



ATLONA

1 X 9 HDMI™ SPLITTER WITH CAT5 OUTPUTS

USER'S MANUAL

MODEL: AT-HD195S



MODEL: AT-HDRS



MODEL: AT-HD155RS



REV.0911

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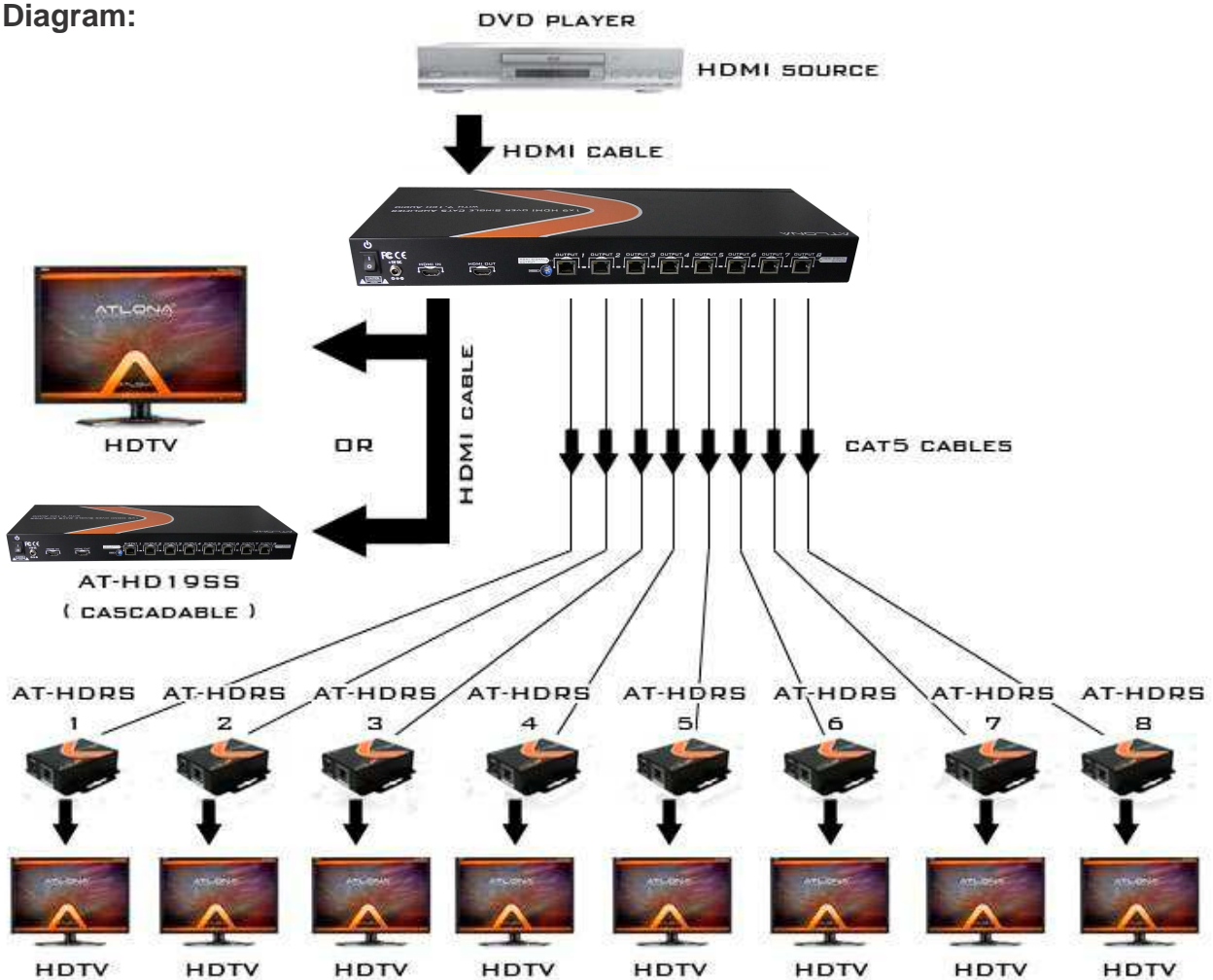
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INTRODUCTION

Atlona Technologies AT-HD19SS 1x9 HDMI™ splitter is the perfect solution for those who want to display a single source on 9 or more displays using just **single Cat5 or Cat6** cable for each display. The Atlona splitter has 8 x RJ45 (Cat5/Cat6), one for each display and 1 x HDMI™ output to be used for local monitoring or a loop-out for cascading multiple splitters. AT-HD19SS is capable of HDTV resolutions up to: **1080p@130ft and 1080i@200ft.**

Note: A receiver unit (balun) is required for each display and sold separately (Model: AT-HDRS or AT-HD15SRS).

Diagram:



For shorter transmission length, AT-HD15SRS is more recommended instead of AT-HDRS.

FEATURES

- ★ HDMI™ 1.3c compliant
- ★ HDCP compliant
- ★ Allow unlimited cascading
- ★ Regenerate the HDMI™ signal
- ★ Support audio output
- ★ Support default HDMI™ EDID and record the EDID of displays
- ★ Extend up to 15m (50ft) of input HDMI™ cable
- ★ Extend 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

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.

PACKAGE CONTENTS

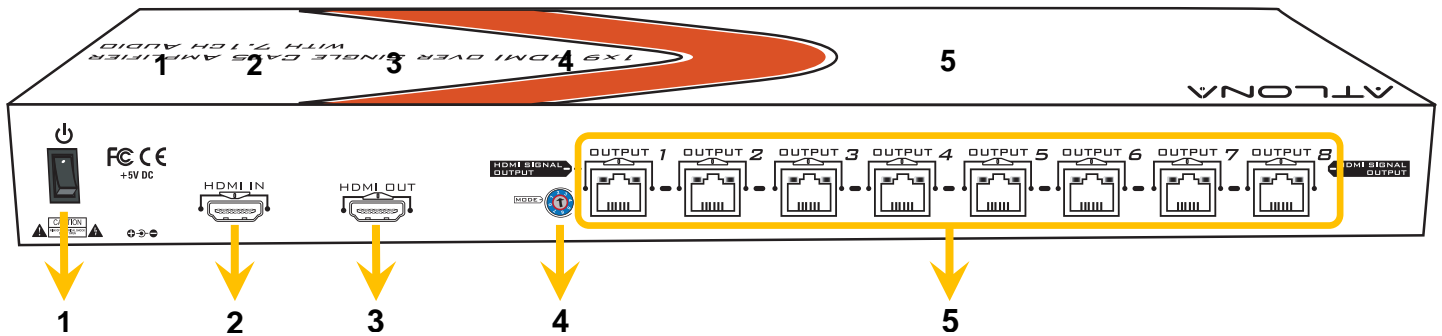
- ★ 1x AT-HD19SS unit
- ★ 2x Rack-mounting ears
- ★ 1x 5V DC power supply unit
- ★ 1x User's manual

SPECIFICATIONS

Technical		AT-HD19SS	AT-HDRS	AT-HD15SRS
Role of usage		1x9 splitter [TX]	Receiver [RX]	Receiver [RX]
HDMI™ compliance		HDMI 1.3c		
HDCP™ compliance		Yes		
Video bandwidth		Single-link 225MHz [6.75Gbps]		
Video support		480i / 480p / 720p / 1080i / 1080p60 36-bit color		
HDMI™ over CAT5/6 transmission		1080p - 40m (130ft) [CAT5e] / 50m (165ft) [CAT6] 720p/1080i - 50m (165ft) [CAT5e] / 60m (200ft) [CAT6]	1080p - 15m (50ft) 720p/1080i - 25m (80ft)	
Audio support		Surround sound (up to 7.1ch) or stereo digital audio		
Equalization		None	8-level digital control	None
Input TMDS signal		1.2 Volts [peak-to-peak]		
Input DDC signal		5 Volts [peak-to-peak, TTL]		
ESD protection		[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±8kV		
Input		1x HDMI™	1x RJ-45	
Output		1x HDMI + 8x RJ-45	1x HDMI™	
HDMI™ connector		Type A [19-pin female]	Type A [19-pin male]	
RJ-45 connector		WE/SS 8P8C with 2 LED indicators		
Mechanical		AT-HD19SS	AT-HDRS	AT-HD15SRS
Housing		Metal enclosure		Plastic molding
Dimensions [L x W x H]	Model	158x438x44mm [6.2"x1'5"x1.7"]	85x90x25mm [3.3"x3.5"x1"]	45 x 25 x 20mm [1.8"x1"x0.8"]
	Package	230 x 540 x 110mm [9"x1'9"x4"]	175 x 270 x 80mm [7"x11"x3"]	170 x 115 x 40mm [6.7"x4.5"x1.6"]
Weight	Model	1.4kg [3.1 lbs]	175g [6.2oz]	22g [0.8oz]
	Package	2.2kg [4.8 lbs]	475g [1 lb]	90g [3.2oz]
Fixedness		1U rack-mount with ears	Wall-mount case with screws	Direct plug-in
Power supply		5V DC	5V DC	None
Power consumption		13 Watt [max]	1 Watt [max]	0.5 Watt [max]
Operation temperature		0~40°C [32~104°F]		
Storage temperature		-20~60°C [-4~140°F]		
Relative humidity		20~90% RH [no condensation]		
Package Contents		1x AT-HD19SS 2x Rack-mounting ear 1x 5V power supply unit 1x User's manual	1x AT-HDRS 2x Wall-mounting screw 1x 5V power supply unit 1x User's manual	1x AT-HD15SRS 1x User's manual

PANEL DESCRIPTION

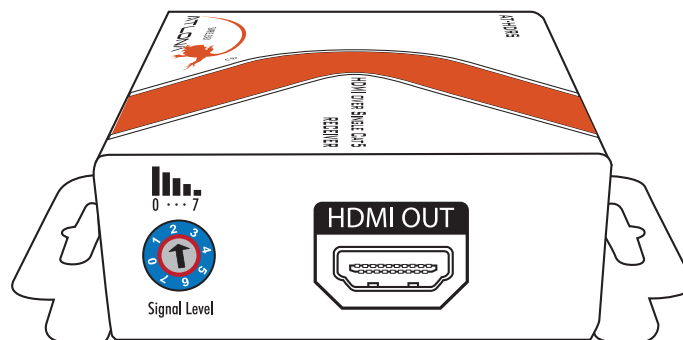
AT-HD19SS



1. **+5V DC:** Connect to a 5V DC power supply unit here
2. **HDMI IN:** Connect to the HDMI™ source here
3. **HDMI OUT:** Connect to a HDMI™ display here for local monitoring or cascade to another HDMI™ splitter such as AT-HD14SS or AT-HD19SS
4. **MODE:**
 - 0 = [Video] – supports up to HDMI™ 1.3 output. [Audio] – supports up to 7.1ch output
 - 1 = [Video] – supports up to HDMI™ 1.3 output. [Audio] – locks to stereo audio output
 - 2 = [Video] – locks to HDMI™ 1.2 output. [Audio] – supports up to 7.1ch output
 - 3 = [Video] – locks to HDMI™ 1.2 output. [Audio] – locks to stereo audio output
 - 4 = [Video] – DVI display mode. [Audio] – no audio output
 - 5 = [Safe Mode] – uses default EDID with video supported up to 720p/1080i
 - 6 = [Default Mode] – uses default EDID with video supported up to 1080p
 - 7 = [EDID Learning Mode] – learns EDID from the display

[For more detail info, please refer to page 6.]
5. **HDMI Signal OUTPUT 1–8:** Link to each HDMI™ display via a Cat-5e/6/7 cable with a HDMI™ over CAT5e receiver AT-HDRS or AT-HD15SRS on each CAT5 output port

AT-HDRS



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

Signal Level: Adjust the 8-level equalization control to the received HDMI™ signals. The HDMI™ signal level varies from 0 (strongest) to 7 (weakest) for respective transmission length from longest possible range to short distance. Please adjust the signal level from 7 to 0 and stop turning the rotary switch whenever the audio/video is playing normally. Inappropriate signal level setting may cause overpowering issue that would shorten the product life significantly!

INSTALLATION

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** port of the AT-HD19SS
3. Connect the HDMI™ source such as a Blu-ray Disc player to the **HDMI IN** port.
4. Connect to the receivers (AT-HDRS or AT-HD15SRS) via Cat-5/5e/6 cables on the RJ-45 **HDMI SIGNAL OUTPUT1 ~ OUTPUT8** ports.
5. Plug in the 5V 4A DC power supply unit.
6. Power on the HDMI™ monitors.
7. Power on the HDMI™ source.



Audio/Video Setting

1. If you cannot get the audio/video output from the connected display for the first time setup. Please follow the instructions below to check if the splitter is OK:

Step 1 – Please set the rotary arrow at **Mode 5** for Safe Mode, and wait for the green LED **SIGNAL** on the front panel to blink for a couple seconds.

Step 2 – Please dial the rotary arrow counterclockwise [↶] from **Mode 5** to **Mode 3**. If you can get audio/video from the display, you can stay tune at this setting for 720p or 1080i and stereo audio. If you need to get 720p/1080i with 7.1ch audio output, please dial the rotary arrow counterclockwise [↶] from **Mode 3** to **Mode 2**.

Step 3 – Please dial the rotary arrow counterclockwise [↶] from **Mode 3** to **Mode 7**. Wait a few seconds until the green LED **SIGNAL** on the front panel dims and then lights again.

Step 4 – Please dial the rotary arrow clockwise [↷] from **Mode 7** to **Mode 1**. You should have normal audio/video output. If not, please contact technical support.

2. For desirable 1080p video output, please follow the instructions below:

Step 1 – Please set the rotary arrow at **Mode 6** for Default Mode, and wait for the green LED **SIGNAL** on the front panel to blink for a couple seconds.

Step 2 – Please dial the rotary arrow clockwise [↷] from **Mode 6** to **Mode 1**. If you can get audio/video from the display, you can stay tune at this setting for 1080p and stereo audio. If you need to get 1080p with 7.1ch audio output, please turn the rotary arrow counterclockwise [↶] from **Mode 1** to **Mode 0**. If you cannot get the audio/video out normally, please go on the next step.

Step 3 – Please dial the rotary arrow counterclockwise [↶] from **Mode 0** or **Mode 1** to **Mode 7**. Wait a few seconds until the green LED **SIGNAL** on the front panel dims and then lights again.

Step 4 – Please dial the rotary arrow clockwise [↷] from **Mode 7** to **Mode 0** or **Mode 1**. You should have your desirable audio/video output. If not, please perform the EDID learning sequence.

EDID Learning

To learn EDID from the HDMI display, please follow the instruction below:

Step 1 – Please connect the display which you want to read EDID with a HDMI cable to the **HDMI OUT** port of the AT-HD19SS and set the rotary arrow at **Mode 7** so the AT-HD19SS can learn the EDID information from the connected display. The green LED **SIGNAL** on the front panel will dim and light again in a few seconds, which indicates the EDID learning procedure is complete.

Step 2 – Please turn the rotary arrow clockwise [↷] from **Mode 7** to **Mode 0** or **Mode 1** for desirable audio setting and enjoy the experience. DO NOT let the rotary arrow pass by **Mode 5** and **Mode 6** which will erase the EDID just learned and restore the default EDID.

NOTICE

1. When adjusting the signal level on the receiver unit, please dial the rotary control switch from 7 to 0 and stop turning the rotary switch whenever the audio/video is playing normally. Inappropriate signal level setting may cause overpowering issue that would shorten the product life significantly!
2. If the DVI or HDMI device requires the EDID information, please use AT-DVISync EDID Reader/Writer to retrieve and provide DVI or HDMI display EDID information.
3. All HDMI over CAT5 transmission distances are measured using Belden 1583A CAT5e 125MHz UTP cable and ASTRODESIGN Video Signal Generator VG-859C.
4. The transmission length is largely affected by the type of Cat-5/5e/6 cables, the type of HDMI™ sources, and the type of HDMI™ display. The testing result shows solid UTP cables (usually in the form of 300m [1,000ft] bulk cables) can transmit a lot longer signals than stranded UTP cables (usually in the form of fixed length patch cords). Shielded STP cables are better suited than unshielded UTP cables. A solid UTP Cat-5e cable shows longer transmission range than stranded STP Cat-6 cable. For long extension applications, solid UTP/STP cables are the only viable choice.
5. EIA/TIA-568-B termination (T568B) for Cat-5/5e/6 cables is recommended for better performance.
6. To reduce the interference among the unshielded twisted pairs of wires in Cat-5/5e/6 cable, one can use double shielded STP cables to improve EMI problems, which is worsen in long transmission.
7. Because the quality of the category cables has the major effect on how long the transmission limit can achieve and how good is the received picture quality, the actual transmission range is subject to one's choice of Cat-5/5e/6 cables. For desired resolutions greater than 1080i or 1280x1024, a Cat-6 cable is recommended.
8. If your HDMI display has multiple HDMI™ inputs, it is found that the first HDMI™ input [HDMI™ input #1] generally can produce better transmission performance among all HDMI™ inputs.

PERFORMANCE GUIDE

Performance rating		Type of category cable		
Wiring	Shielding	CAT5	CAT5e	CAT6
Solid	Unshielded (UTP)	★★★	★★★★★	★★★★★
	Shielded (STP)	★★★	★★★	★★★★★
Stranded	Unshielded (UTP)	★	★★	★★
	Shielded (STP)	★	★	★★
Termination		Please use EIA/TIA-568-B termination (T568B) at any time		

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 Authorized ATLONA reseller or contact ATLONA directly.

WARRANTY

1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the "Product") will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the Product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer's receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

3. NO OTHER WARRANTIES

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