

User Manual----TBS2600 SDI encoder

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1. Overview

TBS2600 HD SDI encoder is a professional high-definition video coding box, which equipped with 1 SDI channel input and dual stream RJ45 output. TBS2600 supports MPEG-4 AVC/H.264 High Profile code format input and dual stream H.264 format, audio ACC format output.

1.1 Application

- IPTV;
- Digital Signage;
- Video Conference;
- Replace HD Video Capture Card;
- Hotel TV system;
- Live Broadcast;
- Teaching/Campus Broadcast;
- Recording System;
- NVR (Net Video Recorder);

1.2 Technical Specification

Video

Input	1x SDI
SDI Resolution	1920×1080_60i/60P, 1920×1080_50i, 1280×720_60p, 1280×720_50p
Encoding	H.264/AVC Main Profile/High Profile ,Audio AAC
Data Rate	16KBIT/S~12MBIT/S
Rate Control	CBR/VBR
GOP Structure	IBBP
Advanced Pretreatment	De-interlacing, Noise Reduction, Sharpening

Audio

Encoding	AAC, MP3
Bit-rate	32K/48K/64K/96K/128K/160K/192K
Sampling precision	24 bit
Data Rate	64Kb/s ~ 384Kb/s

System

Ethernet/RJ45	1000 Base-T Ethernet interface
Protocol	HTTP, UTP, RTSP, RTMP, ONVIF
Control Interface	WEB

General Spec

Dimensions	146mm x 122mm x 42mm
Weight	0.25kg
Working Temperature	0~45 °C

2. Settings

On WEB setting page, modifying IP address of the computer is needed. Default IP address of the HDMI HD encoder is 192.168.1.168

Reset & Initialization: When the HDMI HD encoder is powered up, you can reset and initialize it by pressing & holding the RST button for 10 seconds, then it will restart automatically. And IP address will be initialized to 192.168.1.168

2.1 IP setting

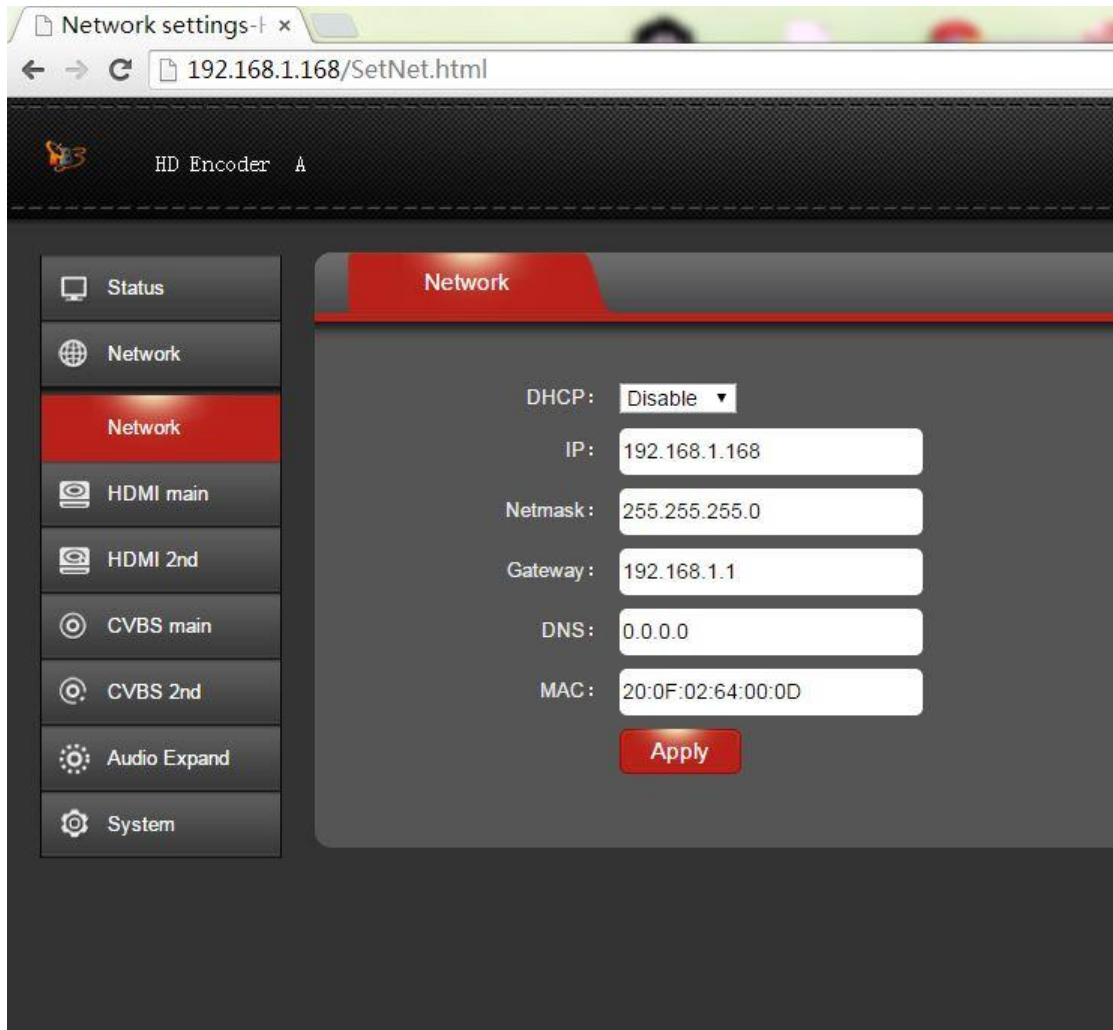
Computer IP address: 192.168.1.* (Note: "*" is any number ranging from 0 to 254 except 168)

Open up IE, input "192.168.1.168" to go to WEB interface with User Name: admin and Password: admin



2.2 Network Setting

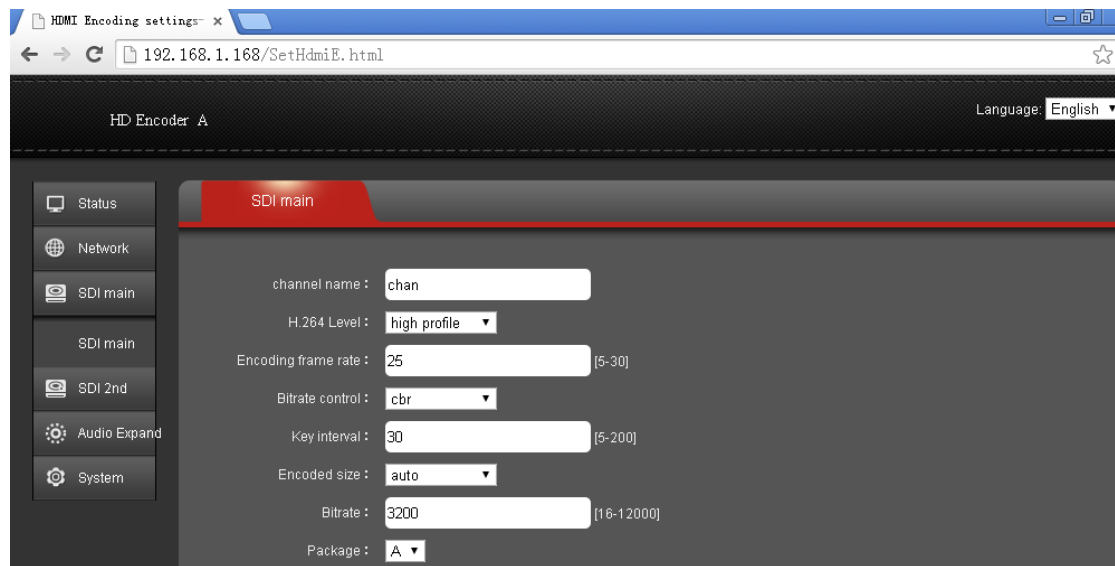
Network setting of TBS2600 HD SDI encoder is the same with TBS2216 HD HDMI encoder , here we use the picture showing network setting of TBS2216 HD HDMI encoder as template . Default IP address is 192.168.1.168. If you forget the IP address after changing it, please press the RST button for 10 seconds to restart it when the machine is powered up, then it will restore factory default settings.



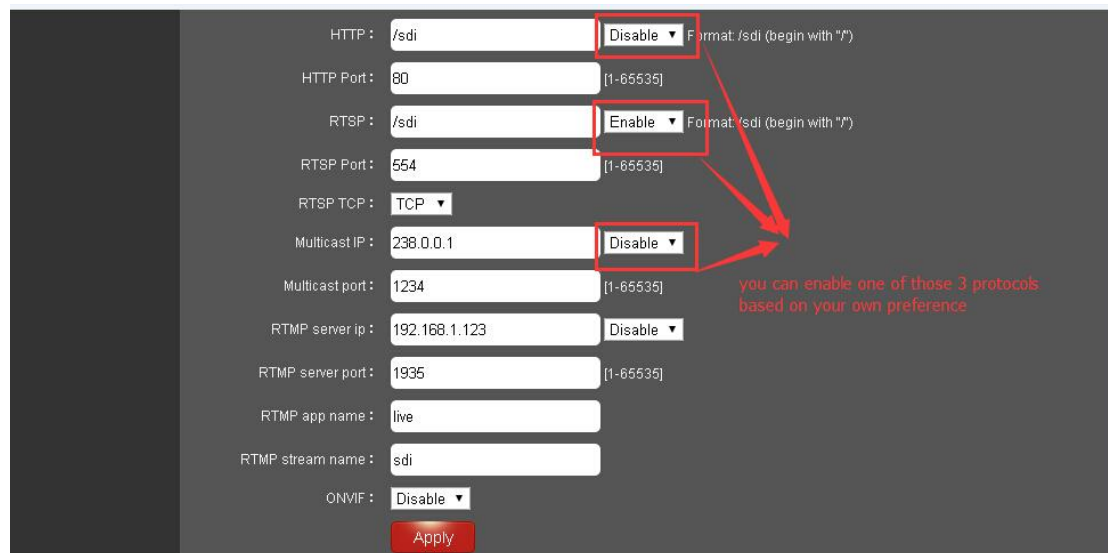
Notes: After network setting is done, you need to reboot the device to make it work.

2.3 SDI Main Stream Setting

You can enable "HTTP", "RTSP" or "Multicast IP" for your preference, and after all the data are filled in, please remember to click on button "Apply".

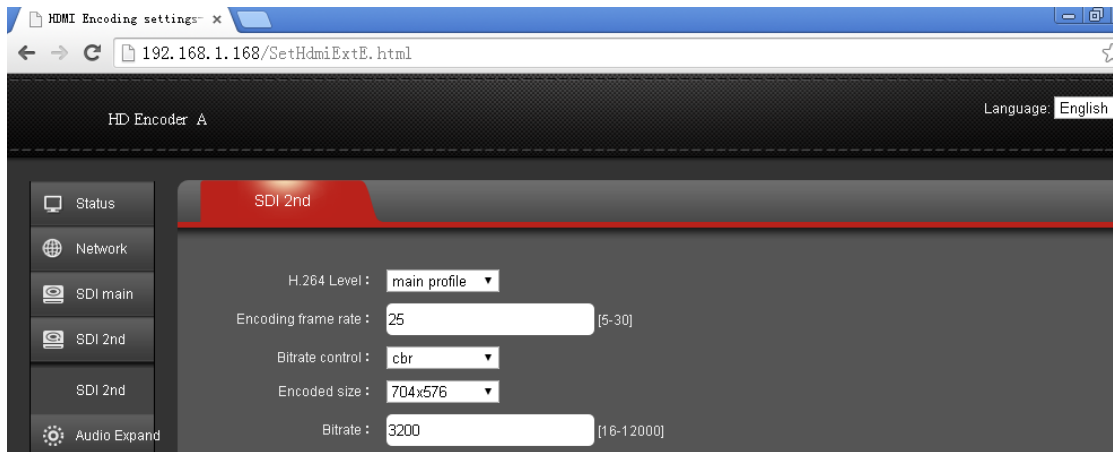


Notes: Above data can be adjusted based on your practical application.

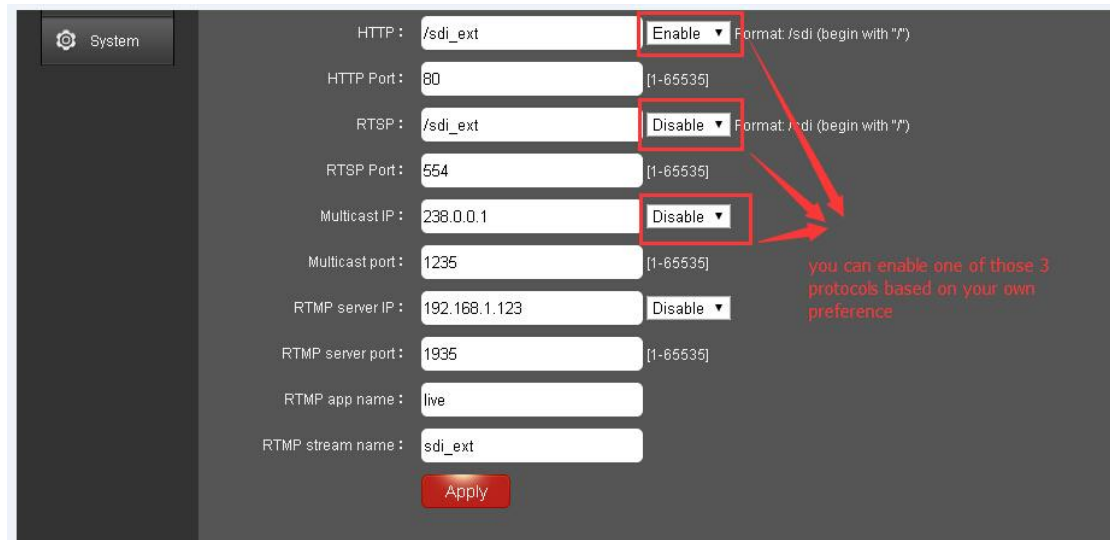


2.4 SDI Second Stream Setting

SDI second stream setting is similar with SDI main stream setting



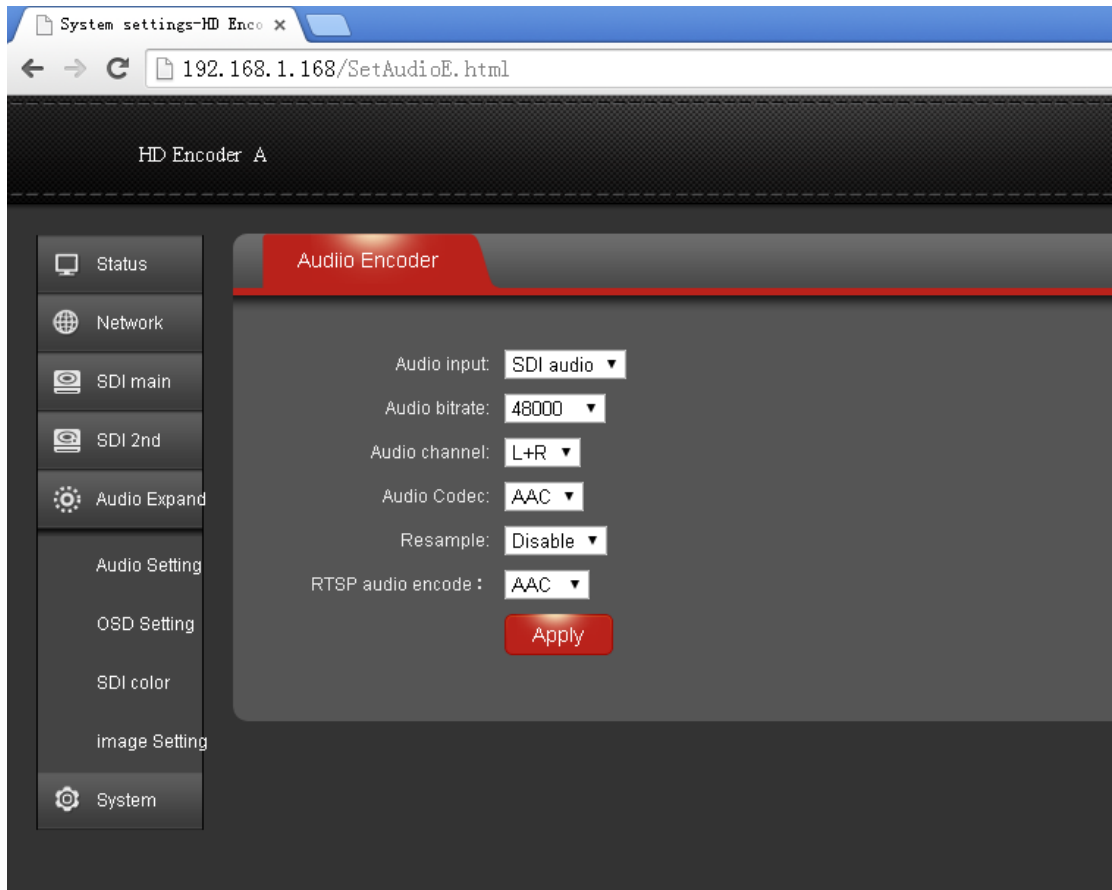
Notes: Above data can be adjusted based on your practical application.



Notes: Above configuration parameter is the same with main stream

2.5 Audio Expand

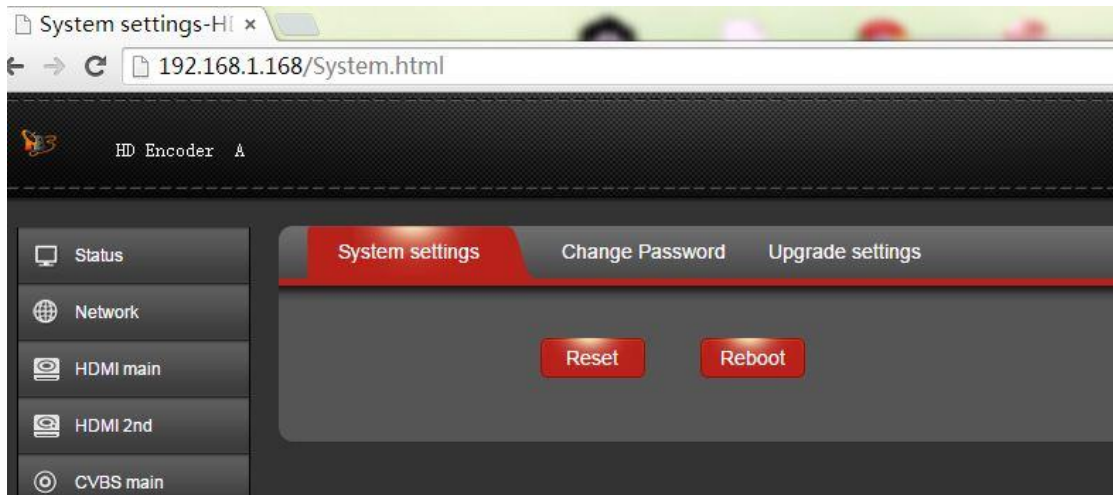
You can modify “Audio Setting”, “OSD Setting”, “SDI color” and “image setting” under this section, but if you do not want to modify it, you can just keep the original data.



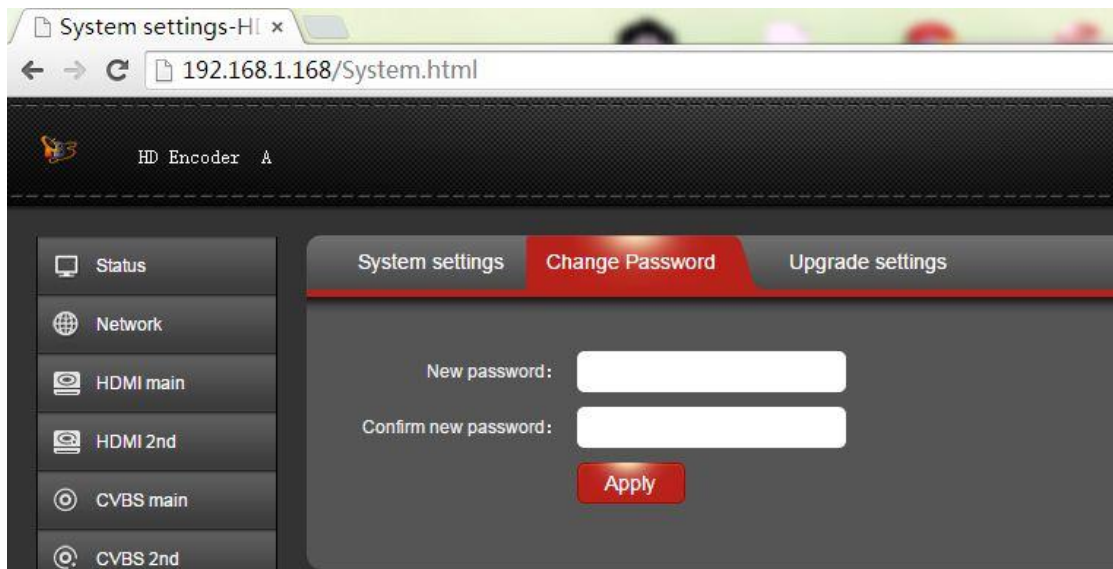
2.6 System

You can do "System settings", "Change Password" and "Upgrade settings" under this section. Those 3 settings are the same with TBS2216 HD HDMI encoder , here we use the picture showing those settings of TBS2216 HD HDMI encoder as template.

2.6.1 System settings



2.6.2 Change Password



2.6.3 Upgrade settings



2.7 RTMP protocol setting

RTMP server ip: 192.168.1.123 Enable ▾

RTMP server port: 1935 [1-65535]

RTMP app name: live

RTMP stream name: hdmi

ONVIF: Disable ▾

Apply

RTMP server ip: 192.168.1.123 Enable ▾

RTMP server port: 1935 [1-65535]

RTMP app name: live

RTMP stream name: hdmi

ONVIF: Disable ▾

Apply

2.7.1 H.264 level: baseline main/ high/ profile. If you want support RTMP, you should choose: baseline profile.

2.7.2 RTMP protocol: enable and able can choose

2.7.3 RTMP server IP: Input your corresponding server IP

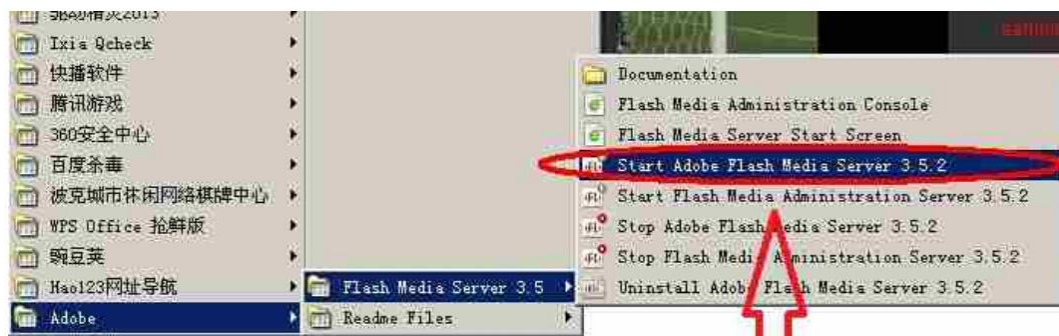
2.7.4 RTMP App Name: user-defined

2.7.5 RTMP stream name: user-defined

2.7.6 Server Testing

2.7.6.1 Install the software: Flash+Media+Server 3.5, there is no need to input series number, both user name and password are 1

2.7.6.2 Start the background software



this software runs in background

2.7.6.3 Go to folder "FlashPlayer", find "VideoPlayer.html" and open it

2.7.6.4 Input: rtmp://ip address/rtmp/hdmi, then choose "live" to see the images, or input rtmp://192.168.1.100:1935/live/hdmi to choose "LIVE", then click "Play stream"

ADOBE FLASH MEDIA SERVER
SAMPLE VIDEO PLAYER

SELECT A VIDEO FROM THE LIST BELOW

SOURCE: /applications/vod/media
 sample1_1500kps.MV
 > sample1_2000kps.MV
 sample1_2000kps.MV
 sample1_1000kps.MV
 sample1_1500kps.MV
 sample1.MV

SOURCE: /webroot/vod
 hd_sample1_2400kps.MP4
 hd_sample1_1000kps.MP4
 sample1_1000kps.MV /HLS progression/ sample1_1000kps.MV (/HLS)

SOURCE: /applications/live
 > live.sdi.mpeg

STREAM YOUR OWN VIDEO

STREAM URL: VOD LIVE **PLAY STREAM**

URL Syntax: [protocol]://[servername]/[application]/[codecid]/[streamname].[extension]

input: rtmp://192.168.1.100:1935/live/hdmi

check it here

play

3. Status

After SDI main stream setting and SDI second stream setting are done, you will be able to see their access address, and you can directly copy it to the VLC player software for decoding.

HD Encoder A

Status

SDI status

SDI 2nd

Network

Access address

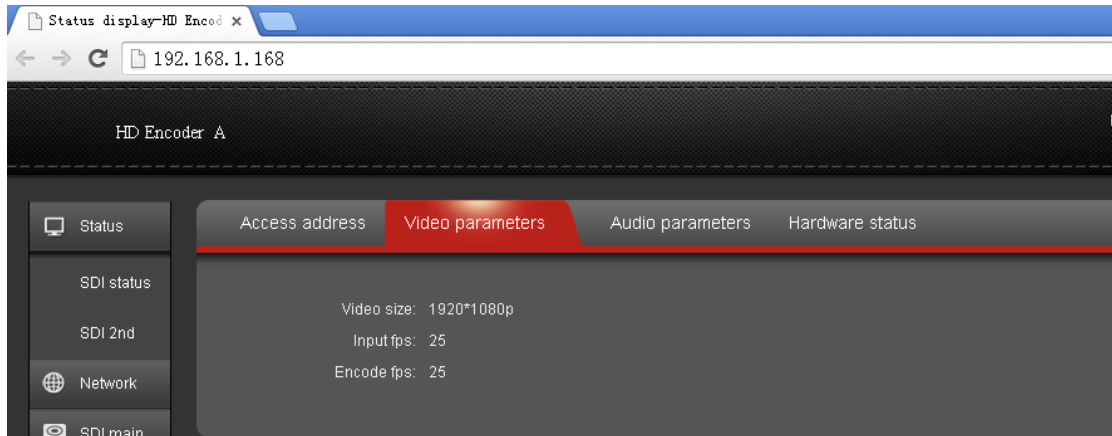
Video parameters

Audio parameters

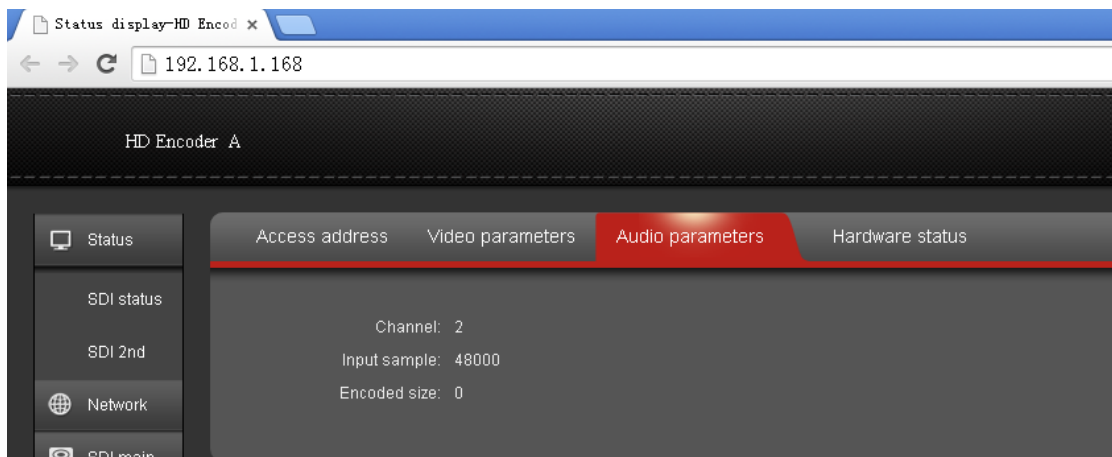
Hardware status

Access address: rtmp://192.168.1.168:554/sdi

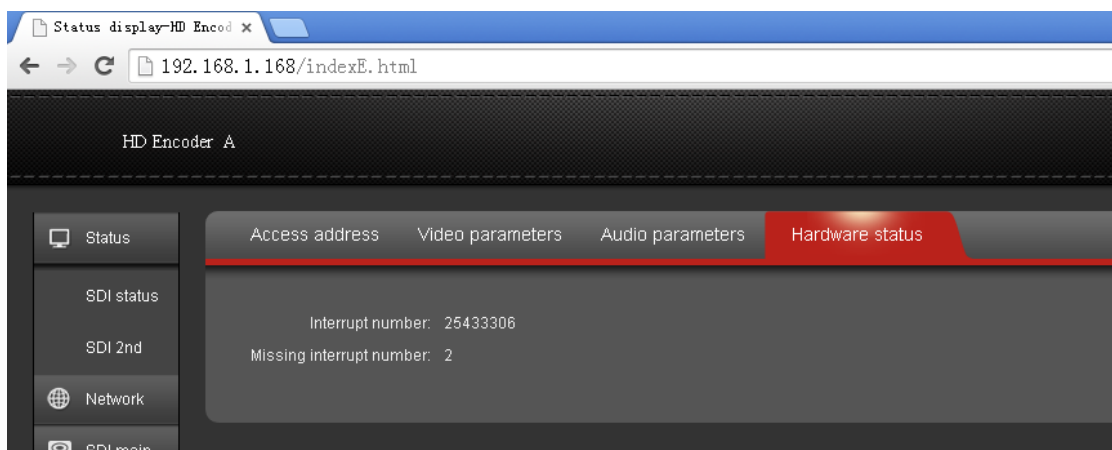
--Access Address: it can be directly copied to the VLC player software for decoding.



--Video parameters: Video signal parameters that inputted in.



--Audio parameters: Audio signal parameters that inputted in.



--Hardware status: Increasing intervals indicates it has video input. If it displays as 0, it means there is no video input, then you need to check the input signal.

If SDI main stream or SDI second stream is not set, then you will see "Access address: disabled" which shown as the picture below, then you have to go to reset them based on the user guides shown on "2.3 SDI Main Stream Setting" and "2.4 SDI Second Stream Setting".

