AirMedia® Presentation System 300

> 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® 2.0 wireless presentation technology [1]

> Leverages your existing Wi-Fi® wireless network for BYOD connectivity

> Compatible with Windows®, macOS®, Android®, and Apple® iOS® devices

> HDMI® input provides wired connectivity for sources with resolutions up to HD 1080p60 [2]

> DM® input accommodates a DM 8G+® transmitter and supports resolutions up to 4K60 [3]

> DM 8G+ technology enables wire runs up 330 ft (100 m) using a single CAT type cable [4]

> HDMI output feeds a single HD or UHD display device

> Controls the display device via CEC, IR, or RS-232

> HDCP 2.2 and 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® Office 365® and Outlook® 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 [6]

> XiO Cloud™ 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

> 100-240V universal power pack included

The AirMedia® Presentation System 300 (AM-300) 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-300 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 HDMI® and DM® inputs, HDMI out to the display (HD or UHD), and auto-on/off display control via CEC, serial, or IR. Connecting any source 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 lose or batteries to replace.

AirMedia® 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 full-screen mirroring. For more information about AirMedia, please visit https://www.crestron.com/airmedia.[1]

HDMI® and DM® Connectivity

In addition to AirMedia, the AM-300 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. A DM input (DM 8G+®) is also provided, allowing a DM 8G+ transmitter to be installed at any convenient location in the space to facilitate connection of a laptop or other source. The DM input may also be used to connect to a DM switcher, which may be located up to 330 feet (100 meters) away, to support the display of content from another room or other remote location. The DM input supports 4K signals, and the HDMI input supports HD 1080p signals.[2,3,4]

Enhanced Onscreen Experience

When no presentation source is connected, the AM-300 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.

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 [6] 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™ 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.

AM-300 – Top, Front, and Bottom Views

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® 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-300 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 [5]), which provides simple on/off and volume control, and a wireless occupancy sensor (ZUMMESH-PIR-OCCUPANCY-BATT [6]) 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-300 via USB.[6]

Note: The AM-300 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 or DigitalMedia™ 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

AirMedia: (Via Ethernet) IPv4, mDNS, TLS, AES [1]

USB Host: USB 2.0 for optional Crestron AV Bridge (model ZUMMESH-AVBRIDGE sold separately) to enable wireless keypad control and occupancy sensing [6]

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

DigitalMedia: DM 8G+, HDCP 1.4 or 2.2, EDID, Ethernet, PoDM sourcing [3]

HDMI Input: HDCP 1.4, EDID

HDMI Output: HDCP 1.4 or 2.2, EDID, CEC

NOTE: Supports management of HDCP and EDID

AirMedia [1]

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, DM 8G+, HDMI (DVI & Dual-Mode DisplayPort compatible [2])

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

Maximum Input Resolutions:

Input Type	Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
DM 8G+	Progressive	4096x2160 DCI 4K or 3840x2160 4K UHD	24 Hz	4:4:4	30 bit
			30 Hz	4:4:4	24 bit
			30 Hz	4:2:2	36 bit
			60 Hz	4:2:0	24 bit
		2560x1600 WQXGA	60 Hz	4:4:4	36 bit
		1920x1080 HD1080p	60 Hz	4:4:4	36 bit
	Interlaced	1920x1080 HD1080i	30 Hz	4:4:4	36 bit
HDMI	Progressive	1920x1080 HD1080p	60 Hz	4:4:4	36 bit

NOTE: Common input resolutions are shown; other custom input resolutions are supported at pixel clock rates up to 300 MHz for the DM 8G+ input, or 148 MHz for the HDMI input; interlaced video is not supported via the HDMI input

Output Resolutions: 1920x1080@60Hz (1080p60), 3840x2160@30Hz (4K UHD)

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, DM 8G+, HDMI (Dual-Mode DisplayPort compatible [2])

Output Signal Types: HDMI

DM Input Formats: Up to 8 channel LPCM

HDMI Input Formats: 2 channel LPCM

HDMI Output Formats: Up to 8 channel LPCM

NOTE: Audio input signals are passed to the output without any processing, encoding, decoding, or downmixing. 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

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

CRESTRON®

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

HDMI OUTPUT: (1) HDMI Type A connector, female;
HDMI digital video/audio output;
(DVI compatible [2])

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

DM IN: (1) 8-pin RJ45 connector, female, shielded;
DM 8G+ input and PoDM PSE port [3,4]

24 VDC 2.5 A: (1) 2.1 x 5.5 mm DC power connector;
24 Volt DC power input;
PW-2420RU 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, 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
LAN: (2) LEDs, green LED indicates Ethernet link status, amber LED
indicates Ethernet activity
ONLINE: (1) Green LED (not used)
HDMI IN & OUT: (2) Green LEDs, indicate HDMI signal presence at the
HDMI input or output
DM IN: (2) LEDs, green LED indicates DM link status, amber LED indicates
video and HDCP signal presence

Power

Power Pack (included): Input: 1.5 Amps maximum @ 100-240 Volts AC,
50/60 Hz;
Output: 2.5 Amps @ 24 Volts DC;
Model: PW-2420RU

Power Consumption: 24 Watts (typical without a PoDM PD connected)
Power over DM (PoDM) Sourcing: IEEE 802.3at Type 1 compliant PoDM
PSE (Power Sourcing Equipment), supplies up to 15.4 Watts (Class 0-3) to
power one PoDM PD (Powered Device)

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 81.9 BTU/hr

Enclosure

Chassis: Metal, black finish, with (2) integral mounting flanges, fan cooled,
vented sides
Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 7.93 in (203 mm)
Width: 9.29 in (236 mm)
Depth: 1.36 in (35 mm)

Weight

25.6 oz (726 g)

Compliance

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

DM 8G+ Maximum Cable Lengths

Cable Type: Resolution:	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	CAT5e (or better) [4]
1080p60 Full HD	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 DCI 2K			
2560x1440 WQHD		230 ft (70 m)	165 ft (50 m)
2560x1600 WQXGA			
3840x2160 4K UHD			
4096x2160 DCI 4K			

MODELS & ACCESSORIES

Available Models

AM-300: AirMedia® Presentation System 300

Included Accessories

PW-2420RU: Desktop Power Pack, 24VDC, 2.5A, 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 Wireless Battery-Powered Occupancy Sensor

TSW-760 Series: 7" Touch Screen

TSW-1060 Series: 10.1" Touch Screen

CBL-Series: Crestron® Certified Interface Cables

MP-WP Series: Media Presentation Wall Plates

MPI-WP Series: Media Presentation Wall Plates – International Version

DM-CONN-ULTRA-RECP-20: DigitalMedia™ Ultra Keystone RJ45 Jack, 20-Pack w/Termination Tool

DM-CBL-ULTRA-PC Series: DigitalMedia™ Ultra Patch Cables

DM-CBL-ULTRA-NP Series: DigitalMedia™ Ultra Cable, Non-Plenum Type CMR

DM-CBL-ULTRA-P Series: DigitalMedia™ Ultra Cable, Plenum Type CMP

DM-CBL-ULTRA-LSZH Series: DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen (Available only in Europe)

DM-CONN-20: Connectors for DM-CBL-ULTRA DigitalMedia Ultra Cable

DM-CBL-8G-NP Series: DigitalMedia 8G™ Cable, Non-Plenum

DM-CBL-8G-P Series: DigitalMedia 8G™ Cable, Plenum

DM-8G-CONN-WG-100: Connectors with Wire Guide for DM-CBL-8G DigitalMedia 8G™ Cable

DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG-100

DM-TX-4K-100-C-1G Series: Wall Plate 4K DigitalMedia 8G+® Transmitter 100

DM-TX-200-C-2G Series: Wall Plate DigitalMedia 8G+® Transmitter 200

DM-TX-4K-202-C: 4K DigitalMedia 8G+® Transmitter 202

DM-TX-4K-302-C: 4K DigitalMedia 8G+® Transmitter 302

DM-TX-201-C: DigitalMedia 8G+® Transmitter 201

DM-TX-401-C: DigitalMedia 8G+® Transmitter 401

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® Cloud; 250 rooms; 3-year

SW-FUSION-P-L: Crestron Fusion® On-premises; Unlimited rooms; lifetime

SW-HS-x-C Series: Crestron Fusion® Cloud Room Scheduling

SW-HS-x-P Series: Crestron Fusion® On-premises Room Scheduling

Notes:

1. AirMedia wireless presentation requires a wired network connection between the AM-300 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-300 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.
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. The DM input receives video and audio signals and passes EDID and HDCP data. CEC and other control data is not supported via the DM input at this time. A transmitter with multiple inputs must be set for auto-switching mode. Any control ports on the transmitter are not utilized. Ethernet is also passed between the external LAN ports on the AM-300 and the connected DM 8G+ transmitter. The AM-300 can obtain its LAN connection over DM from a networked DM 8G+ transmitter or DM switcher, but does not receive an IP address on the switcher's private network. The AM-300 requires its own IP address whether connected to the LAN via its onboard LAN port or through a switcher or transmitter.
4. The maximum cable length for DigitalMedia 8G+® (DM 8G+) is dependent upon the type of cable, resolution of the video signal, and capabilities of the connected device. Refer to the "DM 8G+ Maximum Cable Lengths" table for a detailed overview. Shielded cable and connectors are required when bundling multiple cables in a wire run, and are recommended for all applications to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 for DM system design guidelines. All wire, cables, transmitters, and other devices are sold separately.
5. 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.
6. Support for occupancy sensing using the ZUMMESH-PIR-OCCUPANCY-BATT is a future feature that will be enabled via a firmware update.

7.93 in
203 mm

7.76 in
198 mm

9.29 in
236 mm

8.24 in
210 mm

1.36 in
35 mm

1.28 in
33 mm