

DM-RMC-100-S

DigitalMedia 8G™ Fiber Receiver & Room Controller 100

The DM-RMC-100-S 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™ Fiber receiver and control interface, providing a single HDMI® output along with Ethernet, RS-232, and IR control ports. Its compact, low-profile design allows the DM-RMC-100-S to be installed discreetly behind a flat panel display or above a ceiling mounted projector. It connects to the head end or source location via a single multimode fiber strand.

DigitalMedia 8G™

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

DigitalMedia 8G is the latest generation of DM®, providing the world's only truly professional, one-wire digital AV distribution and control network. Engineered for ultra high-bandwidth and ultimate scalability, DM 8G handles uncompressed video beyond high-definition with support for HDCP, Deep Color, and 3D, plus high-bitrate 7.1 audio formats including Dolby® TrueHD and DTS-HD Master Audio™, uncompressed multichannel PCM audio, and high-speed Ethernet, all over one simplex multimode fiber. DM 8G enables wire distances up to 1000 ft using CresFiber® 8G Fiber Optic Cable.^[1]

DigitalMedia thoughtfully manages all of the various AV signals and devices in your system, matching each source's output to the capabilities of the selected display(s) without relying on scaling or compression. Every signal is preserved in its native video resolution and audio format, ensuring a pure, lossless signal path throughout.

Multimedia Display Interface

A single HDMI digital AV output port is provided on the DM-RMC-100-S, supporting 1080p60 HDTV and WUXGA computer signals with HDCP, Deep Color, 3D, and multi-channel HD lossless audio — all through a single connection. The HDMI output can also handle DVI signals using an appropriate adapter or interface cable^[2]. In addition, there are RS-232, IR, and Ethernet control ports provided for controlling the display device and other equipment.

A single fiber strand connects the DM-RMC-100-S to a DM switcher or transmitter, transporting video, audio, control, and networking signals all through one simple SC type optical connection.^[1] Multiple DM-RMC-100-Ss may be installed to handle each display in a multi-room distribution system, all fed from a central DM-MD series switcher. Or, a single DM-RMC-100-S can be fed straight from a DM 8G Fiber transmitter, affording a very 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-S 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-S 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 these 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-S provides a gateway for controlling the display device right through the HDMI connection, potentially eliminating the need for any dedicated control wires or IR probes.

Low-Profile Installation

The DM-RMC-100-S 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, verifying the status of connections and signal activity at a glance.

Please refer to the DigitalMedia Design Guide, Doc. #4789 for additional information.

> *DigitalMedia 8G™ receiver and display controller*

> *Low-profile surface mount design*

> *DM 8G™ Fiber input supports up to 1000 ft cable length^[1]*

> *Provides one HDMI® or DVI display output^[2]*

> *Handles HD video with Deep Color, 3D, and HDCP*

> *Handles multichannel PCM and high-bitrate 7.1 surround sound formats*

> *Enables device control via CEC, RS-232, IR, or Ethernet*

> *Affords a true one-wire connection to a DM® switcher or transmitter*

> *Provides 10/100 Ethernet connection*

> *Allows quick, easy setup and diagnostics*

DM-RMC-100-S

SPECIFICATIONS

Video

Input Signal Type: DM 8G™ Fiber (DigitalMedia™ over simplex multimode fiber optic cable)

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 Type: DM 8G Fiber

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 Fiber, HDCP management, EDID format management, CEC

Ethernet: 10BaseT/100BaseTX, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, rSTP

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;

10BaseT/100BaseTX Ethernet port

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

DM IN MMF/SC: (1) SC female optical fiber connector;

DM 8G Fiber input;

Connects to DM 8G Fiber output of a DM switcher, transmitter, or other DM device via CresFiber 8G fiber optic cable^[1]

24VDC 0.75A MAX: (1) 2.1mm barrel DC power jack;

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: (1) green LED, indicates DM link status

RESET: (1) miniature recessed pushbutton, for hardware reset

Environmental

Temperature: 32° to 104°F (0° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 61 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

14.7 oz (416 g)

Available Models

DM-RMC-100-S: DigitalMedia 8G™ Fiber Receiver & Room Controller 100

Included Accessories

PW-2407WU Wall Mount Power Pack 24VDC, 0.75A, Universal [Included Quantity: 1]

Available Accessories

CRESFIBER8G-NP-SP500: CresFiber® 8G Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 500 ft spool

CRESFIBER8G-NP-SP1000: CresFiber® 8G Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 1000 ft spool

CRESFIBER8G-P-SP500: CresFiber® 8G Fiber Optic Cable, 50/125 x4 breakout, plenum, 500 ft spool

CRESFIBER8G-P-SP1000: CresFiber® 8G Fiber Optic Cable, 50/125 x4 breakout, plenum, 1000 ft spool

CRESFIBER-CONN-SC50UM-12: CresFiber® Fiber Optic Cable Connector (AFL Telecommunications™), SC 50µm, 12-Pack

CRESFIBER-SINGLE-SC-P-1.5: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 1.5 ft

CRESFIBER-SINGLE-SC-P-3: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 3 ft

CRESFIBER-SINGLE-SC-P-6: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 6 ft

CRESFIBER-SINGLE-SC-P-12: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 12 ft

CRESFIBER-SINGLE-SC-P-20: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 20 ft

CRESFIBER-SINGLE-SC-P-30: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 30 ft

CRESFIBER-SINGLE-SC-ARMORED-P-60: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 60 ft

CRESFIBER-SINGLE-SC-ARMORED-P-100: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 100 ft

CRESFIBER-SINGLE-SC-ARMORED-P-200: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 200 ft

CRESFIBER-SINGLE-SC-ARMORED-P-300: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 300 ft

CRESFIBER-SINGLE-SC-CLEAR-NP-30: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 30 ft

CRESFIBER-SINGLE-SC-CLEAR-NP-60: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 60 ft

CRESFIBER-SINGLE-SC-CLEAR-NP-100: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 100 ft

CBL-HD-1.5: Crestron® Certified HDMI® Interface Cable, 1.5 ft

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CBL-HD-DVI-3: Crestron® Certified HDMI® to DVI Interface Cable, 3 ft
CBL-HD-DVI-6: Crestron® Certified HDMI® to DVI Interface Cable, 6 ft
CBL-HD-DVI-12: Crestron® Certified HDMI® to DVI Interface Cable, 12 ft
CBL-HD-DVI-20: Crestron® Certified HDMI® to DVI Interface Cable, 20 ft
CBL-HD-DVI-30: Crestron® Certified HDMI® to DVI Interface Cable, 30 ft
MP-WP152-B: Media Presentation Wall Plate - HDMI®, Black
MP-WP152-W: Media Presentation Wall Plate - HDMI®, White
MP-WP140-B: Media Presentation Wall Plate - DVI-I w/Mini-TRS Stereo Audio, Black
MP-WP140-W: Media Presentation Wall Plate - DVI-I w/Mini-TRS Stereo Audio, White
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Emitter Probe w/Terminal Block Connector

Notes:

1. All cable sold separately. The maximum DigitalMedia 8G Fiber cable length is 1000 ft (300 m) using CRESFIBER8G fiber optic cable, or 500 ft (150 m) using standard CRESFIBER, CRESFIBER-SINGLE-SC, or generic OM3 simplex multimode fiber optic cable. Refer to the Crestron DigitalMedia Design Guide, Doc. #4789 for complete wiring guidelines.

2. HDMI requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cable available separately.

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.

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