

DM-TX-100-F

DigitalMedia™ Fiber Transmitter 100

The DM-TX-100-F is a DM® Fiber transmitter that provides a single HDMI® input for a computer or high-definition AV source as part of a complete Crestron® DigitalMedia™ system. It is ideal for use at a lectern, conference table, or any remote location in a boardroom, classroom, auditorium, or residence to route an HDMI signal to a display or switcher many feet away. The DM-TX-100-F connects to the head end or display location using multimode fiber optic cable. In addition to HDMI, it includes an Ethernet port and USB HID device port for a total connectivity solution.

DigitalMedia™ 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 Fiber distributes uncompressed digital video and audio signals up to 1000 feet (300 m) using multimode fiber optic cable^[1].

Multimedia Computer/AV Interface

Via its HDMI input, the DM-TX-100-F supports HD 1080p60 video and WUXGA computer signals with HDCP, Deep Color, 3D, and multi-channel HD lossless audio. It can also handle DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable^[2].

A single DM Fiber output is provided for connection to a DM switcher or receiver.^[1] Used with a single DM Fiber Receiver/Room Controller and optional Crestron Control System, the DM-TX-100-F 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-100-Fs may be installed to enable the distribution of several sources at different locations to feed multiple displays throughout any room or larger facility.

LAN Connectivity

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

Keyboard/Mouse Extender

The DM-TX-100-F 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.

Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. The DM-TX-100-F includes built-in IR and Ethernet control ports to allow programmable control of the devices 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-TX-100-F 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.



Compact and Versatile

The DM-TX-100-F is designed to be mounted to a flat surface, placed on a shelf, or attached to a rack rail in the back of an equipment cabinet. It may also be used portably for connection to a DM wall plate input (MP-WP186 sold separately). It is compact enough to fit discreetly inside a presentation lectern or beneath a table. An array of indicators on the front of the DM-TX-100-F provides for easy setup and troubleshooting. Advanced configuration is enabled through Crestron Toolbox™ software.

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

- > DigitalMedia™ Fiber transmitter and HDMI® interface
- > DM® Fiber output supports up to 1000 ft (300 m) cable length^[1]
- > Provides a single HDMI digital video/audio input
- > Also supports DVI and DisplayPort Multimode sources^[2]
- > Handles HD video with Deep Color, 3D, and HDCP
- > Handles Dolby® TrueHD, DTS-HD Master Audio™, and uncompressed 7.1 linear PCM audio
- > Includes USB HID device port for connection to a computer
- > Provides a 10/100 Ethernet connection
- > Enables device control via CEC, IR, and Ethernet
- > Allows quick, easy setup and diagnostics
- > Compact surface-mount design
- > Includes external universal power pack

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SPECIFICATIONS

Video

Input Signal Type: HDMI®, DVI^[2], DisplayPort Multimode^[2]

Output Signal Type: DM® Fiber (DigitalMedia™ over multimode fiber optic cable)

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: HDMI, DisplayPort Multimode^[2]

Output Signal Type: DM Fiber

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 Fiber, HDCP management, CEC

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

USB: Supports USB HID class devices

Connectors

HDMI IN: (1) 19-pin Type A HDMI female;

HDMI digital video/audio input;

Also supports DVI and DisplayPort Multimode^[2]

USB HID: (1) USB Type B female, USB device port for connection to the USB host interface of a computer or other USB HID-compliant host

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

IR: (1) 2-pin 3.5mm detachable terminal block, IR/Serial port;
IR output up to 1.1 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud

DM OUT, D & M: (1) DM Fiber output composed of (2) SC female optical fiber connectors;

Connects to DM Fiber input of a DM switcher, receiver/room controller, or other DM device via CresFiber® 8G fiber optic cable^[1]

DM OUT, G 24: (1) 2-pin 3.5mm detachable terminal block, 24 Volt DC power input;

PW-2407WUL power pack included

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

Controls & Indicators

PWR: (1) green LED, indicates operating power supplied via power pack

DM LINK: (1) green LED, indicates DM link status

HDMI IN: (1) green LED, indicates HDMI input signal presence and lock status

SETUP: (1) red LED and (1) miniature recessed pushbutton for Ethernet setup

RESET: (1) miniature recessed pushbutton for hardware reset

LAN: (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

Power Requirements Power Pack: 0.75 Amps @ 24 Volts DC;

Environmental

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

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

Heat Dissipation: 31 BTU/Hr

Enclosure

Chassis: Aluminum w/polycarbonate label overlay and (4) integral mounting flanges

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

Dimensions

Height: 7.60 in (193 mm)

Width: 4.56 in (116 mm)

Depth: 1.43 in (37 mm)

Weight

19.8 oz (562 g)

Available Models

DM-TX-100-F: DigitalMedia™ Fiber Transmitter 100

Included Accessories

PW-2407WUL 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-DUAL-SC-P-1.5: CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 1.5 ft

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

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

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

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

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

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

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

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

CRESFIBER-DUAL-SC-ARMORED-P-300: CresFiber® ARMORED Duplex 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

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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
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-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-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-WP186-A: Media Presentation Wall Plate - DigitalMedia™ Fiber, Almond
MP-WP186-B: Media Presentation Wall Plate - DigitalMedia™ Fiber, Black
MP-WP186-W: Media Presentation Wall Plate - DigitalMedia™ Fiber, White
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-WP183-120: Media Presentation Wall Plate - International Version - Ethernet, White
MPI-WP183-122: Media Presentation Wall Plate - International Version - Ethernet, Anthracite
IRP2: IR Emitter Probe

Notes:

1. The maximum DigitalMedia Fiber cable length is 1000 ft (300 m) using CRESFIBER, CRESFIBER8G, CRESFIBER-DUAL-SC, or generic OM2/OM3 duplex multimode fiber optic cable. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 for complete system design guidelines. All cable sold separately.

2. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. CBL-HD-DVI interface cables 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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