

3G/HD/SD-SDI to HDMI Converter AT-3GSDI-HD



User Manual

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INTRODUCTION

The AT-3GSDI-HD provides a cost effective way to convert 3G/HD/SD-SDI signal to HDMI compliant format. The conversion between SDI and HDMI is pure digital and guarantees no loss transformation for both audio and video.

Plus, with up to 8 channels audio support, 7.1 channel or 5.1 channel audio becomes available. The AT-3GSDI-HD also provides 2 low jitter and re-clocked outputs for daisy chain or multiple monitors.

FEATURES

- Supported 3G formats(SMPTE 425M, Level A):
1080p @50/59.94/60Hz (4:2:2), 1080p @24/25/30Hz (4:4:4), 1080i @50/59.94/60Hz (4:4:4),
720p @24/25/50/59.94/60Hz (4:4:4)
- Supported high-definition (HD) formats:
1080i @50/59.94/60Hz, 1035i @50/59.94/60Hz, 720p @50/59.94/60Hz
- Supported standard-definition (SD) formats: NTSC @59.94Hz, PAL @50Hz
- Auto 3G/HD/SD-SDI detection
- Two equalized and re-clocked loop outputs
- External DIP Switch Configuration

PACKAGE CONTENTS

1. 1x AT-3GSDI-HD
2. 1x 5V power adapter
3. 1x User Manual



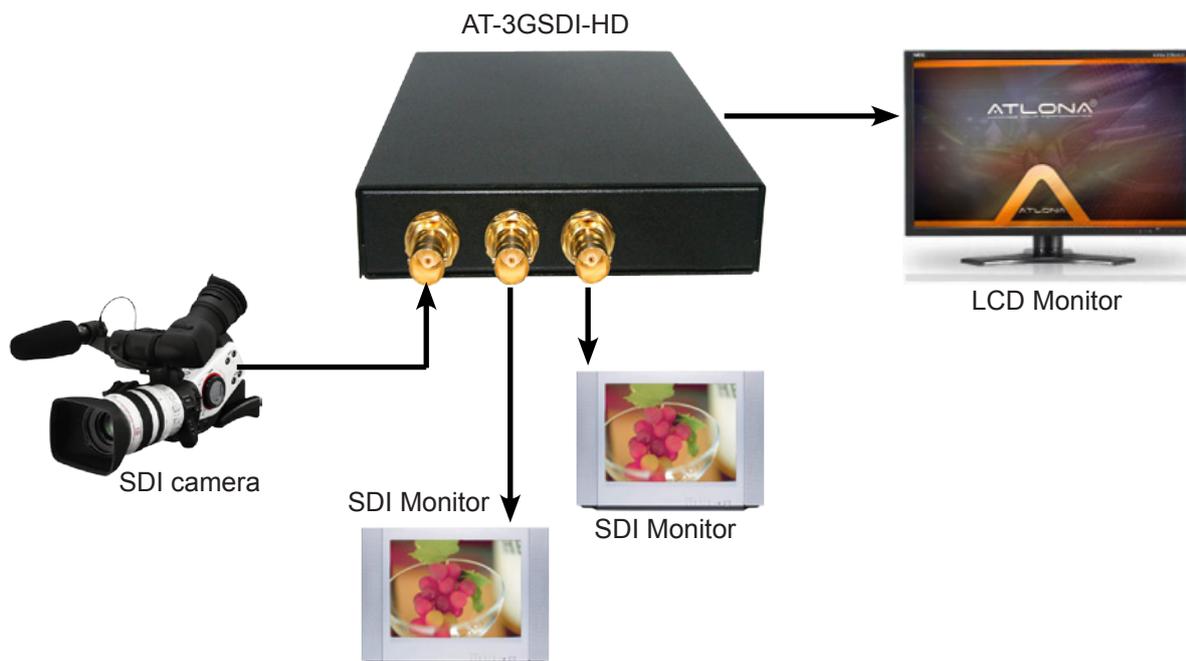
SPECIFICATIONS

Technical		
SDI standards	SD-SDI, HD-SDI & 3G-SDI	
Auto 3G/HD/SD-SDI detection	Yes	
Video bandwidth	2.970Gbps, 2.970/1.001Gbps	
Video support	[3G] – 1080p @50/59.94/60Hz (4:2:2), 1080p @24/25/30Hz (4:4:4), 1080i@50/59.94/60Hz (4:4:4), 720p @24/25/50/59.94/60Hz (4:4:4) [HD] – 720p @50/59.94/60Hz, 1035i @50/59.94/60Hz, 1080i @50/59.94/60Hz, 1080p @24/30Hz [SD] – NTSC @59.94Hz, PAL @50Hz	
Input signal	[SD-SDI] SMPTE 259M [HD-SDI] SMPTE 292M, 296M [3G-SDI] SMPTE 424M/425M	
Output signal	HDMI	
Audio mode	7.1/5.1/Stereo	
Eye pattern characteristics	Extra low alignment jitter 0.05UI at HD	
Cable equalization	[3G-SDI] up to 60m (200ft) [HD-SDI] up to 150m (500ft) [SD-SDI] up to 300m (1000ft)	
Loop-out	2 equalized and reclocked SDI loop-outs	
Audio support	Yes	
PCB stack-up	4-layer board [impedance control — differential 100 Ω ; single 50 Ω]	
Input	1x BNC [SDI]	
Output	1x HDMI 2x BNC [SDI]	
BNC connector	3G 75 Ω inter-locked socket	
HDMI connector	Type A [19-pin female]	
DIP switch	4-pin [output format / audio format / audio group / 3G level]	
Mechanical		
Housing	Metal case	
Dimensions (L x W x H)	Model	160 x 110 x 25mm [6.3"x4.3"x1"]
	Package	270 x 175 x 80mm [10.6"x6.9"x3.2"]
	Carton	270 x 175 x 80mm [10.6"x6.9"x3.2"]
Weight	Model	420g [15oz]
	Package	1030g [2.3 lbs]
Fixedness	Inter-locked power supply	
Power supply	5V 4A DC	
Power consumption	3 Watts [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	

SUPPORTED RESOLUTIONS

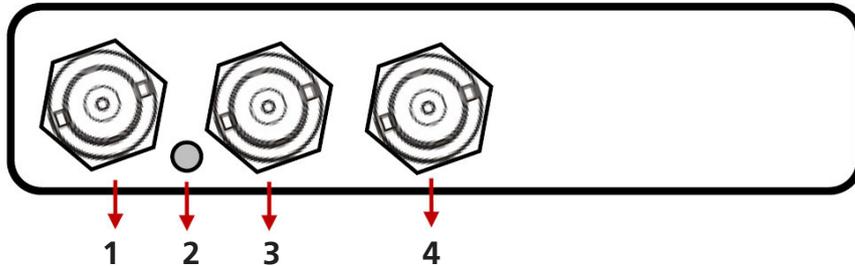
3G-SDI INPUT	
1080p @ 60/59.94/50Hz	SMPTE 425M (4:2:2)
1080p @ 30/25/24Hz	SMPTE 425M (4:4:4)
1080i @ 60/59.94/50Hz	SMPTE 425M (4:4:4)
720p @ 60/59.94/50Hz	SMPTE 425M (4:4:4)
HD-SDI INPUT	
525p @ 59.94Hz	SMPTE 293M, ITU-BT.1358
625p @ 50Hz	ITU-BT.1358
720p @ 50Hz	SMPTE 296M -3
720p @ 60 / 59.94Hz	SMPTE 296M -1, -2
1080i @ 25Hz	SMPTE 274M -6
1080i @ 25Hz	SMPTE 274M -4, -5
1080p @ 24 / 23.98Hz	SMPTE 274M -10, -11
1080p @ 25Hz	SMPTE 274M -9
1080p @ 30 / 29.97Hz	SMPTE 274M -7, -8
SD-SDI INPUT	
NTSC	
PAL B,D,G,H,I	

CONNECTION DIAGRAM



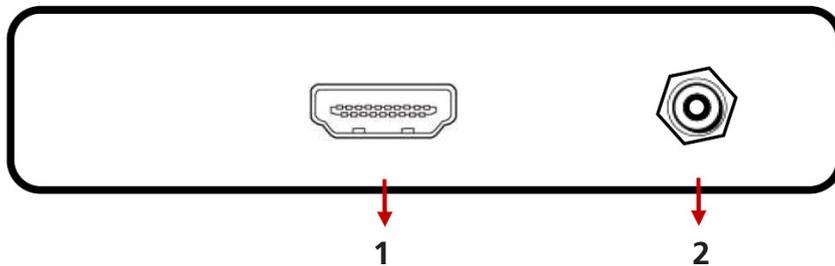
PANEL DESCRIPTIONS

Front Panel



1. 3G/HD/SD-SDI Input
2. Lock LED
3. 3G/HD/SD-SDI Output #1
4. 3G/HD/SD-SDI Output #2

Rear Panel



1. HDMI output
2. Interlocked +5V power jack

Bottom Panel

A 4-pin DIP switch is used for user interface, and users can access this switch from the bottom of the unit. Output formats, video patterns, SD Pedestal, SD Wide, PAL mode, YPbPr / RGB, SD component or SD composite, YC on/off etc.



Pin #	1	2	3	4
OFF (↑)	DVI Mode	7.1ch	Audio group 3&4	3G Level A only
ON (↓)	HDMI	Stereo	Audio group 1&2	3G Level B auto conversion

NOTICE

1. AT-3GSDI-HD mainly checks the audio channel in audio group 1&2 or 3&4. Please adjust DIP switch pin 3 for setup.
2. Some HDMI equipped TV may not be able to decipher multiple channel audio, and therefore set DIP switch pin-2 to ON (↓) to get stereo audio to work and then check if multiple channel support is available.
3. While DIP Switch pin-4 is set to OFF (↑), 3G Level B will be automatically converted to Level A.
4. AT-3GSDI-HD supports only audio sample frequency 48kHz.
5. While stereo audio is chosen, CH 1 & 2 of Group 1 or 3 are output.

SAFETY INFORMATION

Safeguards



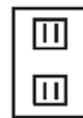
To reduce the risk of electric shock, do not expose this product to rain or moisture



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-3GSDI-HD. 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.

WARRANTY

Limited Warranty

Atlona Technologies warrants that (a) its products (the AT-3GSDI-HD) 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 customers that fall within those areas.

Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss.

Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.

ATLONA 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>**