AUDIO VIDEO SUPPLY **DM**

CRESTRON DIGITALMEDIA

8x8 DigitalMedia™ Switcher with Redundant Power Supplies

Crestron® DM® switchers provide the foundation for a complete DigitalMedia™ system, delivering an advanced 4K60 4:4:4 AV signal routing solution that is extremely flexible and installer friendly. The DM-MD8X8-CPU3-RPS affords ultra fast switching and pure, lossless distribution of HDMI® and other signals to support all the digital media players, HDTV receivers, computers, cameras, and display devices that fill any modern home or commercial facility. A DigitalMedia system thoughtfully manages all of the disparate AV signals and devices to deliver a transparent user experience, and to ensure an optimum video image and audio signal at every location.

The DM-MD8X8-CPU3-RPS is an enhanced version of the DM-MD8X8-CPU3 featuring built-in redundant power supplies to ensure continuous reliable operation for mission critical applications.

The DM-MD8X8-CPU3-RPS is field configurable to handle up to eight AV sources of virtually any type. The outputs are also field configurable

to provide up to eight DM, HDBaseT®, and/or HDMI outputs, or up to four H.264 streaming outputs, in a single chassis.[1] A full selection of DM switcher input and output cards, DM transmitters, and DM receivers provides extensive connectivity throughout a residence or commercial facility, supporting a complete range of analog and digital

> Delivers a unified HD signal distribution solution incorporating both point-to-point wired and IP streaming technologies

> Provides lossless HD AV signal routing over twisted pair copper wire or fiber

> Integrates video, audio, networking, and control over one wire or fiber strand

> Enables high-performance H.264 streaming from any input source up to 1080p or WUXGA

> Provides a built-in CONTENT LAN port for streaming

> Affords full matrix switching with ultra high 12.5 Gbps backplane data rate

> Handles HDMI® with Deep Color, 3D, 4K, and high-bitrate 7.1 encoded audio [4]

> HDBaseT® Certified — Enables direct connection to other HDBaseT certified equipment

> HDCP 2.2 compliant via compatible 4K input and output cards [4]

> Distributes Full HD 1080p, Ultra HD, and 4K signals over CAT type twisted pair cable at distances up to 330 ft (100 m) via DM 8G+® and HDBaseT [5,10]

> Distributes 1080p and WUXGA signals over multimode fiber at distances up to 1000 ft (300 m) via DM 8G® Fiber [6,10]

> Distributes 1080p and WUXGA signals over single-mode fiber at distances up to 7.5 miles (12 km) via DM 8G SM Fiber [7,10]

> Allows streaming of 1080p signals over an IP network with no distance limitations

> Also supports all first-generation DM® CAT and DM Fiber products [8,9,10]

> Configurable with up to eight DM, HDBaseT, and/or HDMI outputs

> Configurable with up to four streaming outputs [1]

> Easy output expansion using multiple DM switchers

> Modular inputs support a complete range of digital, analog, and streaming signal types

> QuickSwitch HD™ technology manages HDCP keys for fast, reliable switching

> Auto-Locking® technology achieves rapid switching between disparate sources

> Detects and displays detailed video and audio input information

> Performs automatic AV signal format management via EDID

> Allows independent scaling for every display through select output cards and DM receivers [13]

> Enables device control via CEC

> Distributes and routes USB HID mouse and keyboard signals [16]

> Expanded USB routing capabilities available using USB over Ethernet Extenders [16]

> Allows full audio and USB breakaway switching

> Supports analog audio embedding and de-embedding

> Integrates with analog audio distribution systems

> Enables simultaneous output of stereo and surround sound audio

> Includes integrated Ethernet switch with Gigabit LAN port

> Private Network Mode — requires just one IP address for the complete DM system

> Secure access through full user/group management or Active Directory® credential management integration

> Hardware level security using 802.1X authentication

> TLS, SSL, SSH, and SFTP network security protocols

> Built-in redundant power supplies with remote status monitoring

> Provides easy setup and diagnostics tools via front panel or software

> Includes a built-in web server [3]

> Half-million hour rated internal universal power supply

> 4-space 19-inch rack-mountable
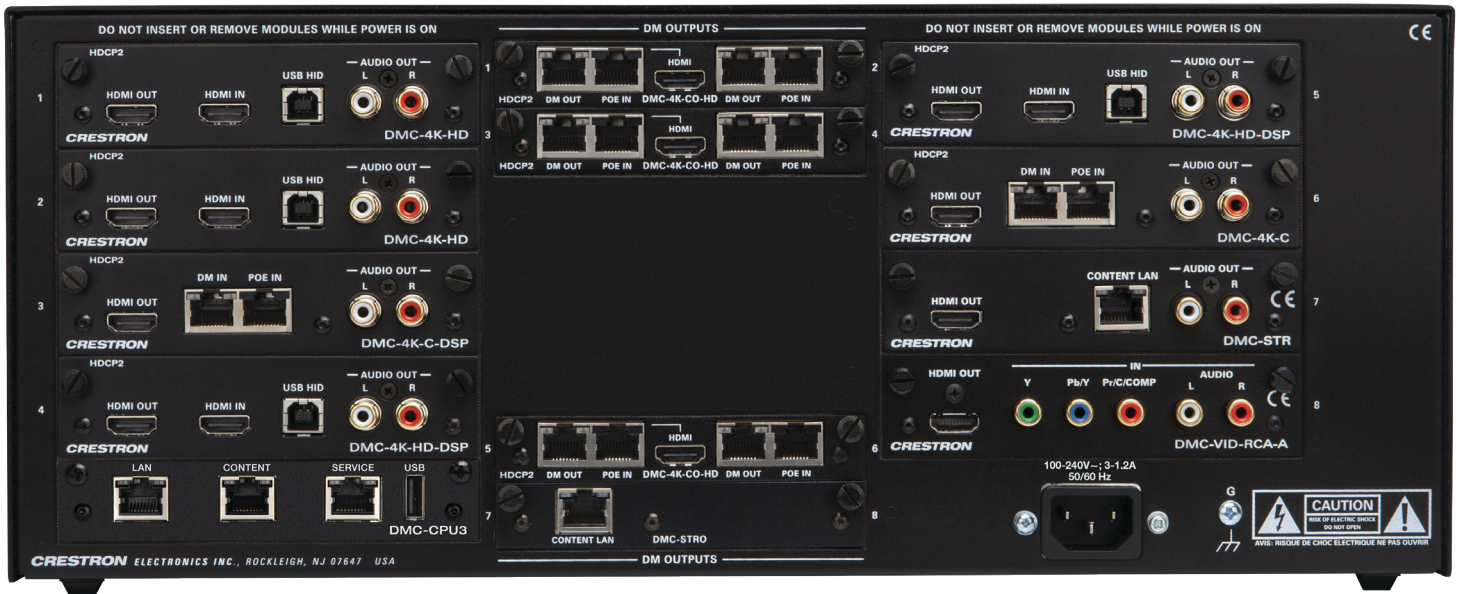
DM-MD8X8-CPU3-RPS – Rear view with I/O cards installed

signal types all through one switcher! Based on the 3-Series® platform, the DM-MD8X8-CPU3-RPS provides enterprise-grade security.

Integrated Ethernet networking and USB distribution provide a complete connectivity solution combined with built-in Crestron control[2] for managing the displays and other room devices without necessitating any additional wiring. User-friendly operation, setup, and troubleshooting tools are provided through the DM-MD8X8-CPU3-RPS front panel, or via Crestron Toolbox™ software, to make setting up a complete multiroom 4K video distribution system easy. A web browser interface is also provided.[3]

To configure a DM switcher complete with input and output cards, cables, and other peripherals, use the DigitalMedia Switcher Configuration Tool.

4K Ultra HD

DigitalMedia technology continues to advance the standard for digital AV signal distribution, delivering the world's first end-to-end 4K system solution. The DM-MD8X8-CPU3-RPS is designed to meet the extreme bandwidth requirements for handling 4K and Ultra HD video signals. Support for 4K video also ensures support for the latest generation of computers and monitors with native resolutions beyond 1080p and WUXGA.[4]

DigitalMedia 8G+® Technology

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia technology to deliver the first complete HD AV distribution system to take HDMI technology to a higher level. A DigitalMedia system allows virtually any mix of HDMI and other AV sources to be distributed throughout a room, building, or campus. The latest generation of a DigitalMedia system uses DigitalMedia 8G+ technology. Engineered for ultra high-bandwidth and ultimate scalability, DigitalMedia 8G+ technology provides true one-wire lossless transport of high-definition video, audio, Ethernet, and control signals over a choice of twisted pair or fiber optic cable.

A DigitalMedia 8G+ system handles uncompressed Full HD 1080p, Ultra HD, 2K, and 4K video signals with support for 3D, Deep Color, and HDCP 2.2.[4] Audio capabilities include the simultaneous distribution of stereo and multichannel surround sound signals, with support for high-bitrate 7.1 audio formats such as Dolby® TrueHD, Dolby Atmos®, and DTS-HD Master Audio™ as well as uncompressed linear PCM. All signals are transported over one CAT type twisted pair cable or one strand of multimode or single-mode fiber. DigitalMedia 8G+ technology enables wire distances up to 330 feet (100 m) via DM 8G+® (DM 8G over twisted pair copper wire)[5,10], 1000 feet (300 m) via DM 8G Fiber (DM 8G over multimode fiber)[6,10], or 7.5 miles (12 km) via DM 8G SM Fiber (DM 8G over single-mode fiber)[7,10].

The DM-MD8X8-CPU3-RPS provides full support for Crestron DigitalMedia 8G+ devices as well as all first-generation DM CAT [8,10] and DM Fiber [9,10] products, letting you take advantage of the latest Crestron DigitalMedia 8G+ technology without compromising your existing investment.

HDBaseT® Certified

DigitalMedia 8G+® technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Using DigitalMedia 8G+® technology, the DM-MD8X8-CPU3-RPS can be connected directly to an HDBaseT compliant device without requiring a DM transmitter or receiver.

H.264 Streaming

High-performance H.264 streaming capability enables enterprise-wide distribution of HD content over an IP network. Streaming expands the capabilities of a DM system by removing all distance limitations and allowing distribution to virtually any device — anywhere in the world. Streaming is an essential component of any complete DM system, allowing for high-definition signal routing to Crestron touch screens, digital signage displays, remote buildings, and global offices without requiring any new or dedicated wiring. Large-scale streaming to computers and mobile devices can be facilitated through integration with a streaming media system such as a Wowza® or Kaltura® media system.

A DigitalMedia system with streaming affords the ability to distribute any combination of sources to virtually any device anywhere. Each streaming output supports resolutions up to HD 1080p at bitrates up to 25 Mbps. Built-in scaling enables fast, trouble-free switching between sources of any type or resolution up to 1080p or WUXGA. Audio support includes stereo signals, as well as multichannel audio signals downmixed to stereo via any "DSP" type input card.[11] High-quality video and audio is maintained using high-performance H.264 video and AAC audio compression. The encoded video and audio can be output as independent RTP streams or encapsulated in an MPEG-TS (MPEG-2 Transport Stream) container. HDCP management ensures that protected content cannot be distributed via streaming.

Each streaming output is actually fed internally by two separate switcher outputs, allowing any two input sources to appear picture-in-picture or side-by-side in a single stream. Instant, single-frame switching between two full screen images is also possible. The audio signals from both input sources can also be mixed, allowing both signals to be heard simultaneously.

The DM-MD8X8-CPU3-RPS can receive streaming signals as well as transmit them. Streaming input capability enables IP cameras and other H.264 encoded sources to be distributed via DigitalMedia alongside HDMI and other non-streaming sources. It also allows DM switchers to be bridged together across a campus or around the world, enabling simplified routing of HD content between buildings and global offices.

A DigitalMedia system provides many deployment options to address a wide range of streaming applications and accommodate each organization's specific IT requirements. A DigitalMedia system with streaming supports both unicast and multicast, with or without RTSP (Real Time Streaming Protocol). Streaming connections can be configured to stream directly to one or more specific IP addresses, or to use RTSP to manage the configuration of numerous connections automatically.

Built-In CONTENT LAN Port

Any streaming input or output may be configured to stream via the CONTENT LAN or LAN port of the DM switcher or via a dedicated CONTENT LAN port of a DMC Series input or output card. Control and content can be combined on a single network or can be isolated onto separate networks.

Modular Architecture

The DM-MD8X8-CPU3-RPS features a modular architecture with 8 input card slots and 4 dual output card slots. Each card slot on the DM-MD8X8-CPU3-RPS is field installable, allowing for easy and flexible system configuration with the ability to make changes to the system as needs change. A wide selection of input cards is offered to support a complete range of digital and analog AV signal types including HDMI, DVI, Dual-Mode DisplayPort[12], SDI, RGB/VGA and analog video, SPDIF and analog audio, HDBaseT, H.264 streaming, and all types of DigitalMedia. Available outputs include all types of DigitalMedia, as well as HDBaseT, HDMI, analog audio, and H.264 streaming.[1]

Output Expansion

An HDMI "pass-through" output is provided on every input card to allow the inputs of up to five DM switchers to be daisy-chained, enabling the configuration of very large distribution systems with many outputs.

Using five DM-MD8X8-CPU3-RPS switchers, it is possible to support up to 40 separate outputs.

QuickSwitch HD™ Technology

Handling high-definition digital media means handling HDCP (High-bandwidth Digital Content Protection), the encryption scheme that content providers use to protect their DVDs, Blu-ray™ discs, and broadcast signals against unauthorized copying. Viewing HDCP encrypted content requires a source device to "authenticate" each display and signal processor in the system and issue it a "key" before the content can be viewed. Ordinarily this causes a complete loss of signal for up to 15 seconds each time a new source or display is selected anywhere in the system. To make matters worse, every source device has a limited number of keys available, so connect too many displays and the source will simply stop outputting a signal without warning.

Not to worry — Crestron QuickSwitch HD technology manages the keys for every HDCP-compliant device in the system, maintaining continuous authentication for each device to ensure fast, reliable routing of any source to any number of display devices.

Auto-Locking® Technology

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

EDID Format Management

With all of today's varied AV sources comes a multitude of confusing video and audio formats to keep track of, and chances are not every device in your system supports all of the same formats. Such conflicts can wreak havoc any time you route one source to more than one display or audio component. The media source feeding your 1080p or Ultra HD projector in the theater may restrict itself to a lower resolution, or even shut off completely, if someone decides to view the same signal on a smaller TV in another room. And, instead of enjoying your theater's incredible 7.1 surround sound, you may find yourself limited to 5.1 or even plain old stereo.

DigitalMedia technology eliminates such conflicts by managing the EDID (Extended Display Identification Data) that modern digital devices use to communicate their capabilities. Via Crestron Toolbox software, the format and resolution capabilities of each device can be assessed, allowing the installer to configure EDID signals appropriately for the most desirable and predictable behavior.

A Scaler for Every Display

High-performance scaling capability can be added to any DM system using select output cards and DM receivers with built in HD and 4K scalers. By placing an independent scaler at every display device, DigitalMedia technology truly delivers the most flexible and user-friendly solution for routing multiple disparate sources to many different display devices. This "Distributed Scaler Approach" ensures an optimal image on every screen no matter what sources are selected. Distributed scaling

allows a high-res computer source to be viewed on any display in the building. It also allows an SD, HD, or Ultra HD video source to be viewed simultaneously on the 4K display in your theater and on lower resolution displays throughout the house.

Versatile Audio Routing

HDMI technology is the key to handling 7.1 surround sound formats like Dolby TrueHD, Dolby Atmos, and DTS-HD Master Audio. Great for your high-end home theater, but how do you share that same source with other audio zones in the house?

DigitalMedia technology provides the answer, allowing for the simultaneous distribution of multichannel surround sound and two-channel stereo signals from the same HDMI source. Using a choice of "DSP" type input cards, the DM-MD8X8-CPU3-RPS employs onboard digital processing to derive a stereo downmix from the original multichannel signal. Both signals can be routed separately or simultaneously from any of the switcher's DM outputs, allowing either signal to be selected for output at each DM receiver location.

Back at the switcher, the digital stereo signal is also converted to analog to enable sharing with every other room in the house via a Sonnex® Multiroom Audio System or any other audio distribution system. The DM-MD8X8-CPU3-RPS also allows surround sound processors and amplifiers to be located centrally instead of at the display location via optional local HDMI outputs.

Built-in Ethernet Switch

In addition to transporting digital video and audio, a DigitalMedia system can also extend 10/100 Ethernet out to each display and source device via select DM receivers and transmitters, providing high-speed connectivity for any room device that requires a LAN connection. Ethernet is also utilized internally by the Crestron control bus to manage the DM devices in the system and provide display control in each room.

Private Network Mode

To streamline its implementation on a corporate or university LAN, the DM-MD8X8-CPU3-RPS employs Private Network Mode to provide a single-point connection for the complete system. Using Private Network Mode, the DM-MD8X8-CPU3-RPS requires just one IP address for the complete DM network including all connected DM receivers and transmitters.

USB Signal Routing

Along with video, audio, and Ethernet, a DigitalMedia system also provides for the routing of 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, transmitters, and input cards.

Crestron also offers USB extenders to enable the routing of virtually any type of USB peripheral to any host device, all managed through the DigitalMedia system. Connect a USB over Ethernet Extender host module (USB-EXT-DM-LOCAL [12]) to each computer, media server, game system, annotator, and any other host that you want to control or communicate with. Then, install a device module (USB-EXT-DM-REMOTE [12]) at every display location to connect keyboards, mice, game controllers, whitboards, flash drives, Web cameras, and mobile devices. Every module communicates with the DM switcher over the local Ethernet network or via a direct connection to the LAN port of a DM transmitter or receiver.

CEC Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. DigitalMedia technology provides an alternative to conventional IR and RS-232 device control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-MD8X8-CPU3-RPS provides a gateway for controlling many devices right through their HDMI or HDBaseT connections, potentially eliminating the need for any dedicated control wires or IR emitters.[13]

Easy Setup

Via the front panel or using Crestron Toolbox software, every step of the DM-MD8X8-CPU3-RPS setup process is designed to be quick and easy, configuring inputs and outputs automatically while letting the installer make intelligent design decisions along the way. The switcher even tests and measures the length of each DM cable, automatically making the appropriate calibrations for optimal signal transmission to every room. An entire DigitalMedia 8x8 system can be commissioned in under an hour.

Web Browser Control

The DM-MD8X8-CPU3-RPS also includes a built-in web server that allows functions such as Ethernet configuration, routing, and firmware upgrades to be performed. [3]

Redundant Power Supplies

The DM-MD8X8-CPU3-RPS delivers enhanced reliability for mission critical applications by employing extreme long-life, redundant power supplies to ensure continuous dependable operation throughout the life of the system. Each of its internal switch-mode power supplies has a demonstrated MTBF (Mean Time Between Failures) of over 1,000,000 hours. In the unlikely event of an individual power supply fault, the DM-MD8X8-CPU3-RPS will continue to operate unhindered on only one power supply. Clear indication of such a fault is provided on the unit's front panel via a flashing red LED. Individual green LEDs are also provided to show the status of each individual power supply. The power supplies can even be remotely monitored via Crestron Fusion® software or any control system touch screen.

To configure a DM switcher complete with input and output cards, cables, and other peripherals, use the DigitalMedia Switcher Configuration Tool.

Are you upgrading an existing DM switcher that has older "multi-gang" DMCO-series output cards? Use the online Output Card Additions and Upgrades Tool to update your existing output cards and switcher to the new "single-gang" output card format.

SPECIFICATIONS

Maximum Cable Lengths

Resolution	Cable Type		
	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	Third-Party CAT5e (or higher)
1920x1080 FHD 1080p	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 DCI 2K			
2048x1152 QWXGA			
2560x1080 UWFHD		230 ft (70 m)	165 ft (50 m)
2560x1440 WQHD			
2560x1600 WQXGA			
3840x2160 4K UHD			
4096x2160 DCI 4K			

Resolution	Cable Type	
	CRESFIBER8G CresFiber® 8G Multimode Fiber	Third-Party OM3 Multimode Fiber
1920x1080 FHD 1080p	1000 ft (300 m) via DM 8G Fiber cards	500 ft (150 m) via DM 8G Fiber cards
1920x1200 WUXGA		
1600x1200 UXGA		
2048x1080 2K DCI @24Hz		

Resolution	Cable Type	
	CRESFIBER8G-SM CresFiber 8G Single-Mode Fiber	Third-Party G.652.D (or higher) Single-Mode Fiber
11920x1080 FHD 1080p	7.5 miles (12 km) via DM 8G SM Fiber cards	
1920x1200 WUXGA		
1600x1200 UXGA		
2048x1080 2K DCI @24Hz		

Video

Switcher: 8x8 digital matrix, modular input/output cards, Crestron QuickSwitch HD™

Input Signal Types: Configurable via modular plug-in cards supporting HDMI® (DVI & Dual-Mode DisplayPort compatible [12]), DVI, 3G-SDI, RGB/VGA, component, S-Video, composite (NTSC & PAL), DM 8G+® & HDBaseT®, DM 8G Fiber, DM 8G SM Fiber, DM® CAT (legacy), DM Fiber (legacy), & H.264 streaming

Output Signal Types: Configurable via modular plug-in cards supporting HDMI (DVI compatible [15]), DM 8G+ & HDBaseT, DM 8G Fiber, DM 8G SM Fiber, DM CAT (legacy), DM Fiber (legacy), & H.264 streaming (All input cards also include HDMI pass-through outputs)

Backplane Data Rate: 12.5 Gbps

Note: For additional specifications, refer to the spec sheet for each input and output card.

Audio

Switcher: 8x8 digital multichannel audio-follow-video matrix switching, plus independent 8x8 stereo matrix for audio breakaway

Input Signal Types: Configurable via modular plug-in cards supporting HDMI (Dual-Mode DisplayPort compatible [12]), 3G-SDI, analog (stereo 2-channel), SPDIF, DM 8G+ & HDBaseT, DM 8G Fiber, DM 8G SM Fiber, DM CAT (legacy), DM Fiber (legacy), & H.264 streaming

Output Signal Types: Configurable via modular plug-in cards supporting HDMI, analog (stereo 2-channel), DM 8G+ & HDBaseT, DM 8G Fiber, DM 8G SM Fiber, DM CAT (legacy), DM Fiber (legacy), & H.264 streaming (All input cards also include HDMI pass-through outputs, and most digital audio input cards also include analog stereo pass-through audio outputs)

Note: For additional specifications, refer to the spec sheet for each input and output card.

Communications

Ethernet: 100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, 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, IPv4 or IPv6, Active Directory authentication, IIS v.6.0 Web Server, SMTP e-mail client, Private Network Mode

USB: USB signal routing via select input cards, transmitters, receivers, and extenders [16]; USB computer console port for setup

DigitalMedia: DM 8G+, DM 8G Fiber, DM 8G SM Fiber, DM Fiber, DM CAT, HDCP 2.2 [4], EDID, CEC, PoDM, PoDM+, Ethernet

HDBaseT: HDCP 2.2 [4], EDID, CEC, RS-232, PoH, Ethernet

HDMI: HDCP 2.2 [4], EDID, CEC

Note: Supports management of HDCP and EDID; supports management of CEC between connected HDMI and HDBaseT devices and a control system.[14] For additional specifications, refer to the spec sheet for each input and output card.

Card Slots

1 – 8: (8) DM switcher input card slots; Each slot accepts (1) DMC-series input card

DM OUTPUTS 1 – 8: (4) DM switcher output card slots; Each slot accepts (1) DMC-series output card

Connectors

LAN: (1) 8-pin RJ45 female; 100Base-TX/1000Base-T Ethernet port

CONTENT: (1) 8-pin RJ45 female;
100Base-TX/1000Base-T Ethernet port;
Provides a dedicated LAN connection for streaming only, used in lieu of streaming via the LAN port of the switcher or the CONTENT LAN port of a DMC Series input or output card

SERVICE: (1) 8-pin RJ45 female;
100Base-TX/1000Base-T Ethernet port;
For factory use only

USB: (1) USB Type A connector, female;
USB 2.0 host port for connection of a USB flash drive;
For save/load of EDID settings and for firmware update

100-240V~3-1.2A 50/60Hz: (1) IEC 60320 C14 mains power inlet;
Mates with removable power cord, included

G: (1) 6-32 screw, chassis ground lug

COMPUTER (front): (1) USB Type B female;
USB computer console port (6 ft cable included)

Controls & Indicators

LCD Display: Green LCD dot matrix, 128 x 64 resolution, adjustable LED backlight, displays inputs/outputs by name, video & audio signal information, Ethernet configuration and setup menus
SOFTKEYS: (4) Pushbuttons for activation of LCD driven functions
HW-R: (1) Recessed pushbutton for hardware reset, reboots the switcher
ROUTE: (1) Pushbutton and red LED, selects ROUTE mode to allow routing changes
VIEW: (1) Pushbutton and red LED, selects VIEW mode for viewing current routes
INFO: (1) Pushbutton and red LED, selects INFO mode for viewing AV and device info
MENU: (1) Pushbutton, steps menu back one level
ENTER: (1) Pushbutton, executes highlighted menu or value
AUDIO: (1) Pushbutton & red LED, selects audio routing view
VIDEO: (1) Pushbutton & red LED, selects video routing view
USB: (1) Pushbutton & red LED, selects USB routing view
Quick-Adjust Knob: (1) Continuous turn rotary encoder, adjusts menu parameters
IN 1 – 8: (8) Pushbuttons and red LEDs, each selects the corresponding input for routing
OUT 1 – 8: (8) Pushbuttons and red LEDs, each selects the corresponding output for routing
POWER SUPPLIES, 1-2: (2) Green LEDs, each indicates when the corresponding internal supply is functioning
POWER SUPPLIES, FAULT: (1) Red flashing LED, indicates a fault with either internal supply
LAN (rear): (2) LEDs; Left LED, green indicates 100Base-TX link is established, amber indicates 1000Base-T link is established;
Right LED, flashing amber indicates Ethernet activity
CONTENT (rear): (2) LEDs; Left LED, green indicates 100Base-TX link is established, amber indicates 1000Base-T link is established;
Right LED, flashing amber indicates Ethernet activity
SERVICE (rear): (2) LEDs; Left LED, green indicates 100Base-TX link is established, amber indicates 1000Base-T link is established;

Right LED, flashing amber indicates Ethernet activity

Power Requirements

Main Power: 3-1.2 Amps @ 100-240 Volts AC, 50/60 Hz
Power Consumption: 220 Watts typical
Available PoDM/PoH Power: Refer to the specifications for each DM 8G+ input and output card

Redundant Power Supplies

Quantity/Type: (2) switch-mode, internal
Demonstrated MTBF: >1,000,000 hours per power supply @ full load and 25% C ambient conditions
Redundancy: Complete unit continues to operate at full capacity on one or more functioning power supplies

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 750 BTU/hr
Ambient Noise: 31.5 to 37 dBA typical;
                    30 to 30.5 dBA idle

Enclosure

Chassis: Metal with black finish, vented sides, fan-cooled
Front Panel: Metal, black finish with polycarbonate label overlay
Mounting: Freestanding or 4 RU 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 6.97 in (177 mm) without feet
Width: 17.28 in (439 mm), 19.06 in (485 mm) with rack ears
Depth: 15.71 in (399 mm) without cards

Weight

20.0 lb (9.1 kg) without cards

MODELS & ACCESSORIES

Available Models

DM-MD8X8-CPU3-RPS: 8x8 DigitalMedia™ Switcher with Redundant Power Supplies

Available Accessories

DMC-4KZ-C: DigitalMedia 8G+® 4K60 4:4:4 HDR Input Card for DM® Switchers, HDBaseT® Compatible
DMC-4KZ-C-DSP: DigitalMedia 8G+® 4K60 4:4:4 HDR Input Card with Downmixing for DM® Switchers, HDBaseT® Compatible
DMC-4KZ-HD: HDMI® 4K60 4:4:4 HDR Input Card for DM® Switchers
DMC-4KZ-HD-DSP: HDMI® 4K60 4:4:4 HDR Input Card with Downmixing for DM® Switchers

DMC-4KZ-CO-HD: 2-Channel DigitalMedia 8G+® 4K60 4:4:4 HDR Output Card for DM® Switchers

DMC-4K-CO-HD-HDCP2: 2-Channel HDBaseT® Certified 4K DigitalMedia 8G+® Output Card for DM® Switchers

DMC-4K-HDO: 2-Channel 4K Scaling HDMI® Output Card for DM® Switchers

DMC-DVI: DVI/VGA Input Card for DM® Switchers

DMC-HDO: 2-Channel HDMI® Output Card for DM® Switchers

DMC-S: DigitalMedia 8G™ Fiber Input Card for DM® Switchers

DMC-S2: DigitalMedia 8G™ Single-Mode Fiber Input Card for DM® Switchers

DMC-S2-DSP: DigitalMedia 8G™ Single-Mode Fiber Input Card with Downmixing for DM® Switchers

DMC-S2O-HD: 2-Channel DigitalMedia 8G™ Single-Mode Fiber Output Card for DM® Switchers

DMC-SDI: 3G-SDI Input Card for DM® Switchers

DMC-S-DSP: DigitalMedia 8G™ Fiber Input Card with Downmixing for DM® Switchers

DMC-SO-HD: 2-Channel DigitalMedia 8G™ Fiber Output Card for DM® Switchers

DMC-STR: Streaming Input Card for DM® Switchers

DMC-STRO: Streaming Output Card for DM® Switchers

DMC-VGA: VGA/Video Input Card for DM® Switchers

DMC-VID4: Quad Video Input Card for DM® Switchers

DMC-VID-BNC: BNC Analog Video Input Card for DM® Switchers

DMC-VID-RCA-A: RCA Analog Video Input Card with Analog Audio for DM® Switchers

DMC-VID-RCA-D: RCA Analog Video Input Card with SPDIF Audio for DM® Switchers

DM-PSU-8-PLUS: 8-Port PoDM+ Power Supply for DM 8G+® I/O Cards

DM-PSU-16-PLUS: 16-Port PoDM+ Power Supply for DM 8G+® I/O Cards

DM-PSU-ULTRA-MIDSPAN: DigitalMedia™ Ultra Midspan PoDM++ Injector

USB-EXT-DM-LOCAL: USB over Ethernet Extender with Routing, Host Module

USB-EXT-DM-REMOTE: USB over Ethernet Extender with Routing, 4-Port Device Module

DM-8G-CONN-100: Connectors for DM-CBL-8G DigitalMedia 8G™ Cable, 100-Pack

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

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

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

DM-CBL-8G-NP-SP1000: DigitalMedia 8G™ Cable, Non-Plenum, 1000 ft Spool

DM-CBL-8G-P-SP1000: DigitalMedia 8G™ Cable, Plenum, 1000 ft Spool

DM-CBL-ULTRA-LSZH-SP1000: DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen, 1000 ft Spool (Available only in Europe)

DM-CBL-ULTRA-NP-SP1000: DigitalMedia™ Ultra Cable, Non-Plenum Type CMR, 1000 ft Spool

DM-CBL-ULTRA-PC-10: DigitalMedia™ Ultra Patch Cable, 10 ft (3 m)

DM-CBL-ULTRA-P-SP1000: DigitalMedia™ Ultra Cable, Plenum Type CMP, 1000 ft Spool

DM-CONN-20: Connectors for DM-CBL DigitalMedia™ Cable & DM-CBL-ULTRA DigitalMedia Ultra Cable, 20-Pack

DM-CONN-ULTRA-RECP-50: DigitalMedia™ Ultra Keystone RJ45 Jack, 50-Pack with Termination Tool

DM-RPP-K24: DigitalMedia™ 24-Port Keystone Patch Panel

CRESFIBER8G-NP-SP1000: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x 4 Breakout, Non-Plenum, 1000 ft Spool

CRESFIBER8G-P-SP1000: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x 4 Breakout, Plenum, 1000 ft Spool

CRESFIBER8G-SM-CONN-LC-12: Connectors for CresFiber® 8G Single-Mode Fiber Optic Cable, LC, 12-Pack

CRESFIBER8G-SM-P-SP2KM: CresFiber® 8G Single-Mode Fiber Optic Cable, Plenum, 2 km Spool

CRESFIBER-CONN-SC50UM-12: Connectors for CresFiber® 8G Multimode Fiber Optic Cable, SC 50µm, 12-Pack

CRESFIBER-TK: CresFiber® Termination Kit

Notes:

1. All output types are configured in pairs except for streaming (a single streaming output occupies the space of two outputs of any other type). To configure a complete DM switcher with output and input cards, use the online DigitalMedia Switcher Configuration Tool. Current DM switchers use DMC-series "single-gang" output cards. For older DM switchers with DMCO-series "multi-gang" output cards, use the online Output Card Additions and Upgrades Tool to update your existing output cards and switcher to the new single-gang output card format.
2. Crestron control via the DM network requires a Crestron control system, sold separately.
3. Configuration of input cards, output cards, and endpoints is not supported.
4. 4K60 4:4:4, HDR, Ultra HD, and HDCP 2.2 are currently supported over HDMI, DM 8G+, and HDBaseT using select input and output cards. Refer to the specifications for each input/output card and each connected device for its full capabilities.
5. The maximum cable length for DigitalMedia 8G+ (DM 8G+) or HDBaseT is dependent upon the type of cable, the choice of input/output card, and the resolution of the video signal. Refer to the "Maximum DM 8G Cable Lengths" table for a detailed overview. Crestron legacy cable models DM-CBL DigitalMedia Cable and DM-CBL-D DigitalMedia D Cable support the same resolutions and cable lengths as CAT5e. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment.
6. The maximum cable length for DigitalMedia 8G Fiber (DM 8G Fiber) is 1000 ft (300 m) using CRESFIBER8G multimode fiber optic cable, or 500 ft (150 m) using CRESFIBER (legacy) or third-party OM3 multimode fiber optic cable.
7. The maximum cable length for DigitalMedia 8G Single-Mode Fiber (DM 8G SM Fiber) is 7.5 miles (12 km) using CRESFIBER8G-SM or third-party G.652.D (or better) single-mode fiber optic cable.
8. The maximum cable length for DigitalMedia CAT (DM CAT) is 450 ft (137 m) using DM-CBL DigitalMedia Cable. Actual cable length depends upon multiple factors. Up to two DM Repeaters (Model DM-DR) may be required.
9. The maximum cable length for DigitalMedia Fiber (DM Fiber) is 1000 ft (300 m) using CRESFIBER (legacy), CRESFIBER8G, or third-party OM2/OM3 duplex multimode fiber optic cable.
10. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546, for complete system design guidelines. All wire and cables are sold separately.
11. Streaming output supports 2-channel stereo audio only. Multichannel surround sound audio sources cannot be streamed unless downmixed to stereo. Stereo downmix capability requires a "DSP" type DM switcher input card, sold separately.
12. Any HDMI input can support a DVI or Dual-Mode DisplayPort signal using a suitable adapter or interface cable.
13. Item(s) sold separately.
14. Control of third-party HDBaseT devices using CEC is only supported via "4K" DM 8G+ input and output cards.
15. DVI output is supported via an HDMI output port using a suitable adapter or interface cable. CBL-HD-DVI interface cables are available separately.
16. Manages the routing of USB HID signals between peripheral DM devices and input cards that are equipped with USB HID ports. Also programmable to manage the routing of USB signals between Crestron USB over Ethernet Extender modules (USB-EXT-DM, sold separately). Refer to the USB-EXT-DM spec sheet for more information.

This product may be purchased from an authorized Crestron dealer. To find a dealer, contact the Crestron sales representative for your area.

Certain Crestron products contain open source software

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19.06 in.
485 mm

17.28 in.
439 mm

6.97 in.
177 mm

4.00 in.
102 mm

17.08 in.
434 mm

15.25 in.
388 mm

15.06 in.
383 mm

15.71 in.
399 mm