H.264 (HDMI/ SDI/ CVBS) IP Video Encoder
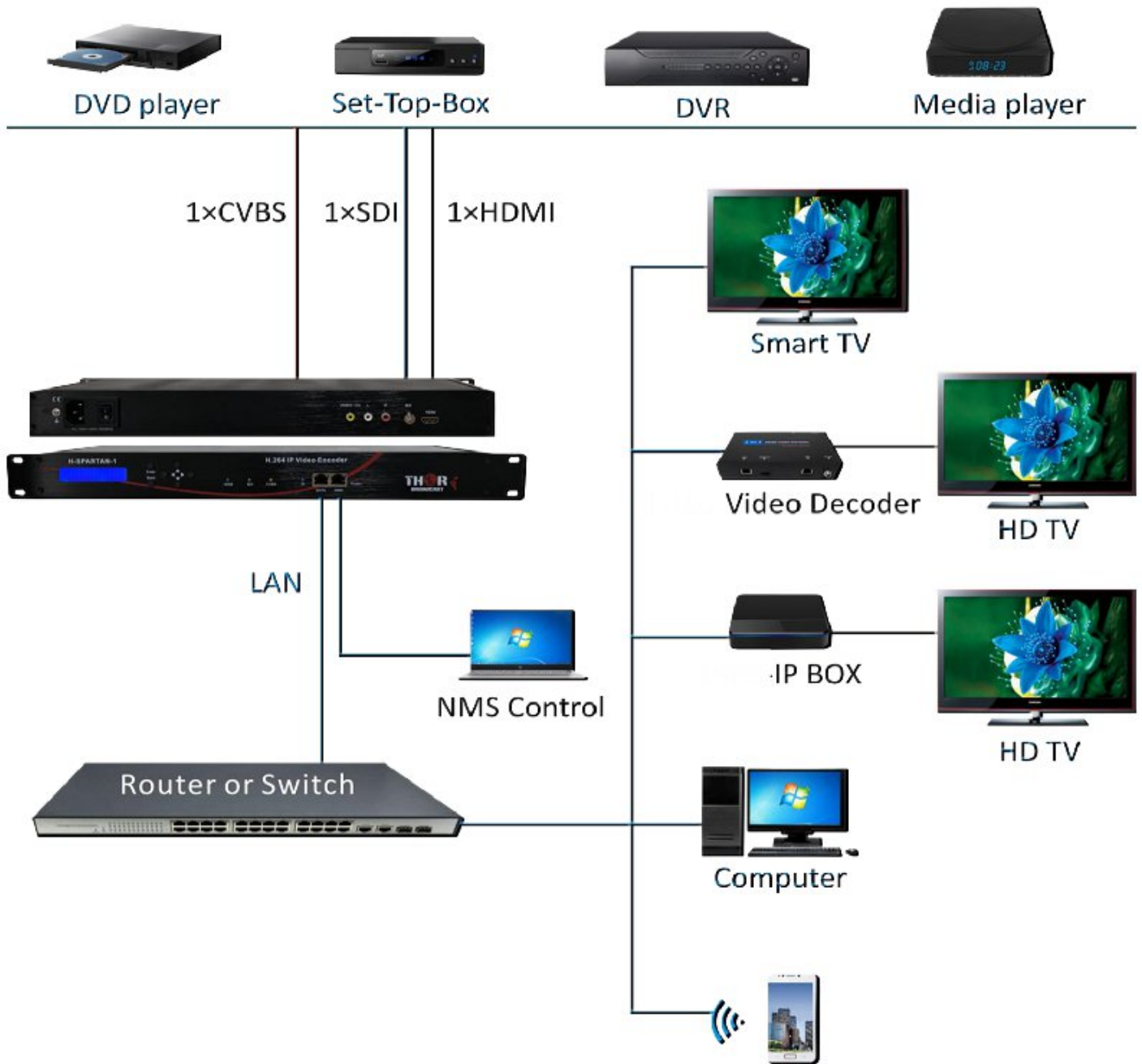

H-SPARTAN-1

TECHNICAL SPECIFICATIONS

Interfaces	
Input	1×HDMI, 1×SDI, 1×CVBS
Output	UDP/RTP(Unicast/Multicast), HLS, HTTP, RTMP, RTMP Live (Youtube Live stream)
Control	LCD with 6 keys & 1 x RJ45 (Web NMS)
Network Interface	
Management	1x1000Base-T Ethernet(RJ 45)
Data	1x1000Base-T Ethernet(RJ 45)
Protocol	IEEE 802.3 Ethernet
Video Encoding	
Format	HD: H.264 AVC/HP@L4.0 SD:MPEG-2 MP/@ML
Resolution	Input : 1080 50/60p, 1080 50/60i, 720 50/60p, 480i, 576i Output: up to 1080 30p
Bitrate	HDMI:2~12Mbps SDI:2~12Mbps CVBS:2~6Mbps
Rate Control	CBR/VBR
Chroma Sample	4:2:0, 4:2:2
H.264 Profile	High/Main Profile
H.264 Level	3.0, 3.1, 3.2, 4.0, 4.1, 4.2
GOP Structure	IBP/IPPP
Close Caption	608/708
Audio Encoding	
Format	Mpeg1L2, AAC, AC3
Bitrate	64 ~ 384Kbps
Sample Rate	44.1KHz, 48.0KHz
General	
Power Supply	AC 100~240V 50/60Hz
Display	LCD panel @ 2×16 characters, LED×5 PW(Red)/ HDMI(Blue)/ SDI (Green)/ CVBS(Yellow)/ IP(Blue)
Dimension	483×135×45mm
Weight	1000g
Environmental For Operating	Temperature: 5°C- 40°C Relative Humidity: 80% @ 30°C

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Application Example - Point to Point

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LED Indicators functionality table

HDMI: Blue   SDI: Green   CVBS: Yellow   IP: Blue

		HDMI LED: Blue	SDI LED: Green	CVBS LED: Yellow	IP Output LED: Blue
HDMI source	Plug in and Encoder TS Input	Blue light	X	X	Blue light
					Blue light blinks (The settings of DATA IP and LAN are different)*
	RJ45 cable unplug				X
	Unplug or Encoder TS Stop Input	Blue light blinks	X	X	X
SDI source	Plug in and Encoder TS Input	X	Green light	X	Blue light
					Blue light blinks (The settings of DATA IP and LAN are different)*
	RJ45 cable unplug				X
	Unplug or Encoder TS Stop Input	X	Green light blinks	X	
CVBS source	Plug in or Encoder TS Input	X	X	Yellow light	Blue light
					Blue light blinks (The settings of DATA IP and LAN are different)*
	RJ45 cable unplug				X
	Unplug or Encoder TS Stop Input	X	X	Yellow light blinks	X

* DATA IP Default: 192.168.10.10

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WEB NMS (default IP 192.168.0.188 / admin/0000)

The device is configured using NMS. Access to the NMS is via the network connection

1. Set the Static Computer IP address

We must choose the static IP address according to the default gateway address. The first three numbers must be the same (192.168.0.x in the example).
System Control> Network Connections> LAN Connection> Properties> Internet Protocol Version 4 TCP/IPv4 > Properties> Use the following IP address:
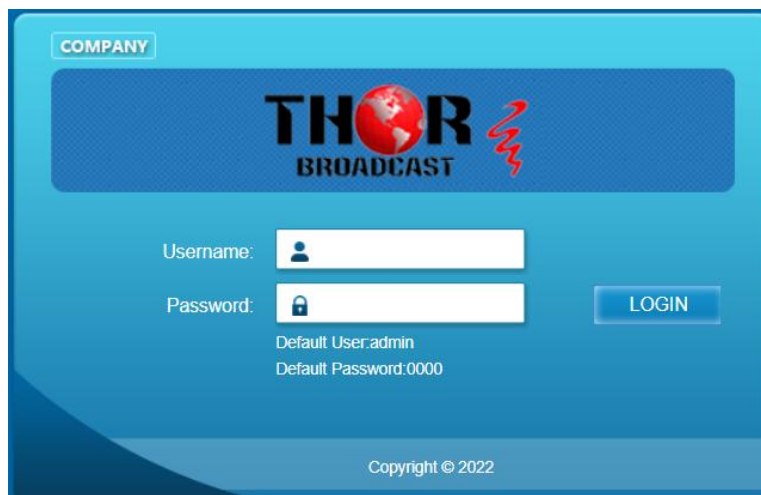 IP address Computer: 192.168.0.20 and Subnet mask: 255.255.255.0.
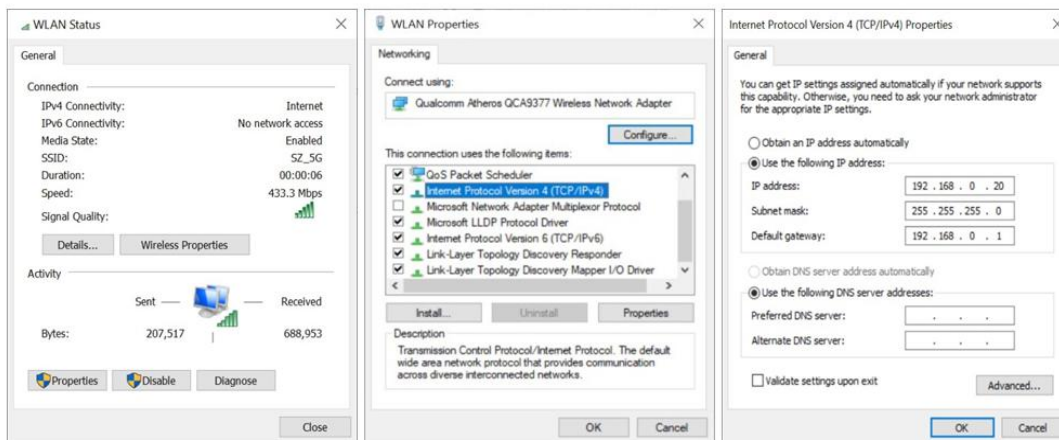
2. NMS connection

2.1 Each machine can have different username and password settings.

2.2 Please log in before operation. **Default IP is 192.168.0.188; Password: 0000**

3. NMS Home Page & Status

Contents of the home page includes: Device Information/Encoder Setup/Streaming Setup/Network/ Password/Upgrade/Configuration.
And device's Device Information details are also show on this page. Here you can know the

Model Name, Serial Number, Firmware version, Boot Version, Encoder Version, Data MAC Address, NMS MAC Address.

4. Encoder Setup

Use the Setting Setup Page to set the Encoder setup. You can change the program name, or choose the signal source is HDMI or CVBS or SDI.   You can also change the Viedo Encoder (HDMI / SDI Only H.264/ CVBS can chose H.264/mpeg)You can also change the Source, Video Encoder,Video Bitrate,Rate Mode, Audio Encoder, Audio Bitrate, CC Enable, H.264 Profile, H.264 Level, GOP Structure, PMT PID, Video PID, Audio PID, Service provider service Name .

Web Management   Logout   03:00

THOR
BROADCAST

Summary

► Device Information

Parameters

► **Encode**

► Streaming

System

► Network

► Password

► Upgrade

► Configuration

Encode

	Encode
Source	CVBS
Video Encode	H.264
Video Bit Rate(Mbps)	6.00
Rate Mode	CBR
Audio Encode	AC3
Audio Bit Rate	128 Kbps
CC Enable	OFF
H.264 Profile	High Profile
H.264 Level	4.0
GOP Structure	IBP
PMT PID	100
Video PID	101
Audio PID	102
Service ID	1
TS ID	1
Service Provider	TVProvider-1
Service Name	HDTV-1
Resolution	1080p30
Bit Rate	9.39 Mbps

Cancel   Apply

Web Management   Logout   02:59

THOR
BROADCAST

Summary

► Device Information

Parameters

► **Encode**

► Streaming

System

► Network

► Password

► Upgrade

► Configuration

Encode

	Encode
Source	SDI
Video Encode	H.264
Video Bit Rate(Mbps)	8.00
Rate Mode	CBR
Audio Encode	AC3
Audio Bit Rate	128 Kbps
CC Enable	OFF
H.264 Profile	High Profile
H.264 Level	4.0
GOP Structure	IBP
PMT PID	100
Video PID	101
Audio PID	102
Service ID	1
TS ID	1
Service Provider	TVProvider-1
Service Name	HDTV-1
Resolution	1080p30
Bit Rate	9.53 Mbps

Cancel   Apply

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5. Streaming Setup

Use the Streaming Setup Page to setup your required streaming method. You can choose UDP/RTP (unicast and multicast), HLS, HTTP, RTMP, RTMP Live.When choosing HLS/HTTP/RTMP/RTMP Live, the Video Bitrate is recommended to be below 4Mbps

live stream on YouTube or Facebook
Step1. Select "RTMP Live" item
Step2. Step3. Enter RTMP URL and Private Key
Step3. Press the apply button

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6. Network Setup

The Web Management default setting 192.168.0.188.

7. Password

You can modify the user name and password. In the New password field, enter the new password you want to change, also the same password as the new password to confirm.

8. Update Page

9. Configuration

Use the "Factory Reset" to reset configuration to factory default.
Use the "Download Config" to saved device setting configuration setting to PC.
Use the "Upload Config" to upload the file with pre-saved configuration settings to device.

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