3G/HD/SD-SDI to HDMI Converter

Model #: C-3GHDSDI-HDM

Table of Contents

Section 1: Getting Started

1.1   Important Safeguards

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
    - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
    - Repair or attempted repair by anyone not authorized by us.
    - Any damage of the product due to shipment.
    - Removal or installation of the product.
    - Causes external to the product, such as electric power fluctuation or failure.
    - Use of supplies or parts not meeting our specifications.
    - Normal wear and tear.
    - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2   Safety Instructions

The Avenview C-3GHDSDI-HDM, 3G/HD/SD-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's, the C-3GHDSDI-HDM should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

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1.3   Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

1.4   Introduction

The Avenview C-3GHDSDI-HDM 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 C-3GHDSDI-HDM also provides 2 low jitter and re-clocked outputs for daisy chain or multiple monitors.

- Supported 3G formats(SMPTE 425M, Level A):
  1080p @50/59.94/60Hz (4:2:2)
- 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

1.5　Package Contents

Before you start the installation of the converter, please check the package contents.

- C-3GHDSDI-HDM　　　　　　　x 1
- Power Adapter (+5VDC, 4A)　　x 1
- User's Manual　　　　　　　　x 1

1.6　Before Installation

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.

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1.7   Panel Description

1.7.1 Front Panel

1. **3G/HD/SD-SDI Input**	2. **Lock LED**
3. **3G/HD/SD-SDI Loop Out 1**	4. **3G/HD/SD-SDI Loop Out 2**

1.7.2 Rear Panel
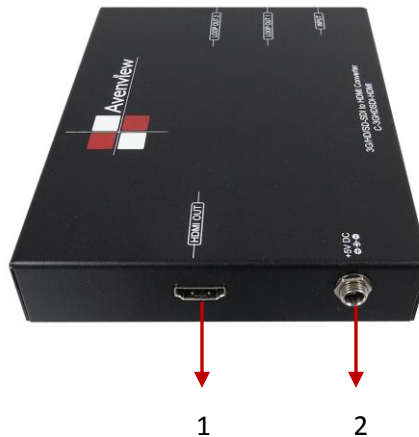
1. **HDMI Output**	2. **5V Power Jack**

1.7.3 Bottom Panel (DIP SWITCH)

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 ⬆	HDMI Mode	7.1 Channel	Audio Group 1 & 2	Audio Mute OFF
ON ⬇	DVI Mode	Stereo	Audio Group 3 & 4	Audio Mute ON

1. C-3GHDSDI-HDM 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 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. C-3GHDSDI-HDM supports only audio sample frequency 48kHz.

5. While stereo audio is chosen, CH 1 & 2 of Group 1 or 3 are output.

Section 2: Specifications

Item	Description
Units	C-3GHDSDI-HDM
Unit Description	3G/HD/SD-SDI to HDMI Converter
SDI Standards	3G-SDI, HD-SDI, SD-SDI
Auto 3G/HD/SD-SDI Detection	Yes
Video Bandwidth	**3G:** 1080p @50/59.94/60Hz (4:2:2) **HD:** 720p @50/59.94/60Hz, 1035i @50/59.94/60Hz, 1080i @50/59.94/60Hz **SD:** NTSC @59.94Hz, PAL @50Hz
Input Signal	**3G-SDI:** SMPTE 424M/425M **HD-SDI:** SMPTE 292M, 296M **SD-SDI:** SMPTE 259M
Output Signal	HDMI
Audio Mode	7.1 / 5.1 / Stereo
Eye Pattern Characteristics	Extra low alignment jitter 0.05µi at HD
Cable Equalization	**3G-SDI:** up to 60m (200 feet) **HD-SDI:** up to 150m (500 feet) **SD-SDI:** up to 300m (1000 feet)
Loop Out	2 equalized and re-clocked SDI Loop Outs
Audio Support	Yes
Input	BNC x 1 (SDI)
Output	HDMI x 1 BNC x 2 (SDI)
BNC Connector	3G 75Ω inter-locked socket
HDMI Connector	Type A (19 pin female)
DIP Switch	4 pin (output format / audio format / audio group / 3G level)
Dimensions (L x W x H)	6.9" X 4.7" x 1"
Power Supply	5V 4A DC
Power Consumption	3 Watts (max)

Environmental

Operating Temperature	32˚ ~ 104˚F (0˚ to 40˚C)
Storage Temperature	-4˚ ~ 140˚F (-20˚ ~ 60˚C)
Relative Humidity	20~90% RH (no condensation)

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2.1   Supported Resolutions

3G-SDI Input	
1080p @ 60/59.94/50Hz	C- SMPTE 425M (4:2:2)
HD-SDI Input	
720p @ 50Hz	SMPTE 296M -3
720p @ 60 / 59.94Hz	SMPTE 296M -1, -2
1080i @ 25Hz	SMPTE 274M -6
1080i @ 30 / 29.97Hz	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	

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