

## User Manual

# 10-input Switcher / Scan Converter with Single HDMI (1.3) Output with 3D Support AT-HD600



BACK



FRONT

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## INTRODUCTION

Atlona Technologies' high quality Video Converter converts analog and digital signals to HDMI v1.3 output. The product is compatible to HDMI v1.3 specifications, a cutting edge technology which defines to transfer Deep Color (10-bit and 12-bit) video. Simply select from the front panel or remote control to choose the input sources.

## FEATURES

- HDMI 1.3, HDCP1.1 and DVI1.0 compliant Receiver.
- Deep Color video up to 12bit, 1080p@(24/60)Hz.
- Supports analog/digital video/audio input and HDMI v1.3 output.
- HDCP keysets allow each HDMI input to work independently when connecting to an HDMI display.
- Supports a wide range of PC and HDTV resolutions from VGA to SXGA@75Hz and 480i to 1080p. Component output supports resolutions up to 1080i.
- Support 3D comb filter.
- Support 3D noise reduction (DNR).
- Support format converter from 480i/576i to 480p/576p, simply press the front panel or remote control.
- Support audio delay for 150ms, this feature will not function when HDMI is inputted. Support IR remote control. Support RS-232 control.

## OPERATION CONTROLS AND FUNCTIONS

### 3.1 Front Panel



1. Power switch and power LED indicator: Press the switch to power on the unit and the power LED will illuminate.
2. IR sensor.
3. Input source selection: Press the input button to switch to your desired input sources, the LED will illuminate to indicate which input source is selected.
4. Audio delay: Press to delay audio sources for 150ms, the LED will illuminate when powered on.

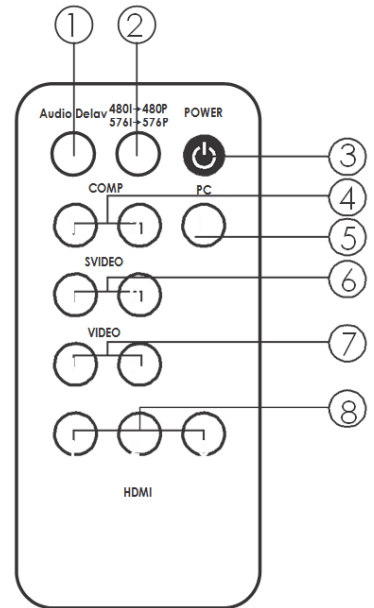
### 3.2 Rear Panel



1. **Power:** Plug the 5V DC power supply into this unit and connect the adaptor to AC wall outlet.
2. **CV/SV inputs:** Connect each of the input ports to the CV/SV and R/L output ports of your source equipments such as DVD player or set-top-box. The CV1/SV1/Audio1 and CV2/SV2/Audio2 are individual loops for source equipments.
3. **Component inputs:** Connect each of the input component ports to the component and R/L output ports of your source equipments such as DVD player or set-top-box. The Component1/Component Audio1 and Component2/Component Audio2 are individual loops for source equipments.
4. **HDMI inputs:** Connect each of the input ports to the HDMI or DVI output ports of your source equipment such as a DVD player or set-top-box.
5. **PC input:** Connect PC/audio input port to the PC/audio output port of your source equipment such as a Note-book or PC.
6. **RS232:** 9-pin D-Sub connector for connecting to your PC or other control consoles from remote control.
7. **HDMI output:** Connect the output port to the HDMI display.

## REMOTE CONTROL

1. Audio Delay: Press to delay audio output for 150ms.
2. Format selection: To switch between Interlace and Progressive format.
3. Power: Press the button to turn on/off the unit.
4. Component 1/2: Press to select Composite 1 or 2 inputs.
5. PC: Press for PC input.
6. S-Video 1/2: Press to select S-Video 1 or 2 inputs.
7. Video 1/2: Press to select Video 1 or 2 inputs.
8. HDMI 1/2/3: Press to select HDMI 1, 2 or 3 inputs.



## RS-232 REMOTE CONTROL PROTOCOL

| System |            | Remote Controller |            |
|--------|------------|-------------------|------------|
| Pin    | Definition | Pin               | Definition |
| 1      | NC         | 1                 | NC         |
| 2      | TxD        | 2                 | RxD        |
| 3      | RxD        | 3                 | TxD        |
| 4      | NC         | 4                 | NC         |
| 5      | GND        | 5                 | GND        |
| 6      | NC         | 6                 | NC         |
| 7      | NC         | 7                 | NC         |
| 8      | NC         | 8                 | NC         |
| 9      | NC         | 9                 | NC         |

RS-232 transmission format: Baud

Rate : 9600 bps

Data Bit : 8 bits

Parity : None

Stop Bit : 1 bit

### 5.1 RS-232 transmission format:

| Command Code   | Response                  | Description             |
|----------------|---------------------------|-------------------------|
| S POWER 0      | > POWER OFF               | POWER OFF               |
| S POWER 1      | > POWER ON                | POWER ON                |
| S SOURCE 0     | > SOURCE HDMI1            | HDMI1 INPUT             |
| S SOURCE 1     | > SOURCE HDMI2            | HDMI2 INPUT             |
| S SOURCE 2     | > SOURCE HDMI3            | HDMI3 INPUT             |
| S SOURCE 3     | > SOURCE PC               | PC INPUT                |
| S SOURCE 4     | > SOURCE COMP1            | COMPONENT1 INPUT        |
| S SOURCE 5     | > SOURCE COMP2            | COMPONENT2 INPUT        |
| S SOURCE 6     | > SOURCE SV1              | SV1 INPUT               |
| S SOURCE 7     | > SOURCE SV2              | SV2 INPUT               |
| S SOURCE 8     | > SOURCE CV1              | CV1 INPUT               |
| S SOURCE 9     | > SOURCE CV2              | CV2 INPUT               |
| S AUDIODELAY 0 | > AUDIODELAY OFF          | OFF: NO DELAY           |
| S AUDIODELAY 1 | > AUDIODELAY ON           | ON: DELAY 150ms         |
| S RESET 1      | > RESET ON                | RESET ACTION            |
|                |                           |                         |
| R POWER        | > POWER ON - OFF          | SHOW POWER STATUS       |
| R SOURCE       | > SOURCE HDMI - CV        | SHOW SOURCE STATUS      |
| R AUDIODELAY   | > AUDIODELAY OFF - ON     | SHOW AUDIO DELAY STATUS |
| R FW_VER       | > FIRMWARE VERSION: Vx.xx | SHOW FIRMWARE VERSION   |

## SPECIFICATIONS

|                       |   |
|-----------------------|---|
| Frequency bandwidth   | 2.25Gbps (single link)  |
| Input ports           | 3 x HDMI female ports (Type A connector) 1xPC with audio jack 2 x Y/Pb/Pr with R/L 2 x CV/SV with R/L |
| Output port           | 1 x RS-232<br>1 x HDMI female port (signal link)  |
| Power Supply          | 5VDC/2.6A (US/EU standards, CE/FCC/UL certified)  |
| Dimensions (mm)       | 280(W) x 147(D) x 44(H)   |
| Weight (g)            | 1380  |
| Chassis Material      | Metal   |
| Operating Temperature | Operating from 0°C - 48°C   |

### CONNECTION DIAGRAM



## SAFETY INFORMATION

### Safeguards



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



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



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



This equipment should be installed near the socket outlet and the device should be easily accessible in the 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, fish tanks, 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 and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, 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-HD620. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.



## Atlona, Inc. ("Atlona") Limited Product Warranty Policy

### Coverage

Atlona warrants its products will substantially perform to their published specifications and will be free from defects in materials and workmanship under normal use, conditions and service.

Under its Limited Product Warranty, Atlona, at its sole discretion, will either:

- A) repair or facilitate the repair of defective products within a reasonable period of time, restore products to their proper operating condition and return defective products free of any charge for necessary parts, labor and shipping
- OR**
- B) replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products
- OR**
- C) refund the pro-rated value based on the remaining term of the warranty period, not to exceed MSRP, in cases where products are beyond repair and/or no direct or substantially similar replacement products exist.

Repair, replacement or refund of Atlona's products is the purchaser's exclusive remedy and Atlona's liability does not extend to any other damages, incidental, consequential or otherwise.

This Limited Product Warranty extends to the original end-user purchaser of Atlona's products and is non-transferrable to any subsequent purchaser(s) or owner(s) of these products.

### Coverage Periods

Atlona's Limited Product Warranty Period begins on the date of purchase by the end-purchaser. The date contained on the end-purchaser's sales or delivery receipt is the proof purchase date.

#### **Limited Product Warranty Terms – New Products**

- 10 years from proof of purchase date for hardware/electronics products purchased on or after June 1, 2013
- 3 years from proof of purchase date for hardware/electronics products purchased before June 1, 2013
- Lifetime Limited Product Warranty for all cable products

#### **Limited Product Warranty Terms – Refurbished (B-Stock) Products**

- 3 years from proof of purchase date for all Refurbished (B-Stock) hardware and electronic products purchased on or after June 1, 2013

### Remedy

Atlona recommends that end-purchasers contact their authorized Atlona dealer or reseller from whom they purchased their products. Atlona can also be contacted directly. Visit [www.atlona.com](http://www.atlona.com) for Atlona's contact information and hours of operation. Atlona requires that a dated sales or delivery receipt from an authorized dealer, reseller or end-purchaser is provided before Atlona extends its warranty services. Additionally, a return merchandise authorization (RMA) and/or case number, is required to be obtained from Atlona in advance of returns.

Atlona requires that products returned are properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization or case number will be refused. Atlona, at its sole discretion, reserves the right to reject any products received without advanced authorization. Authorizations can be requested by calling 1-877-536-3976 (US toll free) or 1-408-962-0515 (US/international) or via Atlona's website at [www.atlona.com](http://www.atlona.com).

### Exclusions

This Limited Product Warranty excludes:

- Damage, deterioration or malfunction caused by any alteration, modification, improper use, neglect, improper packing or shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature.
- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.
- Equipment enclosures, cables, power supplies, batteries, LCD displays, and any accessories used in conjunction with the product(s).
- Products purchased from unauthorized distributors, dealers, resellers, auction websites and similar unauthorized channels of distribution.

### **Disclaimers**

This Limited Product Warranty does not imply that the electronic components contained within Atlona's products will not become obsolete nor does it imply Atlona products or their electronic components will remain compatible with any other current product, technology or any future products or technologies in which Atlona's products may be used in conjunction with. Atlona, at its sole discretion, reserves the right not to extend its warranty offering in instances arising outside its normal course of business including, but not limited to, damage inflicted to its products from acts of god.

### **Limitation on Liability**

The maximum liability of Atlona under this limited product warranty shall not exceed the original Atlona MSRP for its products. To the maximum extent permitted by law, Atlona is not responsible for the direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

### **Exclusive Remedy**

To the maximum extent permitted by law, this limited product warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, Atlona specifically disclaims all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If Atlona cannot lawfully disclaim or exclude implied warranties under applicable law, then all implied warranties covering its products including warranties of merchantability and fitness for a particular purpose, shall provide to its products under applicable law. If any product to which this limited warranty applies is a "Consumer Product" under the Magnuson-Moss Warranty Act (15 U.S.C.A. §2301, ET SEQ.) or other applicable law, the foregoing disclaimer of implied warranties shall not apply, and all implied warranties on its products, including warranties of merchantability and fitness for the particular purpose, shall apply as provided under applicable law.

### **Other Conditions**

Atlona's Limited Product Warranty offering gives legal rights, and other rights may apply and vary from country to country or state to state. This limited warranty is void if (i) the label bearing the serial number of products have been removed or defaced, (ii) products are not purchased from an authorized Atlona dealer or reseller. A comprehensive list of Atlona's authorized distributors, dealers and resellers can be found at [www.atlona.com](http://www.atlona.com).

## **Atlona, Inc Product Registration**

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: <http://www.atlona.com/registration>