

FMUSER FBE200 ENCODER USER MANUAL

For H.264/H.265 High Definition HD IPTV Streaming Encoder



This manual is compatible for the following models:

- FBE200-H.264-LAN (Not include WIFI and HLS)
- FBE200-H.264 (include WIFI and HLS)
- FBE200-H.265 (include WIFI and HLS)

*Some functions mentioned in this manual are applied to corresponding models, not to all models listed, thus this manual shall never be used as a promise for all functions available on all models.

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1. Overview:

FMUSER FBE200 series encoders are featured by highly integrated and cost-effective design which enabled them to be widely used in a variety of digital distribution systems, such as construction of professional broadcast level IPTV&OTT system, hospital and hotel IPTV systems, remote HD multi-window video conferences, remote HD education and remote HD medical treatments ,Streaming Live Broadcast etc.

The FMUSER FBE200 H.264 /H.265 IPTV Streaming Encoder supports 1 extra audio input through 3.5mm jack except from the HDMI input, the two channels can be input at the same time.

This device supports three IP stream output, each output can be different resolutions, among which the maximum resolution for the Main Stream is 1920*1080, for the Side Stream is 1280*720 and for the Third stream is 720*576. These three streams all support the IP protocols output of RTSP / HTTP/ Multicast / Unicast / RTMP.

FMUSER FBE200 IPTV Encoder can deliver H.264/ H.265/ video streams with multi channels of IP output which are independent from each other, to various servers for IPTV & OTT applications, such as Adobe Flash Server(FMS), Wowza Media Server, Windows Media Server , RED5, and some other servers based on UDP / RTSP / RTMP / HTTP / HLS / ONVIF protocols. It also supports VLC decode.

This device also have SDI versions, there are 4 in 1 version and 16 in 1 version inputs made in professional 19' Rack chassis, please feel free to contact us if you need them.

If you want to promote your own brand, we can also do OEM for you.

*We reserve the right to upgrade the appearance or functions of the product without extra notice.

1.1 Applications

- Digital TV Broadcasting System
- RJ45 Digital TV Programs Transmission
- Hotel TV System
- Head-end system of Digital TV branch network
- CATV Broadcasting system
- Edge side of Digital TV backbone network
- IPTV and OTT head end system

1.2 Technical Specifications

Input

Video input	1 x HDMI (1.4a ,1.3a) (support HDCP protocol, or 1 x SDI for option)
HDMI input Resolution	1920x1080_60i/60p, 1920x1080_50i/50p, 1280x720_60p,1280x720_50p 576p,576i,480p,480i and below
Audio input	1 x 3.5mm Stereo L / R, Support 32K ,44.1K audio signal sources.

Video

Video Encode	H.264 MPEG4/AVC Basicline / Main Profile / High Profile, H.265
Output Resolution	1920x1080,1280x720,850x480,720x404,704x576,640x480,640x360, 480x270
Biterate Ctrl	CBR / VBR
Color adjust	Brightness, Contrast, Hue, Saturation
OSD	Chinese and English OSD ,BMP LOGO, Make you logo on the video
Filter	Mirror, flip, Deinterlace, Noise reduction, Sharpen, Filtering

Audio

Audio input	Support Resampling 32K, 44.1K
Audio encode	AAC-LC, AAC-HE, MP3, G.711
Audio gain	Adjustable for -4dB to +4dB
Sampling rate	Adaptive, selectable of re-sample
Bit Rate	48k,64k,96k,128k,160k,192k,256k

Streaming

Protocol	RTSP,UDP Multicast, UDP Unicast, HTTP ,RTMP, HLS, ONVIF
----------	---

RTMP	Streaming media server, as: Wowza, FMS, Red5, Youtube, Upstream, Nginx, VLC, Vmix, NVR etc.
Three streams Output	Support main stream, sub stream and 3rd stream, support web page preview video, Broadcast, VOD, IPTV and OTT, Mobile/ web, Set top box applications
Data Rate	0.05-12Mbps
Full-duplex mode	RJ45, 1000M / 100M

System

Web server	Web Control Default IP: http://192.168.1.168 user: admin pwd: admin
Web UI	English
Support	Microsoft standard flow driven architecture (WDM architecture), Microsoft WMENCODER, Windows VFW software architecture and WDM mode

General

Power supply	110VAC±10%, 50/60Hz; 220VAC±10%, 50/60Hz
DC Power input:	12V or 5V by Micro-USB
Consumption	less than 0.30W
Operating temperature:	0--45°C (operation), -20--80°C (storage)
Dimensions	146mm(W)x140mm(D)x27mm(H)
Package Weight	0.65KG

1.3 Appearance

Front Panel:



1. RJ45 100M / 1000M Cable Network
2. 3.5mm Stereo Audio Line in
3. HDMI Video in
4. Status LED / Power LED:

-The red light is the indicator for power supply.

-The green light is for working status, it lights up when the device is running normally and well connected to internet; Otherwise it'll be OFF.

-Press the reset key to restart the device when green light flashes, then the green light goes off.

5. Reset to Factory setting.

-Restore factory settings, the device starts normally, press the button and hold 5 seconds, the green light flashes 6 times until the green light turns off the device to restart, and then release the button to complete the factory settings.

Rear Panel:



FBE200-H.264-LAN



FBE200-H.264/H.265-WIFI

1. 2.4G WIFI Antenna Interface--SMA-K (FBE200-H.264-LAN doesn't have this interface.)
2. Micro USB Power Port (5V,optional)
3. DC Power Port (12V)

Attention: 5V and 12V power supply can only work one at same time.

When you had 12V in, Don't insert any 5V power supply or power bank, it will be danger.

1.4 Quick Guide for Connecting part

When you are the first time to use FMUSR FBE200 encoder, please do a quick with the following procedures:

1. Use the HDMI cable to connect the DVD and FBE200 encoder, get the DVD playing.
2. Use the RJ45 cable to connect the computer and the FBE200 encoder. Add the 192.168.1.* to your computer setting of TCP/IP protocols.
3. Plug in 12V power for the FBE200 encoder.
4. Open VLC Media Player. Click "Media," then "Open Network Stream."
5. Type in the URL of "rtsp://192.168.1.168:554/main"
6. Click "Play." The stream will begin to play.

Please go to <http://bbs.fmuser.com> and get a step by step tutorial.

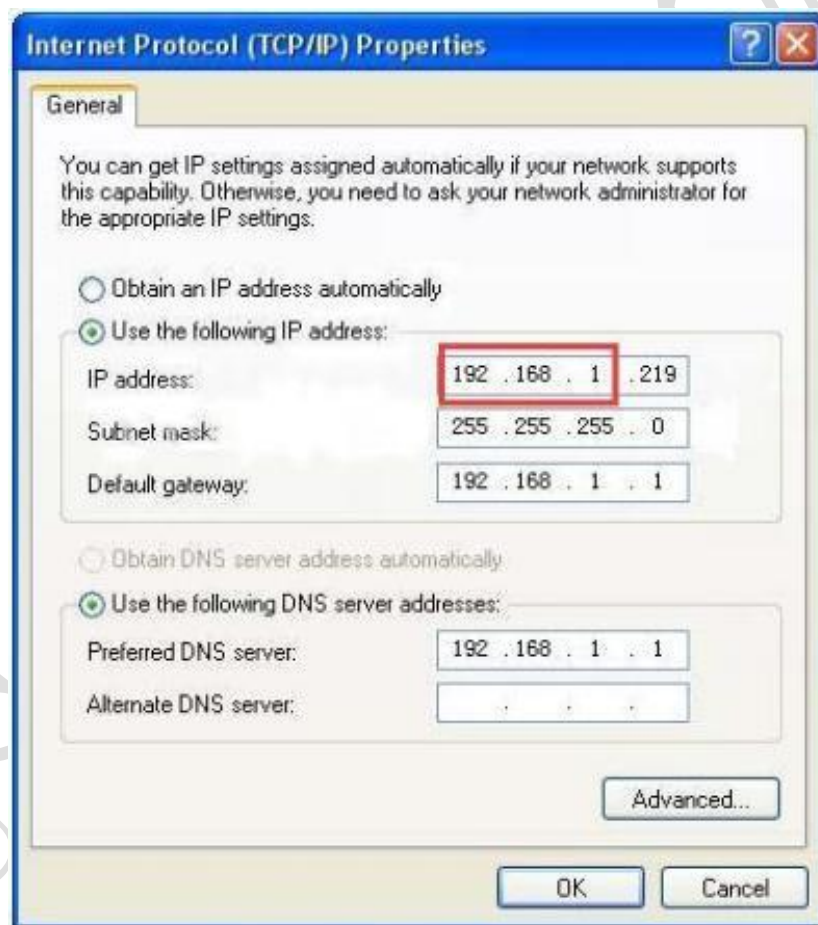
2 Login web manager

2.1 Computer IP setting

> The default IP address for FMUSER FBE200 HDMI Encoder is **192.168.1.168**.

> Your computer' IP address must be 192.168.1.XX for connecting with Encoder.

(Note: "XX" can be any number ranging from 0 to 254 except 168.)



When your network is not in 192.168.1.X , you need a Multiple subnets to login the encoder .check it here: <http://bbs.fmuser.com/network-login>

2.2 Connect to FMUSER FBE200 Encoder

> Connect your computer to FMUSER FBE200 through network line cable.

>Open IE browser, input "192.168.1.168" to visit FMUSER FBE200 HDMI Encoder's WEB administrator page.

User Name: admin

Password: admin



3 Status

You will be able to see all status information of the FEB200 encoder, which includes stream URLs, encode parameters, HDMI signal information, audio capture information and audio encode parameters, as well as video preview and color adjustment interface, etc. And you can directly copy them to the VLC player software for decoding.

Section	Parameter	Value
Device status (1)	Device ID:	0A10160825000083
	Device version:	20161209
	Video info:	1080P50
	Interrupt count:	146315
	Lost count:	31
	Audio status:	enable
Audio info (2)	Audio input:	HDMI audio
	Audio sample(hz):	48000
	Audio channel:	2
	Resample(hz):	48000
	Encode:	AAC-LC
	Bitrate(bps):	48000
Main stream (3)	Resolution:	1920*1080
	RTSP:	rtsp://192.168.1.168:554/main
	TS over IP:	udp://@238.0.0.1:6010
	RTMP:	rtmp://a.rtmp.youtube.com/live2/xczy-gyu0-dawk
	Encode:	H.264
	Encode ctrl:	CBR
Extended stream (4)	Resolution:	720*480
	RTSP:	rtsp://192.168.1.168:554/ext
	TS over IP:	udp://@238.0.0.2:6030
	RTMP:	disabled
	Encode:	H.264
	Encode ctrl:	CBR
3rd stream (5)	Resolution:	720*480
	RTSP:	rtsp://192.168.1.168:554/3rd
	TS over IP:	udp://@238.0.0.3:6050
	RTMP:	disabled
	Encode:	H.264
	Encode ctrl:	CBR
Color Adjustment (7)		
Brightness:	50	[0-100]
Contrast:	50	[0-100]
Hue:	50	[0-100]
Saturation:	50	[0-100]
HLS URL: http://192.168.1.168:8080		



Fmuser HD live b

Status Network

Device status 1

Device ID: 0A10161107000273

Device version: 20161015

Video info: 1080P50

Interrupt count: 0

Lost count: 0

Audio status: enable

Audio count: 0

3.1 Device Status:

- 1) Device ID
- 2) Device Version: The Firmware version.
- 3) Video info: Video signal parameters that inputted in.
- 4) Interrupt Count: Increasing intervals indicates it has video input. If it displays as 0, it means there is no video input, then you need to **change the source box and HDMI cable for check.**
- 5) Lost Count: This figure is generally very small, a large number of lost frames, the video card, it is necessary to detect the input program source is normal
- 6) Audio Status:
- 7) Audio Count: Increasing audio count it has 3.5mm input. If it displays as 0, it means there is no video input, then you need to check the input signal.

If you are an experienced user, for more information about the counter.

Please go to <http://bbs.fmuser.com>



broadcast box

Media Access System

Audio info 2

Audio input: HDMI audio

Audio sample(hz): 48000

Audio channel: 2

Resample(hz): 48000

Encode: AAC-LC

Bitrate(bps): 48000

3.2 Audio info

- 1) Audio input: Currently Audio input (HDMI or line in)
- 2) Audio sample(HZ):
- 3) Audio Channel :
- 4) Resample(HZ): disable / 32k /44.1k
- 5) Encode: AAC-LC / AAC-HE / MP3
- 6) Bit rate(bps):48000-256000bps

3.3 Main Stream / Extended stream / 3rd stream

Main stream 3	Extended stream 4
Resolution: 1920*1080	Resolution: 720*480
RTSP: rtsp://192.168.1.168:554/main	RTSP: rtsp://192.168.1.168:554/ext
TS over IP: udp://@238.0.0.1:6010	TS over IP: udp://@238.0.0.2:6030
RTMP: disabled	RTMP: disabled
Encode: H.264	Encode: H.264
Encode ctrl: CBR	Encode ctrl: CBR
FPS: 30	FPS: 30
Bitrate(kbps): 2048	Bitrate(kbps): 1024
3rd stream 5	Encode: H.264
Resolution: 720*480	Encode ctrl: CBR
RTSP: rtsp://192.168.1.168:554/3rd	FPS: 30
TS over IP: udp://@238.0.0.3:6050	Bitrate(kbps): 1024
RTMP: disabled	

- 1) Resolution: 1920*1080 ----Output stream resolution.
- 2) RTSP: rtsp://192.168.1.168:554/main ---- it can be directly copied to the VLC player software for decoding.
- 3) TS over IP: ----Http / Unicast / Multicast, only work one at same time.

http://192.168.1.168:80/main ----Http output

udp://@238.0.0.2:6010 ---- Unicast output

udp://@192.168.1.160:6000 ---- Multicast output

- 4) RTMP: rtmp://a.rtmp.youtube.com/live2/xczy-gyu0-dawk-****
---- Your YouTube RTMP address

5) Encode: H.264 ----H.264 / H.265 (some model only H.264)

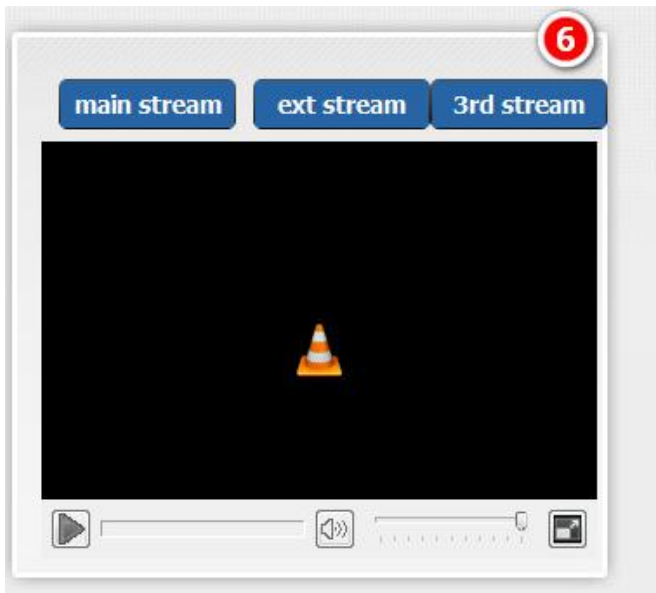
6) Encode ctrl: CBR ----CBR / VBR

7) FPS: 30

8) Bit rate(kbps): 2048

Extended Stream ----2nd output stream

3rd Stream ----3rd output stream

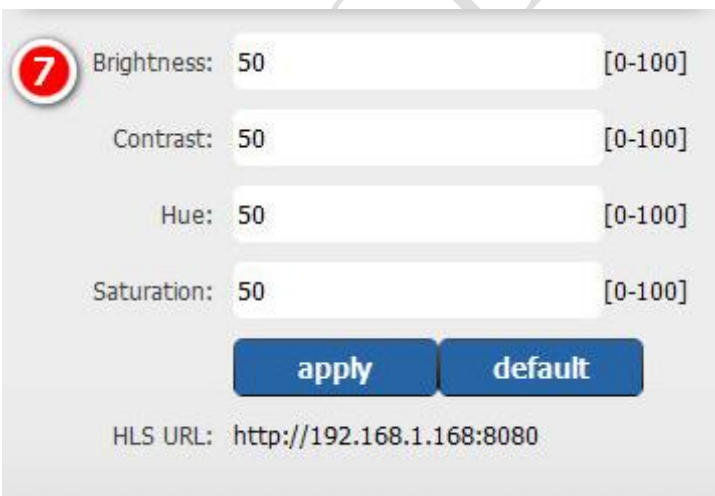


3.4 Live video show

Only use in Firefox browser and you need install the Vic plugin_add-ons of vlc.
Download it at <http://www.videolan.org/vlc/>



Since Firefox is constantly updated to cause live preview unavailable, we recommend using chrome and ie-tab, check it here: <http://bbs.fmuser.com/live-preview>



3.5 Video Color and Brightness setting

If you had open the HLS, you may try the hls address to set on your

HLS URL: <http://192.168.1.168:8080>

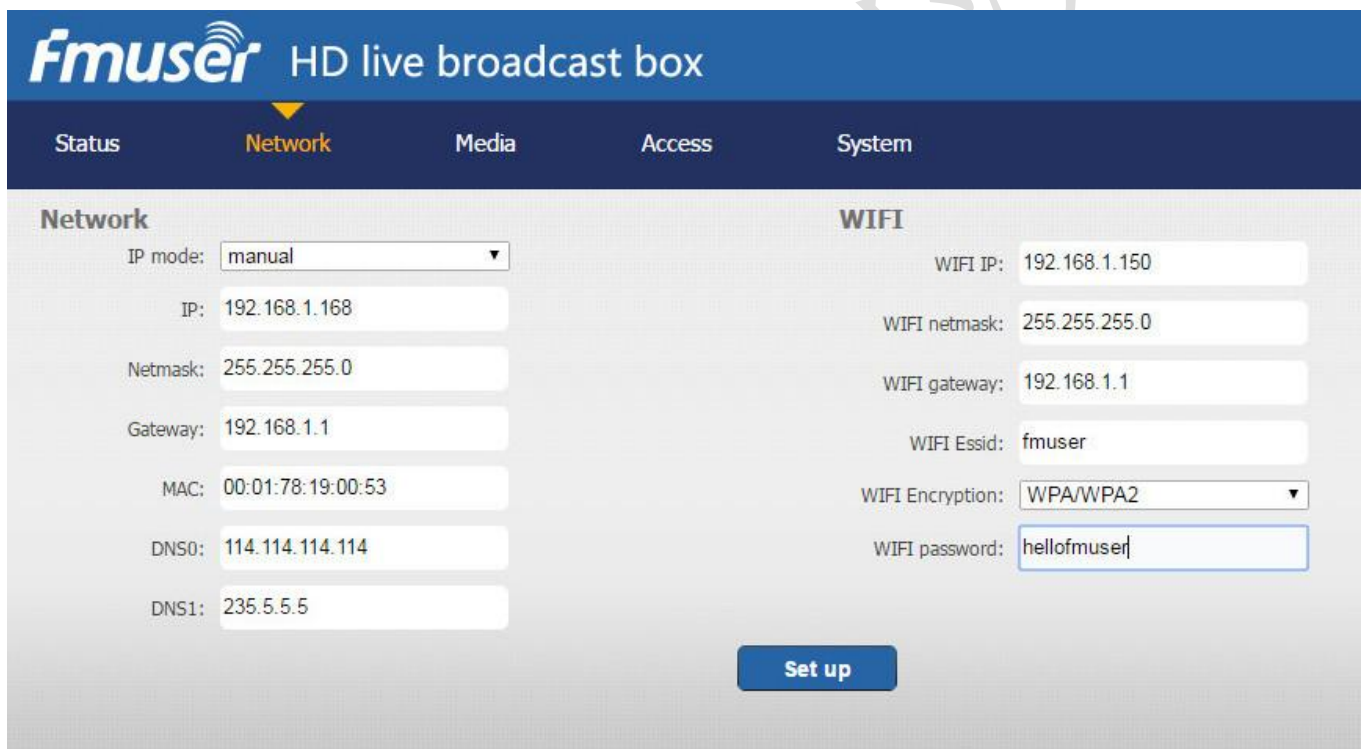
4 Network Setting

Network page display and network address and related parameters modification.

Modifications will take effect upon restart of the device.

- 1) Set FMUSER FBE200 encoder's IP address according to your LAN IP. For example, if your LAN IP is 192.168.8.65, FBE200 IP should be set to 192.168.8.XX ("XX" can be any number ranging from 0 to 254 except from 168). FMUSER FBE200 should be in the same Network environment as your LAN IP.
- 2) If you don't have LAN ,you can try to use WIFI connection by setting the WIFI ID and the password (This setting is applicable only to the versions with WIFI).

The wifi is only for 2.4G ,if you found the wifi can not connect ,try to reset find out the router open 2.4G ,sometimes they work for 5.8G.



The screenshot shows the web interface for the FMUSER HD live broadcast box. The interface has a blue header with the 'Fmuser' logo and the text 'HD live broadcast box'. Below the header is a navigation bar with tabs for 'Status', 'Network', 'Media', 'Access', and 'System'. The 'Network' tab is selected. The 'Network' section contains the following fields: IP mode (set to 'manual'), IP (192.168.1.168), Netmask (255.255.255.0), Gateway (192.168.1.1), MAC (00:01:78:19:00:53), DNS0 (114.114.114.114), and DNS1 (235.5.5.5). The 'WIFI' section contains the following fields: WIFI IP (192.168.1.150), WIFI netmask (255.255.255.0), WIFI gateway (192.168.1.1), WIFI ESSID (fmuser), WIFI Encryption (set to 'WPA/WPA2'), and WIFI password (hellofmuser). A 'Set up' button is located at the bottom right of the settings area.

- 3) Click "set up" button to save the new setting.
- 4) After network setting is done, you need to reboot the device to make it work.

** Reset and Initialization, if you forgot the IP address you've set, please reset to factory.

- a) Press and hold the Reset button for 5 seconds to reset and initialize the FMUSER FBE200 HDMI Encoder.
- b) After reset, FMUSER FBE200 will restore factory setting with IP address of 192.168.1.168.

5 Media Setting

Media page includes video encoding parameters for the stream setting, such as Mirror, flip and deinterlace setting, output OSD subtitles and bmp LOGO, as well as audio input setting, Audio resampling, audio encode, volume control etc.

Fmuser HD live broadcast box English ▾

Status Network Media Access System

Media

Audio input:

Resample(hz):

Audio encode:

Volume:

Mirror&Flip:

Deinterlace:

apply

Main media

Encode:

Encode profile:

Resolution:

FPS(fps): [5-60]

GOP: [10-180]

Bitrate ctrl:

Bitrate(kbps): [50-12000]

apply

Ext media

Encode:

Encode profile:

Resolution:

FPS(fps): [5-60]

GOP: [10-180]

Bitrate ctrl:

Bitrate(kbps): [50-12000]

apply

Main OSD

Text:

apply

Ext OSD

Text:

apply

Main LOGO

BMP:

apply

Ext LOGO

BMP:

apply

3rd media

Encode:

Encode profile:

Resolution:

FPS(fps): [5-60]

GOP: [10-180]

Bitrate ctrl:

Bitrate(kbps): [50-12000]

apply

3rd stream OSD&LOGO

Text:

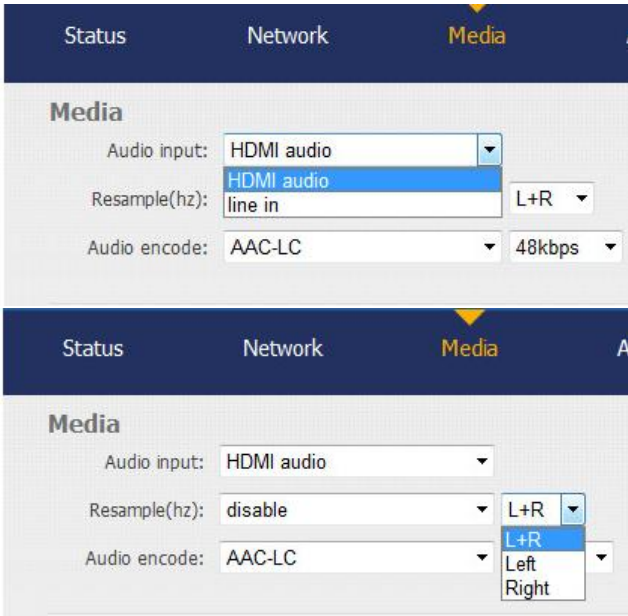
apply

BMP:

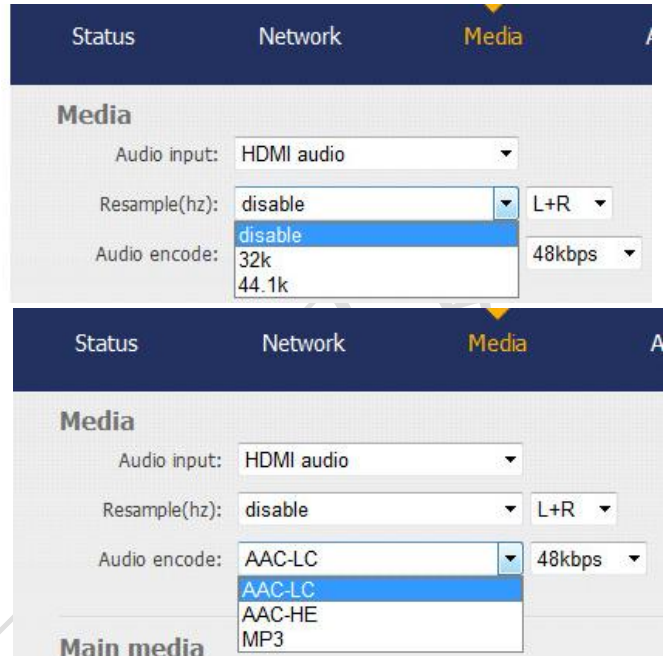
apply

5.1 Media setting

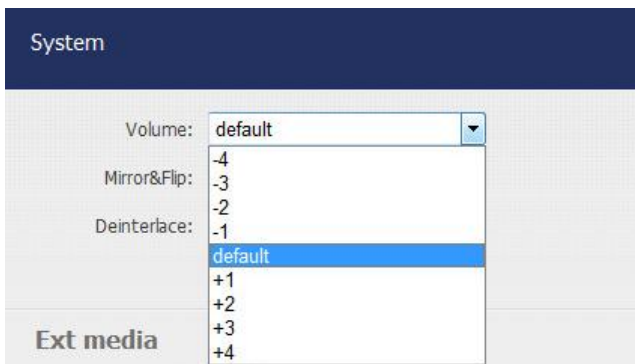
You can modify “Audio input”, “Resample” etc if needed.



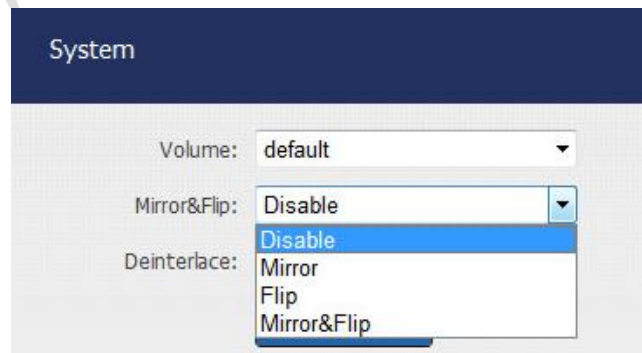
Audio LR: L+R/Left/Right



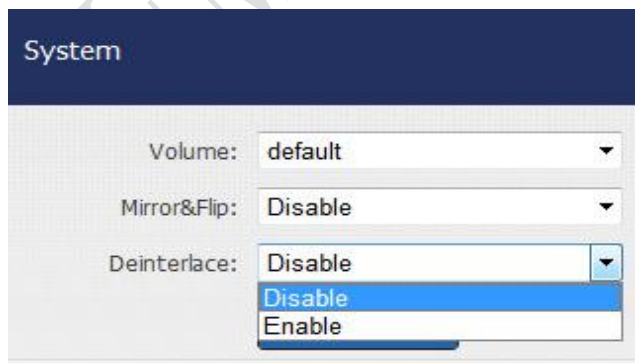
Audio encode: AAC-LC/AAC-HE/MP3



Volume: form -4--+4db



Video Mirror Flip: disable/mirror/flip/mirror Flip



Deinterlace: Disable/Enable

Disable: when you use 1080p, 720p...input

Enable: When you use 1080i, 720i, 576i input

5.2 Main media setting (video)

> Not all models support both H.264 and H.265 at the same time, you can choose the corresponding ones based on your need.

If you want to support RTMP you should choose the baseline profile ,H.265 only supports baseline profile, if to use HLS , please make sure to set it to Baseline.

Encode Profile: baseline/main profile/high profile

Bit rate: CBR / VBR

Resolution: main media has more choices.

If you set the resolution to 1280x720, The FPS should be lower than 50.

Bit rate: Live Stream RTMP 1500-3000kbps

IPTV 1920*1080p 4000-12000kbps

FPS depends on your output resolution, it can't exceed the input frame rate. Otherwise the image will appear to have dropped frames. We advice you to set 25 fps normally.

Main media

Encode: H.264

Encode profile: main profile

Resolution: auto

FPS(fps): 1600x900 [5-60]

GOP: 1440x1050 [10-180]

Bitrate ctrl: 1280x720

Bitrate(kbps): 1280x800 [50-12000]

1280x768

1024x768

1024x576

960x540

850x480

800x600

Main OSD

Text: 720x576 [Disable]

720x540

720x480

720x404

704x576

640x480

640x360

480x270

Main LOGO

BMP: auto [Disable]

Main Stream is from 1360*768 to 1920*1080

Extended Stream is from 800*600 to 1280*720

3rd Stream is from 480*270 to 720*576

Main Stream

Ext Stream

3rd Stream

5.3 OSD setting

Make you LOGO on you video.

Or upload a *.bmp file as a LOGO.

Try to set the X-axis and Y-axis you want to show the OSD and LOGO.

Main OSD

Text: [input] [Enable]

X: 100 [0-1920]

Y: 100 [0-1080]

Font: 32 [8-72]

Color: White

Alpha: 128 [0-128]

apply

Main LOGO

BMP: [input] [Enable]

file: [Browse..] (bmp)

Upload

X: 20 [0-1920]

Y: 20 [0-1080]

Backcolor: None

Alpha: 128 [0-128]

apply

Ext OSD

Text: [input] [Disable]

apply

Ext LOGO

BMP: [input] [Disable]

apply

3rd stream OSD&LOGO

Text: [input] [Disable]

apply

BMP: [input] [Disable]

apply

6 Access :

FBE200 supports protocol of HTTP, RTSP, Unicast IP, Multicast IP, RTMP and ONVIF. You can choose any of them on the access page according to your application.

Fmuser HD IPTV Streaming Encoder FBE200-H.265-HLS

Status	Network	Media	Access	System
--------	---------	-------	--------	--------

Service Info

HLS select: <input type="text" value="Close"/>	TS Packet: <input type="text" value="A"/>
UDP Mode: <input type="text" value="Auto"/>	HTTP Port: <input type="text" value="80"/>
TS Mode: <input type="text" value="ffmpeg"/>	RTSP Port: <input type="text" value="554"/> <input type="text" value="UDP"/>
MTU: <input type="text" value="1500"/> [1-1500]	RTSP audio: <input type="text" value="AAC or MP3"/>
TTL: <input type="text" value="16"/> [1-255]	Mux Mode: <input type="text" value="Video&Audio"/>

Main RTMP

RTMP:

RTMP Push URL:

(as: rtmp://ip:port/xxx/xxx)

(as: rtmp://user:pwd@ip:port/xxx/xxx)

(as: rtmp://server/xxx/xxx)

(as: rtmp://user:pwd@server/xxx/xxx)

Ext RTMP

RTMP:

RTMP Server:

RTMP Port:

Application:

Stream:

User:

Password:

Main stream

RTSP: (as:/main)

HTTP: (as:/main)

Unicast:

Unicast port:

Multicast:

Multicast port:

Ext stream

RTSP: (as:/ext)

HTTP: (as:/ext)

Unicast:

Unicast port:

Multicast:

Multicast port:

3rd stream

RTSP: (as:/3rd)

HTTP: (as:/3rd)

Unicast:

Unicast port:

Multicast:

Multicast port:

3rd RTMP

RTMP:

RTMP Push URL:

(as: rtmp://ip:port/xxx/xxx)

(as: rtmp://user:pwd@ip:port/xxx/xxx)

(as: rtmp://server/xxx/xxx)

(as: rtmp://user:pwd@server/xxx/xxx)

6.1 Service Info

Setting the HLS, HTTP Port, TS mode, RSTP port and Audio.

Fmuser HD IPTV Streaming Encoder FBE200-H.265-HLS

Status Network Media **Access** System

Service Info

HLS select: Close
UDP Mode: Auto
TS Mode: ffmpeg
MTU: 1500 [1-1500]
TTL: 16 [1-255]

TS Packet: A
HTTP Port: 80
RTSP Port: 554 UDP
RTSP audio: AAC or MP3
Mux Mode: Video&Audio

Set up

HLS select: Some models supports HLS, you can select HLS for corresponding stream .

Attention: When you use h.265 , You need to close the HLS.

UDP mode: Auto(for 1000M/100M),A(for 100M,B(for 10M) ,some IPTV STB has only 100M internet bandwidth, if you find it doesn't work well by multicast, please change it to B.

6.2 RTMP Setting

Main RTMP

RTMP: URL Mode Enable

RTMP Push URL: rtmp://a.rtmp.youtube.com/live
(as: rtmp://ip:port/xxx/xxx)
(as: rtmp://user:pwd@ip:port/xxx/xxx)
(as: rtmp://server/xxx/xxx)
(as: rtmp://user:pwd@server/xxx/xxx)

Set up

Ext RTMP

RTMP: Classic Mode Enable

RTMP Server: 1.23134546.fme.ustream.tv
RTMP Port: 1935
Application: ustreamVideo/23134546
Stream: fTLV7B7pzJQ4yBRDvgGUu4gNhn
User:
Password:

Set up

RTMP URL Mode: Use the RTMP address in one line, not separate lines.

For example: rtmp://a.rtmp.youtube.com/live2/xczy-gyu0-dawk-8cf1

RTMP Classic Mode: as shown in the picture.

Follow this when you setting RTMP:

- 1) finish the setting rtmp
- 2) click the set up botton
- 3) click the reboot botton
- 4) **wait it about 3 minutes** ,then reflash the ustream /Dacast / Youtube ..browser live view.

Attention: The main RTMP/ Ext RTMP is work for different cloud platform, Don't set same RTMP address to main RTMP/ Ext RTMP/3rd RTMP.

> H.264/H.265 level Baseline main / high / profile: If you want support RTMP, please choose baseline profile or main profile.

> Sever Testing:

-- Set the FBE200 encoder RTMP address to the FMS server address:

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

-- Install the software: Flash Media Server 3.5. There is no need to input series number; Both user name and password are 1.

-- Start the background software



this software runs in background

-- Go to folder "Flash Player", find "VideoPlayer.html" and open it

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

You can enable "HTTP", "RTSP" or "Multicast IP" as needed. After all the data are settled, click the button "Apply" .

ADOBE FLASH MEDIA SERVER
SAMPLE VIDEO PLAYER

SELECT A VIDEO FROM THE LIST BELOW
SOURCE: /applications/vod/media
sample1_150kbps.flv
> sample1_500kbps.flv
sample1_700kbps.flv
sample1_1000kbps.flv
sample1_1500kbps.flv
sample1_2000kbps.flv

SOURCE: /webroot/vod
hd_1080p1_1080kbps.flv
hd_1080p1_700kbps.flv
sample1_1000kbps.flv (progressive)
sample1_1000kbps.flv (rtmp)

SOURCE: /applications/live
> live/hdmi

STREAM YOUR OWN VIDEO
STREAM URL:
URL Syntax: [protocol]://[servername]/[application]/[codecid]/[streamname].[extension]

VOD LIVE

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

check it here play

6.3 Main Stream Setting

You can enable one of "HTTP", "Unicast" or "Multicast" as needed, after all the data is settled, click "set up".

Service Info

HTTP Port: 80
UDP Mode: Auto
TS Mode: ffmpeg
RTSP Port: 554
RTSP audio: AAC or MP3

Main RTMP

RTMP: URL Mode
RTMP URL: rtmp://a.rtmp.youtube.com/live/

Ext RTMP

RTMP: URL Mode
RTMP URL: rtmp://

Main stream

RTSP: /main
HTTP: /main
Unicast: 192.168.1.160
Unicast port: 6000
Multicast: 238.0.0.1
Multicast port: 6010

Ext stream

RTSP: /ext
HTTP: /ext
Unicast: 192.168.1.161
Unicast port: 6020
Multicast: 238.0.0.2
Multicast port: 6030

You can enable one of these 3 protocol you need.

Notes: All the data above can be adjusted based on your practical application.

You can enable one of these 3 protocols as you need.

6.4 Ext Stream and 3rd stream

Reference setting like Main stream.

6.5 How many Streams can work on the FBE200 at one time?

Every stream can work with RTMP, RTSP, and http/unicast/multicast) at the same time.

So if it full runs, it will be work $3 \times 3 = 9$ streaming at one time. (3 x RTMP, 3 x RTSP, 3 one of (http, Unicast, Multicast)).

Main RTMP

RTMP: URL Mode Enable

1 RTMP URL: rtmp://a.rtmp.youtube.com/live2

Set up

Main stream

2 RTSP: /main Enable (as:/main)

3 HTTP: /main Disable (as:/main)

Unicast: 192.168.1.160 Enable

Unicast port: 6000

Multicast: 238.0.0.1 Disable

Multicast port: 6010

Set up

One of the 3 (Http, Unicast, Multicast)

6.6 How to set RTMP for Facebook Youtube Dacast Ustream?

Go here for the RTMP setting detail <http://bbs.fmuser.com/streaming-rtmp/>

If you are the beginner of live streaming, the first time streaming guide will help you.

<http://bbs.fmuser.com/first-time-streaming/>

7 System Setting

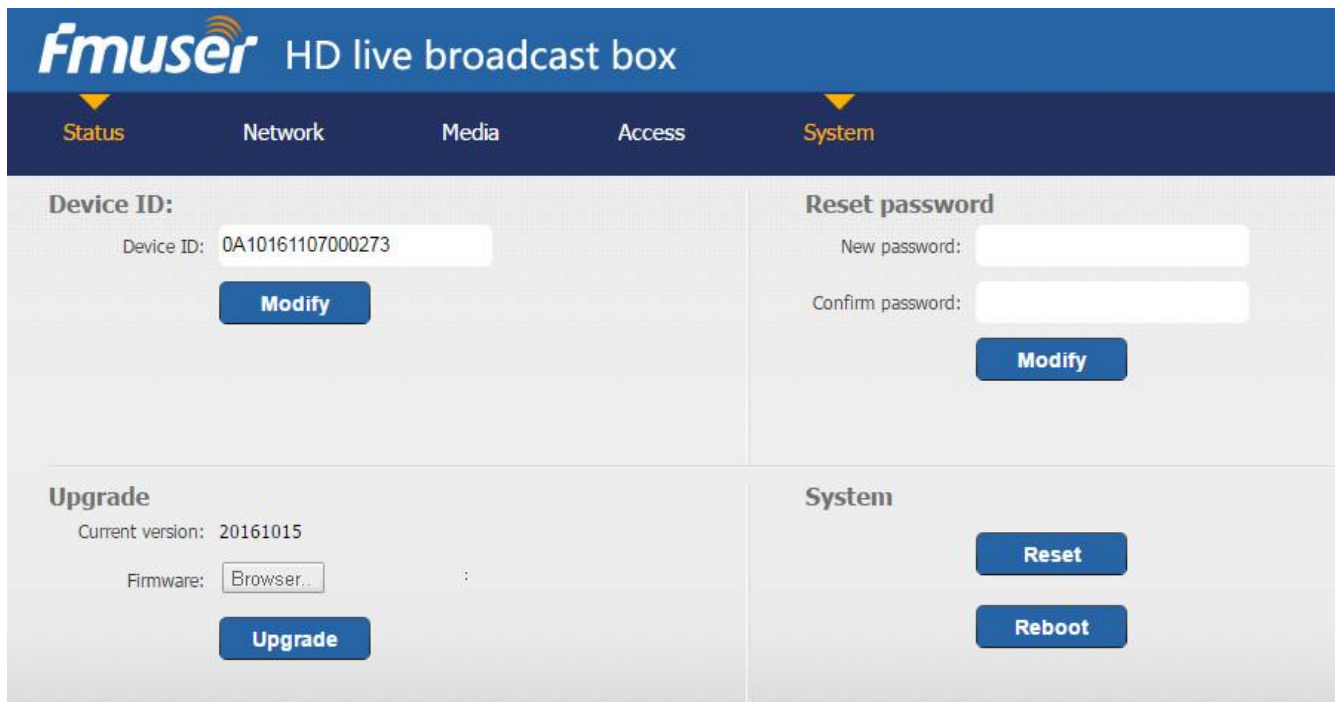
You can modify the device ID and administrator password on the system setting page, as well as upgrading the **firmware**, restoring the factory settings, restarting the encoder and other functions.

Upgrade: Upgrade the firmware; download newest firmware <http://bbs.fmuser.com/firmware>

Reset password: change the login password, which must be Less than or equal to 12 characters.

Reset: Reset all setting to the factory.

Reboot: Warm boot



About Reboot

If you use the button of apply, modify, it will run immediately, not need for reboot.



If you use the button of upgrade, set up, a reboot is needed, you can click the reboot button or re-plug the power source.



8 Order Guide

Model No.	Chassis	Encoding	Input	wireless	other
FBE200-H.264-LAN	Small box	h.264	1 x HDMI or SDI in 3.5mm Stereo in	-	-
FBE200-H.264	Small box	h.264	1 x HDMI or SDI in 3.5mm Stereo in	2.4g WIFI	HLS
FBE200-H.265	Small box	h.264 / h.265	1 x HDMI or SDI in 3.5mm Stereo in	2.4g WIFI	HLS
FBE204-H.264	19' 1U Rack	h.264	4 x HDMI or SDI in	-	-

			3.5mm Stereo in		
FBE204-H.265	19' 1U Rack	h.264 / h.265	4 x HDMI or SDI in 3.5mm Stereo in	-	-
FBE216-H.264	19' 3U Rack	h.264	16 x HDMI or SDI in 3.5mm Stereo in	-	-
FBE216-H.265	19' 3U Rack	h.264 / h.265	16 x HDMI or SDI in 3.5mm Stereo in	-	-

9 Troubleshooting

1) Black screen, nothing output from the streaming.

-Check the Status (Refer to 3.1) ,if you find the interrupt count is 0 or there is no automatic increase, check the HDMI (SDI) cable and video source.

2) There are some horizontal red short lines on the Screen.

-Replace a new and good HDMI cable.

3) The picture freeze like a still shot of the movie for a few seconds and then it resumes playing.

-Check the Status of video input and refer to 5.2 (FPS) .

4) Freezing playing with VLC on the computer, but playing well on another computer.

-Check the CPU usage status of the computer, usually the problem is the computer CPU is running too full.

5) Audio drops out every few seconds (Audio Freezing)

-Check you Audio Resample (32/44/48/192khz) of the files, if each file audio Resample not same, it will be Audio Freezing .You need to reboot the encoder / VLC / decoder when the Resample change. We advice you use the same Audio Resample (32/44/48/192khz) files.

6) Others, like blurred screen....

Go to the <http://bbs.fmuser.com>, there is a solution to help you correct the problem on live streaming.

10 Get Help (<http://bbs.fmuser.com>)

All FMUSER products are equipped with 10 years technical support. If you have any questions related to our products, please visit <http://bbs.fmuser.com> and submit a help post, our engineer will reply you quickly.

How to get help fast?

In order to save time and get better understanding of the problems, please provide the information as below, this will help us to get a solution faster.

- a. The full page Screenshots of status
- b. The full page Screenshots of media
- c. The full page Screenshots of access
- d. What is the problem

How to get more streaming broadcast technical knowledge?

Go to <http://bbs.fmuser.com>, you will get more information like this:

What is the best Video Live Streaming Broadcast Platforms ? JWPlayer Kaltura or DaCast?

<http://bbs.fmuser.com/t/300>

How to set the HDMI encoder Resolution Video Bitrate when you streaming?

<http://bbs.fmuser.com/t/261>

8 ways to stop IPTV streaming video keeps freezing encoder problem solve

<http://bbs.fmuser.com/t/127>

If you have any application for encoders, you are welcomed to share your application case with us on <http://bbs.fmuser.com>

That is all, enjoy your live streaming and share it to the world.

If you are interested in our FM/TV broadcast equipment, please feel free to contact us at Email: zoey.zhang@fmuser.net, or Whatsapp/Wechat: +86 18319244009.

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