

# VGA/Video Input Card for DM<sup>®</sup> Switchers

- > Modular input card for a DM-MD8X8, DM-MD16X16, or DM-MD32X32 switcher
- > Provides a single VGA input with balanced stereo analog audio
- > Accommodates VGA, RGB, component, S-Video, and composite video sources<sup>[1]</sup>
- > Handles computer resolutions up to WUXGA
- > Handles video resolutions up to Full HD 1080p
- > Converts analog computer and AV signals to digital
- > Employs high-quality 36 bit video and 24 bit audio sampling
- > Features advanced video processing with time base correction
- > Includes an HDMI<sup>®</sup> output for pass-through of the input signal
- > Enables USB HID signal extension for a local computer
- > Compatible with Crestron USB over Ethernet Extenders<sup>[2]</sup>
- > Occupies a single DM<sup>®</sup> switcher input card slot
- > Provides an analog AV to HDMI convertor using the optional DMCI card interface<sup>[3]</sup>

The DMC-VGA is an input card designed for use with any card-based Crestron<sup>®</sup> DigitalMedia<sup>™</sup> Switcher. It provides one VGA type input, with a complementary stereo audio input and HDMI<sup>®</sup> pass-through output. A USB HID port is also provided. The VGA input allows for the connection of an analog VGA, RGB, component, S-Video, or composite video source.<sup>[1]</sup> It handles computer resolutions up to WUXGA 1920x1200, as well as HD video up to 1080p60. Stereo audio is supported via a balanced line-level input.

## Digital AV Converter

Using high-quality 36 bit sampling, the DMC-VGA converts analog computer and video signals to digital for distribution over the DigitalMedia network. Analog audio signals are converted to 24 bit digital.

## Advanced Video Processing

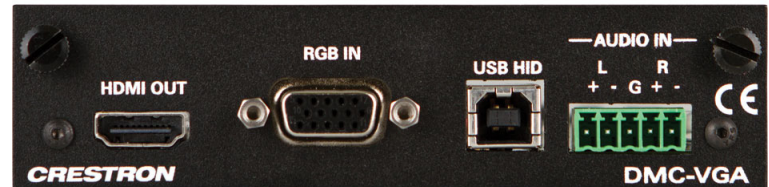
Featuring advanced signal processing with anti-alias filtering and 3D comb filtering, the DMC-VGA attains optimal picture quality from any analog computer, SD video, or HD video source, and is the preferred input card for use with all types of analog signals. With built-in time base correction, even VCRs and other video tape players can be handled reliably.

## HDMI<sup>®</sup> Pass-Through

Every DM<sup>®</sup> switcher input card includes an HDMI output port, which can be used to pass the audio and video input signals through to a local audio processor or video monitor, or to feed a second DM switcher for output expansion purposes.

## USB Signal Extension

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. Additional USB devices of virtually any type can be supported using Crestron USB over Ethernet Extenders (USB-EXT-DM)<sup>[2]</sup>.



## Multi-format Analog AV to HDMI Converter

In addition to its use as an input card for DM switchers, the DMC-VGA may also be used with the DMCI DigitalMedia Card Interface<sup>[3]</sup> to provide a handy problem-solving tool with many useful functions. It can be used to convert virtually any analog computer or AV signal to HDMI. It can also be used to detect input source format information, manage EDID, and extend a USB HID mouse/keyboard signal over Ethernet.

## Digital Upgrade for Legacy Systems

Whether installed in a DM switcher or DMCI, the DMC-VGA card affords a digital upgrade for analog-based systems like Crestron MPS and QuickMedia<sup>®</sup>. A simple HD15 VGA cable and balanced stereo audio cable connected between the output of an MPS system and the input of the DMC-VGA allows every RGB, component, S-Video, composite video, and audio input on the MPS to be converted to HDMI and DigitalMedia.<sup>[1]</sup>

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.

## SPECIFICATIONS

### Video

**Input Signal Types:** VGA, RGB (RGBHV, RGBS, RGsB), component (YPbPr), S-Video (Y/C), composite (NTSC, PAL)<sup>[1]</sup>

**Output Signal Types:** HDMI<sup>®</sup> (DVI compatible)<sup>[4]</sup>

**Input Resolutions, VGA/RGB<sup>[1]</sup>:** 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz,

# DMC-VGA VGA/Video Input Card for DM<sup>®</sup> Switchers

1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz

**Input Resolutions, Component** <sup>[1]</sup>: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60

**Input Resolutions, Composite & S-Video** <sup>[1]</sup>: 480i, 576i

**Output Resolutions:** Matched to input

**Analog-To-Digital Conversion:** 12-bit 170 MHz per each of 3 channels

## Audio

**Input Signal Types:** Analog stereo

**Output Signal Types:** HDMI (pass-through from input)

**Formats:** Stereo 2-channel

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

**Analog Performance:** Frequency Response: 20Hz to 20kHz  $\pm$ 0.75dB;

S/N Ratio: >95dB, 20Hz to 20kHz A-weighted;

THD+N: <0.005% @ 1kHz;

Stereo Separation: >90dB

## Communications

**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>[2]</sup>

**VGA:** EDID

**HDMI:** EDID, CEC

*NOTE: Supports management of 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>

**RGB IN:** (1) HD15 female;

VGA/RGB, component, S-Video, or composite video input <sup>[1]</sup>;

Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, NTSC, PAL;

Input Levels: 0.5 to 1.5 Vp-p with built-in DC restoration;

Input Impedance: 75 Ohms;

Sync Input Type: Autodetect RGBHV, RGBS, RGsB, YPbPr;

Sync Input Level: 3 to 5 Vp-p;

Sync Input Impedance: 510 Ohms

**USB HID:** (1) USB Type B female; USB device port for connection to a computer or other USB HID-compliant host

**AUDIO IN:** (1) 5-pin 3.5mm detachable terminal block;

Balanced/unbalanced stereo line-level audio input;

Input Impedance: 24k Ohms balanced/unbalanced;

Balanced Input Level: 4 Vrms maximum;

Unbalanced Input Level: 2 Vrms maximum

## 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-VGA:** VGA/Video Input Card for DM<sup>®</sup> Switchers

### Available Accessories

**CBL Series:** Crestron<sup>®</sup> Certified Interface Cables

**MP-WP Series:** Media Presentation Wall Plates

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

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

**DMCI:** DigitalMedia<sup>™</sup> Card Interface

Notes:

1. In addition to VGA and RGB, the VGA input can also accept component, composite, and S-Video signals through a 3-BNC breakout cable (not included). However, input sync detection is not provided for composite or S-Video signals.
2. USB-EXT-DM USB over Ethernet Extender Modules are sold separately. Refer to the [USB-EXT-DM](#) spec sheet for more information.
3. Item(s) sold separately.
4. HDMI requires an appropriate adapter or interface cable to accommodate a DVI signal. [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).

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