INTRODUCTION

The VAC-12SH 3G/HD/SD-SDI to HDMI Converter with Loop-out provides a cost-effective way to convert 3G/HD/SD-SDI signal to an HDMI compliant format. The conversion between SDI and HDMI is purely digital and guarantees no loss of audio and video signal. Audio is supported.

* The VAC-12SH also provides two (SDI and HDMI) low jitter, re-clocked outputs for daisy chains or multiple monitors.

*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: 2.97Gbps, 2.967Gbps, 1.485Gbps, 1.4835Gbps, 270 Mbps
- Auto 3G/HD/SD-SDI detection
- Support HDMI Deep Color
- One SDI compliant output and one HDMI compliant output

PANEL DESCRIPTION

FRONT PANEL

1. SDI IN: 3G/HD/SD-SDI Input
2. SDI OUT: 3G/HD/SD-SDI output

REAR PANEL

3. Signal LED:
   <Green> Both power and signal are active.
   <Red> Only power is active.
4. HDMI OUT: Connect to a HDMI display with a HDMI male-male cable here.
5. +5V DC: Connect to a 5V DC power supply included.
SAFETY & NOTICE

The VAC-12SH 3G/HD-SDI to HDMI 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-12SH 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. Ensure 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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PACKAGE CONTENTS

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

SUPPORTED RESOLUTIONS

3G-SDI Output

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1080p @ 50/59.94/60Hz</td>
<td>SMPTE 242M, SMPTE 425M</td>
</tr>
</tbody>
</table>

HD-SDI Output

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>720p @ 50Hz</td>
<td>SMPTE 296M-3</td>
</tr>
<tr>
<td>720p @ 60 / 59.94Hz</td>
<td>SMPTE 296M-1, -2</td>
</tr>
<tr>
<td>1080i @ 50Hz</td>
<td>SMPTE 274M-6</td>
</tr>
<tr>
<td>1080i @ 60 / 59.94Hz</td>
<td>SMPTE 274M-4, -5</td>
</tr>
<tr>
<td>1080p @ 24 / 23.98Hz</td>
<td>SMPTE 274M-10, -11</td>
</tr>
<tr>
<td>1080p @ 25Hz</td>
<td>SMPTE 274M-9</td>
</tr>
<tr>
<td>1080p @ 30 / 29.97Hz</td>
<td>SMPTE 274M-7, -8</td>
</tr>
</tbody>
</table>

SD-SDI OUTPUT

- NTSC
- PAL B,D,G,H,I

TECHNICAL

SDI standards 3G-SDI & HD-SDI & SD-SDI
Auto HD/SD-SDI detection Yes
SDI Data Rate [2.97Gbps & 2.975/1.001Gbps]
Video support
- [3G] - 1080p50/59.94/60 (4:2:2)
- [HD] - 720p @50/59.94/60Hz, 1080i @23.98/24/25/29.97/30Hz
- [SD] - NTSC @59.94Hz, PAL @50Hz
Input signal
- [SD-SDI] SMPTE 259M
- [HD-SDI] SMPTE 292M, 296M
- [3G-SDI] SMPTE-424M
Output signal
- 1x SDI + 1x HDMI
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 BNC [SDI]
Output
- 1x HDMI + 1x BNC [SDI]
BNC connector
- 75 ohm inter-locked socket
HDMI connector
- Type A [19-pin female]

SPECIFICATIONS

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]