12G-SDI to HDMI Converter

User Manual

VER 1.0

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1. Introduction

This SDI to HDMI Converter is designed to work under two modes: 4×3G-SDI and 12G-SDI. In 4×3G-SDI mode, 4ch 3G-SDI signals can be converted to an HDMI signal and transmitted with a distance up to 100m/328ft; in 12G-SDI mode, the 12G-SDI signal can be converted to HDMI signal directly and distributed to a display 60m/197ft away. It supports video resolution up to 4K2K@60Hz and LPCM audio format.

2. Features

☆ Compatible with HDMI 2.0b, output without HDCP, video bandwidth up to 18Gbps
☆ Compatible with SDI standards: SMPTE ST-2082, SMPTE ST-2081, SMPTE 425M-AB, SMPTE 424M, SMPTE 292M, and SMPTE 259M-C, video bandwidth up to 12Gbps
☆ Maximum transmissin distance: 100m/328ft in 4×3G-SDI mode, 60m/197ft in 12G-SDI mode
☆ Support video resolution up to 4K2K@60Hz YCbCr 4:2:2
☆ Support DIP switch control
☆ Support LPCM audio format
☆ Support audio extract to analog output
☆ Compact design for easy and flexible installation

3. Package Contents

① 1 × 12G-SDI to HDMI Converter
② 2 × Mounting Ear
③ 4 × Machine Screw (KM3*4)
④ 1 × 12V 1A Locking Power Adaptor
⑤ 1 × User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
SDI Compliance	SMPTE ST-2082, SMPTE ST-2081, SMPTE 425M-AB, SMPTE 424M, SMPTE 292M, SMPTE 259M-C
SDI Formats	SD/HD/3G/12G-SDI
Video Bandwidth	SDI: up to 12Gbps HDMI: up to 18Gbps
Video Resolution	480i ~1080p50/60Hz, 4Kx2K@24/30Hz, 4K60
Color Depth	8/10-bit
Color Space	YCbCr 4:2:2
Audio Format	LPCM
Connection	
Inputs	4 × SDI IN [BNC]
Outputs	1 × HDMI OUT [Type A 19-pin Female] 1 × AUDIO OUT [3.5mm Stereo Mini-jack]
Control	1 × Micro USB [for upgrade]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	210mm (W) × 69mm (D) × 20mm (H)
Weight	400g
Power Supply	Input: AC100 - 240V 50/60Hz Output:DC 12V/1A (US/EU standard, CE/FCC/UL certificated)
Power Consumption	10W
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

5. Operation Controls and Functions
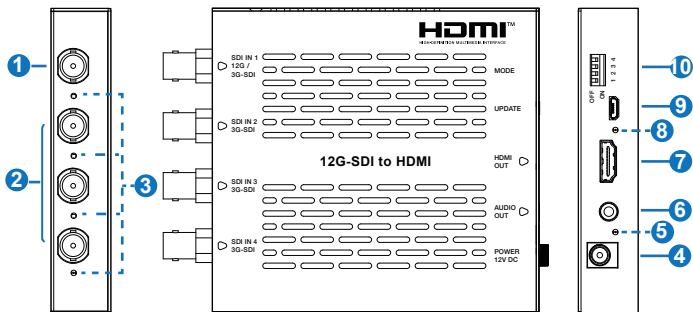
No.	Name	Function Description
1	SDI IN1	Signal input port, used for inputting SD/HD/3G/12G-SDI signals.
2	SDI IN2/IN3/IN4	Signal input ports, used for inputting SD/HD/3G-SDI signals (exclusive of 12G-SDI signal).
3	SDI LED (1~4)	When a signal port connects with SDI signal, the near-by green LED will light on correspondingly.
4	POWER 12V DC	DC 12V power input interface.
5	POWER LED	The red LED will light on when the device is powered on.
6	AUDIO OUT	Analog audio output port. Connect to a speaker or earphone.
7	HDMI OUT	HDMI video output port. Connect to a monitor/TV.
8	HDMI LED	The green LED will light on when the device outputs the HDMI signal.
9	UPDATE	Micro USB port, used for program debugging and firmware upgrading.

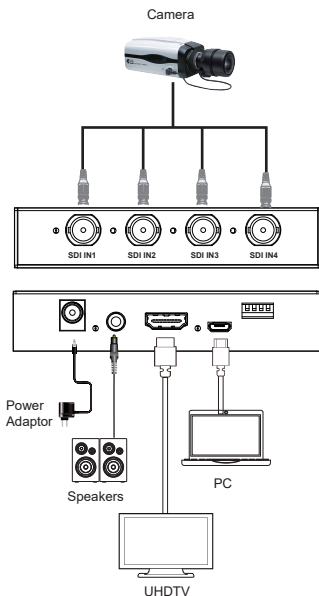| 10	MODE	4-pin DIP switch, used for setting up the device's working modes.
		DIP1: OFF-(1x12G-SDI) ON-(4x3G-SDI)
		DIP2: OFF-(HDMI OUT) ON-(DVI OUT)
		DIP3: OFF-(SDI VIDEO) ON-(4K COLOR BAR)
		DIP4: OFF-(SDI AUDIO) ON-(500HZ 2CH AUDIO)

Note:

The DIP definition is printed a part of silkscreen on the rear panel as shown below.

Default

OFF
ON

1 2 3 4

DIP 1	OFF	1x 12G-SDI
	ON	4x 3G-SDI
DIP 2	OFF	HDMI OUT
	ON	DVI OUT
DIP 3	OFF	SDI VIDEO
	ON	4K COLOR BAR
DIP 4	OFF	SDI AUDIO
	ON	500HZ 2CH AUDIO

6. Application Example

Mode 1： 4×3G-SDI   **Mode 2：** 12G-SDI
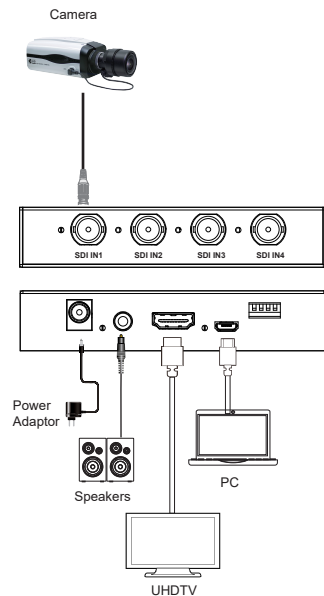
The terms HDMI and HDMI High-Definition Multimedia interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.