DM-TX-201-S

DigitalMedia 8G™ Fiber Transmitter 201

The DM-TX-201-S is a DM 8G® Fiber transmitter and switcher that provides a simple interface for computers and high-definition AV sources as part of a complete Crestron® DigitalMedia™ system. Thin and compact, the DM-TX-201-S is ideal for use at a lectern, conference table, or any remote location in a boardroom, classroom, auditorium, or residence. It connects to the head end or display location via a single multimode fiber strand, providing HDMI®, VGA, and analog audio inputs, plus an Ethernet port and USB HID device port for a total connectivity solution.

DigitalMedia 8G™ Fiber
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 fiber optic cable without any compression or repeaters. Just one strand of multimode fiber is required, supporting distances up to 1000 ft (300 m) using CresFiber® 8G Fiber Optic Cable.[1]

Multimedia Computer/AV Interface
The DM-TX-201-S provides simple switching between two inputs. The inputs can be configured to switch automatically or be controlled through a Crestron control system. Inputs include:

• **HDMI** — Supports HD 1080p60 video and WUXGA computer signals with HDCP and multi-channel lossless audio. Also handles DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable[2].
• **RGB** — This VGA type input handles analog RGB signals up to WUXGA 1920x1200 pixels, as well as analog video up to 1080p60[3]. A 1/8" (3.5mm) stereo audio input is included to accommodate analog audio signals from an unbalanced line-level source or headphone output.

Note: Audio breakaway capability enables either audio input to be used with either video input.

A single fiber strand connects the DM-TX-201-S to a DM switcher or receiver, transporting video, audio, control, and networking signals all through one simple SC type optical connection.[1] Used with a single DM 8G Fiber Receiver/Room Controller and optional Crestron Control System, the DM-TX-201-S affords a simple solution for extending a multimedia computer or AV signal to a single display up to 1000 feet (300 m) away[1]. As part of a larger system using a DM-MD series switcher, multiple DM-TX-201-Ss may be installed to enable the distribution of several sources at different locations to feed multiple displays throughout any room or larger facility.

In addition to its DM 8G Fiber output, there is also an HDMI output provided to feed a local HDMI or DVI monitor, eliminating the need for an extra outboard distribution amp or other hardware.
LAN Connectivity

integrates high-speed Ethernet networking for a total signal distribution solution. The DM-TX-201-S includes a 10/100 Ethernet port, providing a convenient LAN connection for a local network device.

Keyboard/Mouse Extender
The DM-TX-201-S also functions as a keyboard/mouse extender, providing a USB port which connects to the source device (i.e. computer or other USB HID-compliant host), allowing it to be controlled by a mouse or keyboard located in another room, or at a presentation lectern, conference table, or some other remote location.

EDID Format Management
The DM-TX-201-S allows for management of the EDID (Extended Display Identification Data) information that passes between the display devices and input sources in the system. Using Crestron Toolbox™ software, the format and resolution capabilities of each device can be assessed and managed through the DM-TX-201-S, ensuring reliable operation by instructing sources to output only the resolutions and formats that can be handled by the displays and system wiring.

CEC Embedded Device Control
The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. DigitalMedia 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-TX-201-S provides a gateway for controlling the connected source device right through the HDMI connection, potentially eliminating the need for any dedicated control wires or IR emitters. Through proper CEC signal management, DigitalMedia allows you to take control of each device in the system as you like.

Compact and Versatile
The DM-TX-201-S is designed to be mounted to a flat surface or placed on a shelf. It is compact enough to fit discreetly inside a presentation lectern or beneath a table, and can even be attached to a rack rail in the back of an equipment cabinet. An array of indicators on the DM-TX-201-S provides for easy setup and troubleshooting.

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A Digital Upgrade for Legacy Systems
The DM-TX-201-S also affords a perfect signal converter for integrating DigitalMedia with analog-based systems like Crestron MPS, QuickMedia®, and the CEN-RGBHV Series. A simple HD15 VGA cable connected between the output of an MPS system and the input of the DM-TX-201-S allows every RGB, component, S-Video, and composite video input on the MPS to be converted to DigitalMedia[3]. Analog audio is converted similarly through a simple unbalanced stereo audio cable. The DM-TX-201-S's HDMI input may also be used to expand the input capabilities of the MPS system to handle digital AV sources.

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

> *DigitalMedia 8G™ Fiber transmitter and multimedia interface*

> *Built-in 2x1 AV switcher with auto-switching and   audio -breakaway*

> *QuickSwitch HD® technology achieves fast, reliable switching*

> *DM 8G® Fiber output supports up to 1000 ft (300 m) cable length[1]*

> *Connects to a DM® switcher or receiver over one multimode   fiber strand[1]*

> *Provides HDMI® and RGB/component video inputs[3]*

> *Also supports DVI and DisplayPort Multimode sources[2]*

> *Handles HD video with HDCP*

> *Handles Dolby Digital®, DTS®, and uncompressed 7.1 linear PCM audio*

> *Includes mini-TRS stereo analog audio input*

> *Includes a local HDMI monitor output*

> *Detects and reports detailed video and audio input information*

> *Performs automatic AV signal format management via EDID*

> *Includes USB HID device port for connection to a computer*

> *Provides a 10/100 Ethernet connection*

> *Enables device control via CEC and Ethernet*

> *Allows quick, easy setup and diagnostics*

> *Low-profile surface-mount design*

> *Includes external universal power pack*

SPECIFICATIONS

Video

Switcher: 2x1 combination digital/analog switch, Crestron QuickSwitch HD®
Input Signal Types: HDMI®, DVI[2], DisplayPort Multimode[2], RGB, component (YPbPr)[3], S-Video (Y/C)[3], composite[3]
Output Signal Types: DM 8G® Fiber (DigitalMedia™ over one multimode fiber optic strand), HDMI, DVI[2]
Formats: HDMI, DVI, HDCP content protection support, computer up to UXGA/

Input Resolutions, HDMI & DVI, 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, HDMI & DVI, 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
Input Resolutions, RGB: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1152@60Hz
Input Resolutions, Component[3]: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080p24, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60
Input Resolutions, Composite and S-Video[3]: 480i, 576i
Output Resolutions: Matched to inputs
Analog-To-Digital Conversion: 10-bit 165 MHz per each of 3 channels

Audio

Switcher: 2x1 combination digital/analog switch
Input Signal Types: HDMI, DisplayPort Multimode[2], analog stereo
Output Signal Types: DM 8G Fiber, HDMI
Formats, HDMI: Dolby Digital®, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, Up to 8ch PCM
Formats, Analog: Stereo 2-channel
Analog-To-Digital Conversion: 24-bit 48 kHz
Input Level Compensation (analog): ±10 dB
Performance (analog): Frequency Response: 20Hz to 20kHz ±0.75dB; S/N Ratio: >90dB, 20Hz to 20kHz A-weighted; THD+N: <0.05% @ 1kHz; Stereo Separation: >90dB

Communications

DigitalMedia: DM 8G Fiber, HDCP management, EDID format management, CEC
Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP
USB: Supports USB HID class devices

Connectors

LAN: (1) 8-wire RJ45 female, shielded; 10Base-T/100Base-TX Ethernet port
DM OUT MMF/SC: (1) SC female optical fiber connector; DM 8G Fiber output ; Connects to DM 8G Fiber input of a DM switcher, receiver/room controller, or other DM device via CresFiber 8G fiber optic cable[1]
HDMI OUT: (1) 19-pin Type A HDMI female; HDMI digital video/audio output; Also supports DVI[2]
PWR 24VDC 0.75A: (1) 2.1 x 5.5 mm DC power connector; 24 Volt DC power input; PW-2407WU power pack included
Ground: (1) 6-32 screw, chassis ground lug
USB HID: (1) USB Type B female;

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Controls & Indicators

LAN: (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity
DM OUT: (1) green LED, indicates DM link status
PWR: (1) green LED, indicates operating power supplied via local power supply
HDMI IN: (1) green LED, indicates HDMI input is selected
RGB IN: (1) green LED, indicates RGB input is selected
SETUP: (1) red LED and (1) miniature recessed pushbutton for Ethernet setup
RESET: (1) miniature recessed pushbutton for hardware reset

Power Requirements

Power Pack: 0.75 Amps @ 24 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-2407WU included

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 sides
Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 6.47 in (165 mm)
Width: 7.36 in (187 mm)
Depth: 1.24 in (32 mm)

Weight

24.3 oz (689 g)

Available Models

DM-TX-201-S: DigitalMedia 8G™ Fiber Transmitter 201

Included Accessories

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

Available Accessories

CRESFIBER8G-NP-SP500: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 500 ft spool
CRESFIBER8G-NP-SP1000: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 1000 ft spool
CRESFIBER8G-P-SP500: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, plenum, 500 ft spool
CRESFIBER8G-P-SP1000: CresFiber® 8G Multimode 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-TK: CresFiber® Termination Kit (AFL Telecommunications™)
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
CBL-HD-3: Crestron® Certified HDMI® Interface Cable, 3 ft
CBL-HD-6: Crestron® Certified HDMI® Interface Cable, 6 ft
CBL-HD-12: Crestron® Certified HDMI® Interface Cable, 12 ft
CBL-HD-20: Crestron® Certified HDMI® Interface Cable, 20 ft
CBL-HD-30: Crestron® Certified HDMI® Interface Cable, 30 ft
CBL-HD-DVI-1.5: Crestron® Certified HDMI® to DVI Interface Cable, 1.5 ft
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
CBL-VGA-1.5: Crestron® Certified Computer VGA Interface Cable, 1.5 ft
CBL-VGA-3: Crestron® Certified Computer VGA Interface Cable, 3 ft
CBL-VGA-6: Crestron® Certified Computer VGA Interface Cable, 6 ft
CBL-VGA-12: Crestron® Certified Computer VGA Interface Cable, 12 ft
CBL-VGA-25: Crestron® Certified Computer VGA Interface Cable, 25 ft
CBL-VGA-AUD-3: Crestron® Certified Computer VGA Interface Cable w/ Audio, 3 ft
CBL-VGA-AUD-6: Crestron® Certified Computer VGA Interface Cable w/ Audio, 6 ft
CBL-VGA-AUD-12: Crestron® Certified Computer VGA Interface Cable w/ Audio, 12 ft
CBL-VGA-AUD-25: Crestron® Certified Computer VGA Interface Cable w/ Audio, 25 ft
CBL-AUDIO-1.5: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 1.5 ft
CBL-AUDIO-3: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 3 ft
CBL-AUDIO-6: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 6 ft
CBL-AUDIO-12: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 12 ft
MP-WP100-A: Media Presentation Wall Plate - RCA Composite Video w/RCA Stereo Audio, Almond
MP-WP100-B: Media Presentation Wall Plate - RCA Composite Video w/RCA Stereo Audio, Black
MP-WP100-W: Media Presentation Wall Plate - RCA Composite Video w/RCA Stereo Audio, White
MP-WP110-A: Media Presentation Wall Plate - Mini-DIN S-Video w/RCA Stereo Audio, Almond
MP-WP110-B: Media Presentation Wall Plate - Mini-DIN S-Video w/RCA Stereo Audio, Black
MP-WP110-W: Media Presentation Wall Plate - Mini-DIN S-Video w/RCA Stereo Audio, White
MP-WP120-A: Media Presentation Wall Plate - RCA Component Video w/RCA Stereo Audio, Almond
MP-WP120-B: Media Presentation Wall Plate - RCA Component Video w/RCA Stereo Audio, Black
MP-WP120-W: Media Presentation Wall Plate - RCA Component Video w/ RCA Stereo Audio, White
MP-WP125-A: Media Presentation Wall Plate - RCA Component & Composite

MP-WP131-W: Media Presentation Wall Plate - DB15HD Computer VGA w/ Mini-TRS Stereo Audio, Breakout, White

MP-WP140-A: Media Presentation Wall Plate - DVI-I w/Mini-TRS Stereo Audio, Almond

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

MP-WP150-A: Media Presentation Wall Plate - HDMI® w/Mini-TRS Stereo Audio, Almond

MP-WP150-B: Media Presentation Wall Plate - HDMI® w/Mini-TRS Stereo Audio, Black

MP-WP150-W: Media Presentation Wall Plate - HDMI® w/Mini-TRS Stereo Audio, White

MP-WP152-A: Media Presentation Wall Plate - HDMI®, Almond

MP-WP152-B: Media Presentation Wall Plate - HDMI®, Black

MP-WP152-W: Media Presentation Wall Plate - HDMI®, White

MP-WP160-A: Media Presentation Wall Plate - DisplayPort w/Mini-TRS Stereo Audio, Almond

MP-WP160-B: Media Presentation Wall Plate - DisplayPort w/Mini-TRS Stereo Audio, Black

MP-WP160-W: Media Presentation Wall Plate - DisplayPort w/Mini-TRS Stereo Audio, White

MP-WP162-A: Media Presentation Wall Plate - DisplayPort, Almond

MP-WP162-B: Media Presentation Wall Plate - DisplayPort, Black

MP-WP162-W: Media Presentation Wall Plate - DisplayPort, White

MP-WP183-A: Media Presentation Wall Plate - Ethernet, Almond

MP-WP183-B: Media Presentation Wall Plate - Ethernet, Black

MP-WP183-W: Media Presentation Wall Plate - Ethernet, White

MP-WP187-S-A: Media Presentation Wall Plate - Crestron DigitalMedia 8G™ Fiber, Almond

MP-WP187-S-B: Media Presentation Wall Plate - Crestron DigitalMedia 8G™ Fiber, Black

MP-WP187-S-W: Media Presentation Wall Plate - Crestron DigitalMedia 8G™ Fiber, White

MPI-WP100-120: Media Presentation Wall Plate - International Version - RCA Composite Video w/RCA Stereo Audio, White

MPI-WP100-122: Media Presentation Wall Plate - International Version - RCA Composite Video w/RCA Stereo Audio, Anthracite

MPI-WP120-120: Media Presentation Wall Plate - International Version - RCA Component Video w/RCA Stereo Audio, White

MPI-WP120-122: Media Presentation Wall Plate - International Version - RCA Component Video w/RCA Stereo Audio, Anthracite

MPI-WP130-120: Media Presentation Wall Plate - International Version - DB15HD Computer VGA w/Mini-TRS Stereo Audio, Bulkhead, White

MPI-WP130-122: Media Presentation Wall Plate - International Version - DB15HD Computer VGA w/Mini-TRS Stereo Audio, Bulkhead, Anthracite

MPI-WP131-120: Media Presentation Wall Plate - International Version - DB15HD Computer VGA w/Mini-TRS Stereo Audio, Breakout, White

MPI-WP131-122: Media Presentation Wall Plate - International Version - DB15HD Computer VGA w/Mini-TRS Stereo Audio, Breakout, Anthracite

MPI-WP150-120: Media Presentation Wall Plate - International Version - HDMI® w/Mini-TRS Stereo Audio, White

MPI-WP150-122: Media Presentation Wall Plate - International Version - HDMI® w/Mini-TRS Stereo Audio, Anthracite

MPI-WP160-120: Media Presentation Wall Plate - International Version - DisplayPort w/Mini-TRS Stereo Audio, White

MPI-WP160-122: Media Presentation Wall Plate - International Version - DisplayPort w/Mini-TRS Stereo Audio, Anthracite

MPI-WP183-120: Media Presentation Wall Plate - International Version - Ethernet, White

MPI-WP183-122: Media Presentation Wall Plate - International Version - Ethernet, Anthracite

MPI-WP187-S-120: Media Presentation Wall Plate - International Version - Crestron DigitalMedia 8G™ Fiber, White

MPI-WP187-S-122: Media Presentation Wall Plate - International Version -

CRESTRON

6.47 in
(16.43 cm)

4 in
(10.16 cm)

1.24 in
(3.14 cm)

6.89 in
(17.48 cm)

7.36 in
(18.68 cm)