

# HDMI® Input Card for DM® Switchers

- > Modular input card for a DM-MD8X8, DM-MD16X16, or DM-MD32X32 switcher
- > Provides a single HDMI® input
- > 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<sup>[2]</sup>
- > Allows extraction of stereo 2-channel audio signals
- > Enables device control via CEC
- > Enables USB HID signal extension for a local computer
- > Compatible with Crestron USB over Ethernet Extenders<sup>[3]</sup>
- > Occupies a single DM switcher input card slot
- > Provides an HDMI problem solving solution using the optional DMCI card interface<sup>[4]</sup>

The DMC-HD is an input card designed for use with any card-based Crestron® DigitalMedia™ Switcher. It provides one HDMI® input, with associated HDMI pass-through and analog audio outputs. A USB HID port is also provided. The HDMI input handles 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. The HDMI input can also handle DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable.<sup>[1]</sup>

*NOTE: Refer to model **DMC-HD-DSP** for use with surround sound sources. Refer to models **DMC-4K-HD** and **DMC-4K-HD-DSP** for applications requiring support for higher resolutions up to 4K.*

## 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

The DMC-HD 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. The output volume is adjustable via a control system using a keypad, touch screen, handheld remote, or mobile device.<sup>[2]</sup>

*NOTE: For applications requiring the simultaneous distribution of multichannel surround sound and 2-channel stereo audio signals, use model **DMC-HD-DSP**.*



## USB Extender

Built-in USB HID signal routing allows a connected computer (or other USB HID-compliant host) to be controlled by a mouse and/or keyboard located at a presentation lectern, conference table, or some other remote location. Expanded USB signal routing capability is available using Crestron USB over Ethernet Extenders<sup>[3]</sup>.

## CEC Embedded Device Control

DigitalMedia offers an alternative to conventional IR and RS-232 device control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to a Crestron control system (via the DM switcher), the DMC-HD 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.

## Standalone HDMI Problem Solver

In addition to its use as an input card for DM switchers, the DMC-HD may also be used with the **DMCI** DigitalMedia Card Interface<sup>[4]</sup> to provide a handy problem-solving tool with many useful functions. It can be used to extract an analog audio signal from an HDMI stream, to provide a gateway for CEC device control, and to extend a USB HID mouse/keyboard signal over Ethernet. It can also be used to detect a device's video and audio information, manage its EDID, and assess its HDCP capabilities.

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

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

# DMC-HD HDMI® Input Card for DM® Switchers

## SPECIFICATIONS

### Video

**Input Signal Types:** HDMI®, DVI<sup>[1]</sup>, DisplayPort Multimode<sup>[1]</sup>

**Output Signal Types:** HDMI or DVI<sup>[1]</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 input

### Audio

**Input Signal Types:** HDMI or DisplayPort Multimode<sup>[1]</sup>

**Output Signal Types:** HDMI (multichannel) to switcher backplane and HDMI OUT connector, analog stereo 2-channel<sup>[2]</sup>, allows audio breakaway

**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™, up to 8ch PCM

**Analog Formats:** Stereo 2-channel

**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

### Communications

**HDMI:** HDCP, EDID, CEC

**USB:** Supports signal extension of USB HID class devices, expandable to support virtually any USB 1.1 or 2.0 device using Crestron USB-EXT-DM USB over Ethernet Extenders<sup>[3]</sup>

### Connectors

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

**HDMI IN:** (1) 19-pin Type A HDMI female;  
HDMI digital video/audio input;  
Also supports DVI and DisplayPort Multimode<sup>[1]</sup>

**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

**AUDIO OUT:** (2) RCA female;  
Unbalanced stereo line-level audio output <sup>[2]</sup>;  
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-HD:** HDMI® Input Card for DM® Switchers

### Available Accessories

**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

**USB-EXT-DM:** USB over Ethernet Extender with Routing

Notes:

1. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. **CBL-HD-DVI** interface cables are available separately.
2. The analog stereo audio output is only active when the input source is outputting a 2-channel stereo signal. For applications using a multichannel surround sound source, use model **DMC-HD-DSP** which provides simultaneous surround sound and stereo downmix output signals.
3. Compatible with Crestron **USB-EXT-DM-LOCAL** and **USB-EXT-DM-REMOTE** USB over Ethernet Extender modules, sold separately.
4. Item(s) sold 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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