

User Guide-TBS2630

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1. Overview

TBS2630 is a professional Multi channel HD H.264/H.265 HDMI encoder, which is our newest HD audio & video encoding device with powerful functionality, supports 8/16 channels HDMI stream of H.264/H.265 encoding output and the AAC, Mp3 audio format. From any HDMI input source, it generates H.264/ H.265- encoded stream compliant with HTTP/RTSP/RTP/RTMP/ UDP protocols.

The product can be applied to education, health care, IPTV, conference, remote education, news interview, banking, transportation and other industries.



1.1 Applications

- 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 Specifications

Input	
Video Input	8/16 x HDMI 1.3a
Audio Input	HDMI embedded audio
AC IN	110V~240V
AC Rate	60/50Hz
Output	
DC Output	12V/12.5A
Power Dissipation	96W
Video	
HDMI Resolution:	1920x1080/1680x1050/1280x720/1600x1200/960x540/720*576/704*576 etc
Encoding	BASELINE PROFILE (for H.264 and H.265)
	MAIN PROFILE (for H.264 only)
	HIGH PROFILE (for H.264 only)
Data Rate	0.8Mbps~12Mbps;
Rate Control	CBR/VBR, 16KBIT/S~12MBIT/S
GOP Structure	IBBP
Advanced Pretreatment	De-interlacing, Noise Reduction, Sharpening
Audio	
Encoding	AAC, MP3
Sampling Rate	Auto
Bit-rate	32K/48K/64K/96K/128K/160K/192K
Sampling Precision	16 bit
Data Rate	64Kb/s ~ 384Kb/s
System	

OS	WINDOWS XP/VISTA/SERVER2003/SERVER2008/WIN7 32 and WIN7 64; LINUX
Ethernet/RJ45	1000 Base-T Ethernet interface
Others	
Dimension	482mm*320.2mm*108mm
Net weight	7.5kg
Temperature	-20°C+ 60°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, and then it will restart automatically. Meanwhile, IP address will be initialized to 192.168.1.168.

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

TBS2630 haven't CVBS function, so CVBS main and CVBS second stream setting are not needed.

2.1 IP Setting

The TBS2630 IP address of HDMI encoder are 192.168.1.*(2~17).

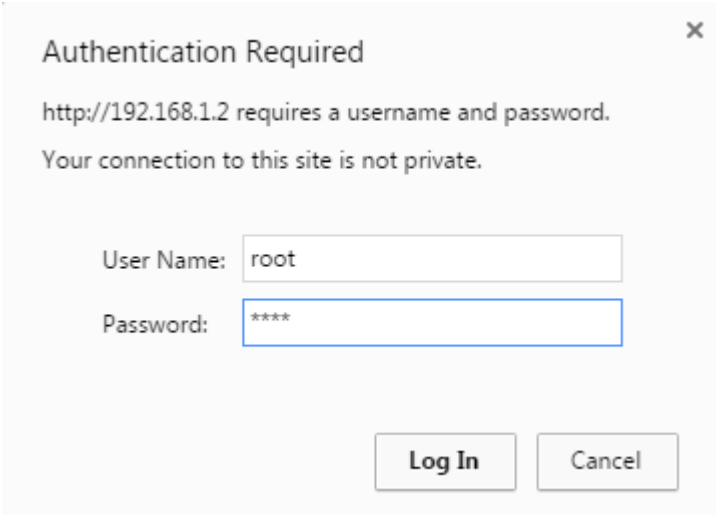
If you access the setting interface of 16 ports HDMI encoder, you just need change the *(from 2 to17).

Take one of 16 ports HDMI encoder for instance. (IP: 192.168.1.2).

Open up IE, input "192.168.1.2" to go to WEB interface with User

Name: root

Password: root



Authentication Required

http://192.168.1.2 requires a username and password.
Your connection to this site is not private.

User Name:

Password:

2.2 Network Setting

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.



TBS Professional H.265 HD HDMI Encoder

Network

DHCP:

IP:

Netmask:

Gateway:

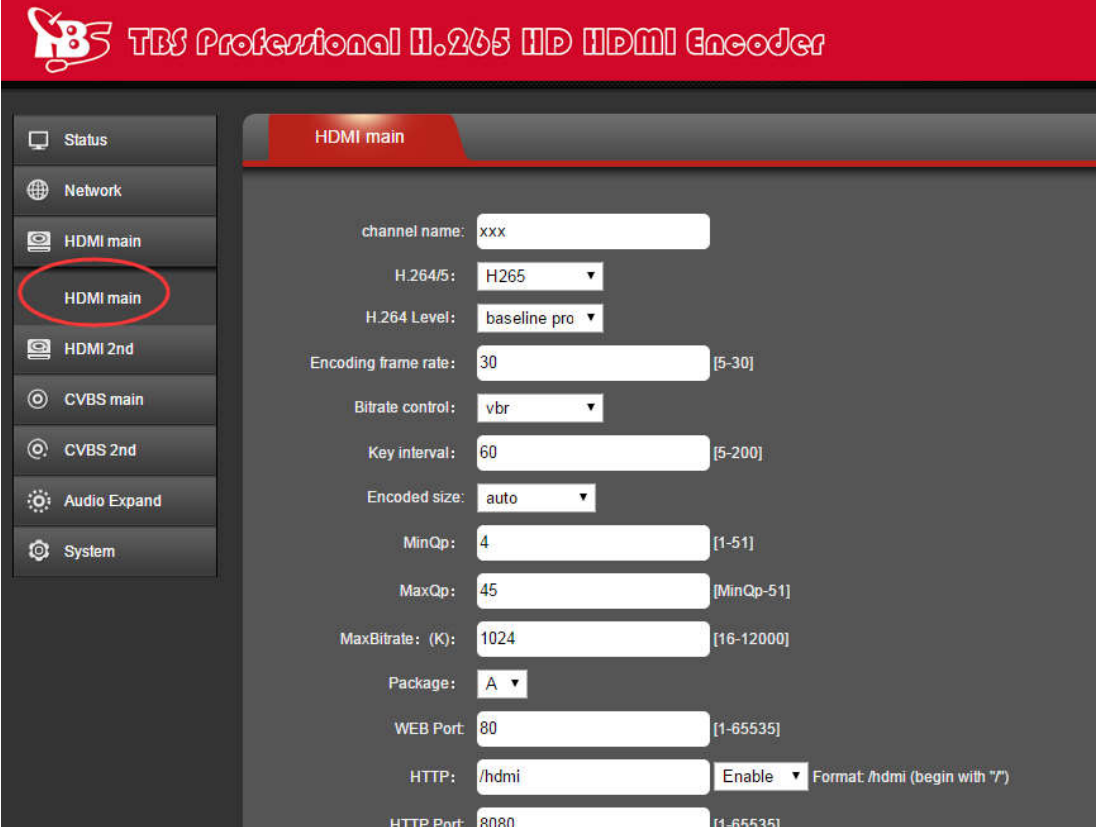
DNS:

MAC:

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

2.3 HDMI 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".



The screenshot displays the web interface for the TBS Professional H.265 HD HDMI Encoder. The interface is divided into a left sidebar with navigation options and a main content area for the 'HDMI main' settings. The 'HDMI main' option in the sidebar is circled in red. The main content area contains various configuration fields for the HDMI stream.

Parameter	Value	Range/Options
channel name:	xxx	
H.264/5:	H265	▼
H.264 Level:	baseline pro	▼
Encoding frame rate:	30	[5-30]
Bitrate control:	vbr	▼
Key interval:	60	[5-200]
Encoded size:	auto	▼
MinQp:	4	[1-51]
MaxQp:	45	[MinQp-51]
MaxBitrate: (K):	1024	[16-12000]
Package:	A	▼
WEB Port:	80	[1-65535]
HTTP:	/hdmi	Enable ▼ Format /hdmi (begin with "/")
HTTP Port:	8080	[1-65535]



HTTP Port:	<input type="text" value="8080"/>	[1-65535]
RTSP:	<input type="text" value="/hdmr"/>	Disable ▾ Format: /hdmr (begin with "r")
RTSP Port:	<input type="text" value="554"/>	[1-65535]
RTSP TCP:	UDP ▾	
unicast IP:	<input type="text" value="192.168.1.18"/>	Disable ▾
unicast port:	<input type="text" value="1234"/>	[1-65535]
Multicast IP:	<input type="text" value="239.0.0.1"/>	Disable ▾
Multicast port:	<input type="text" value="1234"/>	[1-65535]
RTP:	<input type="text" value="239.0.0.2"/>	Disable ▾
RTP port:	<input type="text" value="1234"/>	[1-65535]
RTMP server ip	<input type="text" value="192.168.1.18"/>	Disable ▾
RTMP server port:	<input type="text" value="1935"/>	[1-65535]
RTMP user name:	<input type="text"/>	
RTMP password:	<input type="text"/>	
RTMP app name:	<input type="text" value="live"/>	
RTMP stream name:	<input type="text" value="newstream"/>	
ONVIF:	Disable ▾	
	<input type="button" value="Apply"/>	

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

2.4 HDMI Second Stream Setting

HDMI second stream setting is the same with HDMI main encoding setting

TBS Professional H.265 HD HDMI Encoder

HDMI 2nd

H.264/5:

H.264 Level: :

Encoding frame rate: [5-30]

Bitrate control:

Encoded size:

Bitrate: (K): [16-12000]

HTTP:

HTTP Port: [1-65535]

RTSP: Format: /hdm (begin with

RTSP Port: [1-65535]

unicast IP: Format: /hdm (begin with

unicast port: [1-65535]

Multicast IP:

Multicast port: [1-65535]

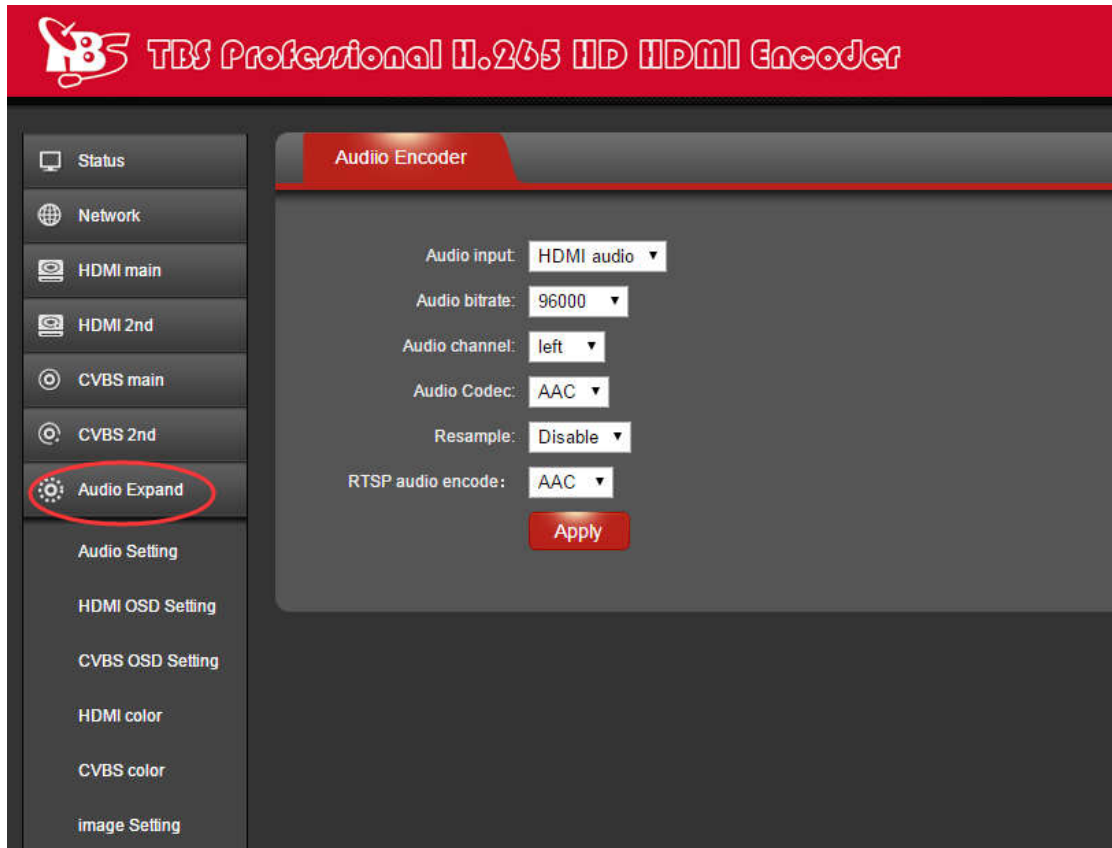
HTTP:	<input type="text" value="/hdmi_ext"/>	Enable ▾	
HTTP Port:	<input type="text" value="8090"/>	[1-65535]	
RTSP:	<input type="text" value="/hdmi_ext"/>	Disable ▾	Format: /hdmi (begin with "/>)
RTSP Port:	<input type="text" value="556"/>	[1-65535]	
unicast IP:	<input type="text" value="192.168.1.18"/>	Disable ▾	Format: /hdmi (begin with "/>)
unicast port:	<input type="text" value="1236"/>	[1-65535]	
Multicast IP:	<input type="text" value="239.0.0.3"/>	Disable ▾	
Multicast port:	<input type="text" value="1236"/>	[1-65535]	
RTP:	<input type="text" value="239.0.0.4"/>	Disable ▾	
RTP port:	<input type="text" value="1236"/>	[1-65535]	
RTMP server IP:	<input type="text" value="192.168.1.18"/>	Disable ▾	
RTMP server port:	<input type="text" value="1936"/>	[1-65535]	
RTMP user name:	<input type="text"/>		
RTMP password:	<input type="text"/>		
RTMP app name:	<input type="text" value="live"/>		
RTMP stream name:	<input type="text" value="stream"/>		
	<input type="button" value="Apply"/>		

Notes: Above configuration parameter is the same with main stream

2.5 Audio Expand

You can modify “Audio Setting”, “OSD Setting”, “HDMI color” and “image setting” under this section (this HDMI Encoder does not have CVBS interface, so CVBS color setting is not needed), but if you do not want to modify it, you can just keep the original data.

2.5.1 Audio Setting

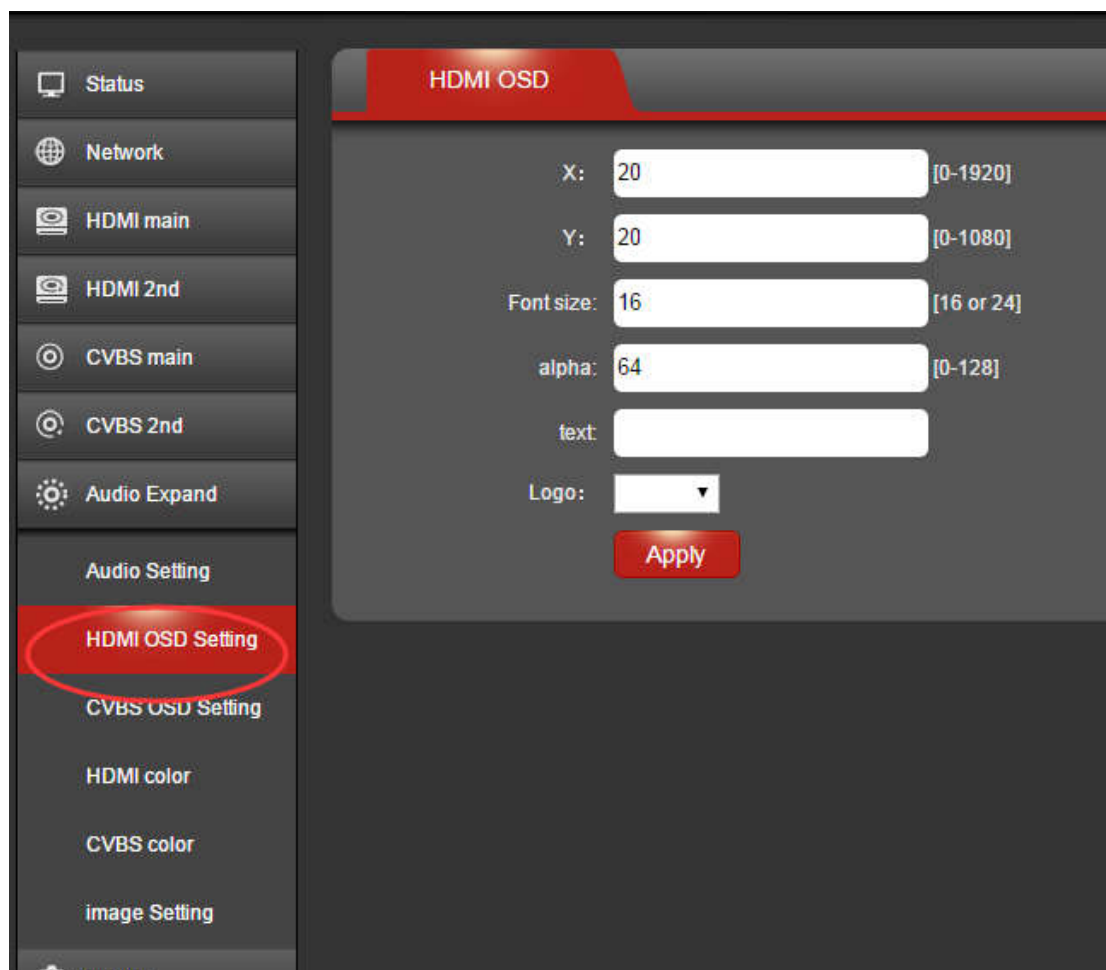


The screenshot displays the web interface for the TBS Professional H.265 HD HDMI Encoder. The interface has a red header with the TBS logo and the product name. On the left, there is a navigation menu with several options: Status, Network, HDMI main, HDMI 2nd, CVBS main, CVBS 2nd, Audio Expand (highlighted with a red circle), Audio Setting, HDMI OSD Setting, CVBS OSD Setting, HDMI color, CVBS color, and image Setting. The main content area is titled 'Audio Encoder' and contains the following settings:

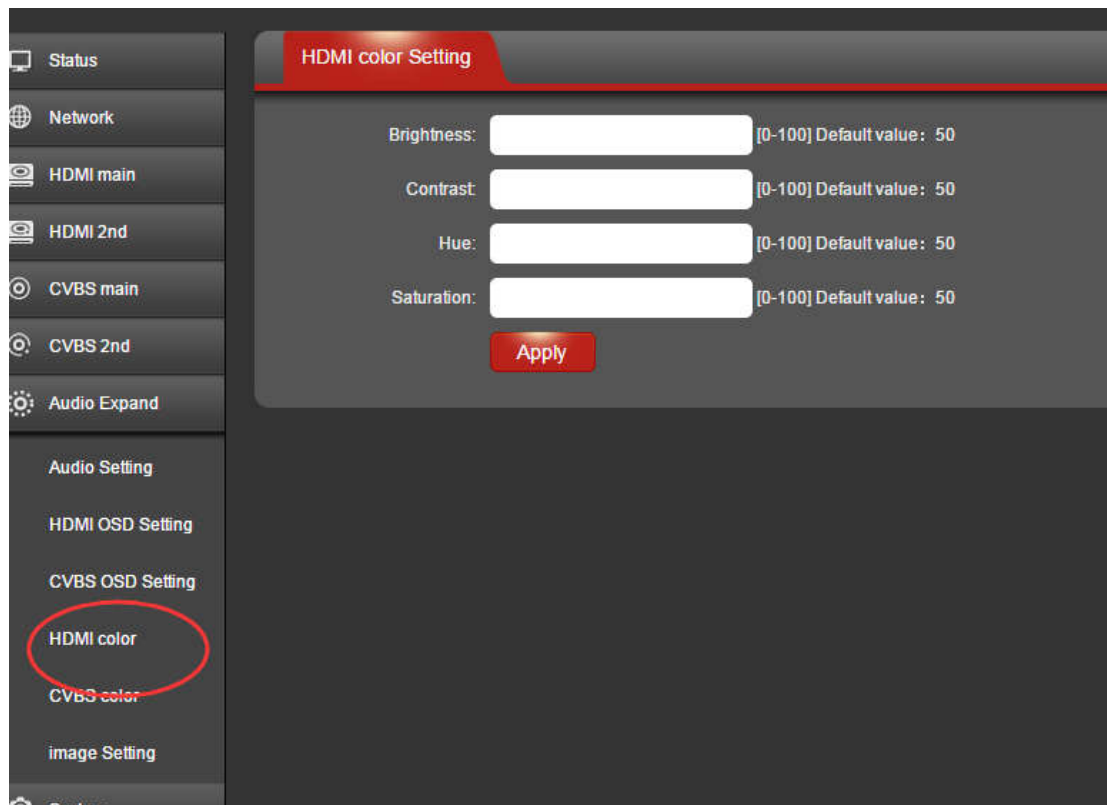
- Audio input: HDMI audio
- Audio bitrate: 96000
- Audio channel: left
- Audio Codec: AAC
- Resample: Disable
- RTSP audio encode: AAC

An 'Apply' button is located at the bottom of the settings area.

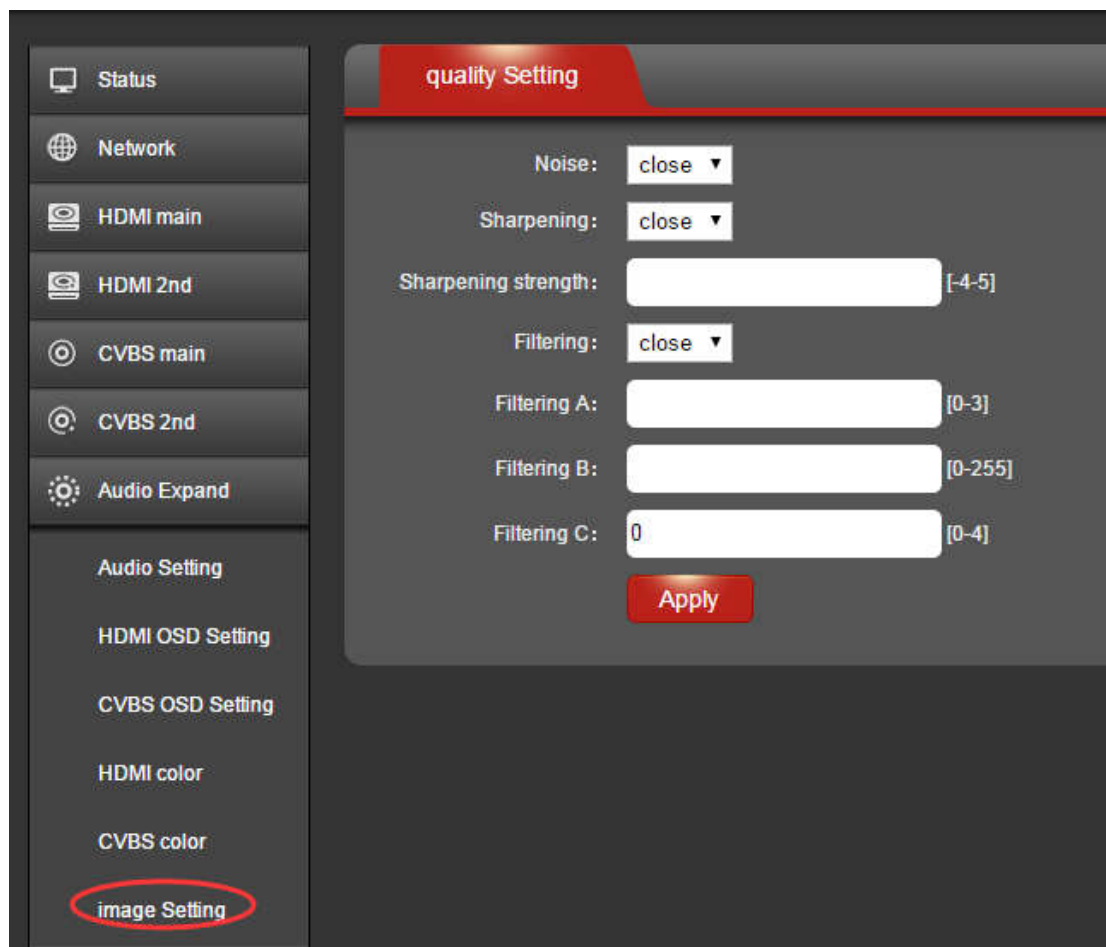
2.5.2HDMI OSD Setting



2.5.3 HDMI color



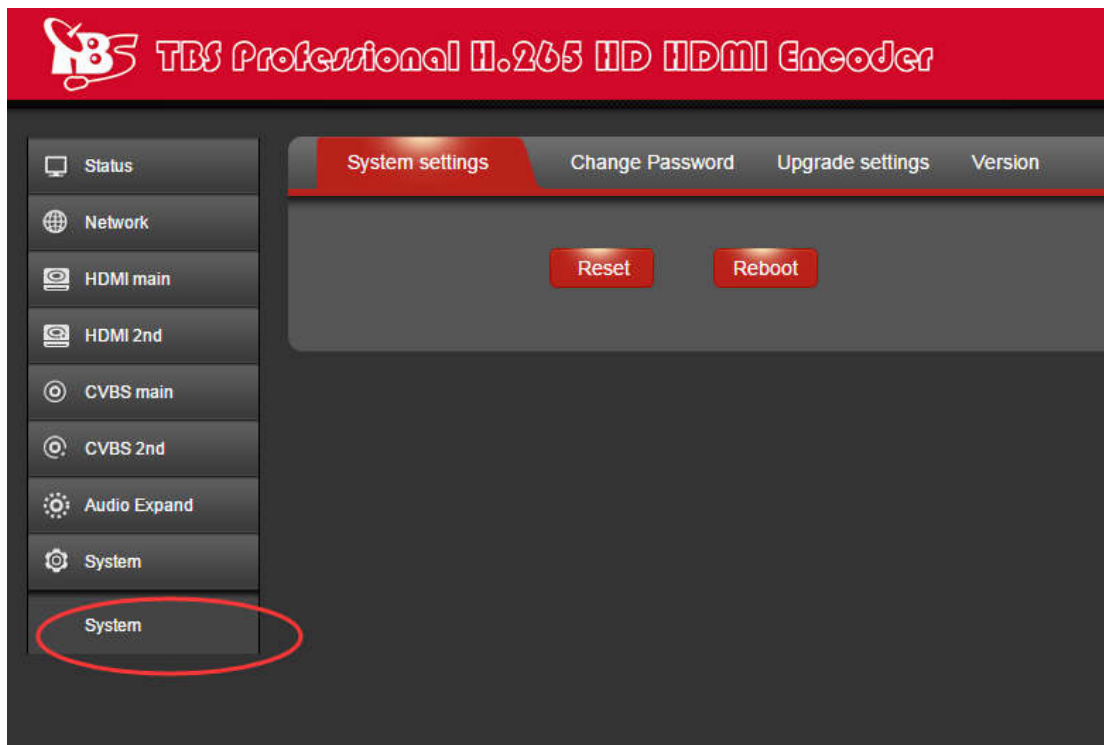
2.5.4 Image Setting



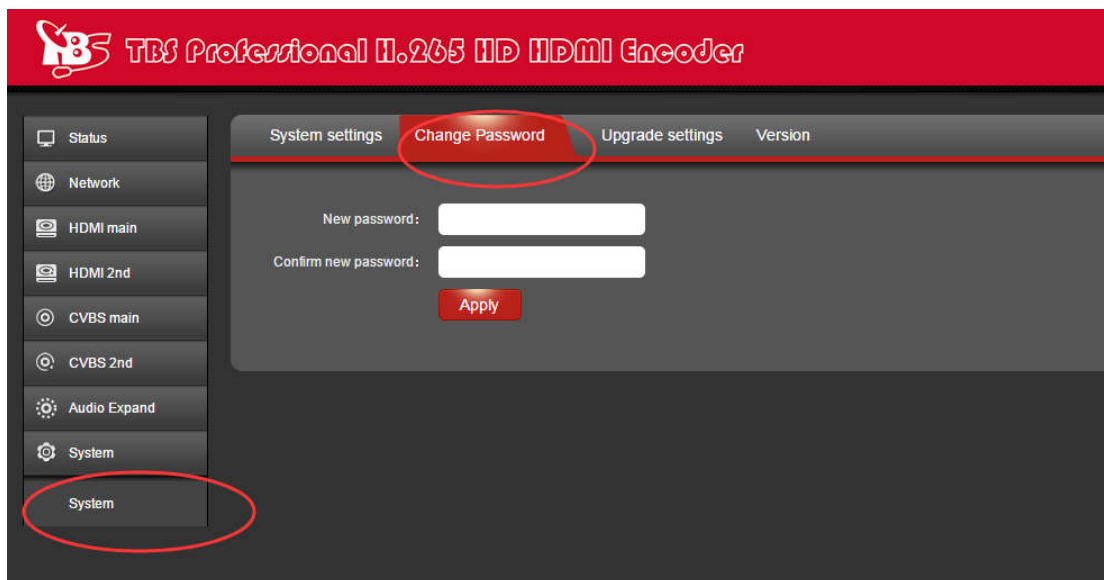
2.6 System

You can do "System settings", "Change Password" and "Upgrade settings" under this section.

2.6.1 System settings



2.6.2 Change Password



2.6.3 Upgrade settings

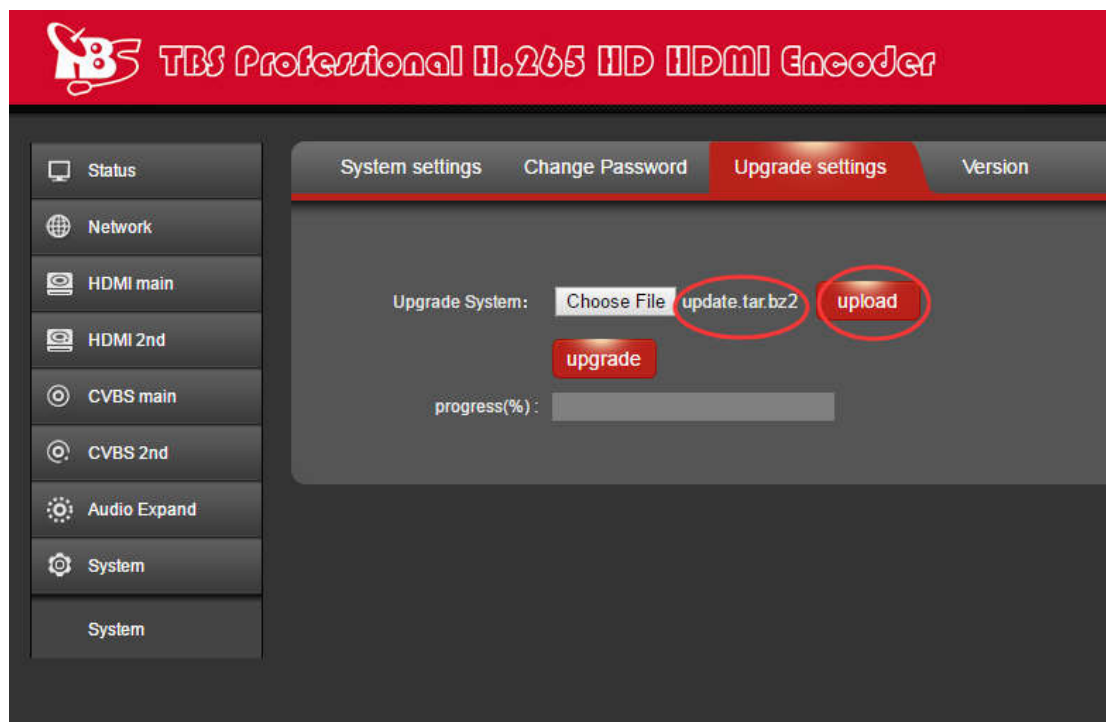
This setting includes two steps-"upload" and "upgrade", you need to upload the updating file first, and then proceed with upgrading.

Step 1: Click button "Choose File" to select the updating file in your computer.

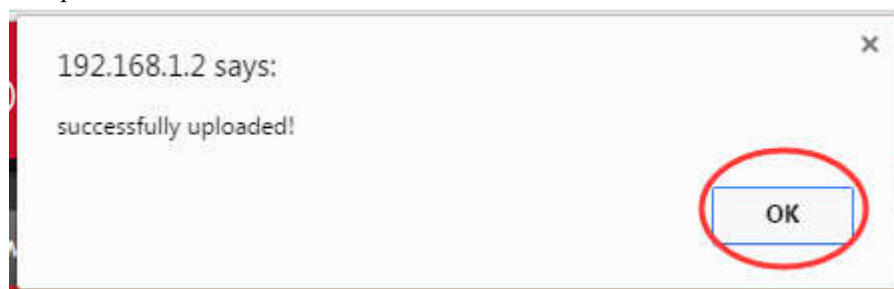


After the file is selected successfully, you will see the file name shown in front of button "upload", then please click "upload" to continue.

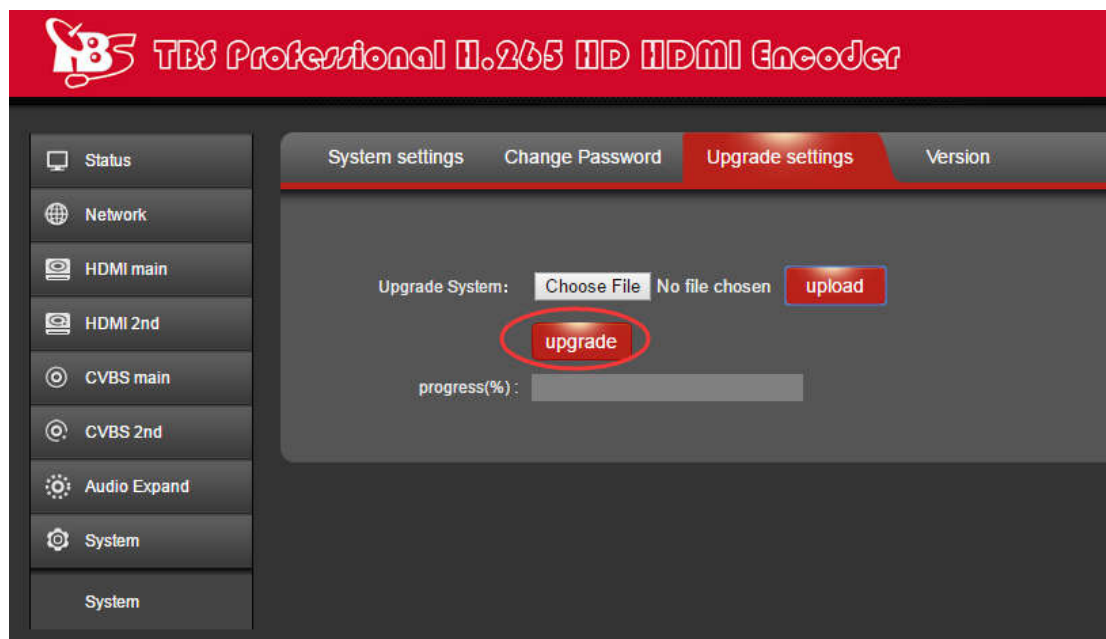
(Note : The update package name is "update.tar.bz2")



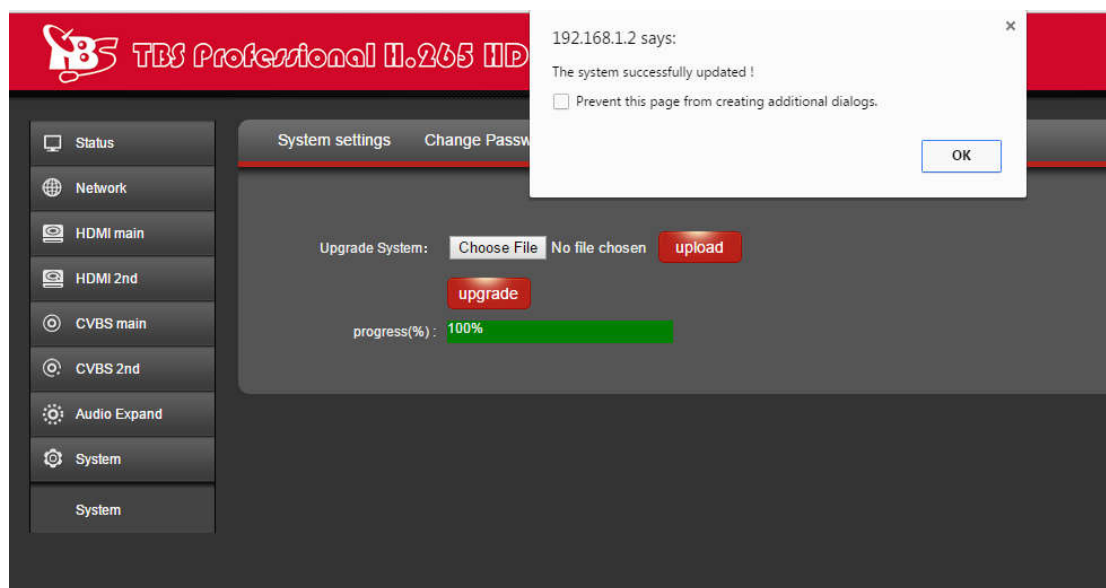
And after the file is uploaded successfully, you will see a note mentioning successfully uploaded, then please click "OK" to continue.



Step 2: After the file is uploaded, please click button "upgrade", and you will also see update status during the whole process.



After upgrade is successful, you will see a note mentioning "The system successfully updated", then please click "OK".

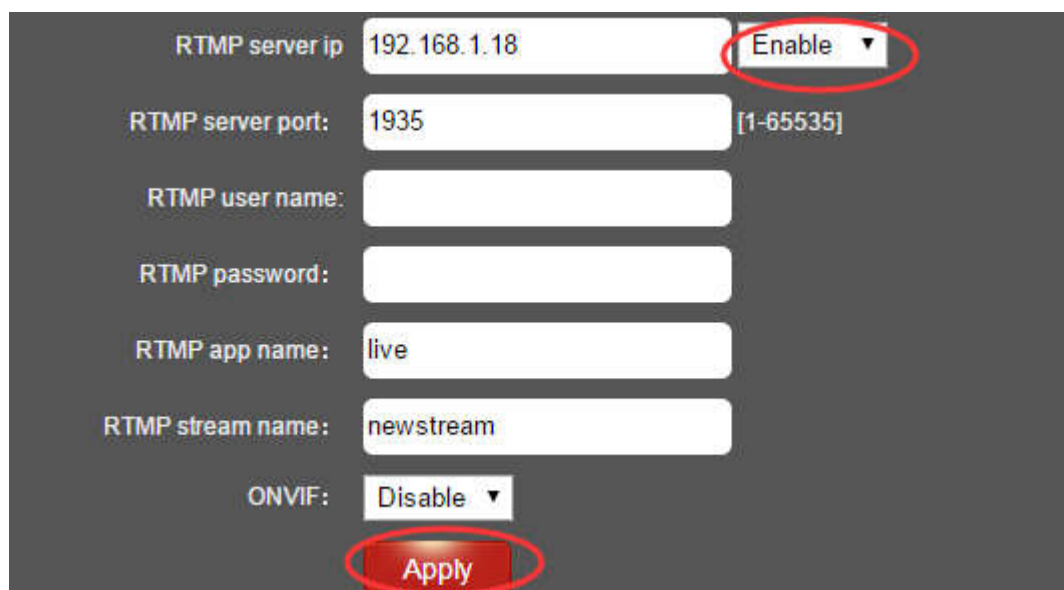


2.6.4 Version

You can check version information under this section.



2.7 RTMP protocol setting



2.7.1 H.264/H.265level

Baseline main / high / profile: If you want support RTMP, you should choose: baseline profile (H.265 only supports baseline profile).

2.7.2 RTMP server IP

Input your corresponding server IP (like WOWZA, FMS, NGINX... servers' IP address)

2.7.3 RTMP user name

Registered on RTMP server like WOWZA, FMS...

2.7.4 RTMP password

Registered on RTMP server like WOWZA, FMS...

2.7.5 RTMP App Name

User-defined

2.7.6 RTMP stream name

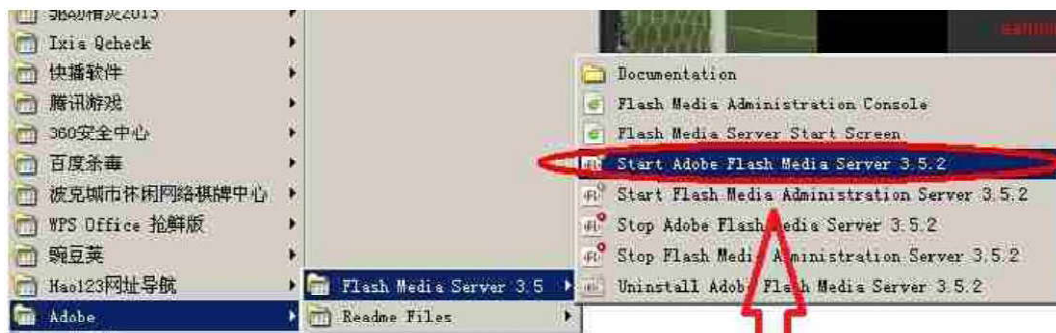
User-defined

2.7.7 Server Testing

2.7.7.1 Install the software

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

2.7.7.2 Start the background software



this software runs in background

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

2.7.7.4 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"

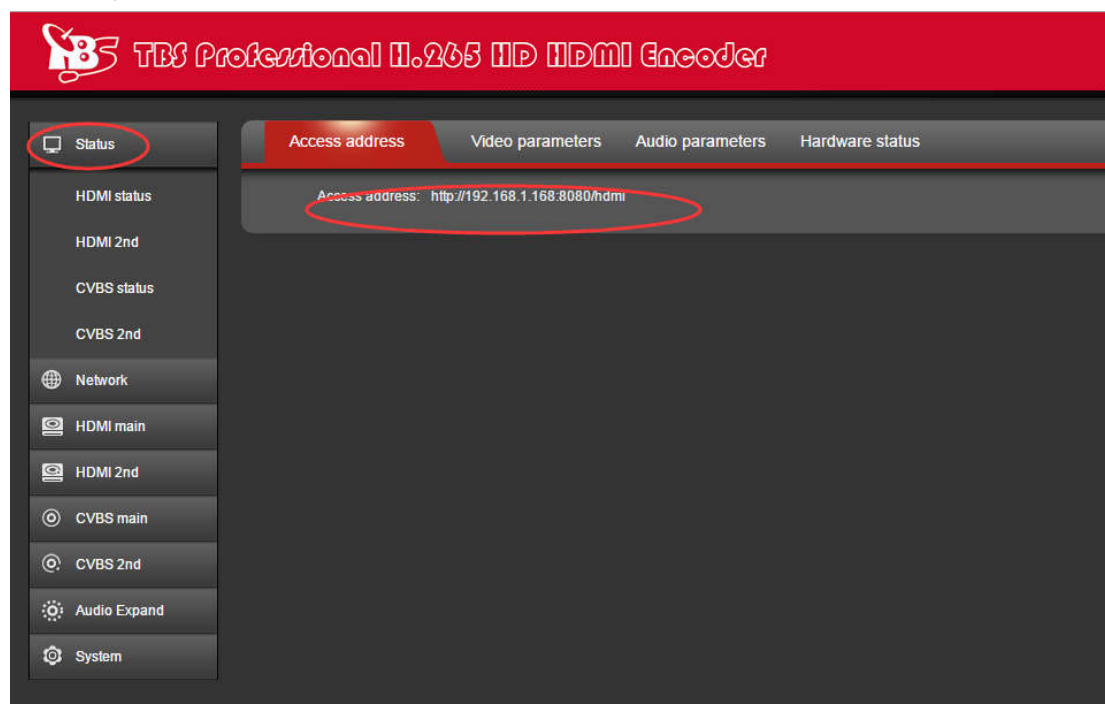
input: `rtmp://192.168.1.100:1935/live/hdmi`

check it here

play

3. Status

After HDMI main stream setting and HDMI 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.



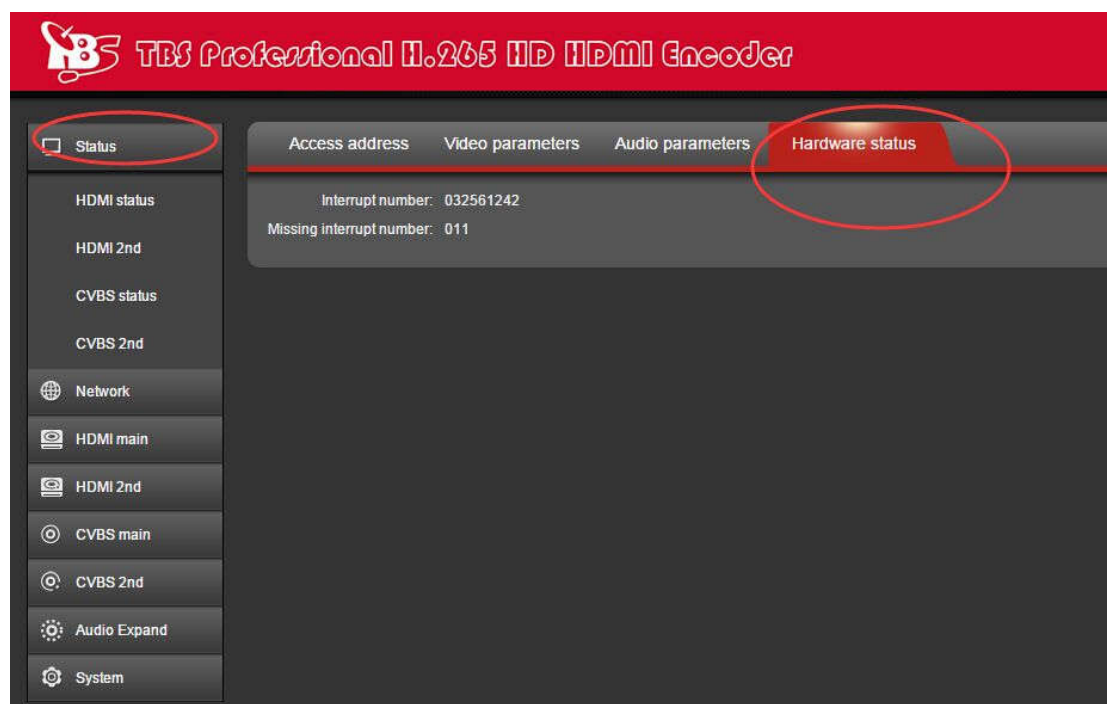
--Access Address: It can be directly copied to the VLC player software for decoding.



--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 HDMI main stream or HDMI 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 HDMI Main Stream Setting" and "2.4 HDMI Second Stream Setting".

