



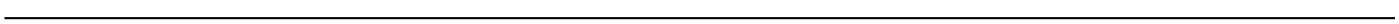
SDI Converter

# User Manual

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Model: SDI01E-12G

12G-SDI to 4K60Hz HDMI® Compact Converter with Loop Out



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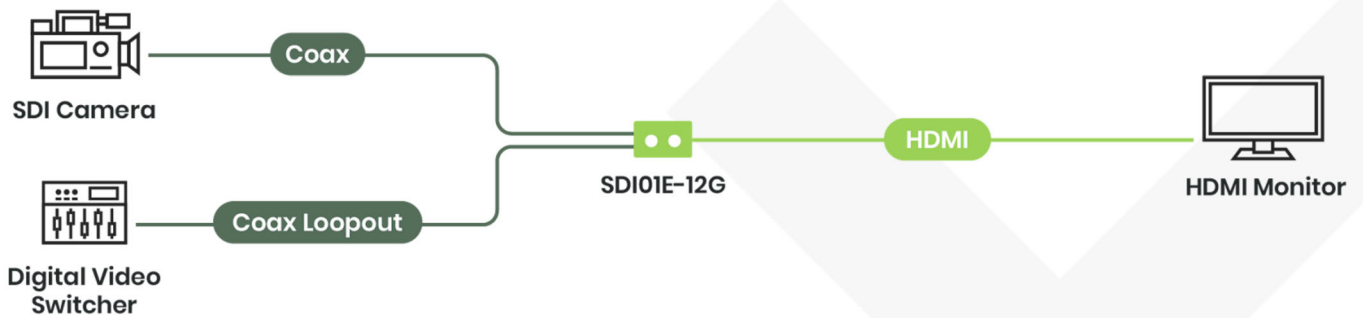
## Introduction

SDI01E-12G is a 12G-SDI to 4K 60Hz HDMI® converter that allows you to monitor 12G-SDI video using a cost-effective HDMI® display. This small and compact converter has a built-in SDI loop-out port to send the input SDI signal to an extra SDI device.

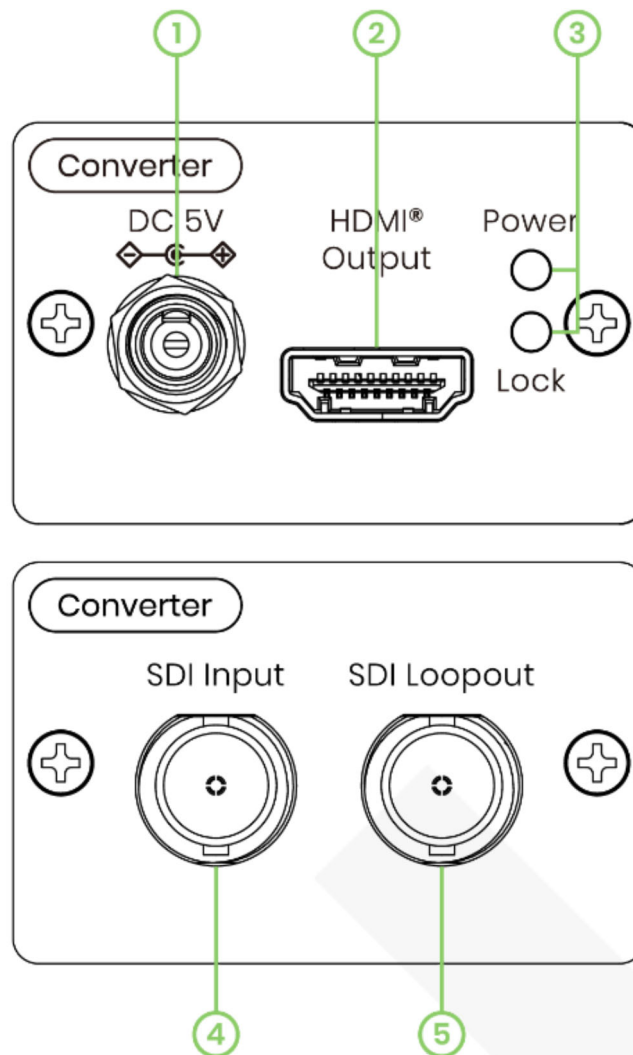
## Features

- 12G-SDI input compatible with 6G/3G/HD
- HDMI® output resolution up to 4K60Hz
- Power Input with locking design to prevent power interruption
- Small, compact and easy to install
- Multiple mounting options (Wall/Rack & Din-Rail)

## Application Diagram

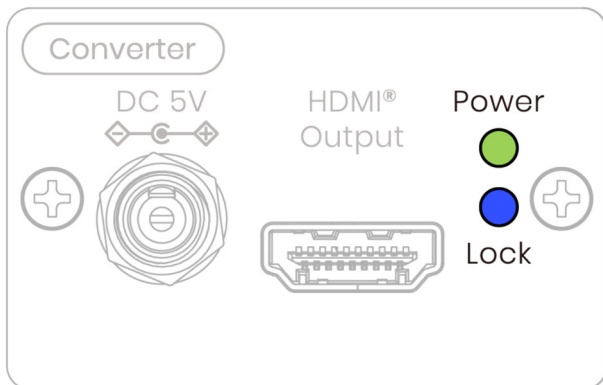


## Panel View



No	Interface	Description
1	DC Jack (with locking)	To plug in DC 5V power adapter
2	HDMI® Output	To connect to monitor or TV
3	Power/Lock LED	Refer to LED Indicator
4	SDI Input	To connect to SDI Source
5	SDI Loopout	To connect to SDI Display or Digital Video Switcher

## LED Indication



Interface	LED Status	Description
Power <b>(Green)</b>	On	Power On
	Off	Power Off
Lock <b>(Blue)</b>	On	SDI signal lock and HDMI® signal ready to transmit
	Off	No SDI signal

## Functional Description

### SDI Interface



SDI01E-12G features a single SDI input port, accepting SDI signals from compatible sources. This input port allows seamless integration of SDI sources into HDMI®-based display systems or recording devices.

SDI01E-12G preserves ancillary data embedded within the SDI signal, such as embedded audio, timecode, and other metadata.

### Support Resolution

SDI01E-12G supports various resolutions, indicated by the below table:

Resolution		
SDI Format	HDMI® Format	Frequency
12G SMPTE ST 2082	4096x2160p	23.98/24/25/29.97/30/50/59.94/60Hz
	3840x2160p	23.98/24/25/29.97/30/50/59.94/60Hz
6G SMPTE ST 2081	4096x2160p	23.98/24/25/29.97/30Hz
	3840x2160p	23.98/24/25/29.97/30Hz
3G-A <sup>1</sup> SMPTE ST 424	2048x1080p	23.98/24/25/29.97/30/50/59.94/60Hz
	1920x1080p	23.98/24/25/29.97/30/50/59.94/60Hz
	1920x1080i	50/59.94/60Hz
	1280x720p	50/59.94/60Hz
HD <sup>2</sup> SMPTE ST 292	2048x1080p	23.98/24/25/29.97/30Hz
	1920x1080p	23.98/24/25/29.97/30Hz
	1920x1080i	50/59.94/60Hz
	1280x720p	50/59.94/60Hz

<sup>1</sup> 3G Level B format is not supported

<sup>2</sup> SD format is not supported

## Transmission Distance

The transmission distance depends mainly on the cable quality and the signal format.

The quality of the coaxial cable for transmitting SDI signals plays a significant role in determining the transmission distance. Higher-quality cables with better shielding and lower signal attenuation can support longer distances without signal degradation.

The transmission distance also may vary based on the SDI signal format being used. Higher data rates, such as 12G-SDI, will have shorter maximum transmission distances compared to lower data rate like 3G-SDI or HD-SDI.

## HDMI® Interface



SDI01E-12G is equipped with a single HDMI® output port, designed to deliver converted video signals to HDMI®-compatible displays, projectors, or recording devices.

As SDI signals are not encrypted, there will be no HDCP encryption on the HDMI® output port.

The HDMI® output conforms to HDMI® 2.0 specifications, supporting all the input resolutions provided in the SDI Interface Section.

As 12G-SDI's maximum resolution is 4096x2160p at 60Hz with 4:2:2 10-bit color depth, the maximum HDMI® output resolution will be the same.

## Technical Specification

Model	SDI01E-12G
Compliance	
Standard <sup>3</sup>	SMPTE ST 2082/2081/424/292 HDMI® 2.0
Max. Video Resolution	4096 x 2160p 60Hz Color depth 4:2:2 10-bit
Dynamic Range Standard <sup>4</sup>	SDR, HDR
Audio Format <sup>5</sup>	PCM 2CH · 5.1CH · 7.1CH Dolby Digital (AC-3)
Ports & Interfaces	
Input	1 x (12G/6G/3G/HD)-SDI
Output	1 x HDMI® Type A 1 x (12G/6G/3G/HD)-SDI
Power	
Power Supply	DC 5V 2A
Power Consumption	4.5W
Power Saving	1W
Ambient Temperature	
Operation	0 to 55°C
Storage	-40 to 85°C
Operating Altitude (Max.)	2000m
Humidity	Up to 95%
Physical Characteristics	
Dimension (D x W x H)	93 x 50 x 32mm
Weigh	155g

<sup>3</sup> 3G Level B and SD formats are not supported.

<sup>4</sup> Dynamic range metadata in the input stream is pass-through and fully maintained.

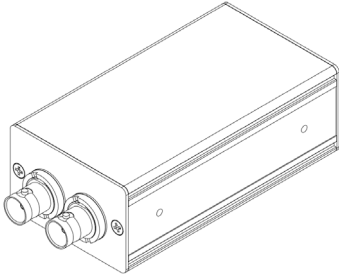
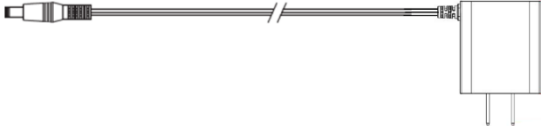

<sup>5</sup> Audio data in the input stream is pass-through and fully maintained.



## Caution

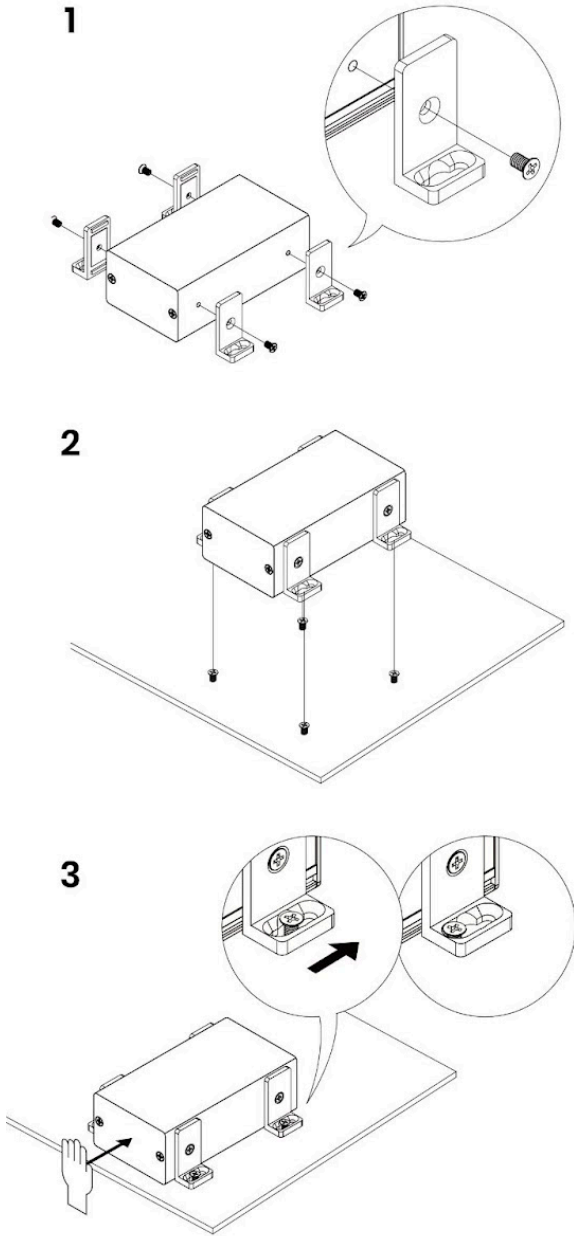
1. This product is designed for indoor applications. If it is desired for outdoor use, please install additional equipment for waterproof protection and surge protectors to prevent damages caused by lightning.
2. Do not put anything on the power and system cables, place them where they cannot be stepped on. Please be sure there is nothing resting on any cables.
3. Avoid using this product close to water places, or near high temperature devices such as radiators, stoves, etc.
4. Shut down the power supply and unplugged all equipment immediately if:
  - a. Water or any kind of liquid has been spilled into the product;
  - b. The product has been damaged by external force;
  - c. The product does not operate normally as this manual indicates;
  - d. Please contact us for further repair if above conditions happen.
5. Using certified Premium HDMI® cable to transfer high-resolution video is recommended.
6. Using certified Coaxial cables to transfer high-resolution video is recommended.
7. SD-SDI and 3G-SDI level B are not supported.
8. HDMI® 4K60Hz color depth supports up to 4:2:2 10bit.
9. This converter does not support scaling functions. If the input source is detected as 12G-SDI, the HDMI® monitor must support a resolution of at least 4K60Hz.

**Package Includes**

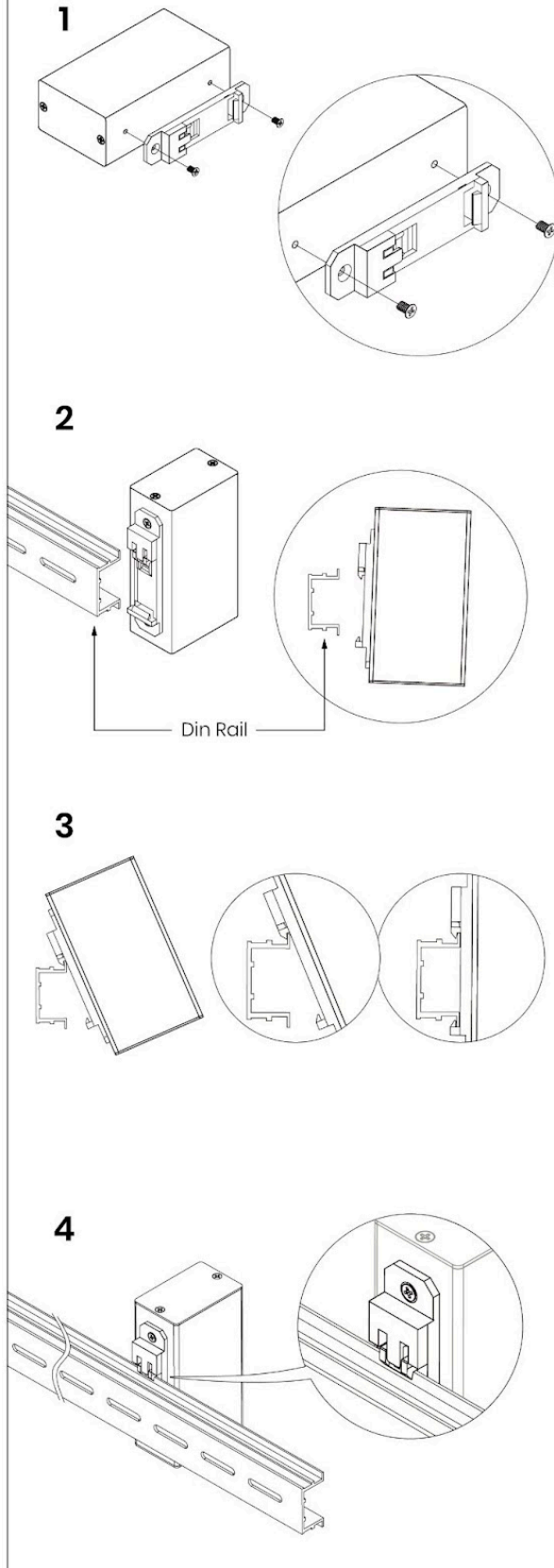
Item	Amount	Image
SDI01E-12G	1 pc	 <p>The unit has a width of 51mm and accommodates six units within a standard 19-inch rack</p>
DC 5V 2A Power Adapter	1 pcs	
Mounting Screw pack	1 bag	 <p>4 pcs (bag)    4 pcs (bag)    4 pcs (bag)    4 pcs (bag)    4 pcs (bag)</p>

# Installation

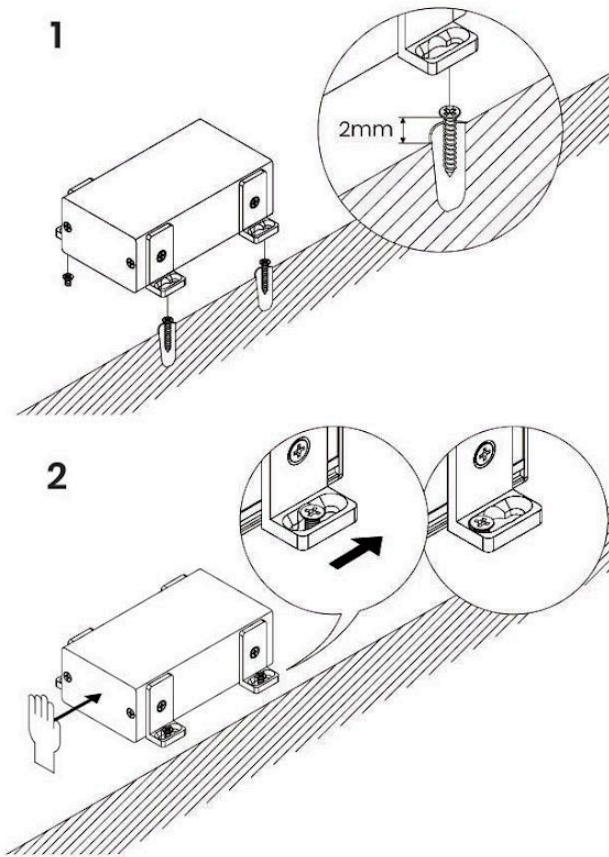
## Installed on a Platform



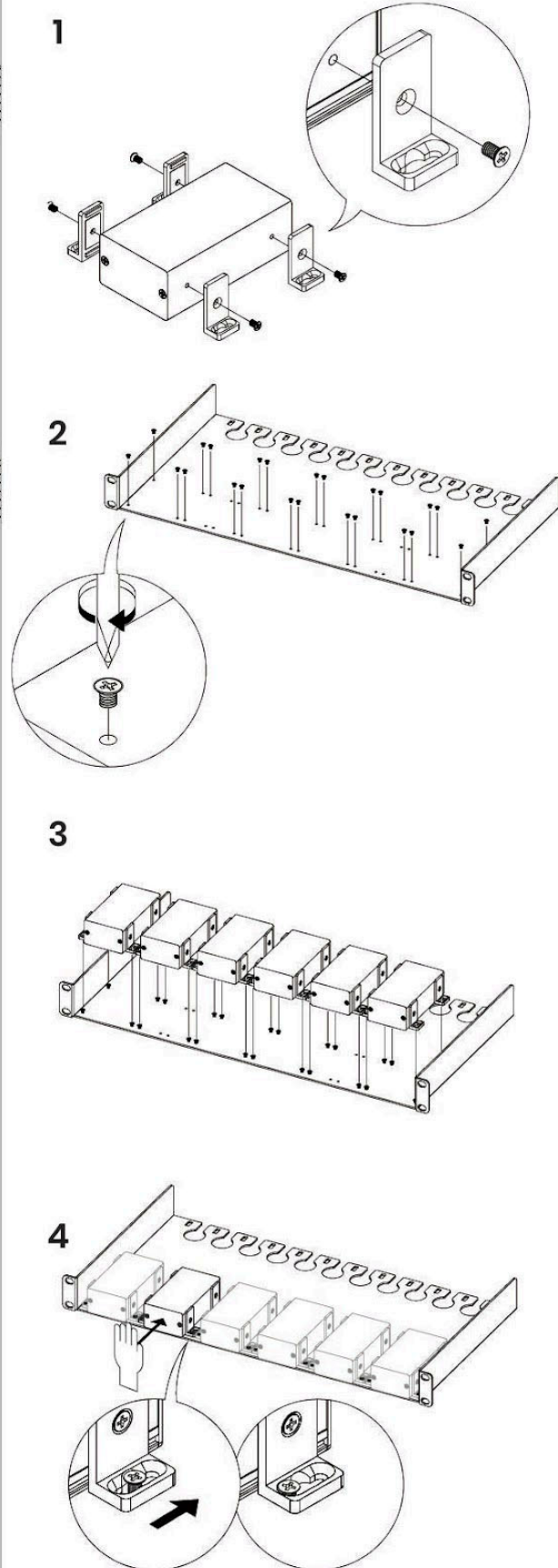
## Installed on a DIN-rail



Installed on Wall



Installed on a Rack



RoHS CE