

DigitalMedia™ Fiber Input Card w/Down-mixing for DM® Switchers

The DMC-F-DSP is an input card for a Crestron® DigitalMedia™ Switcher, providing one DM® Fiber input. The DM Fiber input enables the connection of a DM Fiber Transmitter, or the output of another DM switcher, with a potential cable length up to 1000 feet (300 m) using multimode fiber optic cable^[5].

The DMC-F-DSP provides all of the features of the [DMC-F](#) with the addition of internal surround sound down-mixing to enable the simultaneous distribution of uncompressed 7.1 surround sound and 2-channel down-mix signals. The DMC-F-DSP is recommended for use with Blu-ray Disc® players and other HD sources that output multi-channel surround sound audio via HDMI®, allowing the multi-channel signal to reach the surround sound system without requiring any decoding, while also providing a 2-channel down-mix to feed a stereo zone or audio distribution system.

In addition to the DM Fiber input, the DMC-F-DSP also includes HDMI and stereo analog audio outputs. The HDMI output can be used to pass the input signal through to a local audio processor or video monitor, or to feed a second DM switcher for output expansion purposes. The analog audio output, which features programmable volume control, breaks out the stereo audio signal from the DM Fiber input and passes it through to feed a multi-room audio distribution system.

The DMC-F-DSP may also be used with the [DMCI](#) DigitalMedia Card Interface to provide a DM Fiber receiver solution that's perfect for installation in an equipment rack or AV cart, or as a portable display interface. As a DM Fiber receiver, and as a DM switcher input card, the DMC-F-DSP enables EDID signal detection and format management, CEC device control, and audio breakaway.

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® Fiber (DigitalMedia™ over multimode fiber optic cable)^[1]

Output Signal Types: HDMI® or DVI^[2] to switcher backplane and HDMI OUT connector

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 inputs

Audio

Input Signal Types: DM Fiber

Output Signal Types: HDMI (simultaneous multi-channel and 2-channel down-mix) to switcher backplane, HDMI (multi-channel pass-thru from input) at HDMI OUT, analog stereo 2-channel, allows audio breakaway

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

Decoder: Cirrus Logic® CS49700 HD Audio Decoder DSP with dual 32-bit cores

Digital-To-Analog Conversion: 24-bit 48 kHz

Performance (analog): Frequency Response: 20Hz to 20kHz ±0.5dB;
S/N Ratio: >95dB, 20Hz to 20kHz A-weighted;

THD+N: <0.005% @ 1kHz;

Stereo Separation: >90dB

Volume Gain Range (analog): -80dB to 0dB, adjustable from 0% to 100%

Connectors

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

HDMI digital video/audio output;

Also supports DVI^[2]

FIBER IN, D & M: (1) DM Fiber input composed of (2) SC female optical fiber connectors;

Connects to the DM Fiber output of a DM switcher, transmitter, or other DM device via CRESFIBER8G multimode fiber optic cable^[1]

AUDIO OUT: (2) RCA female;

Unbalanced stereo line-level audio output with level control;

Maximum Output Level: 2 Vrms;

Output Impedance: 100 Ohms nominal

Construction

Plug-in card, occupies (1) DM Switcher input card slot, includes metal faceplate w/black finish

Weight

8.0 oz (227 g)

MODELS & ACCESSORIES

Available Models

DMC-F-DSP: DigitalMedia™ Fiber Input Card w/Down-mixing for DM® Switchers

Available Accessories

CRESFIBER8G-NP: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, non-plenum

CRESFIBER8G-P: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, plenum

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: CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum

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

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

CBL Series: Crestron® Certified Interface Cables

MP-WP Series: Media Presentation Wall Plates

MPI-WP Series: Media Presentation Wall Plates - International Version

DMCI: DigitalMedia™ Card Interface

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 wire and cables sold separately.
2. HDMI requires an appropriate adapter or interface cable to accommodate a DVI 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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