# DigitalMedia

### 3-Series<sup>®</sup> 4K DigitalMedia<sup>™</sup> Presentation System 350



- 9x4 AV switcher
- 4K and Ultra HD video support
- .AV Framework™ technology
- Built-in AirMedia® gateway (license required)
- H.264 streaming video decoder
- 4K/60 video scaling
- DigitalMedia 8G+<sup>®</sup> technology compatible with the HDBaseT<sup>®</sup> standard
- 6-channel microphone mixer
- Audio digital signal processing (DSP)
- Built-in amplifier, 25 W/Ch @ 8  $\Omega$  stereo or 50 W @ 70/100V mono
- Analog to HDMI audio embedding and de-embedding
- EDID format management
- QuickSwitch HD<sup>™</sup> technology
- Auto-Locking<sup>®</sup> technology
- USB signal routing
- Integrated 3-Series® control system
- CEC device control
- Built-in Ethernet switch
- Dedicated control subnet
- PoDM+ and HDBaseT PoE+ power sourcing
- Advanced setup and adjustment via a web browser
- 3 RU, 19 in. rack-mountable

The DMPS3-4K-350-C offers an all-in-one, customprogrammable 4K AV presentation system with fully configurable signal routing and processing. The DMPS3-4K-350-C integrates the control system, matrix switcher, video scaler, streaming decoder, mic mixer, audio DSP, and amplifier into one 3 RU rack mount package. The built-in AirMedia® gateway, when activated<sup>1</sup>, enables wireless presentation from computers and mobile devices. DigitalMedia 8G+® and HDBaseT® connectivity afford a streamlined, long-distance wiring solution for remote sources and display devices, and for facility-wide integration as part of a larger media distribution system.

#### 4K Ultra HD Video

The DMPS3-4K-350-C handles 4K/60 video with HDCP 2.2 encryption, ensuring support for the latest 4K and Ultra HD displays and media sources.

#### .AV Framework™ technology

Built-in .AV Framework<sup>™</sup> technology delivers a fully-functional presentation system with simplified configuration and a choice of control options and other add-ons. No programming is required. For complete details on the capabilities supported by .AV Framework, please visit:

http://www.crestron.com/avframework<sup>2</sup>

#### AirMedia® Wireless Presentation

Crestron AirMedia technology allows for wireless presentation of content from a personal computer, laptop, or mobile device via a Wi-Fi® wireless network. Airmedia enables presentation of Full HD video at frame rates up to 30 fps. Desktop and laptop computer users can present content using downloadable client software, or the AirMedia extension for Google Chrome™ browser. Android® and iOS® mobile devices can present with the AirMedia app or the Crestron PinPoint™ app. For more information about AirMedia, visit www.crestron.com/airmedia.<sup>3</sup>

#### HD Streaming Video

An onboard streaming decoder enables the DMPS3-4K-350-C to receive a high-definition AV signal over the network or internet from a DigitalMedia<sup>™</sup> switcher, IP camera, or streaming encoder (Crestron <u>DM-TXRX-100-STR</u> or similar). H.264 and MJPEG streaming formats are supported with resolutions up to HD 1080p and bitrates up to 25 Mbps. High-quality AAC audio decoding is employed to handle 2-channel stereo audio with full frequency response.<sup>4</sup>

#### 4K System Switcher

The DMPS3-4K-350-C provides high-performance routing of HDMI®, AirMedia<sup>1</sup>, and streaming AV sources to up to four separate displays, projectors, codecs, and other devices. Video inputs include six HDMI, two DM 8G+®, and one streaming/AirMedia. The HDMI inputs are compatible with DVI and Dual-Mode DisplayPort<sup>™</sup> sources<sup>5</sup>, and the DM 8G+ inputs are compatible with HDBaseT connectivity. Five balanced analog audio inputs are also included. Each HDMI and analog audio input includes adjustable input compensation to accommodate a range of signals and maintain consistent volume levels when switching between sources.

Built-in 9x4 video matrix switching allows up to four video sources to be routed simultaneously to four display devices. Video outputs are comprised of two HDMI and two DM 8G+. The HDMI outputs are compatible with DVI<sup>6</sup> and the DM 8G+ outputs are compatible with HDBaseT connectivity.

The audio signal from any input can be routed to any of three separate stereo analog audio outputs. Audio can also be routed to the digital outputs via two independently switchable



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signal paths, either of which may be selected to feed the HDMI output, the DM 8G+ output, or both.

#### 4K/60 Video Scaling

A high-performance 4K scaler is included on each HDMI output to ensure an optimal image on each display.

Input resolutions are scaled to any output resolution up to 4K DCI (4096 x 2160 @ 60 Hz). Interlaced sources are converted to progressive scan using motion-adaptive deinterlacing. Intelligent frame rate conversion enables support for 24p and PAL format sources. 3D to 2D conversion allows 3D content to be viewed on 2D-only displays.<sup>6</sup> Fully automatic operation eliminates any complicated setup by utilizing the displays' EDID to configure each scaler.

Scaling can be added to either DM 8G+ output using the DM-RMC-4KZ-SCALER-C receiver, which features a built-in 4K scaler. This method of employing an independent scaler for each display device delivers the most versatile and reliable solution for handling a wide array of input sources and routing them to multiple disparate display devices.

#### DigitalMedia 8G+® Technology

The DM 8G+ inputs and outputs allow the DMPS3-4K-350-C to connect remote sources and display devices, and integrate with larger systems. DM 8G+ technology provides a true one-wire interface for transporting ultra high-definition video, audio, control, power, and networking signals over CAT type cable at distances up to 330 ft (100 m). Connecting a DM 8G+ receiver to either DM 8G+ output provides a streamlined AV and control interface for a projector or flat panel display located anywhere in the room. Connecting up to two DM 8G+ transmitters provides expanded input connectivity to incorporate remote AV sources and mobile devices. DM 8G+ connectivity can also provide the interface to a centralized DigitalMedia matrix switcher to enable the distribution of signals between multiple rooms and buildings.<sup>7,8</sup>

### HDBaseT® Technology Certified

Crestron DM 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Via DM 8G+ technology, the DMPS3-4K-350-C can be connected directly to an HDBaseT compliant source or display device without requiring a DM® transmitter or receiver.

#### 6-Channel Microphone Mixer

The DMPS3-4K-350-C includes built-in mixing and processing for six microphones. Each mic input provides 60 dB of gain adjustment, switchable 48V phantom power, fully-adjustable gating, compression, delay, and 4-band semi-parametric EQ. Sophisticated matrix mixing allows for a completely different mix of all six microphones at each of the DMPS3-4K-350-C's three stereo analog audio outputs. Two additional mixes can be configured and selected to feed any of the HDMI and DM 8G+ outputs.

#### Professional Audio DSP

Each analog audio output on the DMPS3-4K-350-C includes its own digital signal processor, allowing each output to be optimized to feed a power amplifier, codec, recorder, or assistive listening system. In addition to real-time adjustable volume, bass, treble, and mute controls, each DSP provides 10-band graphic equalization, 4-band parametric equalization, fully-adjustable limiting, and up to 85 ms of speaker delay adjustment.

#### **Built-in Power Amplifier**

A built-in power amplifier allows the DMPS3-4K-350-C to directly drive a pair of stereo speakers (25 W per channel @  $8 \Omega$ ), or a group of distributed ceiling speakers (50 W mono @ 70 or 100V). Fed by the main program output, the internal amplifier benefits fully from the onboard DSP. For larger applications, Crestron <u>AMP-Series power amplifiers</u> may be added to provide a complete solution for driving separate program and speech speakers, or a multi-zone speaker system.

#### Audio Embedding & De-Embedding

Balanced inputs enable the DMPS3-4K-350-C to interface directly with an audio mixing console, allowing the live sound mix to be embedded with the video signal from a digital camera and combined into a single HDMI output signal. Any of the balanced outputs may be used to de-embed audio from a digital AV source to feed the mixing console. An aux output may even be rerouted back through an analog input to allow the built-in DSP, or an external DSP, to be used to process the audio signal feeding the HDMI and DM 8G+ outputs.

#### EDID Format Management

The DMPS3-4K-350-C allows for management of the EDID (Extended Display Identification Data) information that passes between the display devices, scalers, and input sources in the system. From the web browser setup screen, the format and resolution capabilities of each device can be assessed, allowing EDID signals to be configured appropriately.

#### QuickSwitch HD<sup>™</sup> Technology

Crestron QuickSwitch HD technology manages HDCP (Highbandwidth Digital Content Protection) encryption to ensure fast, reliable switching and immunity to blackouts for every source and display device connected to the system.

#### Auto-Locking® Technology

Crestron Auto-Locking Technology enables super-fast signal switching by instantaneously configuring every device in the signal path, including DM transmitters, DM receivers, and scalers, as soon as the signal hits the first device. Whether switching between sources or changing TV channels, Auto-Locking significantly reduces the time it takes each device to sense the new signal and configure the device to handle the changes, virtually eliminating any noticeable gap while switching.



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### **USB Signal Routing**

Along with video and audio, the DMPS3-4K-350-C can also provide routing for USB HID (Human Interface Device) signals, allowing a USB HID compliant keyboard and/or mouse at one location to control a computer or media server at another location. USB HID connectivity is provided through select DM receivers and transmitters. Crestron also offers USB over Ethernet Extenders, the <u>DM-NUX-L2</u> and <u>DM-NUX-R2<sup>6</sup></u> (sold separately), which may be used to enable the routing of multiple USB devices of virtually any type, all seamlessly managed through the DMPS3-4K-350-C.<sup>7</sup>

#### Integrated 3-Series® Control System

The built-in 3-Series control system enables the DMPS3-4K-350-C to provide complete, customizable control of AV devices, as well as room lighting, window shades, and projection screens, without requiring a separate control processor. Onboard control ports include four IR ports, two RS-232 COM ports, four relay ports, and four digital input ports, as well as Cresnet<sup>®</sup> and Ethernet connectivity. The DMPS3-4K-350-C supports the full line of Crestron <u>touch</u> <u>screens</u>, <u>keypads</u>, and <u>wireless remotes</u> for a user experience custom tailored to the specific requirements of each end-user. Support for Crestron control apps and <u>Crestron Fusion<sup>®</sup></u> software delivers the industry's most powerful platform for remotely controlling, monitoring, and managing multiple rooms using computers and mobile devices.

#### **CEC Embedded Device Control**

For controlling third-party AV devices, the DMPS3-4K-350-C provides an alternative to conventional IR, RS-232, and Ethernet by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Using CEC, many devices can be controlled right through their HDMI or HDBaseT connections, eliminating the need for any dedicated serial cables or IR emitters.

### **Built-in Ethernet Switch**

In addition to transporting digital video and audio, the DM 8G+ ports on the DMPS3-4K-350-C can also extend Ethernet out to the display and source devices (via select DM transmitters and receivers), providing high-speed connectivity for each room device that requires a LAN connection. Ethernet is also utilized internally by the Crestron control bus to manage each transmitter and receiver and provide device control.

#### **Dedicated Control Subnet**

The Crestron Control Subnet is a Gigabit Ethernet network dedicated to Crestron devices. Via the DMPS3-4K-350-C's Control Subnet port, a single touch screen or wireless gateway may be connected, or a Crestron PoE switch (sold separately) can be added to handle multiple touch screens, gateways, and other devices. PoE can be enabled at the Control Subnet port to power a single touch screen or other PoE powered device<sup>8</sup> Auto-configuration of the entire subnet is performed by the DMPS3-4K-350-C, discovering each device and assigning IP addresses without any extra effort.

#### **Private Network Mode**

To streamline implementation on a corporate or university LAN, the DMPS3-4K-350-C employs Private Network Mode, which requires just one IP address for the complete room system including all connected DM receivers and transmitters.

#### Easy Setup

Every step of the setup process is designed to be quick and easy. The front panel supports basic signal routing for easy testing and troubleshooting during installation. Simplified system configuration is enabled using .AV Framework, which is easily configurable via a computer web browser.<sup>2</sup> Advanced configuration and adjustment is enabled through the front panel or a web browser. The front panel label strips can be customized using Crestron Engraver software or standard 3/8 in. tape labels, allowing for the clear designation of each input and output. Inputs and outputs may also be designated by name to appear on the LCD display when selected.

### Specifications

### **Operating System**

Crestron 3-Series®; real-time, preemptive, multi-threaded/multitasking kernel; Transaction-Safe Extended FAT file system; supports up to 10 simultaneously running programs; preloaded DMPS3 .AV Framework Base Program

### Memory

SDRAM	512 MB
Flash	4 GB

#### Communications

Ethernet	100/1000 Mbps, auto-switching, auto-negotiating, autodiscovery, full/half duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1X, SNMP, BACnet <sup>™</sup> connectivity and IP <sup>10</sup> , IPv4 or IPv6, Active Directory <sup>®</sup> authentication, IIS v.6.0 Web Server, SMTP e-mail client, RSTP, Private Network Mode
	Network Mode





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Control Subnet	100/1000 Mbps Ethernet, auto-switching, autonegotiating, auto-discovery, full/half duplex, DHCP server, DNS Server, port forwarding, Isolation Mode, IEEE 802.3at Type 1 compliant PoE PSE
AirMedia <sup>1</sup>	(Via Ethernet) 100 Mbps, IPv4, DHCP, TLS, AES, mDNS, HTTPS web server
Streaming	(Via Ethernet) 100 Mbps, DHCP, H.264 decoding, MJPEG decoding, HDCP 2.2, RTP, RTSP, SDP
Cresnet	Cresnet master mode
USB	USB signal routing via select DM transmitters and receivers, or via USB-EXT-DM series extenders <sup>9</sup> ; USB device port for computer console (setup)
RS-232	2-way device control and monitoring up to 115.2k baud with hardware and software handshaking
IR/Serial	1-way device control via infrared up to 1.2 MHz or serial TTL/ RS-232 (0-5V) up to 115.2k baud
DigitalMedia	DM 8G+, HDCP 2.2, EDID, CEC, PoDM+ <sup>8</sup> , Ethernet
HDBaseT	HDCP 2.2, EDID, CEC, RS-232, PoE+ <sup>8</sup> , Ethernet
HDMI®	HDCP 2.2, EDID, CEC

#### NOTES:

- Supports management of HDCP and EDID
- Supports management of CEC between the connected HDMI and HDBaseT devices and the control system

#### Video

Switcher	9x4 matrix, Crestron QuickSwitch HD technology
Scalers (HDMI outputs)	(2) 4K video scalers with motion-adaptive deinterlacing, intelligent frame rate conversion, Deep Color support, 3D to 2D conversion <sup>6</sup> , content-adaptive noise reduction, and widescreen format selection (zoom, stretch, maintain aspect-ratio, or 1:1)
Input Signal Types	HDMI w/Deep Color, 3D <sup>6</sup> , & 4K (DVI & Dual-Mode DisplayPort compatible <sup>5</sup> ) on Inputs 1-6; DM 8G+ & HDBaseT w/Deep Color, 3D <sup>6</sup> , & 4K on Inputs 7 & 8; Streaming & AirMedia on Input 9 (LAN)

Output Signal
Types

HDMI w/Deep Color & 4K (DVI compatible<sup>5</sup>) on Outputs 1 & 2; DM 8G+ & HDBaseT w/Deep Color, 3D, & 4K on Outputs 3 & 4

#### Maximum Resolutions

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 DCI 4K & 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 (excluded on HDMI outputs)	1920x1080 HD1080i	30 Hz	4:4:4	36 bit

#### NOTES:

- Common resolutions are shown. Other custom resolutions are supported at pixel clock rates up to 300 MHz.
- Interlaced video is not supported on the HDMI outputs

### Streaming Decoder

Video Formats	H.264 (MPEG-4 part 10 AVC), MJPEG
Audio Format	AAC stereo
Bitrates	Up to 25 Mbps
Resolutions	Up to 1080p60
AirMedia <sup>1</sup>	

Annoara	
Users	Supports up to 32 users (presentation device connections)
Client Software OS Support	Windows 7, Windows 8, Windows 10, Mac® OS X® (versions 10.10 through 10.13)
Client Software Video Frame Rate	30 fps
Mobile App OS Support	Apple® iOS®, Android
Full Screen Device Mirroring	Shares the screen image and audio from an Apple iOS, Android, Mac OS X, or Windows device



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Resolutions	800x600@60 Hz, 1024x768@60 Hz, 1280x720@60 Hz, 1280x768@60 Hz,	Stereo Separation, Speaker Output	>65 dB @ 25 W, 1 kHz
	1280x800@60 Hz, 1280x1024@60 Hz, 1360x768@60 Hz, 1400x1050@60 Hz, 1440x900@60 Hz, 1600x1200@60 Hz, 1920x1080@60 Hz, 1920x1200@60 Hz	Channel Separation, Digital Outputs	>108 dB (digital source); >103 dB (analog source)
Audio Format	Stereo	Channel Separation, Analog Line Outputs	>103 dB
Audio – General		Speaker Output	4 $\Omega/8~\Omega$ stereo, 70V mono, or 100V
Switcher/Mixer	14x5 stereo source matrix switcher, digital & analog source inputs,	Modes	mono
	streaming & AirMedia source input, 6-channel gated mic mixer w/DSP,	Speaker Amplifier Output Power	25 W RMS per channel @ 4 or 8 Ω; 50 W RMS @ 70 or 100V
	independent mixer per analog output (6-ch mic + 1 stereo source),	Audio – Microphor	ne Inputs
	independent stereo DSP per analog	Applies to 6 microph	none input channels (Mic/Line 1 – 6):
	output, integrated power amplifier, two independent digital output mixers (6-ch	Input Signal Types	Mono analog mic or line level
	mic + 1 stereo source), 2x1 digital output	Phantom Power	Enable/Disable per channel
Analog-To-Digital	mix selector per digital output 24-bit 48 kHz	Gain	0 to +60 dB gain adjustment in 3 dB increments, plus mute
Conversion		Delay	0.0 to 85.0 ms
Digital-To-Analog Conversion	24-bit 48 kHz	EQ Center Frequencies	50 to 200 Hz (Band 1), 200 to 800 Hz (Band 2), 800 to 3.2k Hz (Band 3), 3.2k to 12.8k Hz (Band 4)
Frequency Response, Digital &	20 Hz to 20 kHz ±0.5 dB (digital source);	EQ Gain	±12.0 dB per band
Analog Line	20 Hz to 20 kHz $\pm$ 0.5 dB (analog line	High-Pass Filter	On or Off
Outputs	source); 20 Hz to 20 kHz ±0.7 dB (microphone	Gating Threshold	-80 to 0 dB
Frequency	source) 20 Hz to 20 kHz ±1 dB @ 25 W into 8 Ω;	Gating Depth (Attenuation)	-80 to 0 dB
Response, Speaker	100 Hz to 20 kHz ±2.5 dB @ 70 or 100V	Gating Attack	1 to 250 ms
Output		Gating Release	1 to 1000 ms
S/N Ratio, Digital & Analog Line Outputs	>108 dB, 1 kHz, A-weighted (digital source); >103 dB, 1 kHz, A-weighted (analog line	Compression Threshold	-80 to 0 dB
Outputs	source)	<b>Compression Ratio</b>	1:1 to 10:1
S/N Ratio, Speaker Output	98 dB @ 25 W into 8 $\Omega$ , 1 kHz, A-weighted;	Compression Attack	1 to 250 ms
	96 dB @ 25 W into 4 Ω, 1 kHz, A-weighted	Compression Release	1 to 1000 ms
THD+N, Digital & Analog Line	<0.002%, 20 Hz to 20 kHz (digital source);	Compression Curve	Hard or soft knee
Outputs	<0.005%, 20 Hz to 20 kHz (analog line source);	Audio – Source Inp	outs
	<0.05%, 20 Hz to 20 kHz (microphone source)	Input Signal Types	HDMI (Dual-Mode DisplayPort compatible <sup>5</sup> ) on Inputs 1-6;
THD+N, Speaker Output	<0.1%, 1 kHz @ 25 W into 4 or 8 Ω; <0.7%, 20 Hz to 20 kHz @ 25 W into 4 or 8 Ω		DM 8G+ & HDBaseT on Inputs 7 & 8; Streaming & AirMedia on Input 9 (LAN); Analog 2-channel on Aud In 1-5
Stereo Separation, Digital & Analog Line Outputs	>108 dB (digital source); >103 dB (analog source)	Analog Formats	Stereo 2-channel



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Digital Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS-ES, DTS 96/24, DTS HD® High Res, DTS-HD Master Audio, DTS:X®, LPCM up to 8 channels
Input Compensation	±10.0 dB, adjustable per input

#### Audio – Analog Line & Speaker Outputs

Applies to Program (	Out, Speaker Outputs, and Aux Out 1 – 2
Output Signal Format	Stereo
Mic 1 – 6	-80 to +10 dB level adjustment range, plus mute and pan
Mic Master	-80 to +10 dB level adjustment range, plus mute
Source	-80 to +10 dB level adjustment range, plus mute and balance
Master Volume	-80 to +10 dB level adjustment range, plus mute and mono
Mixer Presets	1 through 5
Bass	±12.0 dB
Treble	±12.0 dB
Equalization	10-band graphic + 4-band parametric
GEQ Center Frequencies	31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, and 16k Hz
GEQ Gain	±12.0 dB per band
PEQ Center Frequencies	10 to 22000 Hz per band
PEQ Gain	-36.0 to +24.0 dB per band
PEQ Bandwidth	0.02 to 3.50 octaves per band
PEQ Types	Parametric, High Pass, Low Pass, High Shelf, Low Shelf, Notch
Delay	0.0 to 85.0 ms
Limiter Threshold	-80 to 0 dB
Limiter Ratio	1:1 to 10:1
Limiter Attack	1 to 250 ms
Limiter Hold	1 to 200 ms
Limiter Release	1 to 1000 ms
Limiter Curve	Hard or soft knee
EQ Presets	1 through 10 (includes Delay and Limiter settings)

#### Formats Dolby Digital<sup>®</sup>, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS-ES, DTS 96/24, DTS HD® High Res, DTS-HD Master Audio, DTS:X®, LPCM up to 8 channels Digital Output Mix Selects which mix is routed to the Select 1 – 2 corresponding output Digital output mixer options (per mix): Mic 1 – 6 -80 to +10 dB level adjustment range, plus mute and pan Mic Master -80 to +10 dB level adjustment range, plus mute Source -80 to +10 dB level adjustment range, plus mute and balance Master Volume -80 to +10 dB level adjustment range, plus mute **Mixer Presets** 1 through 5

#### Connectors – Audio/Video Inputs

Connectors	
AUD IN 1 – 5	(5) 5-pin 3.5 mm detachable terminal blocks Balanced/unbalanced stereo line-level analog audio inputs; Input Impedance: 24 kΩ balanced/unbalanced; Maximum Input Level: 4Vrms balanced, 2Vrms unbalanced
MC1/LN1 – MC6/LN6	<ul> <li>(6) 5-pin 3.5 mm detachable terminal blocks;</li> <li>Comprises (6) balanced microphone/line audio inputs;</li> <li>Mic Input Level: -60 to 0 dBV, 1Vrms maximum;</li> <li>Balanced Line Input Level: -31 to +11 dBV, 3.7Vrms maximum;</li> <li>Unbalanced Line Input Level: -37 to +5 dBV, 1.85Vrms maximum;</li> <li>Mic Input Impedance: 3.9 kΩ balanced;</li> <li>Line Input Impedance: 19 kΩ balanced, 9.5 kΩ unbalanced;</li> <li>Phantom Power: +48VDC, software enabled/disabled per channel</li> </ul>
HDMI 1 – 6 INPUTS	(6) HDMI Type A connectors, female; Digital video/audio inputs; (DVI and Dual-Mode DisplayPort compatible <sup>5</sup> )

#### Audio – Digital Outputs

Output Signal	HDMI (DVI compatible <sup>5</sup> ) on Outputs 1 &
Types	2;
	DM 8G+ & HDBaseT on Outputs 3 & 4

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DM INPUT 7 – 8	(2) 8-pin RJ45 connectors, female, shielded; DM 8G+ inputs, HDBaseT compliant; PoDM+ PSE ports (HDBaseT PoE+ compatible) <sup>8</sup> ; Each connects to the DM 8G+ output of a DM transmitter or other DM device, or to an HDBaseT device, via CAT5e, Crestron DM-CBL-8G, or Crestron DM-CBL-ULTPA cable?
	DM-CBL-ULTRA cable <sup>7</sup>

#### DM OUTPUT 3 – 4 (

3 – 4	(2) 8-pin RJ45 connectors, female,
	shielded;
	DM 8G+ outputs, HDBaseT compliant;
	PoDM+ PSE ports (HDBaseT PoE+
	compatible) <sup>8</sup> ;
	Each connects to the DM 8G+ input of
	a DM receiver or other DM device, or to
	an HDBaseT device, via CAT5e,
	DM-CBL-8G or DM-CBL-ULTRA cable <sup>7</sup>
	(sold separately)

Connectors - Networking, Control, & Power

#### Connectors - Audio/Video Outputs

Connectors – Abdio/ video Cotpots		Connectors – Networking, Control, & Power		
SPEAKER OUTPUT 4Ω/8Ω L – R	<ul> <li>(2) 2-pin 7.62 mm 15A detachable terminal blocks;</li> <li>4-8 Ω stereo speaker-level audio output;</li> <li>Wire Size: Terminals accept up to 14 AWG (2.5 mm<sup>2</sup>);</li> <li>Output Proven 25 M/ PMS are shared.</li> </ul>	IR/SERIAL OUT 1 – 4	(4) 2-pin 3.5 mm detachable terminal blocks; IR/Serial output ports; IR output up to 1.2 MHz; 1-way serial TTL/RS-232 (0-5V) up to 115.2k baud	
SPEAKER OUTPUT 70/100V	Output Power: 25 W RMS per channel stereo at 4 or 8 Ω (1) 2-pin 7.62 mm 15A detachable terminal block;	IR IN	<ul><li>(1) 3-pin 3.5 mm detachable terminal block;</li><li>Allows control from IR wireless remotes using RC-5 command set</li></ul>	
	Transformer-isolated 70 or 100V mono speaker-level audio output; Wire Size: Terminals accept up to 14 AWG (2.5 mm²); Output Power: 50 W RMS mono at 70 or 100V	INPUT 1 – 4	(1) 5-pin 3.5 mm detachable terminal block; Comprises (4) programmable digital inputs; Input Voltage Range: 0 to 24VDC, referenced to GND;	
PROG OUT	<b>NOTE:</b> The $4\Omega/8 \Omega$ and $70/100V$ outputs are mutually exclusive	Logic Threshold: 2.5VDC nominal with 1V hysteresis band; Input Impedance: 10 kΩ at >5V, 1 MΩ at <5V; Pull-up Resistor: 2.2 kΩ per input		
	<ul> <li>(1) 5-pin 3.5 mm detachable terminal block;</li> <li>Balanced/unbalanced stereo line-level audio output;</li> <li>Output Impedance: 200 Ω balanced,</li> <li>100 Ω unbalanced;</li> <li>Maximum Output Level: 4Vrms</li> </ul>	RELAY1-4	(1) 8-pin 3.5 mm detachable terminal block; Comprises (4) normally open, isolated relays; Rated 1A, 30VAC/VDC; MOV arc suppression across contacts	
AUX OUT 1 – 2	balanced, 2Vrms unbalanced (2) 5-pin 3.5mm detachable terminal blocks; Balanced/unbalanced stereo line-level	COM A – B	(2) DB9 connectors, male; Bidirectional RS-232 ports; Up to 115.2k baud, hardware and software handshaking support	
	audio outputs; Output Impedance: 200 Ω balanced, 100 Ω unbalanced; Maximum Output Level: 4Vrms balanced, 2Vrms unbalanced	NET	(4) 4-pin 3.5mm detachable terminal blocks; Cresnet Master ports, paralleled; Available Cresnet Power: 10W	
HDMI1-2 OUTPUTS	(2) HDMI Type A connectors, female; Digital video/audio outputs; (DVI compatible <sup>5</sup> )	PoDM+ INPUT PWR	<ul> <li>(1) Combo D-Sub 7w2 connector, male;</li> <li>48VDC power input for PoDM power supply<sup>8</sup>;</li> <li>Enables PoDM+ power sourcing on each DM INPUT/OUTPUT port;</li> <li>Englas Das power sourcing on the</li> </ul>	

DM INPUT/OUTPUT port; Enables PoE power sourcing on the CONTROL SUBNET port



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SERVICE 100-240V~ 6.0A 50/60Hz	<ol> <li>USB Type B connector, female;</li> <li>For factory use only</li> <li>IEC 60320 C14 main power inlet;</li> <li>Mates with removable power cord,</li> </ol>	VOLUME	(1) Continuous turn rotary encoder, adjusts menu parameters; Defaults to <b>Program</b> audio volume control	
G	included (1) 6-32 screw;	MUTE	(1) Pushbutton and red LED, mutes the <b>Program</b> audio output	
CONTENT LAN IN 9	Chassis ground lug (1) 8-pin RJ45 connector, female; 10Base-T/100Base-TX Ethernet port;	INFO	(1) Pushbutton and red LED; Selects <b>INFO</b> mode to view AV and device info	
	Provides a dedicated LAN connection for streaming input & AirMedia <sup>1</sup>	ROUTE	(1) Pushbutton and red LED; Selects <b>ROUTE</b> mode to allow routing changes	
CONTROL SUBNET	(1) 8-pin RJ45 connector, female; 10Base-T/100Base-TX/1000Base-T Ethernet port; PoE PSE (Power Sourcing Equipment)	VIEW	<ul> <li>(1) Pushbutton and red LED;</li> <li>Selects VIEW mode to view current routing</li> </ul>	
	port <sup>s</sup> ; Provides a dedicated local network for Crestron devices	INPUT1-9	(9) Pushbuttons and red LEDs; Selects the corresponding video input for routing	
LAN	(1) 8-pin RJ45 connector, female; 10Base-T/100Base-TX/1000Base-T Ethernet port	OUTPUT 1 – 4, PROG, AUX 1 – 2	(7) Pushbuttons and red LEDs; Selects the corresponding video or audio output for routing	
COMPUTER (front)	(1) USB Type B connector, female; USB computer console port (for setup	SPEAKER OUTPUT (rear)	(1) 3-position slide switch; Selects amplifier output configuration	
only) Controls & Indicators		DM INPUT 7 – 8 (rear)	(4) LEDs, (2) green and (2) amber; Green LEDs indicate DM link status, amber LEDs indicate video and HDCP	
PWR	(1) Green LED, indicates operating power supplied from AC power line		signal presence for each corresponding port	
NET	(1) Yellow LED, indicates Cresnet bus activity	DM OUTPUT 3 – 4 (rear)	(4) LEDs, (2) green and (2) amber; Green LEDs indicate DM link status,	
LAN	(1) Yellow LED, indicates Ethernet activity		amber LEDs indicate video and HDCP signal presence for each corresponding port	
HW-R	(1) Recessed pushbutton for hardware reset, reboots the control system	CONTENT LAN IN 9 (rear)	(2) LEDs, (1) green and (1) amber, for indication of Ethernet speed, activity,	
SW-R	(1) Recessed pushbutton for software reset, restarts the software program	CONTROL	and link status (2) LEDs, (1) green and (1) amber, for	
LCD Display	(1) Green LCD alphanumeric; adjustable backlight; 2 lines x 20 characters per	SUBNET (rear)	indication of Ethernet speed, activity, and link status	
	line; displays input/outputs by name, volume levels, setup menus, signal routing, device info, and other system information	LAN (rear)	(2) LEDs, (1) green and (1) amber, for indication of Ethernet speed, activity, and link status	
SOFTKEYS	(4) Pushbuttons for activation of LCD driven functions and passcode entry	Power		
MENU	(1) Pushbutton, steps menu back one level	Main Power Power	6A @ 100-240VAC, 50/60 Hz 93 W typical;	
Λ, V	(2) Pushbuttons, for scrolling up or down through the menu and adjusting menu parameters	Consumption Available Cresnet Power	72 W idle 10 W	
ENTER	(1) Pushbutton, executes the highlighted menu or value	i Uwei		



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Power over DM (PoDM)	IEEE 802.3at compliant PoDM+ PSE (Power Sourcing Equipment), each DM INPUT/OUTPUT port supplies up to 30 W to power one PoDM (Class 0-3) or PoDM+ (Class 4) PD (Powered Device) <sup>8</sup>
Power over HDBaseT	IEEE 802.3at PoE+ compliant PSE, each DM INPUT/OUTPUT port supplies up to 30 W to power one HDBaseT PoE or PoE+ PD <sup>8</sup>
Power over Ethernet (PoE)	IEEE 802.3at compliant PoE PSE (Power Sourcing Equipment), the CONTROL SUBNET port supplies up to 15.4 W to power one PoE (Class 0-3) PD (Powered Device) <sup>8</sup>
PoDM Power Supply	Compatible with model <u>PW-5430DUS</u> (sold separately)
Environmental	
Temperature	41° to 104° F (5° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	317 BTU/hr typical; 246 BTU/hr idle
Enclosure	
Chassis	Metal, fan-cooled, vented sides
Front Panel	Metal, black finish with polycarbonate label overlay
Mounting	Freestanding or 3 RU 19 in. rack-mountable (adhesive feet and rack ears included)
Dimensions	
Height	5.20 in. (133 mm) without feet
Width	17.28 in. (439 mm); 19.00 in. (483 mm) with rack ears
Depth	15.75 in. (400 mm)
Weight	
15.5 lb (7.1 kg)	
Compliance	
	Canada, IC, CE, FCC Part 15 Class A

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

### Maximum DM 8G+ Cable Lengths

Resolution	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	CAT5e (or better) <sup>7</sup>
1080p60 Full HD			
1920x1200 WUXGA	330 ft (100 m)	330 ft	330 ft
1600x1200 UXGA		(100 m)	(100 m)
2048x1080 DCI 2K			
2560x1440 WQHD			
2560x1600 WQXGA		230 ft	165 ft
3840x2160 4K UHD		(70 m)	(50 m)
4096x2160 DCI 4K			

### Model

#### DMPS3-4K-350-C

3-Series® 4K DigitalMedia™ Presentation System 350

### **Available Accessories**

For a list of available accessories, see the <u>DMPS3-4K-350-C</u> product page.

#### Notes:

Enabling the onboard AirMedia gateway requires the purchase of one <u>SW-DMPS3-AIRMEDIA</u> license. To obtain the license or for any questions regarding AirMedia activation, please visit <u>https://www.crestron.com/dmps-airmedia-activation</u>. Wireless presentation using AirMedia requires an external wireless access point (not included). A wired Ethernet connection may also be used. AirMedia network traffic can be routed

through the primary LAN port or isolated through the CONTENT LAN port. Performance quality for full-motion video content is dependent upon network performance and sending device performance.

- 2. Some features and functions described in this spec sheet may not be supported using .AV Framework. For a complete list of capabilities and options supported by .AV Framework, please visit: http://www.crestron.com/avframework.
- 3. AirMedia wireless presentation requires a wired network connection between the AM-200 and an external Wi-Fi wireless access point (not included). Laptops may alternatively connect to AirMedia using a wired Ethernet connection. Fullmotion video performance is dependent upon the performance of the network and the transmitting device. Computer client software and mobile device apps are available for download at https://www.crestron.com/airmedia.
- 4. The streaming and AirMedia inputs are mutually exclusive. Only one or the other can be used at one time. Streaming network traffic can be routed through the primary LAN port or isolated through the CONTENT LAN port.



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- HDMI connections require an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. <u>CBL-HD-DVI</u> interface cables are available separately.
- The HDMI outputs do not pass 3D signals. On these outputs, 3D signals are automatically converted to 2D, then scaled and output as 2D. 3D signals can be passed through the DM 8G+ outputs.
- 7. The maximum cable length for DigitalMedia 8G+ (DM 8G+) or HDBaseT is dependent upon the type of cable and resolution of the video signal. Refer to the "Maximum DM 8G+ Cable Lengths" table for a detailed overview. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to <u>https://www.crestron.com/Products/Featured-Solutions/Digital-Media</u> for complete system design guidelines. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment. All wire and cables are sold separately.
- 8. Enabling PoDM and PoE power sourcing requires an external power supply, model PW-5430DUS sold separately. Due to the inherent power loss that occurs over CATx cable, a maximum of 25.5 W is delivered at each PoDM+ or HDBaseT PoE+ powered device. Be aware that the CONTROL SUBNET port is limited to regular PoE (Class 0-3), which delivers a maximum of 12.95 W to the powered device. Any wiring that is connected to a PoDM or PoE PSE port is for intra-building use only and should not be connected to a line that runs outside of the building in which the PSE is located.
- Manages the routing of USB HID signals between peripheral DM devices that are equipped with USB HID ports. The USB ports onboard the DMPS3-4K-350-C are not usable for USB signal routing. Also programmable to manage the routing of USB signals between Crestron USB over Ethernet Extender modules (DM-NUX, sold separately). Refer to the DM-NUX spec sheet for more information.
- License required. The DMPS3-4K-350-C supports a maximum of 500 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

The specific patents that cover Crestron products are listed online at patents.crestron.com. Certain Crestron products contain open source software. For specific

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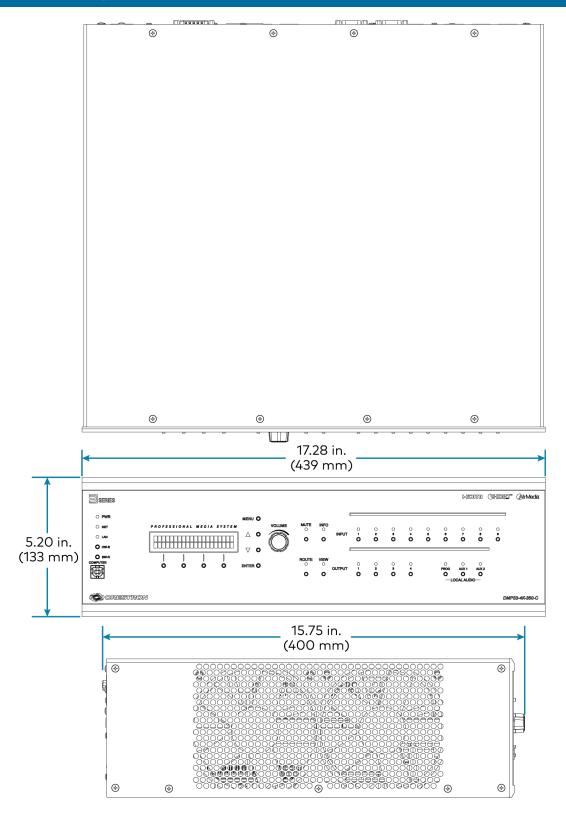
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AV Signal Flow Diagrams

