

H.264 AVC/MPGE4

**Full HD 4CH HDMI /Audio Live
Encoder**

Model No: VMI-EN004-HD

Manual

1.Interface



Power: DC 12V 2A

HDMI IN: HDMI Video Input Port

Reset: Recovery to Default setting

LAN: 1000M Ethernet Port

Audio IN: 3.5mm Audio Input

Power: Power Light(Red)

LAN: Lan Status Light(Green)

Video: Video Signal Light(Blue)

Instructions:

A. Power ----12 V/DC 2A;

B. Reset----- It is used to reset the equipment; after the equipment is started, press the button for 12 seconds, the equipment IP is recovery to the default IP, 192.168.1.168.

C. Video input --- high-definition HDMI

D. LAN ---- 1000M Ethernet Interface.

2.Specification

Input

Video	1.4 HDMI HDCP
HDMI resolution ratio	1920×1080_50/60P, 1920×1080_50/60i, 1280×720_50/60p 720x576i/p 720x480i/p.
Encoding	H.264 AVC Profile 4.2
Code rate	16kbit/s~32Mbit/s
Code rate control	CBR/VBR

GOP type	Adjustable
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Audio:

Coded format	AAC AAC+ AAC++ MP3 MP2 AC3 G.711A/U
Sampling rate	44100/48000
Bit rate	48K, 64K, 96K, 128K, 160K, 192K, 256K
Sampling precision	24 bit
Code rate	64Kb/s~384Kb/s

System:

RJ45	1000M Ethernet connection
Stream	HTTP,FLV,HLS,RTSP, RTMP Multicast,Unicast and ONVIF
Configuration interface	WEB operation interface
Updating	Software update

General

Size	106*189(212)*44mm
Net Weight	0.4KG
Temperature range	-20~55℃(workable)
Power supply	12V/2A
Power consumption	10W

3. System Setting :

3.1 Reset

there is a RST hole on the front panel which is used to conduct initialization reset for the high-definition encoder. When the equipment is powered on, press the button and hold for 12 Seconds, when the power light is off, release the button, and all the parameters will be initialized.

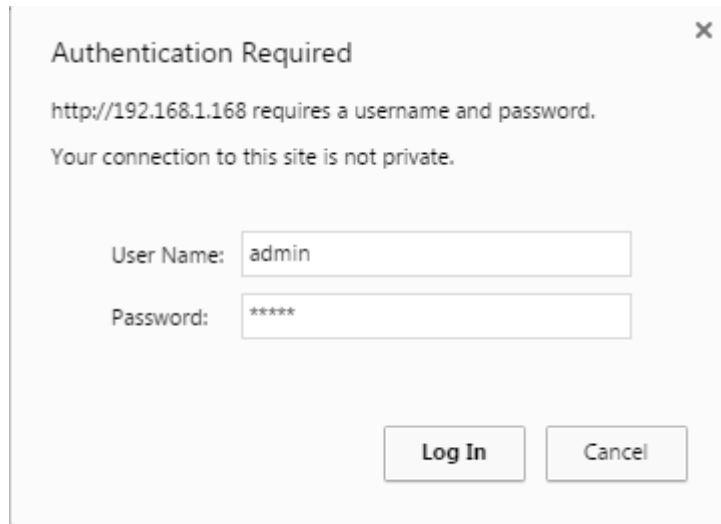
The initialized IP is **192.168.1.168**.

3.2 Computer IP Address Setting

Computer IP can be set as 192.168.1.*. Note: anyone from 1—254, except for 168

3.3 Open IE Explorer

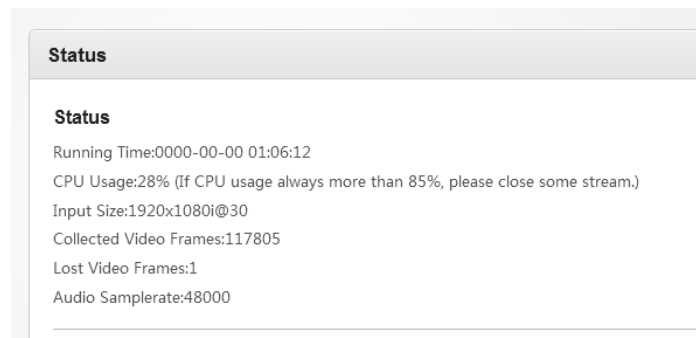
Fill <http://192.168.1.168> to address bar, Default user name: [admin](#) Password: [admin](#)



The image shows a standard Windows Internet Explorer authentication dialog box. The title bar says 'Authentication Required'. The main text states: 'http://192.168.1.168 requires a username and password. Your connection to this site is not private.' Below this, there are two input fields: 'User Name:' with the text 'admin' entered, and 'Password:' with '*****' entered. At the bottom right, there are two buttons: 'Log In' and 'Cancel'.

3.4 Status Display

3.4.1 status: when there is video input, it will display resolution of the input, and if there is not status info, input is not correct, please check your video source or video cable..



The image shows a 'Status' window from a video streaming application. The title bar is 'Status'. Inside, the word 'Status' is followed by several lines of text: 'Running Time:0000-00-00 01:06:12', 'CPU Usage:28% (If CPU usage always more than 85%, please close some stream.)', 'Input Size:1920x1080i@30', 'Collected Video Frames:117805', 'Lost Video Frames:1', and 'Audio Samplerate:48000'.

3.4.2 main stream : it shows main Stream Encode Type,Resolution,Bitrate and access address

Main stream	
Encode Type:	H.264
Encode Size:	1920x1080@30
Bitrate(kbit):	2800
TS URL:	http://192.168.1.168/0.ts
HLS URL:	http://192.168.1.168/0.m3u8
FLV URL:	http://192.168.1.168/0.flv
RTSP URL:	rtsp://192.168.1.168/0
RTMP PUBLISH URL:	Disable
Multicast URL:	Disable
Preview(Delay 1000ms)	

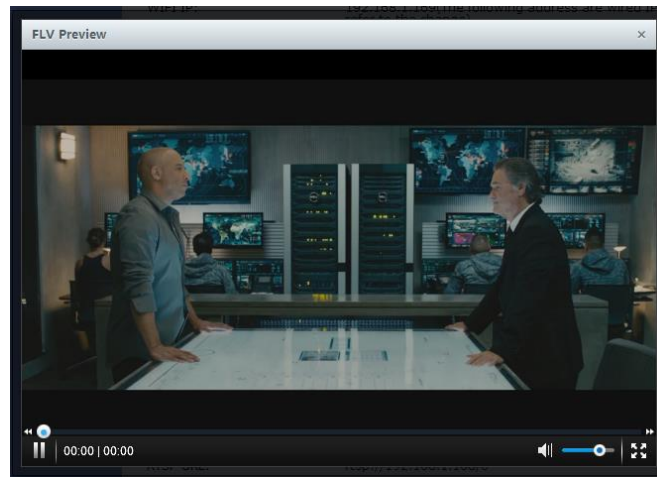
3.4.3 Sub stream: it shows Sub-Stream Encode Type ,Resolution Bitrate and access address

Substream1
Encoder size:1280x720@30
Bitrate(kbit):1800
TS URL:Disable
HLS URL:Disable
FLV URL:Disable
RTSP URL:Disable
RTMP PUBLISH URL:Disable
Multicast URL:Disable
Preview(Delay 1000ms)

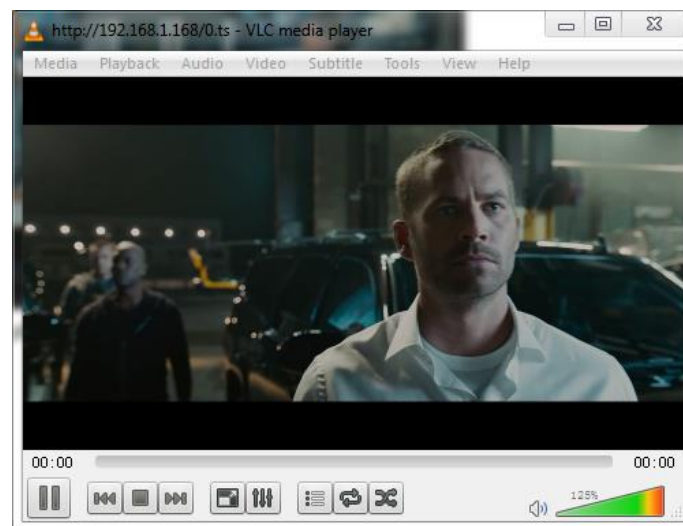
3.3.4 Preview:

a.Click Preview ,it will play stream in browser

Main stream
Encoding Type:1920x1080@30
Bitrate(kbit):1800
TS URLhttp://192.168.1.168/0.ts
HLS URL:Disable
FLV URL:http://192.168.1.168/0.flv
RTSP URL:rtsp://192.168.1.168/0
RTMP PUBLISH URL:Disable
Multicast URL:Disable
Preview(Delay 1000ms)



b.open VLC software to play stream



4. Network Setting

Network	
DHCP:	Disable ▾
IP:	192.168.1.168
Netmask:	255.255.255.0
Gateway:	192.168.1.1
MAC:	00:13:14:15:3A:21
DNS	
DNS1:	114.114.114.114
DNS2:	8.8.8.8
Port	
HTTP Port:	8080 [1-65535]
RTSP Port:	8554 [1-65535]
Apply	

Instructions: in terms of IP address of the equipment, the factory default is 192.168.1.168. If you forget the IP address after modification, you can reset the equipment by pressing the reset button for 12 seconds when the equipment is powered on, and restore the factory default ip.

5. Main Stream Encoding Setting

5.1 Encoding Setting of Main Stream

Main stream		
Encoding type:	H.264	
FPS:	30	[5-60]
GOP:	30	[5-300]
Bitrate(kbit):	2800	[32-32000]
Encoded size:	same as the input	
H.264 Level:	high profile	
Bitrate control:	vbr	
TS URL:	/0.ts	Enable
HLS URL:	/0.m3u8	Enable
FLV URL:	/0.flv	Enable
RTSP URL:	/0	Enable
RTMP PUBLISH URL:	rtmp://192.168.1.50/live/0	Disable
Multicast IP:	238.0.0.1	Disable
Multicast port:	1234	[1-65535]
Apply		

5.1.1 Encoding Type: H.264 or H.265

5.1.2 Encode level: baseline profile / main profile / high profile

5.1.3 Encoding frame rate: 5-60 frames (it can output 60p When Input is 60p)

5.1.4 Bitrate control: VBR(quality priority) and CBR(bandwidth Priority)

5.1.5 GOP: 30

5.1.6 Encoding size: 1920x1080, 1680x1050, 1280x720, 1024x576, 850x480, 720x576, 720x540, 720x480, 720x404, 704x576, 640x480, 640x360, 608x488, 544x480, 480x480, 480x384, 480x360, 480x320, 480x272, 480x720, 400x320, 400x224, 352x480, 352x228, 320x256, 320x240, 320x180, 240x180, 176x144

5.1.7 Video bit rate: 16-32000K

5.2 Main Stream Protocol Setting

5.2.1 HTTP protocols : /0.ts Enable /Disable

5.2.2 HTTP port: 1-65535

5.2.3 RTSP protocol: /0 Enable /Disable

5.2.4 RTSP port: 1-65535

5.2.5 multicast IP: 238.0.0.1 Enable /Disable

5.2.6 multicast port: 1-65535

5.2.7 RTMP push stream address:

rtmp://ip:port/xxx/xxx or rtmp://user:pass@ip:port/xxx/xxx

5.3 OSD Setting

Main stream

Alpha: [0-128]

Zone 1

Zone:

Type:

X: [0-1920]

Y: [0-1080]

Text:

Font size: [8-72]

Background color:

Color: [select color](#)

Zone 2

Zone:

Zone 3

Zone:

Zone 4

Zone:

5.3.1 Zone 1-4,you can enable max to 4 image or txt

Text, support English,Character and Image can be used Enable/Disable

Image, support 24bit BMP file ,less than 500KB,transparency color is **R:241 G:241 B:241**

5.3.2 X coordinate: the left and right positions displayed by 0-1920 text.

Y coordinate: the up and down positions displayed by 0-1080 text.

5.3.3 font: the size of 8-72 text display in the display screen.

5.3.4 Alpha: 0-128 , transparency

5.3.5 Logo: select logo files

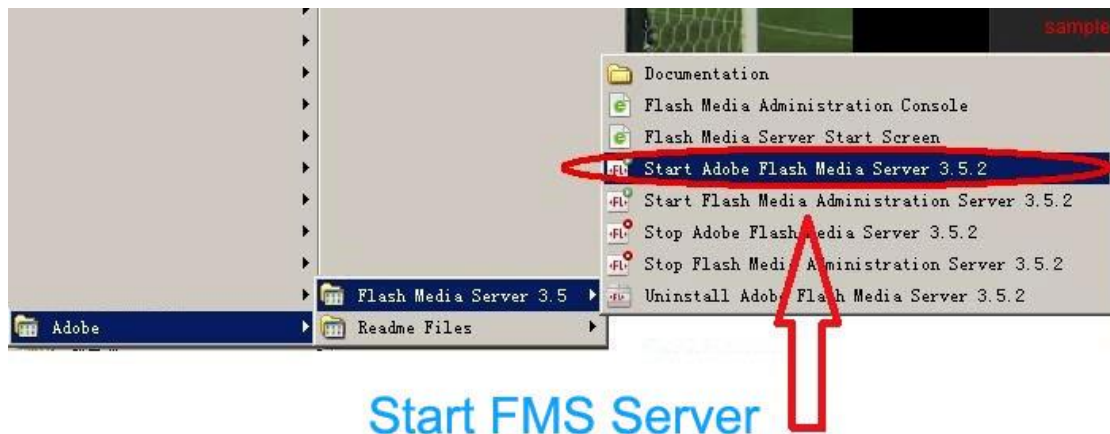
5.4 Sub Stream Encoding Setting

Note: the setting method is as same as that of main stream

6. Instructions for FMS Server Test

6.1 installation software: Flash+Media+Server3.5, the input of serial number is not required during the installation, and input both user's name and pin: 1

6.2 launch the background software



6.3 open : VideoPlayer.html in the file of FlashPlayer

6.4 input :rtmp://ipaddress / rtmp / hdmi and select live, you can see the image or input:
rtmp://192.168.1.100:1935/live/hdmi select: LIVE click: Play stream



7. Instructions for Wowza Server Test

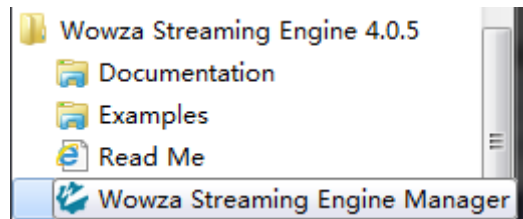
7.1 Wowza Installation

Run wowzaStreamingEngine-4.0.5

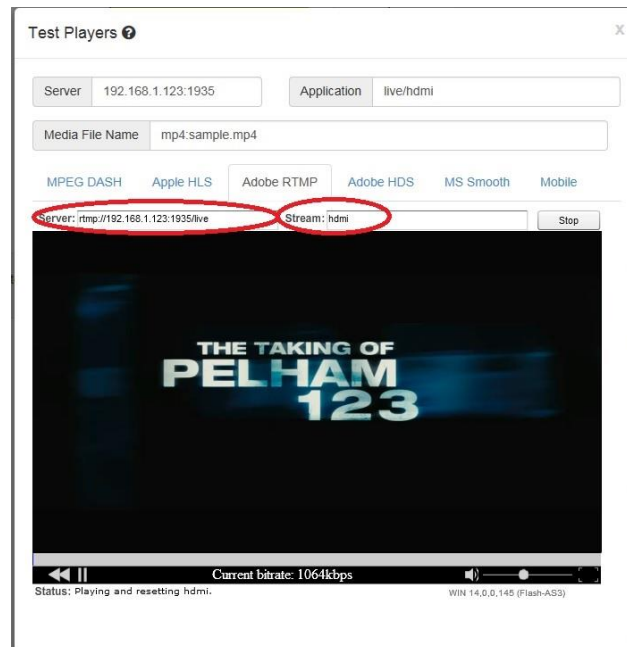
Registration code: ET1A4-KxrGd-Eaj9T-dTbcf-rZNza-9xaJd-7nQQnuhkxkpm

During the installation, the software provides guide for the installation of jdk-8u5-windows-64. Complete the software installation.

7.2 run: Wowza Streaming Engine Manager



7.3 Enter the test interface



Server input: rtmp://192.168.1.123:1935/live

Stream input: hdmi

8. Audio Encoding Settings

Audio	
Audio Input:	SDI ▼
Samplerate:	48000 ▼
Encoder:	AAC ▼
Bitrate:	128000 [48000~128000]
Analog Vol:	10 [-50~50]
ONVIF Audio	
G711A Over RTSP:	Disable ▼
Apply	

Audio Bit rate: 48K, 64K, 96K, 128K, 160K, 192K and 256K

Audio type: AAC,AAC+,MP3, MP2,AC3,G711A,G711U

Audio resample: 44.1K,48K

9. System Settings

9.1 User name and password change

Change password

Old password:

New password:

Confirm new password:

Apply

9.2 Software upgrade

Version: 2.16

Upgrade:

选择文件

未选择任何文件

Upgrade file name is up.bin.Please don't upload by different people at the same time,don't power off or refresh the page during upload.

Upload

9.3 System settings: Device reset and initialization default settings

Reset

Restore the device to factory settings.

Reset