DM-MD8X1-4K-C

4K Scaling Auto-Switcher w/DM 8G+® & HDBaseT® Output

The DM-MD8X1-4K-C from Crestron® provides an ultra high-definition presentation switcher with advanced features optimally suited for installation in a huddle room, conference room, or classroom. It integrates a multi-format auto-switcher, 4K video scaler, mic preamp, audio DSP, and control interface, all into one compact device that mounts conveniently under a table or in an equipment rack. Built-in Crestron Connect It™ functionality affords a complete collaboration solution that's easy and affordable to deploy in any meeting space. Built-in DM 8G+® and HDBaseT® connectivity affords a one-wire, long-distance wiring solution for a single display device, or for integration as part of a larger DigitalMedia™ distribution system.

The DM-MD8X1-4K-C works out-of-the-box to provide automatic switching between four HDMI® or VGA sources, plus on/off control of the display device. Outputs include HDMI, DM 8G+ or HDBaseT, and balanced stereo audio. Built-in 4K scaling ensures the highest possible image quality and compatibility with the widest range of sources and displays. Easy web browser setup allows for configuration of the microphone input, audio DSP, and other settings. Centralized monitoring is supported using Crestron Fusion® Cloud, and fully-programmable control can be enabled through integration with a 3-Series Control System®.[1]

Crestron Connect It™

Crestron Connect It is a cost-effective, simple-to-use presentation solution that works seamlessly with the DM-MD8X1-4K-C. Simply add up to four Crestron Connect It Cable Caddies (TT-100 series[2]) to provide BYOD connectivity and one-touch control for multiple participants around a conference table. Four USB ports on the DM-MD8X1-4K-C provide power and communications for each cable caddy.

- *Ultra high-definition, multi-format presentation switcher, scaler, mic preamp, audio DSP, and control interface*
- *Out of the box Crestron Connect It™ collaboration system functionality*
- *Supports up to four TT-100 series Crestron Connect It Cable Caddies[2]*
- *Includes four auto-switching HDMI®, VGA, and stereo analog audio inputs[5]*
- *Also supports Dual-Mode DisplayPort, DVI, and analog video sources[3,4]*
- *Input auto-detection configures each input automatically*
- *QuickSwitch HD™ technology manages HDCP keys for fast, reliable switching*
- *Performs automatic AV signal format management via EDID*
- *Provides adjustable input level compensation on each audio input*
- *Includes a single microphone input with EQ, gating, and compression*
- *Provides parallel HDMI and DM 8G+ outputs for one or more display devices*
- *DigitalMedia 8G+® connectivity enables long-distance wiring over CAT type twisted pair cable[8]*
- *Integrates with DigitalMedia™ matrix switchers to allow facility-wide signal distribution[9]*
- *HDBaseT Certified — Enables direct connection to other HDBaseT certified equipment*
- *Features a built-in, high-performance 4K scaler*
- *Upscales input signals to match the native resolution of any screen — including 4K and Ultra HD displays!*
- *Downscales 4K, UHD, and ultra high-resolution computer signals to fit 1080p and other lower-resolution displays*
- *Handles any input resolution from standard NTSC 480i or PAL 576i, to UHD and 4K*
- *Provides intelligent frame rate conversion, content-adaptive noise reduction, and motion-adaptive de-interlacing*
- *Provides 3D to 2D signal conversion, and passes 3D video (without scaling) to 3D displays[6]*
- *Provides a balanced stereo audio output with graphic EQ, limiting, and delay*
- *Enables analog-to-HDMI audio embedding and de-embedding[5]*
- *Handles Dolby® TrueHD, Dolby Atmos®, DTS-HD®, and uncompressed 7.1 linear PCM audio[7]*
- *Includes onboard IR and RS-232 control ports[10]*
- *Supports universal remotes via built-in RC-5 compatible IR receiver[10]*
- *Provides a 10/100 Ethernet LAN connection*
- *Includes front panel controls for switching and volume adjustment*
- *Includes customizable front panel label strips*
- *Allows complete AV setup and adjustment via a web browser*
- *Fully-controllable over Ethernet from a Crestron® 3-Series Control System®[1]*
- *Communicates natively with Crestron Fusion® Cloud*
- *Features an internal universal power supply for worldwide compatibility*
- *Furnishes Power over DM® or HDBaseT for PoDM/PoH-powered devices*
- *Mounts under the table or in a single 19" rack space*

DM-MD8X1-4K-C 4K Scaling Auto-Switcher w/DM 8G+® & HDBaseT® Output

DM-MD8X1-4K-C — Rear View

4K Ultra HD

The DM-MD8X1-4K-C handles 4K and Ultra HD video signals, which is essential to ensure support for the latest generation of computers and monitors with native resolutions beyond 1080p and WUXGA.

Multi-Format Auto-Switcher

The DM-MD8X1-4K-C provides high-performance automatic switching between four groups of inputs, each including HDMI, VGA, and unbalanced stereo audio. The HDMI inputs are compatible with DVI and Dual-Mode DisplayPort sources [3], and the VGA inputs can handled RGB, composite, S-Video, and component video sources [4]. Digital audio is supported by the HDMI inputs, plus each analog audio input may be used in combination with its corresponding VGA or HDMI video input.[5] Input auto-detection eliminates the need to configure the inputs — simply connect your source and the DM-MD8X1-4K-C selects the right audio and video combination. The switched video signal is routed to one HDMI output and one DM 8G+ output simultaneously. The DM 8G+ output is compatible with HDBaseT.

4K Scaler

With its high-performance 4K video scaler on board, the DM-MD8X1-4K-C ensures an optimal image from every video source on practically any display device. It allows SD, HD, and all types of computer sources to look their best on Ultra HD and 4K displays, and it allows sources with resolutions above HD 1080p to be viewed reliably on 1080p and lower resolution displays. It accepts any input resolution, from standard definition NTSC 480i to ultra high-definition 4K DCI, and scales it perfectly to match the native resolution of any screen up to 4K DCI (4096 x 2160). Interlaced sources are converted to progressive scan using motion-adaptive deinterlacing. Intelligent frame rate conversion enables support for 24p and PAL format sources. And, 3D to 2D conversion allows 3D content to be viewed on 2D-only displays.[6] The output of the scaler feeds both the HDMI and DM 8G+ outputs.

Flexible Audio Outputs

The switched audio signal is routed to the HDMI output as well as to a separate balanced analog audio output, with individual level adjustments provided for each output. The HDMI output signal is also fed simultaneously to the DM 8G+ output. All inputs and outputs support stereo audio, with the option to configure the analog output for mono. Dolby® TrueHD, Dolby Atmos®, DTS-HD®, and 7.1 linear PCM audio signals can also be routed through the HDMI inputs and output, as well as the DM 8G+ output.[7]

Professional Audio DSP

The analog audio output includes professional digital signal processing, allowing the signal to be adjusted for optimum performance and sound quality. The analog output is ideally designed to be connected to an external power amplifier and used to drive a set of ceiling or wall mount speakers. In addition to volume, bass, treble, and mute controls, the DSP provides 10-band graphic equalization, fully-adjustable limiting, and up to 80 ms of delay. All settings are adjustable using the DM-MD8X1-4K-C's web browser user interface for easy setup. The output volume level is also adjustable using the front panel volume knob.

Microphone Input with DSP

A full-featured microphone preamp is included to support the connection of a single wired or wireless mic. Advanced features include fully-adjustable gating and compression, 4-band semi-parametric EQ, and switchable 48V phantom power. The microphone signal can be routed to the analog output, the digital output (HDMI and DM 8G+), or both, with separate level adjustments provided for each.

DigitalMedia 8G+®

Its DM 8G+ output endows the DM-MD8X1-4K-C with great potential for connecting to a display device and integrating with larger systems. DM 8G+ 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 feet (100 meters).[8,9] Connecting a DM 8G+ receiver to the DM 8G+ output provides a streamlined AV and control interface for a single projector or flat panel display located anywhere in the room. DM 8G+ can also provide the interface to a centralized DigitalMedia matrix switcher, allowing the DM-MD8X1-4K-C's output signal to be distributed to multiple displays anywhere in the same room, other rooms, other buildings, or around the world.

HDBaseT® Certified

Crestron DM 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Via DM 8G+, the DM-MD8X1-4K-C can be connected directly to an HDBaseT compliant display device without requiring a DM 8G+ receiver.

EDID Format Management

The DM-MD8X1-4K-C provides comprehensive management of the EDID (Extended Display Identification Data) information that passes between display devices and input sources, ensuring that each source gets displayed at its optimal resolution and format. Most applications require no changes to the default settings. For applications requiring custom configuration, the DM-MD8X1-4K-C allows for easy assessment of each device's format and resolution capabilities, with the ability to configure signals appropriately for the most desirable and predictable behavior.

QuickSwitch HD™ Technology

Handling digital media signals means handling HDCP (High-bandwidth Digital Content Protection), the encryption scheme used by content providers 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 delivering an output signal. Crestron QuickSwitch HD manages these keys to ensure fast, reliable switching and

immunity to "blackouts," whether using a single display, or distributing to multiple displays through a larger DigitalMedia system.

Embedded Device Control

The DM-MD8X1-4K-C includes built-in IR and RS-232 control ports, which may be utilized through integration with a Crestron 3-Series Control System to enable programmable control of local AV equipment and other devices. Some video devices can also be controlled through their HDMI or HDBaseT connections using CEC (Consumer Electronics Control). Without a control system, control capability is limited to turning a single display device on and off via CEC, RS-232, or Ethernet based on detection of an active video signal.[1,10]

Note: For a version of the DM-MD8X1-4K-C with built-in 3-Series Control system, see model DMPS3-4K-100-C.

SPECIFICATIONS

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP

USB: USB host ports for Crestron Connect It devices and firmware update via USB flash drive; 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 [10]

IR/Serial: 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud; built-in RC-5 compatible IR receiver [10]

DigitalMedia™: DM 8G+®, HDCP, EDID, CEC, PoDM, Ethernet [9]

HDBaseT®: HDCP, EDID, CEC, PoH, Ethernet

HDMI®: HDCP, EDID, CEC

NOTE: Supports management of HDCP and EDID; supports management of CEC between the connected HDMI and HDBaseT devices and a 3-Series Control System®

Video

Switcher: 8x1 (organized as multi-format 4x1), auto-switching, auto-detecting multi-format digital/analog source inputs, QuickSwitch HD™ technology

Scaler: 4K video scaler, motion-adaptive deinterlacer, intelligent frame rate conversion, Deep Color support, 3D to 2D conversion [6], content-adaptive noise reduction, widescreen format selection (zoom, stretch, maintain aspect-ratio, or 1:1)

Input Signal Types: HDMI w/Deep Color, 3D, & 4K (DVI & Dual-Mode DisplayPort compatible [3]); RGB/VGA (RGBHV, RGBS, RGsB); component (YPbPr); S-Video (Y/C); composite (NTSC, PAL) [4]

Output Signal Types: HDMI w/Deep Color, 3D, & 4K (DVI compatible [3]); DM 8G+ & HDBaseT w/Deep Color, 3D, & 4K

Analog-To-Digital Conversion: 10-bit 165 MHz per each of 3 channels

Maximum Pass-Through Resolutions:

Input Type	Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
HDMI	Progressive	4096x2160 4K DCI or 3840x2160 Ultra HD	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
RGB/VGA	Progressive	1600x1200 UXGA	60 Hz	n/a	
		1920x1200 WUXGA	60 Hz	n/a	
Component [4]	Progressive	1920x1080 HD1080p	60 Hz	n/a	
	Interlaced	1920x1080 HD1080i	30 Hz	n/a	
Composite or S-Video [4]	Interlaced	480i NTSC or 576i PAL	60 Hz	n/a	

Maximum Scaler Input Resolutions:

Input Type	Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
HDMI	Progressive	4096x2160 4K DCI or 3840x2160 Ultra HD	24 Hz	4:4:4	30 bit
			30 Hz	4:4:4	24 bit
			30 Hz	4:2:2	36 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
RGB/VGA	Progressive	1600x1200 UXGA	60 Hz	n/a	
		1920x1200 WUXGA	60 Hz	n/a	
Component [4]	Progressive	1920x1080 HD1080p	60 Hz	n/a	
	Interlaced	1920x1080 HD1080i	30 Hz	n/a	
Composite or S-Video [4]	Interlaced	480i NTSC or 576i PAL	60 Hz	n/a	

Maximum Scaler Output Resolutions:

Output Type	Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
HDMI, DM, or HDBaseT	Progressive	4096x2160 4K DCI or 3840x2160 Ultra HD	24 Hz	4:4:4	30 bit
			30 Hz	4:4:4	24 bit
			30 Hz	4:2:2	36 bit
		2560x1600 WQXGA	60 Hz	4:4:4	36 bit
		1920x1080 HD1080p	60 Hz	4:4:4	36 bit

NOTE: Common resolutions are shown; other custom resolutions are supported at pixel clock rates up to 300 MHz for digital inputs and outputs, or 165 MHz for analog inputs

DM-MD8X1-4K-C 4K Scaling Auto-Switcher w/DM 8G+® & HDBaseT® Output

Audio – General

Switcher/Mixer: 8x1 (organized as multi-format 4x1) stereo source switcher, auto-detecting digital/analog source inputs, single-channel gated mic preamp w/DSP, two independent mic/source mixers (one for analog output, one for digital outputs), stereo DSP for analog output, 4x1 multi-channel source switcher, digital audio mixer bypass mode for multichannel pass-through to digital outputs
Microphone input channel:
Analog-To-Digital Conversion: 24-bit 48 kHz
Digital-To-Analog Conversion: 24-bit 48 kHz
Frequency Response: 20 Hz to 20 kHz ±0.5 dB (digital source);
20 Hz to 20 kHz ±0.5 dB (analog line source);
20 Hz to 20 kHz ±0.7 dB (microphone source)
S/N Ratio: >108 dB, 1 kHz, A-weighted (digital source);
>103 dB, 1 kHz, A-weighted (analog line source)
THD+N: <0.002%, 20 Hz to 20 kHz (digital source);
<0.005%, 20 Hz to 20 kHz (analog line source);
<0.05%, 20 Hz to 20 kHz (microphone source)
Stereo Separation: >108 dB (digital source);
>103 dB (analog source)

Audio – Microphone Input

Input Signal Type: Mono analog mic level
Phantom Power: Enable/Disable
Gain: 0 to +60 dB Gain adjustment, plus Mute
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)
EQ Gain: ±12.0 dB per band
Gating Threshold: -80 to 0 dB
Gating Depth (Attenuation): -80 to 0 dB
Gating Attack: 1 to 250 ms
Gating Release: 1 to 1000 ms
Gating Hold: 1 to 200 ms
Compression Threshold: -80 to 0 dB
Compression Ratio: 1:1 to 10:1
Compression Attack: 1 to 250 ms
Compression Release: 1 to 1000 ms
Compression Hold: 1 to 200 ms
Compression Curve: Hard or soft knee

Audio – Source Inputs

Typical of 8 source input channels (Audio Inputs 1 – 4 & HDMI Inputs 1 – 4)
Input Signal Types: Analog 2-channel [5], HDMI (Dual-Mode DisplayPort compatible [3])
Analog Formats: Stereo 2-channel
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™, LPCM up to 8 channels [7]
Input Compensation: ±10.0 dB [7]

Audio – Analog Line Output

Output Signal Type/Format: Stereo 2-channel
Mic: -80 to +10 dB Level adjustment range, plus Mute and Pan
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
Bass: ±12.0 dB
Treble: ±12.0 dB
Equalization: 10-band graphic
GEQ Center Frequencies: 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz
GEQ Gain: ±12.0 dB per band
Delay: 0.0 to 80.0 ms
Limiter Threshold: -80 to 0 dBz
Limiter Ratio: 1:1 to 10:1
Limiter Attack: 1 to 250 ms
Limiter Release: 1 to 1000 ms
Limiter Curve: Hard or soft knee

Audio – Digital Output

Output Signal Types: HDMI, DM 8G+ & HDBaseT
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, LPCM up to 8 channels [7]
Mic: -80 to +10 dB Level adjustment range, plus Mute and Pan [7]
Source: -80 to +10 dB Level adjustment range, plus Mute and Balance [7]
Master Volume: -80 to +10 dB Level adjustment range, plus Mute [7]

Connectors – Audio/Video Inputs

VGA IN 1 – 4: (4) HD15 female;
Analog VGA/RGB/video inputs;
Signal Types: VGA, RGB, component, S-Video, or composite [4];
Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, NTSC or PAL;
Input Level: 0.5 to 1.5 Vp-p with built-in DC restoration;
Input Impedance: 75 Ohms nominal;
Sync Detection: RGBHV, RGBS, RGsB, YPbPr;
Sync Input Level: 3 to 5 Vp-p;
Sync Input Impedance: 2.2k Ohms

AUDIO IN 1 – 4: (4) 3.5 mm TRS mini phone jacks;
Unbalanced stereo line-level analog audio inputs;
Input Impedance: 32k Ohms unbalanced;
Maximum Input Level: 2.8 Vrms unbalanced;
Note: If an HDMI input is selected but no digital audio signal is detected, the corresponding analog audio input is activated (AUDIO 1 for HDMI 1, etc.). Please note, the analog audio inputs do not pass audio if the HDMI video input resolution is higher than 1920x1200.

HDMI IN 1 – 4: (4) 19-pin Type A HDMI female;
Digital video/audio inputs;
Signal Types: HDMI, DVI, or Dual-Mode DisplayPort [3,4]

MIC IN: (1) 3-pin 3.5 mm detachable terminal block;
Balanced microphone audio input;
Input Level: -60 to 0 dBV, 1 Vrms maximum;
Input Impedance: 6.5k Ohms balanced;
Phantom Power: 48 Volts DC, software enabled/disabled

Connectors – Audio/Video Outputs

HDMI OUT: (1) 19-pin Type A HDMI female;
Digital video/audio output;
Signal Types: HDMI, DVI [3]

DM OUT: (1) 8-pin RJ45 female, shielded;
DM 8G+ output, HDBaseT compliant;
PoH and PoDM PSE (Power Sourcing Equipment) port;
Connects to an HDBaseT device, or to the DM 8G+ input of a DM receiver or other DM device, via CAT5e, Crestron DM-CBL-8G, or Crestron DM-CBL-ULTRA cable [8,9]

AUDIO OUT: (1) 5-pin 3.5 mm detachable terminal block;
Balanced/unbalanced stereo line-level audio output;
Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced;
Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

Connectors - Control & Power

IR OUT: (1) 3.5 mm mini-phone jack, IR/Serial output port [10];
IR output up to 1.2 MHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

COM: (1) 5-pin 3.5 mm detachable terminal block;
Bidirectional RS-232 port [10];
Up to 115.2k baud, hardware and software handshaking support

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

USB 1 – 4: (4) USB Type A female;
USB 2.0 host ports for TT-100 series Crestron Connect It Cable Caddies [2];
Also enables firmware update via USB flash drive

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

100-240V~1.4A 50/60Hz: (1) IEC 60320 C14 main power inlet;
Mates with removable power cord, included

COMPUTER (front): (1) USB Type B female;
USB computer console port;
For setup only

IR IN (front): (1) Infrared sensor [10];
IR Frequency: 36 to 38 kHz;
IR Formats: Crestron format, RC5;
Allows control from IR wireless remotes using the Crestron or RC-5 command sets

Controls & Indicators

PWR: (1) Bi-color green/amber LED, indicates operating power supplied from AC line power, turns amber while booting and green when operating

MSG: (1) Red LED, indicates internal control system has generated an error message

HW-R: (1) Recessed pushbutton for hardware reset, reboots the control system

SW-R: (1) Recessed pushbutton for software reset, restarts the software program

AUTO INPUT SELECT: (1) Pushbutton and bi-color green/amber LED, selects auto-switching mode

VGA INPUT SELECT 1 – 4: (4) Pushbuttons for manual input selection, and (4) bi-color green/amber LEDs to indicate the current active input and signal presence at each corresponding VGA input

HDMI INPUT SELECT 1 – 4: (4) Pushbuttons for manual input selection, and (4) bi-color green/amber LEDs to indicate the current active input and signal presence at each corresponding HDMI input

VOLUME: (1) Continuous turn rotary encoder, adjusts the analog audio output volume

DM OUT (rear): (2) LEDs, green LED indicates DM link status, amber LED indicates video and HDCP signal presence, for the DM output

LAN (rear): (2) LEDs, bi-color LED (left) indicates Ethernet speed and activity, green LED (right) indicates Ethernet link status

Power Requirements

Main Power: 1.4 Amps @ 100-240 Volts AC, 50/60 Hz
Power Consumption: 36 Watts typical, 26 Watts idle
Power over HDBaseT (PoH): PoH PSE (Power Sourcing Equipment), each DM 8G+ port supplies up to 15.4W (Class 0-3) to one PoH PD (Powered Device)
Power over DM (PoDM): PoDM PSE (Power Sourcing Equipment), each DM 8G+ port supplies up to 15.4W (Class 0-3) to one PoDM PD (Powered Device)

Environmental

Temperature: 41° to 104° F (5° to 40° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 122 BTU/hr typical, 89 BTU/hr idle

Enclosure

Chassis: Metal, black finish, fan-cooled, vented sides
Front Panel: Metal, black finish with polycarbonate label overlay
Mounting: Freestanding, 1 RU 19-inch rackmount, or under-table mount (adhesive feet, rack ears, and under-table mounting brackets included)

Dimensions

Height: 1.74 in (45 mm) without feet
Width: 17.28 in (439 mm);
18.94 in (482 mm) with rack ears
Depth: 10.47 in (266 mm)

Weight

6.4 lb (2.9 kg)

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DM 8G+ & HDBaseT Maximum Cable Lengths

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

MODELS & ACCESSORIES

Available Models

DM-MD8X1-4K-C: 4K Scaling Auto-Switcher w/DM 8G+® & HDBaseT® Output

Available Accessories

TT-100 Series: Crestron Connect It™ Cable Caddy
AM-100: AirMedia™ Presentation Gateway
MP-AMP30: Media Presentation Audio Amplifier
MP-AMP40 Series: Media Presentation Audio Amplifiers, 70 or 100 Volt
AMP Series: Commercial Power Amplifiers
DM-RMC-4K-100-C-1G: Wall Plate 4K DigitalMedia 8G+® Receiver & Room Controller 100
DM-RMC-4K-100-C: 4K DigitalMedia 8G+® Receiver & Room Controller 100
DM-RMC-4K-SCALER-C: 4K DigitalMedia 8G+® Receiver & Room Controller w/Scaler
DM-RMC-4K-SCALER-C-DSP: 4K DigitalMedia 8G+® Receiver & Room Controller w/Scaler & Downmixing
DM-RMC-200-C: DigitalMedia 8G+® Receiver & Room Controller 200
DM-RMC-SCALER-C: DigitalMedia 8G+® Receiver & Room Controller w/Scaler
STIRP: IR Emitter Probe w/3.5mm Mini Phone Plug
CNSP-XX: Custom Serial Interface Cable
Crestron Fusion®: Enterprise Management Platform
DM-CBL-ULTRA-NP: DigitalMedia™ Ultra Cable, Non-Plenum Type CMR
DM-CBL-ULTRA-P: DigitalMedia™ Ultra Cable, Plenum Type CMP
DM-CBL-ULTRA-LSZH: DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen
DM-CONN: Connector for DM-CBL-ULTRA
DM-CBL-8G-NP: DigitalMedia 8G™ Cable, non-plenum
DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum
DM-8G-CONN: Connector for DM-CBL-8G
DM-8G-CRIMP: Crimping Tool for DM-8G-CONN
DM-8G-CONN-WG: Connector with Wire Guide for DM-CBL-8G
DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG

CBL Series: Crestron® Certified Interface Cables
MP-WP Series: Media Presentation Wall Plates
MPI-WP Series: Media Presentation Wall Plates - International Version

Notes:

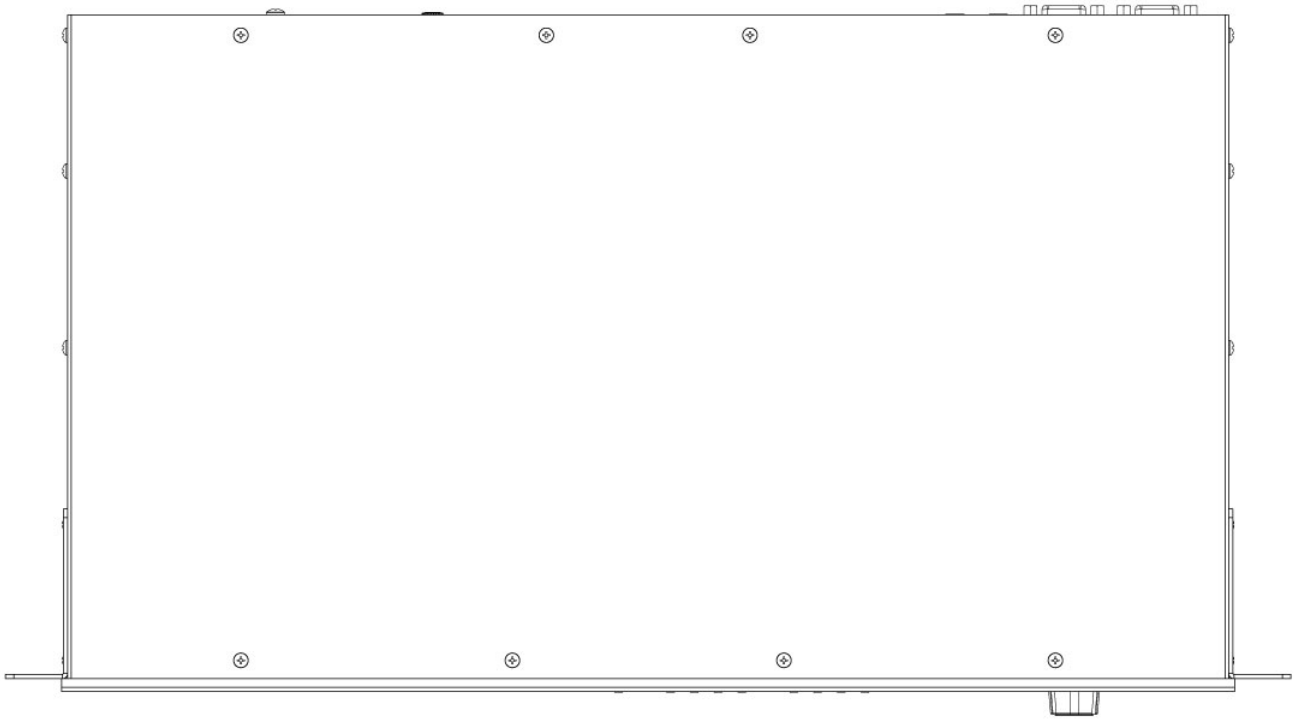
1. Compatible with 3-Series® control systems only. Not compatible with 2-Series or prior generation control systems.
2. Item(s) sold separately.
3. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. CBL-HD-DVI interface cables are available separately.
4. The VGA inputs can accept component, composite, and S-Video signals using an appropriate adapter (not included). However, input sync detection is not provided for composite or S-Video signal types.
5. When using an analog audio input in combination with an HDMI video input, the source's video resolution must be 1920x1200 or lower. The analog audio input will not pass audio if the source's video resolution is higher than 1920x1200.
6. Automatically passes 3D video if the display device supports it (reverts to pass-through mode without scaling). Provides automatic 3D-to-2D conversion (with scaling) if the display device does not support 3D.
7. Routing of a multichannel audio signal via a digital input and output (HDMI, HDBaseT, or DM) requires the input to be set for "mixer bypass" mode. When that input is selected, all audio controls on the digital output are disabled and the ability to route the microphone signal to that output is defeated. Mixer bypass mode also disables the Input Compensation control on that input.
8. 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 "DM 8G+ & HDBaseT Maximum 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. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 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.
9. The DM-MD8X1-4K-C cannot connect to an Ethernet LAN over a DM connection. It must be connected using its onboard LAN port. Ethernet over DM is only utilized on the DM-MD8X1-4K-C for connecting a single DM receiver.
10. When used without a control system, the IR OUT port and IR IN sensor are not utilized, and the COM port supports only basic display device control. The IR OUT port, IR IN sensor, and COM port may all be utilized for fully-customizable applications through integration with an external 3-Series Control System with custom programming.

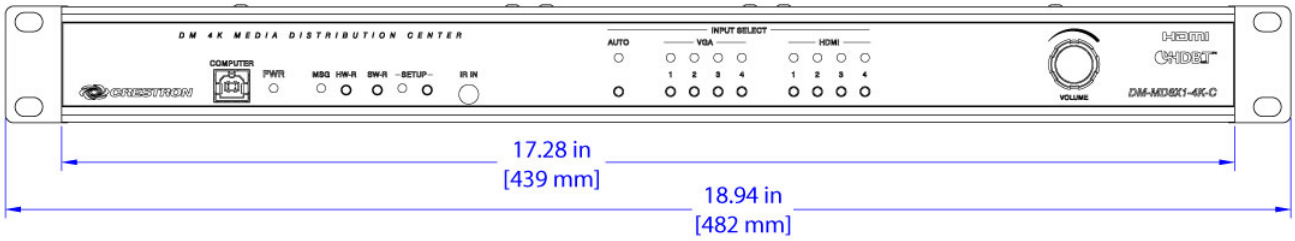
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

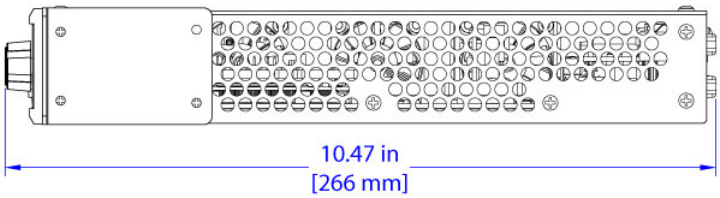
The specific patents that cover Crestron products are listed online at: patents.crestron.com.

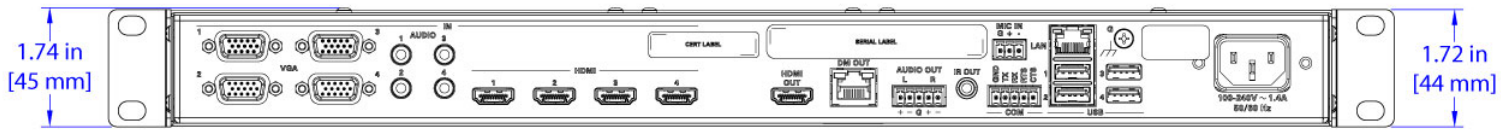
Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

DM-MD8X1-4K-C 4K Scaling Auto-Switcher w/DM 8G+® & HDBaseT® Output









Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

Specifications subject to change without notice. Revised 04/22/16