

Video Formatter (VF01)

(RGB $\leftrightarrow$ YCbCr converter)
(444 $\leftrightarrow$ 422 converter)
(HDMI $\leftrightarrow$ DVI converter)



Datasheet

DOC V1.0
PCB V0.3

VF01 brief

VF01 is a 4 HDMI input and 2 HDMI output video formatter. It has four HDMI1.4 input ports with remote selectable, there is an advanced HDMI 1.4 receiver, and accept any mode of HDMI source up to 1200P, and remote controllable output format (YCbCr 444, YCbCr 422, RGB 444, DVI-RGB) to let you connect to DVI monitor or projector or other video device, that provide cleanest digital path from video source to your display. Additional Toslink/SPDIF output to let you connect AV receiver to get up to 7.1CH sound. The VF01 is an ideal product can let you connect up four HDMI video sources to your digital display

FEATURES

■ Input port

- 4 port HDMI input
- HDMI 1.1, 1.2, 1.3a, 1.3b, 1.4, HDCP 1.1, 1.3, and DVI 1.0 compliant
- DTV mode support (480P,576P,720P,1080i,1080P) for 50 and 60Hz
- PC mode support (VGA, SVGA, XGA, SXGA, UXGA) up to 165MHz
- Support 4:4:4 RGB / YCbCr input
- Support 4:2:2 YCbCr input
- One Toslink input support **DVI+Toslink to HDMI** function

■ Output port

- Two HDMI output with user selectable output mode include HDMI-RGB, HDMI-YCbCr444, HDMI-YCbCr422, DVI-RGB, bypass mode
- Audio embedded with HDMI-RGB, HDMI-YCbCr444, HDMI-YCbCr422, bypass mode
- One audio out Toslink port support 2CH PCM or 7.1CH compressed audio
- One audio out SPDIF port support 2CH PCM or 7.1CH compressed audio
- Drive up to 20M cable

■ Board and BOX

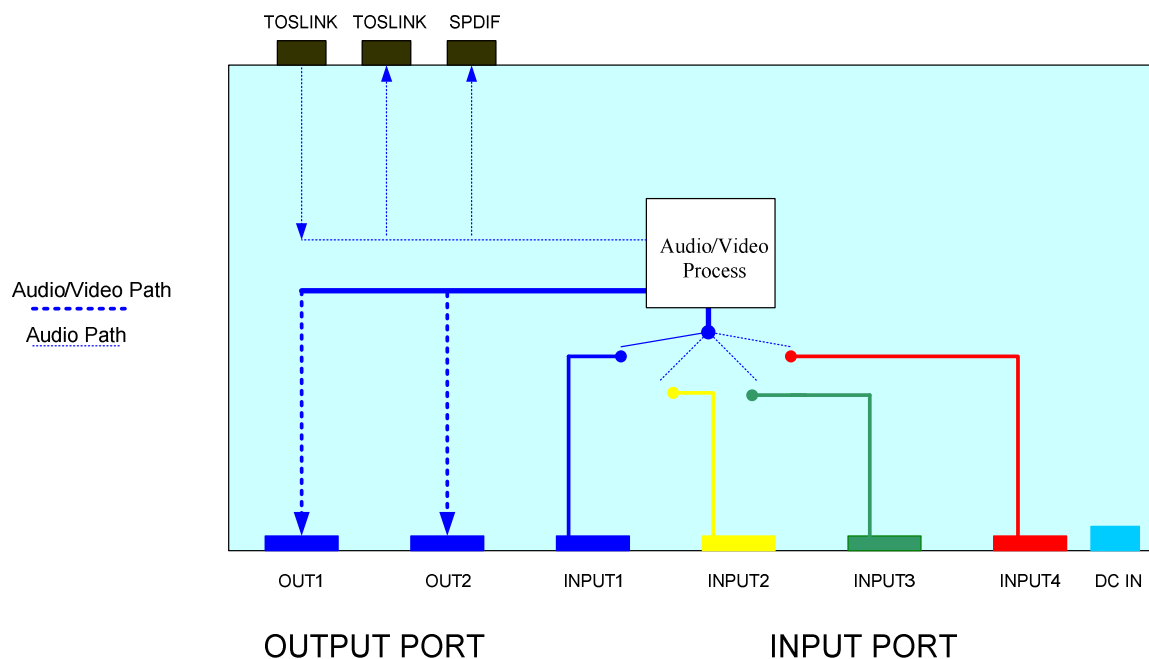
- Metal box have cleanest electrical environment for high definition content processing
- Manual select input port
- IR control select input source
- Global power supply 100V-240V

■ HDMI support mode table

PC mode	640X480	60HZ 72HZ 75HZ 85HZ
	800X600	56HZ 60HZ 72HZ 75HZ 85HZ
	1024X768	43HZ 60HZ 70HZ 75HZ 85HZ
	1152X864	60HZ 70HZ 75HZ 85HZ
	1280X1024	43HZ 60HZ 75HZ 85HZ
	1600X1200	48HZ 60HZ
	1440X960	43HZ 60HZ 72HZ
HDTV mode	480P	60HZ
	576P	50HZ
	720P	50HZ 59HZ 60Hz
	1080I	29HZ 30HZ 50HZ 59HZ 60HZ 96HZ

	1080P	50HZ 59HZ 60Hz 24HZ
	1035I	30HZ

Box overview



HDMI input ports:

Connect HDMI cable to video source

TOSLINK:

Optical digital sound input/output

SPDIF:

SPDIF digital sound output

DC connector:

Connect to AC adaptor for 6V DC

IR control:

IR control can let you switch between input sources. And select output mode

IR controller key button list:

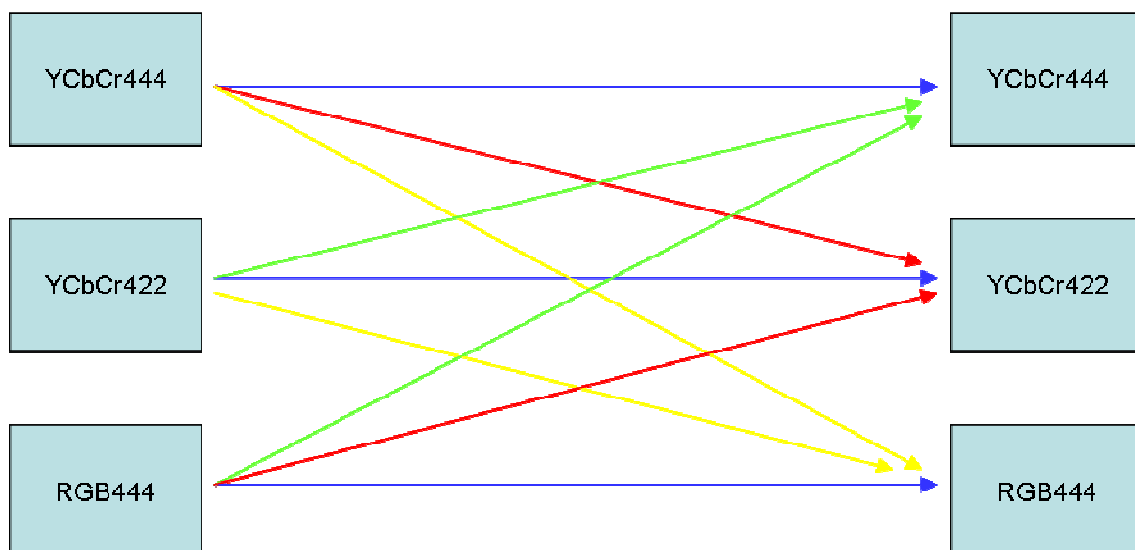
Key name	function	note
1	input select HDMI1	
2	input select HDMI2	
3	input select HDMI3	
4	input select HDMI4	
5	Input color space auto select	
6	Input color manual select YCbCr444	
7	Input color manual select YCbCr422	
8	Input color manual select RGB444	
9	Toggle audio input from Toslink	
DISPLAY	Reserved for Deep color	Change between 8/10/12bit for each color only work when SW1 at high side
A	HDMI-RGB output mode	Mode A
B	HDMI-YCbCr 444 output mode	Mode B
C	HDMI-YCbCr 422 output mode	Mode C
D	DVI-RGB output mode	Audio will only output from TOSLINK and SPDIF
MODE	Bypass mode	Bypass mode
Return	Reset audio	
RESET	RESET all	

Audio Support Table

No	Audio Type	Support
1	Dolby True HD	Yes
2	DTS-HD Master	Yes
3	Dolby Digital	Yes
4	DTS	Yes
5	7.1/2CH PCM	Yes
6	Down mixed PCM	Yes

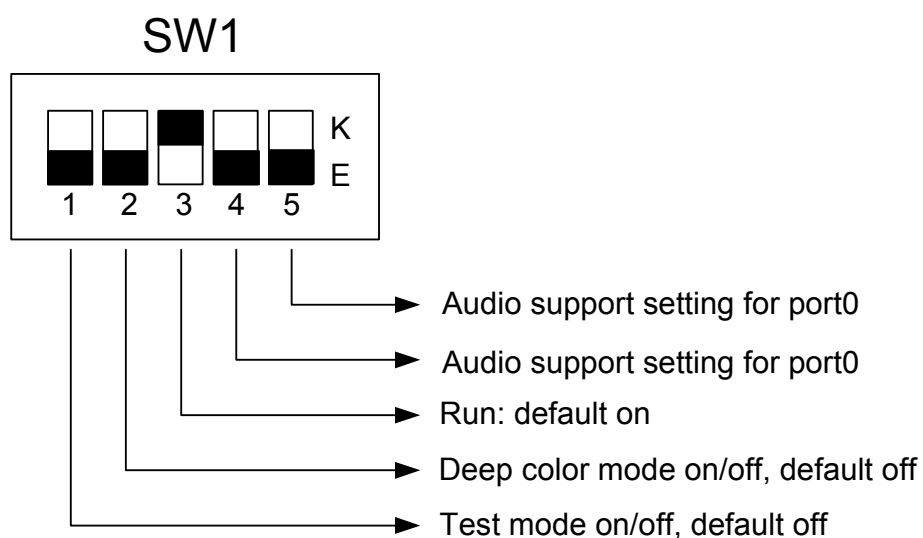
- ※ When no sound, press remote “reset” key to recover
- ※ If your display only supports 2CH PCM, you need set DVD/Blu-ray player/Set Top Box audio output format as down-mixed or PCM. You also can set dip switch #4 at up side and #5 at down side to force the source that connected to INPUT1 output 2CH PCM. VF01 has no audio down-mix function

HDMI Video Support:

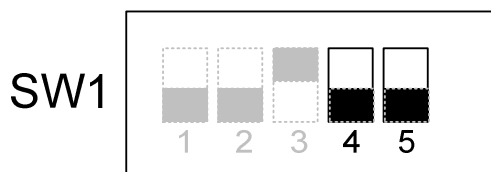


- Mode A
- Mode C
- Mode B
- Bypass mode

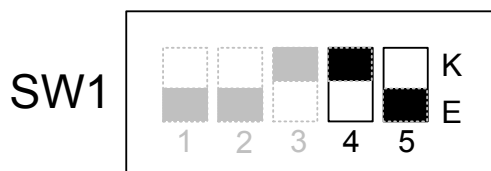
SW1 Setting



HDMI1 Port Audio support setting

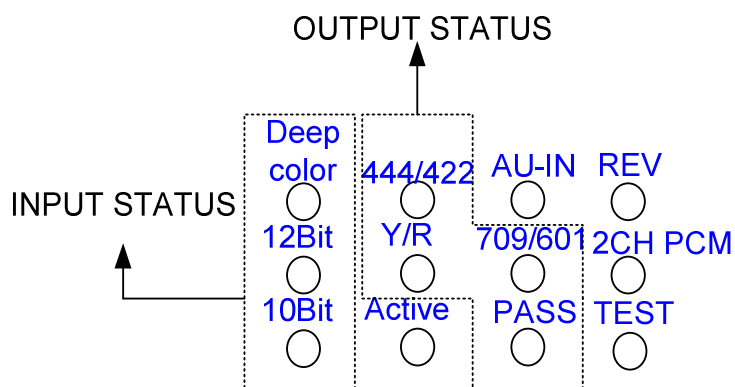


2CH LPCM Audio bypass only



Normal Operation

LED indication



How to use:

- 1. make sure what color space and format your device capable**
- 2. make sure the maxima resolution that support by your device(scan rate of your device)**
- 3. make sure what audio mode your device capable**
- 4. set video source manual at the resolution (720P or 1080P...) you want to use**
- 5. set MUX-FHD at bypass mode at first, and then set output color space you want to.**
- 6. whenever you get wrong color or no audio, press return key on remote to recover**
- 7. press key “Reset” if you can not get anything correct.**

VF01 Spec:

Weight: 470g

Dimension: 100mmX100mmX30mm

Power consumption: 6W +6V 1A (1080P 60Hz)

Maxima resolution: 1920X1200 72Hz

Technical support:

moome@curtpalme.com

<http://www.curtpalme.com/forum/viewforum.php?f=33>

Warranty:

2 year