

# Satson®

**User Manual**

## **HDM-SDI-201**

**HDMI to 3G/HD/SD-SDI Converter**



**HDCP™**  
HIGH-DEFINITION CONTENT PROTECTION

**Full HD**  
**1080**

**R**  
20-60kHz

**CE**

**FC**

**RoHS**  
Compliance

**7.1 CH**  
**AUDIO**

rev: 130313  
**Made in Taiwan**



## **Safety and Notice**

The **HDM-SDI-201 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 equipments, the **HDM-SDI-201** 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 and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and 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 **HDM-SDI-201** provides a professional way to **convert HDMI to 3G/HD/SD SDI** in real time. 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 HDM-SDI-201 also provides 2 low jitter SDI outputs for daisy chain or multiple monitors. With the use of HDM-SDI-201, the most popular uncompressed video interface in the consumer world is readily available for professional SDI equipments!

## 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

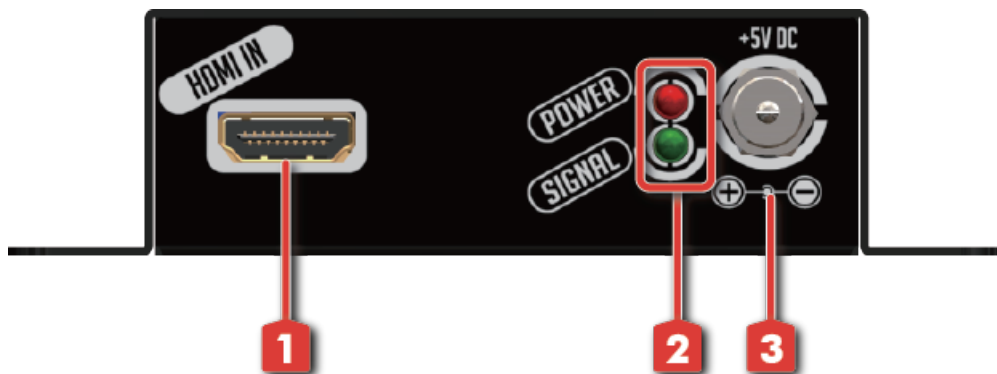
- 1x HDM-SDI-201
- 2x DC 5V 2A wall wart
- 1x User Manual

## SPECIFICATIONS

Model Name		HDM-SDI-201
Technical		
SDI standards		3G-SDI & HD-SDI & SD-SDI
Auto HD/SD-SDI detection		Yes
Video bandwidth		[2.97Gbps & 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		75Ω
Synchronization mode		Internal synchronization or external synchronization
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
PCB stack-up		6-layer board [impedance control — differential 100Ω; single 50Ω]
Input		1x HDMI
Output		2x BNC [SDI]
BNC connector		75Ω 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]	Model	79 x 84 x 27mm [3.1" x 3.3" x 1.2"]
	Package	140 x 200 x 75mm [5.5" x 7.9" x 3"]
	Carton	420 x 400 x 300mm [1'8" x 1'4" x 11.8"]
Weight	Model	[TX] – 250g [8.8oz]
	Package	780g [1.7 lbs]
Fixedness		Inter-locked power supply
Power supply		5V 2A DC
Power consumption		3 Watt [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

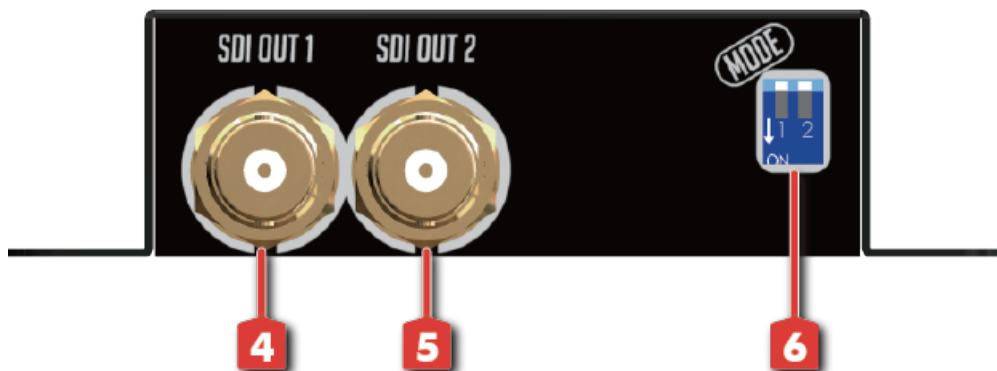
## PANEL DESCRIPTIONS

### Front Panel



- ❶ HDMI INPUT
- ❷ Signal LED:
  - <green> signal active
  - <red> power
- ❸ Interlocked +5V power jack

### Rear Panel



- ❹ 3G/HD/SD-SDI output #1
- ❺ 3G/HD/SD-SDI output #2
- ❻ DIP switch

Pin #1	Pin #2	EDID feature
OFF (⬆)	OFF (⬆)	3G/HD/SD-SDI with multi-channel audio except DTS-HD Master & Dolby TrueHD
OFF (⬆)	ON (⬇)	3G/HD/SD-SDI With stereo PCM audio
ON (⬇)	OFF (⬆)	HD/SD-SDI With stereo PCM audio
ON (⬇)	ON (⬇)	EDID Learning Mode

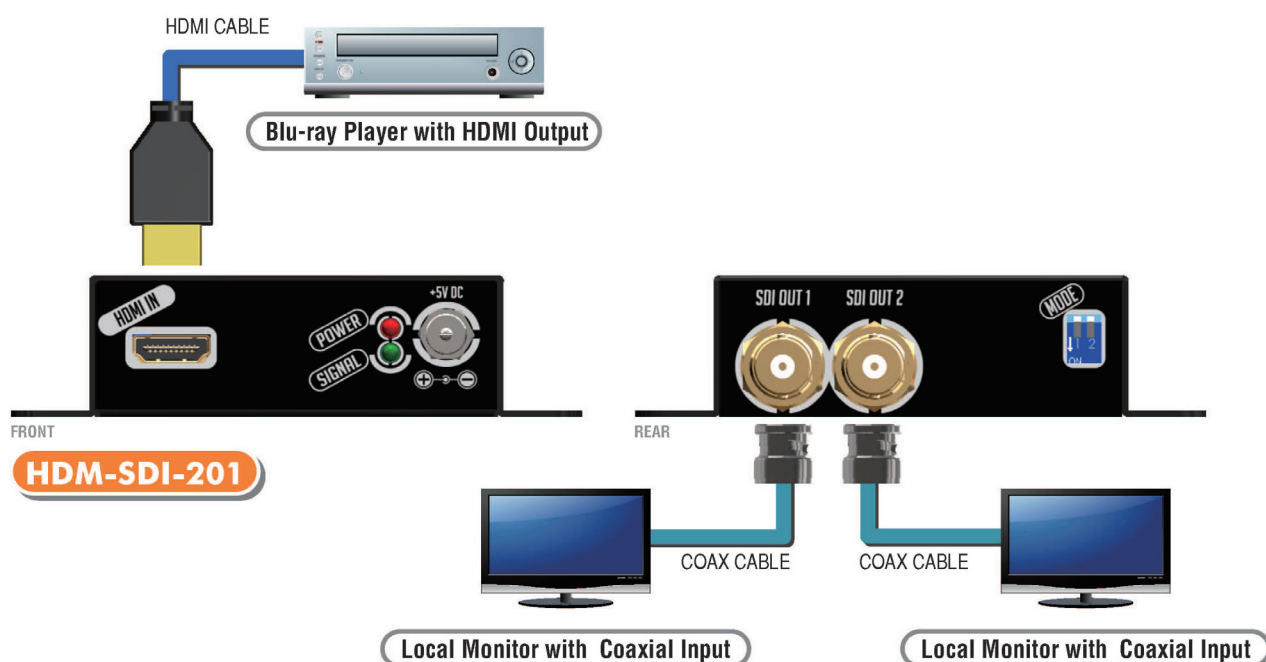
Factory default: OFF-OFF [⬆-⬆]

## SUPPORTED RESOLUTIONS

3G OUTPUT	
1080p @ 50/ 59.94 / 60Hz	SMPTE 424M, SMPTE 425M
HD 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 OUTPUT	
NTSC	
PAL B,D,G,H,I	

## CONNECTION DIAGRAM

→ HDMI → COAXIAL



## **EDID LEARNING**

1. Please make sure the Pin #1 - Pin #2 of DIP switch is at On-On [↓ - ↓].
2. Connect the HDMI display to the HDMI port of TX.
3. Power on TX.
4. After LED turns to light, 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**

The SELLER warrants the **HDM-SDI-201 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 the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, 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 covered 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. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER 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 **HDM-SDI-201** features and specifications is subject to change without further notice.

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