# AUDIOVIDEOSUPPLY AM-200

# AirMedia<sup>®</sup> Presentation System 200

- > Turns underutilized open spaces and seating areas into productive meeting spaces
- Enables secure wired and wireless presentation from laptops, smartphones, and tablet devices
- > Fully automated operation just connect and present
- > Compact, surface-mountable form factor hides discreetly behind the room display
- > Features AirMedia<sup>®</sup> 2.0 wireless presentation technology<sup>[1]</sup>
- > Leverages your existing Wi-Fi<sup>®</sup> wireless network for BYOD connectivity
- > Compatible with Windows®, macOS®, Android®, and Apple® iOS® devices
- > HDMI<sup>®</sup> input provides wired connectivity for sources with resolutions up to HD 1080p60<sup>[2]</sup>
- > HDMI output feeds a single HD or WUXGA display device
- > Controls the display device via CEC, IR, or RS-232
- > HDCP 1.4 compliant
- > Customizable welcome screen provides clear instructions for presenters
- > Displays space availability, meeting details, and other messaging on screen
- Integrates natively with Microsoft<sup>®</sup> Office 365<sup>®</sup> and Outlook<sup>®</sup> calendaring applications via Microsoft Exchange
- > Integrates with Crestron Fusion® room scheduling and enterprise management services
- > Allows scheduled on/off display control
- > Optional wireless occupancy sensor enables enhanced automation and monitoring of the space
- > XiO Cloud<sup>™</sup> support enables remote provisioning and management
- > Enterprise-grade security and content encryption protect privacy and ensure compliance with IT policies
- > Available touch screen and wireless keypad control options
- > High-speed 10/100 Ethernet LAN port
- > PoE or AC line powered
- > 100-240V universal power pack included

The AirMedia<sup>®</sup> Presentation System 200 (AM-200) enables secure wired and wireless presentation in lounges, lobbies, and open spaces, and integrates with popular calendaring platforms. It is ideal for organizations with a dispersed workforce, open floor plans, and reliance on mobile devices to present. It is secure, easy to deploy and manage, increases workflow, and facilitates collaboration by turning underutilized spaces into productive meeting spaces while supporting the many different platforms and services employees and guests have on their personal devices.

#### **Connect and Present**

The AM-200 device mounts invisibly behind a wall mount display and enables wired or wireless presentation with auto-switching. It features built-in AirMedia 2.0 wireless presentation capability, plus an HDMI<sup>®</sup> input, HDMI out to the display (HD or WUXGA), and auto-on/off display control via CEC, serial, or IR. Connecting a source via AirMedia or HDMI selects that



input automatically and instantly displays the source image on the display. There's no programming required, no dongles to plug in, and no remotes to loss or batteries to replace.

#### A: Media® Wireless Presentation

Crestron AirMedia technology allows for wireless presentation of content from a laptop, smartphone, or tablet device via a Wi-Fi® wireless network. With AirMedia, anyone can walk into the room with a Windows® or MacBook® laptop and connect without wires, enabling the presentation of any content including Full HD video at frame rates up to 30 fps. iPhone®, iPad®, and Android® devices can present PowerPoint®, Excel®, Word, and PDF documents, as well as pictures, videos, or any app content with fullscreen mirroring. For more information about AirMedia, please visit https://www.crestron.com/airmedia.<sup>[1]</sup>

#### **HDMI®** Connectivity

In addition to AirMedia, the AM-200 includes an HDMI input for direct connection of a mini-PC or other local source, or a portable laptop computer via an optional wall plate or cable. The HDMI input supports HD 1080p signals.<sup>[2]</sup>

For a comparable solution with both HDMI input and a 4K-capable DM<sup>®</sup> input, refer to the AM-300.

#### **Enhanced Onscreen Experience**

When no presentation source is connected, the AM-200 displays a customizable welcome screen on the room display with simple instructions for connecting and presenting. Integration with Microsoft® Exchange (for users of Outlook® and Office 365®) or Crestron Fusion® room scheduling allows the space's availability and details about the current scheduled meeting to appear on screen. As the meeting progresses, gentle notifications appear periodically to indicate how much time is left in the meeting and what's scheduled next for the space. Pop-up messages, sent from Crestron Fusion, may also appear prominently on screen in the event of an emergency or other important announcement.



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# **Crestron Fusion® Room Monitoring**

AirMedia presentation spaces can be centrally monitored and managed through integration with the Crestron Fusion enterprise management service. Adding an optional wireless occupancy sensor enhances monitoring and automation capabilities by reporting and logging when people are present in the space, and turning the display on and off accordingly. Crestron Fusion also supports room scheduling, with the ability to integrate with an expanded selection of popular third-party calendaring applications.

An AirMedia presentation space can turn on and off automatically according to its schedule to save energy. If no one shows up for a scheduled meeting, the space can be returned to inventory automatically to maximize availability for new bookings. Occupancy and usage data can be collected, and reports can be generated to help organizations optimize investments in space and technology. In the event of a technical issue, instant alerts notify the help desk to rapidly resolve problems and maximize uptime and workflow. For more information about Crestron Fusion, please visit https://www.crestron.com/fusion.

#### XiO Cloud<sup>™</sup> Provisioning and Management

XiO Cloud is Crestron's unifying cloud-based platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the amount of time it would ordinarily take to manage just one. It provides a zero-touch solution that allows complete configuration of device settings without any hardware in hand, then simply connect each device on site and let XiO Cloud push out the settings, licenses, drivers, and firmware updates – automatically and securely – for a quick and painless, ready-to-use deployment.

Ongoing XiO Cloud services facilitate daily management and monitoring of every device through a single dashboard with comprehensive reporting and logging, live status viewing and alerts, performance metrics and analytics, scheduled actions and updates, and more. As requirements grow and evolve, new features and functionality can be added easily to one or many devices at any time without ever going on site. XiO Cloud is a subscription-based service offering an adaptable SaaS (Software as a Service) solution with graduated levels of functionality and unlimited scalability. For more information about XiO Cloud, please visit https://www.crestron.com/xiocloud.

# **Enterprise-Grade Security**

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

# Add-On Control Options

Manual control of the AM-200 can be enabled by adding a Crestron TSW-760 or TSW-1060 series touch screen. The touch screen provides a small-screen view of the room schedule and meeting details, with controls for input source selection, display power on/off, and display volume and mute, plus a help page. Additional control options include a wireless 4-button keypad (ZUMMESH-KP10AMBATT series<sup>[3]</sup>), which provides



AM-200 – Top, Front, and Bottom Views

simple on/off and volume control, and a wireless occupancy sensor (ZUMMESH-PIR-OCCUPANCY-BATT) for enhanced automation and room monitoring functionality. The wireless keypad and occupancy sensor require the addition of the wireless AV Bridge accessory (ZUMMESH-AVBRIDGE), which connects to the AM-200 via USB.

Note: The AM-200 is engineered to deliver a consistent user experience across many spaces, with intuitive functionality tailored for small seating areas and huddle spaces. It cannot be custom programmed and is not addressable from a Crestron control system.

# **SPECIFICATIONS**

# Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, Active Directory authentication, HTTPS web browser setup and XiO Cloud client, 802.3af and 802.3at Type 1 compliant

AirMedia: (Via Ethernet) IPv4, mDNS, TLS, AES<sup>[1]</sup>

USB Host: USB 2.0 for optional Crestron AV Bridge (model ZUMMESH-AVBRIDGE sold separately) to enable wireless keypad control and occupancy sensing



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USB Device: USB 2.0 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 (0-5 Volts) up to 19.2k baud HDMI Input: HDCP 1.4, EDID

HDMI Output: HDCP 1.4, EDID, CEC

NOTE: Supports management of HDCP and EDID

# AirMedia<sup>[1]</sup>

Mobile App OS Support: Apple iOS, Android

Client Software OS Support: Windows 7, Windows 8, Window 10, macOS (versions 10.10 through 10.13)

Client Software Video Frame Rate: 30 fps, audio supported

**Full Screen Device Mirroring:** Shares the screen image and audio from an Apple iOS, Android, macOS, or Windows device

**Resolutions:** 800x600@60Hz, 1024x768@60Hz, 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz,

1600x1200@60Hz, 1920x1080@60Hz (1080p60), 1920x1200@60Hz Bitrate Peak: 0.25 to 8.5 Mbps, variable depending on content complexity Bitrate Average: 1.4 Mbps typical

*Note: The bitrate for Apple native mirroring may deviate from above depending on the OS version and content* **Audio Format:** Stereo

# Video

Input Signal Types: AirMedia, HDMI (DVI & Dual-Mode DisplayPort compatible<sup>[2]</sup>)

Output Signal Types: HDMI (DVI compatible [2])

Maximum Input Resolution: 1920x1080@60Hz (HD 1080p60), 4:4:4, 36 bit color depth

NOTE: Other input resolutions are supported at pixel clock rates up to 148 MHz; interlaced video is not supported

1600x1200@60Hz, 1680x1050@60Hz<sup>[4]</sup>, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz

NOTE: All video inputs are automatically scaled to the operative output resolution when displayed full screen.

Background & Logo File Support: GIF, JPEG, PNG

# Audio

Input Signal Types: AirMedia, HDMI (Dual-Mode DisplayPort compatible <sup>[2]</sup>) Output Signal Types: 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

**CONSOLE:** (1) Micro-USB Type B connector, female; USB 2.0 device port for computer console (installer setup); 6 ft (1.83 m) USB Type A to Micro-B cable included

IR: (1) 4-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 (0-5 Volts) 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

HDMI INPUT: (1) HDMI Type A connector, female; HDMI digital video/audio input; (DVI & Dual-Mode DisplayPort compatible<sup>[2]</sup>)

HDMI OUTPUT: (1) HDMI Type A connector, female; HDMI dig!tai video/audio output; (DVI compatible<sup>[2]</sup>)

USB: (1) USB Type A connector, female; USB 2.0 host port for Crestron AV Bridge (ZUMMESH-AVBRIDGE sold separately)

N PoE: (1) 8-pin RJ45 connector, female; 10Base-T/100Base-TX Ethernet port and PoE PD port

24 VDC 0.75 A: (1) 2.1 x 5.5 mm DC power connector; 24 Volt DC power input; PW-2407WU power pack included

**Ground:** (1) 6-32 screw; Chassis ground lug

# **Controls & Indicators**

**PWR:** (1) Green LED, indicates operating power supplied via the local power pack or PoE, flashes while booting

RESET: (1) Recessed pushbutton for hardware reset

SETUP: (1) Red LED and (1) recessed pushbutton for Ethernet setup, momentarily displays the device's IP address at the HDMI output when pressed

ONLINE: (1) Green LED (not used)

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

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

# Power

**Power over Ethernet:** IEEE 802.3at Type 1 (802.3af compatible) Class 0 (12.95 W) PoE Powered Device

Power Pack (included): Input: 100-240 Volts AC, 50/60 Hz; Output: 0.75 Amps @ 24 Volts DC; Model: PW-2407WU



Power Consumption: 8 Watts (typical)

#### Environmental

Temperature: 32° to 104° F (0° to 40° C) Humidity: 10% to 90% RH (non-condensing) Heat Dissipation: 27.3 BTU/hr

#### Enclosure

Chassis: Metal, black finish, with (2) integral mounting flanges, vented sides

Mounting: Freestanding, surface mount, or attach to a single rack rail

#### Dimensions

Height: 6.42 in (163 mm) Width: 7.40 in (188 mm) Depth: 1.35 in (35 mm)

#### Weight

19.6 oz (554 g)

#### Compliance

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

# **MODELS & ACCESSORIES**

#### Available Models

AM-200: AirMedia<sup>®</sup> Presentation System 200

#### **Included Accessories**

PW-2407WU: Wall Mount Power Pack, 24VDC, 0.75A, 2.1mm, Universal

#### Available Accessories

ZUMMESH-AVBRIDGE: AV Bridge – Wireless Control Integration Module ZUMMESH-KP10AMBATT Series: AirMedia® Wireless Keypad, Battery-Powered ZUMMESH-PIR-OCCUPANCY-BATT: Zūm<sup>™</sup> Wireless Battery-Powered Occupancy Sensor TSW-760 Series: 7" Touch Screen TSW-1060 Series: 10.1" Touch Screen CBL-Series: Crestron<sup>®</sup> Certified Interface Cables MP-WP Series: Media Presentation Wall Plates MPI-WP Series: Media Presentation Wall Plates - International Version PWE-4803RU: PoE Injector CEN-SW-POE-5: 5-Port PoE Switch CEN-SWPOE-16: 16-Port Managed PoE Switch **CNSP-XX:** Custom Serial Interface Cable IRP2: IR Emitter SW-XIOC-S Series: XiO Cloud Standard Provisioning and Management Service for one device SW-XIOC-P Series: XiO Cloud Premium Provisioning and Management Service for one device

SW-FUSION-C-3: Crestron Fusion<sup>®</sup> Cloud; 250 rooms; 3-year SW-FUSION-P-L: Crestron Fusion<sup>®</sup> On-premises; Unlimited rooms; lifetime SW-HS-x-C Series: Crestron Fusion<sup>®</sup> Cloud Room Scheduling SW-HS-x-P Series: Crestron Fusion<sup>®</sup> On-premises Room Scheduling

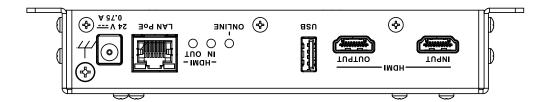
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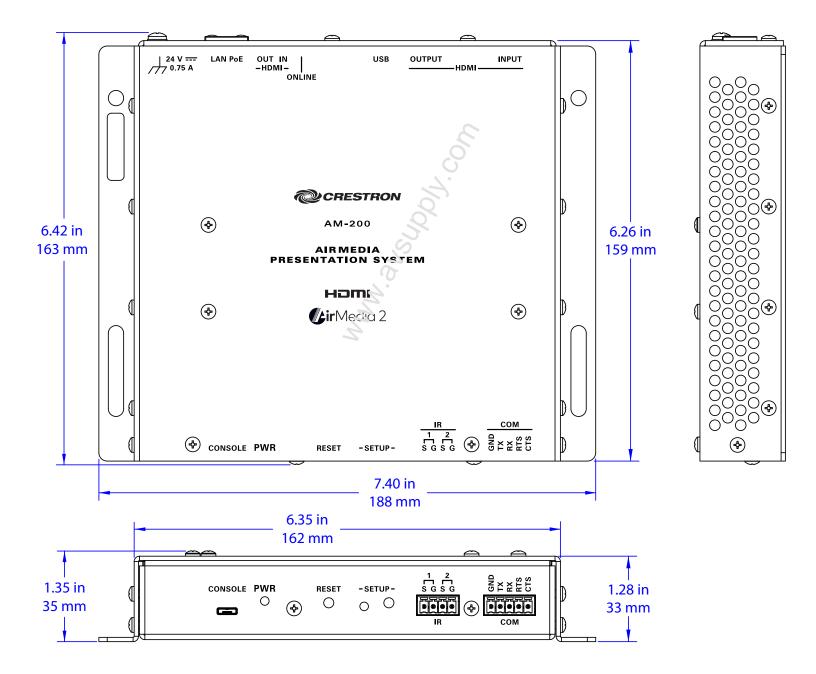
- AirMedia wireless presentation requires a wired network connection between the AM-200 and an external Wi-Fi wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection. Full-motion video performance is dependent upon the performance of the network and the sending device. The AM-200 supports the same essential functionality as the AM-101 AirMedia Presentation Gateway with the exclusion of quad view, moderator mode, and remote view. Computer client software and mobile device apps are available for download at https://www.crestron.com/airmedia.
- 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.
- Wireless keypad functionality is limited to power and volume control, and requires use of a display device that supports discrete power on, power off, volume up, and volume down commands via CEC, IP, IR, or RS-232.
- 4. With or without reduced blanking.
- 5. With reduced blanking only.

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