



VECODER ULTRA IP SERIES H264 ENCODER

VECODER ULTRA IP SERIES H.264

PRODUCT SPECS & FEATURES

Power – 220V/110V AC

Encoding - Latest H.264 Encoding Technology (Depending on Model) HD 720P/ 1080I/1080P @ 60 Hz Ultra Low Latency. Standard Baseline/Main/High Profile Support. HDMI 2.0 and HDCP compliant.

Supports ACC/Mpeg1L2 Audio

CBR/VBR (constant & Variable) Bitrates option available with up to 12mpbs bitrate.

Four Stream Encoders for support of multiple styles of formats and encoding preferences to different servers.

RTMP, HLS, HTTP, UDP, RTSP

Ability to Distribute any 720p/1080P Video DIRECTLY to unlimited Smart TVs, Mobile Phones, Tablets, PCs, IP Boxes

IPTV over LAN - Wi-Fi – Internet

**Plays Directly on Any Smart TV - Add More Modules or units for More Channels
Change Channels on TV via TV Remote Control in your SmartTV IPTV app.**

**Built-In Gigabit Server to stream directly to hundreds of simultaneous Player
-Can also stream to YouTube - Wowza - Akamai and others**

**Dual Simultaneous Encoders and scalers to create two versions of the same channel
-optimize for TV play and mobile Play simultaneously**

5 CG Logo Generators

Modular-Expandable-Reliable



POWERING THE DEVICE. – QUICK GUIDIE – FIRST MODULE IP - 192.168.1.168

- a) Connect your included Power cord to the unit.
- b) Once the unit is powered on insert your valid HDMI Video Signals into the HDMI port
- c) Set your computer to a static IP as 192.168.1.100 (see below on how to set your local static IP connection)
- d) Connect your PC ETHERNET PORT to the VeCoder's First Module ETHERNET PORT using a patch cord.
Depending on the amount of modules you have will determine the available channels and Default ip's. We recommend you Connect to the first Module with the default IP label of 192.168.1.168.(Please refer to picture above)
- e) Run VLC VideoLan video playback software (www.videolan.org) On VLC > MEDIA > OPEN NETWORK STREAM > <http://192.168.1.168/0.ts>. You should now see the video playing on VLC
- f) Each LAN Port is used for Each Module.
- g) Each Module has four channels/HDMI Inputs. Depending on the module you are connected to will determine the Stream IP you use in VLC. Please refer to the Welcome Status page of the Module you are connected to for the IP stream available.

NOTE: If the above is not working, please check all connections, Network Settings, and ensure your video source is working. You could also try with another pc, or reset the VeCoder unit by pressing the Reset button for 20 seconds on the rear panel of the unit. This will default the modules IP settings back to default of 192.168.1.168.

MANUALS & TECH SUPPORT

Latest Manuals & Software are always available on our specific website www.quickinstallnow.com to access, use the 3 letters prefix + the UPC number on the serial number label on the product. You can also scan the QR Code on the label to access directly.

Free Unlimited Tech support over the phone is always available Mon-Fri 9 am / 4 pm EST US.

For troubleshooting or questions please open a Ticket on our site pvisupport.com

Your Satisfaction is top priority and most important for us.

LOGIN TO THE UNIT

The FACTORY DEFAULT IP address is 192.168.1.168

The Login is:

User = admin

Password = admin

You can reset the VECODER by pressing for 20 seconds the reset button located on the rear panel to access, make sure your computer is set to a STATIC IP ADDRESS as 192.168.0.100 See the PC SETTINGS instruction below in this manual

This will default the modules IP settings back to default of 192.168.1.168

PARAMETERS & CUSTOMIZATIONS

Each unit is ready to work plug n play by default. If you order a Unit with Multiple Modules preinstalled we set each module to have its own IP address to ensure you don't create conflicts in your network.

You may customize the unit parameters to fit your application and needs. The unit comes with 4 independent Video Encoder Engines, each capable to output 5 different protocols (RTMP / HTTP / RTSP / UDP / HLS), Video Scaling, H264 video, AAC or MP3 Audio Formats, FIVE CG Logo Generators, frame rate controls, etc.

DIRECT STREAMING & REPEATER SERVERS

Each unit has a built-in 1 Gigabit streaming server capable of handling up to 400+ connections depending on the bitrate you have set. Should you need to do a wider distribution or handle more connections over the Internet, you can always point the stream / receive the stream over one or multiple internet servers such as YouTube or similar, to receive / repeat / redistribute your stream/s to millions of people which their servers will handle the traffic and you are just providing the video stream.

You also may just stream directly to the internet to hundreds of players at the same time (limit depends from the selected bitrate and the available bandwidth from your internet service provider) there is no need for any additional hardware but it is suggested to run a Multicast IGMP enabled switch if running multiple units to help handle the traffic more efficiently

INSTALLING MULTIPLE UNITS

To install multiple units on the same network, make sure to **CHANGE** the IP address of each Module **BEFORE** you connect them to the same network, so there will be no IP Conflicts. By default we do this for you before testing and shipment of the unit with multiple modules preinstalled. To change the IP address of each module, point your web browser to the IP address of the unit (default is 192.168.1.168 for module 1) Login to the unit, click **NETWORK** on the bottom, change the **NETWORK SETTINGS** as needed by your application. As example, the default for a 16 channel Unit, the IP addresses are set as

Module 1 = 192.168.1.168

Module 2 = 192.168.1.169

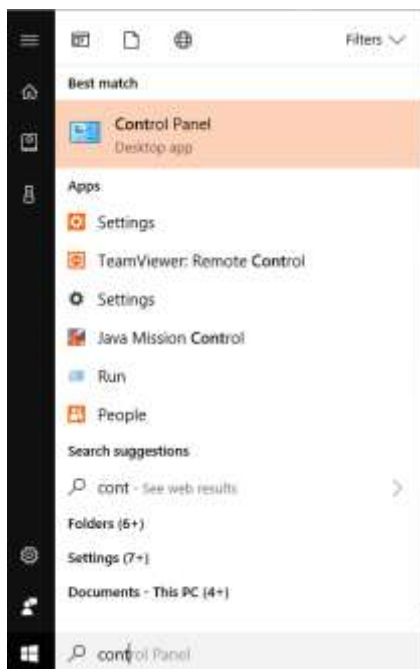
Module 3 = 192.168.1.170

Module 4 = 192.168.1.171

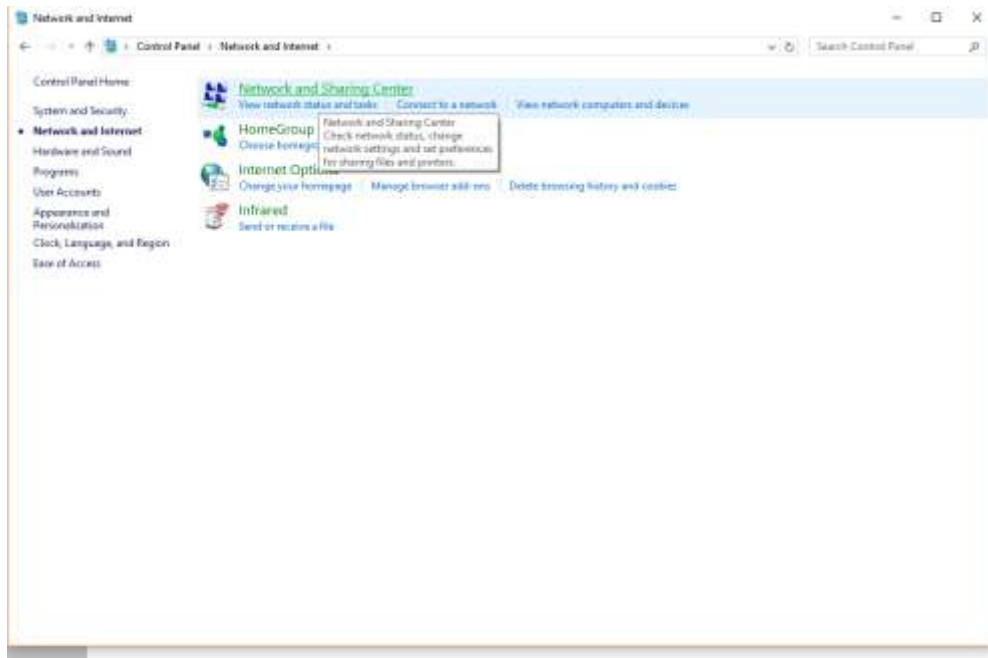
Write down these values, or put a sticker on each unit with the new assigned IP address so it will be easy to login to the unit in future without the need to reset it. Depending on your setup it's suggested to use a Multicast IGMP enabled switch to help with the traffic.

PVI - PC CONNECTION GUIDE

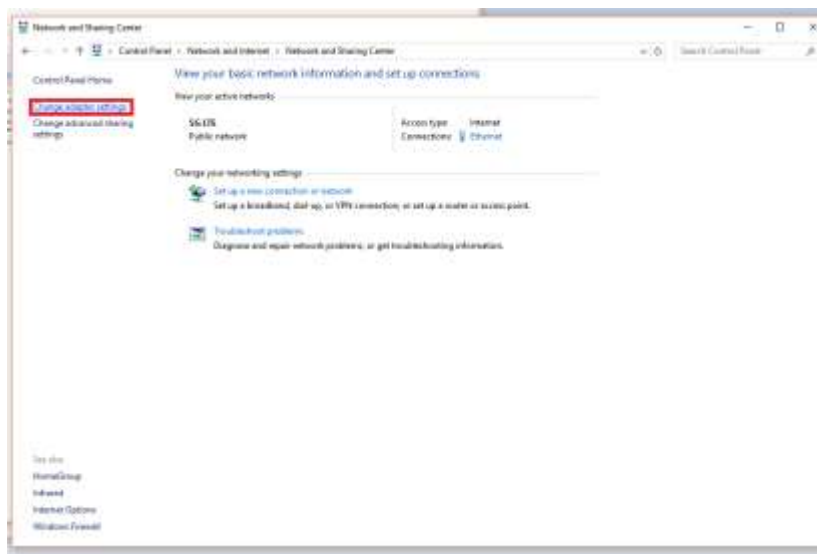
On Windows open your control panel



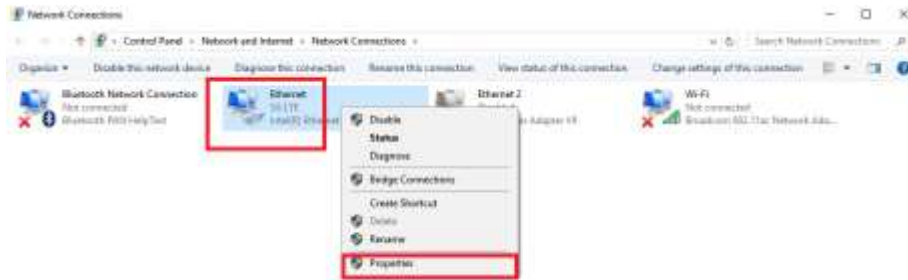
Once on control panel, open Network and Sharing (Network and Internet for Windows 8 and above)



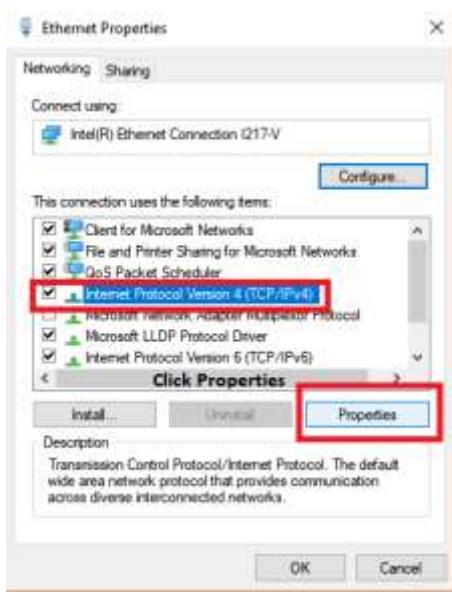
Once you have Network and Sharing Center open, Click on "Change adapter settings."



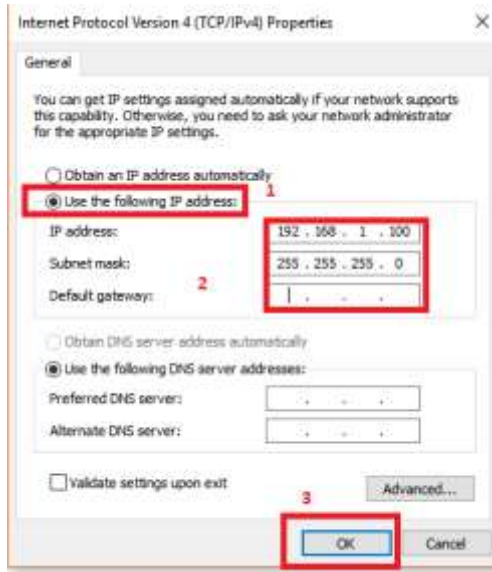
Right Click on your Local Ethernet connection and click on “properties.”



Once the Ethernet Properties are open click on, “Internet Protocol Version 4(TCP/IPv4),” and click on, “Properties.”



In the Properties change your IP address from auto to Static and Change the IP address to the required setting to connect to your unit which will be listed in the manual of your Product. Click ok once you are done and close everything. You are now ready to connect to the Web interface of your Unit.



WEB INTERFACE

Once you have logged into the unit you will see the STATUS page. This will display all your enabled formats for all streams and Video Input resolution as well as status of the current unit.

The screenshot displays the web interface of the VeCoder Ultra IP Series H264 Encoder. It features a blue header bar with the title 'Status'. Below this, the 'Status' section shows system metrics: Running Time: 0000-00-00 00:38:34, CPU Usage: 30%, and Memory Usage: 22.2M/1000.0M. The 'HDMI Input 1' section is highlighted with a blue header and contains two sub-sections: 'Input status' and 'Main Stream'. The 'Input status' section lists: Input Size: 1920x1080p60, Collected Video Frames: 0, Lost Video Frames: 0, and Audio SampleRate: 48000. The 'Main Stream' section lists: Encoding Type: 1920x1080p60, Bitrate(kbit): 1800, TS URL: http://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, RTSP PSURL: Disable, Multicast URL: Disable, and Preview(Belay 2000ms). At the bottom, a navigation bar includes links for Status, HDMI Input 1, HDMI Input 2, HDMI Input 3, HDMI Input 4, and System.

Status

Running Time: 0000-00-00 00:38:34
CPU Usage: 30%
Memory Usage: 22.2M/1000.0M

HDMI Input 1

Input status

Input Size: 1920x1080p60
Collected Video Frames: 0
Lost Video Frames: 0
Audio SampleRate: 48000

Main Stream

Encoding Type: 1920x1080p60
Bitrate(kbit): 1800
TS URL: http://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
RTSP PSURL: Disable
Multicast URL: Disable
Preview(Belay 2000ms)

Status HDMI Input 1 HDMI Input 2 HDMI Input 3 HDMI Input 4 System

HDMI Input 2

Input status

Input Size:1920x1080p@0
Collected Video Frames:0
Lost Video Frames:0
Audio Samplerate:48000

Main Stream

Encoding Type:1920x1080@30
Bitrate(kbit):1800
TS URL:http://192.168.1.168/4.ts
HLS URL:Disable
FLV URL:http://192.168.1.168/4.flv
RTSP URL:rtsp://192.168.1.168/4
RTMP PUBLISH URL:Disable
Multicast URL:Disable
Preview(Delay 2000ms)

HDMI Input 3

Input status

Input Size:1920x1080p@0
Collected Video Frames:0
Lost Video Frames:0
Audio Samplerate:48000

Main Stream

Encoding Type:1920x1080@30
Bitrate(kbit):1800
TS URL:http://192.168.1.168/8.ts
HLS URL:Disable
FLV URL:http://192.168.1.168/8.flv
RTSP URL:rtsp://192.168.1.168/8
RTMP PUBLISH URL:Disable
Multicast URL:Disable
Preview(Delay 2000ms)

HDMI Input 4

Input status

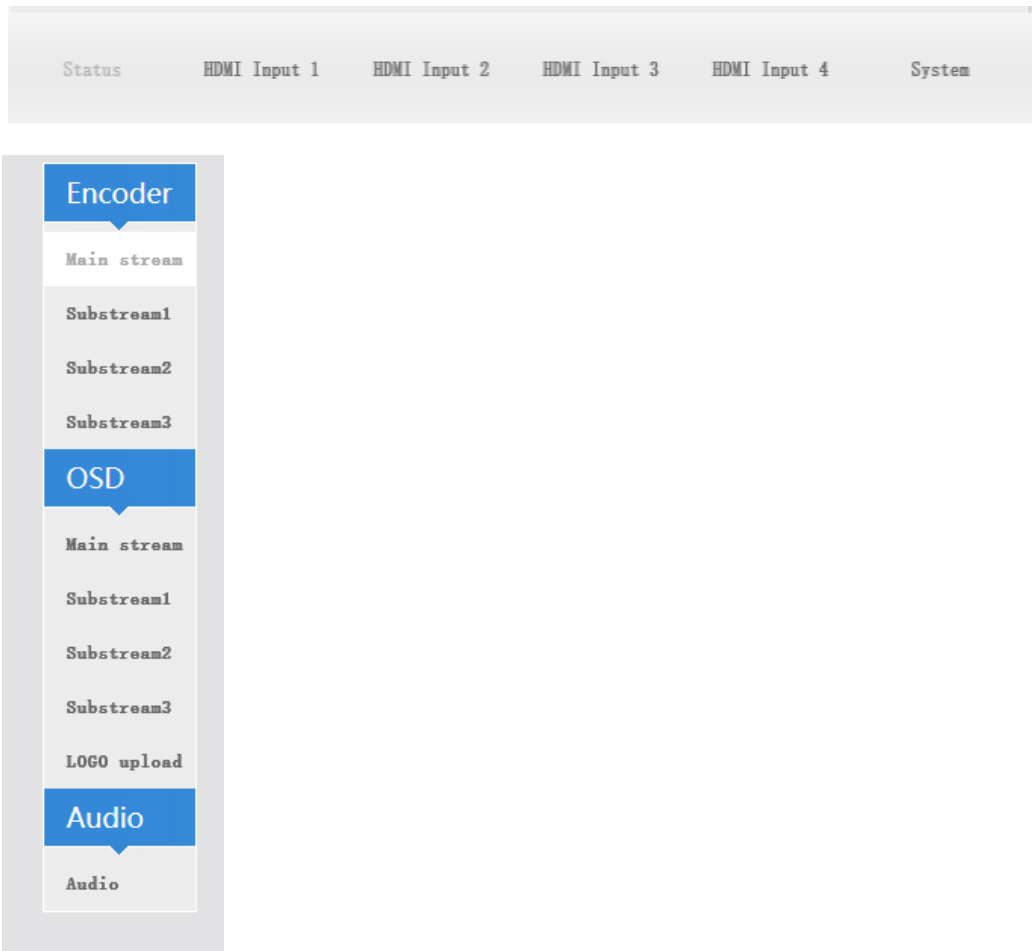
Input Size:1920x1080p@0
Collected Video Frames:0
Lost Video Frames:0
Audio Samplerate:48000

Main Stream

Encoding Type:1920x1080@30
Bitrate(kbit):1800
TS URL:http://192.168.1.168/12.ts
HLS URL:Disable
FLV URL:http://192.168.1.168/12.flv
RTSP URL:rtsp://192.168.1.168/12
RTMP PUBLISH URL:Disable
Multicast URL:Disable
[Preview\(Delay 2000ms\)](#)

NAVIGATION PANEL

This is at the bottom of the web interface. Here you can change between your different HDMI Inputs, streams, Network settings, Audio settings, and Advance system menu. Your main focus would be on HDMI 1-4 and SYSTEM → NETWORK.



HDMI INPUT 1-4

Here you can set your settings for the Main Stream of your HDMI input. You can enable and disable different formats you wish to use as well as Bitrate, FPS, Encoding Size, and Compression Profile. You may adjust these settings to your needs. Below are our recommend defaults. Please set your unit all up and then power cycle the unit to ensure the settings take effect. The Same settings can be done in the Other Streams but not nessacry unless you wish to use a specific format and require special settings such as lower bitrate or frames for that specific application.

Main stream

FPS:

30

[5-60]

GOP:

5

[5-300]

Bitrate(kbit):

6000

[32-32000]

Encoded size:

same as the input

H.264 Level:

high profile

Bitrate control:

vbr

MIN_QP:

5

[1-35]

MAX_QP:

42

(MIN_QP-50)

Video Only:

Disable

TS once pack:

7

[2-128]

TS URL:

/0.ts

Enable

HLS URL:

/0.m3u8

Disable

FLV URL:

/0.flv

Enable

RTSP URL:

/0

Enable

Multicast IP:

238.0.0.1

Disable

Multicast port:

1234

[1-65535]

RTMP PUBLISH URL:

rtmp://192.168.1.50/live/0

Disable

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

Set up

These are the Recommend
Balanced settings for best
preformance and Bandwith
usage

NOTE: If the unit starts slowing down or the CPU usage is too high under the status page, please disable any formats you are not using or Factory Reset the Unit under the Systems Tab.

Note that the IP address will change back to the default 192.168.1.168

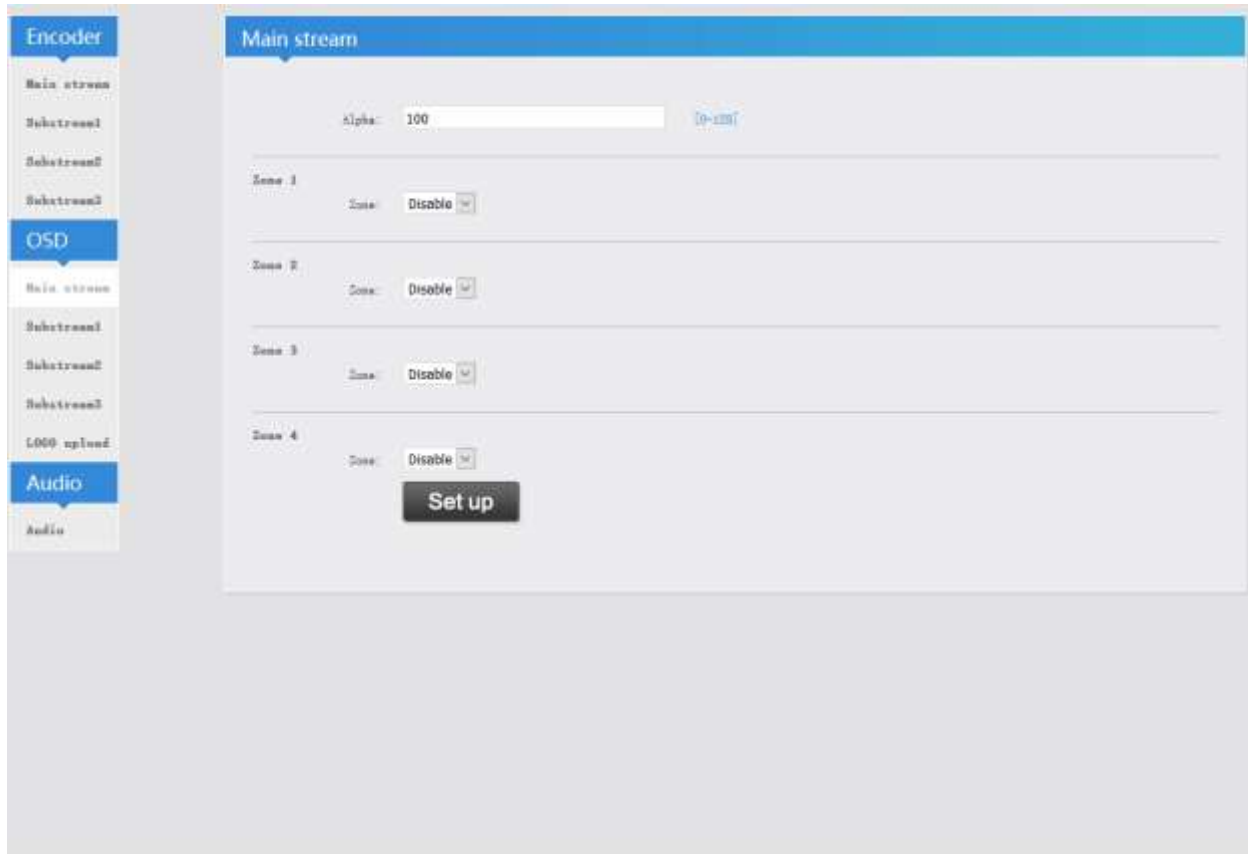
ON SCREEN DISPLAY (OSD)

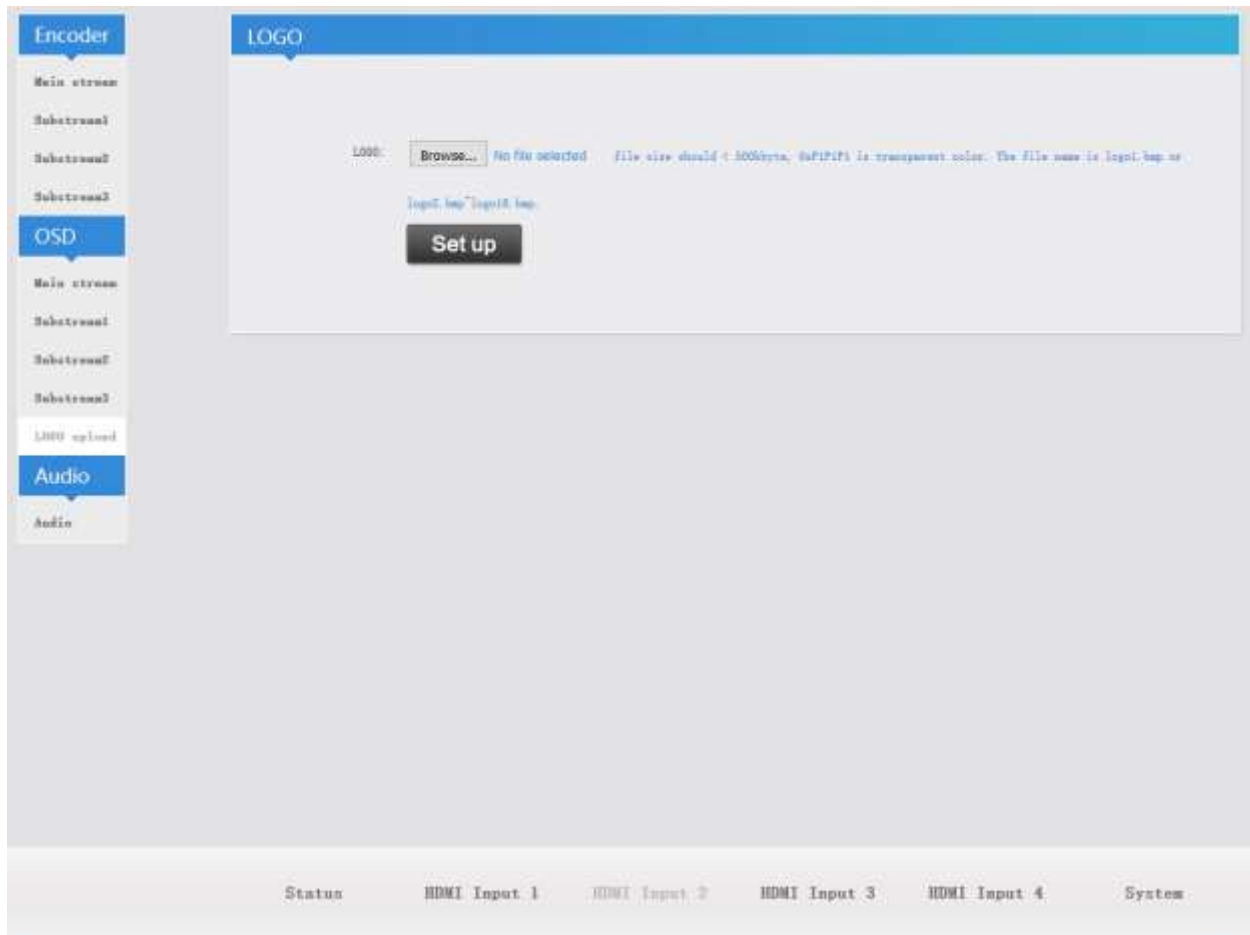
Here you can set your Logo to display (overlay) over the incoming HDMI video such as your company logo or Text. The unit has 5 different CG Generators giving you many options from many different logos to text.

The logo requires to be named logo1.bmp. It must be a BMP format picture. Depending on the zone you wish to use the logo results in the required name.

Example: Logo1.bmp – ZONE 1 Logo2.bmp – ZONE 2 Logo3.bmp – ZONE 3 Logo4.bmp – ZONE 4

You can use both Pictures and Text at the same time.





TEXT SETTINGS:

TEXT X: [0-1920] – Left and Right position of the Text

TEXT Y: [0-1080] – Up and down position of the Text

FONT: [8-72] – Size of Text

ALPHA: Opacity of the Text [0-128]

COLOR: Color of the Text

BG: Background color of the text if you wish

TEXT: type the text here that you wish to display

PICTURE SETTINGS:

Picture: Disable/Enable

Picture X: [0-1920] – Left and Right position of the Picture

Picture Y: [0-1080] – Up and down position of the Picture

ALPHA: Opacity of the Picture [0-128]

NETWORK

Here you can adjust the network settings to match your needs of your specific network or switch.

The screenshot displays the web interface for the PVI H264 Encoder System Platform. The interface is divided into a left sidebar with 'System' and 'Network' tabs, and a main content area. The 'Network' tab is active, showing three sections: 'Internet access', 'DNS', and 'PORT'.

Internet access:

- HTTP:
- IP:
- Netmask:
- Gateway:
- MAC:

DNS:

- DNS1:
- DNS2:

PORT:

- HTTP Port:
- RTSP Port:

A 'Set up' button is located below the port settings.

The bottom status bar shows: Status, HDMI Input 1, HDMI Input 2, HDMI Input 3, HDMI Input 4, and System.

AUDIO ENCODING SETTINGS

Here you can adjust your Audio Format and Volume for the Streams to suit your needs. The settings by default work just fine.

Audio encoding settings

Audio encoder

Audio Input:

Samplerate:

Encoder:

Bitrate: [48000~256000]

Analog Vol: [-80~80]

ONVIF audio

G711A Over RTSP:

SYSTEM – ADVANCE

Here you can change the Advance settings for the encoder. At the bottom of the page you can soft-reboot the device as well as Factory reset the unit if required. You can also set up an Automatic Restart of the unit to ensure the unit's stream restarts and refreshes itself daily during off-hours. This is optional.

NOTE: Please don't change these settings unless you know what you are doing or require a specific setting for your application such as a different Multicast Type (UDP/RTP). Changing these settings could result in unwanted effects to your video Stream.

Advanced

TS muxer: Compatible with FFmpeg

Net Drop Threshold: 5000 [50-50000]

TS once pack: 7 [3-128]

ts_transport_stream_id: 101 [1-65535]

ts_pmt_start_pid: 480 [16-7936]

ts_start_pid: 481 [32-3840]

ts_tables_version: 6 [0-31]

ts_service_name: Live

ts_service_provider: Encoder

TS Empty Packet: No Insert

TS password enable: Disable

Vmix Compatible: Disable

TS OVER RTSP: ES

Multicast type: UDP

Slice split enable: Disable

Slice size: 1024 [128-65535]

MIN_QP: 5 [1-35]

MAX_QP: 42 (MIN_QP-50)

Set up

DEFAULT SETTINGS

Schedule restart

Restart enable:

Restart time: Minute

Restart left: Minute

Set up

Upgrade settings

Upgrade: **Browse...** (Upgrade file name is up.rar. Please don't upload by different people at the same time, don't power off or refresh the page during upload.)

Upload

System settings

Reboot **Reset**

TECH SUPPORT

Please read carefully all this manual as it covers ALL and EVERY aspect to set this product as per your needs, using pictures and examples.

Should you need any additional support please go to pvisupport.com and open a quick ticket.

Remote locations that you require support please can Schedule a time at least 24-48 hours in advance that works best for everyone.

The free tech support is active MON-FRI 10 AM – 4 PM US EST TIME Tickets posted out from this time window or on Saturdays Sundays and US/FL holidays days are responded ASAP the next following business day

If you need to check your configuration, you will be asked to provide a TEAMVIEWER ID and PASS so our engineers will connect shortly and help you to trouble shoot and set your system together with you. Help on settings is not possible over the phone nor in other ways but the TeamViewer. You can download and install a copy of TEAMVIEWER **Version 11** from teamviewer.com or we can provide you a temporarily access link by opening a Ticket and requesting support.

END