

OCTAVA™

4x4 HD Matrix Switch

Model: 44UHDMX-4k

Installation Guide

Rev: A

Safety Information:



Electrical safety

- Use only the power supplies and the AC power cord that were included with your product.
Use of other power supplies could damage the product or cause shock, or other hazards
- For Indoor Use only
- Avoid excessive humidity, or temperature extremes
- Do not place the product in any area where it may become wet.
- Unplug the power supplies and the AC power cord before cleaning, or removing any panels for servicing.
- When adding or removing devices to or from the product, disconnect all power cables from the existing product before you add a device.

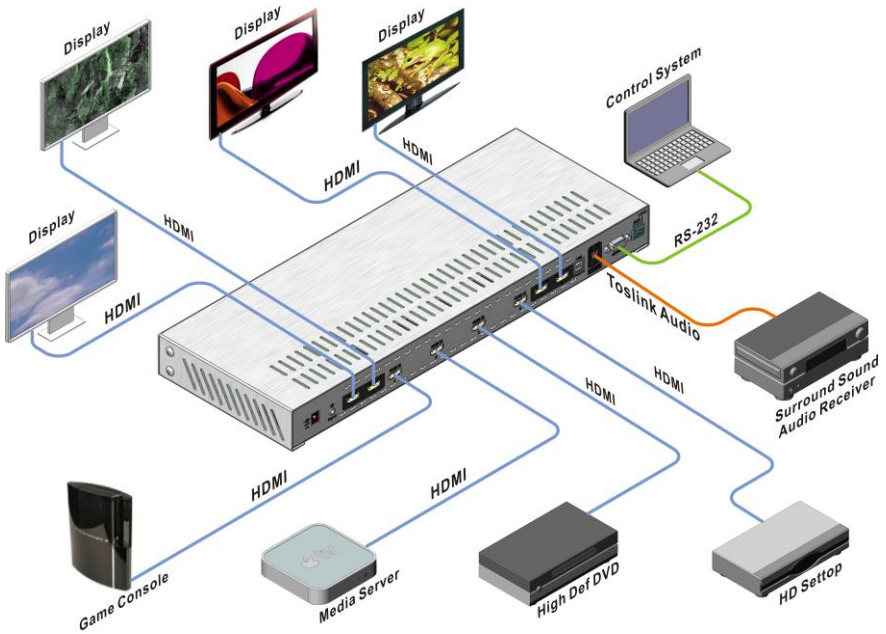
Operation safety

- Install the product in a well ventilated location. Keep ventilation opening free of obstructions.
- Don't block any ventilation openings on the unit.
- Avoid dust, humidity, and temperature extremes.
- Do not place the product in any area where it may become wet.

If you are unsure, please contact your authorized service center.

Contents

Safety Information.....	2
Application Diagram.....	4
Installation.....	4
Description.....	5
Features.....	5
Remote Control Guide	7
RS232 Control Commands	8
Port Status Feedback	10
USB Service Port.....	10
EDID Configuration	11
Changing EDID mode.....	12
1 RU Rackmount.....	14
Disabling / Enabling IR Remote Control Receiver.....	14
Warranty.....	15
Disclaimers.....	15
Specifications.....	16



Application Diagram

Installation:

Install the 44UHDMX-4k in a well ventilated location. Keep ventilation slots free of obstructions.

- 1) Connect HD display, A/V receiver to OUTPUTS A-D
- 2) Connect video sources to INPUTS 1-4
- 3) Turn On HD display, A/V receiver, video sources.
- 4) Connect DC power adapter to power on Matrix

Description:

The Octava Pro series HDMI Matrix Switch allows you to route 4 HD sources to any 4 HD displays. The 4x4 HDMI matrix allows 256 viewing combination of 4 HD sources on 4 HDTVs. The 4x4 HDMI Matrix switch utilized latest switching technology to provide very **Fast Switching**.

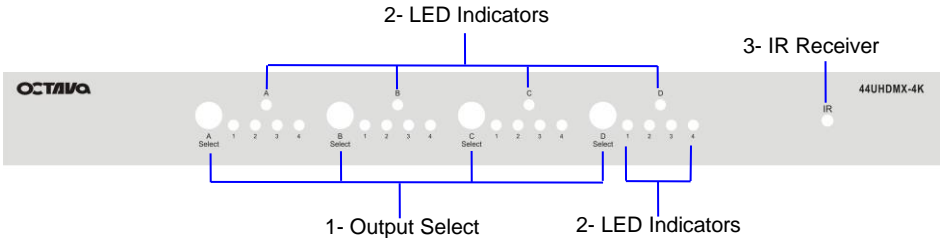
The Pro Series 44UHDMX-4k supports 3840x2160/24P. The unit is 1 RU Rack mountable for professional installations. In addition, the 44UHDMX-4k incorporates sophisticated EDID management and an USB service port for customization to your theater system. An Optical Audio Output is provided for integration with audio system

RS-232 serial interface is provide for integrating with 3rd party control systems.

Features:

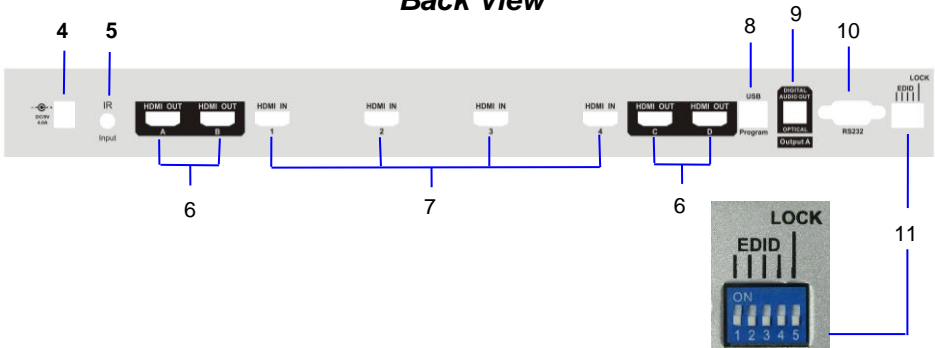
- Full HD 1080P
- 4 HDMI inputs, 4 HDMI outputs.
- Fast Switching
- 256 viewing combinations
- Supports high resolution video 480p, 720i/p, 1080i/p, 3840x2160/24P
- Optical Audio Output for integration with audio system
- EDID Management , USB service port for customization needs.
- RS-232 control
- Remote Control (IR) included. Discrete Code allows direct channel control.
- External IR Jack for extension
- 1 RU mountable (rack mount included)

Front View



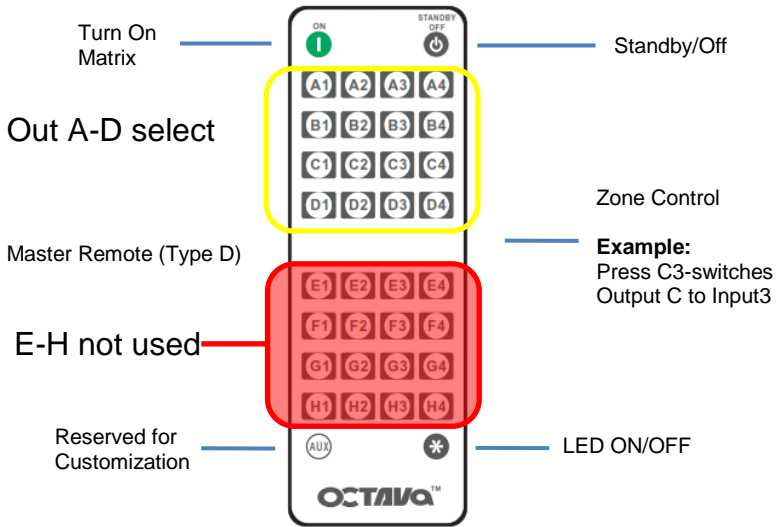
	Item	Description
1	Output Select	Press to select switch input sources
2	LED Indicator	
3	IR Receiver	IR receiver

Back View



	Item	Description
4	Power 9V	
5	Wired IR input	connect Octava supplied IR Receiver Extension cable (optional) for hidden cabinet installs requiring line of sight for IR control.
6	HDMI Outputs(A-D)	connect High Speed HDMI cables to AVR or Display device.
7	HDMI Input (1-4)	connect High Speed HDMI cables to Source device.
8	USB Port	for custom EDID/ code updates
9	Optical Audio Output	Outputs audio over Toslink. Audio will play the Out A source selection.
10	RS232 Port	for external control of Matrix via PC or 3rd party Control system.
11	EDID Switch	For EDID Management. See page 11

Remote Control Guide:



RS232 Control Commands:

The Octava 4x4 HD Matrix Switch can be easily integrated with 3rd Party control systems via RS232 control.

RS-232 protocol	
Baud Rate	9600
Data Bits	8
Parity Check	none
Stop Bits	1
Flow control	none

RS232 Command Table

Basic controls					
Note: The commands are in HEX. No spaces between HEX codes.					
	HEX CODE				
Port Status	0x02	0x30	0x30	0x31	0x03
Turn ON LED	0x02	0x30	0x30	0x33	0x03
Turn OFF LED	0x02	0x30	0x30	0x34	0x03
Turn ON Power	0x02	0x30	0x30	0x35	0x03
Turn OFF Power	0x02	0x30	0x30	0x36	0x03

Example:

To turn off LED. Send Command:

02 30 30 34 03 in Hex

Switching Commands	
Note: The commands are in HEX. No spaces between HEX codes.	
Output A Switching Commands	HEX CODE

Select OUT A to Input port 1	0x02	0x32	0x31	0x31	0x03
Select OUT A to Input port 2	0x02	0x32	0x31	0x32	0x03
Select OUT A to Input port 3	0x02	0x32	0x31	0x33	0x03
Select OUT A to Input port 4	0x02	0x32	0x31	0x34	0x03
Output B Switching Commands					
Select OUT B to Input port 1	0x02	0x32	0x32	0x31	0x03
Select OUT B to Input port 2	0x02	0x32	0x32	0x32	0x03
Select OUT B to Input port 3	0x02	0x32	0x32	0x33	0x03
Select OUT B to Input port 4	0x02	0x32	0x32	0x34	0x03
Output C Switching Commands					
Select OUT C to Input port 1	0x02	0x32	0x33	0x31	0x03
Select OUT C to Input port 2	0x02	0x32	0x33	0x32	0x03
Select OUT C to Input port 3	0x02	0x32	0x33	0x33	0x03
Select OUT C to Input port 4	0x02	0x32	0x33	0x34	0x03
Output D Switching Commands					
Select OUT D to Input port 1	0x02	0x32	0x34	0x31	0x03
Select OUT D to Input port 2	0x02	0x32	0x34	0x32	0x03
Select OUT D to Input port 3	0x02	0x32	0x34	0x33	0x03
Select OUT D to Input port 4	0x02	0x32	0x34	0x34	0x03

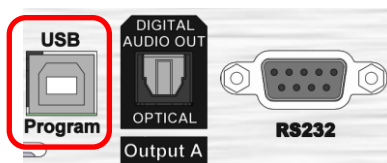
Port Status Feedback:

The matrix can return a 19byte feedback string to provide status.

	Description	Feedback Status code: byte 1 → STX 111111111111222222ETX ← byte 19
Byte 1	STX	Start of Text (header)
Byte 2	states which HDMI input OUTPUT A is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 3	states which HDMI input OUTPUT B is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 4	states which HDMI input OUTPUT C is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 5	states which HDMI input OUTPUT D is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 6	states which HDMI input OUTPUT E is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 7	states which HDMI input OUTPUT F is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 8	states which HDMI input OUTPUT G is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 9	states which HDMI input OUTPUT H is viewing (Input 1,2,3 or 4)	1=Input 1 selected, 2 = Input 2 selected, 3=Input 3 selected, 4= Input 4 selected, N = not applicable
Byte 10	states if HDMI Input 1 is connected and detected.	0 = HDMI input 1 NOTdetected, 1 = HDMI input 1 detected, N = not applicable
Byte 11	states if HDMI Input 2 is connected and detected.	0 = HDMI input 2 NOTdetected, 1 = HDMI input 2 detected, N = not applicable
Byte 12	states if HDMI Input 3 is connected and detected.	0 = HDMI input 3 NOTdetected, 1 = HDMI input 3 detected, N = not applicable
Byte 13	states if HDMI Input 4 is connected and detected.	0 = HDMI input4 NOTdetected, 1 = HDMI input 4 detected, N = not applicable
Byte 14	LED on or off	0= LED OFF, 1= LED ON, N = not applicable
Byte 15	Scan on or off	0= SCAN OFF, 1= SCAN ON, N = not applicable
Byte 16	Standby or ON	0= Standby , 1= ON, N = not applicable
Byte 17	States Optical Output source	5= HDMI Audio N=NA
Byte 18	Aux Audio Input selection	0=Aux audio input NOT selected, 1 = Aux Audio input selected, N=NA
Byte 19	ETX	End of Text (header)
	Invalid Command	STX?invalid?command? ETX

USB Service Port:

The USB port is for service and EDID updates if needed.
Contact us for this feature.



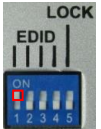
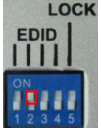
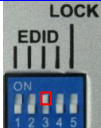
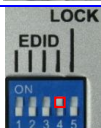
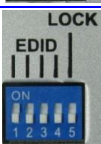
EDID Configuration:

The Matrix is preloaded with 5 common EDID configurations.

It is recommended to keep the EDID in the default factory mode 1 for most Applications.





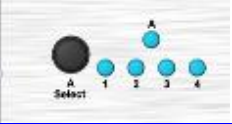

Custom EDID mode can be downloaded via USB. Contact us for this feature.


To change the EDID settings, please see section “*changing EDID settings*” for programming instructions.

Mode	Video	Audio	Description	Settings
1	480P,720i/P, 1080i/P	2 CH PCM	Default Mode.	
2	480P,720i/P, 1080i/P	2 CH PCM, Bitstream (Dolby Digital, DTS)		
3	480P,720 I/P, 1080 i	2 CH PCM	Basic Mode.	
4	480P,720i/P, 1080i/P + 3840x2160/24P	2 CH PCM	UHD 4K 2CH PCM mode	
5	Read EDID of all displays /receivers and set: Video=MAXIMUM Resolution of devices connected. Example: If a 1080i and 1080P capable display are both connected, the 1080P EDID is stored.	Read EDID of all displays /receivers and set: AUDIO= MAXIMUM capability of devices connected. Example: If a 2ch PCM and 5.1 audio capable display are both connected, the 5.1 audio EDID is stored.	Learn Mode OR Custom Mode	

Changing EDID mode:

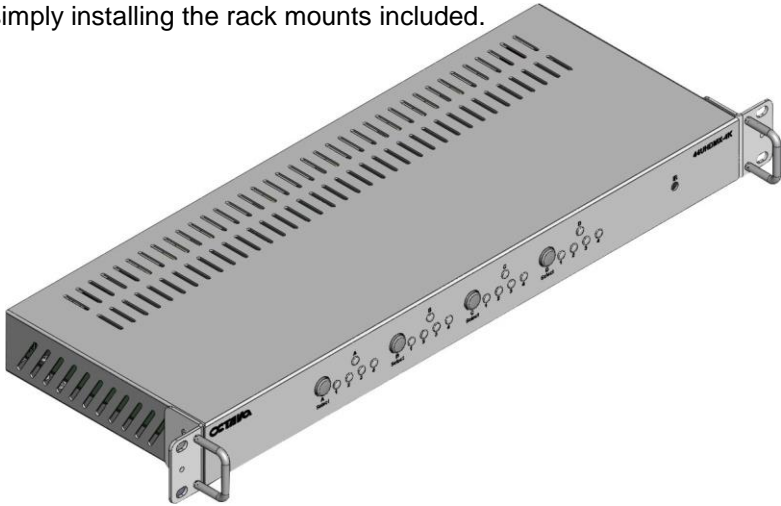
It is recommended to keep the EDID in the factory default MODE1. If necessary, you may set to different EDID mode by following these instructions.

Step	Action		Notes
1	Disconnect all sources and display from Matrix		
2	Set switch 1,2,3,4,5 to down position as shown		
3	Set the EDID to the mode desired. (MODE 2 shown.)	See page 11 for other EDID modes	
4	Reset Power to the Matrix by disconnecting the power and reconnecting power.		
5	The LED will now indicate the EDID Mode that you will program.(mode 2 shown)	LED will flash: 1=Mode 1 2=Mode 2 3=Mode 3 4=Mode 4 1+4=Mode 5	
6	Press the "A" button on the front panel. LED will flash for ~2 min while programming.	Programming will take ~2 minutes. LED will flash while programming.	
7	Wait. Programming is complete when LED indicates "1"		

8	Set the Program/ LOCK switch #5 to LOCK Position (UP)		
9	Connect all video sources and displays to Matrix and turn ON		
10	Re-power the Matrix.		

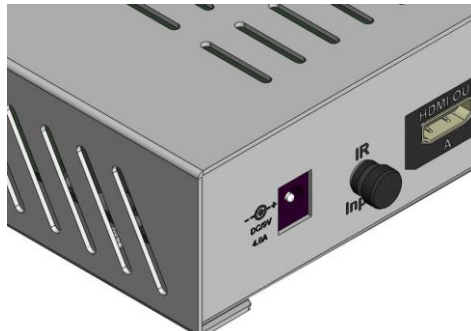
1 RU Rackmount:

The Octava 4x4 HD Matrix Switch can be installed in a 1 RU rack by simply installing the rack mounts included.



Disabling back side IR Remote Receiver:

To disable the back side IR remote receiver-insert the plastic plug into the IR jack as shown.



Back side
IR receiver -disabled

Warranty

Octava warrants the equipment purchased to be free from defects in material and workmanship under normal use and service for a period of 1 year. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 1 year from the date of receipt. If Octava's equipment fails because of defects (1) year from the date of receipt, Octava will at its option, A) repair or replace the equipment, or B) request return of equipment for refund of the price paid for the product provided that the equipment has not been subjected to mechanical, electrical or other abuse or modifications. Proof of sale required to claim warranty.

Disclaimers

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Description	Specifications
Model	44UHDMX-4k
HDMI Inputs	4
HDMI Outputs	4
Digital Optical Audio Output	1 (mirrors output A)
RS-232 control port	1
Display Selection	Remote, Manual, RS232
Video Resolution	480P,720i/p, 1080i/p, 3840x2160/24P
Dimension	16.85 x 6.29 x 1.67 inch (427.9 x 159.75 x 42.3 mm)
DC adapter (included)	9VDC, 4.0A
Rackmount capable	1RU, Rack mounts included
Remote control (IR)	Infrared, Discrete code

For Questions and support:

Email : info@octavainc.com

URL: www.octavainc.com

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