

OCTAVA™

4x2 HD Matrix + 7.1 Audio

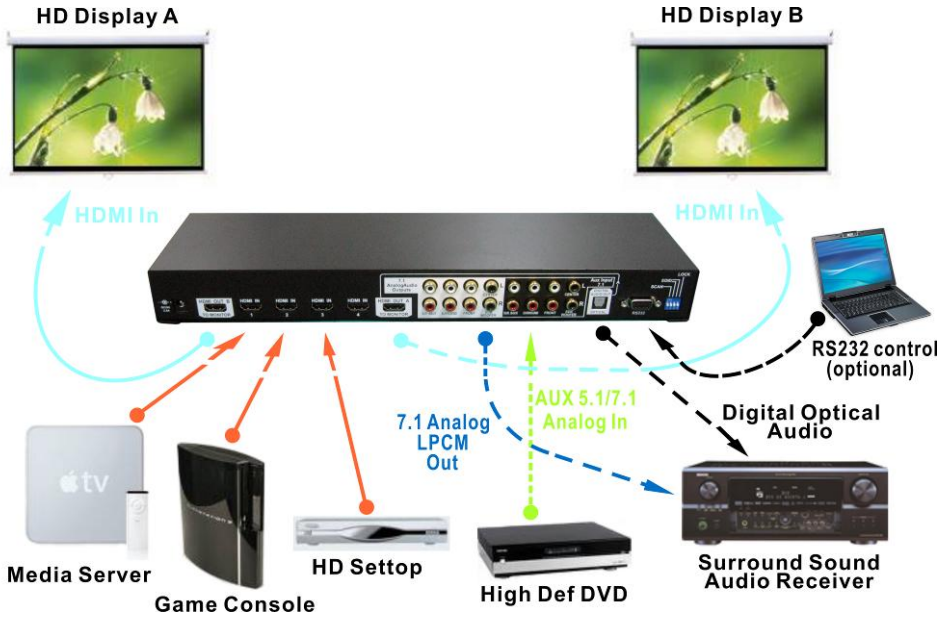
PRO HD HOME THEATER SERIES

Model: HDMXA71-V1.3

Installation Guide

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Application Diagram

Installation:

- 1) Connect the Monitor(s) to the HDMI OUT ports
- 2) Connect the HDMI source to the HDMI INPUT
- 3) Connect audio cables (optional)
- 4) Connect the DC power adapter

Configuring Smart Scan™:

The Smart Scan is disabled before shipment. It is recommended to leave Smart Scan disabled in most applications.

To enable the **Smart Scan™**

- 1) Set the Configuration switch #1 to the up position.
- 2) Re-power the matrix.

To disable **Smart Scan™**

- 1) Set the Configuration switch #1 to the down position.
- 2) Re-power the matrix.



SCAN=ON



SCAN=OFF

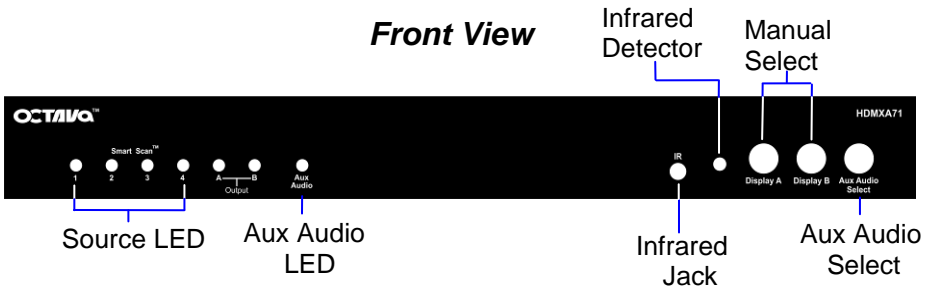
Description:

Are you looking to route HDMI and 5.1/7.1 LPCM Audio to your existing Surround Sound System? This unique 4x2 HDMI switch routes both HDMI and 5.1/7.1 LPCM (8ch.) Analog Audio. Perfect for systems using PS3 which has internal LPCM decoding on HDMI. The 4x2 can take the decoded LPCM from the PS3 and convert to 5.1/7.1 (8ch.) Analog Audio for easy integration with your high end 5.1/7.1 audio receiver/amp. In addition, an Auxillary 5.1/7.1 (8ch.) audio Input allows you to connect a second Analog 5.1/7.1 source to your surround system.

Features:

- Version 1.3
- Full **6.75 Gbps, 1080P**
- 4 HDMI inputs, 2 HDMI outputs
- 5. 1/ 7.1 LPCM Analog audio output (8ch.)
- Aux 5.1/7.1 analog Input port (8ch.)
- Optical Toslink Digital Audio Output.
- Supports high resolution video 480 I/P, 720 I/P, 1080 I/P
- **Clear EYE™** design optimizes HDMI signal transmission
- Seamless integration with your existing Audio Receiver.
- Remote Control (IR) included. Discrete Code allows direct channel control.
- 1RU rack mountable.
- External IR jack for extension.

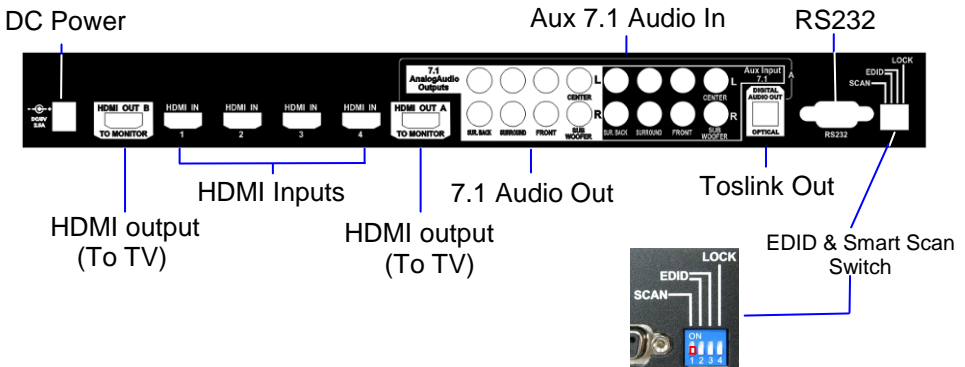
Front View



Front Panel Button	Function	
Display A button	Press to switch the Display A input source	
Display B button	Press to switch the Display B input source	
Aux Audio Select	Press to switch between Aux 7.1 Input (bypass) and 7.1 audio from the HDMI (see Note1)	-AUX Audio Select Led will illuminate when bypass mode is selected.

Note1: You must set your PS3, or DVD player to LPCM decoding mode in order to use the 7.1 Analog Audio Output from HDMI.

Back View

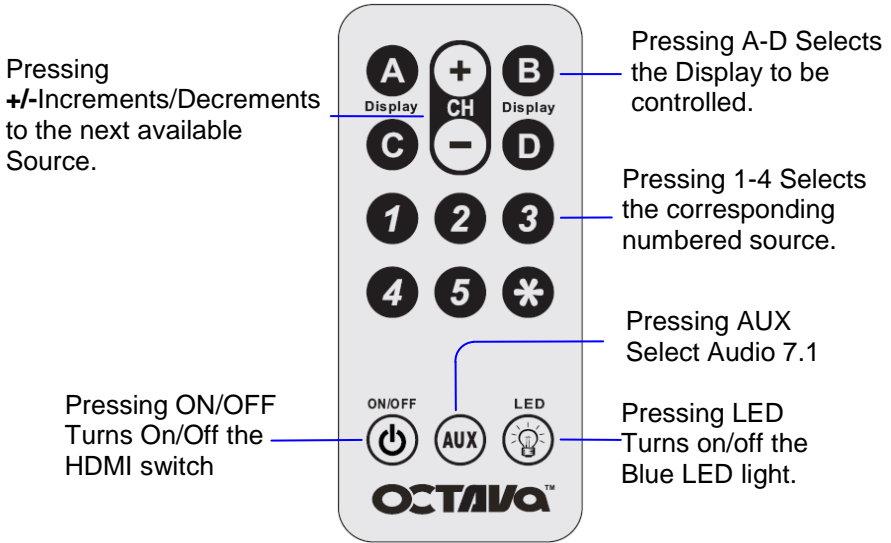




Back Side Connectors	Function	
HDMI Inputs	Connect to video sources	
HDMI Outputs A and B	Connect to HDTV displays	
Optical Digital Output	Connect to Audio Receiver. Optical output will output audio for the source being viewed on HDMI Out A	
7.1 Analog Audio Outputs	Connect to Audio Amp/receiver.	Note1:
Aux Input 7.1	-for Bypass mode. -Connect to DVD player Analog Audio Outputs. Routes Analog Audio output directly from DVD player to the 7.1 Analog Audio Output	-Bypass mode. -AUX Audio Select Led will illuminate when bypass mode is selected.

Note1: You must set your PS3, or DVD player to LPCM decoding mode in order to use the 7.1 Analog Audio Output from HDMI.

Switch Number	1	2	3	4
Name	Smart Scan Switch	EDID switch	EDID switch	Programming/LOCK switch
Function	Enable/disable Smart Scan	EDID MODE select	EDID MODE select	Programming/LOCK
	Down = Smart Scan Off Up= Smart Scan ON			Down= EDID Programming mode Up= Locked

Remote Control Guide:



Button	Function	Notes
+, -	Increments/Decrements to the next available Source	
1,2,3,4	Selects the corresponding numbered source.	
	Turns ON/OFF the LED light.	
	Turns ON/OFF the HDMI switch	
Other	Not used	

Octava's Remote control uses discrete code so can be easily integrated with most Universal Remote Controls such as Logitech's Harmony.

Basic Quick Start:

Use the remote control to select the Display that you wish to control followed by the Input (DVD, Settop) that you wish to watch.

For example:

-Pressing **Display B, “2”** will switch Input 2 to HDMI Out B.

-To connect **DIPLAY A to IN1 and DISPLAY B to IN3** you simply follow this sequence

Step 1) **Display A, 1 (this will set Display A to Input 1)**

Step 2) **Display B, 3 (this will set Display B to Input 3)**

Here are some more examples:

Output Selection (Step 1)	Input Selection (Step2)	Result
DISPLAY A	“2”	Display A switches to Input 2
DISPLAY B	“1”	Display B switches to Input 1
DISPLAY A	“+”	Display A increments to next available Input
DISPLAY B	“-”	Display B decrements to next available Input

RS232 Control Commands:

The Octava HD HDMXA71 can be easily integrated with 3rd Party control systems via RS232 control. The following shows the control protocol:

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

Controlling the HDMXA71 via RS232 can be done by send a series of commands per the **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
Turn ON Smart Scan	0x02	0x30	0x30	0x37	0x03
Turn OFF Smart Scan	0x02	0x30	0x30	0x38	0x03

Example:

Send Command:

02 30 30 34 03 in Hex
To turn off LED

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



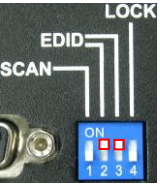
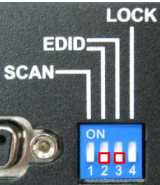
Switching Commands					
Note: The commands are in HEX. No spaces between HEX codes.					
	HEX CODE				
Aux Analog ON/ HDMI 7.1 Audio OFF	0x02	0x39	0x30	0x31	0x03
Aux Analog OFF / HDMI 7.1 Audio ON	0x02	0x39	0x30	0x32	0x03

EDID Configuration:

The HDMXA71 can be configured to 4 EDID settings.

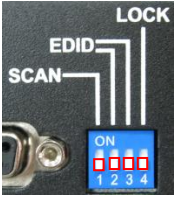
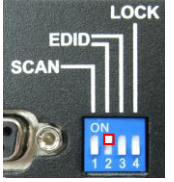


It is recommended to keep the EDID in the default factory mode 1.

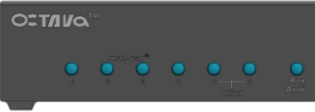


To change the EDID settings, please see section “changing EDID settings” for programming instructions.

Mode	Video	Audio	Description	Switch settings
1	480I,720I/P, 1080I/P	PCM, Bitstream (Dolby Digital, DTS)	Default Mode. Internal EDID	
2	Read EDID of all monitors/receivers and set: Video=Minimum Resolution of devices connected.	Read EDID of all monitors/receiver s and set: AUDIO =Maximum capability of devices connected .	External EDID	
3	480P,720 I/P, 1080 I	2 CH PCM	Basic Mode. Internal EDID	
4	480P, 720 I/P, 1080 I/P, + 3D specifier	PCM, Bitstream (Dolby Digital, DTS)	3D Mode. Internal EDID	

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 HDMXA71		
2	Set switch 1,2,3,4 to down position as shown		
3	Set the EDID to the mode desired.(MODE 2 shown.)	See page 12 for other EDID modes	
4	Reset Power to the HDMXA71 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	

6	Press the “A” button on the front panel to start programming. 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 #4 to LOCK Position (UP)		
9	Connect all video sources and displays to Matrix and turn ON		
10	Re-power the HDMXA71.		

1 RU Rackmount :

The Octava 4x2 HD Matrix Switch analog 7.1 can be installed in a 1 RU rack by simply installing the rack mounts included.



Disabling /Enabling Front Panel IR Remote Receiver:

To disable the front panel IR remote receiver-insert the plastic plug into the IR jack as shown.



Front panel
IR receiver -disabled



Front panel
IR receiver -enabled

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.

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Description	Specifications
Model	HDMXA71-V1.3
Version	1.3
HDMI Inputs	4
HDMI Display Outputs	2
Optical Toslink Digital Audio Output	1
5.1 / 7.1 Analog Audio Output	1 (8ch.)
Aux 5.1 / 7.1 Analog Audio Input	1 (8ch.)
RS-232	1
Single Link Range	480P, 720I/P, 1080IP
Video Data Rate	6.75 Gbps
Vertical Frequency Scan Rate	24 / 50 / 60 Hz
Dimension	15.07 x 4.12 x 1.67 inch (382.9 x 104.7 x 42.3 mm)
DC adapter (included)	5VDC, 2.5A
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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