

DVI to 3G SDI Converter

ID # 797



Operation Manual

Introduction

The DVI to SDI Converter allows DVI-D signals to be shown on SDI display while ensuring high bit rates of 2.970 Gbit/s to give you high resolution signal without any loss. For professionals this means that it is now easier to convert your high definition DVI signal with audio to SDI for long distance transmission and display your work on SDI display. In addition, the external audio input allows the user to insert the sound from a different audio source instead of the DVI embedded audio, and send to the SDI output.

Features

- Shows DVI source on SDI display
- SDI interface operates at bitrates of 2.970 Gbit/s, 2.970/1.001 Gbit/s, 1.485 Gbit/s, 1.485/1.001 Gbit/s and 270 Mb/s
- Converts DVI signals to SDI:
 1. 480i/576i to SD-SDI (SMPTE 259M-C, at bitrates of 270 Mbit/s)
 2. 720p/1080i to HD-SDI (SMPTE 292M, at bitrates of 1.485 Gbit/s or 1.485/1.001 Gbit/s)
 3. 1080p to 3G-SDI (SMPTE 424M/425M-AB, at bitrates of 2.970 Gbit/s and 2.970/1.001 Gbit/s)
- Supports DVI input timings: 480i@59.94, 576i, 720p@50/59.94/60, 1080i@50/59.94/60, 1080p@23.98/24/25/29.97/30/50/59.94/60
- Supports SDI output distance up to 100 meters (3G-SDI), 200 meters (HD-SDI), or 300 meters (SD-SDI)
Note: *Tested with Belden 1694A Cable. Operating distances may vary if used with cables of different specifications.*

Applications

- PC/HD signal sending to SDI display
- DVI signal conversion to 3G-SDI display

System Requirements

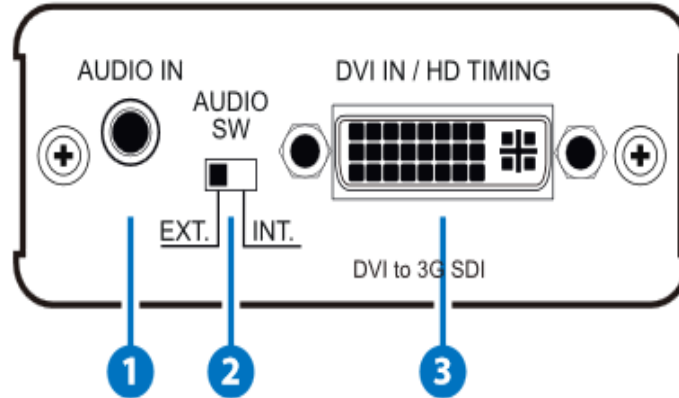
Input DVI source equipment with DVI cable and output SDI monitor with SDI cable.



Operation Controls and Functions

Front Panel

The following sections describe the hardware components of the unit.



1. AUDIO IN:

Connect to the audio source equipment (such as DVD player) with a 3.5 mm phone jack for audio signal input.

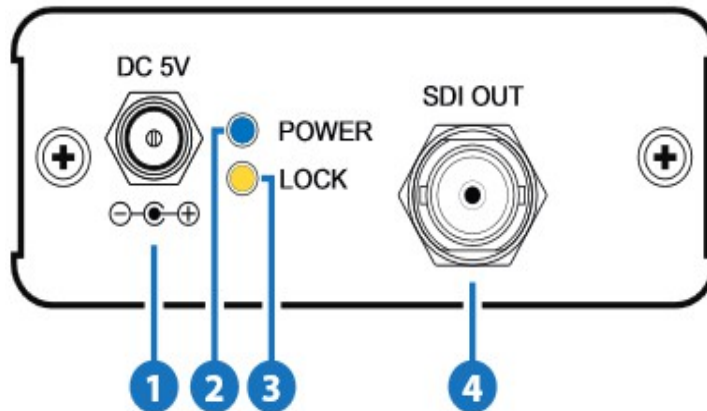
2. AUDIO SW:

This switch allows the user to choose between audio sources. Switch between the external (EXT) audio input (3.5mm phone jack) or the internal (INT) audio from an HDMI to DVI adaptor input.

3. DVI IN/HD TIMING:

Connect to the DVI input source such as a PC or laptop with a DVI cable or with a HDMI cable and HDMI to DVI adaptor.

Back Panel



1. DC 5V:

Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet.

2. POWER LED:

This blue LED will illuminate when the device is connected to the power supply.

3. LOCK LED:

This yellow LED will illuminate when both input source and SDI output display has successfully sent and received the signal.

4. SDI OUT:

Connect to the SDI output display.

Specifications

Video Bandwidth	225 MHz/6.75Gbps
Input	1×DVI, 1×3.5mm Phone Jack
Output	1×BNC (SD/HD/3G-SDI)
DVI Timing Support	480i@59.94, 576i, 720p@50/59.94/60 1080i@50/59.94/60 1080p@23.98/24/25/29.97/30/50/59.94/60
SDI Timing Support	SD-SDI: SMPTE 259M-C, 270 Mbit/s HD-SDI: SMPTE 292M, 1.485 & 1.485/1.001 Gbit/s 3G-SDI: SMPTE 424M/425M-AB, 2.970 & 2.970/1.001 Gbit/s
Audio Input Support	Internal: PCM 2/5.1/7.1 CH External: Analog 2 CH
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) ±4kV (Contact discharge)
Power Supply	5V/2.6A DC (US/EU standards, CE/FCC/ UL certified)
SDI Cable Distance	3G/HD/3G-SDI up to 100 /200/300 meters with BELDEN 1694A Cable
Dimensions	78.5mm (W)×124mm (D)×30mm (H)
Weight	204g
Chassis Material	Aluminum
Silkscreen Colour	Silver
Operating 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)
Power Consumption	4.3W

Note:

SDI supports SD resolutions of 480i@59.94 and 576i@50 only. If the input source is sending an incompatible resolution, this may cause problems with the image or no image to be displayed. Please ensure that the source device is set to output in a compatible resolution

Connection Diagram

