

DMC-4K-HD

4K HDMI® Input Card for DM® Switchers

The DMC-4K-HD is an input card for a Crestron® DigitalMedia™ Switcher, providing one HDMI® input. The HDMI input supports Full HD 1080p, Ultra HD, 2K, and 4K video signals with HDCP, Deep Color, 3D, and high-bitrate HD multichannel audio. The HDMI input can also handle DVI and DisplayPort Multimode signals using an appropriate adapter or interface cable^[1].

In addition to the HDMI input, the DMC-4K-HD also includes HDMI and stereo analog audio outputs, and a USB HID device port. 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 HDMI input and passes it through to feed a multiroom audio distribution system.^[2]

NOTE: For applications requiring the simultaneous distribution of surround sound and 2-channel audio signals, use model [DMC-4K-HD-DSP](#).

The USB HID port connects to the source device (i.e. computer or media server) at the central equipment rack, allowing it to be controlled by a mouse or keyboard located in another room, or at a presentation lectern, conference table, or some other remote location. Expanded USB signal routing capability is available using [USB-EXT-DM](#) USB Extenders^[3].

The DMC-4K-HD may also be used with the [DMCI](#) DigitalMedia Card Interface^[3] to create a very handy problem-solving tool with many useful functions. For instance, it can be used to extract an analog audio signal from an HDMI or DisplayPort Multimode stream. As part of a complete Crestron control system, it can be used to detect and manage EDID and input source format information, to enable CEC device control, to assess a device's HDCP capabilities, and to extend a USB HID mouse/keyboard signal over Ethernet.

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

SPECIFICATIONS

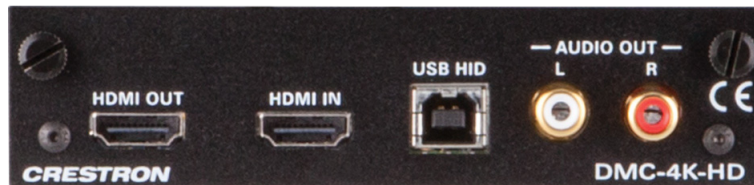
Video

Input Signal Types: HDMI®, DVI^[1], DisplayPort Multimode^[1]

Output Signal Types: HDMI or DVI^[1] to switcher backplane and HDMI OUT connector

Formats: HDMI w/Deep Color, 3D, & 4K; 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, 2560x1440@60Hz, 2560x1600@60Hz, 3840x2160@24Hz, 3840x2160@25Hz, 3840x2160@30Hz, 3840x2160@50Hz^[4], 3840x2160@60Hz^[4], 4096x2160@24Hz, 4096x2160@50Hz^[4], 4096x2160@60Hz^[4], plus any other resolution allowed by HDMI up to 300MHz 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 300MHz pixel clock

Output Resolutions: Matched to inputs

Audio

Input Signal Types: HDMI, DisplayPort Multimode^[1]

Output Signal Types: HDMI (multichannel) to switcher backplane and HDMI OUT connector, analog stereo 2-channel^[2], 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

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%

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 Extenders^[3]

Connectors

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

HDMI digital video/audio output;

Also supports DVI^[1]

DMC-4K-HD 4K HDMI® Input Card for DM® Switchers

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

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 with level control^[2];
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-4K-HD: 4K 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

USB-EXT-DM-LOCAL: USB Extender Module for Host

DMCI: DigitalMedia™ Card Interface

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-4K-HD-DSP](#) which provides simultaneous surround sound and stereo downmix output signals.
3. Item(s) sold separately.
4. 4K support at 50/60 Hz with 4:2:0 color sampling will be enabled through a future firmware update.

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.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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