

# DMC-S2-DSP

## DigitalMedia 8G™ Single-Mode Fiber Input Card w/Down-mixing for DM® Switchers

The DMC-S2 is an input card for a Crestron® DigitalMedia™ Switcher, providing one DigitalMedia 8G™ Single-Mode Fiber (DM 8G® SMF) input. The DM 8G SMF input allows one DM® switcher to receive a DM 8G signal from another DM switcher located in a separate room or building. Just one single-mode fiber optic strand is required, supporting distances up to 7.5 miles (12 km) using [CresFiber® 8G SM](#) or G.652.D single-mode fiber.<sup>[1]</sup>

The DMC-S2-DSP provides all of the features of the [DMC-S2](#) 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-S2-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.

Additional AV connections on the card include HDMI® and stereo analog audio outputs. The HDMI output simply passes the input signal through to feed a local device, 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 input and passes it through to feed a [Sonnex™](#), [Adagio®](#), or other multi-room audio distribution system.

The DMC-S2-DSP may also be used with the [DMCI](#) DigitalMedia Card Interface to provide a compact DM 8G SMF receiver solution in lieu of a switcher. As a DM 8G SMF receiver, and as a DM switcher input card, the DMC-S2-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 8G® SMF (DigitalMedia™ over single-mode fiber optic cable)

**Output Signal Types:** HDMI® or DVI<sup>[2]</sup> 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 8G SMF

**Output Signal Types:** HDMI (simultaneous multi-channel and 2-channel down-mix) to switcher backplane, HDMI (multi-channel or 2-channel down-mix) 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

### Connectors

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

HDMI digital video/audio output;

Also supports DVI<sup>[2]</sup>

**DM IN SMF/LC:** (1) LC female optical fiber connector;

DM 8G Single-Mode Fiber input;

Connects to DM 8G SMF output of a DM switcher via CRESFIBER8G-SM single-mode fiber optic cable<sup>[1]</sup>

**AUDIO OUT:** (2) RCA female;

Unbalanced stereo line-level audio output with level control;

Maximum Output Level: 2 Vrms;

Output Impedance: 100 Ohms nominal

# DMC-S2-DSP    DM 8G™ SMF Input Card w/Down-mixing for DM® Switchers

## Indicators

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**DM IN SMF/LC:** (1) green LED, indicates DM link status

## Construction

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

## Weight

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8.0 oz (227 g)

## MODELS & ACCESSORIES

### Available Models

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**DMC-S2-DSP:** DigitalMedia 8G™ Single-Mode Fiber Input Card w/Down-mixing for DM® Switchers

### Available Accessories

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**CRESFIBER8G-SM-P:** CresFiber® 8G Single-Mode Fiber Optic Cable, plenum

**CRESFIBER8G-SM-CONN-LC-12:** CresFiber® 8G Single-Mode Fiber Optic Cable Connector, LC, 12-Pack

**CBL-HD:** Crestron® Certified HDMI® Interface Cable

**CBL-HD-DVI:** Crestron® Certified HDMI® to DVI Interface Cable

**CBL-RCA2:** Crestron® Certified RCA Stereo Audio Interface Cable

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

**MP-WP152:** Media Presentation Wall Plate - HDMI®

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

**DMCI:** DigitalMedia™ Card Interface

## Notes:

1. For DM 8G SMF wiring up to 7.5 miles (12 km) between devices, use Crestron [CRESFIBER8G-SM](#) or generic G.652.D (or better) single-mode fiber optic cable. Refer to the [DigitalMedia Infrastructure Guide, Doc. #4556](#) for complete wiring guidelines, and the [Crestron DigitalMedia Design Guide, Doc. #4789](#) for complete system design guidelines. All cable 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](http://www.crestron.com/salesreps) or by calling 800-237-2041.

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