

Multifunctional video converter
SD/HD/3G-SDI to HDMI&VGA&CVBS (AV)

Quick Start Guide



2021

Thanks for your purchasing! Before using this product, it is recommended that you read the guide carefully. To ensure your personal safety and avoid physical or electrical damage to the device, please strictly follow the instructions of this guide or install and use it under the guidance of professionals. Incorrect electrical connections or physical installation may cause permanent damage to the device and even threaten personal safety.

CV180, an SDI multi-function video converter, which can convert SDI to SDI, HDMI, VGA and AV (CVBS), supporting frame conversion, resolution conversion, color conditioning, image scale up/down and more. One input and multiple output!

CV180 has built-in high-performance SDI cable equalizer (EQ), which can effectively guarantee the transmission distance of SDI (HD SDI 200m, 3G SDI 100m [Note: Meets Belden 1694A cable standards, SDI standard signal indicators]). Different from the current traditional converter products on the market, it has a built-in professional image conversion processing chip. Before converting to HDMI interface, it will firstly process the image enhancement, noise reduction, de-interlacing (optional) function of SDI image. Then the users can set the saturation, brightness, contrast, and automatically adapt to the best HDMI display output format according to the connected DDC results of HDMI devices, or output the fixed resolution (any SDI formats can be converted and output to HDMI). It features with intelligent format conversion and be able to achieve broadcast-grade image quality.

Features

- Compatible with all SD/HD/3G SDI signals input.
- Professional SDI lightning protection design.
- Transmission distance: HD SDI 200m, 3G SDI 100m (Note: Meets Belden 1694A cable standards, SDI standard signal indicators).
- Support image enhancement processing, de-noising, de-interlacing (optional), smart resolution conversion and frame rate conversion, supporting any standard SDI video resolution converting to HDMI&VGA&CVBS(AV).
- Support SDI output, and de-interlacing, resolution and frame rate conversion.
- Color adjusts like luminance, contrast ratio, saturation, hue.
- Color depth processing, no frame loss, no delay, broadcast-level video quality.
- Support maintaining 4:3/16:9 proportion, avoiding video stretching proportion distortion.
- Support HDMI 1.4 standard, auto analysis HDMI EDID (DDC processing), insuring only output the video format supported by HDMI monitor. Optional 1080i de-interlacing. Optional HDMI output RGB/YUV color space.
- Support SDI audio de-embedding, outputting dual track analog stereo sound.
- Support lock HDMI output format to insure no black screen when SDI signal lost.

- Support SDI LOOPBACK, the loop signal is EQ and clock recovered, to improve the quality of SDI source signal and play a role of signal relay.
- Output blue screen/black screen signal when SDI signal is losing.
- OSD display for output/input signal.
- Remote control, easy to use.

1. Device installation and connection

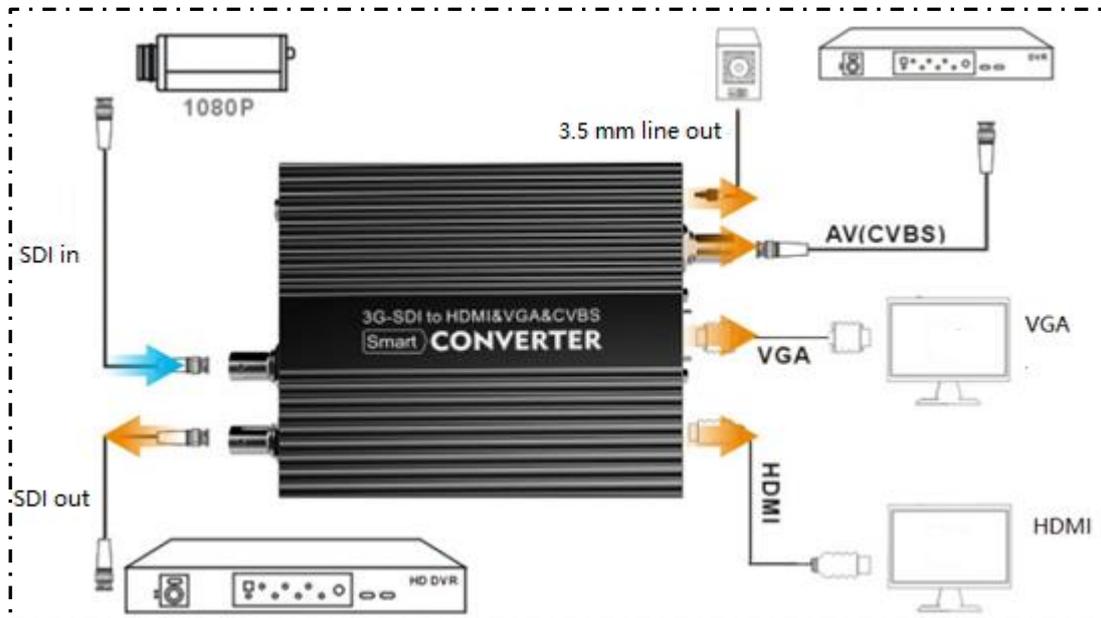
Please check the unit and accessories listed as below:

1. One unit
2. One AC 110-220V input and one DC 12V/1A output power supply
3. One remote control
4. User manual
5. Product certification/warranty card 1 set

Getting ready:

1. One good quality 75Ω BNC cable. Poor cable quality cable will affect the transmission distance of SDI signals.
2. One HDMI cable, one VGA cable or one CVBS cable.
3. SDI input source, SDI/HDMI/CVBS monitor or receiving device.

Connection diagram as below:



2. Device working instructions

There is a work light at one end of the panel output signal of SD/HD/3G SDI SDI-HDMI&VGA&CVBS video converter, after power on the PWR indicator is always on and the unit starts to work.

Lights	Status	Description
PWR	OFF	Not powered on or abnormal start
	Flashing	Abnormal
	On	Powered on
RUN	OFF	Abnormal
	Flashing/On	Working
LOCK	OFF	No SDI signal input/SDI signal unlocked
	Flashing	Ineffective SDI input format
	On	SDI signal input is normal and locked correctly

3. Video conversion rules

The video converter can output on two output ports and one SDI port simultaneously. The default (factory setting) output port is HDMI+CVBS (AV), and the loop out is SDI. The frame rate and de-interlacing can be settled. You can select the output interface combination by remote control, or directly press the HDMI, VGA or AV button on the remote control to select.

By default, HDMI output is 720P60, VGA output resolution will be close to the input signed resolution in width and height. CVBS (AV) output format is PAL. CVBS (AV) output format is 480i (NTSC) or 576i (PAL), and any other format will be scaled and converted to PAL/NTSC format. You can also select the output resolution by remote control, or via the K1, K2 select (configure by the remote controller menu).

When there is no SDI signal input, or the input signal format is incorrect, the output will keep the last image for 10s. or the default output will be a blue screen or a black screen, and the last image and the size & time can be configured by remote control.

4. Remote controller operation

Set the output of the converter by remote control provided by the manufacturer. Please check the battery is properly installed when using in the first time. When using the remoter controller, please aim it at the IR receiving port of the converter

Basic operations:

MENU Display/hide converter control menu ▲ ▼ Select the menu option for up/down



Select menu item



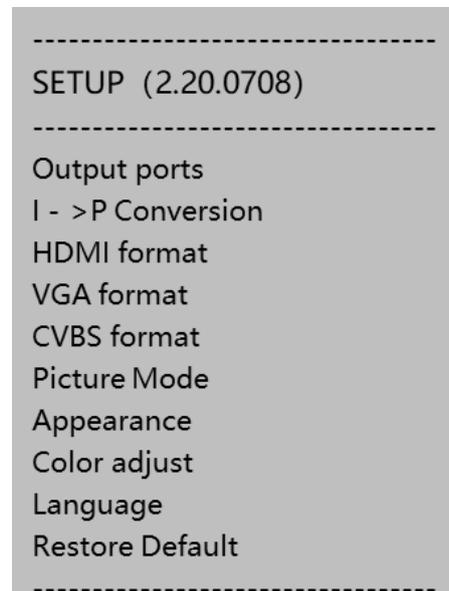
Return

RESET Restore factory setting

INFO Display current input/output video format information

HDMI **VGA** **CVBS** Select the output interface

The menu contents maybe difference as the converter software version upgrades. Let us check the configuration through the remote control "MENU":



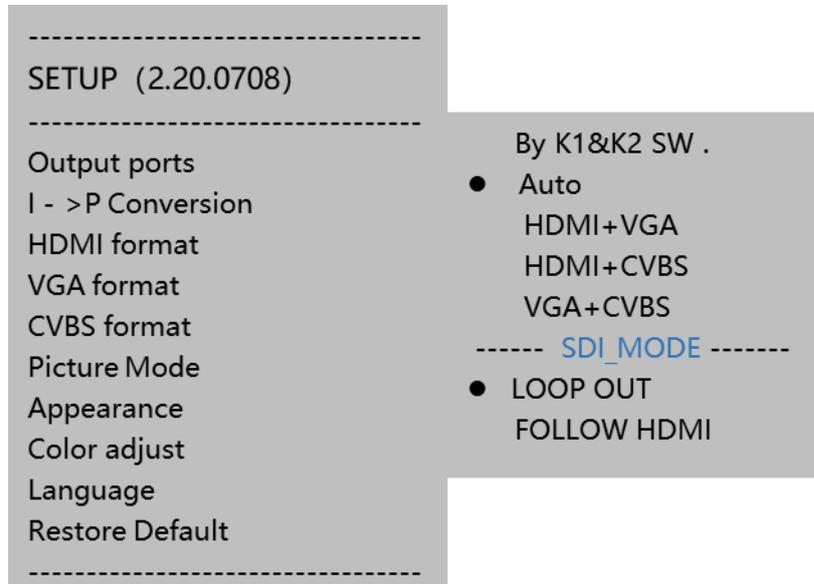
1) Output setting

By remote controller menu "Output ports" can be selected to different video interfaces. Kiloview CV180 can convert and output in the two interfaces simultaneously, the output interface include combination: HDMI + CVBS (AV), HDMI + VGA, VGA + CVBS (AV). If you select "Select by K1 & K2" that the outputs interface selection can be decided by a combination of DIP switch K1 and K2 as below:

K1: OFF/K2: OFF HDMI+VGA K1:OFF/K2:ON CVBS+VGA

K1: ON/K2: OFF HDMI + VGA K1: ON/K2:ON HDMI+CVBS(AV)

By default, the SDI output interface loops out the same SDI input format. You can select by "Output Configuration"- "SDI MODE"- "Same as HDMI". At this time, the SDI output frame rate and resolution can be converted.



2) De-interlacing

The CV180 converter can de-interlace the 1080i50/59.94/60 format video before outputting. It adopts the de-interlace algorithms and turn on 3D noise reduction to process the edge of the image which after de-interlacing, to make the image achieve the desired effect. To turn on or off the automatic de-interlacing function, please select the "De-Interleaving" option in the menu.

3) Output video format settings

CV180 converts the input format to the same output format by default. If you need, you can lock an output interface for a specific format. Set the HDMI output format by remote controller menu "HDMI format", same operations for VGA and CVBS formats settings.

When you select the video source in the setup menu "By the K1 & K2 SW", it means the output video source is decide by K1, K2 combination:

For HDMI:

K1: OFF/K2: OFF 1080P60

K1: OFF/K2: ON 1080P30

K1: ON/K2: OFF 720P60

K1: ON/K2: ON 1080P60

For VGA:

K1: OFF/K2: OFF Auto conversion by default

K1: OFF/K2: ON 1280x720@60Hz

K1: ON/K2: OFF 1920x1080@60Hz

K1: ON/K2: ON 800x600@60Hz

CVBS(AV) need to set by remote controller, cannot be selected by K1&K2 combination.

4) Image ratio adjustment

CV180 adopts "Stretch" mode for conversion output by default. It is applicable to normal situation. However, if the input video signal is 576i 4:3 or 480i 3:2, and you want to convert it to 720p/1080p 16:9, after stretching, the video will be distorting.

Vice versa, if you convert 16:9 video to 4:3 or 3:2. In this case, you can select "Picture mode →Fit option by remote control menu, or "Stretch" mode to adjust. In the maintaining ratio mode, there will be added black padding border around the video.

5) Prompt & Screen

CV180 converter comes with video input and output format information by default. If you want to turn off the prompt, please select "prompt & screen" in the remote-control menu, and select "cancel prompt message". Otherwise, please select "Auto prompt". When there is no SDI signal input, or the input signal format is incorrect, the output will keep the last image for 10s by default. You can set the maintenance time or no image maintenance by "image maintenance".

CV180 converter supports production auxiliary functions such as image safe area, sound column, center cross, etc. You can enable or disable relevant functions freely.

6) Color conditioning

The default values of brightness, contrast, saturation and hue are 128 (middle value), and the value range is 0-255. Based on the middle value, increase/decrease the value corresponding to the increase or decrease of brightness/contrast/saturation.

7) Restore factory settings

You can restore the factory set by "Restore default" button on the remote control.

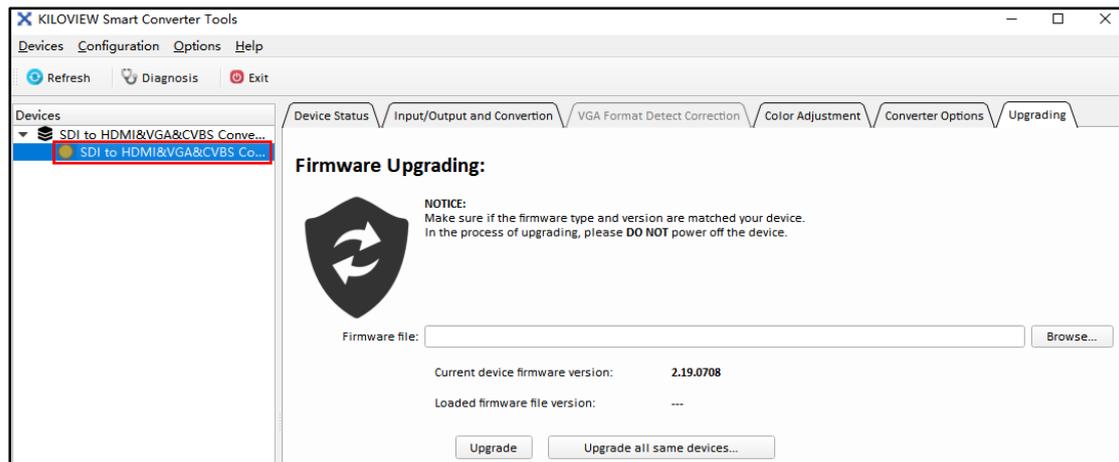
Kindly noted all the settings would be restored to the factory default.

When there are problems when output like the output interface does not display properly, you can also use the remote controller aiming at CV180's IR receiver, press POWER/RESET " button on the remote control. Hold for one second and repress the "POWER/RESET" button to restore the factory settings.

5. Software control and firmware upgrade

Besides remote control, you can also choose software control. Install "Smart Converter Tools" on your computer, connect the device to your computer by MINI USB port through a USB cable, and select the converter device recognized by the software.

When the device needs to update, you can use "Upgrade" to select the local firmware and start the upgrading. After completing, you can see the software version through the "NENU" button on the remote control.



6 FAQ

1) The PWR indicator light is off

Please check whether the power supply is working, or if the power supply meets the device of the standard (DC 12V/1A).

2) The PWR indicator light is flashing

Device fault, please contact the vendor for repairing.

3) LOCK indicator is flashing, output blue screen/black screen

SDI input signal is not normal (not locked), please check the connection of SDI signal whether is correct, replace the SDI cable and confirm whether the input format is supported.

4) RUN indicator light is off

Device fault. If the device output is abnormal, try to restore the factory settings.

5) No image output

First, use the remote control to check if there is a menu display. If so, check whether the input is normal. If not, check the output cable and receiving monitor, and modify the output resolution format to match the receiving device. If the problem still exists, please press the POWER/RESET button on the remote control, hold for one second and repress the " POWER/RESET " button to restore the factory settings.

6) No HDMI/analog audio output

Please check whether the SDI signal is with audio. then whether the HDMI displayer support audio (some displayers with HDMI interface but not support audio, actually it is DVI displayer).