



SDI Converter

User Manual

Model : SDI01A-12G

12G-SDI to HDMI 2.0 Converter with Audio
Embedded/Extractor



Introduction

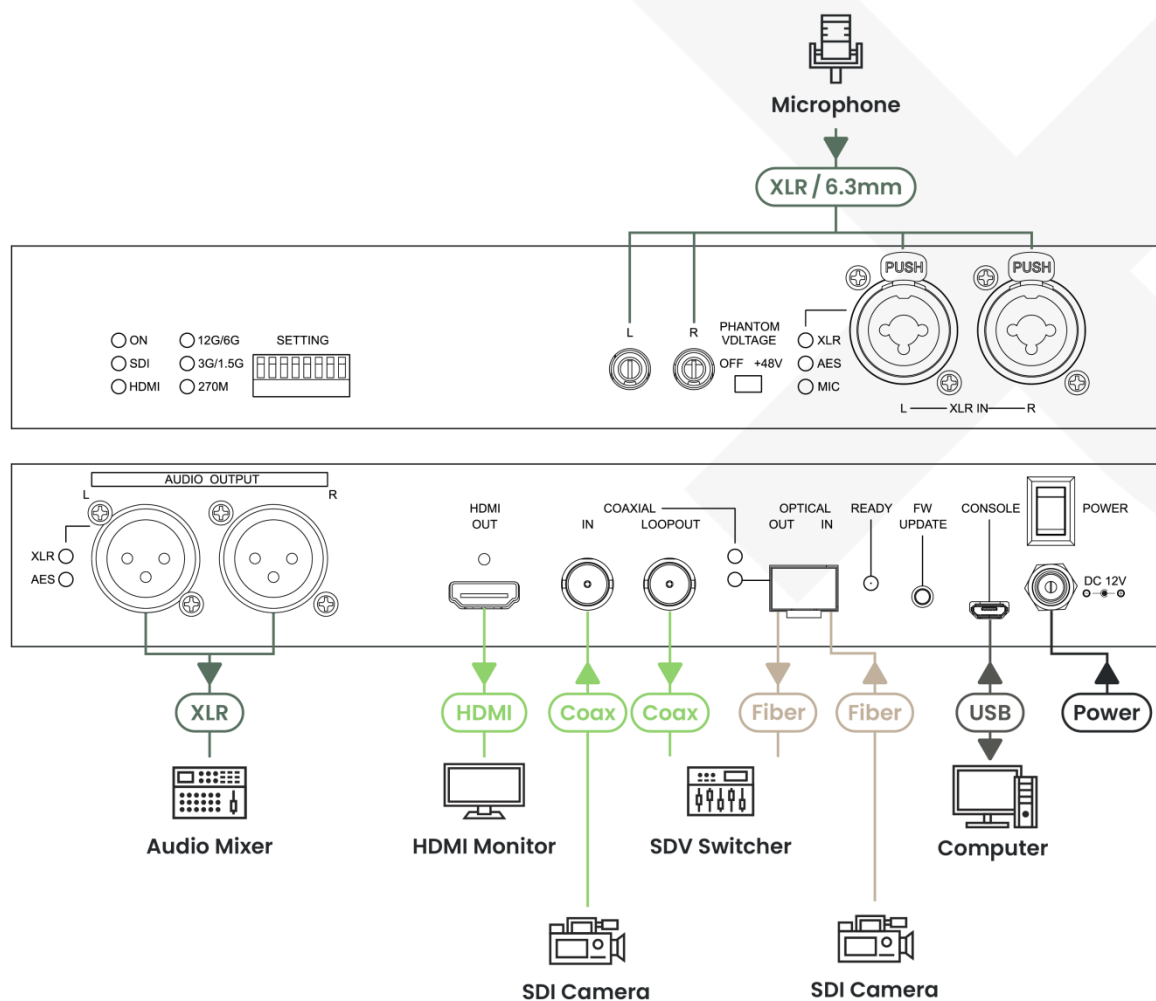
SDI01A-12G is a 12G-SDI to HDMI 2.0 converter that can allow you to monitor 12G SDI video using a cost-effective HDMI display. The new converter has a built-in SDI loop-out port to send the input SDI signal to an extra SDI device.

Furthermore, SDI01-12G also features diverse audio interfaces for audio embed or extract to integrate with your professional audio equipment.

Features

- Resolution up to 4K@60Hz 4:4:4 HDMI and 12G-SDI.
- Built-in fiber module for long distance transmission.
- Built-in SDI loop out.
- Built-in XLR (AES/ EBU), 6.3mm phone jack, and RCA audio interfaces
- Supports HDMI audio embedder and SDI audio extractor.
- Support HDMI video up/down scaler.

Diagram



Step by step installation

1. Connect 12G-SDI source to SDI01A-12G by 12G RG6U cable (BELDEN 4694 or higher).
2. Connect 4K 6G HDMI monitor to SDI01A-12G by HDMI 2.0 premium cable.
3. Connect 12G-SDI monitor to SDI01A-12G by 12G RG6U cable (BELDEN 4694 or higher).
4. Connect AUDIO INPUT/OUTPUT between SDI01A-12G and audio equipment by XLR cable.
5. Connect DC 12V power adaptor to SDI01A-12G and turn on POWER switch.

Panel View

Front View



Back View



SDI Input

- Coax/Optical

SDI Loop out

- Coax/Optical

Audio Input

- SDI 8 Channel by Group selection
- 2 CH XLR / RCA / 6.5mm phone jack/ AES

Audio Output (simultaneously)

- HDMI
- 2 Channel XLR / 6.5 mm phone jack/ AES

Micro USB

- Firmware update

- System setting
- HDMI audio mapping

Mechanical Dip Switch

- Select audio interface
- Select HDMI resolution
- HDCP On / off

LED Indication

Front Panel LED	Function	ON	Blink
Green ON	Power	Power Good	
Green SIGNAL	SDI Signal Indicator	Signal Locked	
Green HDMI	HDMI Output Indicator	HDMI Outputted	Resolution not supported
Blue 12G/6G	12G/6G Indicator	12G-SDI	6G-SDI
Blue 3G/1.5G	3G/1.5G Indicator	3G-SDI	1.5G-SDI
Blue 270M	270M Indicator	270M-SDI	
Green XLR	XLR Input Indicator	XLR Input	
Blue AES	AES Input Indicator	AES Input	
Red MIC	Mic Input Indicator	Mic Input	

Rear Panel LED	Function	ON
Green READY	System Ready Indicator	System Ready
Blue SDI	Coaxial Indicator	Coaxial Input
Blue Optical	Optical Indicator	Optical Input
Green XLR	XLR Output Indicator	XLR Output
Blue AES	AES Output Indicator	AES Output

Dip Switch Settings

No.	Function	↑ OFF	↓ ON
1	Video Input Select	Coaxial Input	Optical Input
2	Audio Mode	Audio Extractor	Audio Embedder
3	Audio Select	4 ↑ 3 ↑ = XLR	4 ↑ 3 ↓ = RCA
4		4 ↓ 3 ↑ = MIC	4 ↓ 3 ↓ = AES
5	Scaler Setting	6 ↑ 5 ↑ = Pass Through	6 ↑ 5 ↓ = 1080p@60Hz
6		6 ↓ 5 ↑ = 3840x2160@60Hz	6 ↓ 5 ↓ = User Define Default 4096x2160p@60Hz
7	Reserve		
8	HDCP Setting	Without HDCP	With HDCP

※ Please adjust the DIP switch when power off then turn on to take effect.

Phantom Power Voltage Setting

Jumper No.	Phantom Voltage
JP5 Short	48V
JP6 Short	24V
JP7 Short	18V (OEM Version)
JP5, JP6, JP7 All open	12V

Supported Format

SDI Standard	
SMPTE 2082-10 Mode 1	12G-SDI
SMPTE 2081-10 Mode 2	6G-SDI
SMPTE 425-1 3GA & 3GB	3G-SDI
SMPTE 425-1 3GB-DS	3G-SDI
SMPTE 292	1.5G-SDI

SDI Resolution and Frame Rate

SDI Resolution	SDI Frame Rate	SDI Sampling	SDI Audio
4096x2160	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p	4:4:4/4:2:2	32-CH 48KHz 24-Bit
3840x2160	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p		
2048x1080	60p, 60i, 59.94p, 59.94i, 50p, 50i, 48p, 48i, 47.95p, 47.95i, 30p, 30psf, 29.97p, 29.97psf, 25p, 25psf, 24p, 24psf, 23.98p, 23.98psf		
1920x1080	60p, 60i, 59.94p, 59.94i, 50p, 50i, 48p, 48i, 47.95p, 47.95i, 30p, 30psf, 29.97p, 29.97psf, 25p, 25psf, 24p, 24psf, 23.98p, 23.98psf		
1280x720	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p		

HDMI Resolution and Frame Rate

HDMI Resolution	HDMI Frame Rate	HDMI Sampling	HDMI Audio
4096x2160	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p	4:4:4/4:2:2	8-CH 48KHz 24-Bit
3840x2160	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p		
2048x1080	60p, 60i, 59.94p, 59.94i, 50p, 50i, 48p, 48i, 47.95p, 47.95i, 30p, 29.97p, 25p, 24p, 23.98p		
1920x1080	60p, 60i, 59.94p, 59.94i, 50p, 50i, 48p, 48i, 47.95p, 47.95i, 30p, 29.97p, 25p, 24p, 23.98p		
1280x720	60p, 59.94p, 50p, 48p, 47.95p, 30p, 29.97p, 25p, 24p, 23.98p		

Scaler Resolution and Frame Rate

HDMI Resolutions	HDMI Frame Rates
4096x2160	60, 50Hz
3840x2160	60, 50Hz
1920x1080	60, 50Hz
1280x720	60, 50Hz
720x576p	50Hz
640x480p	60Hz

※ The scaler doesn't process the format of interlace and progressive segmented frame, it will directly pass-through original format from the input source.

Trouble Shooting

1. We strongly recommend using high quality 75Ω coaxial cables, bad quality of cable may affect the connection stability and transmission distance.
2. SD-SDI (480i & 576i) in the SMPTE 292 standard 270M is not supported.
3. Any change of HDCP settings must reboot to take effect.

Specification

ITEM NO.	SDI01A-12G
Support	
Compliance	SMPTE 2082-10 Mode 1 (12G-SDI) SMPTE 2081-10 Mode 2 (6G-SDI) SMPTE 425-1 3GA & 3GB (3G-SDI) SMPTE 425-1 3GB-DS (3G-SDI) SMPTE 292 (1.5G-SDI) HDMI 2.0 HDCP 2.2
Max. Video Resolution	12G-SDI, 4096x2160@60Hz HDMI
Transmission Distance	10KM over Single Mode Fiber Optic Cable, 100M over Coaxial Cable
Ports & Interfaces	
Video Input	1 x 75Ω BNC, 1 x Video SMPTE SFP+
Video Output	1 x HDMI Type A
Video Loop-out	1 x 75Ω BNC, 1 x Video SMPTE SFP+
Audio Interface	2 x XLR Male Jack 2 x XLR Female Combo 6.4 Jack 2 x 10KΩ RCA
Power Interface	1 x (5.5 x 2.1mm) DC Jack
Firmware Update	1 x Micro USB
Power	
Power Supply	DC 12V Regulated
Power Consumption	1.0A (Typical), 1.2A (Maximum)
Ambient Temperature	
Operation	0 to 50°C
Storage	-20 to 85°C
Humidity	Up to 95%
Physical Characteristics	
Dimensions	253 x 162.5 x 40mm
Weight	1030g