

# AirMedia® Series 3

Product Manual
Crestron Electronics, Inc.

#### **Original Instructions**

The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

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# **Overview**

AirMedia® Series 3 devices enable secure wireless collaboration in the modern digital workspace. Install the devices in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment. This product manual discusses the requirements, configuration instructions, and operating instructions for AirMedia Series 3 devices.

AirMedia Series 3 receivers are available in the following models:

- AM-3000-WF: AirMedia Receiver 3000 with Wi-Fi® Network Connectivity
- AM-3000-WF-I: AirMedia Receiver 3000 with Wi-Fi® Network Connectivity, International
- AM-3100-WF: AirMedia Receiver 3100 with Wi-Fi® Network Connectivity
- AM-3100-WF-I: AirMedia Receiver 3100 with Wi-Fi® Network Connectivity, International
- AM-3200: AirMedia Receiver 3200
- AM-3200-WF: AirMedia Receiver 3200 with Wi-Fi® Network Connectivity
- AM-3200-WF-I: AirMedia Receiver 3200 with Wi-Fi® Network Connectivity, International

AirMedia Series 3 Connect devices are available in the following models:

- AM-TX3-100: AirMedia Series 3 Connect Adaptor
- AM-TX3-100-I: AirMedia Series 3 Connect Adaptor, International

AirMedia Series 3 devices are available in the following kits:

- AM3-111: AirMedia Series 3 Kit with AM-3100-WF Receiver and AM-TX3-100 Adaptor
- AM3-111-I: AirMedia Series 3 Kit with AM-3100-WF Receiver and AM-TX3-100 Adaptor, International
- <u>AM3-212</u>: AirMedia Series 3 Kit with AM-3200-WF Receiver, two AM-TX3-100 Adaptors, and Cradle
- <u>AM3-212-I</u>: AirMedia Series 3 Kit with AM-3200-WF Receiver, two AM-TX3-100 Adaptors, and Cradle, International
- <u>UC-SB-P50-AM-WF KIT</u>: AirMedia Series 3 Conferencing System with AM-3200-WF and Jabra® PanaCast 50 Video Bar
- <u>UC-SB-P50-AM-WF-I KIT</u>: AirMedia Series 3 Conferencing System with AM-3200-WF-I and Jabra® PanaCast 50 Video Bar, International

For more information on receiver features and capabilities, refer to Feature Comparison on page 2.

For security and deployment information, refer to <u>AirMedia Presentation Gateway Security</u> Reference Guide (Doc 7693).

## Feature Comparison

FEATU	JRE	AM-3000-WF	AM-3100-WF	AM-3200	AM-3200-WF
AirMedia Series	3 technology <sup>1</sup>	✓	✓	✓	✓
AirMedia Outpu	t Resolution <sup>2</sup>	1080p60	1080p60	1080p60	1080p60
AirMedia Device	Support				
	ndows® OS I versions)	✓	✓	✓	✓
Мо	ıc® devices	✓	✓	✓	✓
iPo	ıd® devices	✓	✓	✓	✓
iPh	one® devices	✓	✓	✓	✓
iOS	6® devices	✓	✓	✓	✓
	droid™ vices	✓	✓	✓	✓
AirMedia Screer Support	n Mirroring				
	ndows® OS I versions)	✓	✓	✓	✓
Мс	ıc devices	✓	✓	✓	✓
iPo	ıd devices	✓	✓	✓	✓
iPh	one devices	✓	✓	✓	✓
iOS	6 devices	✓	✓	✓	✓
An	droid devices	✓	✓	✓	✓
AirMedia Video Playback	+ Audio				
	-Windows I versions)	✓	✓	✓	✓
оре	rome OS™ erating etem <sup>3</sup>	✓	✓	✓	✓
Мо	ıc devices	✓	✓	✓	✓
iPo	ıd devices	✓	✓	✓	✓
iPh	one devices	✓	✓	✓	✓
iOS	6 devices	✓	✓	✓	✓
	droid devices	*	<b>x</b>	*	×

FE	ATURE	AM-3000-WF	AM-3100-WF	AM-3200	AM-3200-WF
	DRM Content Support (Netflix, etc.)	x	×	×	×
	Device Internet Connection Required for AirPlay® Video Push	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Security					
	AES-128/TLS security <sup>4</sup>	✓	✓	✓	<b>✓</b>
	802.1X	✓	✓	✓	✓
	Active Directory® Authentication	<b>√</b>	<b>✓</b>	<b>✓</b>	✓
Crestron® Co	ntrol				
	.AV Framework™ Platform	✓	✓	✓	✓
	XiO Cloud® Service	✓	✓	✓	✓
	Crestron Studio® Software	N/A	N/A	N/A	N/A
	SIMPL Windows	✓	✓	✓	✓
	SIMPL#	Future release	Future release	Future release	Future release
	Virtual Control (VC-4)	✓	✓	✓	✓
Video Inputs					
	HDMI® Input	×	×	1	1
	HDMI Resolution	×	×	1080p60	1080p60
	HDMI HDCP	×	×	HDCP 1.4	HDCP 1.4
Video Output	:S				
	HDMI Output	1	1	1	1
	HDMI Resolution <sup>5</sup>	4K60	4K60	4K60	4K60

FEATURE	AM-3000-WF	AM-3100-WF	AM-3200	AM-3200-WF
HDMI HDCP	HDCP 2.2	HDCP 2.2	HDCP 2.2	HDCP 2.2
Touch Screen Support	External	External	External	External
PoE Occupancy Sensor ( <u>CEN-ODT-C-POE</u> )	<b>√</b>	✓	✓	✓
Other Interfaces				
COM/IR Support	×	×	✓	✓
CEC	✓	✓	✓	✓
Power Over Ethernet	✓	✓	✓	✓
Direct Connect Scheduling Integration <sup>6</sup>				
Microsoft Exchange Server® or Microsoft 365® Software	✓	✓	<b>✓</b>	<b>✓</b>
Google Calendar™ Service	✓	✓	✓	✓
General Features				
AirMedia Canvas	✓	<b>√</b>	✓	✓
Airmedia Canvas Control	<b>√</b>	<b>√</b>	✓	✓
Control System Interface	✓	✓	✓	✓
Wireless Conferencing	×	✓	✓	<b>✓</b>
Appspace <sup>®</sup> Application	✓	✓	✓	✓
Wireless Access Point Mode	✓	✓	×	✓
Moderator Mode	Future release	Future release	Future release	Future release
AirMedia Connect Adaptor	✓	✓	×	✓

FEATURE	AM-3000-WF	AM-3100-WF	AM-3200	AM-3200-WF
YouTube® software Pushmode Support	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Mounting	Freestanding Surface	Freestanding Surface	Freestanding Surface Rack	Freestanding Surface Rack
Dimensions	Height: 1.21 in. (31 mm) Width: 5 in. (127 mm) Depth: 5 in. (127 mm)	Height: 1.21 in. (31 mm) Width: 5 in. (127 mm) Depth: 5 in. (127 mm)	Height: 1.26 in. (33 mm) Width: 7.40 in. (188 mm) Depth: 6.93 in. (177 mm)	Height: 1.26 in. (33 mm) Width: 7.40 in. (188 mm) Depth: 6.93 in. (177 mm)

#### Notes:

- 1. To compare iterations of AirMedia technology, refer to the <u>AirMedia Presentation Gateway Security Reference</u> Guide (Doc 7693).
- 2. All video inputs are scaled to the HDMI output resolution.
- 3. The AirMedia Extension for Google Chrome OS relies on web technologies for screen sharing that are built into the web browser. Performance variations with motion video (quality and frame rate) will be observed based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (ex. High motion video).
- 4. TLS 1.3 is not currently supported.
- 5. All video inputs are scaled to the HDMI output resolution.
- 6. Connection via Crestron Fusion® software may allow additional providers.

# **Features**

Refer to the following sections for more information on the features provided by Series 3 AirMedia devices and bundles.

- AM-3000-WF(-I) Features on page 7
- AM-3100-WF(-I) Features on page 10
- AM-3200 Features on page 13
- AM-3200-WF(-I) Features on page 17
- AM-TX3-100(-I) Features on page 21
- UC-SB-P50-AM-WF(-I) KIT Features on page 23

# AM-3000-WF(-I) Features

The AirMedia® Receiver 3000-WF(-I) enables secure wireless collaboration in the modern digital workspace. Easy to deploy and manage, install the Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Complete room solution enables secure wireless AirMedia® presentation from laptops, smartphones, tablet devices, and AirMedia Connect Adapters
- Enables smart automation via intelligent display control, personal device control, occupancy detection, and integration into a broader connected ecosystem
- Enterprise-grade security and content encryption protects privacy and ensures compliance with IT policies
- XiO Cloud® service support for remote provisioning and management
- Integrates with Appspace® digital signage software platform for content display
- Supports content sharing of four simultaneous sources for multi-user collaboration with AirMedia Canvas.

### Connect and Present

The AirMedia Series 3 Receiver can be installed beneath, beside, or behind a display to implement a smart room with wireless collaboration. The receiver features AirMedia wireless presentation capability, and an HDMI® output that connects to a display (up to 4K), and various USB interfaces for wireless conferencing and touch interactivity. Connect your laptop, smart phone, tablet, AirMedia Connect Adaptor, or other source type to instantly present the source image on the display.

Connect the adapter to a personal device via USB-C and share content with resolutions up to 4K30 in seconds. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (one included) to a single receiver to maximize the space's collaboration abilities.

## AirMedia Wireless Presentation

With AirMedia technology, users can wirelessly present content from laptops, smartphones, and tablet devices via built in Wi-Fi® network capabilities or via an external Wi-Fi wireless network. Present content from desktop or laptop computers using downloadable client software, the AirMedia extension for Google Chrome™, or Miracast® screen mirroring technology (Windows 10 computers only). Present content from Android™ and iOS® mobile devices with the AirMedia app.

For more information about AirMedia, visit www.crestron.com/airmedia.<sup>1</sup>

## **Multi-Source Presentation**

Present up to four sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present multiple sources simultaneously with the AirMedia Canvas feature. AirMedia Canvas supports two sources natively. Additional sources will be supported with a software license (sold separately, coming soon). To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present up to nine sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active sources, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display. A software license (sold separately) is required to present up to nine sources simultaneously. Without a software license, up to two sources can present simultaneously.

To add AirMedia Canvas features to your system, select the <u>XXXXX</u> license (available separately).

## **Enhanced Onscreen Experience**

When no source is connected, the AM-3000-WF displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft Exchange Server® (for Outlook® and Microsoft 365® software users), Google Calendar™, or Crestron Fusion® room scheduling software allows the space's availability and meeting details to appear onscreen. As the meeting progresses, notifications appear periodically to indicate both the time left in the meeting and the next scheduled event. Pop-up messages sent from Crestron Fusion may also appear in the event of an emergency or to deliver an important announcement.

#### Add-on Control Options

Add a Power over Ethernet occupancy sensor (<u>CEN-ODT-C-POE</u>) to control display or digital signage on/off based on room occupancy or vacancy.

## Native Appspace Functionality

Integrate the Appspace digital signage application with the AM-3000-WF. The AM-3000-WF can display content from an Appspace digital signage channel when no presentation is being made or when the room is not occupied.

#### Workplace Communications

Integration with the Appspace® digital signage application allows the AM-3000-WF to show Appspace content on a connected display when a space is not in use. Alternatively, the device can be configured to display content from a generic web URL. To increase the storage capacity for digital signage applications, insert a microSD card into the AM-3000-WF.

## Crestron Fusion Room Monitoring

Presentation spaces can be managed and centrally monitored through the Crestron Fusion enterprise management service. By adding an optional occupancy sensor (CEN-ODT-C-POE), the AM-3000-WF can report and log when people are in the space, turn the display on and off accordingly, and make unused spaces available for new bookings. Crestron Fusion software supports room scheduling, and can integrate with a variety of third-party calendaring applications. Instant alerts notify the help desk to rapidly resolve any problems and maximize uptime and workflow.

For more information about Crestron Fusion, visit www.crestron.com/fusion.

## XiO Cloud® Provisioning and Management Service

The AM-3000-WF is compatible with the XiO Cloud service, which enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service allows for system alerts and network management and provisioning.

For more information, visit www.crestron.com/xiocloud.

## **Enterprise-Grade Security**

The AirMedia Presentation System is an enterprise-grade solution that can be deployed across hundreds of spaces and set up easily using a web browser, or XiO Cloud software. Employing standard network security protocols such as 802.1x network access control, Active Directory® authentication, and AES content encryption, the AM-3000-WF protects privacy and ensures compliance with your organization's IT policies.

## Hybrid Wireless Connectivity with the AirMedia Connect Adaptor

As an alternative to software based AirMedia wireless presentation, the AM-3000-WF is compatible with <u>AirMedia Series 3 Connect Adaptors</u>. Simply plug the adaptor into a personal device's USB-C® port to connect to the AM-3000-WF. The adaptor communicates wirelessly with the system using built-in Wi-Fi network capabilities to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors to a single receiver to maximize the space's collaboration abilities.

As an alternative to software based AirMedia wireless presentation, the AM-3000-WF includes two AirMedia Connect Adaptors (AM-TX3-100-I). Simply plug each adaptor into a personal device's USB-C® port to connect to the AirMedia Receiver. The adaptors communicate wirelessly with the system using built-in Wi-Fi to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (two included) to a single receiver to maximize the space's collaboration abilities.

#### Note:

AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
client software and mobile device apps are available for download at www.crestron.com/airmedia.

# AM-3100-WF(-I) Features

The AirMedia® Receiver 3100-WF(-I) enables secure wireless collaboration in the modern digital workspace. Easy to deploy and manage, install the Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Complete room solution enables secure wireless AirMedia® presentation from laptops, smartphones, tablet devices, and AirMedia Connect Adapters
- Enables smart automation via intelligent display control, personal device control, occupancy detection, and integration into a broader connected ecosystem
- Enterprise-grade security and content encryption protects privacy and ensures compliance with IT policies
- XiO Cloud® service support for remote provisioning and management
- Integrates with Appspace® digital signage software platform for content display
- Supports content sharing of four simultaneous sources for multi-user collaboration with AirMedia Canvas.
- Wireless conferencing and presentation allows for collaboration with in-room and remote participants

## Connect and Present

The AirMedia Series 3 Receiver can be installed beneath, beside, or behind a display to implement a smart room with wireless collaboration. The receiver features AirMedia wireless presentation capability an HDMI® output that connects to a display (up to 4K). Connect your laptop, smart phone, tablet, AirMedia Connect Adaptor, or other source type to instantly present the source image on the display.

## AirMedia Wireless Presentation

With AirMedia technology, users can wirelessly present content from laptops, smartphones, and tablet devices via built in Wi-Fi® network capabilities or via an external Wi-Fi wireless network. Present content from desktop or laptop computers using downloadable client software the AirMedia extension for Google Chrome™. Present content from Android™ and iOS® mobile devices with the AirMedia app.

For more information about AirMedia, visit <a href="www.crestron.com/airmedia.1">www.crestron.com/airmedia.1</a>

#### **Multi-Source Presentation**

Present up to four sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

## Wireless Conferencing

Wireless conferencing provides a premium collaboration experience by enabling video calling from almost any device.<sup>2</sup> The AirMedia application provides wireless access to a host of connected conferencing peripherals, such as soundbars, cameras, or speakerphones. When using the AirMedia application, peripherals are immediately available on the user's laptop for use in Microsoft Teams® or Zoom™ software.

## **Enhanced Onscreen Experience**

When no source is connected, the AM-3100-WF displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft Exchange Server® (for Outlook® and Microsoft 365® software users), Google Calendar™, or Crestron Fusion® room scheduling software allows the space's availability and meeting details to appear onscreen. As the meeting progresses, notifications appear periodically to indicate both the time left in the meeting and the next scheduled event. Pop-up messages sent from Crestron Fusion may also appear in the event of an emergency or to deliver an important announcement.

#### Add-on Control Options

Add a Power over Ethernet occupancy sensor (<u>CEN-ODT-C-POE</u>) to control display or digital signage on/off based on room occupancy or vacancy.

## XiO Cloud® Provisioning and Management Service

The AM-3100-WF is compatible with the XiO Cloud service, which enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service allows for system alerts and network management and provisioning.

For more information, visit www.crestron.com/xiocloud.

## Native Appspace Functionality

Integrate the Appspace digital signage application with the AM-3100-WF. The AM-3100-WF can display content from an Appspace digital signage channel when no presentation is being made or when the room is not occupied.

## Crestron Fusion Room Monitoring

Presentation spaces can be managed and centrally monitored through the Crestron Fusion enterprise management service. By adding an optional occupancy sensor (CEN-ODT-C-POE), the AM-3100-WF can report and log when people are in the space, turn the display on and off accordingly, and make unused spaces available for new bookings. Crestron Fusion software supports room scheduling, and can integrate with a variety of third-party calendaring applications. Instant alerts notify the help desk to rapidly resolve any problems and maximize uptime and workflow.

For more information about Crestron Fusion, visit www.crestron.com/fusion.

## **Enterprise-Grade Security**

The AirMedia Presentation System is an enterprise-grade solution that can be deployed across hundreds of spaces and set up easily using a web browser, or XiO Cloud software. Employing standard network security protocols such as 802.1x network access control, Active Directory® authentication, and AES content encryption, the AM-3100-WF protects privacy and ensures compliance with your organization's IT policies.

## Hybrid Wireless Connectivity with the AirMedia Connect Adaptor

As an alternative to software based AirMedia wireless presentation, the AM-3100-WF is compatible with <u>AirMedia Series 3 Connect Adaptors</u>. Simply plug the adaptor into a personal device's USB-C® port to connect to the AM-3100-WF. The adaptor communicates wirelessly with the system using built-in Wi-Fi network capabilities to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors to a single receiver to maximize the space's collaboration abilities.

As an alternative to software based AirMedia wireless presentation, the AM-3100-WF includes two AirMedia Connect Adaptors (AM-TX3-100-I). Simply plug each adaptor into a personal device's USB-C® port to connect to the AirMedia Receiver. The adaptors communicate wirelessly with the system using built-in Wi-Fi to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (two included) to a single receiver to maximize the space's collaboration abilities.

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an
  external Wi-Fi wireless access point (not included). Laptops may alternately connect to AirMedia using a wired
  Ethernet connection. Full-motion video performance is dependent upon the performance of the network and the
  sending device. Computer client software and mobile device apps are available for download at
  www.crestron.com/airmedia.
- 2. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.

## AM-3200 Features

The AirMedia® Receiver 3200 enables secure wireless collaboration in the modern digital workspace. Easy to deploy and manage, install the Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Complete room solution enables secure presentation from laptops, smartphones, and tablet devices using either a wired HDMI® connection or a wireless AirMedia® connection
- Integration friendly features such as HDMI® input, dual LAN, balanced audio output, and display control via RS-232 and IR
- Enables smart automation via intelligent display control, personal device control, occupancy detection, and integration into a broader connected ecosystem
- Enterprise-grade security and content encryption protects privacy and ensures compliance with IT policies
- XiO Cloud® service support for remote provisioning and management
- Integrates with Appspace® digital signage software platform for content display
- Supports content sharing of four simultaneous sources for multi-user collaboration with AirMedia Canvas.
- Wireless conferencing and presentation allows for collaboration with in-room and remote participants

#### Connect and Present

The AirMedia Series 3 Receiver can be installed beneath, beside, or behind a wall-mount display and enables a smart room with wireless collaboration. The receiver features AirMedia wireless presentation capability, an HDMI® output that connects to a display (up to 4K), and an HDMI input., and various USB interfaces for wireless conferencing. Connect your laptop, smart phone, tablet, or other source type to instantly present the source image on the display.

Connect the adapter to a personal device via USB-C and share content with resolutions up to 4K30 in seconds. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (one included) to a single receiver to maximize the space's collaboration abilities.

## AirMedia Wireless Presentation

With AirMedia technology, users can wirelessly present content from laptops, smartphones, and tablet devices via built in Wi-Fi® network capabilities or via an external Wi-Fi® wireless network.

Present content from desktop or laptop computers using downloadable client software, or the AirMedia extension for the Google Chrome<sup> $\mathsf{TM}$ </sup> web browser. Present content from Android<sup> $\mathsf{TM}$ </sup> and iOS<sup> $\mathsf{SM}$ </sup> mobile devices with the AirMedia app.

For more information about AirMedia, visit www.crestron.com/airmedia.<sup>1</sup>

#### **HDMI** Connectivity

In addition to AirMedia, the AM-3200 includes an HDMI input for direct connection of a local source, such as a Mini PC, or a portable laptop computer via an optional wall plate or cable. The HDMI input supports HD 1080p/60 signals.<sup>2</sup>

#### **Multi-Source Presentation**

Present up to four sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present multiple sources simultaneously with the AirMedia Canvas feature. AirMedia Canvas supports two sources natively. Additional sources will be supported with a software license (sold separately, coming soon). To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios.<sup>3</sup> Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present up to nine sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active sources, the type of sources, and their aspect ratios. <sup>4</sup> Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display. A software license (sold separately) is required to present up to nine sources simultaneously. Without a software license, up to two sources can present simultaneously.

To add AirMedia Canvas features to your system, select the <u>XXXXX</u> license (available separately).

## Wireless Conferencing

Wireless conferencing provides a premium collaboration experience by enabling video calling from almost any device.<sup>4</sup> The AirMedia application provides wireless access to a host of connected conferencing peripherals, such as soundbars, cameras, or speakerphones. When using the AirMedia application, peripherals are immediately available on the user's laptop for use in Microsoft Teams<sup>®</sup> or Zoom™ software, or in other applications.

To add wireless conferencing to your AirMedia system, select the <u>XXXXX</u> license (available separately).

## **Enhanced Onscreen Experience**

When no source is connected, the AM-3200 displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft Exchange Server® (for Outlook® and Microsoft 365® software users), Google Calendar™, or Crestron Fusion® room scheduling software allows the space's availability and meeting details to appear onscreen. As the meeting progresses, notifications appear periodically to indicate both

the time left in the meeting and the next scheduled event. Pop-up messages sent from Crestron Fusion may also appear in the event of an emergency or to deliver an important announcement.

## Add-on Control Options

Add a Power over Ethernet occupancy sensor (<u>CEN-ODT-C-POE</u>) to control display or digital signage on/off based on room occupancy or vacancy.

## XiO Cloud® Provisioning and Management Service

The AM-3200 is compatible with the XiO Cloud service, which enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service allows for system alerts and network management and provisioning.

For more information, visit www.crestron.com/xiocloud.

## Crestron Fusion Room Monitoring

Presentation spaces can be managed and centrally monitored through the Crestron Fusion enterprise management service. By adding an optional occupancy sensor (CEN-ODT-C-POE), the AM-3200 can report and log when people are in the space, turn the display on and off accordingly, and make unused spaces available for new bookings. Crestron Fusion software supports room scheduling, and can integrate with a variety of third-party calendaring applications. Instant alerts notify the help desk to rapidly resolve any problems and maximize uptime and workflow.

For more information about Crestron Fusion, visit www.crestron.com/fusion.

## Native Appspace Functionality

Integrate the Appspace digital signage application with the AM-3200. The AM-3200 can display content from an Appspace digital signage channel when no presentation is being made or when the room is not occupied.

## Workplace Communications

Integration with the Appspace® digital signage application allows the AM-3200 to show Appspace content on a connected display when a space is not in use. Alternatively, the device can be configured to display content from a generic web URL. To increase the storage capacity for digital signage applications, insert a microSD card into the AM-3200.

## **Enterprise-Grade Security**

The AirMedia Presentation System is an enterprise-grade solution that can be deployed across hundreds of spaces and set up easily using a web browser, or XiO Cloud software. Employing standard network security protocols such as 802.1x network access control, Active Directory® authentication, and AES content encryption, the AM-3200 protects privacy and ensures compliance with your organization's IT policies.

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at www.crestron.com/airmedia.
- 2. Using an appropriate adapter or interface cable, the HDMI input can support DVI and Dual-Mode DisplayPort sources, and the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.

- 3. When the AirMedia Canvas feature is enabled, the 4:2:0 color space is used for high definition sources connected to the HDMI input port. When the AirMedia Canvas feature is disabled, the 4:4:4 color space is used. If the 4:4:4 color space is required by sources connected to the HDMI input port, the AirMedia Canvas feature should be disabled.
- 4. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.

# AM-3200-WF(-I) Features

The AirMedia® Receiver 3200 (AM-3200-WF) enables secure wireless collaboration in the modern digital workspace. Easy to deploy and manage, install the Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Complete room solution enables secure presentation from laptops, smartphones, tablet devices, and AirMedia Connect Adapters using either a wired HDMI® connection or a wireless AirMedia® connection
- Integration friendly features such as HDMI® input, dual LAN, balanced audio output, and display control via RS-232 and IR
- Enables smart automation via intelligent display control, personal device control, occupancy detection, and integration into a broader connected ecosystem
- Enterprise-grade security and content encryption protects privacy and ensures compliance with IT policies
- XiO Cloud® service support for remote provisioning and management
- Integrates with Appspace® digital signage software platform for content display
- Supports content sharing of four simultaneous sources for multi-user collaboration with AirMedia Canvas.
- Wireless conferencing and presentation allows for collaboration with in-room and remote participants

### Connect and Present

The AirMedia Series 3 Receiver can be installed beneath, beside, or behind a wall-mount display and enables a smart room with wireless collaboration. The receiver features AirMedia wireless presentation capability, an HDMI® output that connects to a display (up to 4K), and an HDMI input., and various USB interfaces for wireless conferencing. Connect your laptop, smart phone, tablet, AirMedia Connect adaptor, or other source type to instantly present the source image on the display.

Connect the adapter to a personal device via USB-C and share content with resolutions up to 4K30 in seconds. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (one included) to a single receiver to maximize the space's collaboration abilities.

#### AirMedia Wireless Presentation

With AirMedia technology, users can wirelessly present content from laptops, smartphones, and tablet devices via built in Wi-Fi® network capabilities or via an external Wi-Fi wireless network. Present content from desktop or laptop computers using downloadable client software, the AirMedia extension for Google Chrome™, or Miracast® screen mirroring technology (Windows 10 computers only). Present content from Android™ and iOS® mobile devices with the AirMedia app.

For more information about AirMedia, visit www.crestron.com/airmedia.<sup>1</sup>

## **HDMI** Connectivity

In addition to AirMedia, the AM-3200-WF includes an HDMI input for direct connection of a local source, such as a Mini PC, or a portable laptop computer via an optional wall plate or cable. The HDMI input supports HD 1080p/60 signals.<sup>2</sup>

### Multi-Source Presentation

Present up to four sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present multiple sources simultaneously with the AirMedia Canvas feature. AirMedia Canvas supports two sources natively. Additional sources will be supported with a software license (sold separately, coming soon). To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present up to nine sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active sources, the type of sources, and their aspect ratios. <sup>4</sup> Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display. A software license (sold separately) is required to present up to nine sources simultaneously. Without a software license, up to two sources can present simultaneously.

To add AirMedia Canvas features to your system, select the <u>XXXXX</u> license (available separately).

## Wireless Conferencing

Wireless conferencing provides a premium collaboration experience by enabling video calling from almost any device.<sup>4</sup> The AirMedia application provides wireless access to a host of connected conferencing peripherals, such as soundbars, cameras, or speakerphones. When using the AirMedia application, peripherals are immediately available on the user's laptop for use in Microsoft Teams<sup>®</sup> or Zoom™ software, or in other applications.

To add wireless conferencing to your AirMedia system, select the  $\underline{XXXXX}$  license (available separately).

#### **Enhanced Onscreen Experience**

When no source is connected, the AM-3200-WF displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft

Exchange Server® (for Outlook® and Microsoft 365® software users), Google Calendar™, or Crestron Fusion® room scheduling software allows the space's availability and meeting details to appear onscreen. As the meeting progresses, notifications appear periodically to indicate both the time left in the meeting and the next scheduled event. Pop-up messages sent from Crestron Fusion may also appear in the event of an emergency or to deliver an important announcement.

## Add-on Control Options

Add a Power over Ethernet occupancy sensor (<u>CEN-ODT-C-POE</u>) to control display or digital signage on/off based on room occupancy or vacancy.

## XiO Cloud® Provisioning and Management Service

The AM-3200-WF is compatible with the XiO Cloud service, which enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service allows for system alerts and network management and provisioning.

For more information, visit www.crestron.com/xiocloud.

## Native Appspace Functionality

Integrate the Appspace digital signage application with the AM-3200-WF. The AM-3200-WF can display content from an Appspace digital signage channel when no presentation is being made or when the room is not occupied.

## Workplace Communications

Integration with the Appspace® digital signage application allows the AM-3200-WF to show Appspace content on a connected display when a space is not in use. Alternatively, the device can be configured to display content from a generic web URL. To increase the storage capacity for digital signage applications, insert a microSD card into the AM-3200-WF.

## Crestron Fusion Room Monitoring

Presentation spaces can be managed and centrally monitored through the Crestron Fusion enterprise management service. By adding an optional occupancy sensor (CEN-ODT-C-POE), the AM-3200-WF can report and log when people are in the space, turn the display on and off accordingly, and make unused spaces available for new bookings. Crestron Fusion software supports room scheduling, and can integrate with a variety of third-party calendaring applications. Instant alerts notify the help desk to rapidly resolve any problems and maximize uptime and workflow.

For more information about Crestron Fusion, visit www.crestron.com/fusion.

## **Enterprise-Grade Security**

The AirMedia Presentation System is an enterprise-grade solution that can be deployed across hundreds of spaces and set up easily using a web browser, or XiO Cloud software. Employing standard network security protocols such as 802.1x network access control, Active Directory® authentication, and AES content encryption, the AM-3200-WF protects privacy and ensures compliance with your organization's IT policies.

### Hybrid Wireless Connectivity with the AirMedia Connect Adaptor

As an alternative to software based AirMedia wireless presentation, the AM-3200-WF is compatible with <u>AirMedia Series 3 Connect Adaptors</u>. Simply plug the adaptor into a personal device's USB-C® port to connect to the AM-3200-WF. The adaptor communicates wirelessly with the system using built-in Wi-Fi network capabilities to display content up to a 4K30

resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors to a single receiver to maximize the space's collaboration abilities.

As an alternative to software based AirMedia wireless presentation, the AM-3200-WF includes two AirMedia Connect Adaptors (AM-TX3-100-I). Simply plug each adaptor into a personal device's USB-C® port to connect to the AirMedia Receiver. The adaptors communicate wirelessly with the system using built-in Wi-Fi to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (two included) to a single receiver to maximize the space's collaboration abilities.

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at www.crestron.com/airmedia.
- 2. Using an appropriate adapter or interface cable, the HDMI input can support DVI and Dual-Mode DisplayPort sources, and the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.
- 3. When the AirMedia Canvas feature is enabled, the 4:2:0 color space is used for high definition sources connected to the HDMI input port. When the AirMedia Canvas feature is disabled, the 4:4:4 color space is used. If the 4:4:4 color space is required by sources connected to the HDMI input port, the AirMedia Canvas feature should be disabled.
- 4. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.

# AM-TX3-100(-I) Features

The AirMedia Connect Adaptor (<u>AM-TX3-100</u>) enables wireless presentation and conferencing when paired with a Wi-Fi® network capable AirMedia Series 3 Receiver. Deploy the AM-TX3-100 alongside an AirMedia Series 3 Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Connects to a personal device using an integrated USB-C® connector
- Shares content up to 4K30 resolution within seconds of connecting to a personal device
- Provides access to Wireless Conferencing peripherals connected to a paired AM-3100-WF or AM-3200-WF AirMedia Series 3 Receiver<sup>1</sup>
- Wirelessly pairs with a Wi-Fi® network capable AirMedia Series 3 Receiver
- Pair up to eight AirMedia Connect devices with a single Wi-Fi® network capable AirMedia Series 3 Receiver
- Includes backlit capacitive touch buttons for convenient content sharing control
- · No software or driver installation required

## A System Solution

The AM-TX3-100 works alongside a Wi-Fi network and Wireless Conferencing capable AirMedia Series 3 Receiver for a complete system solution. Built-in Wi-Fi network connectivity creates a point-to-point network between the adaptor and the receiver for seamless connectivity without interruption. Easily pair up to eight adaptors to a single receiver. Store up to four AirMedia® Series 3 Connect Adaptors in the AM-TX3-100-CRADLE (sold separately).

## Simple Connectivity

Using the integrated USB-C® cable, connect the AM-TX3-100 to a personal device for seamless wireless presentation on an in-room display. Because USB-C offers native video communication, no software installation is required on the personal device.

## Seamless Wireless Conferencing<sup>1</sup>

When the AM-TX3-100 is connected to a personal device via USB-C or USB-A, that device can access peripherals<sup>2</sup> connected to a paired Wireless Conferencing-capable AirMedia Receiver ( $\underline{\text{AM-3100-WF-I}}$  or  $\underline{\text{AM-3200-WF-I}}$ ). These peripherals can then be used on the personal device with Microsoft Teams® or Zoom™ software.

## **Enterprise-Grade Security**

The AirMedia platform is an enterprise-grade solution that can be deployed across hundreds of spaces, and set up easily using just a web browser, Crestron Fusion® software, or the XiO Cloud® service. It employs standard network security protocols, including 802.1x network access control, Active Directory® authentication, and AES content encryption to protect privacy and ensure compliance with your organization's IT policies.

#### Notes:

- 1. Wireless Conferencing functionality through the AirMedia Connect Adaptor requires a WiFi® network and Wireless Conferencing compatible AirMedia Series 3 Receiver.
- 2. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.

# UC-SB-P50-AM-WF(-I) KIT Features

The AirMedia® Series 3 Conferencing System (UC-SB-P50-AM-WF KIT) enables secure wired and wireless collaboration in the modern digital workspace. The system contains an AirMedia Series 3 Receiver (AM-3200-WF) and a Jabra® PanaCast 50 intelligent video bar (UC-SB-P50). Easy to deploy and manage, install the UC-SB-P50-AM-WF KIT in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.



- Complete room solution enables secure presentation from laptops, smartphones, tablet devices, and AirMedia Connect Adaptors using either a wired HDMI® connection or a wireless AirMedia® connection
- Includes an AirMedia Series 3 Receiver (AM-3200-WF) and a Jabra® PanaCast 50 intelligent video bar (UC-SB-P50)
- Integration friendly features such as HDMI® input, dual LAN, balanced audio output, and display control via RS-232 and IR
- Enables smart automation via intelligent display control, personal device control, occupancy detection, and integration into a broader connected ecosystem
- Enterprise-grade security and content encryption protects privacy and ensures compliance with IT policies
- XiO Cloud® service support for remote provisioning and management
- Integrates with Appspace® digital signage software platform for content display
- Supports content sharing of four simultaneous sources for multi-user collaboration with AirMedia Canvas.

## Connect and Present

The AirMedia Series 3 Receiver can be installed beneath, beside, or behind a wall-mount display and enables a smart room with wireless collaboration. The receiver features AirMedia wireless presentation capability, an HDMI® output that connects to a display (up to 4K), and an HDMI input., and various USB interfaces for wireless conferencing. Connect your laptop, smart phone, tablet, or other source type to instantly present the source image on the display.

Connect the adapter to a personal device via USB-C and share content with resolutions up to 4K30 in seconds. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors (one included) to a single receiver to maximize the space's collaboration abilities.

#### AirMedia Wireless Presentation

With AirMedia technology, users can wirelessly present content from laptops, smartphones, and tablet devices via an external Wi-Fi wireless network. Present content from desktop or laptop computers using downloadable client software, the AirMedia extension for Google Chrome™, or Miracast® screen mirroring technology (Windows 10 computers only). Present content from Android™ and iOS® mobile devices with the AirMedia app.

For more information about AirMedia, visit www.crestron.com/airmedia.<sup>1</sup>

## **HDMI** Connectivity

In addition to AirMedia, the UC-SB-P50-AM-WF KIT includes an HDMI input for direct connection of a local source, such as a Mini PC, or a portable laptop computer via an optional wall plate or cable. The HDMI input supports HD 1080p/60 signals.<sup>2</sup>

#### **Multi-Source Presentation**

Present up to four sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present multiple sources simultaneously with the AirMedia Canvas feature. AirMedia Canvas supports two sources natively. Additional sources will be supported with a software license (sold separately, coming soon). To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active presenters, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display.

Present up to nine sources simultaneously with the AirMedia Canvas feature. To maximize screen coverage, AirMedia Canvas automatically configures the best possible layout based on the number of active sources, the type of sources, and their aspect ratios. Use the AirMedia app or a connected touch screen (sold separately) to manage sources and their position on the display. A software license (sold separately) is required to present up to nine sources simultaneously. Without a software license, up to two sources can present simultaneously.

To add AirMedia Canvas features to your system, select the  $\underline{XXXXX}$  license (available separately).

## Wireless Conferencing

Wireless conferencing provides a premium collaboration experience by enabling video calling from almost any device. The AirMedia application provides wireless access to a host of connected conferencing peripherals, such as soundbars, cameras, or speakerphones. When using the AirMedia application, peripherals are immediately available on the user's laptop for use in Microsoft Teams<sup>®</sup> or Zoom™ software, or in other applications.

To add wireless conferencing to your AirMedia system, select the  $\underline{XXXXX}$  license (available separately).

## High-Definition Video Conferencing with Impressive Audio

High-quality speakers and microphones deliver exceptional full-duplex performance from the Jabra PanaCast 50 intelligent video bar (UC-SB-P50). Three built-in conferencing cameras

capture the room in panoramic 4K resolution with a seamless 180° horizontal field of view.

Visit jabra.com/panacast50 for more information on the Jabra PanaCast 50 video bar.

## **Enhanced Onscreen Experience**

When no source is connected, the UC-SB-P50-AM-WF KIT displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft Exchange Server® (for Outlook® and Microsoft 365® software users), Google Calendar™, or Crestron Fusion® room scheduling software allows the space's availability and meeting details to appear onscreen. As the meeting progresses, notifications appear periodically to indicate both the time left in the meeting and the next scheduled event. Pop-up messages sent from Crestron Fusion may also appear in the event of an emergency or to deliver an important announcement.

## Add-on Control Options

Add a Power over Ethernet occupancy sensor (<u>CEN-ODT-C-POE</u>) to control display or digital signage on/off based on room occupancy or vacancy.

## XiO Cloud® Provisioning and Management Service

The UC-SB-P50-AM-WF KIT is compatible with the XiO Cloud service, which enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service allows for system alerts and network management and provisioning.

For more information, visit www.crestron.com/xiocloud.

## Native Appspace Functionality

Integrate the Appspace digital signage application with the UC-SB-P50-AM-WF KIT. The UC-SB-P50-AM-WF KIT can display content from an Appspace digital signage channel when no presentation is being made or when the room is not occupied.

## Workplace Communications

Integration with the Appspace® digital signage application allows the UC-SB-P50-AM-WF KIT to show Appspace content on a connected display when a space is not in use. Alternatively, the device can be configured to display content from a generic web URL. To increase the storage capacity for digital signage applications, insert a microSD card into the UC-SB-P50-AM-WF KIT.

## Crestron Fusion Room Monitoring

Presentation spaces can be managed and centrally monitored through the Crestron Fusion enterprise management service. By adding an optional occupancy sensor (CEN-ODT-C-POE), the UC-SB-P50-AM-WF KIT can report and log when people are in the space, turn the display on and off accordingly, and make unused spaces available for new bookings. Crestron Fusion software supports room scheduling, and can integrate with a variety of third-party calendaring applications. Instant alerts notify the help desk to rapidly resolve any problems and maximize uptime and workflow.

For more information about Crestron Fusion, visit <a href="www.crestron.com/fusion">www.crestron.com/fusion</a>.

#### **Enterprise-Grade Security**

The AirMedia Presentation System is an enterprise-grade solution that can be deployed across hundreds of spaces and set up easily using a web browser, or XiO Cloud software. Employing standard network security protocols such as 802.1x network access control, Active Directory®

authentication, and AES content encryption, the UC-SB-P50-AM-WF KIT protects privacy and ensures compliance with your organization's IT policies.

## Hybrid Wireless Connectivity with the AirMedia Connect Adaptor

As an alternative to software based AirMedia wireless presentation, the UC-SB-P50-AM-WF KIT is compatible with <u>AirMedia Series 3 Connect Adaptors</u>. Simply plug the adaptor into a personal device's USB-C® port to connect to the UC-SB-P50-AM-WF KIT. The adaptor communicates wirelessly with the system using built-in Wi-Fi network capabilities to display content up to a 4K30 resolution. Use the LED-backlit capacitive touch buttons to start, stop, or pause the presentation at any time. Connect up to eight adaptors to a single receiver to maximize the space's collaboration abilities.

# **Specifications**

Refer to the following sections for more information on the specifications for various Series 3 AirMedia devices and bundles.

- AM-3000-WF(-I) Specifications on page 28
- AM-3100-WF(-I) Specifications on page 34
- AM-3200 Specifications on page 41
- AM-3200-WF(-I) Specifications on page 47
- AM-TX3-100(-I) Specifications on page 55
- UC-SB-P50-AM-WF(-I) KIT Specifications on page 58

# AM-3000-WF(-I) Specifications

Product specifications for the AM-3000-WF(-I) are provided below.

# **Specifications**

## Communications

Ethernet 100/1000 Mbps, auto-switching, autonegotiating, autodiscovery, full/half

duplex, TCP/IP, UDP/IP, DHCP, SSL, TLS<sup>2</sup>, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1x, Active Directory authentication, HTTPS web browser

setup and XiO Cloud service, 802.3af compliant

**AirMedia** Via Ethernet: IPv4, mDNS, TLS, AES<sup>1</sup>;

Via wireless access point: IEEE 802.11/b/g/n/ac/ax, 2.4 GHz or 5 GHz

USB Device USB 3.0 for computer console (installer setup and firmware update)

HDMI Output HDCP 2.2, EDID, CEC;

Supports management of HDCP and EDID

### AirMedia Software<sup>1</sup>

OS Support

Apple® iOS®, Android™, Windows 10, Windows 11, macOS®, Chrome OS™

Video Frame Rate

Up to 30 fps, audio supported

NOTE: Audio is not supported on Android devices.

**Output Resolutions** 

640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

Bitrate Peak

0.25 to 8.5 Mbps, variable depending on content complexity

Bitrate Average

1.4 Mbps typical

## **NOTES:**

- The bitrate for Apple native mirroring may deviate from above depending on the OS version and content.
- The AirMedia Extension for the Google Chrome browser relies on web technologies for screen sharing that are built-in to the web browser. Performance variations with motion video (quality and frame rate) may occur based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (i.e., high-motion video).

Audio Format Stereo

Video

Input Signal Types

AirMedia;

Simultaneous display of up to four sources with AirMedia Canvas

Maximum Input Resolutions AirMedia presentation: 1920x1080@30Hz (1080p30); AirMedia Connect Adapter: 3840x2160@30Hz (4K30)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

**Output Signal Types** 

HDMI (DVI compatible<sup>3</sup>)

HDMI Output Resolutions 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 4 1366x768@60Hz, 4 1440x900@60Hz, 4 1600x900@60Hz, 4 1600x1200@60Hz, 1680x1050@60Hz, 4 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 3840x2160@30Hz (2160p30), 3840x2160@50Hz (2160p50), 3840x2160@60Hz (2160p60)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

Background & Logo File Support

JPEG, PNG

## **Audio**

## **Audio**

Input Signal Types Air Media
Output Signal Type HDMI

Input/Output Format 2 channel LPCM

**NOTE:** Audio input signals are passed to the output without any processing. Volume control capability requires a display device with discrete volume, up, down, and mute commands available via CEC, IP, IR, or RS-232.

## Connectors

microSD For future use

microSD card slot (behind plastic cover, accessed by screw)

**HDMI OUTPUT** (1) HDMI Type A connector;

HDMI digital video/audio output

(DVI compatible<sup>3</sup>)

**USB** (2) USB Type A connectors;

For future use

(1) USB Type B connector;

USB 3.0 device port for computer console

**USB** (2) USB Type A connectors;

(1) USB Type B connector;

USB 3.0 device port for computer console

LAN PoE+ (1) 8-pin RJ-45 connector;

100Base-TX/1000Base-T Ethernet port and PoE+ Class 4

**24VDC 1.25A** (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2412WU power pack sold separately

## Controls and Indicators

PWR (1) White LED, indicates operating power supplied via the local power pack or

PoE+

**RESET** (1) Recessed push button for hardware reset

SETUP (1) Recessed push button for onscreen IP address display and for pairing the

device to an AM-TX3-100;

(1) White LED, indicates pairing status

**ONLINE** (1) White LED, indicates control system connection

HDMI OUT (1) White LED, indicates HDMI signal presence at the HDMI output

microSD For future use

Compatible with SD cards up to 2 TB (not included)

LAN PoE+ (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

## **Power**

Power over Ethernet IEEE 802.3af Class 4 Powered Device

Power Pack (sold Input: 100-240VAC, 50/60 Hz;

separately) Output: 1.25A @ 24VDC;

Model: PW-2412WU

Power Consumption 13.5 W (typical)

#### **Environmental**

Environmental	
Temperature	32° to 104°F (-0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	46.0 BTU/hr
Construction	
Construction	
Chassis	Plastic, black finish, with (4) integrated mounting holes, vented sides
Mounting	Freestanding, surface mount
Dimensions	
Height	1.21 in. (31 mm)
Width	5 in. (127 mm)
Depth	5 in. (127 mm)

#### 11.64 oz (330 g)

Weight

#### Compliance

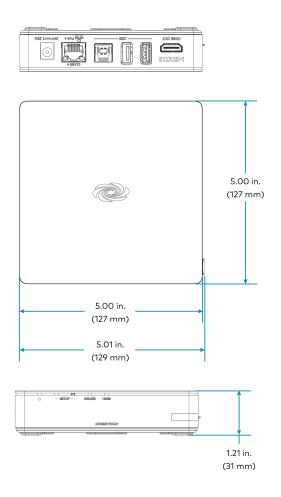
#### Regulatory Model: M202018001

Intertek® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at <a href="https://www.crestron.com/airmedia">www.crestron.com/airmedia</a>.
- 2. Kaptivo integration with the AirMedia® Series 3 is entirely configuration-based. When the whiteboard capture device is paired with the AirMedia® Series 3, programmatic control is not supported in SIMPL Windows or SIMPL# Pro. If custom program controls for a whiteboard capture device are required, use a DGE-100 in place of an AirMedia® Series 3.
- 3. TLS 1.3 is currently not supported.
- 4. Using an appropriate adapter or interface cable, the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.
- 5. With or without reduced blanking.

## **Dimension Drawings**



## AM-3100-WF(-I) Specifications

Product specifications for the AM-3100-WF(-I) are provided below.

## **Specifications**

#### Communications

Ethernet 100/1000 Mbps, auto-switching, autonegotiating, autodiscovery, full/half

duplex, TCP/IP, UDP/IP, DHCP, SSL, TLS<sup>3</sup>, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1x, Active Directory authentication, HTTPS web browser

setup and XiO Cloud service, 802.3af compliant

**Wi-Fi** Dual-band 802.11a/b/g/n/ac/ax (2.4 GHz & 5 GHz);

Up to 100 ft (30 m) range at 80 Mbps, subject to site-specific conditions

**AirMedia** Via Ethernet: IPv4, mDNS, TLS, AES<sup>1</sup>;

Via wireless access point: IEEE 802.11/b/g/n/ac/ax, 2.4 GHz or 5 GHz

**USB Host** USB 2.0 for connecting a USB conferencing peripheral;

USB 3.0 for connecting a USB conferencing peripheral

**USB Device** USB 3.0 for computer console (installer setup and firmware update)

HDMI Output HDCP 2.2, EDID, CEC;

Supports management of HDCP and EDID

#### AirMedia Software<sup>1</sup>

OS Support Apple® iOS®, Android™, Windows 10, Windows 11, macOS®, Chrome OS™

Video Frame Rate Up to 30 fps, audio supported

NOTE: Audio is not supported on Android devices.

Output Resolutions 640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz

(720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz,

1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

NOTE: All video inputs will be scaled to the selected HDMI output

resolution.

**Bitrate Peak** 0.25 to 8.5 Mbps, variable depending on content complexity

#### Bitrate Average

#### 1.4 Mbps typical

#### **NOTES:**

- The bitrate for Apple native mirroring may deviate from above depending on the OS version and content.
- The AirMedia Extension for the Google Chrome browser relies on web technologies for screen sharing that are built-in to the web browser. Performance variations with motion video (quality and frame rate) may occur based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (i.e., high-motion video).

Audio Format Stereo

#### Wireless Conferencing

OS Support Windows 10

**Supported Conferencing** Microsoft Teams software;

Services Zoom software

**Supported Conferencing** For a list of supported conferencing peripherals, refer to <u>OLH 1001764</u>.

Peripherals

#### Video

Input Signal Types AirMedia;

Simultaneous display of up to four sources with AirMedia Canvas

Maximum Input Resolutions AirMedia presentation: 1920x1080@30Hz (1080p30); AirMedia Connect Adapter: 3840x2160@30Hz (4K30)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

**Output Signal Types** 

HDMI Output Resolutions HDMI (DVI compatible<sup>4</sup>)

1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz,<sup>5</sup> 1366x768@60Hz,<sup>5</sup> 1440x900@60Hz,<sup>5</sup> 1600x900@60Hz,<sup>5</sup> 1600x1200@60Hz, 1680x1050@60Hz,<sup>5</sup> 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 3840x2160@30Hz (2160p30), 3840x2160@50Hz (2160p50), 3840x2160@60Hz (2160p60)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

Background & Logo File Support

JPEG, PNG

#### **Audio**

#### **Audio**

Input Signal Types AirMedia
Output Signal Type HDMI

Input/Output Format 2 channel LPCM

**NOTE:** Audio input signals are passed to the output without any processing. Volume control capability requires a display device with discrete volume, up, down, and mute commands available via CEC, IP, IR, or RS-232.

#### Connectors

microSD For future use

microSD card slot (behind plastic cover, accessed by screw)

**HDMI OUTPUT** (1) HDMI Type A connector;

HDMI digital video/audio output

(DVI compatible<sup>4</sup>)

**USB** (2) USB Type A connectors;

For future use

(1) USB Type B connector;

USB 3.0 device port for computer console

**USB** (2) USB Type A connectors;

USB 2.0 host port for USB conferencing peripheral; USB 3.0 host port for USB conferencing peripheral;

(1) USB Type B connector;

USB 3.0 device port for computer console

LAN PoE+ (1) 8-pin RJ-45 connector;

100Base-TX/1000Base-T Ethernet port and PoE+ Class 4

**24VDC 1.25A** (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2412WU power pack sold separately

#### Controls and Indicators

**PWR** (1) White LED, indicates operating power supplied via the local power pack or

PoE+

**RESET** (1) Recessed push button for hardware reset

**SETUP** (1) Recessed push button for onscreen IP address display and for pairing the

device to an AM-TX3-100;

(1) White LED, indicates pairing status

**ONLINE** (1) White LED, indicates control system connection

HDMI OUT (1) White LED, indicates HDMI signal presence at the HDMI output

microSD For future use

Compatible with SD cards up to 2 TB (not included)

LAN PoE+ (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

#### **Power**

Power over Ethernet IEEE 802.3af Class 4 Powered Device

Power Pack (sold Input: 100-240VAC, 50/60 Hz;

separately) Output: 1.25A @ 24VDC;

Model: PW-2412WU

Power Consumption 13.5 W (typical)

 $\textbf{NOTE:} \ \textbf{When wireless conferencing is used, the receiver must be powered by either Power over}$ 

Ethernet+ (PoE+) or a power pack (sold separately).

#### Environmental

Environmental	
Temperature	32° to 104°F (-0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	46.0 BTU/hr
Construction	
Construction	
Chassis	Plastic, black finish, with (4) integrated mounting holes, vented sides
Mounting	Freestanding, surface mount
Dimensions	
Height	1.21 in. (31 mm)
Width	5 in. (127 mm)
Depth	5 in. (127 mm)
Weight	

11.64 oz (330 g)

#### Compliance

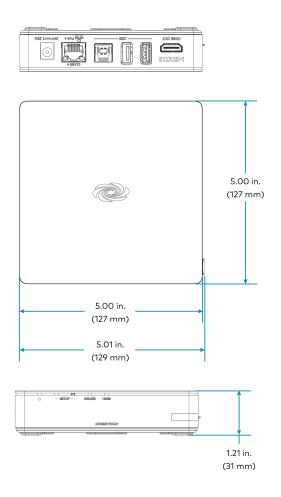
#### Regulatory Model: M202018001

Intertek® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at www.crestron.com/airmedia.
- 2. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.
- 3. Kaptivo integration with the AirMedia® Series 3 is entirely configuration-based. When the whiteboard capture device is paired with the AirMedia® Series 3, programmatic control is not supported in SIMPL Windows or SIMPL# Pro. If custom program controls for a whiteboard capture device are required, use a DGE-100 in place of an AirMedia® Series 3.
- 4. TLS 1.3 is currently not supported.
- 5. Using an appropriate adapter or interface cable, the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.
- 6. With or without reduced blanking.

## **Dimension Drawings**



## **AM-3200 Specifications**

Product specifications for the AM-3200 are provided below.

## **Specifications**

#### Communications

Ethernet 100/1000 Mbps, auto-switching, autonegotiating, autodiscovery, full/half

duplex, TCP/IP, UDP/IP, DHCP, SSL, TLS<sup>5</sup>, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1x, Active Directory authentication, HTTPS web browser

setup and XiO Cloud service, 802.3af compliant

**AirMedia** Via Ethernet: IPv4, mDNS, TLS, AES<sup>1</sup>

**USB Host** USB 2.0 for connecting a USB conferencing peripheral;

USB 3.0 for connecting a USB conferencing peripheral

**USB Device** USB 3.0 for computer console (installer setup and firmware update)

RS-232 2-way display device control up to 115.2k baud with hardware and software

handshaking

IR/Serial 1-way display device control via infrared up to 1.1 MHz or serial TTL/RS-232 (0-

5V) up to 19.2k baud

**HDMI Input** HDCP 1.4, EDID;

Supports management of HDCP and EDID

HDMI Output HDCP 2.2, EDID, CEC;

Supports management of HDCP and EDID

#### AirMedia Software<sup>1</sup>

OS Support Apple® iOS®, Android™, Windows 10, Windows 11, macOS®, Chrome OS™

Video Frame Rate Up to 30 fps, audio supported

NOTE: Audio is not supported on Android devices.

Output Resolutions 640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz

(720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz,

1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

NOTE: All video inputs will be scaled to the selected HDMI output

resolution.

Bitrate Peak 0.25 to 8.5 Mbps, variable depending on content complexity

#### Bitrate Average

#### 1.4 Mbps typical

#### **NOTES:**

- The bitrate for Apple native mirroring may deviate from above depending on the OS version and content.
- The AirMedia Extension for the Google Chrome browser relies on web technologies for screen sharing that are built-in to the web browser. Performance variations with motion video (quality and frame rate) may occur based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (i.e., high-motion video).

**Audio Format** 

Stereo

#### Wireless Conferencing

OS Support

Windows 10

Supported Conferencing Microsoft Teams software;

Services

Zoom software

**Peripherals** 

Supported Conferencing For a list of supported conferencing peripherals, refer to OLH 1001764.

#### Video

Input Signal Types

AirMedia, HDMI (DVI & Dual-Mode DisplayPort<sup>™</sup> compatible<sup>2</sup>); Simultaneous display of up to four sources with AirMedia Canvas

Maximum Input Resolutions

HDMI Input: 1920x1080@60Hz (HD 1080p60); AirMedia presentation: 1920x1080@30Hz (1080p30)

#### **NOTES:**

- Other input resolutions are supported at pixel clock rates up to 148 MHz; interlaced video is not supported.
- All video inputs will be scaled to the selected HDMI output resolution.

**Output Signal Types** 

HDMI (DVI compatible<sup>2</sup>)

HDMI Output Resolutions

1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz,6 1366x768@60Hz,61440x900@60Hz,61600x900@60Hz,61600x1200@60Hz, 1680x1050@60Hz,6 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 3840x2160@30Hz (2160p30), 3840x2160@50Hz (2160p50), 3840x2160@60Hz (2160p60)

NOTE: All video inputs will be scaled to the selected HDMI output resolution.

Background & Logo File Support

JPEG, PNG

#### **Audio**

Input Signal Types AirMedia, HDMI (Dual-Mode DisplayPort™ compatible²)

Output Signal Type HDMI

Input/Output Format 2 channel LPCM

**NOTE:** Audio input signals are passed to the output without any processing. Volume control capability requires a display device with discrete volume, up, down, and mute commands available via CEC, IP, IR, or RS-232.

#### Connectors

IR (1) 2-pin 3.5 mm detachable terminal block;

IR/Serial output port for display device control;

IR output up to 1.1 MHz;

1-way serial TTL/RS-232 (0-5V) up to 19200 baud

NOTE: IR port #2 is not used. IRP2 emitter sold separately.

COM (1) 5-pin 3.5 mm detachable terminal block;

Bidirectional RS-232 port for display device control;

Up to 115.2k baud, hardware and software handshaking support

AUDIO OUT (1) 5-pin 3.5 mm detachable terminal block;

Balanced/unbalanced stereo line-level audio output;

Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced; Output Impedance: 200 ohms balanced, 100 ohms unbalanced

microSD For future use

microSD card slot (behind plastic cover, accessed by screw)

**HDMI INPUT** (1) HDMI Type A connector;

HDMI digital video/audio input;

(DVI & Dual-Mode DisplayPort compatible<sup>2</sup>)

**HDMI OUTPUT** (1) HDMI Type A connector;

HDMI digital video/audio output

(DVI compatible<sup>2</sup>)

**USB** (2) USB Type A connectors;

For future use

(1) USB Type B connector;

USB 3.0 device port for computer console

**USB** (2) USB Type A connectors;

USB 2.0 host port for USB conferencing peripheral; USB 3.0 host port for USB conferencing peripheral;

(1) USB Type B connector;

USB 3.0 device port for computer console

LAN PoE+ (1) 8-pin RJ-45 connector;

100Base-TX/1000Base-T Ethernet port and PoE+ Class 4

LAN AUX (1) 8-pin RJ-45 connector;

> 100Base-TX/1000Base-T Ethernet port; Connects to a secondary, guest-only network

24VDC 1.25A (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2412WU power pack sold separately

#### **Controls and Indicators**

(1) Green LED, indicates operating power supplied via the local power pack or **PWR** 

RESET (1) Recessed push button for hardware reset

**SETUP** (1) Green LED and (1) recessed push button for onscreen IP address display

**ONLINE** (1) Green LED, indicates control system connection

HDMI IN/OUT (2) Green LEDs, indicate HDMI signal presence at the HDMI input/output

microSD For future use

Compatible with SD cards up to 2 TB (not included)

LAN PoE+ (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

LAN AUX (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

#### Power

Power over Ethernet IEEE 802.3af Class 4 Powered Device

Power Pack (sold Input: 100-240VAC, 50/60 Hz; separately) Output: 1.25A @ 24VDC;

Model: PW-2412WU

**Power Consumption** 14 W (typical)

NOTE: When wireless conferencing is used, the receiver must be powered by either Power over

Ethernet+ (PoE+) or a power pack (sold separately).

#### **Environmental**

Environmental	
Temperature	32° to 104°F (-0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	47.8 BTU/hr
Construction	
Construction	
Chassis	Metal, black finish, with (2) integral mounting flanges, vented sides
Mounting	Freestanding, surface mount, or attach to a single rack rail
Dimensions	
Height	1.26 in. (33 mm)
Width	7.40 in. (188 mm)
Depth	6.54 in. (166 mm)
Weight	

#### Compliance

1.9 lb (0.86 kg)

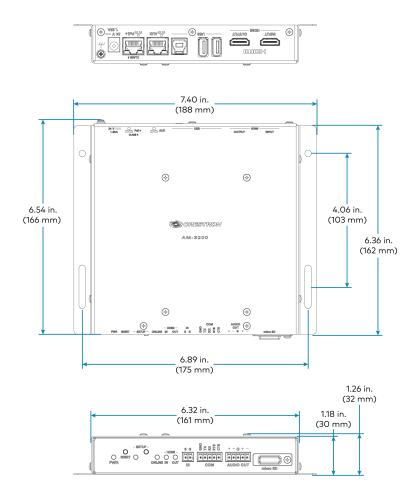
#### Regulatory Model: M202018001

Intertek® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at www.crestron.com/airmedia.
- 2. Using an appropriate adapter or interface cable, the HDMI input can support DVI and Dual-Mode DisplayPort sources, and the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.
- 3. When the AirMedia Canvas feature is enabled, the 4:2:0 color space is used for high definition sources connected to the HDMI input port. When the AirMedia Canvas feature is disabled, the 4:4:4 color space is used. If the 4:4:4 color space is required by sources connected to the HDMI input port, the AirMedia Canvas feature should be disabled.
- 4. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.
- 5. Kaptivo integration with the AirMedia® Series 3 is entirely configuration-based. When the whiteboard capture device is paired with the AirMedia® Series 3, programmatic control is not supported in SIMPL Windows or SIMPL# Pro. If custom program controls for a whiteboard capture device are required, use a DGE-100 in place of an AirMedia® Series 3.
- 6. TLS 1.3 is currently not supported.
- 7. With or without reduced blanking.

## **Dimension Drawings**



## AM-3200-WF(-I) Specifications

Product specifications for the AM-3200-WF(-I) are provided below.

## **Specifications**

#### Communications

Ethernet 100/1000 Mbps, auto-switching, autonegotiating, autodiscovery, full/half

duplex, TCP/IP, UDP/IP, DHCP, SSL, TLS<sup>5</sup>, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1x, Active Directory authentication, HTTPS web browser

setup and XiO Cloud service, 802.3af compliant

**Wi-Fi** Dual-band 802.11a/b/g/n/ac/ax (2.4 GHz & 5 GHz);

Up to 100 ft (30 m) range at 80 Mbps, subject to site-specific conditions

**AirMedia** Via Ethernet: IPv4, mDNS, TLS, AES<sup>1</sup>;

Via wireless access point: IEEE 802.11/b/g/n/ac/ax, 2.4 GHz or 5 GHz

**USB Host** USB 2.0 for connecting a USB conferencing peripheral;

USB 3.0 for connecting a USB conferencing peripheral

USB Device USB 3.0 for computer console (installer setup and firmware update)

RS-232 2-way display device control up to 115.2k baud with hardware and software

handshaking

IR/Serial 1-way display device control via infrared up to 1.1 MHz or serial TTL/RS-232 (0-

5V) up to 19.2k baud

**HDMI Input** HDCP 1.4, EDID;

Supports management of HDCP and EDID

**HDMI Output** HDCP 2.2, EDID, CEC;

Supports management of HDCP and EDID

#### AirMedia Software<sup>1</sup>

OS Support

Apple® iOS®, Android™, Windows 10, Windows 11, macOS®, Chrome OS™

Video Frame Rate Up to 30 fps, audio supported

NOTE: Audio is not supported on Android devices.

**Output Resolutions** 

640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz,

1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

Bitrate Peak

0.25 to 8.5 Mbps, variable depending on content complexity

#### Bitrate Average

#### 1.4 Mbps typical

#### **NOTES:**

- The bitrate for Apple native mirroring may deviate from above depending on the OS version and content.
- The AirMedia Extension for the Google Chrome browser relies on web technologies for screen sharing that are built-in to the web browser. Performance variations with motion video (quality and frame rate) may occur based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (i.e., high-motion video).

Audio Format

#### Wireless Conferencing

OS Support Windows 10

**Supported Conferencing** Microsoft Teams software;

Stereo

Services

Zoom software

Supported Conferencing Peripherals

Supported Conferencing For a list of supported conferencing peripherals, refer to OLH 1001764.

#### Video

Input Signal Types

AirMedia, HDMI (DVI & Dual-Mode DisplayPort<sup>™</sup> compatible<sup>2</sup>); Simultaneous display of up to four sources with AirMedia Canvas

Maximum Input Resolutions HDMI Input: 1920x1080@60Hz (HD 1080p60); AirMedia presentation: 1920x1080@30Hz (1080p30); AirMedia Connect Adapter: 3840x2160@30Hz (4K30)

#### **NOTES:**

- Other input resolutions are supported at pixel clock rates up to 148 MHz; interlaced video is not supported.
- All video inputs will be scaled to the selected HDMI output resolution.

**Output Signal Types** 

HDMI (DVI compatible<sup>2</sup>)

HDMI Output Resolutions 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 6 1366x768@60Hz, 6 1440x900@60Hz, 6 1600x900@60Hz, 6 1600x1200@60Hz, 1680x1050@60Hz, 6 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 3840x2160@30Hz (2160p30), 3840x2160@50Hz (2160p50), 3840x2160@60Hz (2160p60)

**NOTE:** All video inputs will be scaled to the selected HDMI output resolution.

Background & Logo File Support

JPEG, PNG

#### Audio

#### **Audio**

**Input Signal Types** AirMedia, HDMI (Dual-Mode DisplayPort™ compatible²)

Output Signal Type HDMI

Input/Output Format 2 channel LPCM

**NOTE:** Audio input signals are passed to the output without any processing. Volume control capability requires a display device with discrete volume, up, down, and mute commands available via CEC, IP, IR, or RS-232.

#### Connectors

ANT-A & ANT-B (2) SMA connectors for external Wi-Fi antennas;

Wi-Fi antennas included with 6.56 ft (2 m) cables

IR (1) 2-pin 3.5 mm detachable terminal block;

IR/Serial output port for display device control;

IR output up to 1.1 MHz;

1-way serial TTL/RS-232 (0-5V) up to 19200 baud

NOTE: IR port #2 is not used. IRP2 emitter sold separately.

COM (1) 5-pin 3.5 mm detachable terminal block;

Bidirectional RS-232 port for display device control;

Up to 115.2k baud, hardware and software handshaking support

AUDIO OUT (1) 5-pin 3.5 mm detachable terminal block;

Balanced/unbalanced stereo line-level audio output;

Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced; Output Impedance: 200 ohms balanced, 100 ohms unbalanced

microSD For future use

microSD card slot (behind plastic cover, accessed by screw)

**HDMI INPUT** (1) HDMI Type A connector;

HDMI digital video/audio input;

(DVI & Dual-Mode DisplayPort compatible<sup>2</sup>)

**HDMI OUTPUT** (1) HDMI Type A connector;

HDMI digital video/audio output

(DVI compatible<sup>2</sup>)

**USB** (2) USB Type A connectors;

For future use

(1) USB Type B connector;

USB 3.0 device port for computer console

**USB** (2) USB Type A connectors;

USB 2.0 host port for USB conferencing peripheral; USB 3.0 host port for USB conferencing peripheral;

(1) USB Type B connector;

USB 3.0 device port for computer console

LAN PoE+ (1) 8-pin RJ-45 connector;

100Base-TX/1000Base-T Ethernet port and PoE+ Class 4

LAN AUX (1) 8-pin RJ-45 connector;

100Base-TX/1000Base-T Ethernet port; Connects to a secondary, guest-only network

**24VDC 1.25A** (1) 2.1 x 5.5 mm DC power connector;

24VDC power input;

PW-2412WU power pack sold separately

#### **Controls and Indicators**

PWR (1) Green LED, indicates operating power supplied via the local power pack or

PoE+

**RESET** (1) Recessed push button for hardware reset

**SETUP** (1) Recessed push button for onscreen IP address display and for pairing the

device to an AM-TX3-100;

(1) Red/White LED, indicates pairing status

**ONLINE** (1) Green LED, indicates control system connection

HDMI IN/OUT (2) Green LEDs, indicate HDMI signal presence at the HDMI input/output

microSD For future use

Compatible with SD cards up to 2 TB (not included)

LAN PoE+ (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

LAN AUX (2) LEDs, green LED indicates Ethernet link status, amber LED indicates

Ethernet activity

#### **Power**

Power over Ethernet IEEE 802.3af Class 4 Powered Device

Power Pack (sold Input: 100-240VAC, 50/60 Hz; separately) Output: 1.25A @ 24VDC;

Model: PW-2412WU

Power Consumption 14 W (typical)

**NOTE:** When wireless conferencing is used, the receiver must be powered by either Power over Ethernet+ (PoE+) or a power pack (sold separately).

#### **Environmental**

Environmental	
Temperature	32° to 104°F (-0° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	47.8 BTU/hr
Construction	
Construction	
Chassis	Metal, black finish, with (2) integral mounting flanges, vented sides
Mounting	Freestanding, surface mount, or attach to a single rack rail

#### **Dimensions**

 Height
 1.26 in. (33 mm)

 Width
 7.40 in. (188 mm)

 Depth
 6.93 in. (177 mm)

#### Weight

1.9 lb (0.86 kg)

#### Compliance

#### Regulatory Model: M202018001

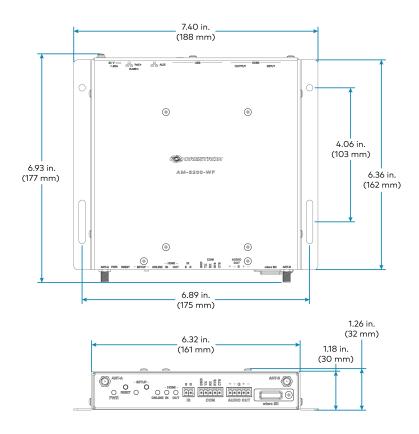
Intertek® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Notes:

- AirMedia wireless presentation requires a wired network connection between the AirMedia receiver and an external Wi-Fi
  wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection.
  Full-motion video performance is dependent upon the performance of the network and the sending device. Computer
  client software and mobile device apps are available for download at www.crestron.com/airmedia.
- 2. Using an appropriate adapter or interface cable, the HDMI input can support DVI and Dual-Mode DisplayPort sources, and the HDMI output can provide a DVI signal. CBL-HD-DVI interface cables are available separately.
- 3. When the AirMedia Canvas feature is enabled, the 4:2:0 color space is used for high definition sources connected to the HDMI input port. When the AirMedia Canvas feature is disabled, the 4:4:4 color space is used. If the 4:4:4 color space is required by sources connected to the HDMI input port, the AirMedia Canvas feature should be disabled.
- 4. Crestron supports most mainstream devices and applications. For a list of supported conferencing peripherals, refer to OLH 1001764.
- 5. Kaptivo integration with the AirMedia® Series 3 is entirely configuration-based. When the whiteboard capture device is paired with the AirMedia® Series 3, programmatic control is not supported in SIMPL Windows or SIMPL# Pro. If custom program controls for a whiteboard capture device are required, use a DGE-100 in place of an AirMedia® Series 3.
- 6. TLS 1.3 is currently not supported.
- 7. With or without reduced blanking.

## **Dimension Drawings**





# **AM-TX3-100(-I) Specifications**

Product specifications for the AM-TX3-100 are provided below.

### **Specifications**

#### Communications

**Wi-Fi** WiFi 6 (802.11ax) Dual-band 802.11a/b/g/n/ac/ax (2.4 GHz & 5 GHz)

USB USB 2.0

OS Support Windows 10, Windows 11, macOS® 11 or newer, Chrome OS™

Video

Input Signal Types DisplayPort™ Alt Mode over USB-C

Output Signal Types Network stream over Wi-Fi, received by a paired AirMedia Series 3 receiver

(AM-3000-WF, AM-3100-WF, or AM-3200-WF)

**Maximum Resolution** 3840x2160@30Hz (2160p30);

Output resolution is determined by the HDMI® output on a paired AirMedia

Series 3 receiver (AM-3000-WF, AM-3100-WF, or AM-3200-WF)

NOTE: All video inputs will be scaled to the selected HDMI output

resolution.

**Audio** 

Input Signal Types DisplayPort Alt Mode over USB-C

Output Signal Type Network stream over Wi-Fi, received by a paired AirMedia Series 3 receiver

(AM-3000-WF, AM-3100-WF, or AM-3200-WF)

Input/Output Format 2 channel LPCM

Connectors

**USB** (1) USB-C connector, male

**Controls and Indicators** 

Status Ring RGB LED Ring indicates device status

Screenshare (1) RGB backlit capacitive touch button controls screensharing functions

**Peripherals** (1) RGB backlit capacitive touch button controls various peripheral<sup>1</sup> functions

**Power** 

**USB** Powered via USB-C connection to personal device

**Power Consumption** 2.5 W (typical)

**Environmental** 

**Temperature** 32° to 104°F (0° to 40°C)

**Humidity** 10% to 90% RH (non-condensing)

**Heat Dissipation** 8.5 BTU/hr

#### Construction

Chassis	Plastic, black finish
Mounting	Freestanding surface mount

#### **Dimensions**

Height	2.95 in. (75 mm)
Width	0.66 in. (17 mm)

**Depth** 7 in. (178 mm) including cable

#### Weight

3.17 oz (90 g)

#### Compliance

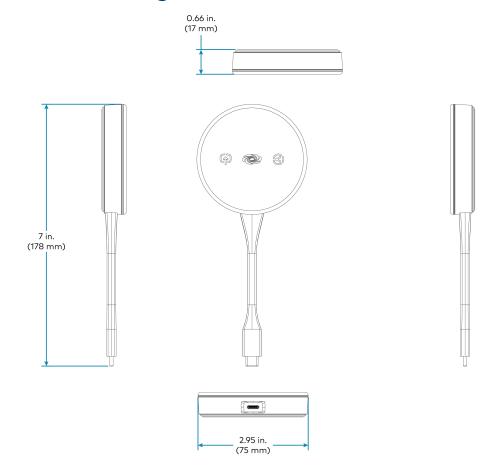
#### Regulatory Model: M202018001

Intertek® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

#### Note:

1. Wireless Conferencing functionality through the AirMedia Connect Adaptor requires a WiFi® network and Wireless Conferencing compatible AirMedia Series 3 Receiver.

## **Dimension Drawings**



# UC-SB-P50-AM-WF(-I) KIT Specifications

Product specifications for the UC-P50-AM-WF(-I) KIT are provided below.

#### Components

AM-3100-WF AirMedia® Receiver 3100 with Wi-Fi® Network Connectivity

UC-SB-P50 Jabra PanaCast 50 intelligent video bar

#### Jabra® PanaCast 50 Video Bar

**Speakers** (4) speakers, stereo;

2 in. (50 mm) woofers;

 $2 \times 3/4$  in. (50 x 20 mm) tweeters; 80 Hz to 20 kHz frequency response;

Automatic speaker detection

**Microphone** (8) microphone beamforming array;

-37 dBFS microphone sensitivity;

100 Hz to 8 kHz microphone frequency range; Suitable for rooms up to 15 x 15 ft  $(4.5 \times 4.5 \text{ m})$ 

**NOTE:** Microphone pickup range may vary in rooms with highly reflective infrastructure (e.g., glass walls, metal furniture, open ceilings, etc.) or above average ambient noise.

Camera Optics (3) cameras;

13 Megapixels

Camera Field of View 180° horizontal, 54° vertical

**Autozoom** Automatic digital zoom dynamically frames people within 11 ft (3.5 m)

Camera Resolution 3840 x 1080 @ 30 fps

**Power** From external power pack;

Input: 100-240VAC, 50/60 Hz;

Output: 5A @ 12V

**Enclosure** Black speaker and camera housing, rear air vents, integrated adjustable

mounting bracket

**Mounting** Wall mount using integrated mounting bracket;

Optional table mount or VESA® compliant screen mount (both sold separately)

**Dimensions** Height: 3.1 in. (90 mm)

Width: 25.6 in. (650 mm) Depth: 4.9 in. (125 mm)

**Weight** 4.85 lb (2.2 kg)

# **AM3-111(-I) KIT Specifications**

Product specifications for the AM3-111(-I) KIT are provided below.

#### Components

AM-3100-WF(-I) AirMedia Receiver 3200 with Wi-Fi Network Connectivity

AM-TX3-100(-I) AirMedia Series 3 Connect Adaptor

# AM3-212(-I) KIT Specifications

Product specifications for the AM3-212(-I) KIT are provided below.

#### Components

AM-3200-WF(-I)	AirMedia Receiver 3200 with Wi-Fi Network Connectivity
AM-TX3-100(-I)	AirMedia Series 3 Connect Adaptor

AM-TX3-CRADLE Tabletop Cradle for up to four AM-TX3-100 Adaptors

# Requirements

## **Administrator**

This document is written for use by a facility's Information Technology (IT) administrator. The IT administrator should have the following knowledge and skills:

- General Skills
  - IP Networking
  - o Basic PC Operation and Administration
  - Calendaring system administration (for calendar connectivity)
- Crestron-specific skills
  - Crestron Fusion® monitoring and scheduling software helps an administrator organize and display room availability, collect data on room usage, and monitor devices on a network. For training, visit
     https://www.crestron.com/trainingonlinecourse?id=14.

NOTE: You must be logged in to your Crestron.com account to access the training course.

• XiO Cloud® service (Cloud Provisioning) helps an administrator quickly manage all of the devices within an environment. The platform allows an administrator to add devices to a system in order to manage their status, change settings, update firmware, set up new users, manage access levels and manage automated alerts. For training, visit <a href="https://www.crestron.com/en-US/Support/Tools/Applications/Training-Online-Course?id=31">https://www.crestron.com/en-US/Support/Tools/Applications/Training-Online-Course?id=31</a>.

NOTE: You must be logged in to your Crestron.com account to access the training course.

## **Operating Environment**

The AM-3100 and AM-3200 require the following to make the most of their capabilities:

 A PoE occupancy sensor (as an alternative to the ZUMMESH-PIR-OCCUPANCY-BATT occupancy sensor) to automatically control the power of a display device based on room occupancy and events. The <u>CEN-ODT-C-POE</u> can be used with an AM-3100 or AM-3200.

For details on configuring and using a PoE occupancy sensor as part of an AM-3100 or AM-3200 system, refer to Device Configuration (on page 88).

• A TS- or TSW- series 7 in. or 10 in. touch screen for system control.

For details on configuring and using a touch screen as part of an AM-3100 or AM-3200 system, refer to Add a Touch Screen (on page 143).

• An HDMI source with HDMI cable, a Crestron AirBoard® Whiteboard Capture Device (model CCS-WB-1), or a Kaptivo® Whiteboard Capture Device for presentation.

For details on using an HDMI connected device as part of an AM-3100 or AM-3200 system, refer to Present Via HDMI (on page 113).

For details on using a Whiteboard Capture Device as part of an AM-3100 or AM-3200 system, refer to Present from a Whiteboard Capture Device (on page 114).

- Crestron Fusion software to monitor and manage an AM-3100 or AM-3200 from a central
  location. When used with an optional occupancy sensor, Crestron Fusion software also
  supports room scheduling and provides the ability to integrate with many third-party
  calendaring applications. Crestron Fusion software can also send pop-up messages that
  can display prominently on the display device in the event of an emergency or other
  important announcement.
- An XiO Cloud license to monitor and manage the AM-3100 or AM-3200 from a central location using Crestron's XiO Cloud service.
- Microsoft Exchange Server, Microsoft 365, or Google Calendar calendaring applications to allow space availability and calendar event details to appear on the display device.

# Installation

Refer to the following sections for instructions on how to install the various AirMedia Series 3 devices and bundles.

- AM-3000-WF(-I) and AM-3100-WF(-I) on page 64
- AM-3200 and AM-3200-WF(-I) on page 69
- AM-TX3-100(-I) on page 74
- UC-SB-P50-AM-WF(-I) KIT on page 77

## AM-3000-WF(-I) and AM-3100-WF(-I)

Refer to the following sections to install the AM-3000-WF(-I) and AM-3100-WF(-I).

- In the Box on page 64
- Connect the Receiver on page 67
- Observe the LEDs on page 68

#### In the Box

#### Qty. Description

1 AirMedia Series 3 Receiver AM-3000-WF (6513018), AM-3000-WF-I, (6513019), AM-3100-WF (6511540), or AM-3100-WF-I (6511541)

#### Additional Items

- 2 Anchor, Wall, Plastic (2057414)
- 2 Screw, Metal, 1.18 in (30 mm) (2057420)

#### Install the Receiver

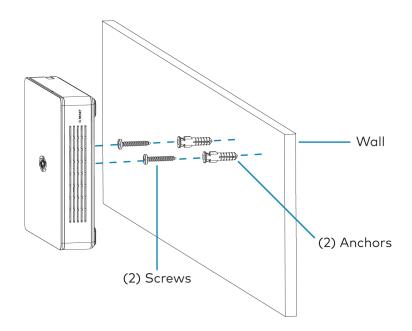
The device can be placed or mounted onto a flat surface.

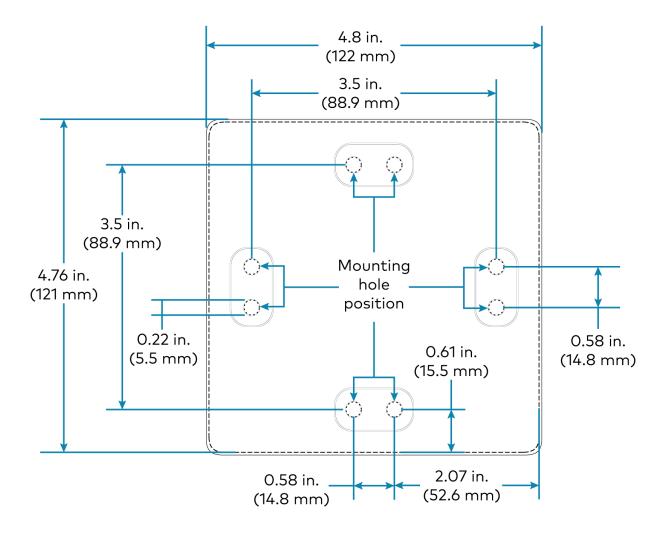
#### Place onto a Flat Surface

Place the device onto any flat, level surface. The rubber strips on the bottom of the receiver prevent it from moving easily.

#### Mount onto a Flat Surface

Using the included mounting screws and anchors, mount the device onto a flat surface such as a wall or the underside of a table. Use the mounting dimensions on the following page to determine the mounting hole locations.





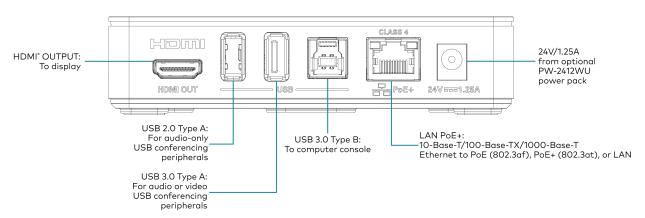
#### Connect the Receiver

Make connections to the device as shown in the following diagram.

#### **NOTES:**

- Only use the LAN AUX port to connect to a secondary, guest-only LAN. Do not use the LAN AUX port to connect to the main LAN.
- The device receives power from a Power over Ethernet (PoE, IEEE 802.3af) or Power over Ethernet+ (PoE+, IEEE 802.3at) connection. It can also receive power from the PW-2412WU power pack (sold separately).
- To use USB conferencing peripherals, the device must be powered by PoE+ or the PW-2412WU power pack. Do not simultaneously provide PoE or PoE+ and local power.
- PoE-type networks connected to the LAN PoE+ port are for intrabuilding use only. Do not connect this device to lines that run outside of the building.

#### **Rear Panel Connections**



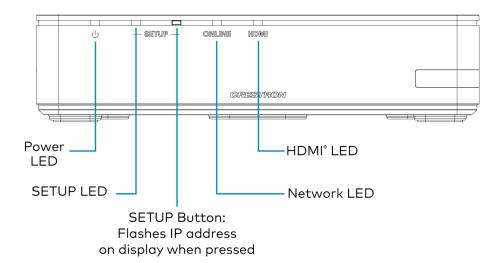
**NOTE:** Wireless Conferencing is unavailable on the AM-3000-WF and AM-3000-WF-I. Connected conferencing peripherals will not function.

## Observe the LEDs

Refer to the following table and diagram for information about the LED indicators on the device.

LED Indicator	Color	Meaning	
Power	White	Power is being applied to the device. The device is operation	
	Amber	Power is being applied to the device. The device is booting.	
Setup	White	The setup button was pressed.	
Setup	Flashing white	An AirMedia Connect adapter (sold separately) is pairing to the device.	
	White	The adapter is paired.	
	Off	The adapter pairing process is completed.	
Online	White	The device is connected to a Crestron Control System.	
HDMI	White	A video signal is being transmitted to the HDMI output.	
LAN Indicators (located on rear panel)	Green	An Ethernet link is established.	
	Flashing amber	Data activity is occurring on the Ethernet link.	

#### LED Indicators - Front Panel



## AM-3200 and AM-3200-WF(-I)

Refer to the following sections to install the AM-3200 and AM-3200-WF(-I).

- In the Box on page 69
- Connect the Receiver on page 72
- Observe the LEDs on page 73

## In the Box

#### Qty. Description

1 AirMedia Series 3 Receiver AM-3200 (6511482), AM-3200-WF, (6511483), or AM-3200-WF-I (6511484)

#### Additional Items

- 4 Anchor, Wall, Plastic (2057414)
- 4 Screw, Metal, 0.98 in (25 mm) (2057419)
- 1 Connector, 2-Pin (2057409)
- 2 Connector, 5-Pin (2057410)

#### Additional Item for AM-3200-WF(-I) Only

2 Antenna with cable, SMA, Female (2057413)

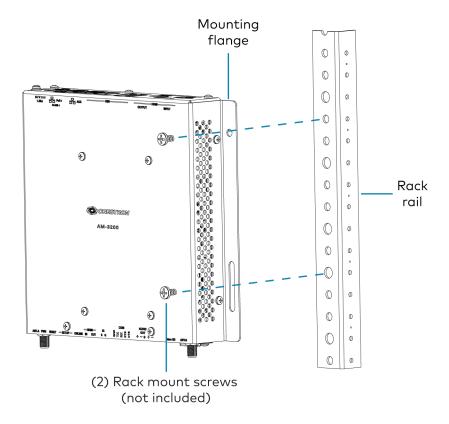
## Install the Receiver

The device can be mounted onto a rack rail or flat surface.

## Mounting onto a Rack Rail

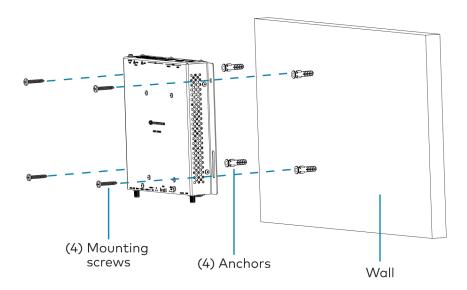
The device can be mounted onto a front or rear rack rail. To mount the device:

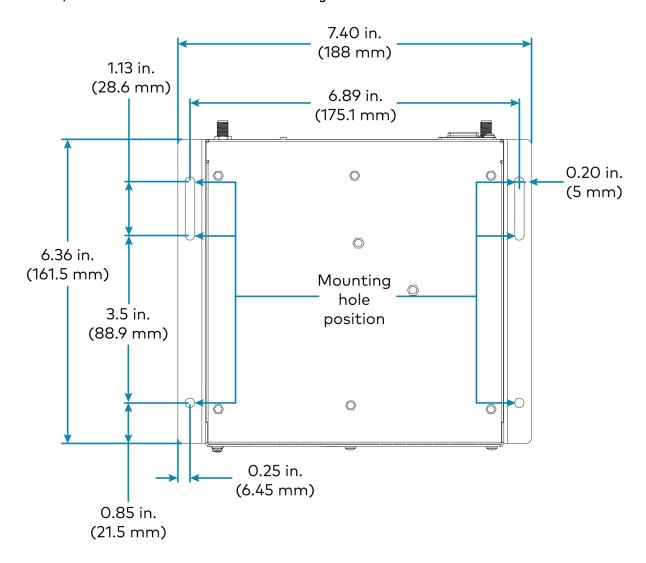
- 1. Position either the left or right mounting flange so that the holes align with the holes in the rack rail.
- 2. Secure the device to the rack rail using two rack mount screws (not included).



## Mounting onto a Flat Surface

Using the included mounting screws and anchors, mount the device onto a flat surface such as a wall or the underside of a table. Use the mounting dimensions on the following page to determine the mounting hole locations.





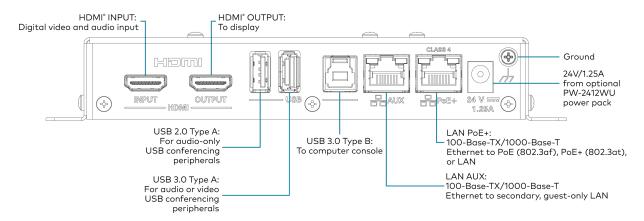
## Connect the Receiver

Make connections to the device as shown in the following diagrams.

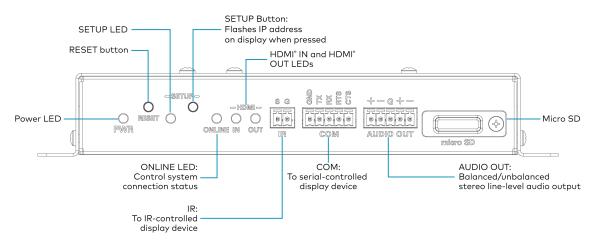
#### **NOTES:**

- Only use the LAN AUX port to connect to a secondary, guest-only LAN. Do not use the LAN AUX port to connect to the main LAN.
- The device receives power from a Power over Ethernet (PoE, IEEE 802.3af) or Power over Ethernet+ (PoE+, IEEE 802.3at) connection. It can also receive power from the PW-2412WU power pack (sold separately).
- To use USB conferencing peripherals, the device must be powered by PoE+ or the PW-2412WU power pack. Do not simultaneously provide PoE or PoE+ and local power.
- PoE-type networks connected to the LAN PoE+ port are for intrabuilding use only. Do not connect this device to lines that run outside of the building.

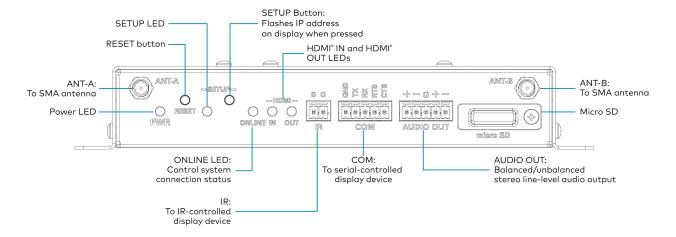
#### Top Panel Connections - AM-3200, AM-3200-WF, AM-3200-WF-I



#### **Bottom Panel Connections - AM-3200**



Bottom Panel Connections - AM-3200-WF, AM-3200-WF-I



## Observe the LEDs

Refer to the following table for information about the LED indicators on the device.

LED Indicator	Color	Meaning		
Power	Green	Power is being applied to the device. The device is operation		
	Amber	Power is being applied to the device. The device is booting.		
Setup	White	The setup button was pressed.		
Setup	Flashing red	An AirMedia Connect adapter (sold separately) is pairing to the device.		
	White	The adapter is paired.		
	Off	The adapter pairing process is completed.		
Online	Green	The device is connected to a Crestron Control System.		
HDMI In	Green	A video signal is detected at the HDMI input.		
HDMI Out	Green	A video signal is being transmitted to the HDMI output.		
LAN PoE+ and LAN AUX	Green	An Ethernet link is established.		
	Flashing amber	Data activity is occurring on the Ethernet link.		

## AM-TX3-100(-I)

Refer to the sections below to install the AM-TX3-100(-I).

## In the Box

#### Qty. Description

AirMedia Series 3 Connect Adaptor
 AM-TX3-100 (6511527) or AM-TX3-100-I (6511528)

## Install the AM-TX3-100(-I)

Use the following procedures to install the AM-TX3-100(-I).

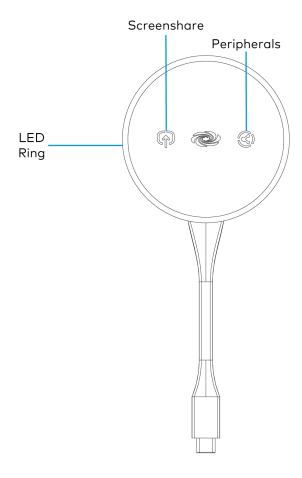
1. Plug the AM-TX3-100 into a personal device's USB-C port.

NOTE: The personal device's USB-C port must be DisplayPort Alt mode compatible.

- 2. Follow the instructions in Connect Devices on page 143 and Wireless Best Practices on page 206.
- 3. Set the paired AirMedia receiver's System Mode to **Multiple Presentation**. For details, refer to General Settings on page 101.

## Observe the LEDs

Refer to the following table for information about the LED indicators on the device.



Status	LED Ring	Screenshare Button	Peripherals Button
Startup	White breathing	White breathing	White breathing
Connection	White circling		
Presentation Starting	Green circling		
Presentation Active	Green solid	Green solid	
Presentation Stopped	Green solid	White solid	
Presentation Paused	Green solid	Green blinking	
Presentation Active and Wireless Conferencing Available	Green solid	Green solid	White solid
Presentation and Wireless Conferencing Active	Green solid	Green solid	Green solid

Status	LED Ring	Screenshare Button	Peripherals Button
Presentation Active and Wireless Conferencing Unavailable	Green solid	Green solid	Red solid
Error	Red blinking	Red blinking	Red blinking
Firmware Update in Progress	Incremental amber segments		
Pairing in Progress	Alternating amber and white		
Ready for Pairing	White solid		

## UC-SB-P50-AM-WF(-I) KIT

Use the following procedure to install the UC-SB-P50-AM-WF(-I) KIT.

- 1. Install the Jabra PanaCast 50 video bar according to its included documentation.
- 2. Use the included USB-C to USB-A cable to connect the Jabra PanaCast 50 video bar to the AM-3200-WF(-I)'s USB 3.0 port.
- 3. Follow the installation instructions for the AM-3200 and AM-3200-WF(-I) on page 69.

## **AM-TX3-200**

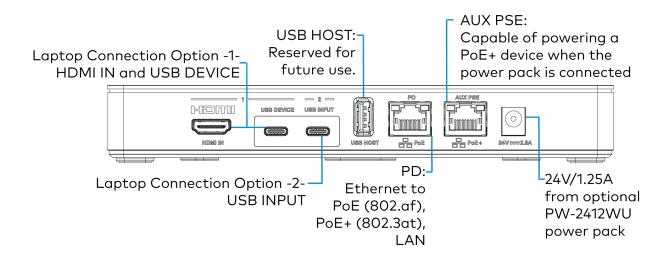
Use the following procedures to install the AM-TX3-200.

## Make Connections to the AM-TX3-200

Make connections to the AM-TX3-200 as shown in the following diagram.

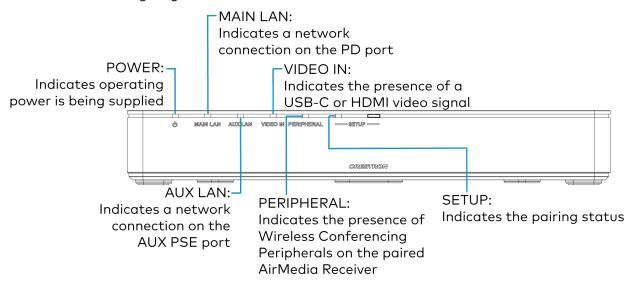
#### **NOTES:**

- Only use the AUX PSE port to connect to a peripheral device, such as a TS-770 touch screen. Do not use the AUX PSE port to connect to the main LAN.
- The AM-TX3-200 receives power from a Power over Ethernet (PoE, IEEE 802.3af) or Power over Ethernet+ (PoE+, IEEE 802.3at) connection. It can also receive power from the PW-2412WU power pack (sold separately).
- Do not simultaneously provide PoE or PoE+ and local power.
- PoE-type networks connected to the PD port are for intrabuilding use only. Do not connect the AM-TX3-200 to lines that run outside of the building.



## Observe the LEDs on the AM-TX3-200

Refer to the following diagram for information about the AM-TX3-200's LED indicators.



# Configuration

To configure receiver settings using the web configuration interface, deploy multiple receivers across an enterprise, or enable Modern Authentication for EWS, refer to the following sections:

- Web Configuration Interface on page 79
- Enterprise Deployment Options on page 158
- Modern Authentication for EWS on page 159

## Web Configuration Interface

Configure the AirMedia receiver using the included web configuration interface.

To connect to the receiver and configure its settings, refer to the following sections:

- Connect to the Receiver on page 79
- Action Menu on page 82
- Status on page 90
- Settings on page 100
- Security on page 146
- 802.1x Configuration on page 155

## Connect to the Receiver

To connect to the receiver's web configuration interface, a computer must be connected to the same network as the AirMedia receiver. The web configuration interface is accessible from a web browser. This interface is also accessible using the XiO Cloud® service.

## Supported Web Browsers

When connecting to the receiver's web configuration interface, use one of the supported web browsers listed below.

#### Web Configuration Interface Supported Web Browsers

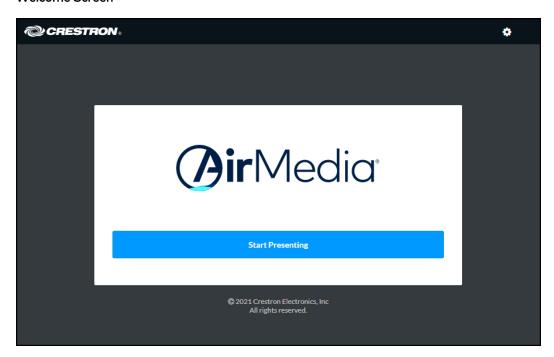
OPERATING SYSTEM	SUPPORTED WEB BROWSERS
Windows® operating system	Chrome™ web browser, version 31 and later
	Firefox® web browser, version 31 and later
	Microsoft Edge® web browser, version 86 and later
macOS® operating system	Chrome web browser, version 31 and later
	Firefox web browser, version 31 and later
	Safari® web browser, version 6 and later

## Sign in to the Receiver

To connect to the receiver using the web configuration interface:

1. On a computer, open a web browser and navigate to the IP address or host name that is shown on the display device. The welcome screen is displayed.

Welcome Screen



2. Select the settings button • in the title bar to log in.

**NOTE:** Prior to displaying the prompt for login credentials, the web browser may display a security warning message about the security certificate. It is safe to ignore this warning as long as the user verifies that the browser's address bar indicates the receiver IP address or host name as shown on the display device.

 If this is a new sign-on, enter the new username and password in their respective fields and select Create User to continue. Otherwise, enter the username and password that were previously configured, and select Sign In to continue. The receiver's web configuration interface is displayed.

#### Login Screen



Enter New User Name and Password



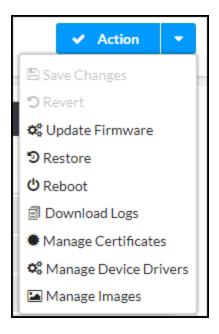
## Log Out from the Receiver

Select **Sign Out** to log out of the receiver's web configuration interface and return to the welcome screen. If **Sign Out** is not selected, the user will be logged out automatically after 20 minutes of inactivity.

## **Action Menu**

The web configuration interface provides an **Action** drop-down menu. The **Action** menu may be accessed at any time.

#### Action Menu



The **Action** menu provides the following selections.

## Save Changes

Once any changes have been made to the receiver configuration, the **Action** button becomes a **Save Changes** button. Select **Save Changes** to save changes to the configuration settings.

If a reboot is required after changes have been saved, select **Yes** to reboot the device or **No** to cancel the reboot.

#### Revert

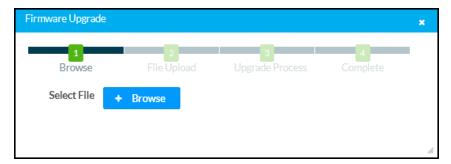
Select **Revert** to revert the receiver to the last saved configuration settings.

## **Update Firmware**

To upgrade the device firmware manually with a downloaded PUF (package update file), select **Update Firmware**. The **Firmware Upgrade** dialog box opens.

**NOTE:** Visit crestron.com/firmware to download the latest firmware PUF.

#### Firmware Upgrade Dialog Box



To upload a firmware PUF through the web configuration interface:

- 1. Select Browse, and then navigate to the firmware PUF on the host computer.
- 2. Select the firmware PUF, and then select Open.
- 3. Select **Load** to load the PUF to the receiver. The upload progress is shown in the dialog box.
- 4. Once the device has completed the firmware upgrade, select OK.

Select the  $\mathbf{x}$  button to close the **Firmware Upgrade** dialog box. Selecting the  $\mathbf{x}$  button before the PUF is uploaded to the device cancels the upgrade. Once the PUF upload process begins, the dialog box cannot be closed, and the upload process cannot be canceled.

#### Restore

Select **Restore** to restore the device configuration settings to their default values. Select **Yes** to restore the settings or **No** to cancel the restore.

**NOTE:** If the device is restored to factory settings, the default user name and password used to configure the device will be restored as well. Any custom user names or passwords will no longer function.

#### Reboot

Select **Reboot** to reboot the device. Select **Yes** to reboot the device or **No** to cancel the reboot.

## **Download Logs**

Select **Download Logs** to download the device message logs for diagnostic purposes. The message files download as a compressed .tgz file. Once the compressed file is downloaded, extract the message log files to view them.

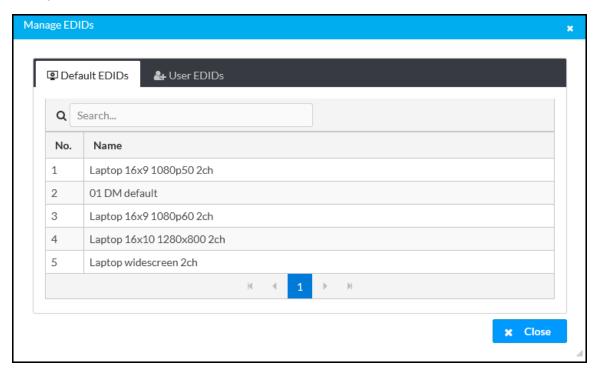
## Manage EDIDs (AM-3200(-WF)(-I) Models Only)

Select **Manage EDIDs** to manage Extended Display Identification Data (EDID) profiles that are installed on the receiver. The **Manage EDIDs** window opens.

#### **Default EDIDs**

Select **Default EDIDs** to view EDIDs preinstalled on the receiver.

Manage EDIDs - Default EDIDs Tab



Enter text in the **Search...** field to find and display EDIDs that match the search term(s).

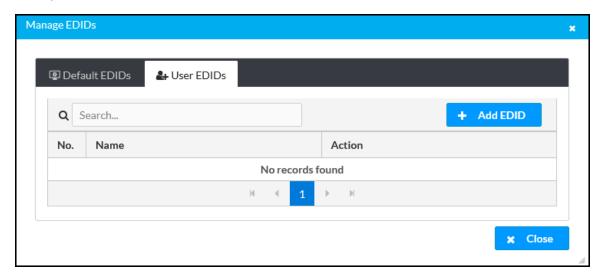
EDIDs are listed in table format. If the EDIDs span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

Select Close to close the Manage EDIDs window.

#### **User EDIDs**

Select User EDIDs to manage EDIDs installed by users.

#### Manage EDIDs - User EDIDs Tab



Enter text in the Search... field to find and display EDIDs that match the search term(s).

EDIDs are listed in table format. If the EDIDs span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

To upload an EDID file:

- 1. Select Add EDID.
- 2. Select Browse.
- 3. Navigate to the EDID file on the host computer.
- 4. Select the EDID file, and then select **Open**.
- 5. Select **Load** to load the EDID file to the receiver. The upload progress is shown in the dialog box.
- 6. Once the receiver has completed the upload, select **OK**.

Select the trashcan button in the **Action** column to delete the EDID. Select **Yes** to delete the EDID or **No** to cancel.

Select Close to close the Manage EDIDs window.

## Manage Certificates

Select **Manage Certificates** to manage any certificates that are installed on the receiver. For more information on certificate management, refer to 802.1x Configuration on page 155.

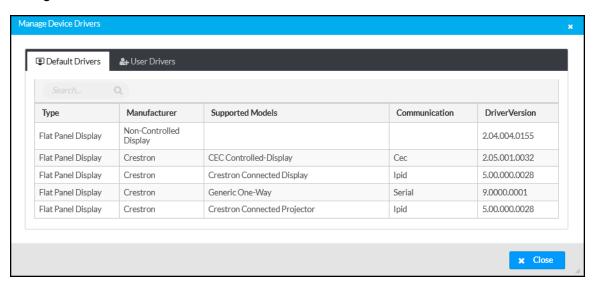
### Manage Device Drivers

Select **Manage Device Drivers** to manage any drivers that are installed on the receiver. The **Manage Device Drivers** window appears. Support for CEC, Crestron Connected® control, IP, serial, and infrared profiles are built-in.

#### **Default Drivers**

Select **Default Drivers** to view information for the drivers preinstalled on the receiver.

Manage Device Drivers - Default Drivers Tab



Enter text in the Search... field to find and display drivers that match the search term(s).

Drivers are listed in table format. The following information is displayed for each driver:

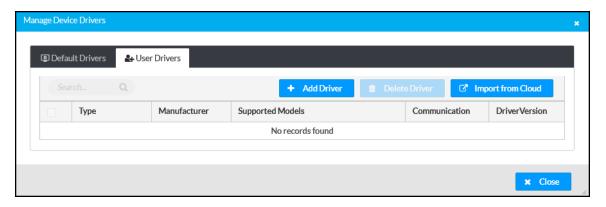
- Type: The supported display type (flat panel display, projector, etc.)
- Manufacturer: The driver manufacturer
- Supported Models: The display model name
- Communication: The driver communication type (Serial/RS-232, IR, IP, CEC)
- DriverVersion: The version of the installed driver

Select **Close** to close the **Manage Device Drivers** window.

#### **User Drivers**

Select **User Drivers** to manage drivers installed by users.

#### Manage Device Drivers - User Drivers Tab



Drivers are listed in table format. The following information is displayed for each driver:

- Type: The supported display type (flat panel display, projector, etc.)
- Manufacturer: The driver manufacturer
- Supported Models: The display model name
- Communication: The driver communication type (Serial/RS-232, IR, IP, CEC)
- **DriverVersion**: The version of the installed driver

Select Close to close the Manage Device Drivers window.

#### Add Driver

To upload a driver:

- 1. Select Add Driver.
- 2. Select Browse.
- 3. Navigate to the driver file on the host computer.
- 4. Select the driver file, and then select **Open**.
- 5. Select **Load** to load the driver file to the receiver. The upload progress is shown in the dialog box.
- 6. Once the receiver has completed the upload, select **OK**.

#### **Delete Driver**

To delete a driver from the receiver:

- 1. Locate the driver that you wish to delete in the driver table, and then select the corresponding checkbox.
- 2. Select Delete Driver.
- 3. Select Yes to delete the driver.

#### Import from Cloud

Crestron maintains a cloud-based driver database. To load drivers to the receiver from the cloud:

- 1. Select Import from Cloud. The Import a Driver window appears.
- 2. Enter text in the Search... field to find and display drivers that match the search term(s).

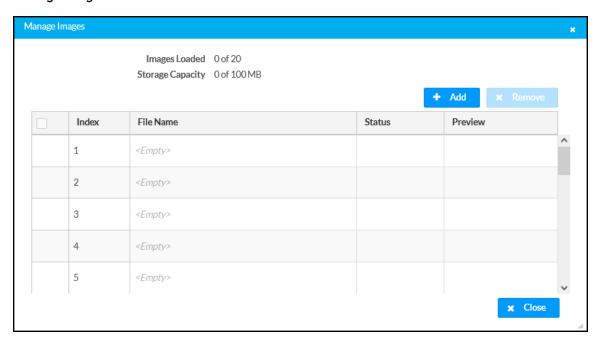
- 3. Locate the driver that you wish to upload to the receiver, and then select the corresponding radio button .
- 4. Select **Add** to add the driver to the receiver.

### Manage Images

Select **Manage Images** to add or remove images used as custom logo graphics or custom backgrounds.

**NOTE:** For more details on using custom logo graphics and custom backgrounds, refer to Connected Devices on page 126.

#### Manage Images



To add an image to the receiver:

#### **NOTES:**

- Up to 20 images can be loaded. The receiver's storage capacity is 100 MB.
- Custom background images should be jpg files with resolutions no higher than 4096 x 2304 pixels. Images with resolutions higher than 4096 x 2304 pixels may exceed the receiver's storage limit when rendered and will inhibit performance.
- 1. Select Add.
- 2. Select Browse, and then navigate to the image file on the host computer.
- 3. Select the image file, and then select **Open**.
- 4. Select **Load** to load the image to the receiver. The upload progress is shown in the dialog box.
- 5. Once the receiver has completed the image upload, select **OK**.

Select the x button to close the **File Upload** dialog box at any time during the upgrade process. Selecting the x button before the image file is uploaded to the receiver cancels the upload.

Once the image file is uploaded, the file's name, status, and preview will appear in the **Manage Images** table.

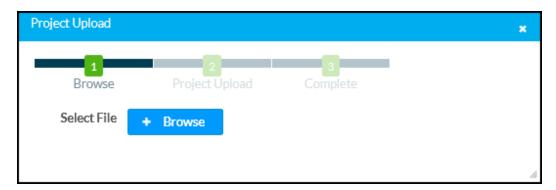
To remove an image from the receiver, select the checkbox in the corresponding table row, and then select **Remove**.

## **Upload Scheduling Project**

Select **Upload Scheduling Project** to upload a custom scheduling project to the touch screen. A **Project Upload** dialog box opens.

**NOTE:** This selection is available only if the receiver is running in **Crestron Default** scheduling mode.

#### **Project Upload Dialog Box**



To upload a custom scheduling project:

- 1. Select Browse, and then navigate to the project .vtz file on the host computer.
- 2. Select the project .vtz file, and then select **Open**.
- 3. Select **Load** to load the project .vtz file to the receiver. The upload progress is shown in the dialog box.
- 4. Once the touch screen has completed the project upload, select **OK**.

Select the  $\mathbf{x}$  button to close the **Project Upload** dialog box at any time during the upgrade process. Selecting the  $\mathbf{x}$  button before the project file is uploaded to the receiver cancels the upload.

## **Status**

Select **Status** to display selections for viewing the status of receiver, network, and control system settings. Select a section name to expand the menu. If the menu is expanded, select the section name again to collapse the section.

#### Status Screen



#### Device

Select **Device** to view general receiver information.

#### Status - Device



The following **Device** information is displayed:

- Model: The receiver model name.
- Serial Number: The receiver serial number.
- Firmware Version: The firmware version loaded onto the receiver.
- Power Status: Displays how the device is currently being powered (DC, PoE, or PoE+).

Select + More Details at the bottom of the tab to display an expanded section that shows additional information. Select - More Details to collapse the section.

#### Network

Select **Network** to view the status of the network settings for the receiver.

#### Status - Network



The following **Network** information is displayed:

- Host Name: The receiver hostname
- Domain: The receiver domain name
- **DNS Servers**: The DNS (domain name server) addresses used to resolve the receiver domain to an IP address

Select the + (plus) icon next to **Adapter 1** and/or **Adapter 2** to view the following DHCP server settings:

- DHCP: Reports whether the IP address is dynamic (Yes) or static (No)
- IP Address: The receiver IP address
- Subnet Mask: The receiver subnet mask
- Default Gateway: The gateway router address
- Link Active: Reports the status of the Ethernet connection. A true message indicates that the Ethernet connection is active, while a false message indicates that the Ethernet connection is inactive.
- MAC Address: The unique device MAC (media access control) address

Select the + (plus) icon next to **Wireless Access Point** to view the following wireless access point settings:

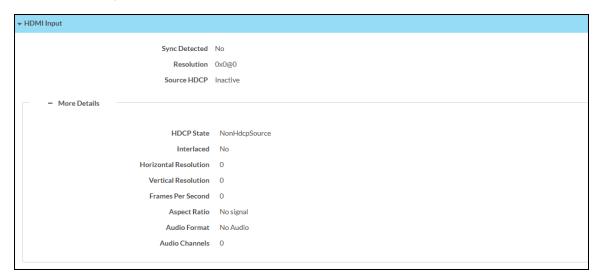
NOTE: Values are shown for the following settings only if a wireless access point is used.

- DHCP Enabled: Reports whether the IP address is dynamic (Yes) or static (No)
- SSID: The wireless access point network name
- IP Address: The wireless access point IP address
- Subnet Mask: The wireless access point subnet mask
- Default Gateway: The gateway router address
- Link Active: Reports the status of the Ethernet connection. A true message indicates that the Ethernet connection is active, while a false message indicates that the Ethernet connection is inactive.

## HDMI Input (AM-3200(-WF)(-I) Models Only)

Select **HDMI Input** to view the status of a device connected to the HDMI input.

#### Status - HDMI Input



The following HDMI Input information is displayed:

- **Sync Detected**: Indicates whether a sync is present between the source connected to the HDMI input and the receiver
- Resolution: The resolution of the source connected to the HDMI input
- Source HDCP: Indicates whether HDCP is active or inactive

Select + More Details at the bottom of the tab to display an expanded section that shows additional information. Select - More Details to collapse the section.

### **HDMI** Output

Select HDMI Output to view the status of a display device connected to the HDMI output.

#### Status - HDMI Output



Select the + (plus) icon next to **Connected Display** to view the following display settings:

- Sink Connected: Reports whether or not a display is connected
- Manufacturer: The manufacturer name of the display device
- Name: The name of the display device

Select the + (plus) icon next to Output Signal to view the following output signal settings:

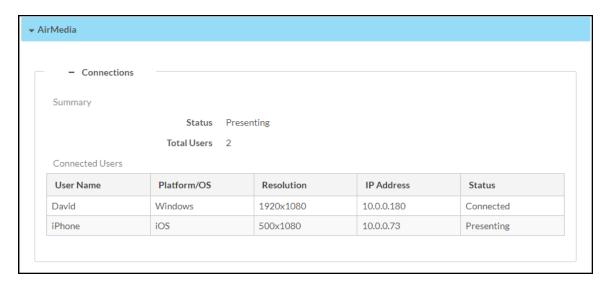
- Resolution: The resolution and frame rate of the display device
- Disabled by HDCP: Reports whether or not the display signal is disabled by HDCP

Select + More Details at the bottom of the tab to display an expanded section that shows additional information. Select - More Details to collapse the section.

#### AirMedia

Select AirMedia to view the status of the AirMedia connection.

#### Status - AirMedia Connection



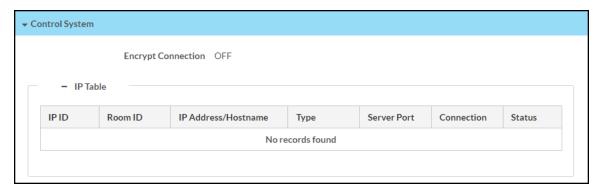
Select the + (plus) icon next to **Connections** to view the connection settings for devices using AirMedia:

- **Summary**: Reports the status of the device and the total amount of users connected to the receiver
  - Status: Reports Idle when no users are connected, Active when a user is connected but not presenting, and Presenting when a user is presenting
  - Total Users: The total amount of users with an active connection to the receiver. The
    receiver supports a maximum of ten simultaneous connections and up to two
    simultaneous presenters.
- Connected Users: Reports the details of all users with an active connection to the device
  - User Name: The user name of a connected user
  - Platform/OS: The operating system of a connected device
  - Resolution: The resolution of a connected device
  - o IP Address: The IP address of a connected device
  - Status: Reports Idle when no users are connected, Active when the user is connected but not presenting, and Presenting when the user is presenting

## Control System

Select Control System to view the status of the receiver's control system connection.

#### Status - Control System



The following Control System information is displayed:

- **Encrypt Connection**: Indicates whether the connection between the control system and the receiver is encrypted
- IP Table: Displays the IP table information for the control system connection:
  - $\circ$  **IP ID**: The IP ID used to connect the receiver to a control system
  - Room ID: The control system room ID that the receiver is associated with (for connections to the Crestron Virtual Control server-based control system)
  - IP Address/Hostname: The control system IP address or hostname
  - **Type**: The control system type
  - ° Server Port: The control system server port
  - Connection: The control system connection type
  - Status: The control system connection status

#### **Connected Devices**

Select **Connected Devices** to view the status of any connected devices such as a display, occupancy sensor, or touch panel.

Select the + (plus) icon next to **Connected Display** to view the following display settings:

#### Status - Connected Devices (Connected Display)



- Detected Manufacturer: The manufacturer of the connected display
- Detected Name: The name given to the connected display

Select the + (plus) icon next to **Network Occupancy Sensor** to view the following occupancy sensor settings:

#### Status - Connected Devices (Network Occupancy Sensor)



- Connection Status: The occupancy sensor connection status
- Occupancy Status: The occupancy status (either Occupied or Vacant) of the space monitored by an occupancy sensor

Select the + (plus) icon next to Touch Panel to view the following touch panel settings:

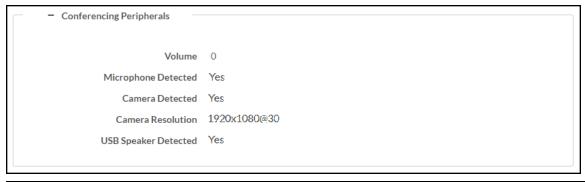
#### Status - Connected Devices (Touch Panel)



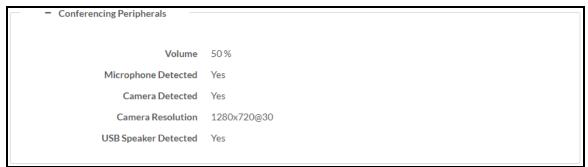
- Connection Status: The touch panel connection status
- Model: The model name of the touch panel

Select the + (plus) icon next to Conferencing Peripherals to view the following settings:

#### Status - Conferencing Peripherals







• Volume: The maximum allowed volume of connected USB speakers.

**NOTE:** The volume slider will only appear when a supported peripheral device is connected.

- Microphone Detected: Indicates whether or not a microphone is connected
- Camera Detected: Indicates whether or not a camera is connected
- Camera Resolution: The resolution of a connected camera
- USB Speaker Detected: Indicates whether or not a USB speaker is connected

Select the + (plus) icon next to **Airboard** to view the following whiteboard capture device settings:

- Connection Status: The whiteboard capture device connection status
- Pairing Status: The whiteboard capture device pairing status

## **Settings**

Select **Settings** to configure various device settings. Once any changes have been made to the receiver configuration, the **Action** button becomes a **Save Changes** button. Select **Save Changes** to save changes to the configuration settings. If a reboot is required after changes have been saved, select **Yes** to reboot the device or **No** to cancel the reboot.

Select a section name to expand the menu. If the menu is expanded, select the section name again to collapse the section.

#### Settings Screen



## **Application Mode**

Select **Application Mode** to configure the device's operation with the Appspace platform. The AirMedia receiver can display content from an Appspace digital signage channel when no presentation is being made, or when the room is not occupied.

#### Settings Screen – Application Mode



#### **NOTES:**

- An active Appspace account is required.
- The Appspace video service is not supported.
- MicroSD card storage and touch screen support is not supported.
- Maximum resolution for all content should be 3840x2160 for optimal performance.

• Signage Provider: Use the dropdown list to select Appspace to enable the feature.

**NOTE:** To use Appspace, the receiver's Power Settings must be set to **Signage Only** as described in Power Settings on page 106.

- **Signage in Standby**: Turns on the display when the AirMedia receiver goes to sleep based on occupancy.
- **Signage as a Background**: Turns on the display along with the calendar, date/time, system name, connection info, and branding portions of the display.

#### **NOTES:**

- When the Signage as a Background toggle is turned on, the Enable Custom Backgrounds setting (described in Connected Devices on page 126) is disabled.
- For best practices on configuring the AirMedia receiver for use with Appspace, visit docs.appspace.com.
- Account Location: Select the location of the Appspace account from the drop-down list.
  - Select **Public Cloud** to use the Appspace public web app.
  - Select **Private Instance** to use a privately hosted instance of the Appspace web app
- Application URL: Enter the location of the privately hosted instance of the Appspace web app. Leave this field unfilled if Public Cloud is selected from the Account Location drop-down list.

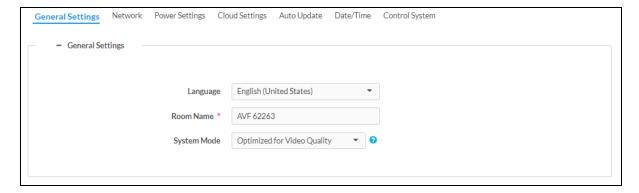
### System Setup

Select **System Setup** to modify general, network, power, cloud, update, date/time, and control system settings.

#### **General Settings**

Select **General Settings** to configure general device settings.

#### System Setup - General Settings



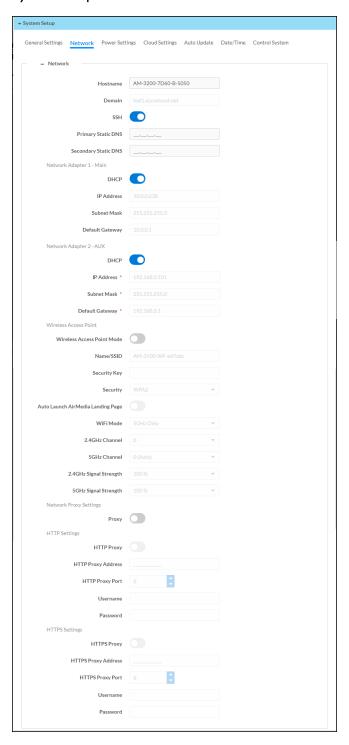
- Language: Select the language that will be displayed on the receiver from the drop-down list
- Room Name: Enter the room name for the space that the receiver is installed in

- **System Mode**: Select a system mode from the options below to automatically configure some AirMedia settings. For details, refer to General Settings on page 134.
  - Optimized for Video Quality: This mode forces the following settings:
    - AirMedia: Enabled
    - AirMedia Canvas: Enabled
    - Canvas Session Control: Enabled
    - Max Presentation Limit: 1
    - Routing Mode (AM-3000-WF(-I) and AM-3100-WF(I) only): AirMedia Auto-Route only
    - Routing Mode (AM-3200-WF(-I) only): Automatic Input Routing
  - Optimized for Multiple Presentations: This mode forces the following settings:
    - AirMedia: Enabled
    - AirMedia Canvas: Enabled
    - Canvas Session Control: Enabled
    - Routing Mode (AM-3000-WF(-I) and AM-3100-WF(I) only): AirMedia Auto-Route only
    - Routing Mode (AM-3200-WF(-I) only): Automatic Input Routing
  - Custom: This mode allows full configuration of all settings.

#### Network

Select **Network** to configure the receiver's network settings.

#### System Setup - Network



- Host Name: Enter the receiver host name (22 characters or less).
- **Domain**: Enter the fully qualified domain name on the network (optional). This field is prefilled when the **DHCP** toggle is turned on.

**NOTE:** A host name and domain name can act as an alternative to IP addressing for connecting client computers to the device.

- SSH: Turn on the toggle to enable Secure Shell protocol (SSH).
- Primary Static DNS: Enter the primary DNS address.
- Secondary Static DNS: Enter the secondary DNS address.
- Network Adapter 1 Main and Network Adapter 2 AUX

NOTE: Network Adapter 2 - AUX settings are unavailable on AM-3100-WF(-I) models.

- DHCP: Turn on the toggle to use DHCP for the Ethernet connection. When enabled, the IP address, subnet mask, and default gateway settings are automatically filled.
   If the toggle is off, these settings must be entered manually.
- **IP Address**: Enter the receiver IP address on the network. This field is prefilled when the DHCP toggle is on.
- **Subnet Mask**: Enter the device subnet mask address on the network. This field is prefilled when the DHCP toggle is on.
- **Default Gateway**: Enter the gateway router address on the network. This field is prefilled when the DHCP toggle is on.

• Wireless Access Point: The device can be used as a Wireless Access Point (WAP) so that users can present wirelessly without using a corporate Wi-Fi network.

**NOTE:** Wireless Access Point functionality is not available on the AM-3200. It is only available on Wi-Fi network capable AirMedia receivers.

- Wireless Access Point Mode: Turn on the toggle to enable the receiver to operate as a Wireless Access Point
- Name/SSID: Enter a name for the wireless network.
- Security Key: Enter a security key to connect to the wireless network.

**NOTE:** The wireless network name and security should each be 22 characters or fewer for optimal presentation on a display device and/or a connected touch screen.

• Security: Select an encryption key type to be used by the wireless network.

**NOTE:** When WPA2 is selected, WPA2-PSK is used by default for security key encryption.

- Auto Launch AirMedia Landing Page: Turn on the toggle to automatically launch a
  web browser and redirect the user to the AirMedia landing page upon connection to
  the wireless access point.
- **WiFi Mode**: Select **2.4GHz Only** or **5GHz Only** from the dropdown list to use either a 2.4GHz or 5GHz frequency band.
- 2.4GHz Channel: Select the channel number. If 5GHz Only is selected in the WiFi Mode field, then this field will not be editable.
- 5GHz Channel: Select the channel number. If 2.4GHz Only is selected in the WiFi Mode field, then this field will not be editable.

NOTE: Set either channel to 0 (Auto) to enable automatic channel selection.

- 2.4GHz Signal Strength: Select the signal strength for the 2.4GHz frequency band. If 5GHz Only is selected in the WiFi Mode dropdown list, then the signal strength for the 2.4GHz band will automatically be set to 0.
- 5GHz Signal Strength: Select the signal strength for the 2.4GHz frequency band. If
   2.4GHz Only is selected in the WiFi Mode dropdown list, then the signal strength for the 5GHz band will automatically be set to 0.
- Network Proxy Settings
  - **Proxy**: Turn on the toggle to configure the device for use with a proxy server.

## HTTP Settings

- HTTP Proxy: Turn on the toggle to allow the device to use an HTTP proxy server.
- HTTP Proxy Address: Enter the IP address or the FQDN of the HTTP proxy server.
- HTTP Proxy Port: Enter the port number of the HTTP proxy server.
- **Username**: Enter the username required for the HTTP proxy server.
- **Password**: Enter the password required for the HTTP proxy server.

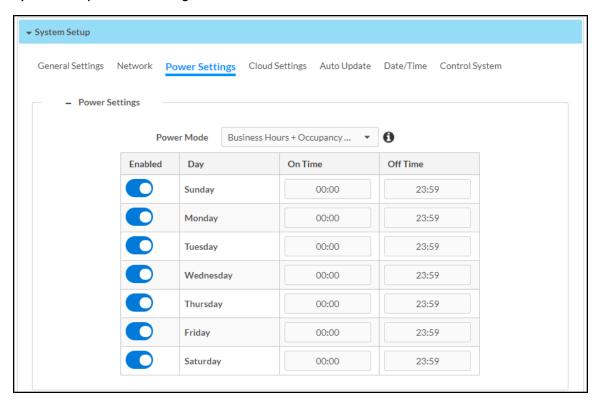
# HTTPS Settings

- HTTPS Proxy: Turn on the toggle to allow the device to use an HTTPS proxy server.
- HTTPS Proxy Address: Enter the IP address or the FQDN of the HTTPS proxy server.
- HTTPS Proxy Port: Enter the port number of the HTTPS proxy server.
- **Username**: Enter the username required for the HTTPS proxy server.
- **Password**: Enter the password required for the HTTPS proxy server.

# **Power Settings**

Select **Power Settings** to configure the receiver's power settings.

## System Setup - Power Settings



The **Power Mode** setting allows the receiver to go to sleep based on business hours and/or room occupancy.

Select a **Power Mode** option from the dropdown list:

**NOTE:** Business Hours + Occupancy Based is the default setting.

- Select **Business Hours + Occupancy Based** to apply the following behavior:
  - The display device is on and the receiver is awake during business hours. Define business hours using the table:
    - Enabled: Turn the toggle on to include the day in the business hours schedule.
    - On Time: Enter the time of day (in 24-hour format) when business hours begin.
    - Off time: Enter the time of day (in 24-hour format) when business hours end.

**NOTE:** When the **On Time** and **Off Time** settings are set to **00:00** and **23:59** respectively, the display device is on and the receiver is awake all day.

- The touch screen is always on.
- Crestron Fusion power events are ignored.
- If room occupancy or vacancy is detected outside of business hours, the receiver wakes up or goes to sleep accordingly.
- Virtual button power events are allowed.
- ° If an HDMI sync is detected outside of business hours, the receiver wakes up.
- Select **Occupancy Based** to apply the following behavior:
  - The connected occupancy sensor determines when the room is occupied or vacant.
  - If room vacancy is detected, the receiver goes to sleep.
  - If room occupancy is detected, the receiver wakes up.
  - If the display device is configured as a controlled display device, it powers on when the room is occupied and powers off when the room is vacant.
  - The touch screen is on when the room is occupied and off when the room is vacant.
  - Crestron Fusion power events are permitted.
  - $^{\circ}\;$  If an HDMI sync is detected, the receiver wakes up.
  - An AirMedia connection does not wake the receiver.

- Select **Signage Only** to apply the following behavior:
  - ° All user presentation capabilities are disabled.
  - The display device and the receiver will always present digital signage during business hours and turn off outside of business hours. Define business hours using the table:
    - Enabled: Turn the toggle on to include the day in the business hours schedule.
    - On Time: Enter the time of day (in 24-hour format) when business hours begin.
    - Off time: Enter the time of day (in 24-hour format) when business hours end.

**NOTE:** When the **On Time** and **Off Time** settings are set to **00:00** and **23:59** respectively, the display device is on and the receiver is awake all day.

- $^{\circ}$  The connected occupancy sensor determines when the room is occupied or vacant.
- If room occupancy is detected outside of business hours, the receiver and display device power on. Digital signage is displayed.
- If room vacancy is detected outside of business hours, the receiver and display device power off.
- The touch screen is always off.
- ° Crestron Fusion power events are permitted.

**NOTE:** To use the **Signage Only** power mode, enable the **Signage in Standby** setting as described in Digital Signage.

- Select Business Hours + Occupancy Based for Signage to apply the following behavior:
  - The display device and the receiver will turn on during business hours and turn off outside of business hours. Define business hours using the table:
    - Enabled: Turn the toggle on to include the day in the business hours schedule.
    - On Time: Enter the time of day (in 24-hour format) when business hours begin.
    - Off time: Enter the time of day (in 24-hour format) when business hours end.

**NOTE:** When the **On Time** and **Off Time** settings are set to **00:00** and **23:59** respectively, the display device is on and the receiver is awake all day.

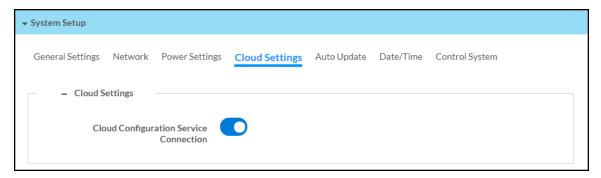
- The connected occupancy sensor determines when the room is occupied or vacant.
- If room vacancy is detected during business hours, the receiver goes to sleep. Digital signage is displayed.
- If room occupancy is detected during business hours, the receiver wakes up.
- If room vacancy is detected outside of business hours, the receiver and display device power off.
- If room occupancy is detected outside of business hours, the receiver and display device power on.
- The touch screen is on when the room is occupied and off when the room is vacant.
- Crestron Fusion power events are permitted.
- $^{\circ}\;$  If an HDMI sync is detected, the receiver wakes up.
- An AirMedia connection does not wake the receiver.

**NOTE:** The **Business Hours + Occupancy Based With Signage** setting must be selected if Appspace is to be used.

# **Cloud Settings**

Select **Cloud Settings** to configure the device's connection to the XiO Cloud® service. By default, the **Cloud Configuration Service Connection** toggle is turned on. For more information on using the XiO Cloud service with an AirMedia receiver, refer to Enterprise Deployment Options on page 158.

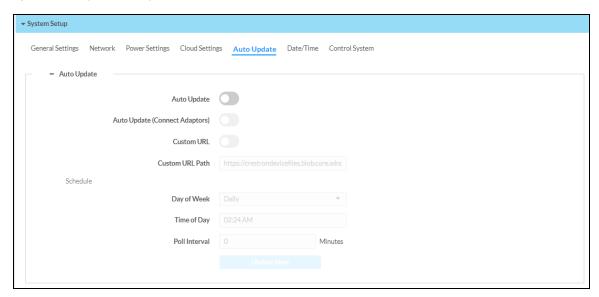
#### System Setup - Cloud Settings



# **Auto Update**

Select **Auto Update** to configure the auto update feature. The auto update feature allows the device to automatically scan for firmware updates and install the updates as needed.

#### System Setup - Auto Update



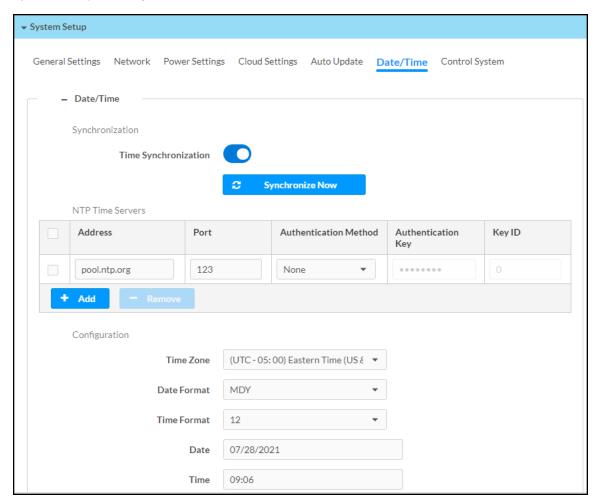
- Auto Update: Turn the toggle on to allow automatic updates.
- Auto Update (Connect Adaptors): Turn the toggle on to allow automatic updates of Connect Adaptors. With this feature enabled, if a firmware update is available and the adaptor is connected, a notification is shown on the room display. Follow the instructions in the notification to initiate the firmware update.
- **Custom URL**: Turn the toggle on to use a custom update server URL. If turned off, the server URL will default to the standard Crestron update server.

- Custom URL Path: If Custom URL is turned on, enter the custom URL path for the update server.
- Schedule: Set the schedule for when the device checks for updates.
  - Day of Week: Select the day of the week when the device will check for updates.
     Select Daily to have the device check for updates every day.
  - **Time of Day**: Enter a time of day (in 24-hour format) when the device will check updates on the scheduled day.
  - **Poll Interval**: Enter the polling interval (in minutes) for when the device will poll the server for updates.
  - Select **Update Now** to check the update server for new firmware and to update the device immediately if new firmware is available.

# Date/Time

Select **Date/Time** to configure the settings for the receiver's internal clock.

## System Setup - Configure Date/Time



**NOTE:** The time is automatically set when connected to Crestron Fusion. Any settings made here do not apply.

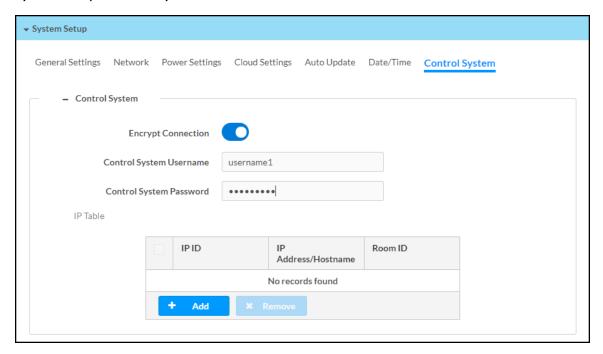
- Synchronization: The receiver's internal clock can be synchronized with a time server.
  - **Time Synchronization**: Turn on the toggle to use time synchronization via SNTP (Simple Network Time Protocol).
  - Synchronize Now: With Time Synchronization turned on, select Synchronize Now to synchronize the receiver with the SNTP server(s) entered in the NTP Time Servers table.

- NTP Time Servers: With Time Synchronization turned on, use the provided table to enter information regarding the SNTP server(s) used to synchronize the date and time for the receiver.
  - Select **Add** to add a new SNTP server entry into the table.
  - Enter the following information for each entry:
    - Enter the SNTP server address into the **Address** text field.
    - Enter the SNTP server port into the **Port** text field.
    - Use the Authentication Method dropdown menu to select the authentication method used to access the SNTP server (if one exists).
    - If an authentication method is selected, enter the key used to authenticate against the SNTP server into the **Authentication Key** text field.
    - If an authentication method is selected, enter the ID for the key used to authenticate against the SNTP server into the Key ID text field.
  - To remove an entry, fill the checkbox to the left of the table entry, and then select **Remove**.
- Configuration: The receiver's internal clock can be configured manually.
  - **Time Zone**: Select a time zone for the receiver using the dropdown menu.
  - **Date Format**: Select the format that the date will appear on the display device using the drop-down menu (MDY, DMY, or YMD).
  - **Time Format**: Select the format that the time will appear on the display device (12 hour or 24 hour).
  - Date: Select the date for the receiver using the pop-up calendar that is displayed.

# Control System

Select **Control System** to connect and configure a control system with the receiver. The receiver can be controlled by a Crestron control system or by a virtual control system's SIMPL or SIMPL# program.

#### System Setup - Control System



- Encrypt Connection: Turn the toggle on to use SSL encryption for communication with the control system. SSL can be used with or without a CA certificate. When Encrypt Connection is toggled on, the username and password for the control system is required.
- Control System Username: The username for the control system.
- Control System Password: The password for the control system.
- **IP Table**: Select **Add** to add an IP table connection between the device and the control system.
  - IP ID: Enter an IP ID for connecting the device to the control system.

# **NOTES:**

- The control system will search the related ID while entering the IP ID.
- The IP ID must match the IP ID defined in the control system's SIMPL Windows or SIMPL# program.
- IP Address/Hostname: Enter the control system IP address or hostname.
- Room ID: Enter a room ID to associate with the device (for connections with the Crestron Virtual Control server-based control system).

# Services

Select **Services** to configure the device's connection with Crestron Fusion® software and/or other calendaring applications.

At the top left corner of the **Services** window, select the **+** (plus) icon next to **Fusion** to configure the following Crestron Fusion connection settings.

## Settings Tab - Services (Fusion)



- Fusion: Turn the toggle on to use Crestron Fusion with the device.
- Room Name: Enter the room name to be used by the Crestron Fusion server.
- Fusion IP ID: Select the IP ID number to be used by the Crestron Fusion server.
- Report AirMedia Asset Only: Turn the toggle on to allow only AirMedia related settings to appear in Crestron Fusion. Turn the toggle off to allow all device settings to appear in Crestron Fusion.
- Fusion Cloud: Turn the toggle on and enter the Fusion Cloud URL manually in the Fusion Cloud URL field. When Fusion Cloud is toggled off, the Crestron Fusion server will use auto-discovery and the Fusion Cloud URL field will not appear.

**NOTE:** Upon completion, the device will be brought into Crestron Fusion software as a processor. For more details on using the device with Crestron Fusion, refer to the Crestron Fusion help file.

Select the + (plus) icon next to **Calendar** to display the following calendaring application settings.

# Settings Tab - Services (Calendar)



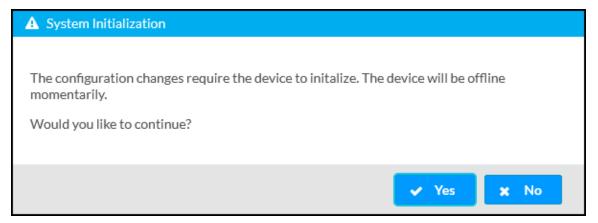
- Calendar: Turn the toggle on to use a calendaring application with the AirMedia device.
- Scheduling Type: Select a calendaring service from the dropdown menu.

## Crestron Fusion Service

To use the device with Crestron Fusion scheduling software:

- 1. Configure a Crestron Fusion connection as described in Services on page 115.
- 2. Turn on the Calendar toggle.
- 3. Select **Fusion** from the **Scheduling Type** drop-down menu.
- 4. Select **Save Changes**. In the **System Initialization** dialog box, select **Yes** to continue. System initialization will occur.

#### System Initialization

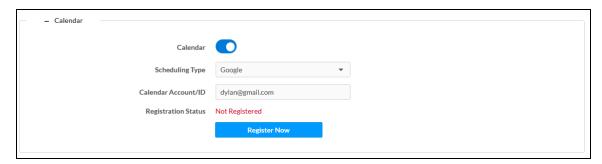


# Google Calendar Service

To use the device with the Google Calendar service:

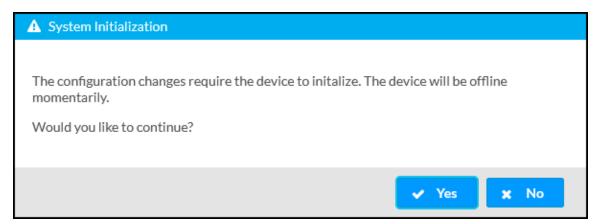
- 1. Turn on the Calendar toggle as described in Services on page 115.
- 2. Select **Google** from the **Scheduling Type** drop-down list to use the Google Calendar<sup>™</sup> application for calendar functions.

# Calendar Settings – Google Calendar

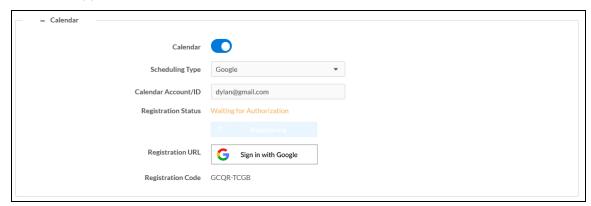


- 3. In the Calendar Account/ID field, enter the email address attached to the desired Google calendar.
- 4. Select **Save Changes**. In the **System Initialization** dialog box, select **Yes** to continue. System initialization will occur.

System Initialization



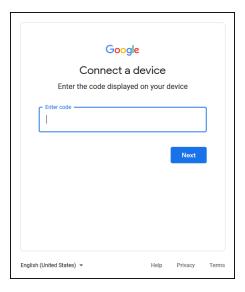
5. Select **Register Now**. The **Registration Status**, **Registration URL**, and **Registration Code** fields will appear.



6. Copy the code in the **Registration Code** field.

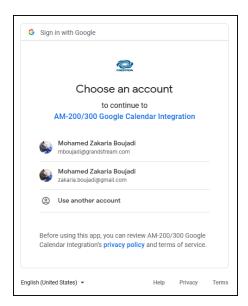
7. In the **Registration URL** field, select **Sign in with Google**. The **Connect a device** screen appears.

## Connect a device Screen



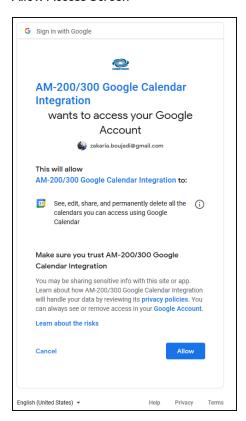
8. Enter the registration code in the **Enter Code** field and select **Next**. The **Choose an account** screen appears.

#### Choose an account Screen



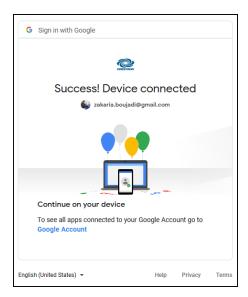
9. Select an account and sign in with the login credentials.

#### Allow Access Screen



10. Select **Allow** to complete the process. A success message will be displayed, and the Google Calendar status will be updated.

# Success Screen



To disconnect the calendar from the device, select **Unregister** and follow the instructions for activating a new configuration.

# Calendar Settings – Google Calendar

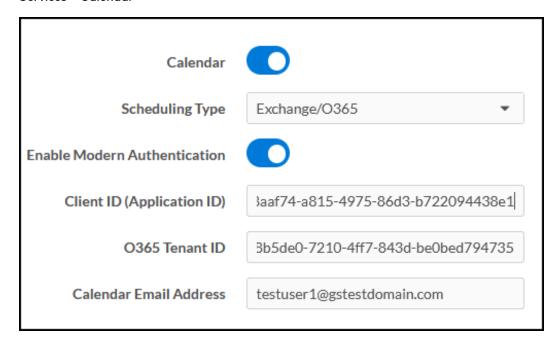


# Microsoft Exchange Server and Microsoft 365 Software, Modern Authentication

To use the device with Microsoft Exchange Server and Microsoft 365 Software (Modern Authentication enabled):

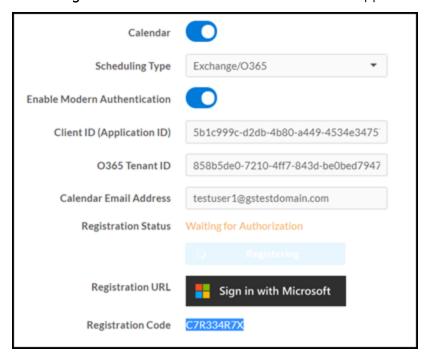
- 1. Turn on the Calendar toggle as described in Services on page 115.
- 2. Select Exchange/O365 from the Scheduling Type dropdown menu.
- 3. Turn on the **Enable Modern Authentication** toggle.
- 4. Enter a Client ID in the Client ID (Application ID) field.
- 5. Enter an O365/Microsoft 365 Tenant ID in the O365 Tenant ID field.
- 6. (Optional) Enter the Calendar email address in the **Calendar Email Address** field. The calendar email address is required for accounts using impersonation.

#### Services - Calendar

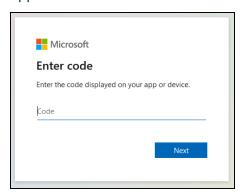


7. Select **Save Changes**. In the **System Initialization** dialog box, select **Yes** to continue. System initialization will occur.

8. Select **Register Now**. A code and a Microsoft icon will appear.

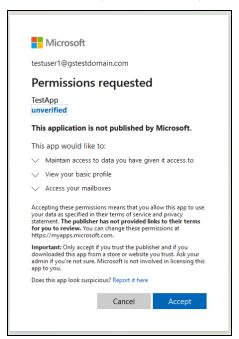


- 9. Copy the code in the **Registration Code** field.
- 10. Select **Sign in with Microsoft** in the **Registration URL** field. An **Enter code** screen will appear.



- 11. Enter the registration code and select **Next**.
- 12. Enter the account credentials to sign in.

13. On first use, a permissions required window will be displayed. Select Accept.



14. Sign in to the Microsoft 365 service. Once signed in, a confirmation message will appear, and the Registration Status will be updated.

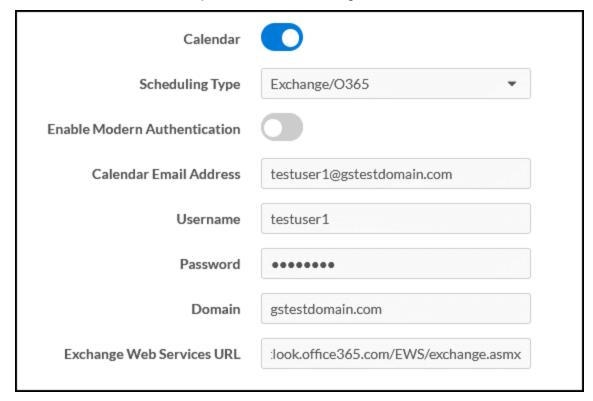
To disconnect the calendar from the device, select **Unregister** and follow the instructions for activating a new configuration.

# Microsoft Exchange Server and Microsoft 365 Software, Modern Authentication Disabled

To use the device with Microsoft Exchange Server and Microsoft 365 Software (Modern Authentication disabled):

- 1. Turn on the Calendar toggle as described in Services on page 115.
- 2. Select Exchange/O365 from the Scheduling Type drop-down menu.
- 3. Turn the Enable Modern Authentication toggle off.
- 4. (Optional) Enter the calendar email address in the **Calendar Email Address** field. The calendar email address is required for accounts using impersonation.
- 5. Enter the account username in the Username field.
- 6. Enter the account password in the Password field.
- 7. Enter the domain name used by the Exchange server in the **Domain** field.

8. Enter the URL of the Exchange server in the Exchange Web Services URL field.



9. Select **Save Changes**. In the **System Initialization** dialog box, select **Yes** to continue. System initialization will occur.

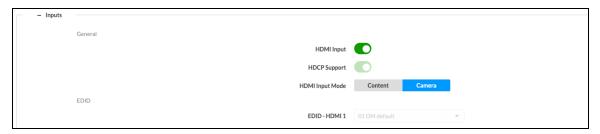
To disconnect the calendar from the device, select **Unregister** and follow the instructions for activating a new configuration.

# Audio-Video

Select **Audio-Video** to configure settings for the HDMI input port (AM-3200(-WF)(-I) models only) and HDMI output port and to display information about the display device and output signal.

Select the + (plus) icon next to Inputs to display the following HDMI input settings.

## Settings Tab - Audio-Video (Inputs)



#### General

- HDMI Input: Turn the toggle on to enable the HDMI input port.
- **HDCP Support**: Turn the toggle on to allow source signals that require HDCP compliance to pass through to the display device.
- HDMI Input Mode: Select the mode for the HDMI input port.
  - Select Content to share content from a personal device through the HDMI input.
  - Select Camera to use a connected HDMI camera for Wireless Conferencing.

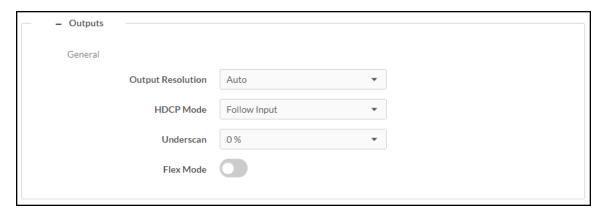
#### EDID

 EDID-HDMI 1: Select an EDID profile loaded to the receiver to use for the HDMI input.

**NOTE:** To manage EDID profiles installed on the receiver, refer to Manage EDIDs (AM-3200(-WF)(-I) Models Only) on page 84.

Select the + (plus) icon next to **Outputs** to display the following HDMI output settings.

#### Settings Tab - Audio-Video (Outputs)



- Output Resolution: Select the output resolution from the dropdown list.
- HDCP Mode: Select the HDCP mode from the dropdown list.
  - When HDCP Mode is set to Auto, the receiver always attempts to use HDCP if support is detected on the display device.
  - When HDCP Mode is set to Follow Input, the receiver attempts to use HDCP if support is detected on the HDMI input.
  - When HDCP Mode is set to Force Highest, the receiver attempts to use the latest version of HDCP regardless of whether or not support is detected on the display device.
  - When **HDCP Mode** is set to **Never Authenticate**, the receiver never attempts to use HDCP with downstream devices, regardless of support.

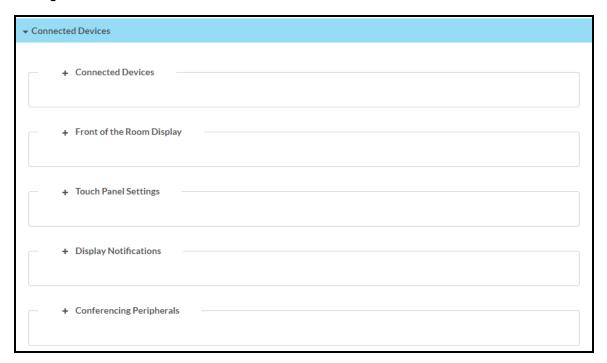
- **Underscan**: Select the amount of underscan to apply to the output signal from the dropdown list. Adjust this setting to improve the readability of text that may be cropped due to overscan or underscan conditions on the display device.
- Flex Mode: Turn the toggle on when using the receiver with a Crestron Flex conference system. Flex Mode disables the HDMI output from the AirMedia device unless a source is active.

**NOTE:** When using the device in Flex Mode, Crestron recommends setting **HDCP Mode** to **Never**. A connected touch screen must be set to communicate to the device at the IP ID **FD**. In **System Setup > Power Settings**, **Standby Mode** must be set to **Always On** as described in Power Settings on page 106.

# **Connected Devices**

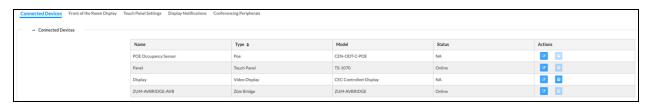
Select **Connected Devices** to configure settings for any connected devices such as displays, touch screens, keypads, occupancy sensors, and Wireless Conferencing peripherals.

## Settings Screen - Connected Devices



Select the + (plus) icon next to Connected Devices to display the following device settings.

# Settings Screen - Connected Devices (Connected Devices)

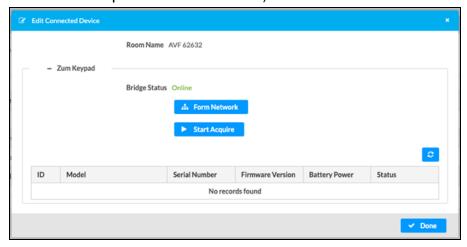


A list of connected devices is along with each device's **Name**, **Type**, **Model**, and **Status**. Select the edit button to modify the connected device's settings. Select the test driver button to send commands to a display device to test the driver's functionality.

# AirMedia Wireless Keypad

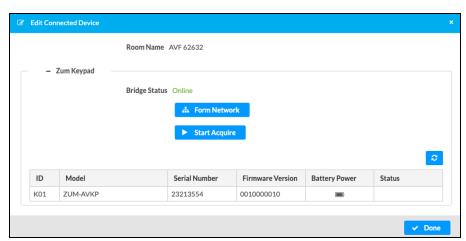
AirMedia Series 3 receivers can use a <u>ZUMMESH-KP10AMBATT</u> AirMedia Wireless Keypad (sold separately) paired to a <u>ZUMMESH-AVBRIDGE</u> Wireless Control Integration Module (sold separately) for system control. Perform the procedure below to configure the keypad.

- 1. Follow the installation instructions for the <u>ZUMMESH-KPT10AMBATT</u> and <u>ZUMMESH-AVBRIDGE</u>.
- 2. Connect the ZUMMESH-AVBRIDGE to the receiver via USB.
- 3. In Connected Devices, select the ZUMMESH-AVBRIDGE's edit button .
- 4. Select Start Acquire to initiate discovery mode on the ZUMMESH-AVBRIDGE.



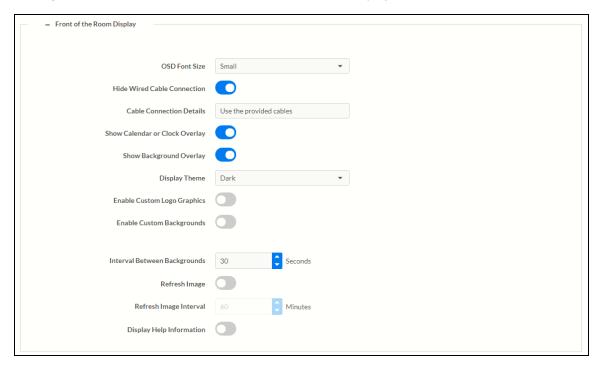
5. On the ZUMMESH-KPT10AMBATT, initiate discovery mode by tapping the **ON** button three times and then pressing and holding it.

Once paired, the keypad will appear on the ZUMMESH-AVBRIDGE's **Edit Connected Device** page and will control the connected display.



Select the + (plus) icon next to **Front of the Room Display** to display settings for the front of the room experience splash screen.

## Settings Screen - Connected Devices (Front of the Room Display)



- OSD Font Size: Select the font size of the connection bar text on the AirMedia Welcome Screen (Small, Medium, or Large). When set to Large, Whiteboard connection information (if configured for use) will be unavailable.
- **Hide Wired Cable Connection**: (AM-3200(-WF)(-I) models only) Turn the toggle on to hide wired connection details on the display device.
- Cable Connection Details: (AM-3200(-WF)(-I) models only) Enter custom instructions for presenting content using the receiver's wired connection. The instructions will appear on the display device and should be used to guide users.
- Show Calendar or Clock Overlay: Turn the toggle on to show the clock and calendared events in the center of the display device.
- Show Background Overlay: Turn the toggle on to place a monochrome filter over background images.
- **Display Theme**: Select a display theme from the dropdown menu to use a light or dark color scheme on the display device.

• Enable Custom Logo Graphics: Turn the toggle on to display a custom logo on the display device. An **Add Logo** option will appear when the change is saved. When the toggle is off, the Crestron logo is displayed.

#### NOTES:

- The optimal image size for a logo is 600 x 100 pixels. Custom graphics that are larger than 600 x 100 pixels are scaled down while maintaining their aspect ratio. Custom graphics that are smaller than 600 x 100 pixels are not scaled up and should be resized for optimal image display.
- To manage images stored on the receiver, refer to Manage Images on page 88.
   Up to 20 images can be stored locally on the receiver at a maximum of 100 MB.
- Logo and Custom Background Management: Select Add Logo to use a custom image. Choose an image located on a server or upload a custom image.
- Source: Select URL to use an image located on a server. Enter the URL of the image location in the Graphic URL field. Select File to upload an image file.
- Enable Custom Backgrounds: Turn the toggle on to display a custom background slideshow when the system is not in use. An Add Logo option will appear once the change is saved.

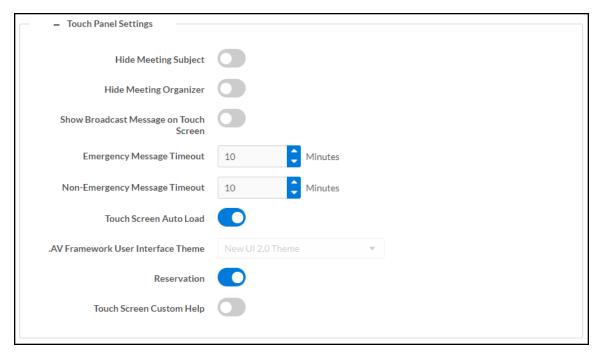
#### **NOTES:**

- Up to 20 images can be stored locally on the receiver at a maximum of 100 MB.
   To manage images stored on the receiver, refer to Manage Images on page 88.
- Custom background images should be jpg files with resolutions no higher than 4096 x 2160 pixels. Images with resolutions higher than 4096 x 2160 pixels may exceed the receiver's storage limit when rendered and will inhibit performance.
- The interface has been designed to use most of the screen area for informational purposes. This feature is intended for use with corporate colors, branding, and aesthetics unique to the particular organization and should not be used to add custom instructions for room users.
- When Appspace is enabled, custom backgrounds cannot be used. For information on using Appspace, refer to Settings on page 100.
- Logo and Custom Background Management: Select Add Logo to upload a custom image. Choose an image located on a server or upload a custom image.
- Source: Select URL to use an image located on a server. Enter the URL of the image location in the Graphic URL field. Select File to upload an image file. The image is then added to a list of files in the File drop-down menu. Select the image file from the dropdown menu.
- Interval Between Backgrounds: Enter a span of time (in seconds) that each background image is displayed.

- **Refresh Image**: Turn the toggle on to allow the system to periodically download the remotely stored logo and background images from the URLs specified for the custom logo or background.
- **Refresh Image Interval**: Enter the amount of time between downloads (in minutes). The minimum amount of time available is one minute, and the maximum amount of time is 65,535 minutes (about 45 days).
- **Display Help Information**: Turn the toggle on to allow the system to display custom help information. Enter the **Help Information Text** to be displayed.

Select the + (plus) icon next to **Touch Panel Settings** to display settings for connected touch screens.

# Settings Screen - Connected Devices (Touch Panel Settings)



- **Hide Meeting Subject**: Turn the toggle on to hide the meeting's subject on the touch screen.
- **Hide Meeting Organizer**: Turn the toggle on to hide the meeting's organizer on the touch
- Show Broadcast Message on Touch Screen: Turn the toggle on to show broadcast messages on the touch screen (broadcast messages are automatically shown on the display device).

• **Emergency Message Timeout**: Enter the number of minutes an emergency broadcast message is displayed on the touch screen.

**NOTE:** Emergency broadcasts are sent from Crestron Fusion which is to be supported in a future firmware release. For more information on emergency broadcasts, refer to the Crestron Fusion® Software SSI Model Reference Guide (Doc. 7898).

- Non-Emergency Message Timeout: Enter the number of minutes a non-emergency broadcast message is displayed on the touch screen.
- **Touch Screen Auto Load**: Turn the toggle on to allow project files to be pushed to the touch screen from the cloud automatically.
- .AV Framework User Interface Theme: For future use.
- Reservation: Turn the toggle on to allow calendar reservations from the touch screen.
- Touch Screen Custom Help: Turn the toggle on to display a custom help screen when the information button is tapped on the touch screen. A Custom Help URL field appears. Enter the image's URL in the Custom Help URL field and save the changes.

Select the + (plus) icon next to **Display Notifications** to reveal settings for how notifications are displayed when an AirMedia device is in use.

#### Settings screen - Connected Devices (Display Notifications)



- **Time Remaining Message Starts**: Enter the amount of time that must pass (in minutes) before the meeting's time remaining message is displayed.
- **Time Remaining Message Duration**: Enter the amount of time (in seconds) that the time remaining message is displayed.
- **Next Meeting Information Shown**: Enter the amount of time (in minutes) before the next meeting's information is displayed.

Select the + (plus) icon next to **Conferencing Peripherals** to display settings and information for connected Wireless Conferencing peripherals.

# Settings - Conferencing Peripherals





• Volume: Controls the maximum allowed volume of connected USB speakers

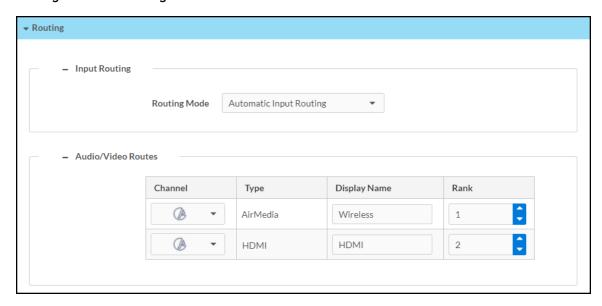
**NOTE:** The volume slider will only appear when a supported peripheral device is connected.

- Microphone Detected: Indicates whether or not a microphone is connected
- Camera Detected: Indicates whether or not a camera is connected
- Camera Resolution: The resolution of a connected camera
- USB Speaker Detected: Indicates whether or not a USB speaker is connected

# Routing

Select **Routing** to configure the order in which devices are routed to the display device upon connection.

## Settings Screen - Routing



Select the + (plus) icons next to **Input Routing** and **Audio Video Routes** to display the **Routing Mode** setting and a list of the routed sources. By default, routing is automatic, meaning the last connected source will be routed to the display device.

Select one of the following routing modes from the dropdown list:

- **Automatic Input Routing**: Automatically route the last connected source to the display device.
- **Priority Routing**: Dictate the order in which sources are routed using the table in the **Audio/Video Routes** section.
  - To change the routing order of a device, select a number from the corresponding dropdown list under the **Rank** column. Devices with a lower number rank will take priority over others.
  - To change the name of the source that appears on the touch screen, type a name into the text field under the **Display Name** column in the corresponding row of the device.
- AirMedia Auto-Route Only: Automatically route a connected AirMedia source to the display device. Any other sources (HDMI, for example) must be manually routed from the touch screen.

 AirMedia Dock Upon Connect: Automatically dock a source once it connects to the AirMedia receiver. When docked, the source does not present but remains connected to the display.

**NOTE:** The **AirMedia Dock Upon Connect** routing mode is available only for Windows or Android sources.

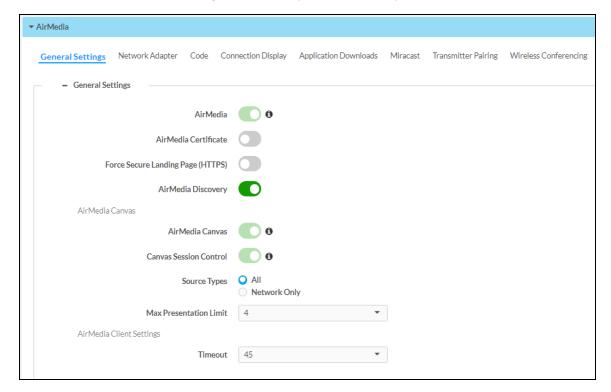
# AirMedia

Select AirMedia to configure the device's AirMedia functionality.

AirMedia can support up to 30 simultaneously connected AirMedia application users (Windows or Android operating systems) and a maximum of two native mirroring users (Airplay or Miracast® mirroring). Up to four sources can present to the display simultaneously using the AirMedia Canvas feature. For details on the AirMedia canvas feature, refer to AirMedia Canvas Functionality on page 136.

**NOTE:** For additional details on deploying AirMedia, refer to the <u>AirMedia Presentation</u> <u>Gateway Deployment Guide</u> (Doc 7693).

AirMedia Screen - General Settings (Shown in Optimize for Multiple Presentations Mode)



# **General Settings**

Select the **General Settings** tab to configure settings for AirMedia, the AirMedia Canvas, and Miracast.

NOTE: Options forced by the selected System Mode are locked. Hover over ① for details.

- **AirMedia**: Turn the toggle on to enable AirMedia wireless presentation on the AirMedia receiver.
- AirMedia Certificate: Turn the toggle on to use a third party certificate to encrypt connections between the sender applications for Windows and Android and the receiver. Load a certificate onto the device as described in 802.1x Configuration on page 155.
- Force Secure Landing Page (HTTPS): Turn the toggle on to force connecting devices to a secure landing page (HTTPS). When enabled, the web server uses either the certificate loaded in the certificate store (when available) or a self-signed certificate. The AirMedia connection URL will contain HTTPS.
- AirMedia Discovery: Turn the toggle on to allow the receiver to be automatically discovered by the AirMedia application on users' personal devices. When the toggle is turned off, users who wish to use present via AirMedia will be required to manually enter the receiver's IP address or host name.
- AirMedia Canvas: AirMedia Canvas allows multiple sources to present simultaneously on the display. Refer to AirMedia Canvas Functionality on page 136 for more information.
  - AirMedia Canvas: Turn the toggle on to enable AirMedia Canvas functionality.
  - Canvas Session Control: Turn the toggle on to control the AirMedia Canvas with a paired touch panel using the .AV Framework 2.0 Interface, a computer running the AirMedia client, or an iOS device running the AirMedia app.

**NOTES:** If **AirMedia Canvas** is disabled, **Canvas Session Control** can remain enabled. In this scenario, session controls are available for all connected users, but only one source can present at a time.

- Source Types: Select one of the radio buttons to select which sources can share space on the display. Select All to allow all source types (HDMI, AirMedia, Miracast, and AirPlay) to share space on the display. Select Network Only to allow only wireless sources (AirMedia, Miracast, and AirPlay) to share space on the display. HDMI sources will present in full screen if selected.
- Max Presentation Limit: Select the maximum amount of sources that can present simultaneously.
- AirMedia Client Settings
  - Timeout: Select an amount of time (in minutes) before an inactive, connected user is automatically disconnected from the receiver. An inactive user is not actively presenting but still connected to the receiver.
- AirMedia Client (AM-3100-WF and AM-3100-WF-I only)
  - Miracast (Windows and Android): Turn the toggle on to allow for Miracast presentation from Windows 10 or Android platforms.

### AirMedia Canvas Functionality

AirMedia Canvas allows multiple sources to present simultaneously on the display. AirMedia Canvas automatically configures the best possible layout to maximize screen coverage based on the number of active sources, the type of sources, their orientation, and their aspect ratios.

The following sources can share space on a display simultaneously:

• AirMedia (Windows, Android, Mac, iOS, AirPlay/Miracast)

**NOTE:** The AirMedia extension for Chrome OS is not supported and will only be allowed to present full screen.

HDMI

**NOTE:** When the AirMedia Canvas feature is enabled, the 4:2:0 color space is used for high definition sources connected to the HDMI input port. When the AirMedia Canvas feature is disabled, the 4:4:4 color space is used. If the 4:4:4 color space is required by sources connected to the HDMI input port, the AirMedia Canvas should be disabled.

• Whiteboard Capture Device

When enabled, AirMedia Canvas works as follows:

- If one source is active, the source presents in full screen.
- If multiple sources are active, the sources present in a way that maximizes screen coverage depending on their aspect ratios.
- When multiple sources are active, and all but one of the sources is disconnected, the single source returns to full screen.
- If the maximum amount of sources is reached and another source is selected, then the first active source is docked (AirMedia user) or disconnected (hard wired inputs, AirPlay connection, or Miracast connection). When docked, the source stops presenting but remains connected to the display.
- When all sources are disconnected, the display shows the front of the room experience splash screen.

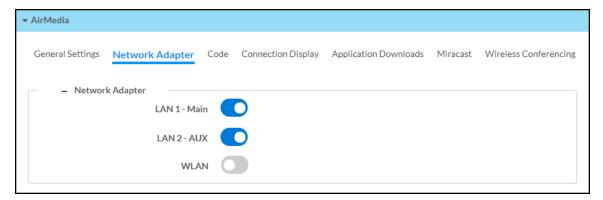
When AirMedia Canvas is disabled, the display shows one source at a time.

For details on using a touch screen to control AirMedia Canvas, refer to AirMedia Canvas on page 201. For details on using a computer or iOS device to control AirMedia canvas, refer to Share Content on page 174.

# Network Adapter

Select the Network Adapter tab to determine the Ethernet ports assigned for use by AirMedia.

# AirMedia Screen - Network Adapter



- LAN 1 Main: Turn the toggle on to allow AirMedia connections from the local area network.
- LAN 2 AUX: (AM-3200(-WF)(-I) models only) Turn the toggle on to allow AirMedia connections from a secondary, guest-only local area network. For more information on the second LAN connection, refer to Dual LAN Functionality (AM-3200(-WF)(-I) models only) on page 137.
- WLAN: Allow AirMedia connections from the receiver's self hosted Wi-Fi access point (Wi-Fi network enabled models only).

#### Dual LAN Functionality (AM-3200(-WF)(-I) models only)

AirMedia Series 3 receivers provide dual LAN connectivity for isolated internal and guest networks. Users may present via AirMedia or connect to the receiver's web configuration interface when connected to either network.

The secondary LAN port is intended solely for use with a guest network. The secondary LAN port has limited functionality and does not support the following devices and services:

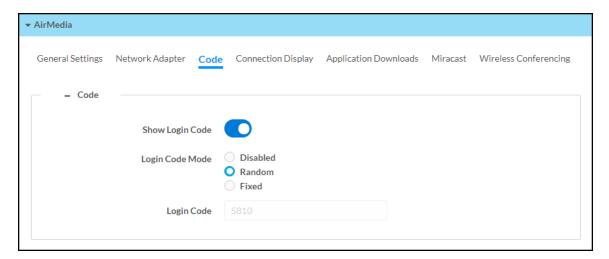
- XiO Cloud service
- Crestron Fusion software
- Scheduling services (such as Google Calendar or Microsoft 365 software)
- Occupancy sensors
- Touch screen control
- ChromeOS presentation
- Power over Ethernet

Make LAN connections to the receiver as described in the <u>AM-3200, AM-3200-WF</u>, and <u>AM-3200-WF-I Quick Start guide</u> (Doc. 8986).

#### Code

Select the **Code** tab to configure the access code that must be entered to present content on the AirMedia receiver.

#### AirMedia Screen - Code



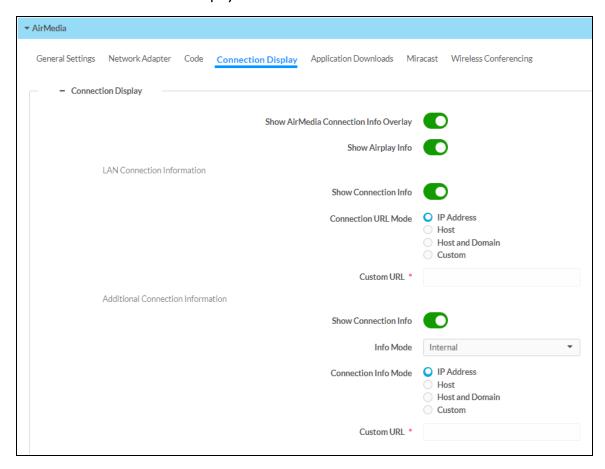
- Show Login Code: Turn the toggle on to show the access code on the display device.
- Login Code Mode: Select a radio button to specify how the access code is used.
  - **Disabled**: Allows any user with the device's IP address or host name to open a client connection without entering an access code.
  - Random: Randomly generates an access code. A new code is generated when the
    last connected presenter disconnects from the device. The access code is shown on
    the display device when AirMedia is selected.
  - **Fixed**: Uses a user-specified, four-digit access code. Enter a custom code in the **Login Code** field when **Fixed** is selected.

# Connection Display

Select the **Connection Display** tab to configure how AirMedia connection details are shown on a connected display device.

**NOTE:** For more details on how AirMedia connection details are shown on a display device, refer to Front of Room Experience on page 171.

#### AirMedia Screen - Connection Display



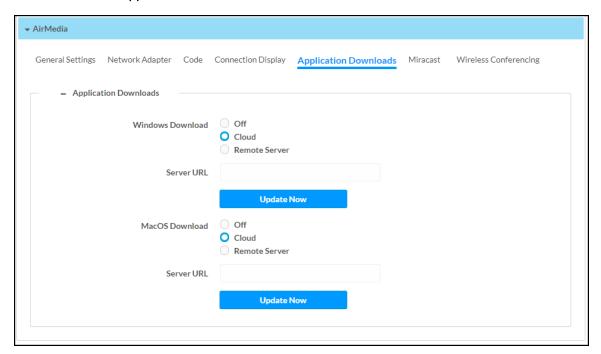
- Show AirMedia Connection Info Overlay: Turn the toggle on to show connection information on the display device when a user is presenting. Crestron recommends turning this setting on.
- Show Airplay Info: Turn the toggle on to show Airplay connection information on the display.
- LAN Connection Information
  - **Show Connection Info**: Turn the toggle on to display connection information on the display device.
  - **Connection URL Mode**: Select one of the radio buttons to decide what connection information is shown on the display device.
    - IP Address: Show the IP address used to connect to the receiver.
    - **Host**: Show the host name used to connect to the receiver.
    - Host and Domain: Show the host name and domain name used to connect to the receiver.
    - Custom: Show a custom URL used to connect to the receiver. Enter the custom URL in the Custom URL field.

- WLAN Connection Information: The receiver can be configured to show Wi-Fi connection information on the display device.
  - **Show Connection Info**: Turn the toggle on to show Wi-Fi connection information on the display device.
  - **WiFi Info Mode**: Select what Wi-Fi network information to show from the dropdown menu.
    - Select Internal WiFi Access Point to show the internal access point's connection information on the display device.
    - Select Specify WiFi Internal Info to define and show SSID and connection key information on the display device. Turn on the respective toggles to show SSID and connection key information, and enter the SSID and connection key information into the respective fields.
  - **Connection Info Mode**: Select one of the radio buttons to decide what connection information is shown on the display device.
    - IP Address: Show the IP address used to connect to the receiver.
    - **Host**: Show the host name used to connect to the receiver.
    - Host and Domain: Show the host name and domain name used to connect to the receiver.
    - Custom: Show a custom URL used to connect to the receiver. Enter the custom URL in the Custom URL field.

### **Application Downloads**

Select **Application Downloads** to configure how AirMedia client applications are presented to the user for download. Client applications are required to present from a user's computer as described in Present with AirMedia on page 172.

### AirMedia Screen - Application Downloads



Select a radio button for the **Windows Download** and **MacOS Download** settings to decide how AirMedia client applications are presented to users according to their computer's operating system:

- Off: Provide the version of the AirMedia application included with the receiver's firmware.
- **Cloud**: Provide the latest version of the AirMedia application stored in the Cloud. The receiver checks for an update once a day at 2:00 am (local time).
- **Remote Server**: Provide a version of the AirMedia application that is hosted on a remote server. When selected, enter the URL of the remote server in the **Server URL** field.
- Update Now: Update the AirMedia application according to the Windows Download or MacOS Download setting.

**NOTE:** If the setting is changed from **Cloud** or **Remote Server** to **Off**, the receiver will provide the application version that is included with the device's firmware (even if it is an older version than what is available in the cloud or the remote server).

### Miracast

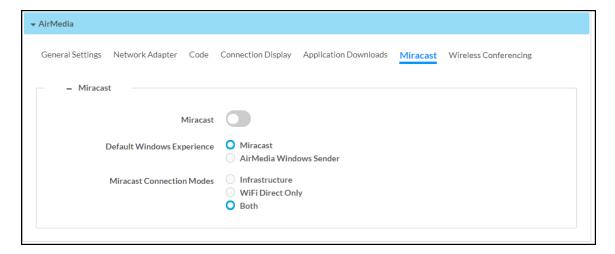
Miracast technology allows users to wirelessly share content from a Microsoft® Windows® 10 device to the receiver. Miracast technology is built into the Microsoft Windows 10 operating system, so no additional software installation is required.

**NOTE:** Refer to the <u>AirMedia Presentation Gateway Security Reference Guide</u> (Doc 7693) for best practices for configuring the system for Miracast.

A Miracast connection consists of two phases: the discovery phase and the connection phase. During the discovery phase, the Windows 10 device uses Wi-Fi based discovery to find compatible receivers. Once the receiver is discovered by the Windows 10 device, it is presented in a list on the device. The user can then select the receiver for connection to the Windows 10 device.

During the connection phase, the Windows 10 device will first attempt to connect to the receiver through the existing network infrastructure. If the connection over infrastructure fails, the Windows 10 device will connect to the receiver.

#### AirMedia Screen - Miracast



- Miracast: Turn the toggle on to enable Miracast on the receiver.
- **Default Windows Experience**: Select one of the radio buttons (**Miracast** or **AirMedia Windows Sender**) to select the default connection experience for Windows 10 users when they connect to the receiver via a web browser.
  - Select Miracast to display instructions for connecting to the receiver via Miracast.
  - Select AirMedia Windows Sender to prompt the user to download the AirMedia sender application.

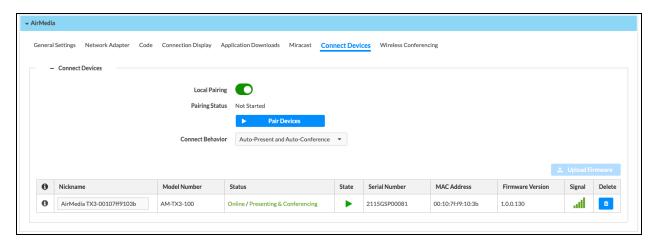
- Miracast Connection Modes: Select one of the radio buttons (Infrastructure, WiFi Direct Only, or Both) to configure how a Mircast capable device connects to the receiver.
  - Select Infrastructure to connect via the local area network. When selected, Wi-Fi is used for discovery only.
  - Select WiFi Direct Only to connect via a Wi-Fi point-to-point connection (Wi-Fi Direct® connection). When selected, Wi-Fi is used for discovery and for streaming.
  - Select Both to connect via a local area network or Wi-Fi point-to-point connection (Wi-Fi Direct® connection). When selected, a Wi-Fi point-to-point connection only occurs if the local area connection fails.

**NOTE:** When **WiFi Direct Only** or **Both** is selected, **Login Code Mode** must be set to **Random** or **Fixed** as described in Code on page 137.

### **Connect Devices**

AirMedia Connect devices can be connected to personal devices to instantly share content with a paired Wi-Fi network capable AirMedia receiver. Select **Connect Devices** to configure settings and pair Connect devices. Up to eight Connect devices can be paired to a single receiver. Information about operating the Connect devices can be found in AirMedia Connect Devices on page 205.

#### AirMedia Screen - Connect Devices



- Local Pairing: Turn the toggle on to enable pairing without the web configuration. To initiate the pairing process locally, press and hold the SETUP button on the AirMedia receiver for five seconds.
- Pairing Status: Indicates the current status of a pairing attempt.
- Pair Devices: Initiate the pairing process.

- Connect Behavior: Using the dropdown menu, select the automatic behavior of Connect devices.
  - Auto-Present: Automatically present.
  - Auto-Present and Auto-Conference: Automatically present and initiate Wireless Conferencing.

**NOTE:** After clicking **Pair Devices**, the pairing process must also be initiated on the Connect device:

- AM-TX3-100(-I): Press and hold the Screenshare button for five seconds. The LED ring will turn white. When pairing begins, the LED will alternate between red and white.
- AM-TX3-200: Press and hold the SETUP button for five seconds. The SETUP LED will start blinking when pairing begins.

Paired Connect devices appear in the table:

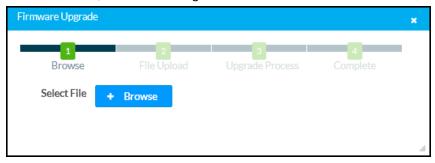
- Nick Name: Friendly name for the Connect device
- Model Number: Model of the Connect device
- **Status**: Indicates if the Connect device is currently online or offline or a firmware update is in process.
- **State**: The icon indicates if the Connect device is ready to share. A green check mark indicates the device is online and operational. A red X indicates the device is offline.
- **State**: The icon indicates if the Connect device is currently online, offline, or a firmware update is in process.
- Serial Number: Displays the serial number of the Connect device
- MAC Address: MAC Address of the Connect device
- Firmware Version: Firmware version of the Connect device
- Signal: Signal strength between the Connect device and receiver
- Actions: Select **Delete** to unpair the Connect device. This also resets the Connect device to factory default.

To update firmware on a paired Connect device, use Auto Update on page 110 or follow the procedure below.

**NOTE**: Updating firmware of an AirMedia Connect device requires it to be online with a strong wireless connection, and not currently presenting.

- 1. In the table, select the checkbox next to the Connect device.
- 2. Click the blue **Upload Firmware** button.

3. Select Browse, and then navigate to the firmware file on the host computer.



- 4. Select the firmware file, and then select **Open**.
- 5. Select **Load** to load the file to the receiver. The upload progress is shown in the dialog box and in the Connect device status menu.
- 6. Once the file upload has completed, select OK.

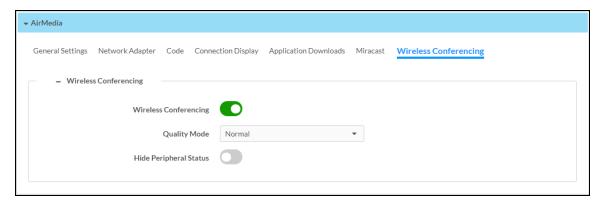
Select the **Cancel** button to close the **Firmware Upgrade** dialog box. Selecting the **Cancel** button before the file is uploaded to the device cancels the update.

### Wireless Conferencing

Select **Wireless Conferencing** to configure settings for the Wireless Conferencing feature. Wireless Conferencing allows the receiver to use connected conferencing peripherals, such as soundbars, cameras, or speakerphones when the user makes a call from a meeting room application.

For a list of peripherals supported with Wireless Conferencing, refer to Online Help 1001764.

#### AirMedia Screen - Wireless Conferencing



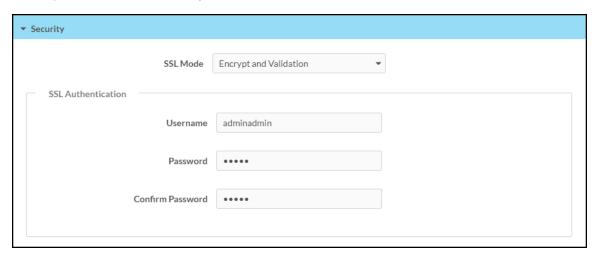
- Wireless Conferencing: Turn the toggle on to enable Wireless Conferencing on the receiver. PoE+ or a local power supply is required to enable Wireless Conferencing.
- Quality Mode: Select the video quality of a connected camera from the dropdown menu.
  - Select **Normal** to display the standard video quality of the camera.
  - Select Low to display a lowered level of video quality. Low should only be selected if there are network bandwidth concerns that arise when Normal is selected.
- **Hide Peripheral Status**: Turn the toggle on to hide the peripheral status from the display when Wireless Conferencing is in use.

For more information on Wireless Conferencing, refer to the <u>AirMedia Presentation Gateway</u> Security Reference Guide (Doc 7693).

# Security

Select **Security** to configure device security and authentication settings.

Security - Authentication Management



- **SSL Mode**: Select an SSL (Secure Sockets Layer) mode to use for establishing a secure connection between the receiver and the control system:
  - Encrypt and Validation: The receiver will require a username and password to validate an encrypted SSL connection. Enter a username and password in the respective fields.
  - **Encrypt**: The receiver will use an encrypted SSL connection.
  - OFF: The receiver will not use an SSL connection

### **Authentication**

When an **SSL Mode** is selected, authentication is required to configure the device. A list of authentication settings for the receiver will appear. Crestron recommends that authentication be required to configure the device. If **SSL Mode** is set to **Off**, authentication is not required to configure the device.

By default, authentication is required to access the web configuration interface or to connect to an AirMedia Series 3 receiver through Crestron Toolbox™ software. When a user attempts to sign into the device for the first time, the web configuration interface prompts the user to enter a new administrator username and password as described in Connect to the Receiver on page 79. This username and password will be saved and must be entered when reconnecting to the receiver in the future.

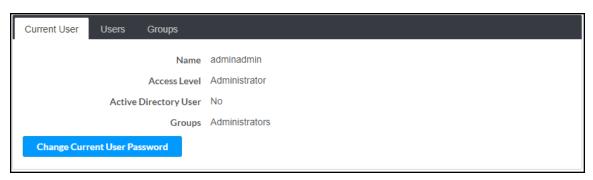
**CAUTION:** Do not lose the administrator username and password, as the receiver settings must be restored to factory defaults to reset the username and password. To restore the device to factory defaults, refer to Restore on page 83.

Use the following **Authentication Management** settings to add, delete, and edit users and groups.

### **Current User**

Select Current User to view and edit information for the current receiver user.

Authentication Management - Current User



The following settings are displayed for the current user:

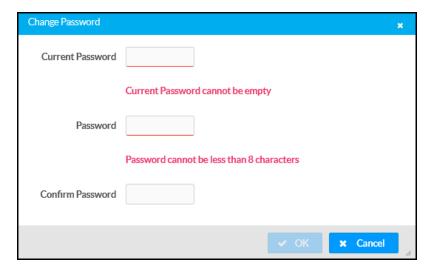
- Name: The chosen username
- Access Level: The access level granted to the user (Administrator, Connect, Operator, Programmer, or User)
- Active Directory User: Reports whether the current user is (Yes) or is not (No) authenticated through Active Directory® software

**NOTE:** A user must be added to an Active Directory group before the user may be selected as an active directory user. For more information, refer to Groups on page 151.

• **Groups**: Any groups of which the current user is a member

Select **Change Current User Password** to change the password for the current user. The **Change Password** dialog box is displayed.

### Change Password Dialog Box



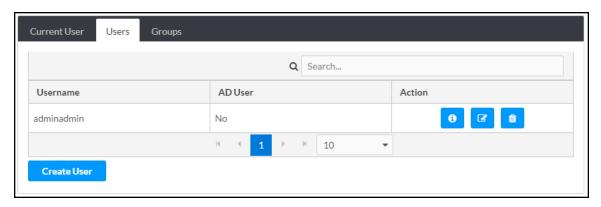
Enter the existing password in the **Current Password** field. Then, enter a new password in the **Password** field, and reenter the password in the **Confirm Password** field.

Select **OK** to save the new password, or select **Cancel** to cancel the change.

### Users

Select **Users** to view and edit information for the receiver users.

### Authentication Management - Users



Enter text into the **Search...** field to find and display users that match the search term(s).

Receiver users are listed in table format. The following information is displayed for each user:

- Username: The chosen username
- AD User: Reports whether the user is (Yes) or is not (No) authenticated through Active Directory

**NOTE:** A user must be added to an Active Directory group before the user may be selected as an Active Directory user. For more information, refer to Groups on page 151.

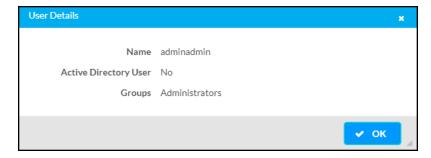
If the receiver users span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

An **Action** column is also provided for each user that allows various actions to be performed. The following selections may be selected from the **Action** column:

- Select the information button to view a user's username, Active Directory status, and group membership.
- Select the edit button 🔽 to edit a user's password and group membership.
- Select the trashcan button to delete a user.

#### **User Details**

Select the information button on the **Action** column to view information for the selected user. The **User Details** pop-up dialog box is displayed.



The following settings are displayed for the current user:

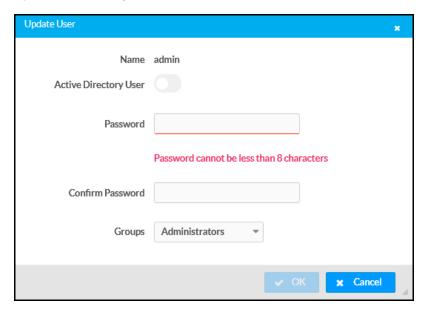
- Name: The chosen username
- Active Directory User: Reports whether the user is (Yes) or is not (No) authenticated through Active Directory
- Groups: Lists any groups that contain the user

Select **OK** to return to the **Authentication Management** > **Users** page.

### **Update User**

Select the editing button in the **Action** column to edit settings for the selected user. The **Update User** dialog box is displayed.

### **Update User Dialog Box**



The following **Update User** settings may be viewed or configured:

- Name: The chosen username
- Active Directory User: Turn on the toggle to use authentication via Active Directory for the selected user.
- Password: Enter a new password for the selected user.
- Confirm Password: Reenter the password provided in the Password field.
- **Groups**: Add the user to one or more groups. For more information, refer to Groups on page 151.

**NOTE:** A user must be added to an Active Directory group to be selected as an Active Directory user.

Select **OK** to save any changes and to return to the **Authentication Management** > **Users** page. select **Cancel** to cancel any changes.

### Delete User

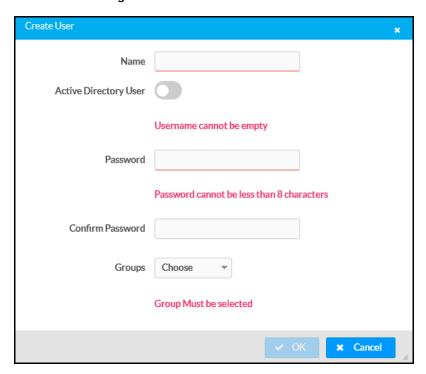
Select the trashcan button in the **Action** column to delete the user.

A pop-up dialog box is displayed asking whether the user should be deleted. select **Yes** to delete the user or **No** to cancel deleting the user.

### Create User

Select Create User to create a new user. The Create User dialog box is displayed.

### Create User Dialog Box



- Name: The chosen username
- Active Directory User: Turn on the toggle to use authentication via Active Directory for the selected user.
- Password: Enter a new password for the selected user.
- Confirm Password: Reenter the password provided in the Password field.
- **Groups**: Add the user to one or more groups. For more information, refer to Groups on page 151.

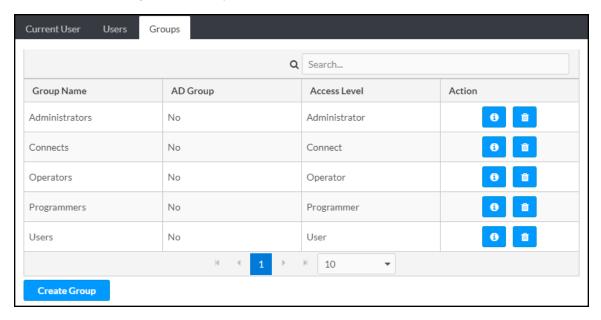
**NOTE:** A user must be added to an Active Directory group to be selected as an Active Directory user.

Select **OK** to save any changes and to return to the **Authentication Management** > **Users** page. Select **Cancel** to cancel any changes.

### Groups

Select **Groups** to view and edit settings for receiver groups. Receiver groups are used to group users by access level and Active Directory authentication settings.

### **Authentication Management - Groups**



Enter text into the **Search...** field to find and display groups that match the search term(s).

Groups are listed in table format. The following information is displayed for each group:

- **Group Name**: The chosen username
- AD Group: Reports whether the group is (Yes) or is not (No) authenticated through Active Directory

**NOTE:** Active Directory provides an additional layer of authentication for receiver groups and users. Active directory group and user names are stored in the receiver console along with a unique SID (security identifier). When an Active Directory user attempts to authenticate against the console, the console first checks the user credentials. If the Active Directory authentication is successful, Active Directory queries the console for the user or group's SID. The user is granted access to the receiver only if at least one SID match is found.

 Access Level: The access level granted to the user (Administrator, Connect, Operator, Programmer, or User)

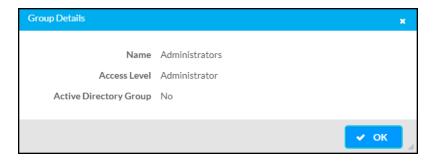
If the receiver groups span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

An **Action** column is also provided for each group that allows various actions to be performed. The following selections may be selected from the **Action** column:

- Select the information button to view a group's name, access level, and Active Directory status.
- Select the trashcan button to delete a user.

### **Group Details**

Select the information button on the **Action** column to view information for the selected user. The **Group Details** pop-up dialog box is displayed.



The following settings are displayed for the current user:

• Name: The chosen goup name

NOTE: If authenticating with Active Directory, do not enter the domain name for the Active Directory group in the Name field. If this information is being entered via console commands, omit domain\local from the command (for example, adddomaing -n:crestron -L:A instead of adddomaing -n:domain.local\crestron -L:A).

- Access Level: The access level of the group and its users
- Active Directory Group: Reports whether the group is (Yes) or is not (No) authenticated through Active Directory

Select **OK** to return to the **Authentication Management** > **Groups** page.

#### Delete Group

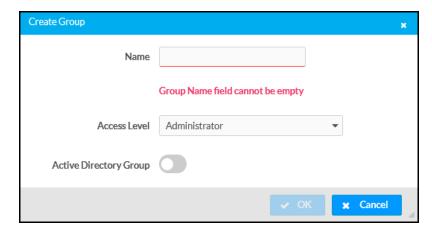
Select the trashcan button in the **Action** column to delete the user.

A pop-up dialog box is displayed asking whether the user should be deleted. Select **Yes** to delete the user or **No** to cancel deleting the user.

### Create Group

Select **Create Group** at the bottom of the page to create a new receiver group. The **Create Group** dialog box is displayed.

### **Create Group Dialog Box**



The following **Create Group** settings may be viewed or configured:

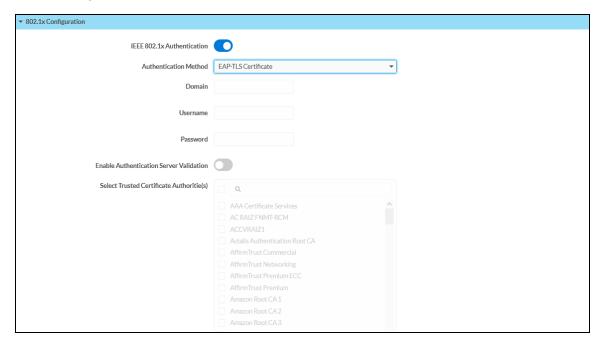
- Name: Enter a group name
- Access Level: Select an access level for the group and its users from the dropdown menu
- Active Directory Group: Turn on the toggle to use authentication via Active directory for the group

Select **OK** to save any changes and to return to the **Authentication Management** > **Groups** page. Select **Cancel** to cancel any changes.

# 802.1x Configuration

Select **802.1x Configuration** to display selections for configuring IEEE 802.1x network authentication for receiver security.

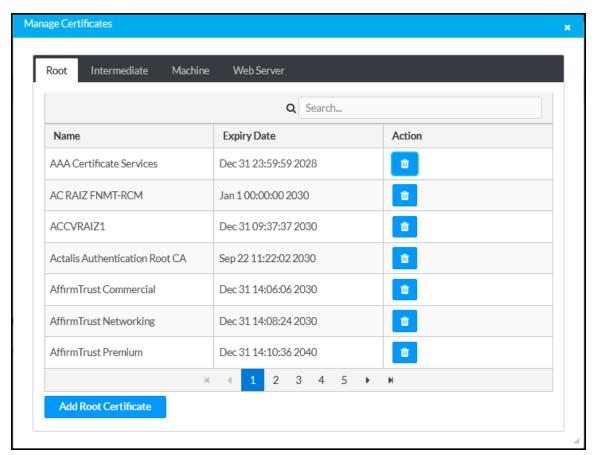
### 802.1x Configuration Tab Selections



- **IEEE 802.1x Authentication**: Turn on the toggle to use 802.1x authentication for the receiver.
- Authentication Method: Select an 802.1x authentication method (EAP-TLS Certificate or EAP MSCHAP V2- password) from the dropdown menu.
- **Domain**: If **EAP MSCHAP V2- password** is selected for **Authentication Method**, enter a domain name for authentication.
- **Username**: If **EAP MSCHAP V2- password** is selected for **Authentication Method**, enter a username for authentication.
- Password: If EAP MSCHAP V2- password is selected for Authentication Method, enter a password for authentication.
- Enable Authentication Server Validation: Turn on the toggle to use server validation for elevated security.
- **Select Trusted Certificate Authorities**: Select trusted CAs (Certificate Authorities) from the provided CAs to be used for server validation:
  - Select the corresponding check box for each CA that you wish to make a trusted CA.
  - Enter a search term into the text field to search for and display CAs that match the search term.
  - Select the check box in the search field to select all CAs as trusted CAs.

Select **Manage Certificates** from the **Action** menu to add or remove CAs from the list. The **Manage Certificates** dialog box is displayed with the **Root** tab selected.

Manage Certificates Dialog Box - Root Tab



Select **Root**, **Intermediate**, **Machine**, or **Web Server** to switch between the different types of CAs. The same settings are provided for each type of CA.

Enter a search term into the **Search...** text field to search for and display CAs that match the search term.

The following information is provided for each type of CA:

- Name: The CA name
- Expiry Date: The date and time that the CA is set to expire

If the CAs span multiple pages, use the navigation arrows on the bottom of the page to move forward or backward through the pages, or select a page number to navigate to that page.

Select the trashcan button in the **Action** column for a CA to delete it. Select **Yes** to delete the certificate or **No** to cancel.

Select Add [Type] Certificate to add a CA of one of the four available types (Root, Intermediate, Machine, or Web Server) to the list of CAs. The Add Certificate pop-up dialog box is displayed.

### Add Certificate Dialog Box - Browse



To add a new certificate:

- 1. Select Browse.
- 2. Navigate to the CA file on the host computer.
- 3. Select the CA file, and then select **Open**.
- 4. If required, enter the password used to encrypt the file.
- 5. Select **Load** to load the CA file to the receiver. The upload progress is shown in the dialog box.
- 6. Once the receiver has completed the upload, select **OK**.

Select the x button to close the Add Certificate dialog box at any time during the upload process. Selecting the x button before the CA file is uploaded to the touch screen cancels the upload.

Select the **x** button to close the **Manage Certificates** dialog box and to return to the **802.1x Authentication** page.

# **Enterprise Deployment Options**

Crestron has two options for deploying multiple AirMedia receivers across an enterprise. These tools can assist in deploying any number of receivers that an organization may need to deploy.

For more information, refer to Answer ID 5719 in the Online Help section of the Crestron website (www.crestron.com/onlinehelp).

### XiO Cloud® Service

The XiO Cloud® service allows supported devices across an enterprise to be managed and configured from one central and secure location in the cloud. Supported Crestron® devices are configured to connect to the service out of the box.

Use of the service requires a registered XiO Cloud account. To register for an XiO Cloud account, refer to <a href="www.crestron.com/Support/Tools/Licensing-Registration/XiO-Cloud-Registration-Room-Licenses">www.crestron.com/Support/Tools/Licensing-Registration/XiO-Cloud-Registration-Room-Licenses</a>.

**NOTE:** The device may be disconnected from the XiO Cloud service by navigating to the Cloud Services tab in Crestron Toolbox $^{\text{TM}}$  software (Functions > Device Info > Cloud Services). For details, refer to the Crestron Toolbox help file.

To connect the device to the XiO Cloud service:

 Record the MAC address and serial number that are labeled on the shipping box or the device. The MAC address and serial number are required to add the device to the XiO Cloud service.

**NOTE:** If the device has multiple MAC addresses, use the MAC address that is providing the primary connection back to the network. For most devices, the Ethernet MAC address should be used. However, if your device is connecting to the network over a different protocol (such as Wi-Fi® communications), use the MAC address for that protocol instead.

- 2. Log in to your XiO Cloud account at portal.crestron.io.
- 3. Claim the device to the XiO Cloud service as described in the XiO Cloud User Guide.

Select the device from the cloud interface to view its status and settings. The device may now also be managed and assigned to a group or room. For more information, refer to the XiO Cloud User Guide.

**NOTE:** For XiO Cloud accounts with room-based licenses, the device must be added to a licensed room before its status and settings can be viewed.

# Crestron Deployment Tool for PowerShell® Software

Crestron has developed a tool for customers without the ability to use CPS to assist in deploying multiple devices without the need to configure each device individually. With this tool, an administrator has the ability to input all of the settings to be configured on multiple receivers, and then use PowerShell® task-based command-line shell and scripting language to configure the devices across a local network.

# Modern Authentication for EWS

This appendix provides the procedures required to configure Modern Authentication (OAuth 2) support for AirMedia series 3 receivers in the Microsoft® EWS (Exchange Web Services) service.

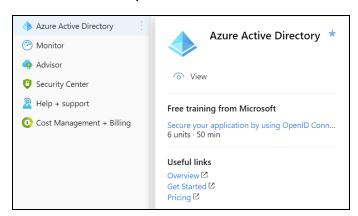
The Modern Authentication authorization model is provided by the Azure® Active Directory® service to integrate managed API applications with the same authentication model used by the Microsoft 365 software REST APIs. Once Modern Authentication is configured in EWS, the AirMedia receiver uses this access method to provide heightened user authentication.

Use the following procedures to define a new application in Azure Active Directory. Once the application is defined, multiple Crestron devices can leverage calendar integration with Microsoft 365 and Modern Authentication without additional setup in the Microsoft EWS service.

# Create the Application

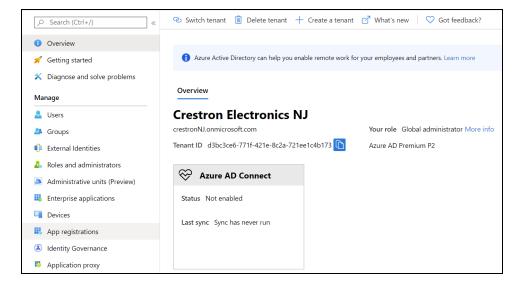
- 1. Sign into the Azure portal with a user ID with sufficient permissions to create an app.
- 2. Select **Azure Active Directory** from the navigation menu.

### **Azure Active Directory Selection**



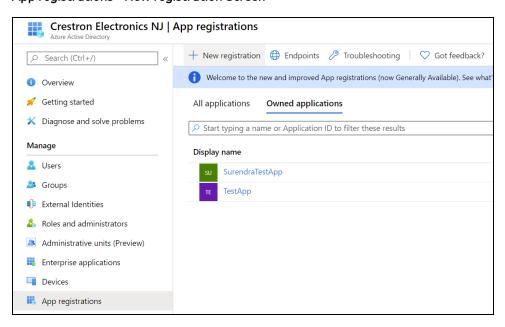
3. Select **App registrations** from the Azure widget menu.

### App registrations Selection



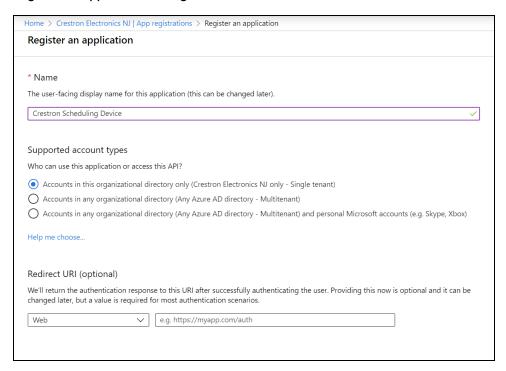
4. Select + New registration.

### App registrations - New registration Screen



A dialog box for creating the app is displayed.

### Register an application Dialog Box



- 5. Enter the following information:
  - Name: Enter a user-facing name of the application (in the Azure environment). This can be any string 120 characters or less. It is possible to have more than one application registered with the same display name.
  - Supported account types: Select the supported account type. Only the Accounts in this organizational directory only option is supported by the AirMedia receiver at this time.

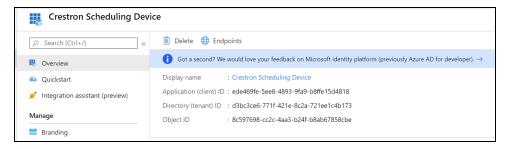
NOTE: The Redirect URI (optional) settings are not configured for this application.

6. Select Register.

### **Obtain Authentication IDs**

Once the app is registered, the application and directory IDs must be obtained to connect the receiver to the Azure AD app.

- 1. Select App registrations from the Azure widget menu.
- 2. Select the application created for the receiver. An application dialog box is displayed.
- 3. Select **Overview** from the navigation menu. Information about the Azure app is provided. **Application Overview Screen**



- 4. Copy the following fields from the **Overview** pane to an accessible location. Use the **Copy to Clipboard** button that appears when hovering over each field to ensure accuracy.
  - Application (client) ID: The unique identification string for the Azure app.
  - Directory (tenant) ID: The unique identification string for the Azure directory.

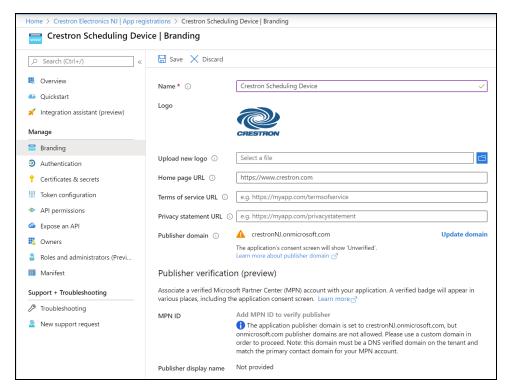
# **Configure Additional Settings**

The following additional settings can be configured for the Azure app. These settings define the user consent experience, authentication details, and API access scopes available to the application.

### **Branding**

Select **Branding** under the **Manage** section of the application navigation menu to configure branding settings for the app.

### **Application Branding Screen**



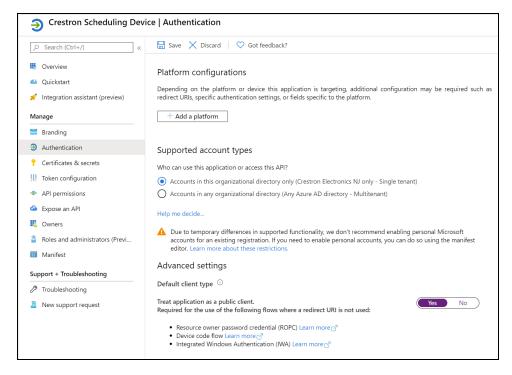
The following branding settings can be configured for the application:

- Name: Required. Set the user-friendly name of the application. This is the same name that was defined when registering the application, but it can be changed here.
- **Upload New Logo**: Set a user-facing logo for this application that appears on the consent screen. The image file for the logo must meet the following requirements:
  - o Image dimensions of 215 x 215 pixels
  - ° Central image dimensions of 94 x 94 pixels
  - o Uses the file type .bmp, .jpg, or .png
  - File size less than 100 KB
- **Privacy statement URL**: Provides a link to the application privacy statement in the consent screen.
- Publisher domain: Sets the process that must be completed to verify ownership of the domain. Most users will probably already have a verified domain. If the domain is not verified, the application will work, but the consent screen will warn the user they are consenting to an unverified application.

### **Authentication**

Select **Authentication** under the **Manage** section of the application navigation menu to configure authentication settings for the app.

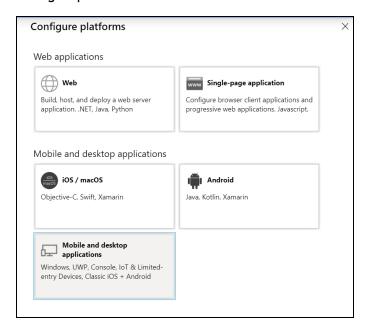
### **Application Authentication Screen**



The following authentication settings can be configured for the application:

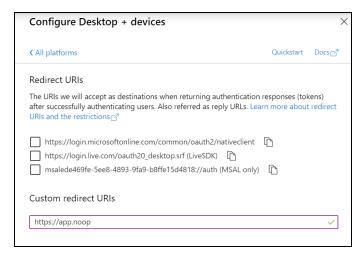
• + Add a Platform: Select this button to create a platform for app authentication. The Configure platforms pane is displayed on the right side of the screen.

### Configure platforms Pane



Select Mobile and desktop applications to display settings for configuring this platform.

### Configure Desktop + devices Pane



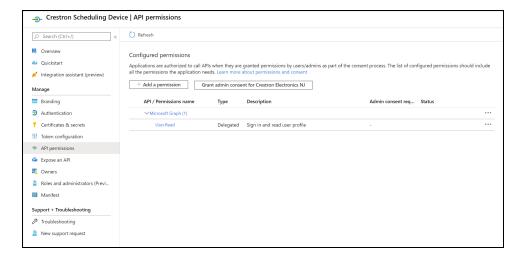
Azure AD requires the use of a redirect URI, but the AirMedia receiver does not. Enter a valid URI address and select **Configure**.

- Supported account types: Select an account type for the app. This setting is the same as the one set when registering the app and should not change from Accounts in this organizational directory only.
- Default Client Type: The Treat application as a public client toggle must be set to enabled.

### **API Permissions**

Select **API Permissions** under the **Manage** section of the application navigation menu to configure API permissions for the app.

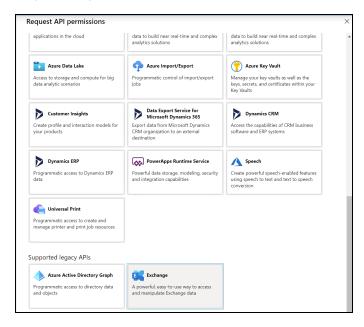
### **API Permissions Screen**



The following API permissions settings can be configured for the application:

Select + Add a Permission to create a new API permission for the app. The Request API permissions pane is displayed on the right side of the screen.

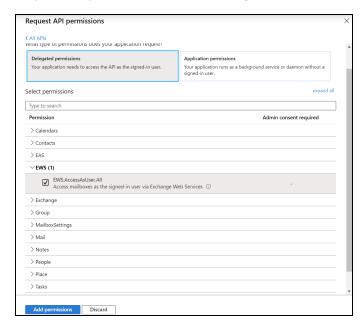
### Request API permissions Pane



To set the API permissions for EWS:

1. Select **Exchange** to display a list of permissions for EWS.

### Request API permissions Pane - Exchange

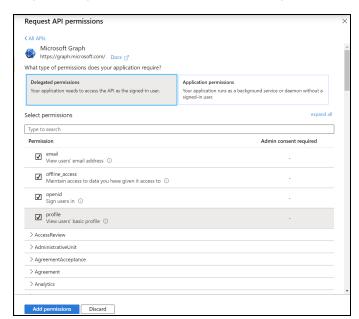


- 2. Expand the EWS accordion.
- 3. Fill the checkbox next to **EWS.AccessAsUser.All** to allow the application to make requests to the Exchange Web Services API on behalf of the configured user.

To set the API permissions for the Microsoft® Graph function:

1. Select Microsoft Graph to display a list of permissions for Microsoft Graph.

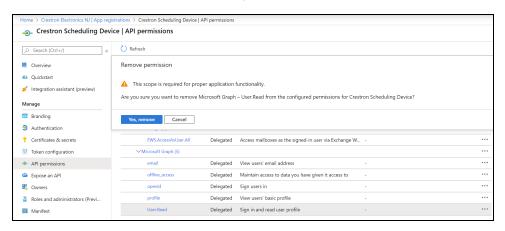
### Request API permissions Pane - Microsoft Graph



- 2. Fill the checkboxes next to the following settings to enable the functionality described below:
  - offline\_access: Allows the application to receive a Refresh Token, which can be exchanged for a new Access Token, when it expires. This is required for long running applications, so user consent is not required each time an access token expires.
  - **openid**: Allows the application to receive an ID Token, which provides basic profile information about the authenticated user. This scope is required for the next two scopes, as they are delivered in the ID Token.
  - **email**: Provides the email address of the authenticated user. The application uses this to get the calendar address if none is entered during device configuration.
  - **profile**: Provides basic profile information about the authenticated user, such as the display name and photo URL.

If the Microsoft Graph **User.Read** scope is added automatically, it can be removed. If there is a warning, it can be ignored.

### API Permissions Screen - User.Read Scope



# **Operation**

To present content, use one of the following methods:

- AirMedia wireless presentation. Refer to Present with AirMedia on page 172.
- Wireless presentation with an AirMedia Connect Device. Refer to AirMedia Connect Devices on page 205.
- Connect a device to the HDMI INPUT port (AM-3200(-WF)(-I) models only).
- Whiteboard Capture Device (Crestron AirBoard or Kaptivo)

For a description of the receiver's front of room experience, refer to Front of Room Experience on page 171.

For instructions on using AirMedia wireless presentation, refer to Present with AirMedia on page 172.

Optionally, a TS- or TSW-70 series 7 in. or 10 in. touch screen (sold separately) can be used to control the receiver and select which sources are displayed. For instructions on using a touch screen, refer to Touch Screen Operation on page 188.

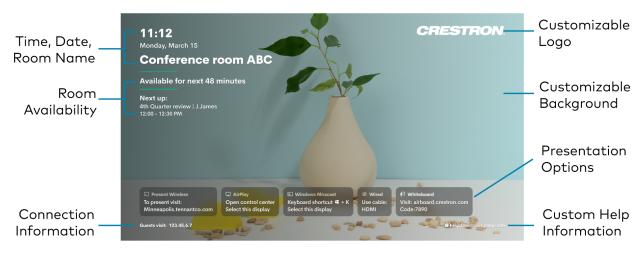
# Front of Room Experience

The front of room experience consists of two screens: the welcome sceen, which is shown when no users are presenting, and the user presentation screen. The information shown on each screen can be modified using the receiver's web configuration interface.

### Welcome Screen

When no users are presenting, the welcome screen is shown on the display device. The welcome screen provides date, time, connection, room availability, and other information as shown in the following image.

### Front of Room Experience - Welcome Screen



- Customizable Logo: Shows the Crestron logo by default. To upload a custom logo, refer to Connected Devices on page 126.
- Time, Date, Room Name: Shows the time, date, and conference room name.
  - Time/Date: To configure time and date information, refer to Date/Time on page 112.
  - Room Name: To show, hide, or customize the room name, refer to General Settings on page 101.
- Room Availability: Shows room availability based on the connected calendar. To configure calendar settings, refer to Services on page 115.
- Customizable Background: Shows a slideshow of backgrounds by default. To upload a custom background and/or modify the slideshow settings, refer to Connected Devices on page 126.
- Presentation Options: Shows all of the available ways of sharing content. When a
  presentation mode is enabled, the presentation option tile will appear on the front of room
  display. When a presentation mode is disabled, the presentation option tile will not
  appear. To modify the font size of the of the text in each tile, refer to Connected Devices
  on page 126.

- Connection Information: Shows additional connection information. To modify what information appears, refer to Connection Display on page 138.
- **Custom Help Information**: Shows custom help information when configured. To set custom help information, refer to Connected Devices on page 126.

### **User Presentation**

When a user is presenting, the user's presentation and additional connection information is shown on the display device.

Front of Room Experience Screen - User Presenting



- **User's Presentation**: Shows up to four presentations when AirMedia Canvas is enabled. For more information on Airmedia Canvas, refer to AirMedia Canvas on page 201. For more information on user presentation, refer to Operation on page 170.
- Connection Information: Shows the time, receiver connection information, and additional
  connection information. To configure time and date information, refer to Date/Time on
  page 112. To modify the connection information shown, refer to Connection Display on
  page 138.

# Present with AirMedia

The receiver uses a client application to share a Windows or Mac desktop. The computer must be able to access the system over the network.

Crestron offers a standalone application for enterprise deployments. This application features additional connection methods and device management. For details, visit present.crestron.com.

Mobile devices can share their content using the Crestron AirMedia app which is available for iOS and Android<sup>™</sup> devices. Both apps may be used for full screen sharing on devices running Android 5.0 Lollipop or iOS 8 and above. Download the latest version of these apps from the App Store® app or Google Play™ store.

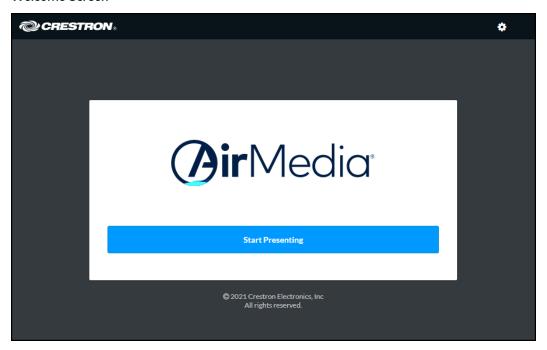
**NOTE:** For additional details on using AirMedia, refer to the <u>AirMedia Presentation Gateway</u> Security Reference Guide (Doc 7693).

# **Establish a Computer Connection**

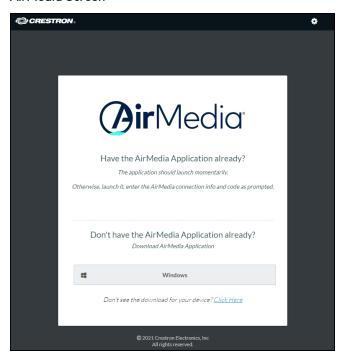
To establish a connection from a computer to a receiver:

1. Open a web browser on the computer, and navigate to the web address or IP address shown on the display device. The welcome screen is displayed.

Welcome Screen



Select Start Presenting. The AirMedia screen will display.
 AirMedia Screen



3. Select the button for your computer's operating system to download the client application. The client application requires no installation. The application will be downloaded and run locally.

**NOTE:** When used on a Mac, the AirMedia client application must be run from within the disk image file. Do not drag the application out of the disk image file.

## **Share Content**

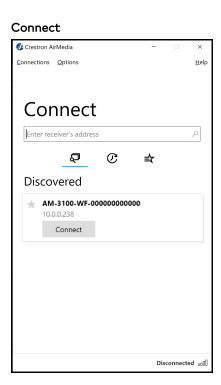
Share content via AirMedia wireless presentation from a Windows computer, a Mac, an iOS device, or an Android device.

### From a Windows Computer

Once the client application is downloaded, content can be shared.

To share content from a Windows computer:

1. Run the client application. The **Connect** screen appears and lists any discovered AirMedia devices.

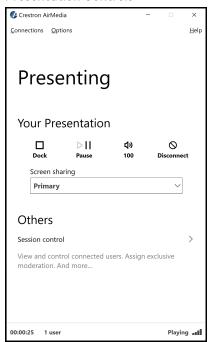


2. Select **Connect** under the desired receiver or enter the device's IP address in the search bar and press enter.

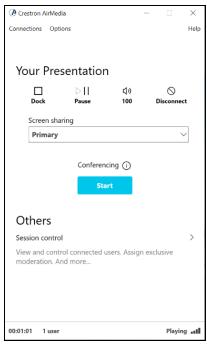
**NOTE:** Select the star button ★ to the left of the desired receiver to add or remove the receiver from the favorite devices list. Select the favorite devices list button ★ to access the list.

3. If a code is required, enter the code shown on the display device. Otherwise, the contents of the computer screen will be presented on the display connected to the receiver. Once connected, the client application displays the presentation controls.

#### **Presentation Controls**



#### Presentation Controls with Wireless Conferencing Enabled



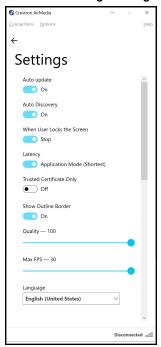
- 4. Direct the presentation with the following controls:
  - **Dock**  $\square$ : Dock the presentation. When docked, the computer no longer shares its screen but remains connected to the receiver.
  - Pause : Start or freeze the computer's screen.
  - [Volume] **1)**: Control the output volume of the display.
  - **Disconnect O**: End connection between the computer and the receiver.
  - Conferencing ① Start: Start a Wireless Conferencing session.
  - Use the Screen sharing dropdown menu to select the connected screen to present.
  - Select **Session control** to open the **Session** menu, which lists each presenter along with corresponding presentation controls. Up to 30 presenters can be connected at a time. Use the back arrow to return to the presentation controls for the computer.

#### **NOTES:**

- If the computer's presentation is paused and resumed by another presenter, the computer will then receive a permission request before the presentation resumes. To modify this setting, select **Options** > **Session Delegation**.
- To disable Session control, disable the Canvas Session Control setting in the device's web configuration interface. For more information on session control, refer to Settings on page 100.

• Navigate to **Options** > **Settings** to customize AirMedia settings. Adjust the settings below and select **OK** to save the changes or select **Cancel** to cancel.

#### AirMedia Settings Dialog Box



- ° Crestron recommends turning the Auto Update toggle to On.
- Crestron recommends turning the Auto Discovery toggle to On.
- When User Locks the Screen sets the operation of the client software when a connected computer is locked. Choose from Stop (the client stops sharing content), Pause (the client pauses sharing content), and Nothing (nothing happens).
- Show Connection Dialog on Startup selects whether connection information is displayed when the client starts.
- Latency selects the amount of latency in transmitting the signal from the computer to the receiver. Select Application Mode (shortest) for the least amount of latency (best for slides) or Video Mode (Pre-Buffer) for a longer amount of latency (best for buffering shared video).
- Trusted Certificate Only validates the server certificate before connection
- **Show Outline Border** selects whether or not an orange border appears on the computer's screen when presenting.
- Set the Quality of the projected signal (0 to 100 percent).
- Set the Max FPS (frames per second) refresh rate (1 to 30).

 $^{\circ}$   $\,$  Select the  $\pmb{\mathsf{Language}}$  displayed by the client application.

**NOTE:** The application must be restarted when switching languages.

#### From a Mac

Once the client application is downloaded, content can be shared.

To share content from a Mac:

1. Run the client application. The **Connect** screen appears and lists any discovered AirMedia devices.

#### **Enter Code Dialog Box**

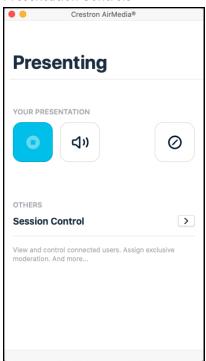


2. Select **Connect** to the right of the desired receiver or enter the device's IP address in the search bar and press enter. The **Enter Code** screen appears.

**NOTE:** Select the star button  $\star$  to the left of the desired receiver to add or remove the receiver from the favorite devices list. Select the favorite devices list button  $\overset{\star}{\swarrow}$  to access the list.

3. If a code is required, enter the code shown on the display device. Follow the onscreen instructions to present. Select **OK** to return to the presentation controls.

#### **Presentation Controls**



- 4. Direct the presentation with the following controls:
  - Ock functionality to be supported in a future release.
  - 📢): Control the output volume of the display.
  - 🕜: End the connection between the computer and the receiver.
  - Select Session control for additional controls and information about all presenters.
     The Session menu opens and lists each presenter with corresponding presentation controls. Use the back arrow to return to the presentation controls for the computer.

**NOTE:** To disable Session control, disable the **Canvas Session Control** setting in the device's web configuration interface. For more information on Session control, refer to Settings on page 100.

• Select **Options > Settings** in the menu bar to customize AirMedia settings.

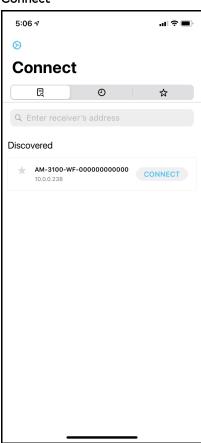
#### From an iOS Device

Content can be shared from an iOS device using the built-in screen mirroring functionality.

To share content from an iOS device:

1. Open the AirMedia application. The **Connect** screen appears and lists any discovered AirMedia devices.

#### Connect



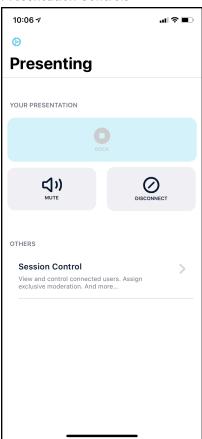
2. Select **Connect** next to the desired receiver or enter the receiver's IP address in the search bar and press **Enter** on the phone's onscreen keyboard.

**NOTE:** Select the star button  $\star$  to the left of the desired receiver to add or remove the receiver from the favorite devices list. Select the favorite devices list button  $\star$  to access the list.

3. If a code is required, enter the code shown on the display device and select **OK**. Screen mirroring instructions appear.

4. Follow the onscreen instructions and select **OK**. Once connected, the application offers presentation controls.

#### **Presentation Controls**



- 5. Direct the presentation with the following controls:
  - **Dock**: Dock functionality to be supported in a future release.
  - Mute()): Mute or unmute the device.
  - **Disconnect**: End the connection between the device and the receiver.
  - Select **Session control** to open the **Session** menu, which lists each presenter along with corresponding presentation controls. Up to 30 presenters can be connected at a time. Use the back arrow to return to the presentation controls for the device.

**NOTE:** To disable Session control, disable the **Canvas Session Control** setting in the device's web configuration interface. For more information on Session control, refer to Settings on page 100.

• Tap the settings button in the top left corner to customize AirMedia settings.

**NOTE:** If another presenter enters fullscreen mode, presentation from the iOS device will end. The iOS device will remain connected to the receiver. If this occurs, resume the presentation by repeating the screen mirroring instructions described in step 3.

#### From an Android Device

Content can be shared from an Android device using the AirMedia application.

To share content from an Android device:

1. Open the AirMedia application. The **Connect** screen appears and lists any discovered AirMedia devices.

#### Connect

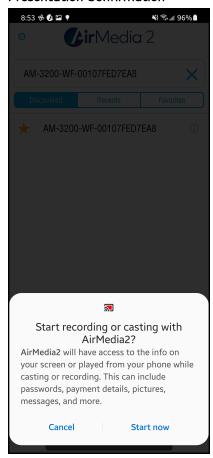


2. Select the desired receiver or enter the receiver's IP address in the search bar and press **Enter** on the phone's onscreen keyboard.

**NOTE:** Select the star button  $\star$  to the left of the desired receiver to add or remove the receiver from the favorite devices list. Select **Favorites** to access the list.

3. If a code is required, enter the code shown on the display device and select **OK**. A presentation confirmation message appears.

#### **Presentation Confirmation**



4. Select **Start now** to begin presenting.

To end the presentation, make one of the following selections:

- **Stop Presentation with AirMedia**: Stop presenting from the Android device but remain connected to the receiver.
- **Disconnect from AirMedia**: Stop presenting from the Android device and disconnect from the receiver.

#### **Presentation Screen**



## **Using Miracast**

Miracast is a mirroring protocol and wireless technology used to project your screen to the receiver without the need to install an application on your Windows computer.

To present using Miracast with an AirMedia receiver:

- Open the Windows connect menu via the Windows notification center or via the shortcut
   (Windows) + K. On touch-capable Windows 10 devices, swipe in from the right edge of
   the screen
- 2. Select the desired receiver from the list.
- 3. If a code is required, enter the code shown on the display device.

For more details on using Miracast with the AirMedia receiver, refer to the <u>AirMedia</u> Presentation Gateway Security Reference guide (Doc 7693).

Miracast is a mirroring protocol and wireless technology used to project your screen to the receiver without the need to install an application on your Windows computer. For instructions on how to use Miracast with the receiver, refer to the <u>AirMedia Presentation Gateway Security</u> Reference guide (Doc 7693).

# **Touch Screen Operation**

A connected touch screen running .AV Framework software can be used to control presentations. Use the touch screen to control volume, switch between sources, and start and stop presentations. The home screen is displayed when the system starts.

# Add a Touch Screen

The receivers support the use of a TS- or TSW- 70 series 7 in. or 10 in. touch screen for system control. Adding a touch screen to the system requires an entry in the touch screen's IP table and loading a touch screen project file to the touch screen.

NOTE: The touch screen must be accessible to the receiver over the network.

# IP Table Entry

An IP table entry must be created to direct the touch screen to the IP address or host name of the receiver. For instructions on creating an IP table entry, refer to the touch screen's product manual:

- <u>TSW-570, TSW-770, and TSW-1070 Product Manual</u> (Doc. 8550)
- TS-770 and TS-1070 Product Manual (Doc. 8555)

# Load a Touch Screen Project File

If internet connectivity is available on the receiver, the system automatically loads the touch screen project file once the IP table entry is complete. To automatically load the touch screen

project file, touch screen auto update must be enabled as described in Connected Devices on page 126.

To download the touch screen project file, refer to the receiver's product page:

- AM-3100-WF
- AM-3100-WF-I
- AM-3200
- AM-3200-WF
- AM-3200-WF-I

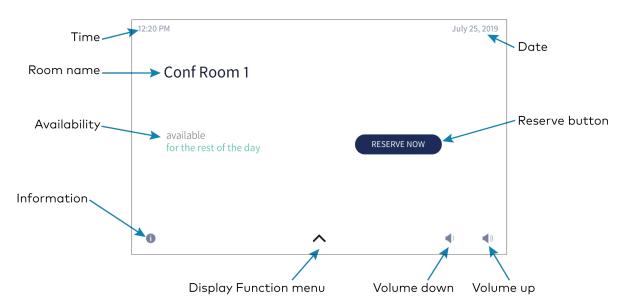
For details on manually loading a touch screen project file, refer to the touch screen's product manual:

- TSW-570, TSW-770, and TSW-1070 Product Manual (Doc. 8550)
- TS-770 and TS-1070 Product Manual (Doc. 8555)

# Screen Controls

When connected, the touch screen will display the home screen.

#### Home Screen



The footer bar provides the same buttons regardless of which screen is selected. Refer to the following tables for more information on footer button functionality.

#### **Footer Buttons**



The more button navigates to the selection screen.



The info button navigates to the information screen.

The volume lower button lowers the device volume incrementally.

The volume raise button raises the device volume incrementally.

**NOTE:** Volume controls are only present when the system is connected to a display device that supports volume control.

# Access the System Info Screen

To access the **System Info** screen, tap and hold the information button (i) on the home screen for 20 seconds.

The **System Info** screen provides the device IP address, the device hostname, the Crestron Fusion server connection status, the Crestron Fusion room name, the device MAC address, the device serial number, and the .AV Framework version number.

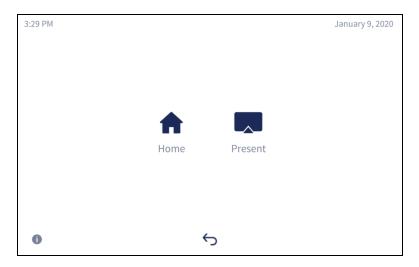
#### System Info screen



#### The Function Menu

Tap the more button  $\wedge$  on the home screen to display the function menu.

#### **Function Menu**



- Tap **Home** ★ to display the Home screen.
- Tap **Present** to view presentation options. For details, refer to Present a Source on page 194.
- Tap Whiteboard To share content using a connected whiteboard capture device. For details, refer to Present from a Whiteboard Capture Device on page 195.
- Tap the back button  $\circlearrowleft$  to return to the previous screen

# Room Scheduling

The Home screen is used to reserve the conference room.

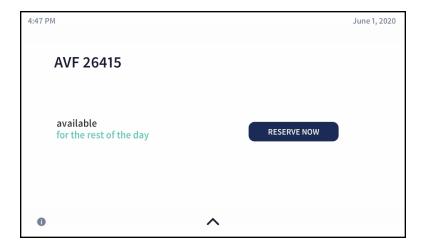
Tap  $\operatorname{Home} \, \spadesuit \,$  to display the home screen. The home screen displays the current status of the room.

# Room Available

If the room is available for use, the touch screen provides the following information:

- The time remaining (in minutes) until the next scheduled meeting occurs
- A **RESERVE NOW** button that allows an ad hoc meeting to be scheduled through the touch screen

#### Home Screen - Available Room



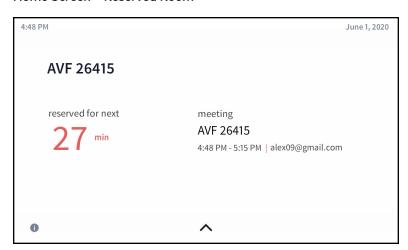
#### Room Reserved

If the room is not available, the home screen provides the following information:

- The time remaining (in minutes) until the current meeting ends
- The duration, name, and organizer of the scheduled meeting

You can use the room for the remaining time available or reserve the room for another time.

#### Home Screen - Reserved Room



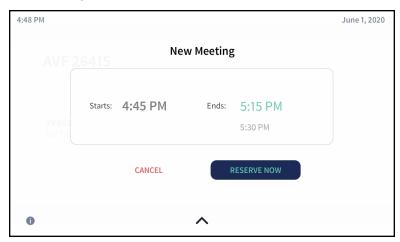
# Reserve the Room

To reserve an ad hoc meeting from the home screen when the room is available:

1. Tap RESERVE NOW on the home screen. The New Meeting screen is displayed.

NOTE: RESERVE NOW meetings may only be scheduled for the current day.

#### **New Meeting Screen**



The meeting start and end times are automatically populated for the next available 30-minute block (e.g., 4:45 to 5:15, 5:45 to 6:15, 6:00 to 6:30, etc.). When reserving a meeting space within a current 30-minute block, the start time is rounded down to the nearest 5-minute increment. For example, tapping **RESERVE NOW** at 4:44 pm creates a meeting with a start time of 4:40 pm. If **RESERVE NOW** is tapped at 4:46 pm, the meeting start time would be 4:45 pm. The meeting end time may be set by the user.

- 2. Tap one of the available meeting end times to set the duration of the meeting. The room can be reserved for up to three lengths:
  - Until the current half hour interval ends (If the current time is 4:44 pm, the end time for this option is 5:00 pm.) This is the default setting.
  - Until the current half hour interval ends plus 30 minutes (If the current time is 4:44 pm, the end time for this option is 5:30 pm.)
  - Until the current half hour interval ends plus 60 minutes (If the current time is 4:44 pm, the end time for this option is 6:00 pm.)

**NOTE:** These options are available only if a meeting is not already scheduled during these times.

3. Tap **RESERVE NOW** to reserve the meeting.

To discard the reservation, tap CANCEL.

# Present a Source

To present a connected source, tap **Present** from the function menu. The **Present a Source** screen appears. The **Present a Source** screen allows content to be routed from a connected device to the main display in the room.

#### Present a Source Screen



To present content from a source device, select one of the available presentation options. The source is controlled directly through the touch screen.

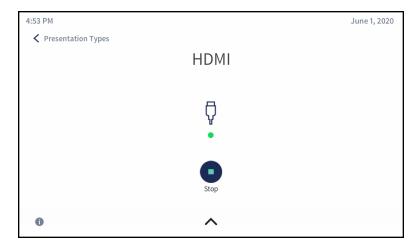
If a source is active, the source button is bolded, and a **Stop** button is shown. Tap the **Stop** button to stop routing the source to the display.

**NOTE:** The Whiteboard source will not be indicated as presenting unless the Whiteboard session has already been initiated. If you tap the **Whiteboard** button on the **Present a Source** page and the session has not been initiated, a session will be initiated, and the source will be routed to the display device.

#### Present via HDMI

To display content from a source connected via HDMI, tap **HDMI**  $\ceil{Q}$  . The following screen will appear.

#### Present Screen - HDMI Source



The dot in the center of the screen turns green if the source is connected and turns red if the source is disconnected.

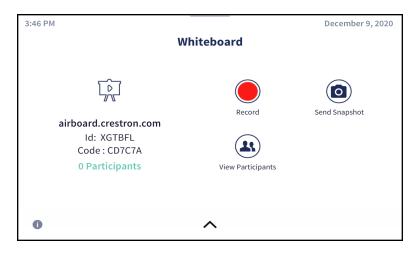
When done presenting, tap **Stop**.

To return to the previous screen, tap < **Presentation Types**. Tapping < **Presentation Types** does not disconnect the source.

# Present from a Whiteboard Capture Device

To display content from a paired whiteboard capture device, tap **Whiteboard**  $\Re$ . The **Whiteboard** screen will appear with connection information and controls for the presentation. Refer to the following sections for more information on connecting to and controlling a whiteboard session.

#### Present Screen - Whiteboard Source



## View a Whiteboard Session

To view a whiteboard session from a separate device:

1. Enter the connection URL into a web browser. The connection URL is displayed on the left side of the Whiteboard screen.

**NOTE:** If a Kaptivo whiteboard capture device is in use, the connection information on the left side of the screen will be specific to that device.

2. When prompted in the web browser, enter the remaining credentials that are displayed on the touch screen below the connection URL.

#### **View Participants**

To see all participants currently viewing the presentation, tap **View Participants**. The Participants screen is displayed. Tap **< Whiteboard** to return to the whiteboard screen.

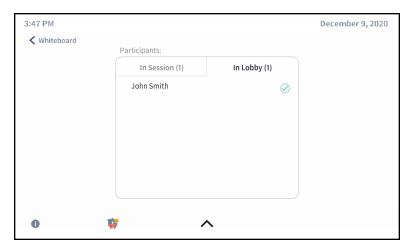
#### Participants Screen - In Session



Select In Session to view a list of the participants currently viewing the whiteboard session.

If **Login Code Modes** is set to **Disabled** as described in Code on page 137, participants are not required to enter a code in the **Enter Code** field. Instead of directly joining the session, they will be placed into the lobby pending approval on the touch screen before being admitted.

#### Participants Screen - In Lobby



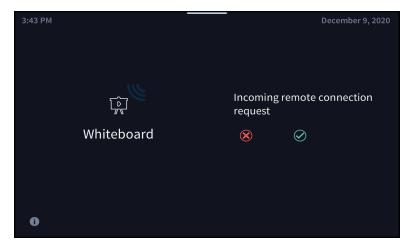
Select In Lobby to view a list of participants waiting to be admitted to the whiteboard session.

To admit a participant from the lobby into the session, press  $\bigcirc$  beside their name.

**NOTE:** The maximum number of remote participants is 10.

If a participant requests access while a presentation is not being recorded and **Login Code Modes** is set to **Disabled** as described in Code on page 137, the following prompt will be shown on the touch screen.

#### Incoming Remote Connection Request Screen

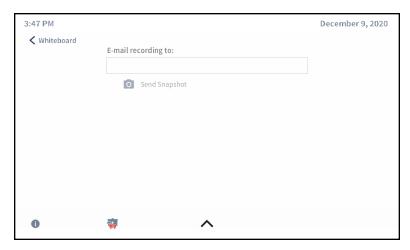


Tap 🐼 to deny the request, or tap 🐼 to initiate a recording session and admit the participant into the new recording session.

#### Send Snapshot

To send a snapshot of the presentation, tap **Send Snapshot**. The Send Snapshot screen is displayed. Tap **< Whiteboard** to return to the whiteboard screen.

#### Send Snapshot Screen



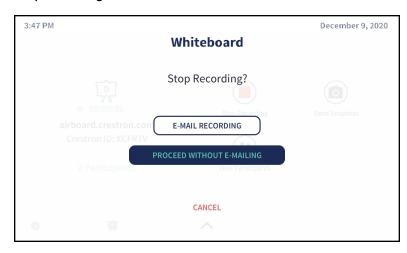
To send a snapshot of the recording:

- 1. Type an email address in the **E-mail recording to:** field. Multiple email addresses may be entered separated by commas or semicolons.
- 2. Tap **Send Snapshot** to send an image of the whiteboard in its current state.

#### Stop Recording

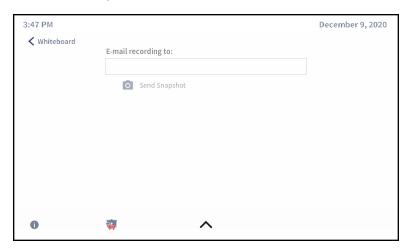
When done presenting, tap Stop Recording. The Stop Recording? screen is displayed.

#### Stop Recording Screen



To send an email recording of the recorded session, tap **E-MAIL RECORDING**. The email recording screen is displayed.

#### E-Mail Recording Screen



To send the recording via email:

- 1. Type an email address in the **E-mail recording to:** field. Multiple email addresses may be entered, separated by commas or semicolons.
- 2. Tap **Send Snapshot** to send an image of the whiteboard capture display, or tap **Send Slide Deck** (not shown) to send a slide deck (PDF) of all changes made to the whiteboard.

**NOTE:** For Crestron Airboard devices, the Send Slide Deck function requires the timeline be enabled and the timeline length be set in the web user interface. Refer to the CCS-WB-1 Supplemental Guide (Doc. 8323) for details.

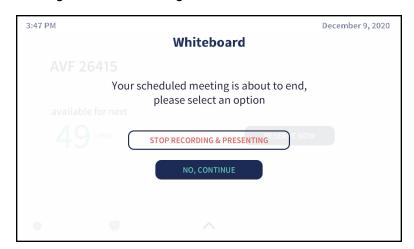
To end the session without emailing a recording, tap PROCEED WITHOUT E-MAILING.

To return to the Whiteboard screen, tap CANCEL.

#### Meeting Conclusion Warning

When a scheduled meeting is almost over, the following prompt will appear.

#### **Meeting Conclusion Warning**



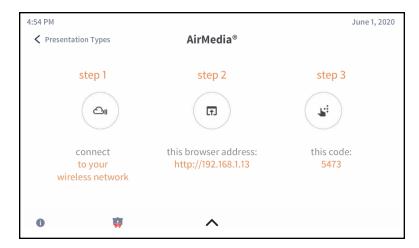
Tap **STOP RECORDING & PRESENTING** to end the recording and presenting session. Refer to Stop Recording on page 198 for information on sending recordings to participants once the recording has been stopped.

Tap NO, CONTINUE to continue recording and presenting past the scheduled meeting length.

#### Present via AirMedia

Tap **Wireless** to display content from a device connected through AirMedia. The **AirMedia®** screen is displayed with instructions to present with AirMedia.

#### AirMedia® Screen

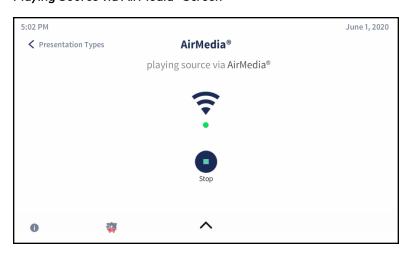


Refer to Control Multiple Sources on page 201 for instructions on controlling an AirMedia presentation from the touch screen.

Refer to Present with AirMedia on page 172 for instructions on connecting to AirMedia and sharing content.

When sharing content over AirMedia, the following screen is displayed. When done presenting, tap (Stop). To return to the previous screen, tap < Presentation Types.

#### Playing Source via AirMedia® Screen



# AirMedia Canvas

When configured, the receiver can show multiple sources on the display device simultaneously. The touch screen is used to manage the sources shown on the display device.

**NOTE:** For details on configuring the receiver to use the AirMedia Canvas feature, refer to Settings on page 100.

When AirMedia Canvas and Canvas Session Controls are enabled, the Present a Source screen appears as shown below.

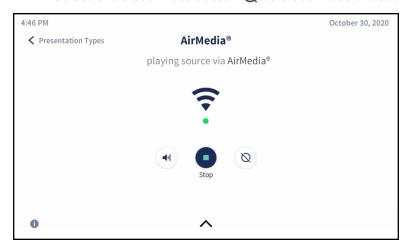
#### Present a Source Screen



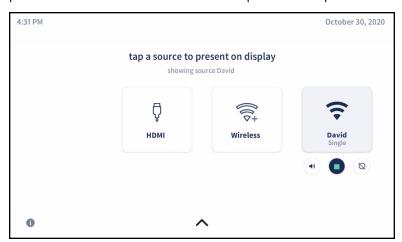
# Control Multiple Sources

To control multiple sources using Canvas Session Controls:

- 1. Connect all sources to the receiver.
- 2. Tap the first source for presentation. The content will appear on the display device with presentation controls.
  - Select the volume button 📢 to mute or unmute the source's volume.
  - Select **Stop** to dock the presentation. When docked, the source stops presenting but remains connected to the display. Select the play button to resume presenting. When resuming a presentation, a permission request is sent to the source device. The request must be accepted before the presentation resumes.
  - Select the disconnect button  $\bigcirc$  to disconnect the source from the receiver.

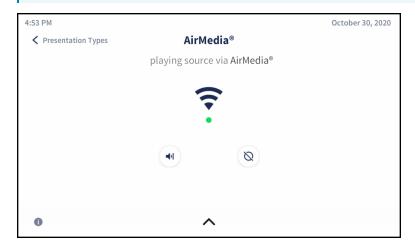


3. Tap < Presentation Types. The touch screen will show the connected source with the presentation controls detailed in the previous step.

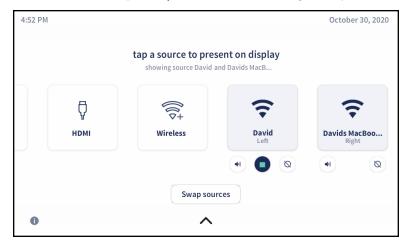


4. Tap the second source for presentation. The display device will show the two sources side by side.

**NOTE:** The dock control feature will be implemented for Apple® devices in a future release. Select the disconnect button  $\Diamond$  to end the presentation and disconnect the source device.



5. Tap < Presentation Types. The touch screen will show the two connected sources side by side. If desired, tap Swap sources to rearrange the position of the sources on the display.



6. (Optional) Tap more sources to present as needed. The touch screen will show all connected sources side by side, and the presentations will be arranged on the display device.

**NOTE:** If the maximum amount of presenters is reached and another source is selected, then the first source will be docked (AirMedia user) or disconnected (hard wired inputs, AirPlay connection, or Miracast connection) and the latest source will take its place on the display. When docked, the source stops presenting but remains connected to the display. To adjust the maximum amount of sources that can present simultaneously, refer to General Settings on page 134

## Switch to Single Source

When two sources are shown on the display device, tap **Stop** to remove the source's presentation from the display device. The remaining source will be presented in full screen.

## **Swap Sources**

When two sources are shown on the display device, tap **Swap Sources** to switch the positions of two sources.

When more than two sources are shown on the display device, the **Swap Sources** button is unavailable.

# **AirMedia Connect Devices**

AirMedia Connect devices can be connected to personal devices to instantly share content with a paired Wi-Fi network capable AirMedia receiver. Up to eight Connect devices can be paired to a single receiver.

For information about pairing and configuring Connect devices, refer to Connect Devices on page 143.

This section contains the following information:

- Wireless Best Practices on page 206
- AM-TX3-100(-I) Operational Instructions on page 207
- AM-TX3-200 Operation on page 208

# Wireless Best Practices

AirMedia Connect devices communicate with compatible AirMedia Series 3 Receivers using a point to point (Wi-Fi Direct) connection. Wireless performance depends upon a variety of conditions in the environment.

Consider the following guidelines and best practices to ensure a consistent and reliable experience.

## **Physical Factors**

- Maximum Distance: The maximum range from the Connect device to the receiver varies based on environmental conditions, but Crestron recommends that the Connect device operate within 80 ft (24m) of the receiver.
- Wireless Interference: Ensure that there are no obstructions between the Connect device and receiver that could create wireless interference. Line of sight visibility from Connect device to receiver is ideal.
- External Antennas (AM-3200-WF(-I) only): With the receiver powered off, connect the included external antennas. If the receiver is mounted behind a display, position the antennas near the bottom or sides of the display.
- Multiple Nearby Receivers: Building layouts will often involve multiple adjacent spaces containing AirMedia systems. If multiple AirMedia systems are installed in close proximity to one another and performance is inconsistent...

## **Network Settings**

The following settings can be adjusted in the AirMedia receiver web configuration. For details, refer to Network on page 102.

- Wi-Fi Frequency: AirMedia receivers can be set to 2.4GHz Only or 5GHz Only (default). The 5GHz generally enables higher throughput, but 2.4GHz enables wider distance.
- **Wi-Fi Channel**: By default, the AirMedia receiver automatically selects a Wi-Fi channel. To improve reliability, use a Wi-Fi analyzer to determine the least crowded channel. Select the channel with the least traffic.
- Wi-Fi Access Point Signal Strength: Set the signal strength to 100% for best results. In building layouts with multiple AirMedia systems and other Wi-Fi devices in close proximity, balance the signal strength as needed.

# AM-TX3-100(-I) Operational Instructions

Before content can be shared with the AM-TX3-100, it must be paired with a Wi-Fi network capable AirMedia receiver as described in the Connect Devices on page 143 section of this product manual.

#### **Share Content**

To share content through the AM-TX3-100, plug the AM-TX3-100 into the USB-C port of a compatible personal device.

NOTE: The personal device's USB-C port must be DisplayPort Alt mode compatible.

To pause or resume sharing content, quickly press the Screenshare button twice.

To stop sharing content, press the **Screenshare** button.

#### **Screenshare Button**



## Restoring the Device

To restore the AM-TX3-100(-I) to factory default, perform the following procedure:

- 1. Press and hold the **Screenshare** button.
- 2. After two seconds, simultaneously press and hold the Peripherals button.
- 3. Continue to hold both buttons until the ring LED turns amber. This takes approximately eight seconds.

The AM-TX3-100(-I) will reboot. All configuration, included pairing, will be reset to default.

# AM-TX3-200 Operation

The AirMedia Series 3 Connect Endpoint enables wireless presentation when paired with a Wi-Fi® network capable AirMedia Series 3 Receiver. Deploy the AM-TX3-200 alongside an AirMedia Series 3 Receiver in conference rooms, huddle rooms, lounges, lobbies, or almost any space to establish a productive meeting environment.

#### Installation

The device can be placed or mounted onto a flat surface.

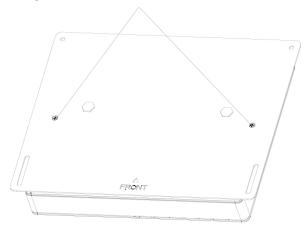
#### Place onto a Flat Surface

Place the device onto any flat, level surface.

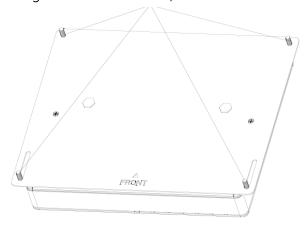
#### Mount onto a Flat Surface

Use the included mounting bracket to mount the device onto a flat surface such as a wall or the underside of a table. Perform the following steps.

1. Using the included screws, attach the mounting plate to the AM-TX3-200.



2. Using the included screws, attach the mounted AM-TX3-200 to a flat surface.

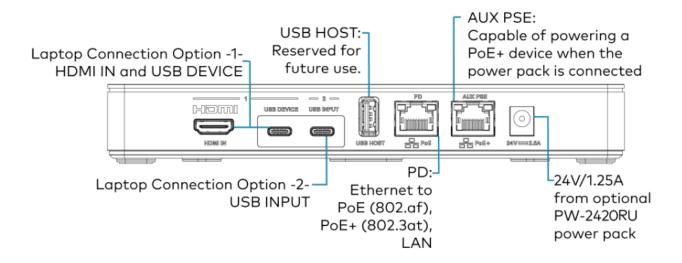


#### Connections

Make connections to the AM-TX3-200 as shown in the following diagram.

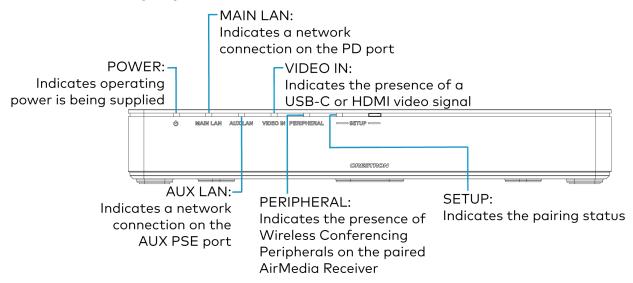
#### **NOTES:**

- Only use the AUX PSE port to connect to a peripheral device, such as a TS-770 touch screen. Do not use the AUX PSE port to connect to the main LAN. The AUX PSE port is only available when using local power.
- The AM-TX3-200 receives power from a Power over Ethernet (PoE, IEEE 802.3af) or Power over Ethernet+ (PoE+, IEEE 802.3at) connection. It can also receive power from the PW-2420RU power pack (sold separately).
- Do not simultaneously provide PoE or PoE+ and local power.
- PoE-type networks connected to the PD port are for intrabuilding use only. Do not connect the AM-TX3-200 to lines that run outside of the building.



#### Observe the LEDs

Refer to the following diagram for information about the AM-TX3-200's LED indicators.



# **Content Sharing**

Before content can be shared with the AM-TX3-200, it must be paired with a Wi-Fi network capable AirMedia receiver and **Auto Share** must be enabled as described in the Settings on page 100 section of this product manual.

To share content, connect the AM-TX3-200 to a compatible laptop using HDMI or USB-C:

- HDMI: Connect to the HDMI IN port of the AM-TX3-200.
- USB-C: Connect to the USB INPUT port of the AM-TX3-200.

NOTE: The laptop's USB-C port must be DisplayPort Alt mode compatible.

Content will automatically share when the connection is made.

# Peripheral Access

To use peripherals connected to the AirMedia receiver for Wireless Conferencing, connect the AM-TX3-200 to a compatible laptop using USB-A or USB-C:

- **USB-A**: Using the included USB-A to USB-C cable, connect to the **USB-DEVICE** port of the AM-TX3-200.
- USB-C: Connect to the USB INPUT port of the AM-TX3-200.

Peripherals connected to the receiver will be available on the compatible laptop when the connection is made.

# Appendix: Wireless Conferencing Supported Peripherals

The following peripherals are supported in wireless conferencing mode. Additional devices will be added over time.

**NOTE:** Unsupported peripherals may be detected by the AirMedia receiver, but using them may result in Wireless Conferencing driver errors or unstable performance.

Device	Firmware	Туре	Firmware	Notes
Crestron UC- SB1-AV/CAM	2.003.098.056 2.004.001.020	All-In-One Systems (Kits/Soundbars)	2.003.098.056 2.004.001.020	
Logitech® Rally Bar Mini	1.9.571	All-In-One Systems (Kits/Soundbars)	1.9.571	Set to USB Device Mode
Logitech Rally Bar	10.10.552	All-In-One Systems (Kits/Soundbars)	10.10.552	
Cisco® Room Kit Mini	ce10.11.1.1.28d904d9 7dc	All-In-One Systems (Kits/Soundbars)	ce10.11.1.1.28d904d9 7dc	
Poly X30	3.13.0-368067	All-In-One Systems (Kits/Soundbars)	3.13.0-368067	•Set to Device Mode •X30 requires a persistent LAN connection
Poly Studio	2.1.0.001158	All-In-One Systems (Kits/Soundbars)	2.1.0.001158	
Jabra® Panaca st 50	5.2.1	All-In-One Systems (Kits/Soundbars)	5.2.1	
Crestron UC- SB1	2.003.098.056 2.004.001.020	Microphones Speakerphones Speakers	2.003.098.056 2.004.001.020	

Device	Firmware	Туре	Firmware	Notes
Crestron Mercury (CCS- UC-1)	1.4738.00011	Microphones Speakerphones Speakers	1.4738.00011	Disable the Mercury's built-in AirMedia functionalit y
Logitech Brio	2.0.58	Cameras	2.0.58	
Jabra Panacas t 20	4.2.9	Cameras	4.2.9	Connect Adaptor requires Low Quality mode.
Huddly® IQ	1.6.12-126903	Cameras	1.6.12-126903	
AVer® Cam520 Pro	0.0.1006.24	Cameras	0.0.1006.24	
AVer Cam520 Pro2	0.0.7200.54	Cameras	0.0.7200.54	
1Beyond Hawk™ (IV-CAMHK-12- SLVR-1B)	1.0.348	Cameras	1.0.348	•HDMI only •Set resolution to 1080p30 •Connect sound devices to the AEC input
Shure® P300	4.7.21	Audio DSPs (Microphones/Speak ers)	4.7.21	Tested with Shure MXA31 microphone s

To request support for a specific peripheral, use <u>this form</u>.

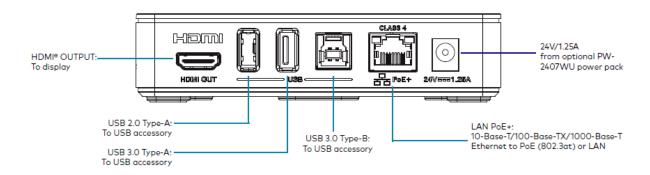
# **1Receiver Connections**

The AM-3100 and AM-3200 can be used as the centerpiece of an open presentation space. A selection of peripheral devices is available to create a customized presentation space.

# **Hookup Diagrams**

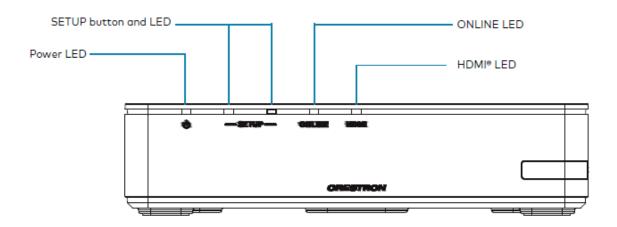
The following diagrams show connections to the AM-3100 and AM-3200.

AM-3100, Rear

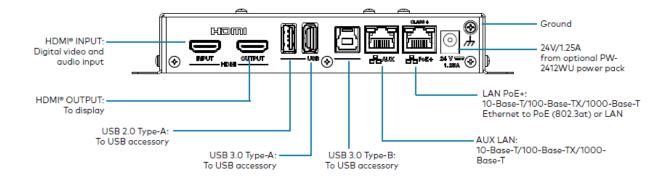


NOTE: The AM-3100 can be powered by the optional power pack or by Power over Ethernet (PoE).

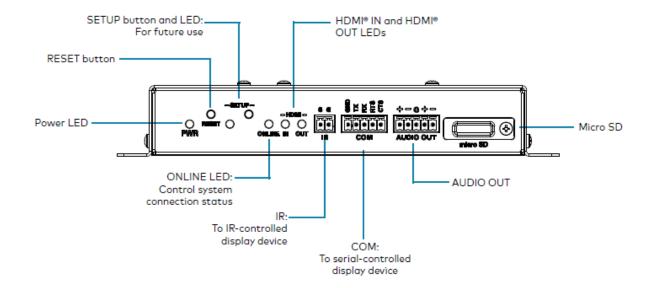
AM-3100, Front



AM-3200, Top



#### AM-300, Bottom



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