



ATLONA
4 x 4 HDMI V1.3 MATRIX SWITCHER
AT-HD-V44M

USER MANUAL



TABLE OF CONTENTS

1. Introduction	.....	1
2. Application	.....	1
3. Package Contents	.....	1
4. System Requirement	.....	1
5. Features	.....	2
6. Installation	.....	3
7. Front View	.....	4
8. Remote Control	.....	5
9. RS-232 Protocol	.....	5
9.1 Commands	.....	6
10. Connection and Installation	.....	7
11. Specifications	.....	8
12. Safety Information	.....	9
13. Warranty	.....	10

INTRODUCTION

Thank you for purchasing Atlona's 4 x 4 HDMI V1.3 Matrix Switcher. While HDMI products are getting more and more popular in the market people usually have more than one HDMI devices and sources in one place. The AT-HD-V44M provides the excellent solution for connecting all the devices and sources together for your convenience use, it also provides you a variety of choices of where to play your images with remote controller. Further, the AT-HD-V44M can transfer Deep Color video and bit stream digital audio with maximum performance and it supports HDMI 1.3, HDCP 1.1 and DVI 1.0.

Please follow this manual to begin enjoying the benefit of your Atlona HDMI 1.3 Matrix Switcher. We suggest keeping it in a safe place for future reference.

APPLICATION

- High performance Atlona HDMI 1.3 Matrix Switcher with 4 (four) input and 4 (four) output with remote control for you to link with your favor HDMI devices to enjoy movies, music, or games at once.
- Each of the four HDMI sources can be directed to any two of HDMI displays and or to all of the HDMI display.
- When HDMI signal progresses through the system, it is re-timed, and level-compensated.
- Define HDCP, HDMI and DVI source. The LED light will light up to define the input source's format.
- Switchable EDID function for choosing the native resolution to display.

PACKAGE CONTENTS

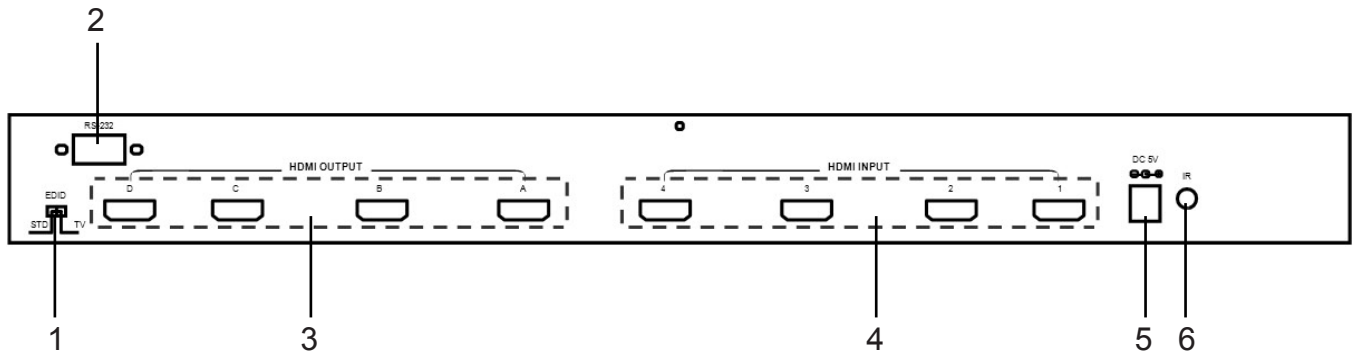
- 4 by 4 V1.3 HDMI Matrix Unit. (AT-HD-V44M)
- Remote Control (with Battery)
- IR Receiver
- Power Cord
- 5V DC power supply adaptor.
- Operation Manual.

SYSTEM REQUIREMENT

HDMI input device(s) and HDMI output device(s).

FEATURES

- HDMI 1.3, HDCP 1.1 and DVI 1.0 compliant.
- Supports digital video formats in Deep Color 12bit and new lossless compressed (Dolby True-HD, Dolby Digital Plus and DTS-HD Master Audio) digital audio.
- The HDMI input is compensated, clock / phase adjusted, and jitter eliminated so the output is a brand new standard HDMI signal.
- Supports input source LED indicators on each output select.
- Compatible with all HDMI sources and displays.
- Supports a wide range of PC and HDTV resolutions from VGA to UXGA and 480i to 1080p.
- Supports RS-232 control.
- Supports IR remote control and IR extender.
- Dolby Digital, DTS digital audio transmission (32-192 kHz Fs sample rate).
- Supports LPCM7.1 channels output from each independent HDMI ports.
- HDMI cable distance test with 1080p/8bit resolution, the Input/Output source can run up to 15/15 meters. If 1080p/12bit the Input/Output source can run up to 15/6 meters.

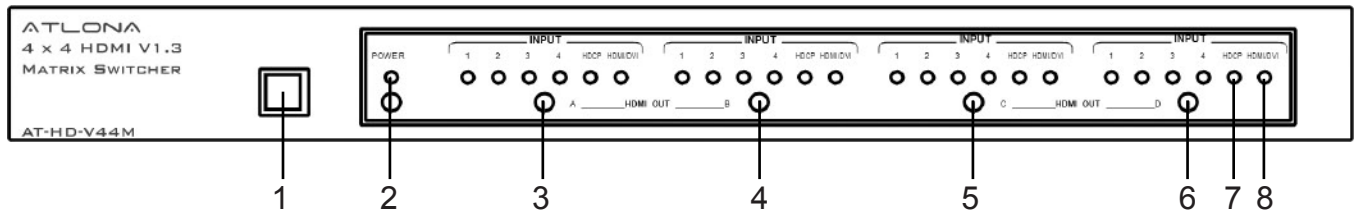


- 1 EDID Control Switcher: Default factory setting is TV, leave as it is when the displays are working properly. Switch to STD to use build-in EDID Detail capability in Note.
- 2 RS-232 communication port: Connect the COM port of your PC for the distant control over RS-232 channel. Detail specification in section 9.
- 3 HDMI outputs: Connect each of these output ports to the HDMI display(s).
- 4 HDMI inputs: Connect input ports to the HDMI or DVI output of your source equipment such as DVD player or set-top-box.
- 5 Power: Plug the 5VDC power supply into the unit and connect the adaptor to AC wall outlet.
- 6 IR extender.

Note:

1. EDID Control Switch: STD(INT) and TV(EXT), Default setting is TV
2. When EDID is on TV: Leave as it is if display is properly, unit will detect the first HDMI output source's EDID and record in the unit. If the first detected output source is DVI it will pass to next source, until the first HDMI been detected. The detection priority is HDMI v1.3 > HDMI v1.2 > DVI.
3. When EDID is on STD: unit use build-in EDID Video Support->1080p 12bit(max) Audio Support->PCM2
4. Your EDID selection will only activate when the unit is replugged and powered on.

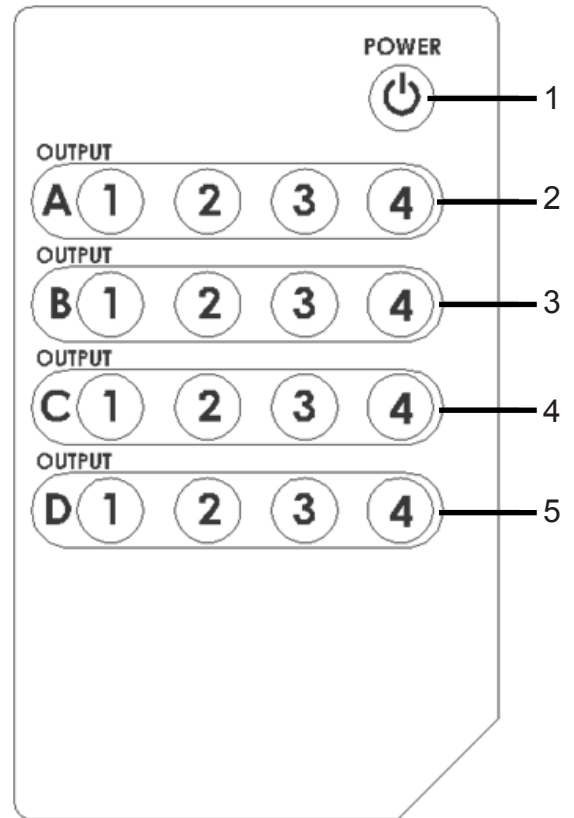
FRONT VIEW



- 1 Remote control sensor.
- 2 Power switch & LED Indicator: The LED will illuminate when the power is turned on.
- 3 Input Select/Indicators (A): Press the HDMI out “A” button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI A output. When an HDMI or DVI source is connected the LED light labeled “HDMI/DVI” will activate. If the source is HDCP encrypted, the LED light labeled “HDCP” will activate.
- 4 Input Select/Indicators (B): Press the HDMI out “B” button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI B output. When an HDMI or DVI source is connected the LED light labeled “HDMI/DVI” will activate. If the source is HDCP encrypted, the LED light labeled “HDCP” will activate.
- 5 Input Select/Indicators (C): Press the HDMI out “C” button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI C output. When an HDMI or DVI source is connected the LED light labeled “HDMI/DVI” will activate. If the source is HDCP encrypted, the LED light labeled “HDCP” will activate.
- 6 Input Select/Indicators (D): Press the HDMI out “D” button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI D output. When an HDMI or DVI source is connected the LED light labeled “HDMI/DVI” will activate. If the source is HDCP encrypted, the LED light labeled “HDCP” will activate.
- 7 HDCP Source light: When the input source(s) have HDCP, unit will detect the code and send to output source(s).
- 8 HDMI/DVI Source light: When the input source(s) is HDMI format, the LED light will light up.

REMOTE CONTROL

1. Power: Press the button to turn on/off the unit.
2. Input Select for HDMI OUT A:
Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT A.
3. Input Select for HDMI OUT B:
Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT B.
4. Input Select for HDMI OUT C:
Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT C.
5. Input Select for HDMI OUT D:
Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT D.



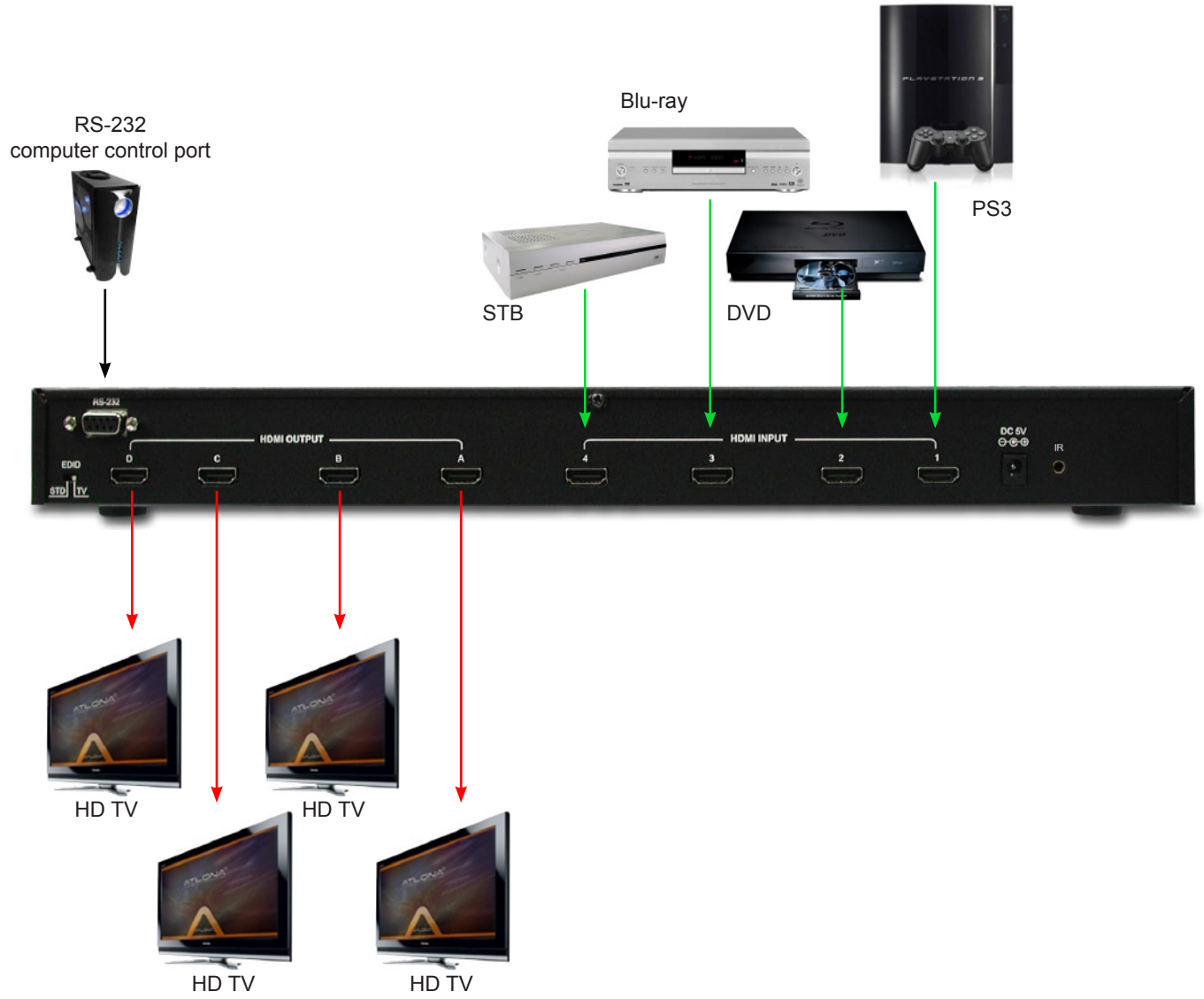
RS-232 PROTOCOL

Pin Definition

AT-HD-V44M			Remote Control Console	
PIN	Definition		PIN	Definition
1	NC		1	NC
2	Tx	→	2	Rx
3	Rx		3	Tx
4	NC		4	NC
5	GND	←	5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

COMMAND	ACTION
POWER 00	Power Off (standby)
POWER 01	Power On
PORT 11	Output A select Input1
PORT 12	Output A select Input2
PORT 13	Output A select Input3
PORT 14	Output A select Input4
PORT 21	Output B select Input1
PORT 22	Output B select Input2
PORT 23	Output B select Input3
PORT 24	Output B select Input4
PORT 31	Output C select Input1
PORT 32	Output C select Input2
PORT 33	Output C select Input3
PORT 34	Output C select Input4
PORT 41	Output D select Input1
PORT 42	Output D select Input2
PORT 43	Output D select Input3
PORT 44	Output D select Input4

CONNECTION AND INSTALLATION



SPECIFICATIONS

Frequency bandwidth	2.25Gbps (single link)
Input ports	4 x HDMI female ports
Output ports	4 x HDMI female ports
EDID	Standard, TV/Moving Port 1
HDMI Audio output	PCM2, PCM5.1, PCM7.1, Dolby5.1, DTS5.1, DD+, D- TrueHD, DTS-HD
HDMI Cable in	1080p 8bit (15M), 1080p 12bit (15M)
HDMI Cable out	1080p 8bit (15M), 1080p 12bit (6M)
Color Space	RGB_24/36, YCbCr 4:4:4_24/36, YCbCr 4:2:2, xvyycc
IR	Yes
Deep Color	1080p 12bit
HDMI Resolution	480I~1080p 50/60, 1080p 24, VGA~UXGA
DVI Resolution	480I~1080p 50/60, 1080p 24, VGA~UXGA
Power Supply	5VDC/5A (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	438(W) x 175(D) x 49(H)
Weight(g)	3100
Chassis Material	Metal
Silk Skin Color	Black
Operating Temperature	Operating from 0°C ~ 40°C
Power Consumption	16.5W(Max)

Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

Do not modify the wall plug. Doing so will void the warranty and safety features.

This equipment should be installed near the socket outlet and the device should be easily accessible in case it requires disconnection.

Precautions

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product or cause fires.

In the event of an electrostatic discharge, this device may automatically turn off. If this occurs, unplug the device, and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins, or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements and swimming pools.

Use only accessories recommended by ATLONA to avoid fire, shock or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-HD-V44M. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

WARRANTY

LIMITED ONE-YEAR WARRANTY

ATLONA by Lenexpo Electronics warrants only to the initial purchaser of this product for a period of one year from the date of purchase from an Authorized ATLONA Reseller, the product will be free of electrical and mechanical defects that materially affect the products operation as described in this users manual. Within this period, ATLONA will, at it's sole option, repair or replace any components, which fail of normal use or refund the net original price.

DISCLAIMER OF WARRANTY

ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM PURCHASE; ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary by jurisdiction.

LIMITATION OF LIABILITY

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL ATLONA OR ITS SUPPLIERS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, OR PUNITIVE DAMAGES, HOWEVER CAUSED REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT, EVEN IF ATLONA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL ATLONA'S LIABILITY TO YOU, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided to you fails its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of or exclusion may not apply to you.

Disclaimer

This document is provided for technical information for the user. It does not create any warranty with respect to the product, and does not modify or enhance the terms of the warranty that may accompany this product.

ATLONA reserves the right to modify the information in this document as necessary.

ATLONA holds no responsibility for any errors that may appear in this document. Customers should take appropriate action to ensure their use of the product does not infringe upon any patents. ATLONA respects valid patent rights of third parties.

Trademarks and Copyrights All other product names or marks referenced herein are trademarks or registered trademarks of their respective owners.



ATLONA
2151 O'toole Ave, Ste D
San Jose CA 95131
Toll Free: 1-877-536-3976
International: 408-954-8782
FAX: 408-954-8792
Website: www.atlona.com
E-MAIL: info@atlona.com