

ATLONA

1 X 9 HDMI™ OVER SINGLE CAT5 DISTRIBUTION AMPLIFIER

USER MANUAL

AT-HD19SS



AT-HDRS



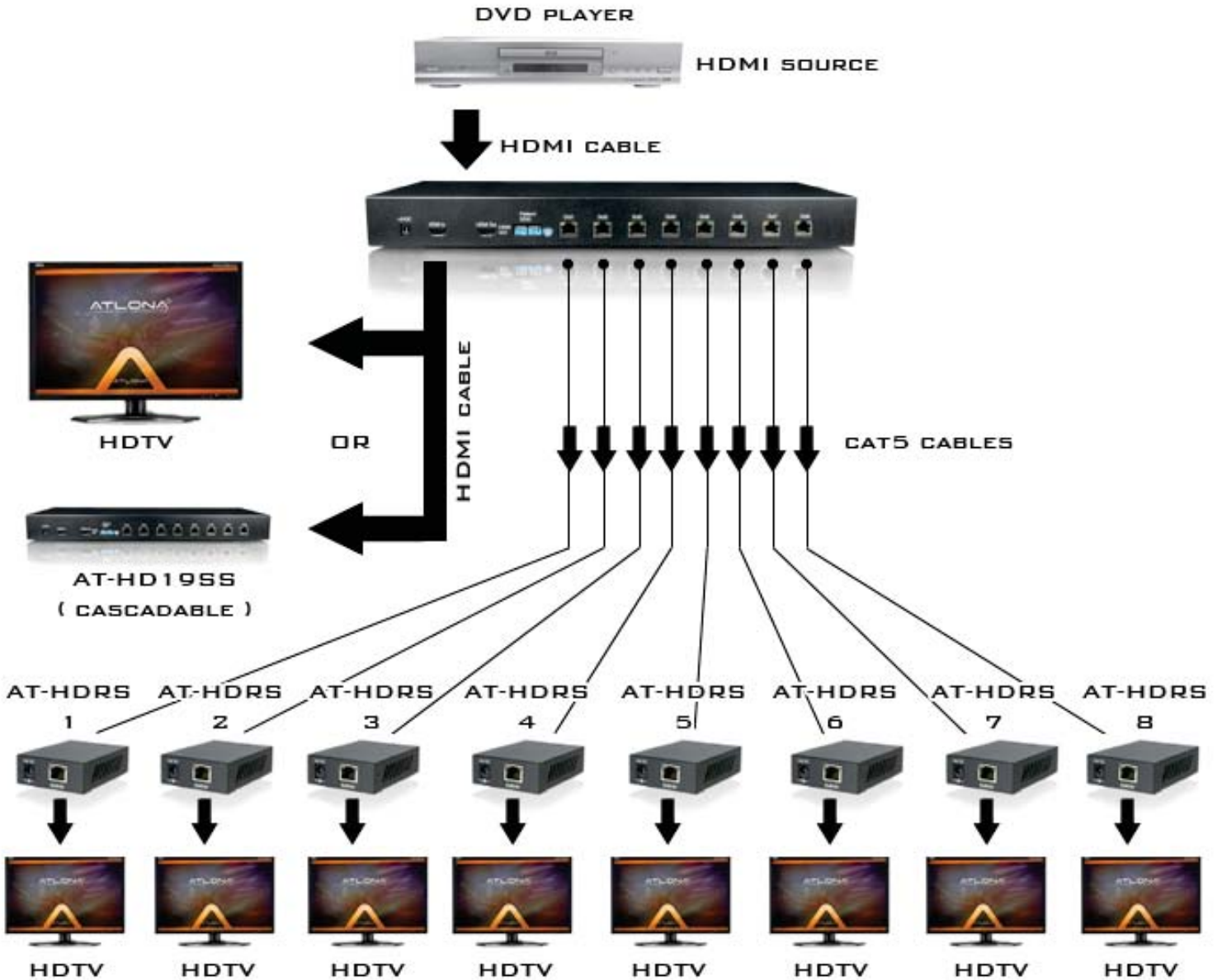
TABLE OF CONTENTS

1. Introduction	.....	1
2. Diagram	.....	1
3. Features	.....	2
4. Technical Specifications And Package Content	.....	2
5. Panel Descriptions	.....	3
6. Rotary Switch	.....	4
7. Hardware Installation	.....	6
8. Notice	.....	7
9. HDMI™ Pin Denition	.....	8
10. Safety Information	.....	9
11. Warranty	.....	10

INTRODUCTION

The HDMI™ over CAT5 Distribution Series provides the most flexible solution by which high definition video and high quality audio can be transmitted to different locations over a long distance. The devices are cascable, allowing you to extend HDMI/DVI compliant displays to almost anywhere.

DIAGRAM



FEATURES

- HDMI™ 1.2a compliant
- HDCP compliant
- Allows unlimited cascading
- Regenerates the HDMI™ signal
- Supports audio output
- Supports default HDMI™ EDID and record the EDID of displays
- Extends up to 15m (50ft) of input HDMI™ cable
- Extends up to 15m (50ft) of output HDMI™ cable
- Extends up to 60m (200ft) (1080i) of output CAT5 cable
- Extends up to 40m (130ft) (1080p) of output CAT5 cable
- Easy installation

Note: The length depends on the characteristics and quality of the cables. Higher resolutions and longer transmission distances require low skew cables (<25ns/100m) for best performance.

TECHNICAL SPECIFICATIONS AND PACKAGE CONTENT

Model Name	AT-HD19SS	AT-HDRS
Package Content	1x AT-HD19SS 1x 5V power adapter 1x rack mount set 1 x User Manual	1x AT-HDRS
Video Bandwidth	1.65Gbps	1.65Gbps
Input	1x HDMI™	1x RJ45
Output	1x HDMI™, 8x RJ45	1x HDMI™
Power	5V DC	5V DC
HDMI™ Connector	19 pin type female connector	19 pin type female connector
RJ-45 Connector	2 indication LEDs	2 indication LEDs
Dimensions (L x W x H)	438 x 158 x 45mm 17.2"x6.2"x1.8"	87 x 60 x 25mm 3.4"x2.4"x1"



AT-HD19SS

1. Power jack 5V DC
2. HDMI™ Input: connect HDMI™ source here
3. HDMI™ Output: connect local HDMI™ display here or cascade it with another amplifier
4. DIP Switch: see the definition below
5. Rotary switch: see the definition below
6. RJ45 Output 1: link to the HDMI™ over CAT5e receiver
7. RJ45 Output 2: link to the HDMI™ over CAT5e receiver
8. RJ45 Output 3: link to the HDMI™ over CAT5e receiver
9. RJ45 Output 4: link to the HDMI™ over CAT5e receiver
10. RJ45 Output 5: link to the HDMI™ over CAT5e receiver
11. RJ45 Output 6: link to the HDMI™ over CAT5e receiver
12. RJ45 Output 7: link to the HDMI™ over CAT5e receiver
13. RJ45 Output 8: link to the HDMI™ over CAT5e receiver

The Rotary Switch on AT-HD19SS allows you to send several test patterns.



VIDEO PATTERNS

Rotary Switch

Rotary 1: Stereo audio output

Rotary 2: Running circles with increasing radius

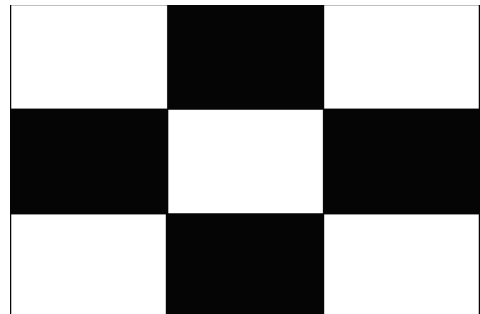
Rotary 3: White Running Circle with Black Background

Rotary 4: Black Running Circle with White Background

Rotary 5: Color Bar



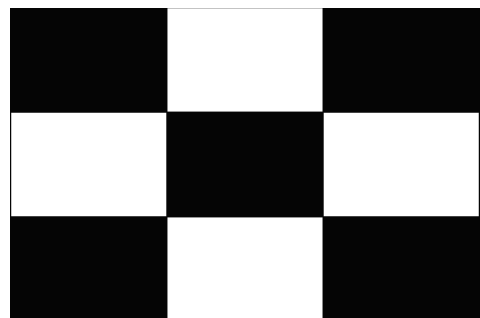
Rotary 6: Mosaic



Rotary 7: Check board 1



Rotary 8: Check board 2



Rotary 9: Pure Red

Rotary A: Pure Green

Rotary B: Pure Blue

Rotary C: Pure Black

Rotary D: Pure White

Rotary E: Write default EDID (indicate by green LED)

Rotary F: Save Monitor EDID (indicate by green LED)

Atlona AT-HD19SS can support HDMI™ and DVI displays by configuring the DIP switch at right position

DIP Switch: Up --- HDMI mode

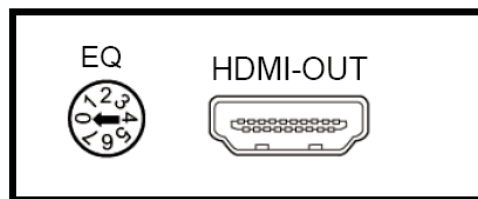
DIP Switch Down --- DVI mode

Green LED: when input detect HDMI in --- bright

For example: Output 1 to HDMI™ TV and Output 2 to DVI monitor. Set DIP switch 1 at position up and switch 2 at down position.



AT-HDRS



HDMI-OUT: Connect to HDMI™ display with a HDMI™ M-M cable.

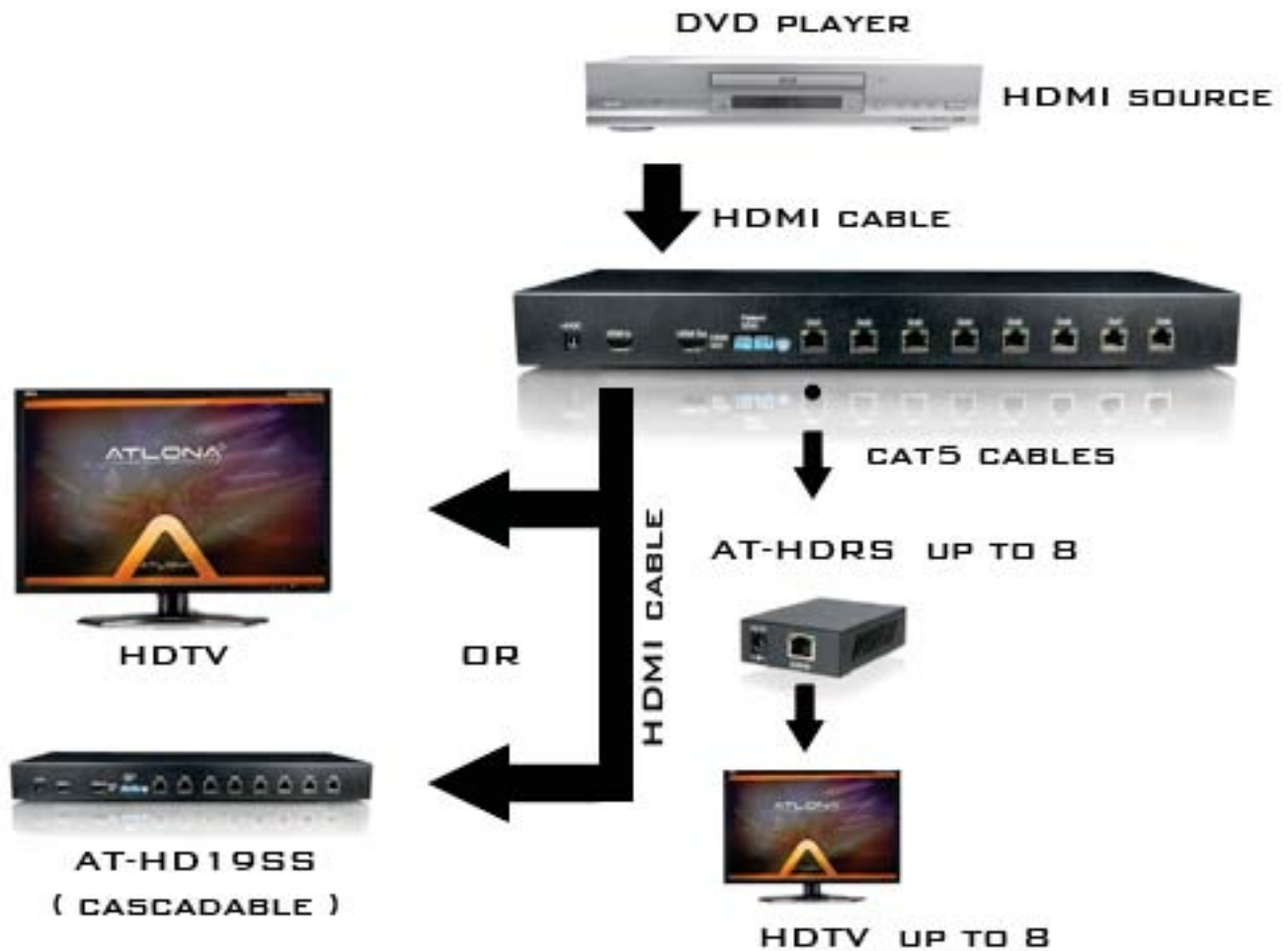
EQ: Adjust the 8-level equalization control knob to the received HDMI™ signals.

0 - 7 = strongest - weakest. It is recommended to switch from 7 to 0 to find the optimal visual experience.

AT-HD19SS


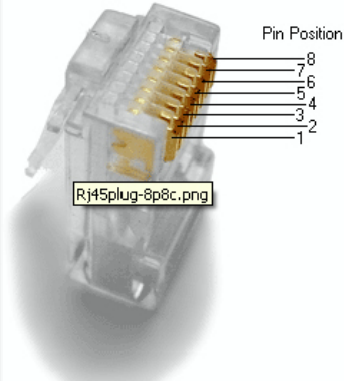











Broadcasts HDMI™ signals to 8 remote displays and one local display

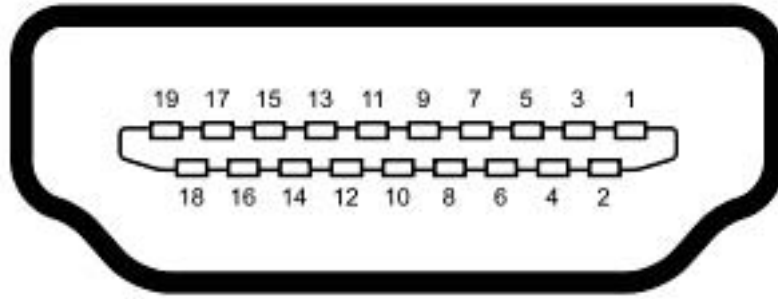
1. Switch off all devices, including monitors.
2. Connect a local HDMI™ display to the HDMI™ Out of the AT-HD19SS
3. Connect HDMI™ source (such as a Blu-ray Disc player) to the HDMI™ In.
4. Connect to the receivers (AT-HDRS) via RJ45 connectors by a CAT5e cable.
5. Plug in 5V 4A DC power supply.
6. Power on the HDMI™ monitors.
7. Power on the HDMI™ source.



NOTICE

1. If your DVI/HDMI device requires an EDID present, you can use EDID Reader/Writer to provide DVI/HDMI EDID information.
2. The transmission length is largely affected by the type of LAN Cat5/5e/6 cables, the type of A/V sources, and the type of A/V display. The testing result shows solid LAN cables (usually in 300m/1000ft form) can transmit signals a lot longer than stranded LAN cables (patch cord). Shielded STP cables are better suited than unshielded UTP cables. A solid UTP CAT5e cable shows a longer transmission length than stranded STP CAT6 cable. For long extension users, solid cables are your only choice.
3. To reduce the interference among the unshielded twisted pairs of wires in LAN cable, you can use shielded LAN cables to improve EMI problems, which worsen in long transmissions.
4. Because the quality of the LAN cables has a major effect in how long the transmission distance will be as well as the quality of the signal received by the display, the actual transmission length is subject to your LAN cables. For resolution greater than 1080i or 1280x1024, a shielded CAT-6 cable is recommended.

T568A and T568B Wiring				T568B RECOMMENDED FOR ALL SOLUTIONS		Pins on plug face (socket is reversed)
Pin	T568A Pair	T568B Pair	Wire	T568A Color	T568B Color	
1	3	2	tip	 white/green stripe	 white/orange stripe	
2	3	2	ring	 green solid	 orange solid	
3	2	3	tip	 white/orange stripe	 white/green stripe	
4	1	1	ring	 blue solid	 blue solid	
5	1	1	tip	 white/blue stripe	 white/blue stripe	
6	2	3	ring	 orange solid	 green solid	
7	4	4	tip	 white/brown stripe	 white/brown stripe	
8	4	4	ring	 brown solid	 brown solid	



Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	Pin 11	TMDS Clock Shield
Pin 2	TMDS Data2 Shield	Pin 12	TMDS Clock-
Pin 3	TMDS Data2-	Pin 13	CEC
Pin 4	TMDS Data1+	Pin 14	Reserved (N.C. on device)
Pin 5	TMDS Data1 Shield	Pin 15	SCL
Pin 6	TMDS Data1-	Pin 16	SDA
Pin 7	TMDS Data0+	Pin 17	DDC/CEC Ground
Pin 8	TMDS Data0 Shield	Pin 18	+5 V Power
Pin 9	TMDS Data0-	Pin 19	Hot Plug Detect
Pin 10	TMDS Clock+		

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-HD19SS. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorised 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