

DigitalMedia 8G+™ Receiver & Room Controller 100

- > DigitalMedia 8G+™ receiver and display controller
- > DM 8G+™ input supports up to 330 ft (100 m) cable length^[1]
- > Connects to a DM® switcher or transmitter over one CAT5e or Crestron® DM 8G® cable^[1]
- > Supports HDBaseT™ Alliance specifications
- > Provides one HDMI® or DVI display output^[2]
- > Handles HD video with Deep Color, 3D, and HDCP
- > Handles Dolby® TrueHD, DTS-HD Master Audio™, and uncompressed 7.1 linear PCM audio
- > Provides a 10/100 Ethernet connection
- > Enables device control via CEC, IR, RS-232, and Ethernet
- > Allows quick, easy setup and diagnostics
- > Low-profile surface mount design
- > Powered over the DM connection or local power pack (included)^[3]

The DM-RMC-100-C provides a simple one-box interface solution for a single display device as part of a complete Crestron® DigitalMedia™ system. It functions as a DM 8G+™ receiver and control interface, providing a single HDMI® output along with Ethernet, RS-232, and IR control ports. In addition to DM 8G+, it is also compatible with HDBaseT™ specifications, allowing it to be connected directly to any HDBaseT compliant source. Its compact, low-profile design allows the DM-RMC-100-C to be installed discreetly behind a flat panel display or above a ceiling mounted projector. It connects to the head end or source location using a single CAT5e or Crestron DM 8G® cable.^[1]

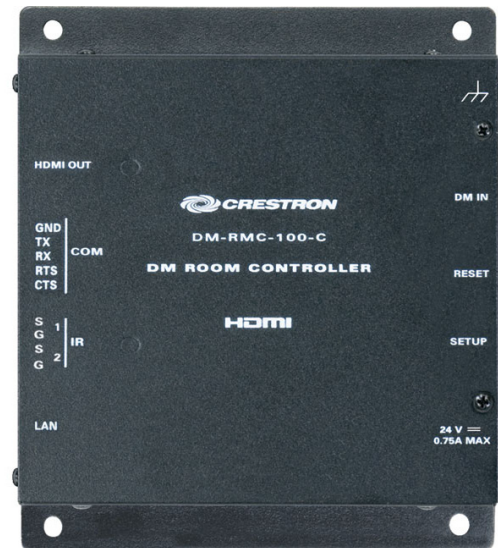
DigitalMedia 8G+™

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia (DM®) to deliver the first complete HD AV distribution system to take HDMI to a higher level. DigitalMedia allows virtually any mix of HDMI and other AV sources to be distributed throughout a home, office, school, or virtually any other facility.

DigitalMedia 8G+ is the latest generation of DM, providing a true one-wire transport for moving high-definition video, audio, and Ethernet over low-cost twisted-pair cable without any compression or repeaters. Engineered for ultra high-bandwidth and ultimate scalability, DM 8G+ handles uncompressed video beyond high-definition with support for HDCP, Deep Color, and 3D. Audio capabilities include support for high-bitrate 7.1 audio formats like Dolby® TrueHD and DTS-HD Master Audio™ as well as uncompressed linear PCM. All signals are transported over one 8-conductor twisted-pair cable, supporting distances up to 330 feet (100 m) using Crestron DM 8G Cable or CAT5e.^[1]

HDBaseT™

Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with third-party HDBaseT products. Via its DM 8G+ input, the DM-RMC-100-C can be connected directly to any HDBaseT compliant source without requiring a DM transmitter. HDBaseT connectivity through the DM-RMC-100-C converges uncompressed full HD digital video, audio, Ethernet, power and control signals through a single CAT5e or CAT6 cable over distances up to 328 ft (100m).



Multimedia Display Interface

A single HDMI digital AV output port is provided on the DM-RMC-100-C, supporting HD 1080p video and WUXGA computer signals with HDCP, Deep Color, 3D, and multi-channel HD lossless audio — all through one connection. The HDMI output can also handle DVI signals using an appropriate adapter or interface cable^[2].

A single cable connects the DM-RMC-100-C to a DM switcher or transmitter, or to an HDBaseT source, transporting video, audio, control, networking, and power signals all through one simple RJ45 connection.^[1,3] Multiple DM-RMC-100-Cs may be installed to handle each display in a multiroom distribution system, all fed from a central DM-MD series switcher. Or, a single DM-RMC-100-C can be fed straight from a DM 8G+ transmitter, affording a simple solution for extending a computer or AV signal to a single display.

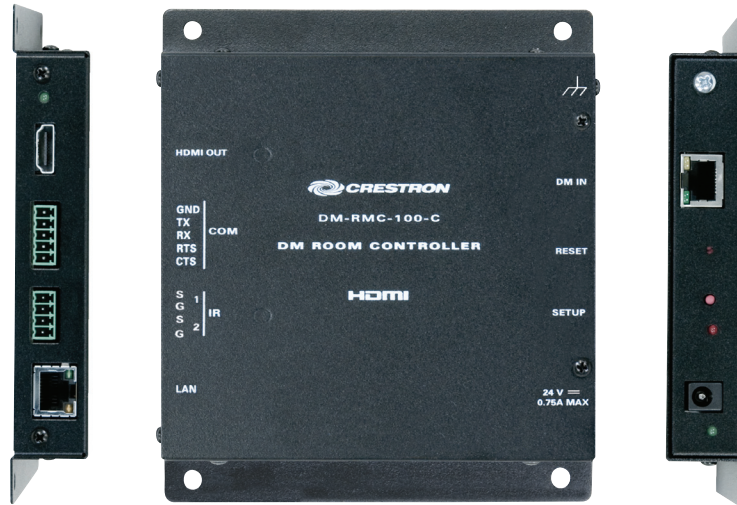
LAN Connectivity

Along with high-definition AV and control, DigitalMedia also integrates high-speed Ethernet networking for a total signal distribution solution. The DM-RMC-100-C includes a 10/100 Ethernet port, providing a convenient LAN connection for a local network device.

Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. The DM-RMC-100-C includes built-in RS-232, IR, and Ethernet control ports to allow programmable control of the display device connected to it. But, it can also provide an alternative to such conventional control methods by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-RMC-100-C provides a gateway for controlling the display device right through the HDMI connection, potentially eliminating the need for any dedicated control wires or IR emitters.

DM-RMC-100-C DigitalMedia 8G+™ Receiver & Room Controller



DM-RMC-100-C – Left, Front, and Right Views

Low-Profile Installation

The DM-RMC-100-C mounts conveniently to a wall, ceiling, or other flat surface. At just one inch deep, it fits easily behind a flat panel display or above a ceiling-mounted projector. All connections and LED indicators are positioned on the sides, ensuring optimal access and visibility for a clean, serviceable installation. An array of indicators is provided for easy setup and troubleshooting.

Please refer to the DigitalMedia Resources Webpage at <http://www.crestron.com/dmresources/> for additional design tools and reference documents.

SPECIFICATIONS

Video

Input Signal Types: DM 8G+™ (DigitalMedia™ over one CAT5e twisted-pair copper wire), HDBaseT™ [1]

Output Signal Types: HDMI®, DVI[2]

Formats: HDMI w/Deep Color & 3D, DVI, HDCP content protection support

Input Resolutions, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock

Output Resolutions: Matched to input

Audio

Input Signal Types: DM 8G+, HDBaseT

Output Signal Type: HDMI

Formats: Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, Up to 8ch PCM

Communications

DigitalMedia: DM 8G+, HDCP management, EDID format management, CEC, PoDM, HDBaseT compliant

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

Connectors

HDMI OUT: (1) 19-pin Type A HDMI female; HDMI digital video/audio output; Also supports DVI[2]

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

IR 1 – 2: (1) 4-pin 3.5mm detachable terminal block comprising (2) IR/Serial ports;

IR output up to 1.1 MHz; 1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud

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

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

DM IN: (1) 8-pin RJ45 female, shielded; DM 8G+ input, HDBaseT compliant; PoDM and PoH PD (Powered Device) port[3]; Connects to the DM 8G+ output of a DM switcher, transmitter, or other DM device, or to a HDBaseT device, via CAT5e or Crestron DM-CBL-8G cable[1]

DM-RMC-100-C DigitalMedia 8G+™ Receiver & Room Controller

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

Controls & Indicators

HDMI OUT: (1) green LED, indicates video signal presence at the HDMI output
LAN: (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity
DM IN: (2) LEDs, green LED indicates DM link status, amber LED indicates video and HDCP signal presence
RESET: (1) miniature recessed pushbutton, for hardware reset
SETUP: (1) red LED and (1) miniature recessed pushbutton, for Ethernet setup
24VDC: (1) green LED, indicates operating power supplied via local power supply, PoDM, or PoH

Power Requirements

Power Pack: 0.75 Amps @ 24 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-2407WU included
Power over DM (PoDM): PoDM PD (Powered Device), capable of being powered by a PoDM PSE (Power Sourcing Equipment), conforms to IEEE 802.3af (802.3at Type 1) Class 3^[4]
Power over HDBaseT (PoH): PoH PD (Powered Device), capable of being powered by a PoH PSE (Power Sourcing Equipment), conforms to IEEE 802.3af (802.3at Type 1) Class 3^[4]

Note: May be powered via power pack or PoDM/PoH, not both.

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 29 BTU/Hr

Enclosure

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

Dimensions

Height: 6.09 in (155 mm)
Width: 5.63 in (143 mm)
Depth: 1.02 in (26 mm)

Weight

16.5 oz (468 g)

MODELS & ACCESSORIES

Available Models

DM-RMC-100-C: DigitalMedia 8G+™ Receiver & Room Controller 100

Included Accessories

PW-2407WU: Wall Mount Power Pack 24VDC, 0.75A, Universal (Qty. 1 included)

Available Accessories

DM-CBL-8G-NP: DigitalMedia 8G™ Cable, non-plenum
DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum
DM-8G-CONN-100: DigitalMedia 8G™ Cable Connector, 100-Pack
DM-8G-CRIMP: Crimping Tool for DM-8G-CONN
CBL Series: Crestron® Certified Interface Cables
MP-WP Series: Media Presentation Wall Plates
MPI-WP Series: Media Presentation Wall Plates - International Version
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Emitter Probe w/Terminal Block Connector

Notes:

- For DM 8G+ wiring, use Crestron [DM-CBL-8G](#) DigitalMedia 8G Cable, Crestron [DM-CBL](#) DigitalMedia Cable, Crestron [DM-CBL-D](#) DigitalMedia D Cable, or generic CAT5e (or better) UTP or STP. Maximum wire length for DM 8G+ is 330 ft (100 m) between devices. 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 also compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment. All wire and cables sold separately.
- HDMI requires an appropriate adapter or interface cable to accommodate a DVI signal. [CBL-HD-DVI](#) interface cable available separately.
- Receiving Power over DM (PoDM) or Power over HDBaseT (PoH) requires connection to a switcher or other equipment that has a PoDM or PoH PSE (Power Sourcing Equipment) port.
- The DM-RMC-100-C cannot be powered over Ethernet, and its DM IN port should never be connected directly to an Ethernet network or device. However, an 802.3af or 802.3at compliant PoE PSE may be used as a PoDM power source for the DM-RMC-100-C via a mutual connection to a [DMCO-5](#) series DM Switcher Output Card. For HDBaseT systems, refer to the HDBaseT source device for its PoH power sourcing capabilities.

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.

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