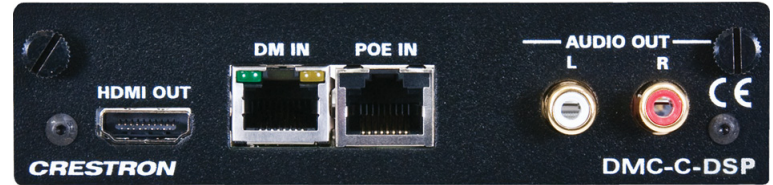


## HDBaseT® Certified DigitalMedia 8G+® Input Card w/Downmixing for DM® Switchers

- > Modular input card for a DM-MD8X8, DM-MD16X16, or DM-MD32X32 switcher
- > Provides a single DM 8G+® input
- > Supports cable lengths up to 330 ft (100 m) using DM 8G® cable or CAT5e<sup>[1]</sup>
- > HDBaseT® Certified — Enables direct connection to other HDBaseT certified equipment
- > Handles video resolutions up to Full HD 1080p
- > Handles computer resolutions up to WUXGA
- > Handles 3D video and Deep Color
- > Handles Dolby® TrueHD, DTS-HD®, and uncompressed 7.1 linear PCM audio
- > HDCP compliant
- > Includes an HDMI® output for pass-through of the input signal
- > Includes a stereo analog line-level audio output with volume control
- > Allows extraction of stereo 2-channel audio signals
- > Built-in downmixing enables simultaneous distribution of multi-channel surround sound and 2-channel stereo audio signals
- > Provides up to 100 ms delay adjustment of the downmix signal
- > Supports PoDM and PoH<sup>[2]</sup>
- > Occupies a single DM® switcher input card slot
- > Provides a rack-mountable DM 8G+ receiver solution using the optional DMCI card interface<sup>[3]</sup>



The DMC-C-DSP is an input card designed for use with any card-based Crestron® DigitalMedia™ Switcher. It provides one DM 8G+® input, with complementary HDMI® pass-through and analog audio outputs. The DM 8G+ input enables the connection of a DM 8G+ transmitter, the output of another DM® switcher, or an HDBaseT® certified source, using a single CAT type twisted pair cable.<sup>[1]</sup> Power over DM (PoDM) is supplied through the same connection, providing a centralized power source for PoDM compatible transmitters.<sup>[2]</sup>

The DMC-C-DSP provides all the features of the **DMC-C** with the addition of downmixing to enable the simultaneous distribution of multichannel 7.1 surround sound and 2-channel stereo signals. It is recommended for use with surround sound sources to allow the original multichannel signal to be distributed to rooms with surround sound systems, while simultaneously distributing a 2-channel downmix signal to stereo-only rooms and devices.

**NOTE:** Refer to model **DMC-4K-C-DSP** for applications requiring support for higher resolutions up to 4K.

### DigitalMedia 8G+®

Engineered for ultra high-bandwidth and ultimate scalability, DigitalMedia 8G+ (DM 8G+) provides a true one-wire lossless transport for moving high-definition video, audio, power, Ethernet, and control signals over low-cost twisted pair copper wire. DM 8G+ handles uncompressed Full HD 1080p video signals with support for HDCP, Deep Color, 3D, and high-bitrate 7.1 audio, as well as computer signals up to WUXGA. All signals are transported over a single CAT type cable, supporting distances up to 330 feet (100 m) using Crestron **DM 8G® Cable** or CAT5e.<sup>[1]</sup>

### HDBaseT® Certified

Crestron DigitalMedia 8G+ technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. An HDBaseT compliant device can be connected directly to the DM 8G+ input on the DMC-C-DSP without requiring a DM transmitter.

### HDMI® Pass-Through

Every DM switcher input card includes an HDMI output port, which 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.

### Audio Extracting and Downmixing

The DMC-C-DSP also includes an unbalanced analog audio output, allowing stereo audio signals to be extracted from the digital input and fed to a multiroom audio distribution system. Built-in DSP allows multi-channel surround sound signals to be decoded and downmixed to stereo. The stereo downmix signal is automatically routed to the analog output, and can also be routed via any switcher output for distribution to stereo-only displays and other equipment. The analog output includes volume control that is adjustable via a control system using a keypad, touch screen, handheld remote, or mobile device.

### Power over DM®

Power over DM (PoDM) and Power over HDBaseT (PoH) can be supplied through the DMC-C-DSP via its DM 8G+ input port to power a compatible DM 8G+ transmitter or HDBaseT device. To enable PoDM or PoH, simply connect a PoDM Power Supply (model **DM-PSU-8** or **DM-PSU-16**<sup>[3]</sup>) to the POE IN port on the input card. As an alternative to a PoDM Power Supply, a Crestron PoE switch, PoE injector, or other 802.3af or 802.3at compliant PoE PSE may be used.<sup>[2]</sup>

### Standalone DM 8G+ Receiver

In addition to its use as an input card for DM switchers, the DMC-C-DSP may also be used with the **DMCI** DigitalMedia Card Interface<sup>[3]</sup> to provide a DM 8G+ receiver solution that's perfect for installation in an equipment rack or AV cart, or as a portable display interface.

**To configure a DM switcher complete with input and output cards, cables, and other peripherals, please use the online [DigitalMedia Switcher Configuration Tool](#).**

# DMC-C-DSP HDBaseT® Certified DM 8G+® Input Card w/Downmixing for DM® Switchers

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+® & HDBaseT® w/Deep Color & 3D  
**Output Signal Types:** HDMI® w/Deep Color & 3D (DVI compatible<sup>[4]</sup>)  
**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 Types:** DM 8G+, HDBaseT  
**Output Signal Types:** HDMI (multichannel pass-through from input), analog stereo (2-channel downmix of input signal), routes simultaneous multichannel and 2-channel downmix signals to the switcher backplane  
**Digital 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™, LPCM up to 8 channels  
**Analog Formats:** Stereo 2-channel  
**Decoder:** Cirrus Logic® CS49700 HD Audio Decoder DSP with dual 32-bit cores  
**Digital-To-Analog Conversion:** 24-bit 48 kHz  
**Analog Performance:** Frequency Response: 20Hz to 20kHz ±0.5dB;  
S/N Ratio: >95dB, 20Hz to 20kHz A-weighted;  
THD+N: <0.005% @ 1kHz;  
Stereo Separation: >90dB  
**Analog Volume Adjustment:** -80dB to 0dB  
**Downmix Delay Adjustment:** 0.0 to 100.0 ms

### Communications

**DigitalMedia:** DM 8G+, HDCP, EDID, CEC, PoDM, PoDM+, Ethernet  
**HDBaseT:** HDCP, EDID, PoH, Ethernet  
**HDMI:** HDCP, EDID, CEC

NOTE: Supports management of HDCP and EDID; supports management of CEC between the connected HDMI device and a control system

### Connectors

**HDMI OUT:** (1) 19-pin Type A HDMI female;  
HDMI digital video/audio output;  
Also supports DVI<sup>[4]</sup>

**DM IN:** (1) 8-pin RJ45 female, shielded;  
DM 8G+ input, HDBaseT compliant;  
PoDM and PoH PSE (Power Sourcing Equipment) port<sup>[2]</sup>;  
Connects to the DM 8G+ output of a DM transmitter or other DM device, or to a HDBaseT device, via CAT5e or Crestron DM-CBL-8G DigitalMedia 8G™ Cable<sup>[1]</sup>

**POE IN:** (1) 8-pin RJ45 female, PoE input;  
Connects to a DM-PSU-8 or DM-PSU-16 PoDM Power Supply, or to an 802.3af or 802.3at compliant PoE PSE (Power Sourcing Equipment), to enable PoDM and PoH power sourcing<sup>[2]</sup>

**AUDIO OUT:** (2) RCA female;  
Unbalanced stereo line-level audio output;  
Output Impedance: 100 Ohms nominal;  
Maximum Output Level: 2 Vrms

### Indicators

**DM IN:** (2) LEDs, green LED indicates DM link status, amber LED indicates video and HDCP signal presence

### Construction

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

### Weight

8.0 oz (227 g)

# DMC-C-DSP HDBaseT® Certified DM 8G+® Input Card w/Downmixing for DM® Switchers

## MODELS & ACCESSORIES

### Available Models

**DMC-C-DSP:** HDBaseT® Certified DigitalMedia 8G+® Input Card w/Downmixing for DM® Switchers

### Available Accessories

- DM-PSU-8:** 8-Port PoDM Power Supply for DM® Switchers
- DM-PSU-16:** 16-Port PoDM Power Supply for DM® Switchers
- DM-CBL-8G-NP:** DigitalMedia 8G™ Cable, non-plenum
- DM-CBL-8G-P:** DigitalMedia 8G™ Cable, plenum
- DM-8G-CONN:** Connector for DM-CBL-8G
- DM-8G-CRIMP:** Crimping Tool for DM-8G-CONN
- DM-8G-CONN-WG:** Connector with Wire Guide for DM-CBL-8G
- DM-8G-CRIMP-WG:** Crimping Tool for DM-8G-CONN-WG
- 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 cable length for DigitalMedia 8G+ (DM 8G+) or HDBaseT is 330 ft (100 m) using [DM-CBL-8G](#) DigitalMedia 8G cable, [DM-CBL](#) DigitalMedia Cable, [DM-CBL-D](#) DigitalMedia D Cable, or third-party CAT5e (or better) UTP or STP. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to the [Crestron DigitalMedia Design Guide, Doc. #4546](#) for complete system design guidelines. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant

- equipment. All wire and cables are sold separately.
2. Supplying Power over DM (PoDM) or Power over HDBaseT (PoH) via the DM IN port requires connection of the DMC-C-DSP's POE IN port to a PoDM Power Supply ([DM-PSU-8](#) or [DM-PSU-16](#), sold separately) or an 802.3af or 802.3at compliant PoE PSE. Supplying PoDM+ is supported using an 802.3at Type 2 Class 4 compliant PoE+ PSE, such as the Crestron [CEN-SWPOE-16](#) (sold separately). Refer to the connected DM 8G+ or HDBaseT device for its PoDM or PoH capabilities and requirements. Any wiring that is connected to a PoDM, PoH, or PoE PSE port is for intra-building use only and should not be connected to a line that runs outside of the building in which the PSE is located.
3. Item(s) sold separately.
4. DVI is supported via the HDMI output using a suitable adapter or interface cable. [CBL-HD-DVI](#) interface cables are 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.

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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