

HD-MD2X1-8K

2x1 8K AV Switcher and Smart Display Controller



- *Device control options include CEC, RS-232, IR, Relay, and digital input ports*
- *Two HDMI® inputs*
- *Automatic or scheduled display power on/off*
- *8K60 4:4:4 signal supported*
- *HDMI 2.1 and HDCP 2.3 compliance*
- *HDR10, HDR10+, and Dolby Vision® video formats*
- *Provides RS-232 COM port with software handshaking*
- *EDID management*
- *XiO Cloud® service support*
- *Crestron Home OS® support*
- *Crestron Driver support*
- *Enterprise-grade security*
- *Built-in web interface*
- *PoE (Power over Ethernet) network powered*
- *No programming or control processor required*

The HD-MD2X1-8K is a 2x1 8K AV Switcher and Smart Display Controller that provides a variety of options for controlling displays without a control processor. Ideal for unified communications, digital signage, and presentation spaces, the HD-MD2X1-8K can be configured to automatically power displays on and off based on schedule, room occupancy, or video sync detect. The HD-MD2X1-8K can also be utilized in residential systems to control a variety of devices such as garage doors and TV lifts.

CEC Control

CEC (Consumer Electronics Control) can control the source and display devices via the HDMI connection, potentially eliminating the need for dedicated serial cables or IR emitters, as well as eliminating the need for a control system. CEC over the HDMI output can also enable the display devices to be turned on or off automatically.

Device Control via RS-232, IR, Relay, and Digital Input Ports

The HD-MD2X1-8K includes built-in COM (RS-232), IR, relay, and digital input ports for control of source devices and accessories.

Automatic Switching of Inputs

Automatic switching between two HDMI inputs can occur based on the last connected input or on the routing priority assigned to each input. Switching behavior is configurable using the web interface or programmable using a Crestron control system. In addition, input selection push buttons on the front panel of the HD-MD2X1-8K enable the desired input to be selected manually.

Built-In Web Interface

Full configuration of the HD-MD2X1-8K can be accomplished using the built-in web interface. To simplify system installation, the configuration of a single unit can be downloaded to a computer or mobile device and then uploaded to multiple HD-MD2X1-8K units.

EDID Management

The HD-MD2X1-8K provides comprehensive management of EDID (Extended Display Identification Data) to ensure that every source is displayed at the optimal resolution and format. For applications requiring a custom configuration, the HD-MD2X1-8K enables assessment of the format and resolution capabilities of any device that is connected to the HDMI output. The HD-MD2X1-8K provides the ability to configure signals appropriately for the most desirable and predictable behavior.

8K60 4:4:4 and HDR Support

The HD-MD2X1-8K supports video resolutions up to 8K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® are also supported.

Enterprise-Grade Security

The HD-MD2X1-8K includes advanced security features and protocols. Using 802.1X authentication, Active Directory® credential management, PKI authentication, TLS, SSH, and HTTPS, the HD-MD2X1-8K provides a true enterprise-grade AV switcher.

XiO Cloud® Service Support

The HD-MD2X1-8K is compatible with the XiO Cloud service, which is an IoT (Internet of Things) platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. Built on the Microsoft® Azure® software platform and using industry-leading Azure IoT Hub technology, the XiO Cloud service enables installers and IT managers to easily deploy and manage thousands of devices. Unlike other virtual machine-based cloud solutions, Azure services provide unlimited scalability to suit the ever-growing needs of an enterprise. For more information, visit www.crestron.com/xiocloud.

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Specifications

Video

Input Signal Types	HDMI with HDR10, HDR10+. Dolby Vision™, Deep Color, 8K60 4:4:4 support (DVI and Dual-Mode DisplayPort™ interface compatible)
Output Signal Types	HDMI with HDR10, HDR10+, Dolby Vision, Deep Color, and 8K60 4:4:4 support (DVI compatible)

Audio

Input Signal Types	HDMI (Dual-Mode DisplayPort interface compatible)
Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS-ES, DTS 96/24, DTS HD® High Res, DTS-HD Master Audio, DTS: X®, LPCM up to 8 channels

Connectors

HDMI IN 1 and 2	(2) 19-pin Type A connectors, female; HDMI 2.1 compliant digital video/audio inputs (DVI and Dual-Mode DisplayPort interface compatible)
HDMI OUT	(1) 19-pin Type A connector, female; HDMI digital video/audio output (DVI compatible)
IN	(1) 2-pin 3.5 mm detachable terminal block; Digital input; Input Voltage Range: 0–24VDC; Logic Threshold: $\geq 2.0\text{VDC}$ 0/low, $\leq 1.1\text{VDC}$ 1/high; Input Impedance: 2.2k Ohms pulled up to 5V
COM	(1) 3-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port; Supports RS-232 up to 115.2k baud with software handshaking
IR	(1) 2-pin 3.5 mm detachable terminal block; IR output control port; Supports IR up to 60 kHz; IRP2 IR emitter probe sold separately
RELAY 1-2	(2) 2-pin detachable terminal blocks; Comprised of 2 normally open, isolated relays; Rated 1A, 30VAC/VDC; MOV arc suppression across contacts
Ethernet	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port; Provides network connectivity to secondary device

Ethernet PoE	(1) 8-pin RJ-45 connector, female; 100BASE-TX/1000BASE-T Ethernet port; PoE Class 3 powered device (PD) port, 8.2 W Maximum
Ground	(1) 6-32 screw, chassis ground lug

Controls and Indicators

PWR	(1) LED; Amber indicates that the device is booting; Green indicates that the device is operational.
INPUT 1 and 2	(2) LEDs; Green indicates an HDMI signal; Amber indicates the device is ready for an HDMI signal. (2) Pushbuttons; Push button to select the active input
HDMI OUT	(1) LED; Green indicates an HDMI signal; Amber indicates the device is ready for an HDMI signal.
AUTO	(1) LED; Green indicates automatic switching is active.
RESET	(1) LED indicates the device is being reset.
ETHERNET 1	(2) LEDs on RJ-45 connector; Green indicates that a 100BASE-TX link is established; Flashing amber indicates Ethernet activity.
ETHERNET 2 PoE	(2) LEDs on RJ-45 connector; Green indicates that a 100BASE-TX link is established; Flashing amber indicates Ethernet activity.

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 95% RH (noncondensing)

Construction

Chassis	Metal, black finish, vented sides
Mounting	Surface mountable or attachment to a single rack rail

Dimensions

Height	1.12 in. (28 mm)
Width	8.36 in. (212 mm)
Depth	3.88 in. (99 mm)

Weight

1.22 lb (.55 kg)

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Compliance

Regulatory Model: M202116002

Model

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Available Accessories

For a list of available accessories, visit the [HD-MD2X1-8K](#) product page.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative in your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting www.crestron.com/contact/our-locations for your local contact.

The original language version of this document is U.S. English. All other languages are a translation of the original document.

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed online at www.crestron.com/legal/patents.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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HDMI

Specifications are subject to change without notice.

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