

DigitalMedia™ Fiber Transmitter 100



- > DigitalMedia transmitter and HDMI interface
- > DM Fiber output supports up to 1000 ft cable length*
- > Compact surface-mount design
- > Provides HDMI digital video/audio input at any location
- > Also supports DVI and DisplayPort Multimode sources†
- > Includes USB HID host port
- > Affords single-wire connection to a DM-RMC-100-F or DM-MD switcher
- > Detects and reports detailed video and audio input information‡
- > Performs automatic AV signal format management via EDID‡
- > Enables device control via CEC
- > Includes IR and Ethernet control ports
- > Easy setup and diagnostics tools via software

The DM-TX-100-F is a DM Fiber transmitter that provides a single HDMI input for a computer or high-definition AV source. It is ideal for use at a lectern, conference table, wall plate, or any remote location in a boardroom, classroom, or residence to route an HDMI signal to a display or switcher many feet away.

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

DigitalMedia distributes uncompressed digital video and audio signals up to 1000 feet (300 m) using multimode fiber optic cable, or shorter distances using standard CAT5e/6*. DigitalMedia thoughtfully manages all of the different signals and devices, matching each source's output to the capabilities of the selected display(s) without using scaling or compression. Every signal is preserved in its native video resolution and audio format, ensuring a pure, lossless signal path throughout.

Multimedia Computer/AV Interface—Via its HDMI input, the DM-TX-100-F supports HDMI 1.3a w/Deep Color and HDCP, handling WUXGA computer resolutions and 1080p60 HDTV with multi-channel HD lossless audio. The HDMI input can also handle DVI and DisplayPort Multimode signals using an appropriate adapter or dongle‡. Crestron offers a complete range of professional AV interface cables and wall plates to complement the DM-TX-100-F for a total custom installation solution.

Used with a single DM-RMC-100-F Room Controller and optional Crestron Control System, the DM-TX-100-F affords a very simple solution for extending a multimedia computer or AV signal to a single display up to 1000 feet (300 m) away*. 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.

Keyboard/Mouse Extender—The DM-TX-100-F also functions as a keyboard/mouse extender, allowing the computer or other USB HID-compliant host device connected to the DM-TX-100 to be controlled by a keyboard and mouse connected at the display location.

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

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. The DM-TX-100-F also provides an alternative to 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 probes.

Compact and Versatile—The DM-TX-100-F is designed to be mounted to flat surface, 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, verifying the status of connections and signal activity at a glance. Advanced configuration is enabled through Crestron Toolbox™ software.

SPECIFICATIONS

Video

Input Signal Type: HDMI, DVI†, DisplayPort Multimode‡

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

Formats: HDMI v.1.3a w/Deep Color, DVI v.1.0, HDCP v.1.2 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 v.1.3a
Input Resolutions, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI v.1.3a

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Audio

Input Signal Type: HDMI v.1.3a, DisplayPort Multimode†

Output Signal Type: DM Fiber

Formats: Dolby® TrueHD 7.1, Dolby Digital Plus 7.1, Dolby Digital AC3 5.1, Dolby Digital EX 5.1, DTS-HD Master Audio™ 7.1, DTS-HD High Res 7.1, DTS 5.1, DTS-ES Matrix 5.1, DTS-ES Discrete 6.1, DTS 96/24 5.1, 8ch PCM, 6ch PCM, 2ch PCM

USB

Protocols: 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†

USB HID: (1) USB Type B female;
USB 1.1 host port for connection to the mouse/keyboard or game controller
input of a USB HID-compliant host device

LAN: (1) 8-wire RJ45 female w/2 LED indicators;
10BaseT/100BaseTX Ethernet port;
Green LED indicates link status;
Yellow LED indicates Ethernet activity

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: (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 fiber optic cable*

G 24: (1) 2-pin 3.5mm detachable terminal block, 24 Volt DC power input;
Connects to local power supply (PW-2407RU included), or to DMNet port
(24 & G only) of DM Switcher

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

Controls & Indicators

PWR: (1) green LED, indicates operating power supplied via DMNet or local power supply

DM LINK: (1) green LED, indicates connection to a downstream DM device

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

SETUP: (1) red LED and (1) miniature recessed pushbutton for Ethernet auto-discovery

RESET: (1) miniature recessed pushbutton for hardware reset

Power Requirements

Power Consumption: 9 Watts (0.38 Amps) @ 24 Volts DC (PW-2407RU power supply included)

DMNet Power Usage: 9 Watts (0.38 Amps @ 24 Volts DC)

Note: May be powered by PW-2407RU power supply or DMNet, not both.

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 (19.29 cm)

Width: 4.56 in (11.59 cm)

Depth: 1.43 in (3.62 cm)

Weight

19.8 oz (562 g)

INCLUDED ACCESSORIES

PW-2407RU

24 Volt DC Power Supply

AVAILABLE ACCESSORIES

CRESFIBER

CresFiber™ Fiber Optic Cable

CRESFIBER-CONN-SC50UM

CresFiber™ Fiber Optic Cable Connector

CRESFIBER-DUAL-SC

CresFiber™ Duplex Fiber Optic Cable Assembly, 50/125, SC

CBL-HD

HDMI™ Interface Cable

CBL-DP-HD

DisplayPort to HDMI™ Interface Cable

CBL-HD-DVI

HDMI™ to DVI Interface Cable

MP-WP152

Media Presentation Wall Plate – HDMI™

MP-WP162

Media Presentation Wall Plate – DisplayPort

MP-WP140

Media Presentation Wall Plate – DVI w/Mini-TRS Stereo Audio

MP-WP186

Media Presentation Wall Plate – Crestron DigitalMedia™ Fiber

IRP2

IR Emitter Probe

* For DigitalMedia fiber wiring, use CresFiber or other quality duplex multimode fiber optic cable. Refer to the Crestron DigitalMedia Design Guide, Doc. #4789 for complete wiring guidelines.

† HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. CBL-HD-DVI and CBL-DP-HD interface cables available separately.

‡ EDID signal detection and format management requires connection to a DMC-F or DMC-F-DSP input card.