

H.264 HD Encoder

>>User Manual

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Introduction






Thanks for choosing our products.

This Manual introduces product performance, installation and operation in details.

Please read this manual before starting to use the product no matter it's the first time for you to use or you have known similar ones before.

Inspection

Make sure package is in perfect condition and all accessories are there as packing list or below shows:

 H.264 HD Encoder	1 set
 Power line	1 piece
 AV cable	1 piece
 HDMI cable	1 piece
 AS I cable	1 piece

If you find items are not same as above, please kindly inform us immediately.

Read the User Manual

Please read it carefully and do as it asks.

1 SAFETY INSTRUCTION

- Read manual carefully before use
- Do not open the case and touch internal components for safety and warranty
- Pull out power plug in case of long time standby. Do not use faulty power plug or power supply to avoid fire or electric shock
- Do not touch power supply with wet hands
- Handle with care when pulling out power plug, no touch with the wire
- No flammable or liquid allowed into device
- Do not install device in hot area or strong sunshine or dusty place
- Shock-proof is a must
- Room with good ventilation is required
- Keep original packing material for future possible transportation

2 Overview



2.1 Function and Application

HP801E MPEG-4 AVC/H.264 high definition (HD) Encoder has 1×HD SDI, 1×HDMI, 1×HD YPbPr, 1×SD CVBS and one pair of unbalanced audio input interfaces and DVB Transport Stream (TS/ASI) and IP (TS over IP) output interfaces, supporting multiple HD formats including 1080i/p and 720p. It suits 1U rack and can be remotely controlled by Network Management Software. Its high-integrated and cost-effective design makes it widely used in varieties of digital distribution systems such as cable TV digital head-end, satellite digital TV broadcasting and terrestrial digital TV, etc.

2.2 Size (1U Rack)

Length: 482mm
Width: 280mm
Height: 44mm
Net Weight: 4.0 KG

3 Main Feature

- H.264/MPEG-4 AVC High Profile Level 4.0 video coding, advanced video pretreatment algorithm, and MPEG-1 audio encoding
- HDMI/YPbPr/SDI/CVBS + audio input
- Support HDCP
- Support PAL and NTSC video formats
- Support multiple HD formats including 1080i/p and 720p
- LCD/Keyboard control by front panel and NMS management by Ethernet

4 Technical Specification

Input	SD CVBS	BNC interface
	Audio	1 pair of unbalanced audio, BNC interface
	HD SDI	BNC interface
	HD HDMI	High Definition Multimedia Interface
	HD YPbPr	BNC interface
Video Coding		4:2:0 encoding H.264 HP@L4 MP@L3
		H.264 Adaptive Field Frame (AFF)
		H.264 Field-Based (FB)
		full HD: 1920×1080×60i/p, 1920×1080×50i/p, 1280×720×60p/50p, 720×480×60i (NTSC), 720×576×50i (PAL)
Standard		ISO/IEC14496-10 (H.264/MPEG-4 AVC)
Audio Coding	Bit Rate	128, 160, 192, 224, 256, 320, 384Kbps
	Property	MPEG-1 Layer2
Output	2×ASI	TS DVB standard, BNC interface
	IP	IP/UDP (TS over IP), Unicast/Multicast
Output Bit Rate		1 to 20Mbps (4:2:0)

Control		NMS (Ethernet port, RJ-45), Keyboard + LCD
General Features	Size	482mm×280mm×44mm
	Temperature Range	0~45°C (Operation); -20~80°C (Storage)
	Power	100-240VAC, 50Hz, 25W

4. 1 Video

4.1.1 SDI Video Signal

Connector: BNC

4.1.2 HDMI Video Signal

Connector: HDMI

4.1.3 YPbPr Video Signal

Connector: BNC

4.1.4 CVBS Video Signal

Connector: BNC

4. 2 Audio

4.2.1 Analog Audio

Connector: BNC (unbalanced)

Input: one stereo or mono (right/left)

Output BitRate: 32kbps~384 kbps

Sampling: 32 KHz, 44.1 KHz, 48 KHz

4. 3 HD H.264 Video Compression

4.3.1 Video

Output bitrate: 1~20Mbps

4.3.2 Audio

MPEG-1 layer 1/2

4.3.3 Format

DVB standard transport stream (TS)

4. 4 Network Interface

Ethernet Port: IEEE802.3 Ethernet, RJ45

Software Protocol: IP/UDP

4. 5 Radiation and Safety Requirements

Conforms to GB13837-92 & GB8898-88

5 System Composition and Operating Principle

5. 1 System Composition

Structure Diagram (1U Rack)

Front Panel



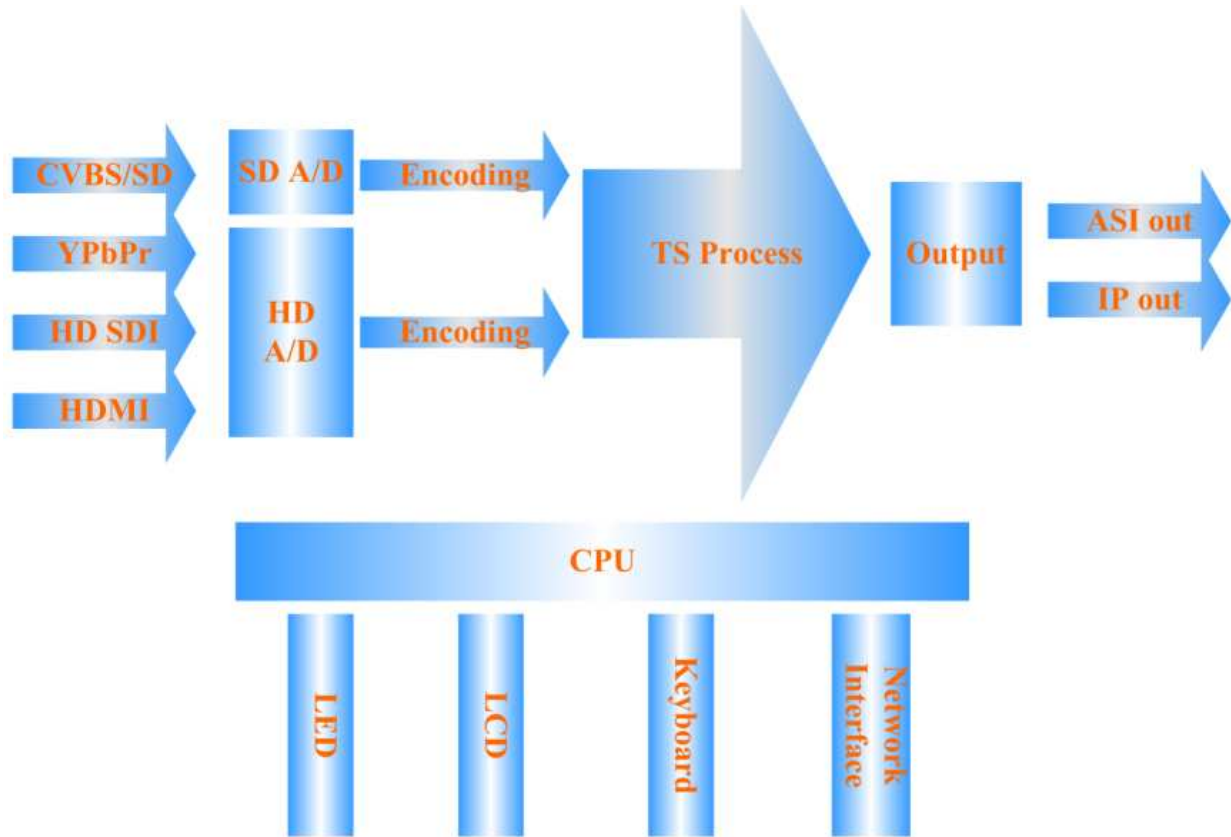
1	LCD Display
2	Signal Indicator
3	Indicator
4	Keyboard
5	Enter
6	Exit

Rear Panel



1	SDI IN
2	CVBS IN
3	YPbPr IN
4	HDMI IN
5	AUDIO IN
6	IP OUT
7	ASI OUT
8	Ethernet Port
9	Power Switch

5. 2 Operating Principle



5.2.1 SDI Process

SDI process module deserializes the input SDI signal and then descrambles it. It extracts audio and video data and sends to encode module. It supports all kinds of audio sampling rates.

5.2.2 AV A/D

AV (audio and video) A/D module can convert analog video and audio signal to digital ones and send them to encode chip. AV port supports the common signal sources of television and broadcast, and supports all kinds of audio and video signal interfaces, including analog composite video and mono or stereo audio. And it also supports PAL and NTSC format.

5.2.3 HDMI Process

It extracts audio and video data from the input HDMI signal and sends to encode module.

5.2.4 AV Coding

AV (audio and video) coding adopts H.264 real time compression encode chip to encode the digitalized video data from video port and then output video ES (Elementary Stream) which will be sent to video packetizer. And the PES (Packetized Elementary Stream) generates and it will do audio and video stream processing. Audio Coding uses professional audio coding software to encode the analog audio signal from audio port by adopting MPEG-1 Layer 2 standard. The encoded audio Elementary Stream will be sent to audio packetizer. And the audio PES will do audio and video stream processing.

5.2.5 AV TS Process

AV TS process composites 1 channel ES stream output one standard TS stream.

5.2.6 Data Output Port

Output the TS stream. It's ASI interface, meeting the DVB standard. And it also supports UDP@RJ45.

6 Installation Guide

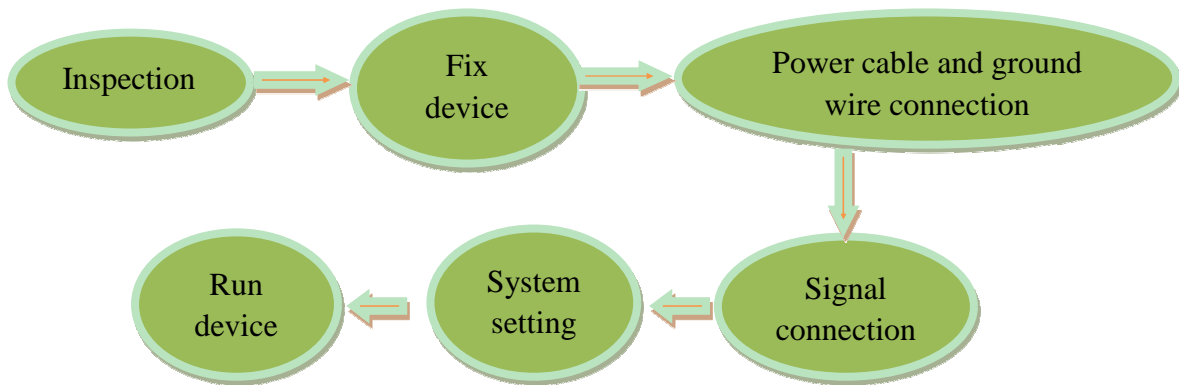
6.1 Installation Preparation

Please install as bellow steps:

- Check possible lose or damage of the device during transportation
- Prepare a suitable environment for installation
- Install the device
- Signal cable connection

Each tiny step will be mentioned in this chapter. Please refer to rear panel for specific location.

6.2 Installation Procedure



6.3 Environment Requirement

Project	Requirement
Room Space	When installing multi-row of racks, please make the distance 1.2~1.5M between front door and back door, and the distance 0.8M between rack and wall.
Room Floor	Non-conducting, dust-free Ground anti-static material volume resistivity: $1 \times 10^7 - 1 \times 10^{10} \Omega$, ground current-limiting resistance: $1M\Omega$, floor bearing weight: $>450kg/m^2$.
Temperature	Long-term operation: $5 \sim 40^\circ C$, short-term operation: $0 \sim 45^\circ C$, air-conditioner is a good option.

Relative Humidity	Long-term operation: 20%~80%, short-term operation: 10%-90%
Ambient Pressure	86-105KPa
Doors and Windows	Seal by dust-prevention rubber strip, double glass is a good option for window and seal it tightly.
Fire Requirement	Automatic fire alarm system and hand-held fixed fire extinguish system are required.
Power Requirement	3 stand alone power supply system for equipment, air-conditioner, and lighting. Alternating current power supply for equipment (220V, 50Hz, 24.2W). Please check before running the device.

6. 4 Grounding Requirement

- Good ground wire design is the base of the whole system, and is essential to lightning protection and anti-interference. The system must follow above principles.
- Keep good electrical contact between both ends of outer conductor and shielding layer and the appearance of metal case of the connected device.
- Make sure that connections of both ends of the ground wire are with good electrical contact and prepare for corrosion prevention treatment.
- Do not use other device for ground wire electrical connection.
- The sectional area of ground wire from rack connecting to anti-thunder unit must be greater than or equal to 25mm².

6.4.1 Rack Grounding

Ground terminals of racks in one room should be separately connected to protective are copper bar provided by side board. And ground wire should be as far as possible short. If the wire is too long when installing, please cut off to avoid ground wire coiling. The sectional area of guide line of ground terminal row must be greater than or equal to 25mm².

6.4.2 Equipment Grounding

When grounding, use guide line to connect protective area binding post to the protective

ground wire row of assembly rack.

6. 5 Cable Connection

6.5.1 Power Cable Connection

- Power jack is on the left of rear panel, power switch is at the left side of power jack, and ground connecting screw is at the lower left side of power jack.
- Connecting power cable: put one end of the cable into the AC power jack and the other (power plug) to the AC power supply.
- Connecting ground wire: when connecting alone to protective area in the room, you can use independent ground or common ground with other equipments (like transmission equipment) with a resistance less than 1.

Note:

Before connecting power cable, please turn power switch to “O” position and it’s required to ground with power supply system.

6.5.2 Signal Line Connection

Before operating, user should connect all devices requiring cables.

6.5.2.1 Cable Connection Diagram

RCA/BNC A/V, BNC/ASI, HDMI, YPbPr and IP cable connection:



7 Front Panel Operation Guide

7.1 Keyboard

Left & right keys: moving cursor

Up & down keys: menu scanning and modifies parameter

Enter: go in submenu and parameter confirm

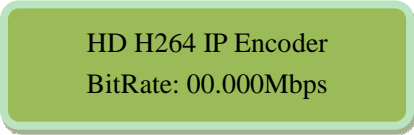
Exit: return or cancel modification

Note:

- A. When keyboard is locked, press any key to make LCD active, and then press “enter”, and then “exit” to unlock the keyboard to enter the main menu.
- B. After 60 seconds without any operation, the keyboard automatically locks.
- C. When keyboard it locked, press any key to make LCD active, and then press up key to check device version number, down key to check IP address, right key to check MAC address.
- D. For numerical value modification, press “enter” key to active the cursor, then move cursor to the specific location, press “up or down” key to change the value, press enter key again to confirm parameter modification.

7.2 Menu

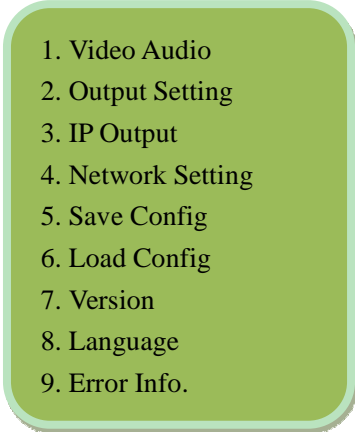
7.2.1 Lock Status Display



HD H264 IP Encoder
BitRate: 00.000Mbps


7.2.2 Menu Display

After initialization, the menu shows as below(Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

-
- 
1. Video Audio
 2. Output Setting
 3. IP Output
 4. Network Setting
 5. Save Config
 6. Load Config
 7. Version
 8. Language
 9. Error Info.

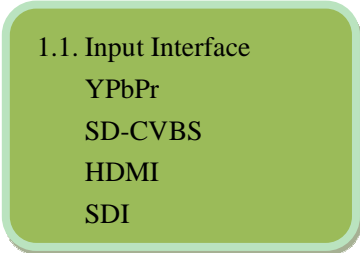
7.2.3 Video Audio

Move the cursor to “video audio” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

- 
- 1.1. Input Interface
 - 1.2. Video Format
 - 1.3. CBR/VBR
 - 1.4. Video Profile
 - 1.5. Video Level
 - 1.6. Audio Bitrate
 - 1.7. Audio Interface

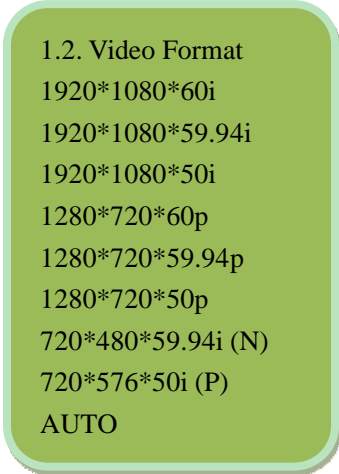
7.2.3.1 Input Interface

Move the cursor to “input interface” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

- 
- 1.1. Input Interface
 - YPbPr
 - SD-CVBS
 - HDMI
 - SDI

7.2.3.2 Video Format

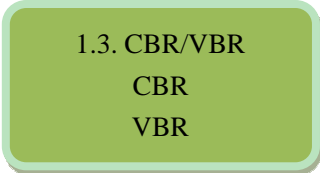
Move the cursor to “video format” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a video format menu displayed in a green rounded rectangle. The menu lists several options: 1.2. Video Format, 1920*1080*60i, 1920*1080*59.94i, 1920*1080*50i, 1280*720*60p, 1280*720*59.94p, 1280*720*50p, 720*480*59.94i (N), 720*576*50i (P), and AUTO.

1.2. Video Format
1920*1080*60i
1920*1080*59.94i
1920*1080*50i
1280*720*60p
1280*720*59.94p
1280*720*50p
720*480*59.94i (N)
720*576*50i (P)
AUTO

7.2.3.3 CBR/VBR


Move the cursor to “CBR/VBR” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a CBR/VBR menu displayed in a green rounded rectangle. The menu lists three options: 1.3. CBR/VBR, CBR, and VBR.

1.3. CBR/VBR
CBR
VBR

7.2.3.4 Video Profil

Move the cursor to “video profile” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a video profile menu displayed in a green rounded rectangle. The menu lists five options: 1.4. Video Profile, High Profile, Main Profile, Baseline Profile, and Auto-detect.

1.4. Video Profile
High Profile
Main Profile
Baseline Profile
Auto-detect

7.2.3.5 Video Level

Move the cursor to “video level” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

1.5. Video Level

Level 4
Level 4.1
Level 4.2
Level 1.2
Level 1.3
Level 2
Level 2.1
Level 2.2
Level 3
Level 3.1
Level 3.2

7.2.3.6 Audio Bitrate

Move the cursor to “audio bitrate” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

1.6. Audio Bitrate

256Kbps
320Kbps
384Kbps
64Kbps
128Kbps
160Kbps
192Kbps
224Kbps

7.2.3.7 Audio Interface

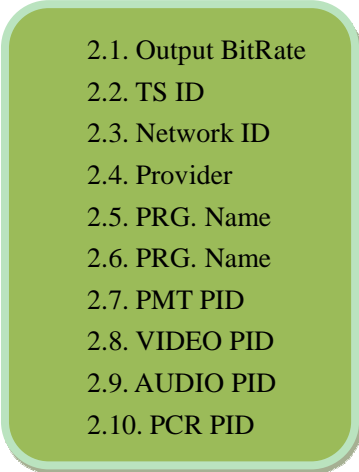
Move the cursor to “audio interface” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

1.7. Audio Interface

Audio
HDMI
SDI

7.2.4 Output Setting

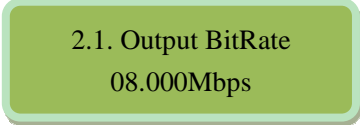
Move the cursor to “output setting” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):



- 2.1. Output BitRate
- 2.2. TS ID
- 2.3. Network ID
- 2.4. Provider
- 2.5. PRG. Name
- 2.6. PRG. Name
- 2.7. PMT PID
- 2.8. VIDEO PID
- 2.9. AUDIO PID
- 2.10. PCR PID

7.2.4.1 Output BitRate

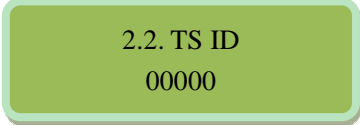
Move the cursor to “output bitrate” and enter into it. Then it shows as below:



2.1. Output BitRate
08.000Mbps

7.2.4.2 TS ID

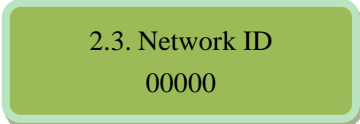
Move the cursor to “TS ID” and enter into it. Then it shows as below:



2.2. TS ID
00000

7.2.4.3 Network ID

Move the cursor to “network ID” and enter into it. Then it shows as below:



2.3. Network ID
00000

7.2.4.4 Provider

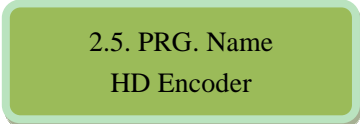
Move the cursor to “provider” and enter into it. Then it shows as below:



2.4. Provider
DTV

7.2.4.5 PRG. Name

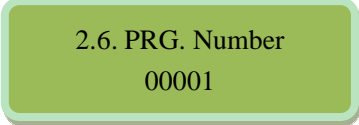
Move the cursor to “PRG. Name” and enter into it. Then it shows as below:



2.5. PRG. Name
HD Encoder

7.2.4.6 PRG. Number

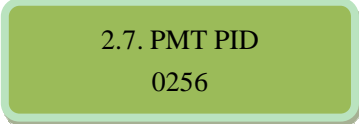
Move the cursor to “PRG. Number” and enter into it. Then it shows as below:

A screenshot of a menu item labeled "2.6. PRG. Number" with the value "00001" displayed below it. The text is centered within a light green rounded rectangular box with a thin border.

2.6. PRG. Number
00001

7.2.4.7 PMT PID

Move the cursor to “PMT PID” and enter into it. Then it shows as below:

A screenshot of a menu item labeled "2.7. PMT PID" with the value "0256" displayed below it. The text is centered within a light green rounded rectangular box with a thin border.

2.7. PMT PID
0256

7.2.4.8 VIDEO PID

Move the cursor to “video PID” and enter into it. Then it shows as below:

A screenshot of a menu item labeled "2.8. VIDEO PID" with the value "0257" displayed below it. The text is centered within a light green rounded rectangular box with a thin border.

2.8. VIDEO PID
0257

7.2.4.9 AUDIO PID

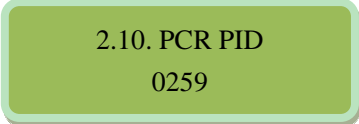
Move the cursor to “audio PID” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a menu item labeled "2.9. AUDIO PID" with the value "0258" displayed below it. The text is centered within a light green rounded rectangular box with a thin border.

2.9. AUDIO PID
0258

7.2.4.10 PCR PID

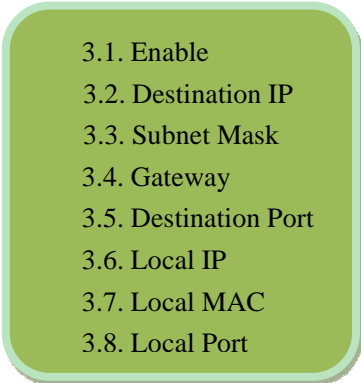
Move the cursor to “PCR PID” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a menu item labeled "2.10. PCR PID" with the value "0259" displayed below it. The text is centered within a light green rounded rectangular box with a thin border.

2.10. PCR PID
0259

7.2.5 IP Output

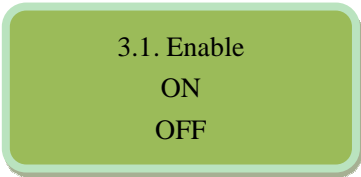
Move the cursor to “IP output” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):



3.1. Enable
3.2. Destination IP
3.3. Subnet Mask
3.4. Gateway
3.5. Destination Port
3.6. Local IP
3.7. Local MAC
3.8. Local Port

7.2.5.1 Enable

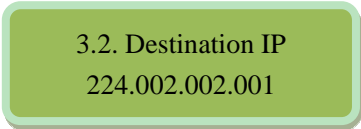
Move the cursor to “enable” and enter into it. Then it shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):



3.1. Enable
ON
OFF

7.2.5.2 Destination IP

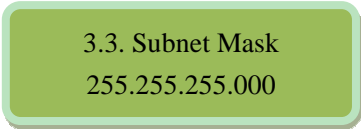
Move the cursor to “destination IP” and enter into it. Then it shows as below:



3.2. Destination IP
224.002.002.001

7.2.5.3 Subnet Mask

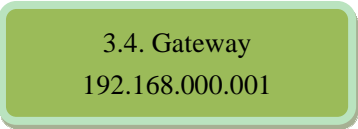
Move the cursor to “subnet mask” and enter into it. Then it shows as below:



3.3. Subnet Mask
255.255.255.000

7.2.5.4 Gateway

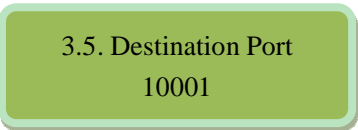
Move the cursor to “gateway” and enter into it. Then it shows as below:



3.4. Gateway
192.168.000.001

7.2.5.5 Destination Port

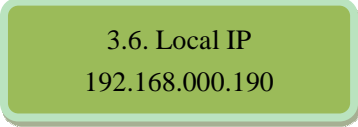
Move the cursor to “destination port” and enter into it. Then it shows as below:



3.5. Destination Port
10001

7.2.5.6 Local IP

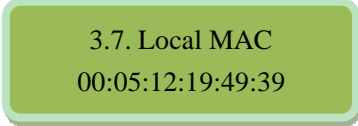
Move the cursor to “local IP” and enter into it. Then it shows as below:



3.6. Local IP
192.168.000.190

7.2.5.7 Local MAC

Move the cursor to “local MAC” and enter into it. Then it shows as below:



3.7. Local MAC
00:05:12:19:49:39

7.2.5.8 Local Port

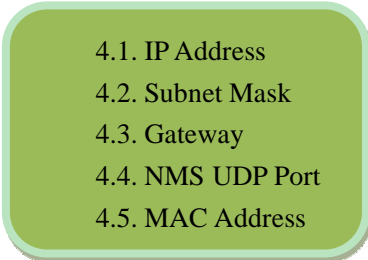
Move the cursor to “local port” and enter into it. Then it shows as below:



3.8. Local Port
02000

7.2.6 Network Setting

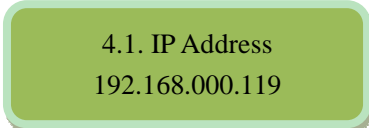
Move the cursor to “network setting” and enter into it. It shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):



4.1. IP Address
4.2. Subnet Mask
4.3. Gateway
4.4. NMS UDP Port
4.5. MAC Address

7.2.6.1 IP Address

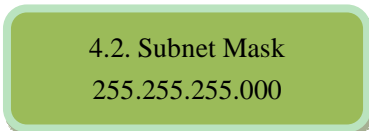
Move the cursor to “IP address” and enter into it. It shows as below:



4.1. IP Address
192.168.000.119

7.2.6.2 Subnet Mask

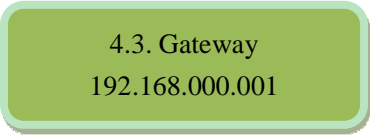
Move the cursor to “subnet mask” and enter into it. It shows as below:



4.2. Subnet Mask
255.255.255.000

7.2.6.3 Gateway

Move the cursor to “gateway” and enter into it. It shows as below:

A screenshot of a configuration screen with a green background. The text reads: 4.3. Gateway
192.168.000.001

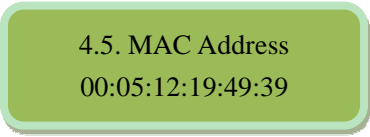
7.2.6.4 NMS UDP Port

Move the cursor to “NMS UDP port” and enter into it. It shows as below:

A screenshot of a configuration screen with a green background. The text reads: 4.4. NMS UDP Port
2009

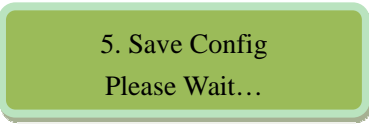
7.2.6.5 MAC Address

Move the cursor to “MAC address” and enter into it. It shows as below:

A screenshot of a configuration screen with a green background. The text reads: 4.5. MAC Address
00:05:12:19:49:39

7.2.7 Save Config

Move the cursor to “save config” and enter into it. It shows as below:

A screenshot of a configuration screen with a green background. The text reads: 5. Save Config
Please Wait...

Power Failure Saving:

When power failure, it can automatically save last status and start again when power on.

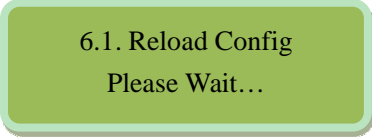
7.2.8 Load Config

Move the cursor to “load config” and enter into it. It shows as below (Press ‘up or down’ key to choose menu, then press the ‘enter’ key to confirm):

A screenshot of a configuration screen with a green background. The text reads: 6.1. Reload Config
6.2. Restore Config

7.2.8.1 Reload Config


Move the cursor to “reload config” and enter into it. It shows as below:



6.1. Reload Config
Please Wait...

7.2.8.2 Restore Config

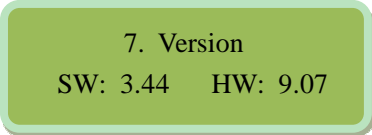
Move the cursor to “restore config” and enter into it. It shows as below:



6.2. Restore Config
Please Wait...

7.2.9 Version

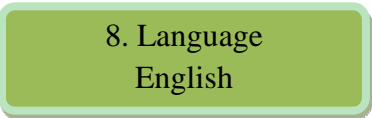
Move the cursor to “version” and enter into it. It shows as below:



7. Version
SW: 3.44 HW: 9.07

7.2.10 Language

Move the cursor to “language” and enter into it. It shows as below:

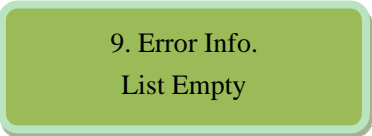


8. Language
English

The system works normally after all above settings.

7.2.11 Error Info.

Move the cursor to “error info.” and enter into it. It shows as below:



9. Error Info.
List Empty

7.3 Error Info and Shooting

7.3.1 Indicator Status

There are 2 LED indicators on the panel:

1. “POWER” is power indicator. When switch on, it’s green, which indicates device works well.
2. “ERROR” indicates error status when it’s red.

7.3.2 Error Shooting

7.3.2.1 “POWER” is off

Please check if the power cable has been injected into the power socket; if the power switch switches on.


7.3.2.2 “ERROR” is on

It means the device works abnormally. Please check if there is failure warning and process accordingly.

If “Error” is off but there is still a warning, then the video input interface has zero signal or the signal is not normal. In this case, please check the input signal and connection cable.

8 NMS Operation Guide

Network Management System (NMS) can remotely set config and monitor the device. It can be used only after being authorized.

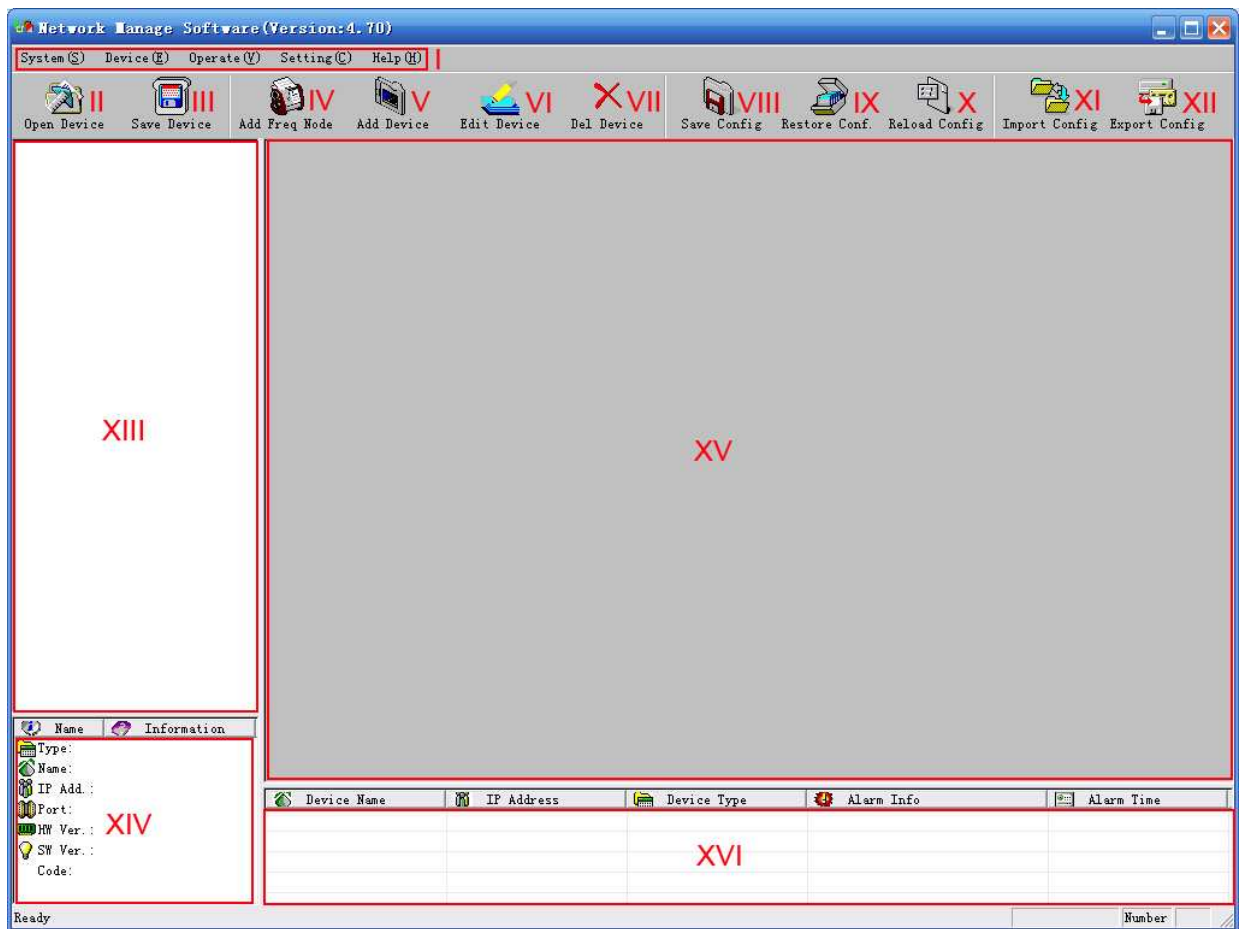
Except setting config by front panel, you can also use NMS  on a PC to set and monitor device. Most of all head-end equipments (satellite receiver, encoder, multiplexer, scrambler, modulator, and adapter, etc.) can be set by NMS which is with UDP protocol and supports windows operation system.

8.1 NMS Login



NMS Login Interface

Default user name and password are “admin”. You can change the user name and password by “Setting”->”User Setting” and then login again. If it’s the first time to use it, without any device info, the menu shows as below:



Current NMS is without any device, user can add per his device.

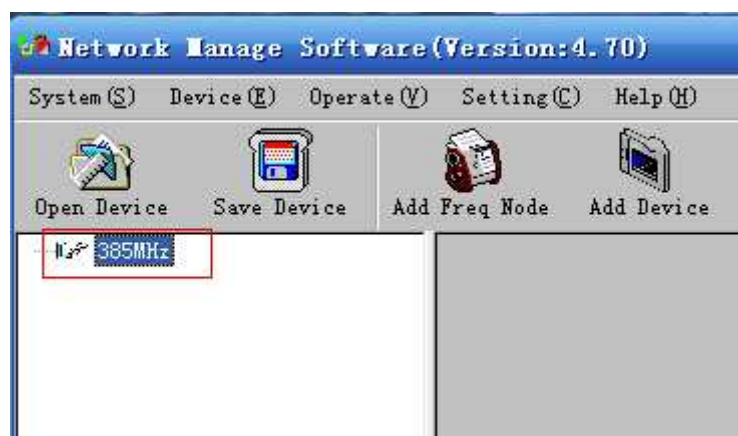
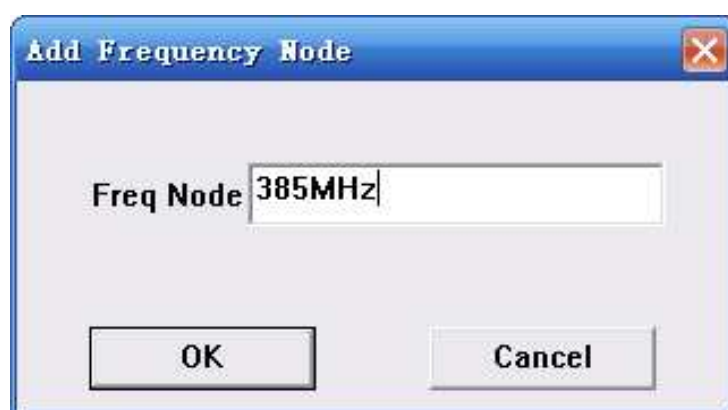
- | | |
|-------------------|-----------------------------|
| I: Menu Bar | IX: Restore Config |
| II: Open Device | X: Reload Config |
| III: Save Device | XI: Import Config |
| IV: Add Freq Node | XII: Export Config |
| V: Add Device | XIII: Device List |
| VI: Edit Device | XIV: Device Connection Info |
| VII: Del Device | XV: Device Config Operation |
| VIII: Save Config | XVI: Alarm List |

Below chapters will introduce above functions separately.

“Open Device” & “Save Device”: open saved config and save current config. If the config and the NMS are in the same file, they can automatically run when opening or closing the network management software.

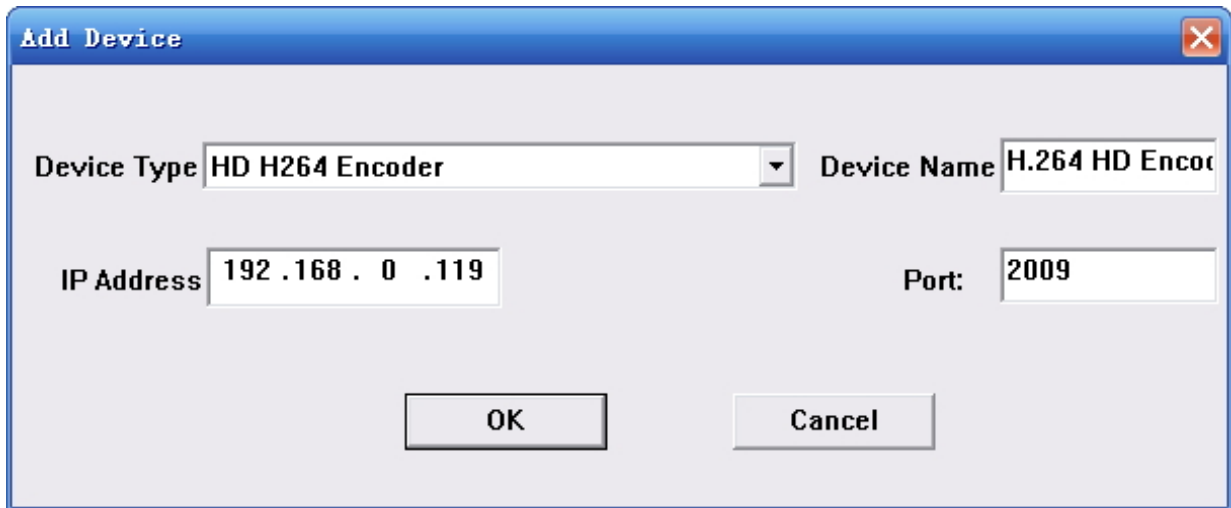
8.2 Add Frequency

“Add Frequency”: all devices can be divided and managed by frequency. Click “Add Freq Node”, then a dialog for adding frequency shows up. Input a frequency, like 385MHZ”, and then click “OK” to confirm:



8.3 Add Device

Add device under the frequency. Choose frequency and then click “Add Device”, then below dialog shows up:



ADD “HD H264 Encoder”

Choose device type “**HD H264 Encode**”, set device name (you can name as you like), and set IP address and Port of the device. You can check IP address by clicking down key on the panel or you can enter into “Network Setting” in the menu to check it. Default IP address and Port for **HD H264 Encode** are 192.168.000.119 and 2009.

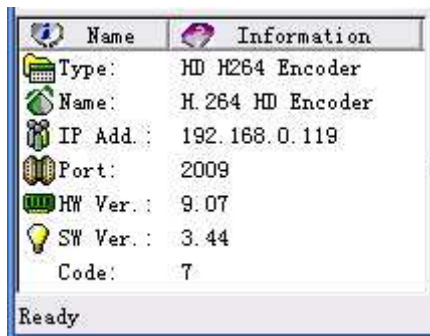
8. 4 Edit Device

Click the device you need to edit and then you can edit any you like. If the device is not connected, then it shows as below:

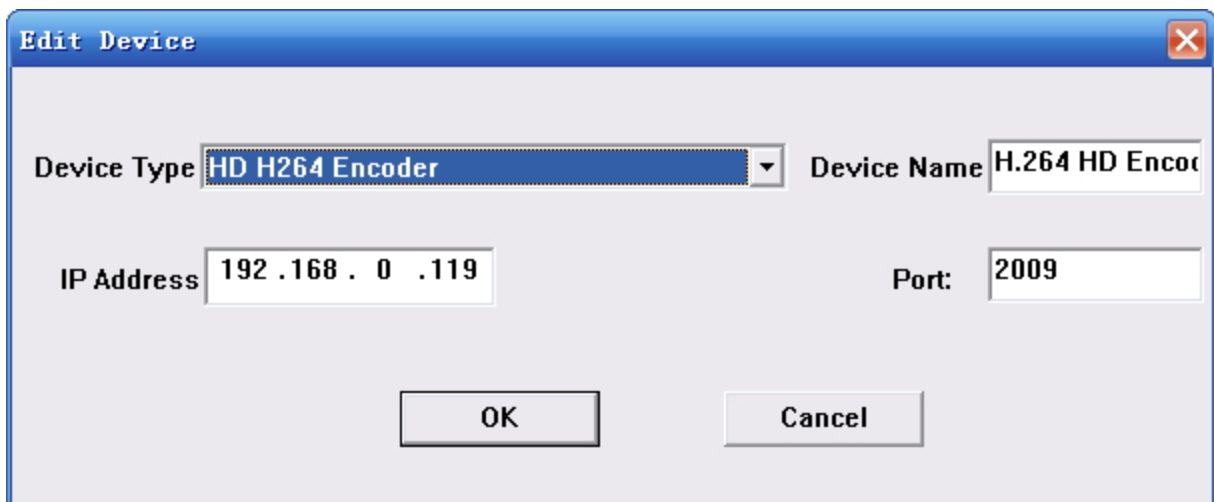


Then check by below steps:

1. Check if the connection info is correct:



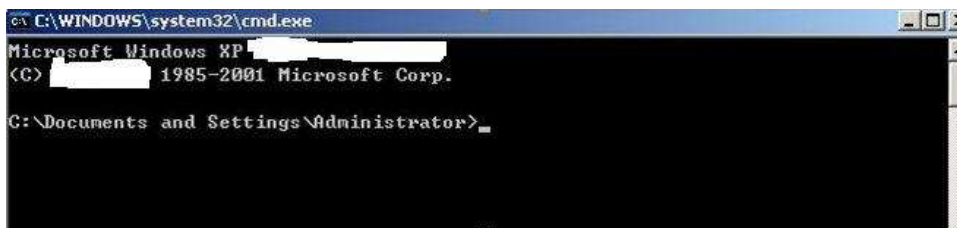
If config is wrong, please choose the device and then click “Edit Device”, then below dialog shows up. Modify it and then click “OK” to save.



2. Check if there is IP conflict. Turn off the device, and input “cmd.exe” at command column on your PC:



After entering into it:



Input “arp -d” to clear old “arp” information:



Input “PING”:


```

C:\WINDOWS\system32\cmd.exe - ping 192.168.0.20 -t
Microsoft Windows XP [redacted]
(C) [redacted] 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>ping 192.168.0.20 -t

Pinging 192.168.0.20 with 32 bytes of data:

Reply from 192.168.0.20: bytes=32 time=1ms TTL=64
Reply from 192.168.0.20: bytes=32 time=1ms TTL=64
Reply from 192.168.0.20: bytes=32 time=1ms TTL=64

```

Here the ping is 192.168.0.20 (you can put your device IP address when you do it). Here we found 192.168.0.20 passed, which means there is already a device with 192.168.0.20. Then we can find the device out and modify the IP address of the device or your device.



After shooting the problem, the icon turns

Device Name	IP Address	Device Type	Alarm Info	Alarm Time
H.264 HD Encoder	192.168.0.119	HD H264 Encoder	Device offline	2014-8-9 17:3:30
H.264 HD Encoder	192.168.0.119	HD H264 Encoder	Device online	2014-8-9 17:4:3

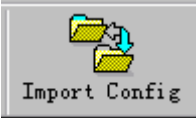

At the device list column, click device name to check it. Check the basic info (like firmware

and software version) at the device connection column and edit it at the right device operation area.

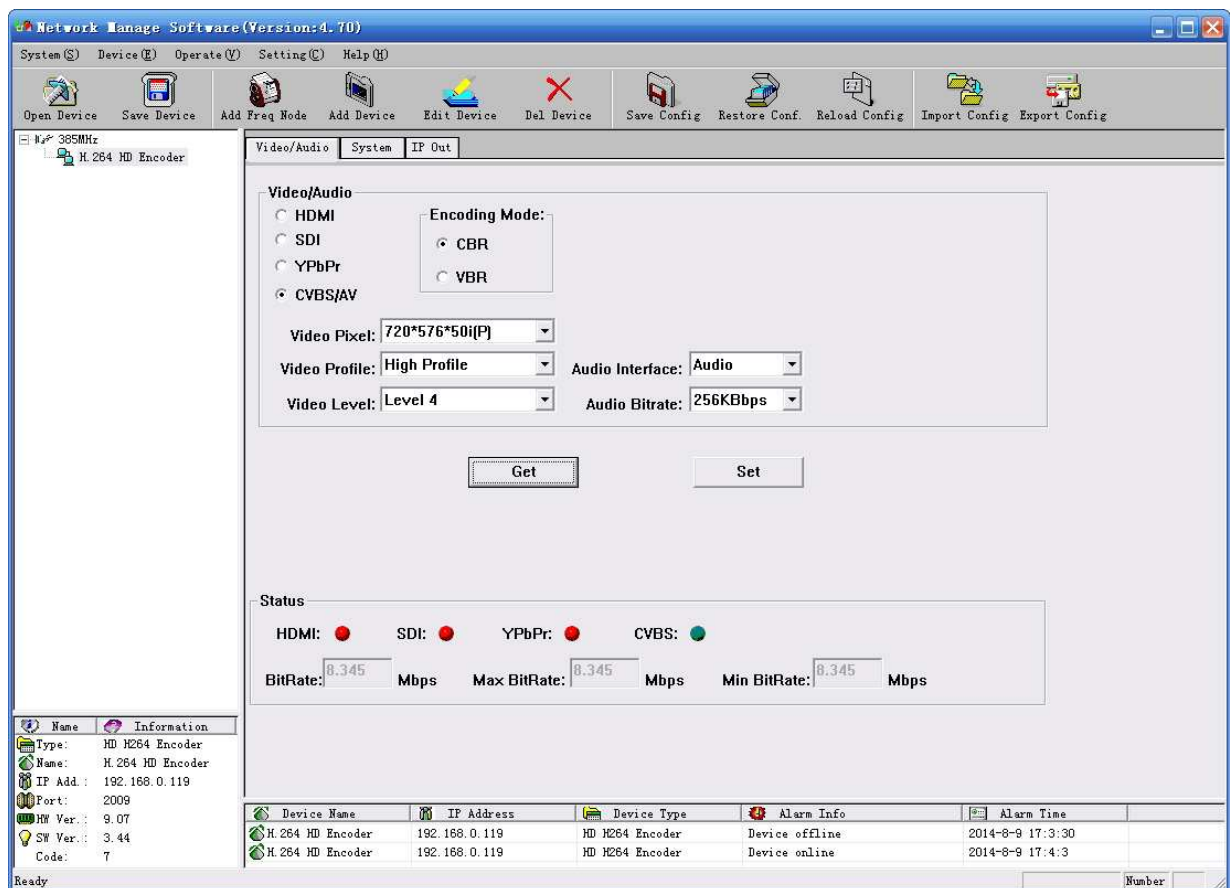
“Del Device”: delete the device you don’t need from the device list.

8.5 Check and Set Config

Note: user had better do the following operation before configuring the device:

Click  button in NMS software, then click  button to clear the old parameter.

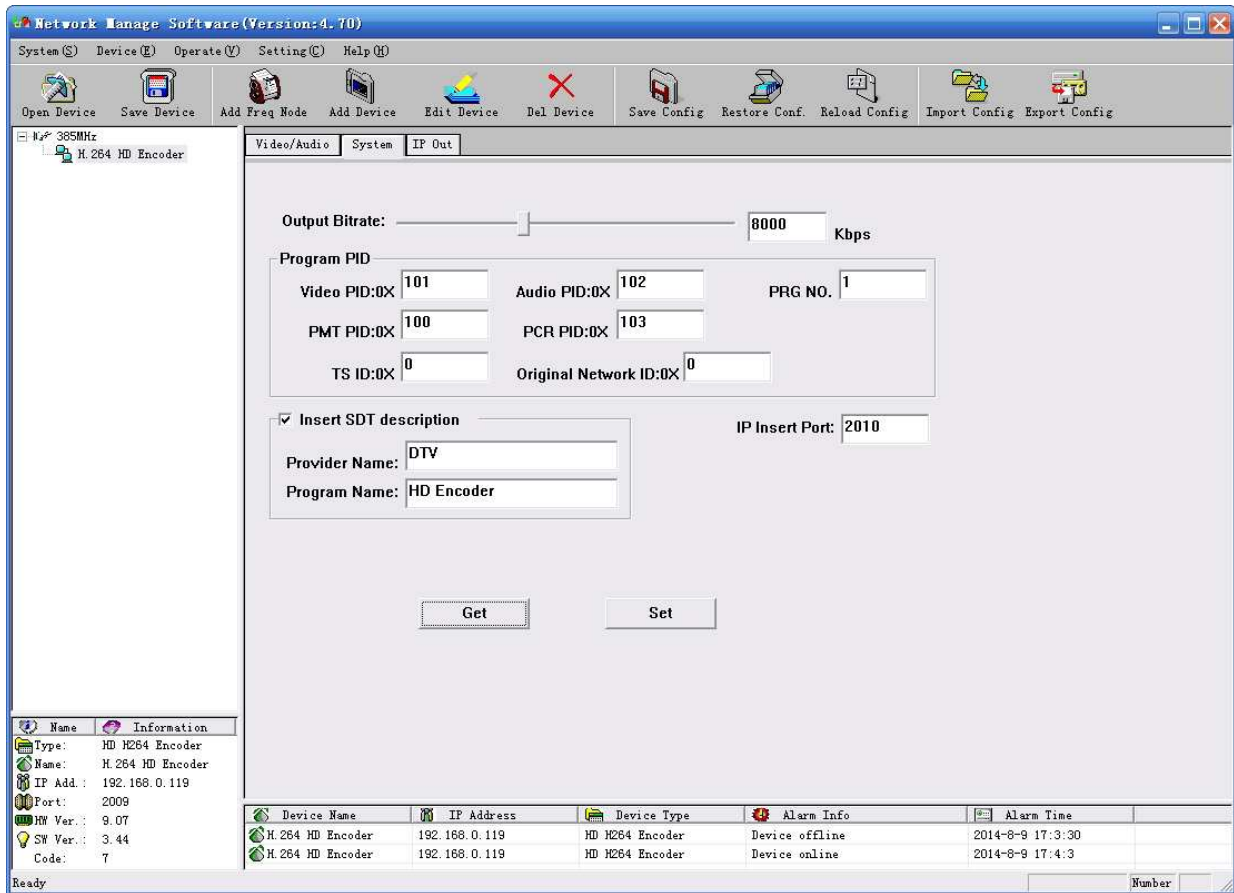
8.5.1 Video/Audio



“Get”: Read current config from the device.

“Set”: Confirm config and enable it.

8.5.2 System

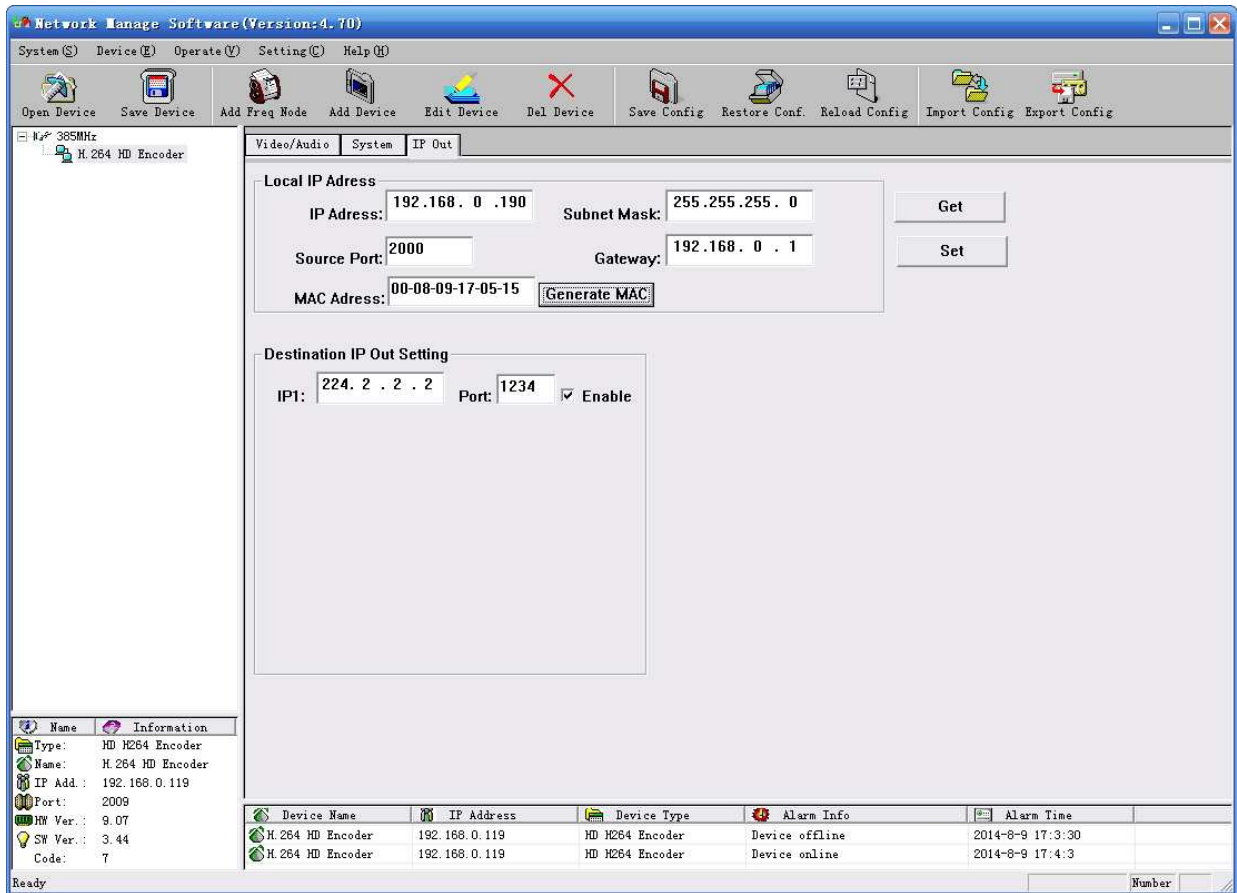


“Output Bitrate”: set the output bitrate; the range is 1Mbps to 15 Mbps.

“Program PID”: set video PID, audio PID, program number (decimalism)

“Insert SDT description”: set program name and provider of SDT table

8.5.3 IP Out



“Destination IP out Setting”: set destination IP address and port.

After choosing “enable”, the data port begins sending IP data to destination.

“Local IP Address”: set the source address of IP package and gateway information.

8.6 Public Function of NMS



Public function of NMS includes “Save Config”, “Restore Cong.”, “Reload Config”, “Import Config”, and “Export Config”.



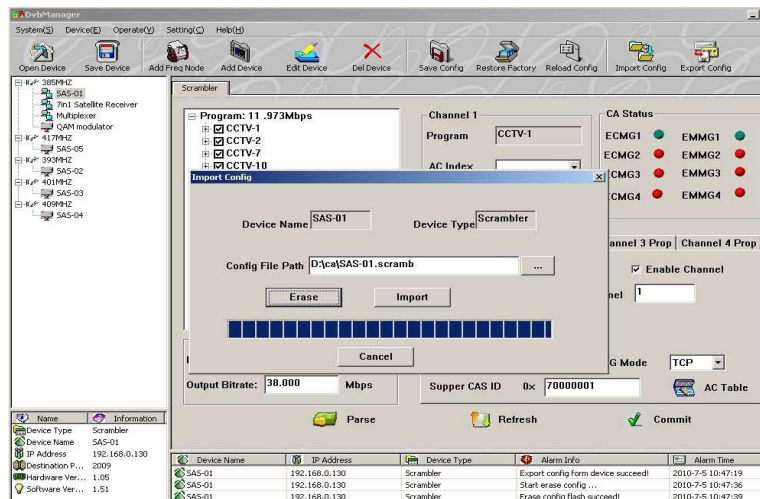
Choose a device at device list.

“Save Config”: After committing or confirming set configuration, click this button to save all configuration into “FLASH” (storage); you do this by front panel.

“Restore Cong.”: renew and start using the configuration. You can read the renewed configuration by clicking “refresh” or “parse” on operation interface. Please click “Save Config” if it needs to be saved.

“Reload Config”: reload and use the configuration saved in FLASH. This function is usually used after “import config”, and the new configuration is effective without restarting the device.

“Import Config”: import configuration of “export config” into FLASH; the imported config can be used after ‘reload config’ or restart the device.



First please choose the config you want to import, and click “Erase” to clear current config and then import config from FLASH. At this moment, the config cannot be used. You need restart the device or click “Reload Config” to start new config.

“Export Config”: fetch the device’s configuration to local disk (computer). You can import this configuration when it needs to renew the configuration or to use a back-up device in future.

