

HD-MD4X2-4K-E

4x2 4K HDMI® Switcher

- > 4x2 ultra high-definition 4K/60 digital AV switcher
- > For standalone use, or as part of a fully integrated Crestron® system
- > Fully operable using onboard controls, a Web browser, or a Crestron control system
- > Simplified setup through the front panel OLED display or Web browser
- > Four HDMI® inputs and two independent HDMI outputs
- > DVI and DisplayPort Multimode compatible^[1]
- > QuickSwitch HD® technology manages HDCP keys for fast, reliable switching
- > Comprehensive built-in EDID configuration tools
- > Handles Dolby® TrueHD, DTS-HD®, and uncompressed 7.1 linear PCM audio
- > High-speed Ethernet LAN connection
- > Compact, low-profile surface mount design
- > Universal 100-240V external power pack included



The Crestron® HD-MD4X2-4K-E is a simple to use, ultra high-definition signal switcher with four HDMI® inputs and two HDMI outputs. It handles Full HD 1080p, Ultra HD, 2K, and 4K video signals with support for HDCP, 3D, Deep Color, and high-bitrate 7.1 audio. Operation is enabled using the onboard controls, a Web browser, or a Crestron control system. Simplified setup is facilitated through the front panel OLED display or a Web browser.

4K Ultra HD

Support for 4K video is essential to ensuring support for the latest generation of UHD and 4K DCI displays and sources, as well as computers and monitors with native resolutions beyond 1080p and WUXGA.

QuickSwitch HD® Technology

Handling digital media signals means handling HDCP (High-bandwidth Digital Content Protection), the encryption scheme used by content providers to protect their DVDs, Blu-ray™ discs, and broadcast signals against unauthorized copying. Viewing HDCP encrypted content requires a source device to “authenticate” each display and signal processor in the system and issue it a “key” before delivering an output signal. Crestron QuickSwitch HD manages these keys to ensure fast, reliable switching and immunity to “blackouts.”

EDID Format Management

To ensure that every source gets displayed at its optimal resolution and format, the HD-MD4X2-4K-E provides comprehensive management of the EDID (Extended Display Identification Data) information that passes between the display and source devices. Most applications require no changes to the default settings. For applications requiring custom configuration, the HD-MD4X2-4K-E allows for easy assessment of each device's format and resolution capabilities, with the ability to configure signals appropriately for the most desirable and predictable behavior.

Low-Profile Installation

The HD-MD4X2-4K-E mounts conveniently to a wall or other flat surface. At just over one inch deep, it can fit easily behind a flat panel display or under a table. It can also be placed on a rack shelf, or attached to a single rack rail.

SPECIFICATIONS

Features

4x2 digital AV switcher, QuickSwitch HD® technology, local or Web browser setup and control, Crestron® controllable

Video:

Input Signal Types: HDMI® w/Deep Color, 3D, & 4K (DVI & DisplayPort Multimode compatible^[1])

Output Signal Types: HDMI w/Deep Color, 3D, & 4K (DVI compatible^[1])

Maximum Resolutions:

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 4K DCI & 3840x2160 Ultra HD	24 Hz	4:4:4	30 bit
		30 Hz	4:4:4	24 bit
		30 Hz	4:2:2	36 bit
		60 Hz	4:2:0	24 bit
	2560x1600 WQXGA	60 Hz	4:4:4	36 bit
	1920x1080 HD1080p	60 Hz	4:4:4	36 bit
Interlaced	1920x1080 HD1080i	30 Hz	4:4:4	36 bit

NOTE: Common resolutions are shown; other custom resolutions are supported at pixel clock rates up to 300 MHz

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Audio

Input Signal Types: HDMI (DisplayPort Multimode compatible^[1])

Output Signal Types: HDMI

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^[6]

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, Web browser setup and control, Crestron control system integration

USB: For factory use only

HDMI: HDCP, EDID

NOTE: Supports management of EDID

Connectors

INPUT 1 – 4: (4) 19-pin Type A HDMI female;

HDMI digital video/audio inputs;

Also supports DVI and DisplayPort Multimode^[1]

OUTPUT 1 – 2: (2) 19-pin Type A HDMI female;

HDMI digital video/audio outputs;

Also supports DVI^[1]

LAN: (1) 8-wire RJ45 female;

10Base-T/100Base-TX Ethernet port

24VDC 0.75A: (1) 2.1 x 5.5 mm DC power connector;

24 Volt DC power input;

PW-2407WU power pack included

SERVICE: (1) USB Type A female;

For factory use only

Display

Display Type: 2x20 character alphanumeric OLED

Functions: Displays setup and configuration menus, signal information, customizable input names

Controls & Indicators

MENU: (1) pushbutton, opens the setup menu

▲, ▼, ◀, ▶: (4) pushbuttons, for menu navigation and parameter adjustment

Enter: (1) pushbutton, applies a change

BACK: (1) pushbutton, steps menu back one level

EXIT: (1) pushbutton, exits the menu

PWR: (1) bicolor green/amber LED, indicates operating power supplied from power pack, turns amber while booting and green when operating

INPUT 1 – 4: (4) pushbuttons for input selection, and (4) bicolor green/amber LEDs to indicate which input is currently routed or pending output selection, and signal presence at each corresponding input

OUTPUT 1 – 2: (2) pushbuttons for output selection, and (2) bicolor green/amber LEDs to indicate sink detection and signal presence at each corresponding HDMI output



HD-MD4X2-4K-E – Top, Front, and Bottom Views

LAN: (2) LEDs, amber LED indicates Ethernet activity, green LED indicates Ethernet link status

Power Requirements

Power Pack: 0.75 Amps @ 24 Volts DC;

100-240 Volts AC, 50/60 Hz power pack, model PW-2407WU included

Environmental

Temperature: 32° to 104°F (0° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Metal, black finish, with (2) integral mounting flanges

Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 4.08 in (104 mm)

Width: 8.68 in (221 mm)

Depth: 1.08 in (28 mm)

Weight

1.35 lb (0.62 kg)

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MODELS & ACCESSORIES

Available Models

HD-MD4X2-4K-E: 4x2 4K HDMI® Switcher

Included Accessories

PW-2407WU: Wall Mount Power Pack, 24VDC, 0.75A, 2.1mm, Universal (Qty. 1 included)

Available Accessories

CBL Series: Crestron® Certified Interface Cables

MP-WP Series: Media Presentation Wall Plates

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

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.

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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