Atlona Portable HDMI Signal Generator with 3D Patterns

AT-HD800

User Manual

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INTRODUCTION

The Atlona HD800 is a Portable HDMI signal generator capable of testing any video resolution or timing in any digital format. The HD800 allows users to diagnose specific resolution, video timing, EDID, and color space issues in any DVI or HDMI video system. The HD800 features 19 test patterns including 3D tests Side by side, Top and Bottom, and Frame packing, a format that is mandatory for all HDMI 1.4 devices. This powerful pocket sized signal generator features an HDMI output as well as an HDMI pass through to easily switch between test patterns and content from any other digital sources, while also giving the ability to read the EDID from the input source and displaying it on the display.

APPLICATIONS

• Residential or Commercial Installation. The AT-HD800 is a very handy (must have) tool which helps to make sure that all cables, extenders, switchers, AV receivers are passing proper signal because the installation is finished. Even before sources arrive, the generator could be used to make sure that everything is working and HDCP and EDID are passing though.

• Cable, Display, Source Manufactures. Manufactures could be using HD800 in their QC department to make sure certain frequencies and resolutions are working.

PACKAGE CONTENTS:

• AT-HD800 Portable HDMI Signal Generator with 3D
• 4 x AA Batteries
• 5V/2.6A DC power adaptor
• Protective Sleeve
• Manual

FEATURES:

• Portable size and battery operated HDMI generator
• Supports 19 Testing Patterns which includes 3 x 3D
• Cable integrity testing ability (see page 4, "7.1 Bottom Panel")
• Computer Testing resolutions: VGA, SVGA, XGA, SXGA, WUXGA
• HDTV Testing Resolutions: 480i, 576i, 480p, 576p, 720p (50/60Hz), 1080i (50/60Hz), 1080p (24/50/60)
• 3D HDTV Testing: 720p (50/60Hz), 1080p 24Hz
• 2-channel LPCM is always active to test audio 1K -20dB
• EDID Reading function, allows user to view the displays capabilities (which video and audio formats the display is capable of)
• HDMI Input, designed for reading EDID from both source and display capabilities side by side. This helps to prevent a lot of issues with installation and also troubleshoot the EDID readings in applications where a lot of equipment is used.
• The Generator comes with a protective rubber case
• Power supply is included for cases where customer has no batteries
• Last memory function, allows the generator remember the setting the user had prior to powering OFF.

SPECIFICATIONS:

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Computer Testing resolutions	VGA, SVGA, XGA, SXGA, WUXGA
HDTV Testing resolutions	480i, 576i, 480p, 576p, 720p (50/60Hz), 1080i (50/60Hz), 1080p (24/50/60)
3D HDTV Testing	720p (50/60Hz), 1080p 24Hz
3D Patterns	Frame Packing, Side-by-Side(Half), Top-and-Bottom
Audio Testing	2-channel
EDID	Supports Reading EDID from Source and Display
Indicators Lights	Indicators will shop the resolution outputted and frequency
TMDS Clock Frequency	6.75Gps
Output	1 x HDMI (Type A)
Input	1 x HDMI (Type A)
Power	4 x AA Batteries or 5V/2A Power supply
Power Consumption	2.1W Bypass / 1.1W Patterns
ESD Protection	± 8kV (air-gap discharge); ± 4kV (contact discharge)
Dimensions (inch)	5W x 3.5L x 1H
Weight	0.4LB - without batteries
Operating Temperature	0°C ~ 40°C / 32°F~104°F
Relative Humidity	20~90% RH (non-condensing)

POWER CONSUMING CHART

Mode	Resolution	Voltage	Time Out
Bypass	1080p/60	~420mA	~6.1hrs
Pattern	1080p/60	~220mA	~8hrs

Disclaimer: The above figures are tested base on Sony's 2000mA AA batteries are for referencing only. Different mode/resolution and batteries used may have different results.

OPERATION CONTROLS AND FUNCTIONS

7.1. Bottom Panel

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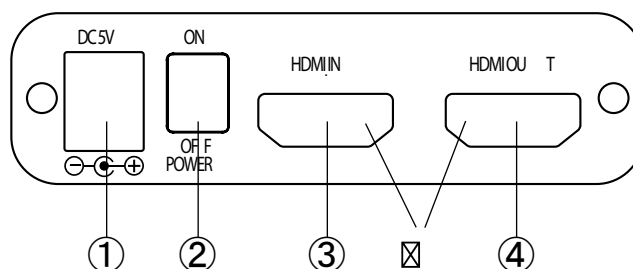
1. DC 5V: This input is for 5V power supply (if batteries are used, the power supply is not required)
2. Power Switch: Switch UP – ON, Switch Down - OFF
   Note: If user is running out of power on the batteries and wants to use power supply, the power cycle is required, so that the AT-HD800 will recognize power supply as a priority.
3. HDMI IN: This input is for connecting input source such as DVD, Computer,   Cables Box or any other source for testing and pulling EDID file.
4. HDMI OUT: This connection is for connecting the generator to a display or devices before the display when testing the full system capabilities.

Note: If an image is not present press and hold the Info Pattern button for three seconds then release. This will reset the display to its native resolution.

5. For HDMI cable integrity test, insert both ends of the cable into the AT-HD800 Unit. See "Timing Select" button for more information.

7.2. Front Panel
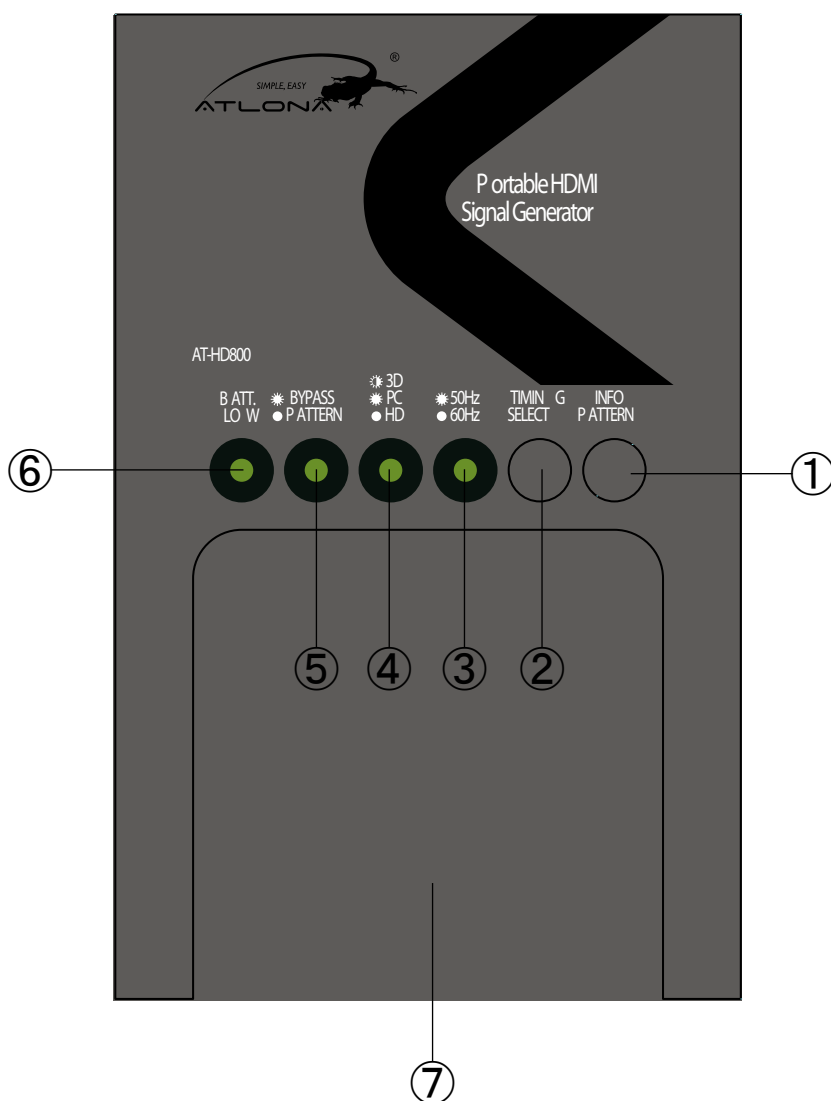
1. INFO/PATTERN:
1.1. If the input of the AT-HD800 is connected with the source and output is connected with the display (or other gear before the display) and user wants to view capabilities of both source and display side by side the Info Pattern can be pressed. This is needed to make sure that user knows the TV's capabilities and would not send something that is higher than acceptable by the display or the chain prior to the display.

1.2. If the HDMI input is not connected, the "Info Pattern" can be pressed repeatedly to switch between different patterns. By pressing Info/Pattern button, OSD menu will reveal forward/backward navigation for pattern settings. Within three seconds press Timing/Select button to scroll forward, or press Info/Pattern to scroll backwards through pattern options. To view all 19 options resolution MUST be set to 720p. Note: Only 10 options available for all other resolution settings.

2. **TIMING SELECT**: This button will only be active when HDMI input is not connected. Press this button repeatedly to bring up different resolutions (25 timings).
   By pressing Timing/Select button, OSD menu will reveal forward/backward navigation for resolution setting. Within three seconds press Timing/Select button to scroll forward, or press Info/Pattern to scroll backwards through the resolution options

2.5 **CABLE INTEGRITY TEST:** Hold the timing select button for three(3) second to initiate cable test. If the green LED is flashing, the cable is NOT transfering signal propperly. If LED is sold, the cable has passed the test. Hold "timing select" for three(3) seconds again to exit cable test.

3. **50/60 Hz**: The LED will illuminate when the signal resolutions are 50Hz. 50Hz refresh rate is usually not compatible with displays sold in USA, Canada or Japan. 50hz is a standard for most Europe and Asia.

4. **3D/PC/HD LED**:
4.1. 3D – if the LED is flashing constantly, it means that user is sending 3D pattern.
4.2. PC – if the LED is illuminated green, it means that user is sending one of the computer resolutions: 640~1920x1200 (VGA~WUXGA)
4.3. HD – if the LED is not illuminated, it means that user is sending one of the HD resolutions: 480p~1080p

5. **Bypass/Pattern LED**: This LED will illuminate in green when the input source is connected. When the input source is not connected the LED will not illuminate.

6. **BATT. LOW**: This LED will illuminate red when the power is on. If the LED is flashing it means the power is below 10% and the AT-HD800 needs new batteries or a power supply.

7. **Battery Container:** This container is for 4 x AA batteries.

8. If **Timing Select** and **Info Pattern** pressed at the same time, user can fast switch between 60Hz and 50Hz.
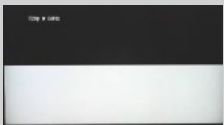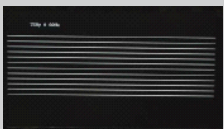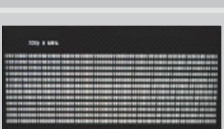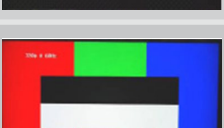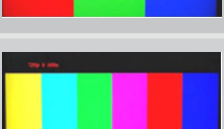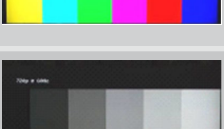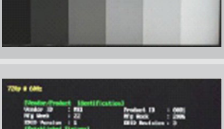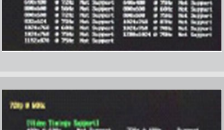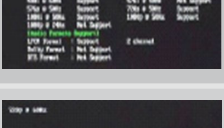
SUPPORT TIMING TABLE
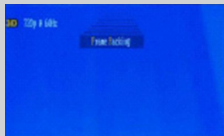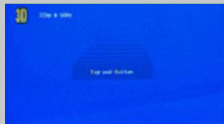
No.	Resolution	V Hz	No.	Resolution	V Hz
1	480p	60	14	1024x768	60
2	720p	60	15	1280x1024	60
3	1080i	60	16	1920x1200	60
4	1080p	60	17	720p (3D Frame Packing)	60
5	480i	60	18	720p (3D Side-by-Side)	60
6	576i	50	19	720p (3D Top-to-Bottom)	60
7	576p	50	20	720p (3D Frame Packing)	50
8	720i	50	21	720p (3D Side-by-Side)	50
9	1080i	50	22	720p (3D Top-to-Bottom)	50
10	1080p	50	23	1080p (3D Frame Packing)	24
11	1080p	24	24	1080p (3D Side-by-Side)	24
12	640x480	60	25	1080p (3D Top-to-Bottom)	24
13	800x600	60			

Note: If you are sending a 3D pattern and you get 2 images side-by-side or 2 images top-to-bottom, this would mean that either display or devices connected to the display are not 3D capable.

SUPPORT PATTERN TABLE

Group	No.	Pattern	Description
Full Screen Purity	P01		**Purity Pattern** Purity offers five different full field patterns: Black, White (100% Y) Primary colors: Red, Green, Blue P01: Red P02: Green P03: Blue P04: Black P05: White
	P02		
	P03		
	P04		
	P05		

Group	No.	Pattern		Description
Color Bar	P06			P06 Horizontal Black & White Bar P07 Vertical RGB Bar
	P07			
Line	P08		720p 50/60 only	P08 Line
Grid	P09		720p 50/60 only	P09 Cross Hatch
H-Character	P10		720p 50/60 only	P10 H-Character
Color Bar	P11		720p 50/60 only	P11 Split Color Bar
	P13		720p 50/60 only	P13 6 Color Bar
Gray Scale	P12		720p 50/60 only	P12 6 steps
TV Timing Info	P14		720p 50/60 only	P14 VESA Timings
	P15		720p 50/60 only	P15 Video Timings
Battery Info	P16		720p 50/60 only	P16 Battery level

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Group	No.	Pattern		Description
3D Type	P17			P17 Frame Packing
	P18			P18 Side-by-Side (Half)
	P19			P19 Top-and- Bottom

CONNECTION AND INSTALLATION

LCD Monitor

or

AT-HD800

HDTV

Blu-ray

or

DVD

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 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-HD800. 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.

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Toll free: 1-877-536-3976
Local: 1-408-962-0515

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

<div align="center">OR</div>

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

<div align="center">OR</div>

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 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.

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.

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Local: 1-408-962-0515

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 .

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