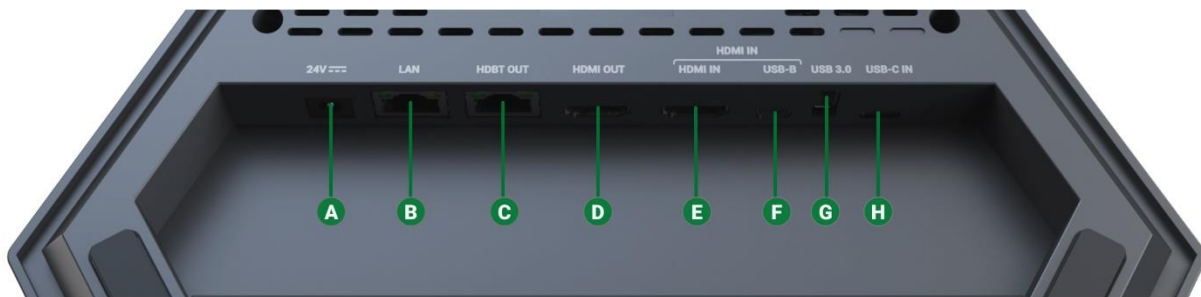
When a user is ready to present, there are a number of connection methods that are available. Apollo supports both wired and wireless video passthrough. If using wireless screensharing, a user's personal device will not have access to Apollo's built-in speakerphone or any USB peripherals. Connecting to Apollo via Airplay (Apple devices) or Miracast (Windows & Android) is for screensharing content only.

Wired connections add the ability for data communication on top of video transmissions. A hardwired USB-C connection to a personal device allows both A/V and USB data to transmit over a single cable. This will allow compatible USB-C devices to share content to a conference display while at the same time having access to Apollo's built-in speakerphone and any USB peripherals devices such as a webcam.

The supplied USB-C cable also includes a tethered USB-C to USB-A converter which uses DisplayLink technology. DisplayLink allows devices without USB-C connections to still utilize a single cable to send A/V and USB data with active conversion, video output is limited to 1080p with DisplayLink.

In some situations, a DisplayLink driver may need to be installed on a computer. If you are unable to get video to transmit when using the USB-A > USB-C adapter install this [DisplayLink driver](#).

A native HDMI connection is also available and can be used for simple video passthrough to a display. If USB data communication is also needed to a device which is using HDMI, a separate USB 2.0 Type A connection can be used in tandem to connect the Apollo's speakerphone and peripheral USB devices.



A	DC Power	Connects to the provided 24V DC PSU
B	LAN	Connect to a local network for access to the web interface, API and for wireless casting
C	HDBT Out	Output for connecting to compatible HDBaseT receiver such as the RX-500 (only available on APO-210-UC)
D	HDMI Out	HDMI Output (mirrored to the HDBT out)
E	HDMI In	HDMI input for connecting BYOD computer
F	USB-B Host	USB 2.0 Host connection for access to Apollo's speakerphone and any devices connected to the USB 3.0 Device port
G	USB 3.0 Device Port	Connect USB peripheral devices such as a conference camera
H	USB-C In	Multi-purpose port for both A/V and access to Apollo's speakerphone and USB peripherals

Wireless Casting

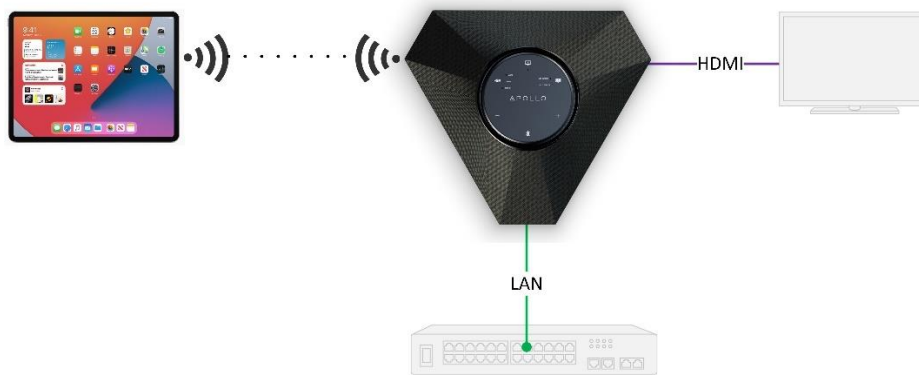
Apollo 200 and 210 support wireless video casting by two methods.

- Native streaming via AirPlay or Miracast
- Streaming via the APO-DG1 USB-C dongle

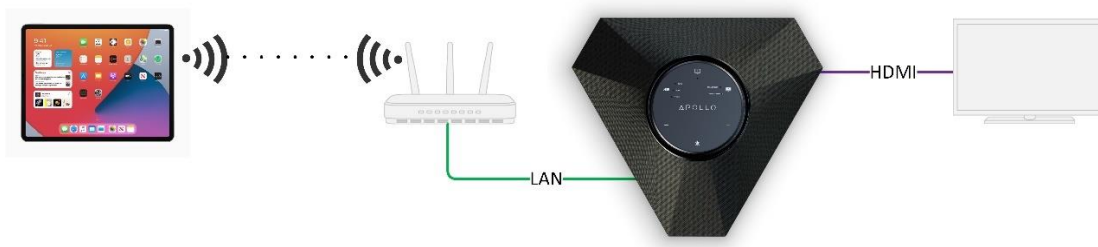
Native Streaming

Apollo has a built-in wireless access point that can be used to cast content via AirPlay or Miracast. There are two modes for the AP.

AP Enabled: This is the default mode. When connecting to Apollo's built-in AP, Apollo acts as a bridge to an existing network via its LAN connection. This is useful if there is no existing Wi-Fi network available and you wish to use the Apollo as the primary wireless AP.



AP Disabled: This mode disables the built-in AP. This mode should be used when you plan to use an existing network's access point(s). This requires a LAN connection to Apollo in order for it to be found and discoverable on the existing network.



Important! Miracast will not work if the client PC has Wi-Fi disabled. Miracast does not operate over a wired LAN connection. Miracast is a P2P connection, meaning that it will always use a direct wireless connection to Apollo even if the AP is disabled, unlike Airplay which can be used over a standard Wi-Fi connection.

Casting Dongle (APO-DG1)

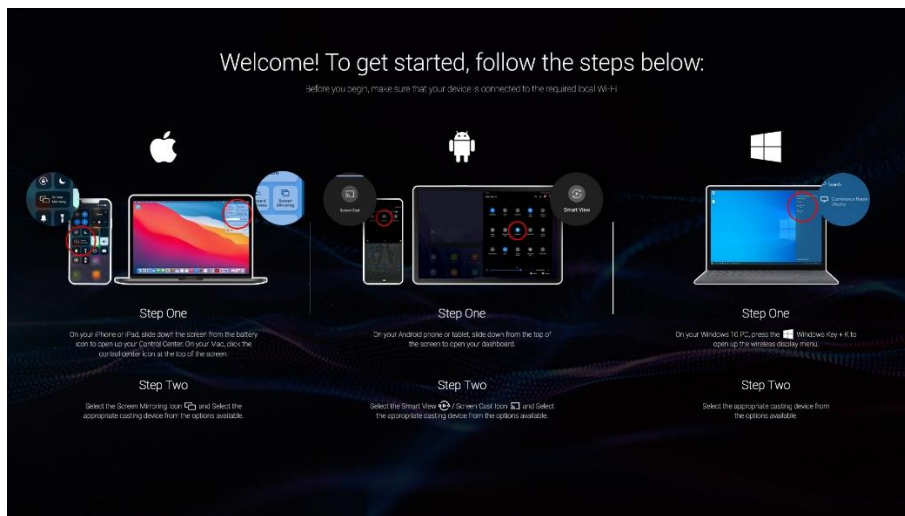
A second option to cast wireless video is via the APO-DG1 USB-C casting dongle. The APO-DG1 is a simple plug and play method to wirelessly share content. The dongle plugs into an available USB-C port on a PC and operates by a button press.

For more details on how to operate and pair the APO-DG1 view the QuickStart Guide at wyrestorm.com



Guide Screen

When Apollo is in a standby state it generates a guide screen which provides simple steps for wireless casting. A custom image can be uploaded to replace this default guide screen via Apollo's web interface.



USB Behavior & Peripherals

Both the APO-200 and APO-210 feature a native USB 3.0 device port. Any peripheral connected to this port becomes available to the personal device connected via the USB-C or USB 2.0 connection. Most commonly this port will be used for connecting conference cameras, such as WyreStorm's [CAM-200-PTZ](#). For long distance runs of USB peripheral devices, consider using the [CAB-UAOC-15](#), which is WyreStorm's 15m USB 3.2 active extension cable.

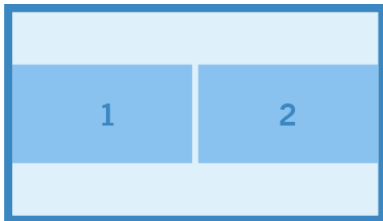
Specifically on the APO-210, peripheral USB devices can be connected over the HDBaseT output. By using USB over HDBaseT, you can utilize a single cable for A/V extension and data between the display location and Apollo. Using USB over HDBaseT does limit connection to USB 2.0 devices only, due to bandwidth limitations. We recommend the RX-500 as the best suited HDBaseT receiver to use with Apollo.

By default, Apollo is set to auto switch the active USB host between the USB-C or USB 2.0 Type A connection. USB auto switching uses LIFO (Last In First Out) meaning, if a new device is connected, Apollo recognizes the new device and can automatically send connection of the speakerphone and USB peripherals to this newly connected source. This capability is great for applications that will have many devices that are 'hot-plugged' during a meeting.

You can also manually adjust this to force a certain USB connection as a fixed host so that newly connected devices do not trigger auto switch, which is great for Zoom or Teams room applications. This is covered in more detail in the Zoom/Teams section of this document.

Dual-View

Up to two separate video sources can be transmitted through Apollo in a split screen view. This can be a combination of wireless & wired devices but cannot be two wired devices. For example, two Airplay devices, or one Miracast & one USB-C, etc... Dual-View uses LIFO (Last In First Out), Apollo will automatically switch to Dual-View when a second device sync is detected and will return to a single full screen image when a second sync is disconnected.



Control

All Apollo models have capacitive touch buttons on the center control panel. A number of options are available such as adjusting volume and muting the microphone. On the APO-200 & APO-210 there are options for changing the multiview mode between split screen or full screen and adjusting the USB host switching mode. A video mute button is also available which will cut the video transmissions to the display, useful if a user needs to access sensitive content on their device such as logging into a website or confidential emails/messages.

Apollo features CEC auto power on/off for connected displays. When a source device is connected for the first time, this can trigger Apollo to send a CEC command to automatically turn on the display, vice versa, after 'x' amount of no sync detection Apollo can power of the display.

Specific to the APO-210, this same auto power function can be sent via RS232 over HDBaseT. Both RS232 and CEC commands can be customized using the integrated web UI.

Apollo also features an API which can be connected to via 3rd-party control systems. Details on this API can be found at wyrestorm.com.

Applications

BYOD Conference Room

A BYOD (Bring Your Own Device) conference room allows users to walk into a conference room with their own computer to host a meeting. All meeting software is hosted on the user's personal device and is not specific to a certain vendor (i.e., Zoom or Teams).

In this application Apollo acts as a unification 'hub' which allows connection of personal devices to have access to Apollo's speakerphone, transmit video to a display and by extension have access to any USB cameras that may be connected to Apollo's USB peripheral device port.



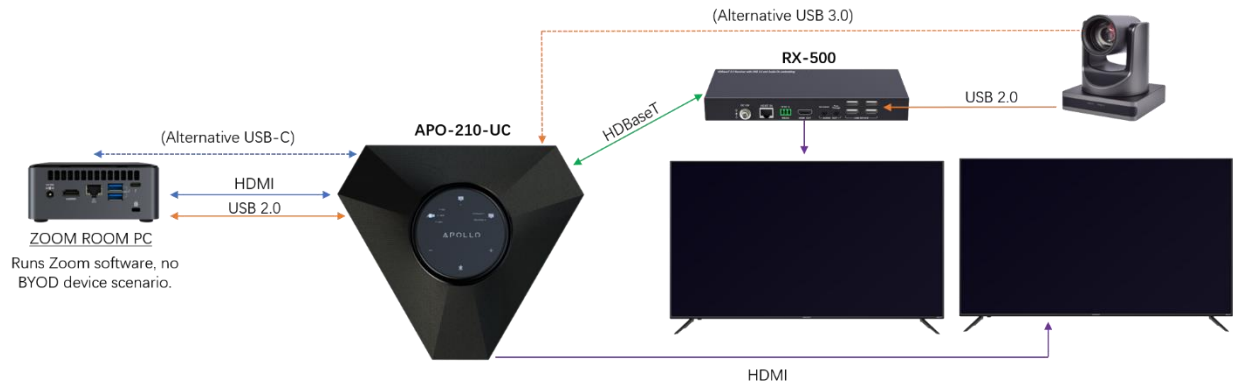
Zoom Room

A Zoom Room differs from a BYOD room in that it will contain a 'room PC' that is designed to host the conference software. In this application, personal devices will not have access to Apollo's speakerphone or peripheral USB cameras as they will be fixed to the 'room PC'.

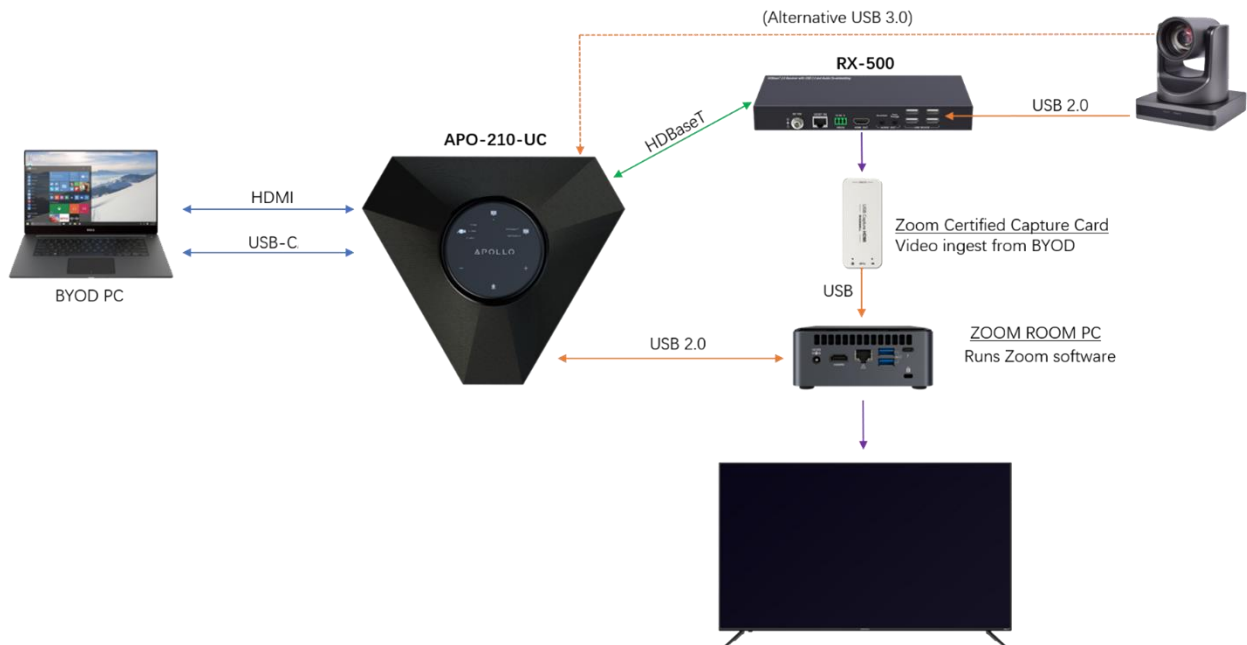
BYOD devices are still supported in a Zoom Room however they are for content sharing only and will require a specific topology in order to work properly. Refer to the diagrams below for suggested topologies for a Zoom Room.

For additional details on Zoom Rooms visit this [Getting Started with Zoom Rooms](#) page.

Zoom Room without BYOD Support



Zoom Room with BYOD Support



Web Interface

The web interface on Apollo features a number of customization and configuration options. To access the web interface simply type the IP address of Apollo into your web browser. The default password is 'admin'.

Wireless Settings

Multiple settings can be adjusted for Apollo's built-in AP such as adjusting the wireless radio channel. In most cases this can be left on default "Auto" and Apollo will choose the best channel available. If there are wireless connectivity issues or Apollo is in an area with many wireless signals, this can be adjusted manually.

As explained in the Wireless Casting section, the built-in AP has multiple operating modes which can be adjusted from this page, including changing the wireless password assigned to the SSID.

Wi-Fi Settings

Mode

2.4G 5G

Channel

Auto

Soft AP

Soft AP

ON OFF

Soft AP Router

ON OFF

Note: This feature depends on the soft AP, to use this feature, please make sure the soft AP is enabled.

Soft AP Password

Note: The soft ap password must be 8~20 characters in length(letters numbers '_' or '-').

The wireless casting capability can be enabled or disabled by toggling the switch in the BYOD section. You can also set a casting pin which will require the user to enter in 4-digit numeric code in order to share content. This pin can either be a fixed number or automatically generated each time a new casting session is established. **Note:** this is only for Airplay or Miracast, it does not disable the built-in AP.

BYOD

BYOD Feature

ON OFF

Access Code

Auto (0000 ~ 9999 or blank)

Display Power Control

Display on/off commands can be sent from Apollo to connected displays either automatically based on sync-detection, or manually through an API command. The sections shown below allow customization of the power command that is sent to a display through RS232 (APO-210 only) or through CEC. Simply enter in the command data required and click the save/apply button, respectively.

RS232 Command for Display Control

Manual

RS232 Command Setting

Baud Rate	<input type="text" value="9600"/>	▼
Parity	<input type="text" value="None"/>	▼
Data Bits	<input type="text" value="8"/>	▼
Stop Bits	<input type="text" value="1"/>	▼
Enter Commands In Hex Or Text	<input checked="" type="radio"/> Hex <input type="radio"/> String	
Display On	<input type="text"/>	
Display Off	<input type="text"/>	<input type="button" value="✓Apply"/>

CEC

Manual

CEC Edit

<input type="text" value="HDMI OUT"/> ▼	Command Testing	<input type="text"/>	<input type="button" value="Send"/>
	Display On	<input type="text"/>	<input type="button" value="Save"/>
	Display Off	<input type="text"/>	<input type="button" value="Save"/>

Note:CEC command just supports Hex format with a maximum of 15 byte(example: 40 04).

Audio & Video Settings

The video tab allows you to set a number of settings including HDMI output resolution, HDCP version, enabled/disable Dual-View and mute the video output.

The screenshot shows the Video Settings panel with four sections:

- HDMI Out Resolution:** A dropdown menu for Resolution, a checked for Auto, and an button.
- Output HDCP:** A dropdown menu for HDMI OUT set to HDCP 1.4.
- Screen Mode:** Two radio buttons: Full Screen (unselected) and Split Screen (selected).
- Video Mute:** A toggle switch currently set to OFF.

The audio tab lets you mute/unmute the microphone array and adjust the speaker volume.

The screenshot shows the Audio Settings panel with two sections:

- Mic Mute:** A toggle switch currently set to OFF.
- Volume:** The volume is set to 50, with plus (+) and minus (-) buttons for adjustment.

API & Network Security

Depending on application requirements Apollo can be configured to use secure network communication methods for its API and web interface such as enabling Telnet over TLS & HTTPS.

The screenshot shows the Network Security settings panel with three sections:

- Telnet over TLS:** A toggle switch currently set to OFF.
- Change TLS Password:** Three input fields for Old Password, New Password, and Confirm New Password, followed by an button.
- HTTPS:** A toggle switch currently set to ON, and a **Show IP address on Guide screen** toggle switch currently set to OFF.

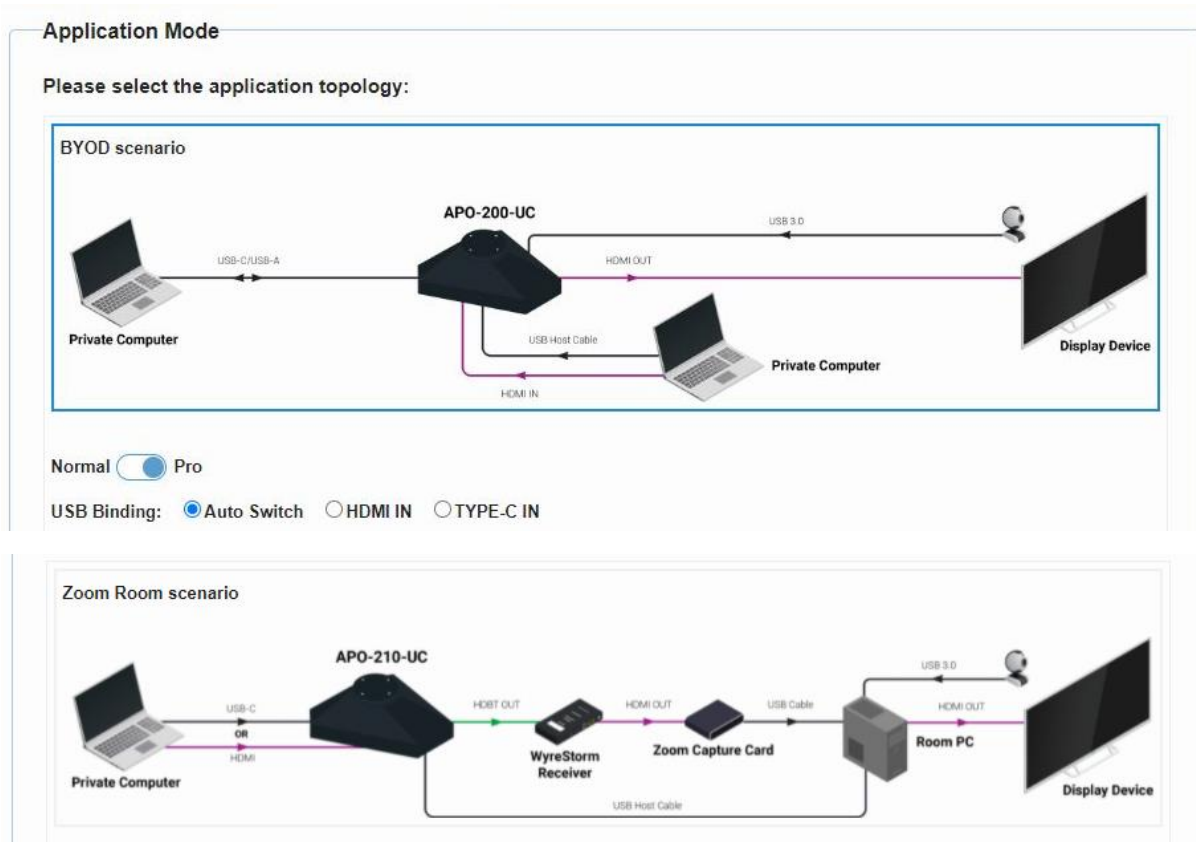
Application Modes

This section allows you to fix Apollo's behavior based on the type of application it is used in.

BYOD scenario is for traditional meeting spaces. In this mode the USB host will auto switch when a BYOD computer is connected. The active USB host depends on the video input being used. This mode should be used when the meeting software (such as Teams or Zoom) will be running on a user's personal device.

Zoom Room scenario is designed to support a 'room PC' that is dedicated to running meeting software. This mode restricts Apollo to only use the USB Type B port as the active host connection. BYOD devices will only passthrough video in this mode.

The **Pro & Normal toggle button** restricts certain functionality from being adjusted by the end-user. Pro will allow all functions to work. Normal will disable the split screen / full screen & USB host switching buttons on top of Apollo and in the web interface.



Note: In 'Zoom Room' scenario mode DisplayLink is not supported, only USB-C or HDMI connections can be used.

Key Lock & Factory Reset

Apollo features two secret options that can be performed by pressing and holding a combination of buttons on the top control panel.

Key lock will disable all the control panel buttons. This can be useful if a 3rd-party control panels will be responsible for controlling Apollo, or to prevent accidental presses if moving the unit or cleaning the buttons.

To enable key lock, press and hold the **volume –** and **volume +** keys together for at least 5 seconds until the LED ring flashes red. To disabled key lock, perform the same action until the LED ring flashes blue.



If Apollo becomes inaccessible on the network and a factory reset cannot be performed via the web interface, you can also press and hold the **mic mute** and **video mute** buttons together for at least 5 seconds. This will perform a hard reset and default all settings to factory.

