

Connections

SDI Video Inputs

1 x SD, HD or 1.5G-SDI. 1 x ALT SDI Input for automatic switch over if main input fails.

SDI Video Outputs

1 x SDI Loop Output.

SDI Rates

270Mb, 1.5G

Analog Video Outputs

NTSC, PAL, S-Video and component SD/HD from 1.5G-SDI input.

Analog Audio Outputs

2 channels of professional balanced analog audio with standard 1/4 inch jack connections.

Digital Audio Outputs

2 channels of balanced AES/EBU audio.

SDI Redundant Input

Automatically switches over if main SDI input is lost.

Multi Rate Support

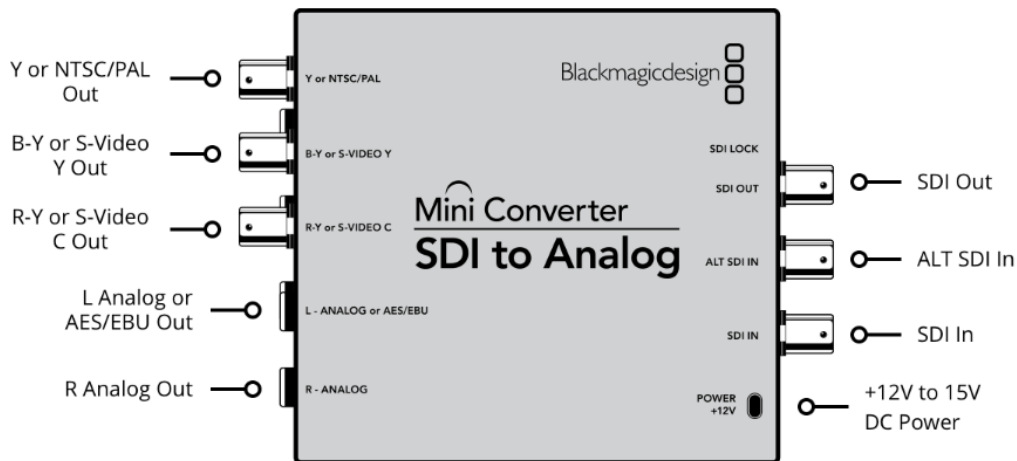
Auto detection of SD, HD or 1.5G-SDI.

Updates and Configuration

USB

Reclocking

Yes



Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards

720p50, 720p59.94, 720p60, 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080PsF23.98, 1080PsF24, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080i50, 1080i59.94, 1080i60

SDI Compliance

SMPTE 292M, SMPTE 259M, SMPTE 296M, SMPTE 372M, SMPTE 424M-B, SMPTE 425M, ITU-R BT.656 and ITU-R BT.601.

SDI Video Rates

SDI video connections are switchable between SD and HD.

SDI Video Sampling

4:2:2

SDI Audio Sampling

Television standard sample rate of 48 kHz and 24 bit

SDI Color Precision

4:2:2

SDI Color Space

YUV

SDI Auto Switching

Auto detection of SD, HD or 3G-SDI.

Analog Video Standards

525i29.97 NTSC, 625i25 PAL, 720p50, 720p59.94, 720p60, 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080i50, 1080i59.94, 1080i60

Analog Color Space

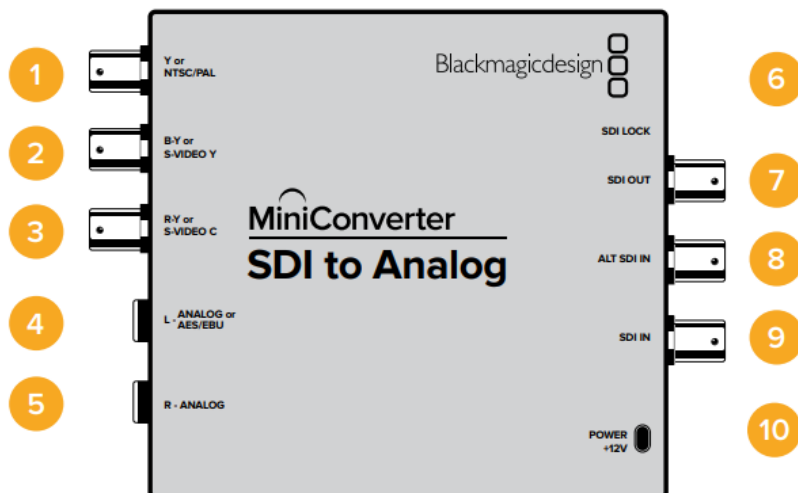
YUV

Analog Color Precision

4:2:2

Mini Converter SDI to Analog

Your Blackmagic Mini Converter SDI to Analog converts from SD/HD-SDI to analog component, NTSC and PAL video out, plus balanced AES/EBU and analog audio out. Your converter easily connects to analog video monitors and decks such as Betacam SP and VHS. A hardware down converter lets you connect HD-SDI video to SD analog equipment. You can even output pairs of analog audio from 16 de-embedded SDI audio channels.



Connectors

- 1 Y or NTSC/PAL**
Analog component Y, or composite NTSC/PAL output on a BNC connector.
- 2 B-Y or S-VIDEO Y**
Analog component B-Y, or S-Video Y output BNC connector.
- 3 R-Y or S-VIDEO C**
Analog component R-Y, or S-Video C output BNC connector.
- 4 L - ANALOG or AES/EBU**
Balanced left channel analog audio, or AES/EBU digital audio output on a 1/4" jack connector.
- 5 R - ANALOG**
Balanced right channel analog audio output 1/4" jack connector.
- 6 MINI-B USB PORT**
Connects to the Converters Setup software via your Mac OS X or Windows computer. The Mini Converter's internal software is also updated using the USB port.
- 7 SDI OUT**
SDI video output on a BNC connector.
- 8 ALT SDI IN**
Redundant SDI input is provided as an optional back up.
- 9 SDI IN**
Primary SDI input.
- 10 POWER +12V**
12 volt power supply input.

Switches

Switch 8 - Analog Audio, AES/EBU Audio

Set switch 8 to OFF to select balanced analog audio, or to ON for digital AES/EBU audio output.

Switch 7 - 7.5 IRE - 0.0 IRE

The USA and countries using NTSC with 7.5 setup should set switch 7 to OFF. If you're working in countries not using 7.5 setup, set switch 7 to ON. This setting only affects composite or S-Video outputs.

Switch 6 - SMPTE Levels - Betacam Levels

Set switch 6 to OFF for SMPTE levels, or ON for Betacam levels. SMPTE levels are more common and even Betacam SP decks can use SMPTE levels, so only switch this to Betacam if you are sure that Betacam levels are being used.

Switch 5 - Component, Composite or S-Video

Set switch 5 to OFF to select analog component video output, or ON for composite and S-Video outputs.

To display the HD video input on the S-Video and composite outputs, down conversion must be set to ON. Component analog video supports both HD and SD video.

Switch 4 - SDI Audio De-Embed Bit 2

Switches 4, 3 and 2 are grouped together to provide 8 ON/OFF combinations. Having eight different combinations allows eight independent pairs of audio channels to be de-embedded from your SDI input.

Switch 3 - SDI Audio De-Embed Bit 1

See switch 4 description.

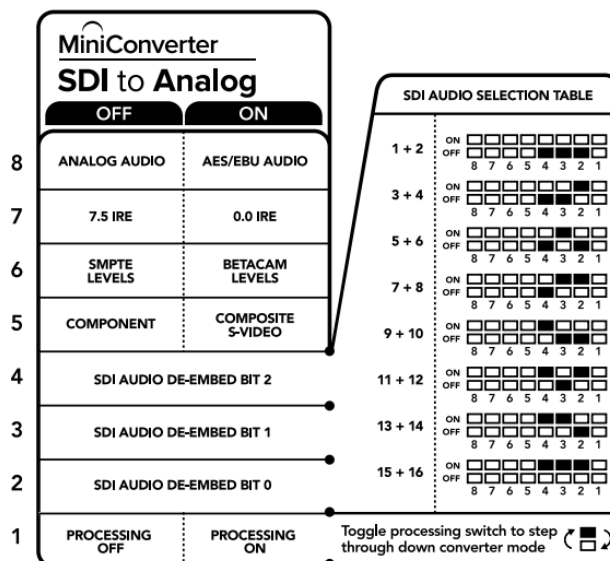
Switch 2 - SDI Audio De-Embed Bit 0

See switch 4 description.

Switch 1 - Processing Off - Processing On

Down convert HD to SD with 3 types of aspect ratios by cycling through switch 1. For example, each time you cycle between Off and On you apply anamorphic, center cut or letterbox aspect ratios. Leaving switch 1 set to OFF bypasses the down converter and outputs in HD.

When connected to Blackmagic Converters Setup via USB, your down conversion settings are controlled by the software. If you want the converter to remember your software settings, disconnect from the computer, power cycle your converter and set your down conversion using switch 1.



The switch legend on the base of your converter gives you all the information you need to change conversion settings.

Processing menu

This menu allows you to set the aspect ratio of down converted video. The options are letterbox, anamorphic, center cut or no processing.

The 'clip video output to legal levels' checkbox controls clipping of your SDI input to ensure that it stays within HDMI legal levels and should be kept on by default.

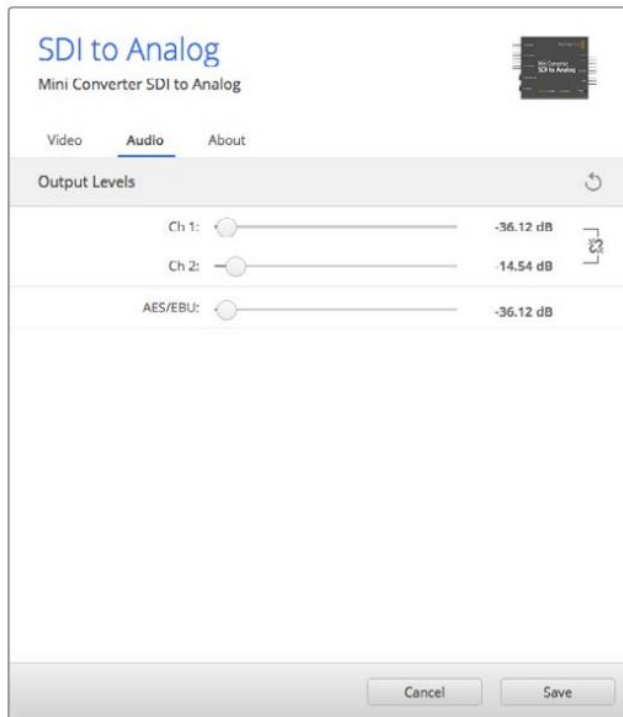
Output Levels menu

This lets you set the luminance and chroma levels, and the B-Y and R-Y component levels independently.

The 'audio' tab for Mini Converter SDI to Analog contains the following settings.

Output Levels menu

This menu allows you to adjust the gain on the audio output. You can adjust audio levels independently per channel, or together by clicking the 'link' icon next to their sliders. To reset all audio levels back to 0 dB click the 'reset' button at the top of the 'output levels' menu.



Use the 'audio' tab in Converters Setup to adjust analog audio levels.

Mini Converter SDI to Analog Block Diagram

