



VAC-12HS

HDMI to 3G/HD/SD-SDI Converter



USER MANUAL

SAFETY AND NOTICE



The VAC-12HS HDMI to 3G/HD/SD-SDI Converter has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the VAC-12HS should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation. Do not use near water.
- Keep away from objects that might damage the device. Assure that the placement of this unit is on a stable surface.
- Use only the power adapter, power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

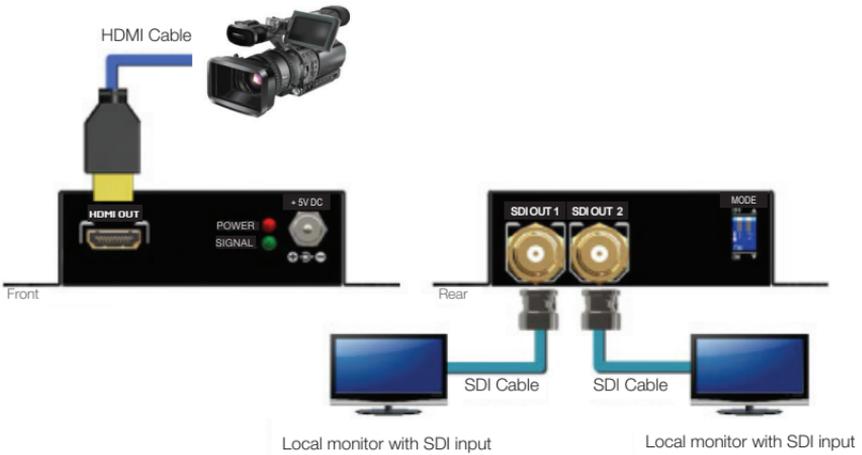
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INTRODUCTION

The VAC-12HS HDMI to 3G/HD/SD-SDI Converter provides a professional way to convert HDMI to 3G/HD/SD SDI in real time. The conversion between SDI and HDMI is purely digital and guarantees no loss of video and audio signal. Audio is supported.* The VAC-12HS also provides two low jitter SDI outputs for daisy chain or multiple monitors. With the use of VAC-12HS, the most popular uncompressed video interface in the consumer world is readily available for professional SDI equipment!

**SDI supports 48KHz. Dolby True HD and DTS HD are not supported in SDI.*



FEATURES

- Supported high-definition (HD) formats:
NTSC 525@59.94, PAL 625@50, 720p@50, 720p@59.94, 720p@60, 1080i@50, 1080i@59.94, 1080i@60, 1080p@23.97, 1080p@24, 1080p@25, 1080p@29.97, 1080p@30, 1080p@50, 1080p@59.94, 1080p@60
- Bit Rate: 2.97 Gbps, 2.967 Gbps, 1.485 Gbps, 1.4835 Gbps, 270 Mbps
- Auto 3G/HD/SD-SDI detection
- Support HDMI Deep Color
- Two SDI compliant outputs
- External DIP Switch Configuration

PACKAGE CONTENTS

- VAC-12HS Converter
- 5V/2A power adapter
- User Manual

SUPPORTED RESOLUTIONS

3G-SDI OUTPUT

1080p @ 50/ 59.94 / 60Hz	SMPTE 424M, SMPTE 425M
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HD-SDI OUTPUT

720p @ 50Hz	SMPTE 296M -3
720p @ 60 / 59.94Hz	SMPTE 296M -1, -2
1080i @ 50Hz	SMPTE 274M -6
1080i @ 60 / 59.94Hz	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 OUTPUT

NTSC
PAL B,D,G,H,I

DIP SWITCH

A 2-pin DIP switch is used for user interface. Users can access this switch from the bottom of the unit.

Pin #1	Pin #2	EDID Feature
OFF	OFF	3G/HD/SD-SDI with multi-channel audio except DTS-HD & Dolby True HD
OFF	ON	3G/HD/SD-SDI with Stereo PCM Audio
ON	OFF	HD/SD-SDI with Stereo PCM Audio
ON	ON	EDID Learning Mode

SPECIFICATIONS

TECHNICAL

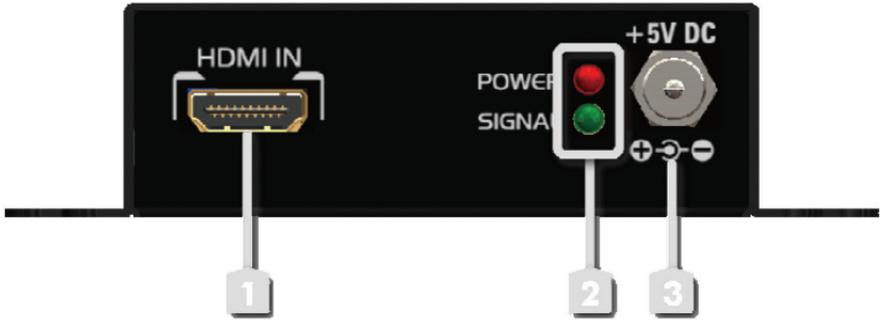
SDI standards	3G-SDI & HD-SDI & SD-SDI
Auto 3G/HD/SD-SDI detection	Yes
SDI Data Rate	[2.97Gpbs & 2.975/1.001Gbps]
Video support	[3G] - 1080p50/59.94/60 (4:2:2) [HD] - 720p @50/59.94/60Hz, 1080i @50/59.94/60Hz, 1080p @23.98/24/25/29.97/30Hz [SD] - NTSC @59.94Hz, PAL @50Hz
Input signal	HDMI
Output signal	SDI
Output impedance	75 ohms
Eye pattern characteristics	Extra low alignment jitter 0.05UI at HD
Cable equalization	[3G-SDI] up to 90m (300ft) [HD-SDI] up to 150m (500ft) [SD-SDI] up to 300m (1000ft)
Audio support	Yes
Input	1x HDMI
Output	2x BNC [SDI]
BNC connector	75 ohm inter-locked socket
HDMI connector	Type A [19-pin female]
DIP switch	2-pin [for EDID use]

MECHANICAL

Housing	Metal enclosure	
Dimensions [L x W x H]	79 x 84 x 27mm [3.1" x 3.3" x 1.2"]	
Weight	Model	[TX] – 250g [8.8oz]
	Package	780g [1.7 lbs]
Power supply	5V 2A DC with Locking Power Connector	
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]	

PANEL DESCRIPTION

FRONT PANEL



1. HDMI input
2. Signal LED:
<green> signal active
<red> power
3. Interlocked +5V power jack

BACK PANEL



4. 3G/HD/SD-SDI output
5. 3G/HD/SD-SDI output
6. DIP switch (Pin #1 and Pin #2)

EDID LEARNING

1. Please make sure both Pin#1 and Pin#2 of DIP switch are “On.”
2. Connect the HDMI display cable to the HDMI port of the signal source.
3. Power on the signal source.
4. When the green LED turns on, the EDID learning procedure is completed.
5. Please DO NOT change the DIP switch. Otherwise the built-in EDID Learning information will be lost.

LIMITED WARRANTY

MXL warrants the VAC-12HS HDMI to 3G/HD/SD-SDI Converter to be free from defects in the material and workmanship for 1 year from the date of purchase from an authorized MXL dealer. Should this product fail to be in good working order within 1 year warranty period, MXL will, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those specified above will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Cables are limited to a 30 day warranty and cable must be free from any markings or scratches.

The content of this manual has been carefully checked and is believed to be accurate. However, MXL assumes no responsibility for any inaccuracies that may be contained in this manual. MXL will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the VAC-12SH features and specifications is subject to change without further notice.

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