

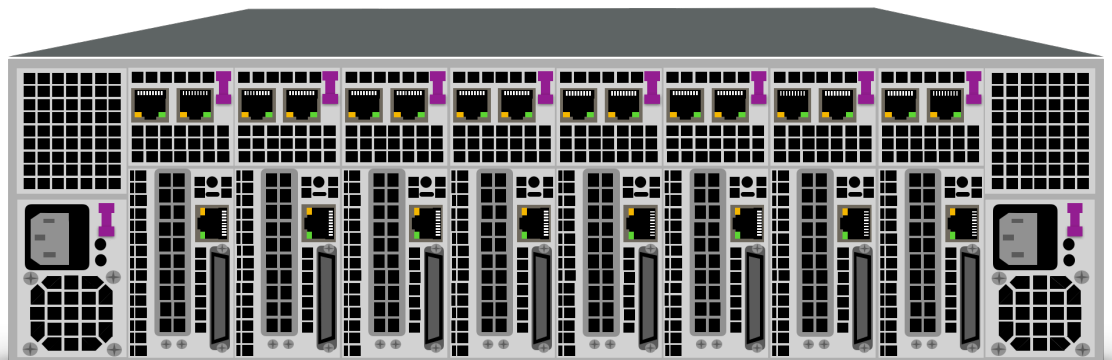
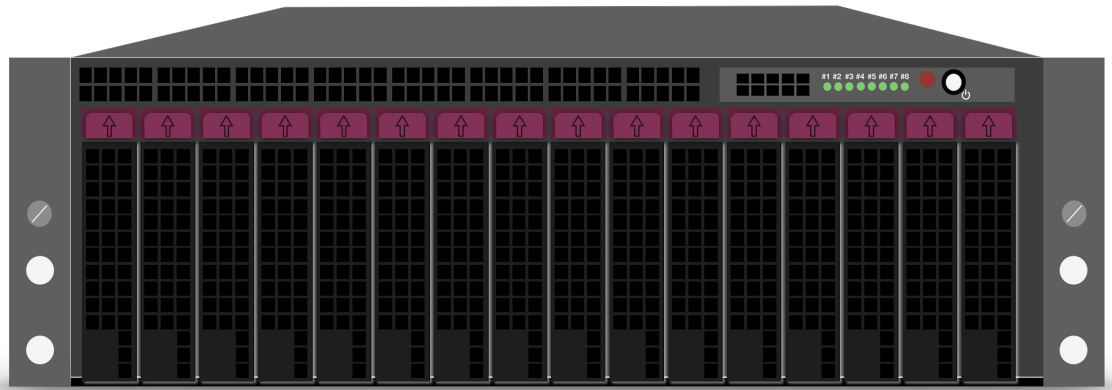
MODEL TX-6000

DVBT2S2C

IP

MPEG2

H.264
MPEG-4/AVC



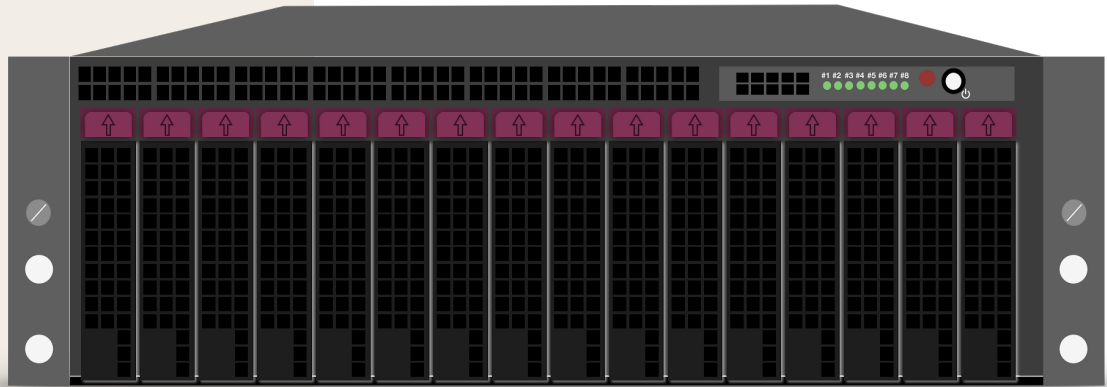
MODEL TX-6000

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MODEL TX-6000

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1 Safety

Read this section carefully before installation and use of the instrument.

1.1 Introduction

The instrument described in this manual has been designed for use by properly trained personnel only.

Adjustment, maintenance and repair of the exposed equipment should only be carried out by qualified personnel who are aware of hazards involved.

1.2 Safety Precautions

For the correct and safe use of the instrument, it is essential that both operating and servicing personnel follow generally accepted safety procedures in addition to the safety precautions specified in this manual. Specific warning and caution statements, where applicable, are found throughout this manual. Note that warning and caution statements and/or symbols are marked on the instrument as well.

This manual provides technical information important for safe operation of the equipment.

Please refer to the relevant sections of the manual for technical specifications, installation and operating instructions.

Special attention must be paid to the following issues:

Protective earthing of the instrument is required for the accessible terminals to be safe.

The actual environmental conditions must be checked against the specification

Mains voltage must be inside the specified range

The opening of covers or removal of parts, except those to which access can be gained by hand, is liable to expose live parts and terminals

If adjustment, maintenance, or repair of the opened instrument is unavoidable, it must only be carried out by a skilled person who is aware of the hazards involved

1.3 Caution and Warning Statements

Caution

Used to indicate correct operation or maintenance, in order to prevent damage to, or destruction of equipment or other property.

Warning

Used to indicate a potential hazard that requires correct procedures or practices in

order to prevent personal injury.

1.4 Safety Protection

1.4.1 Technical Specifications

This manual provides technical information important for safe operation of the equipment

Please refer to the Section Technical Specifications for information regarding technical specifications and the Sections Installation and Operating Instructions regarding instructions for use.

Technical assistance may be obtained from your local **TELELYNX** customer support organization or

Telelynx Inc.

**Add: 2F, 66-8 NANKAN RD., SEC.2 LUCHU, TAOYUAN, TAIWAN, Tel: +886-3-352-1922,
Fax: +886-3-352-1923, Website: www.telelynx.com Email: sales@telelynx.com**

1.4.2 Equipment Ratings

The instrument can be used with a mains voltage supply of:

Voltage range:

90 V AC - 264 V AC

Frequency:

47 - 63 Hz

The power consumption:

Does not exceed 100 VA

The instrument is designed for the following environmental conditions:

Indoor use

Altitudes up to 2000 m

Temperatures between 5 C and 40 C

Maximum relative humidity of 80% for temperatures up to 31 C, decreasing linearly to 50% relative humidity at 40 C.

The instrument is equipped with a number of input and output terminals as described in the Section Technical Specifications.

The terminals are protected from becoming hazardous live by means of basic insulation and protective screening.

Whenever it is likely that safe operation is impaired, the instrument must be made inoperative and secured against unintended operation. The appropriate servicing authority must be informed.

For example, safety is likely to be impaired if the instrument fails to perform the intended measurements or shows visible damage

WARNING: Protection provided by the equipment may be impaired, if the equipment is used in a manner not specified by this manual.





ATTENTION


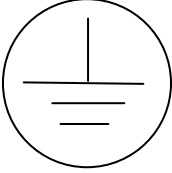

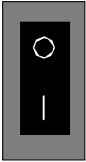
1.5 Electrostatic Sensitive Devices

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce lifetime drastically.

When repairing, make sure that you are connected to the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

1.6 Symbols

Symbol	Color	Explanation
	Red	High voltage terminal: a terminal at which a voltage, with respect to another terminal or parts exists or may be adjusted to 1000 V or more. (High voltage > 1000 V).
	Black/Yellow	Live part shock risk of electric shock.

	Black/Yellow	To preserve the instrument from damage the operator must refer to an explanation in the instruction manual
	White/Black	Protective earth (grounding) terminal
	Black	Alternating current (placed on the identification plate)
	White/Black	Off (supply - mains switch). On (supply - mains switch).

2 Introduction and Applications

TX-6000 series provides a most powerful transcoding solution for producing live video streams, supports multi-screen, multi-rate, multi-resolution, and multi-encoding models, helps operators optimize high quality video content, and then transmits to Internet TV, mobile TV and PC users. It can support ASI, RF, IP input, and provide up to 3 different output configurations for every input signal. Besides, it supports real time bit rate switch and multi bit rate controlling output and provides leading video quality.

2.1 Application

- Digital TV headend and Satellite TV signal sampling
- IPTV and remote video transmission
- Mobile TV/iphone/ipad
- Network TV and WEB TV
- VOD

2.2 Market Application Prospect

It supports multi-screen with different resolutions, different encoding modes and different bit rates output. Therefore, one video source can have various applications. With suitable price and high performance in IPTV and broadcast TV, it helps operators and system integrator's develop the market.

This equipment is more suitable for IPTV, because it is of excellent image effects. It can output 1.5 Mbps SD H.264 code streams even when the images move quickly and output SD h.264 code streams smaller than 1Mbps when the images move slowly. It also widely applied in WEB/Internet TV and broadcast, because it can transfer as many programs as possible in limit wideband and save lot of precious broadband resources. This equipment can support up to 2 channels HD signal or 8 channels SD signals outputs, and the minimum output resolution is QCIF. In general, we advice one channel signal input and simultaneously 3 channels SD signal output. If it simultaneously outputs more then 2 channels HD signals or 8 channels SD signal, then it may affect the users' video experience.

2.3 Technical Application

This equipment is a real time IP transcoder which support multi protocols input. Using ubuntu Linux10.04 64 bit server operating system and adopting high performance double CPU Intel(R) 3.2G ,6 cores, 2 G memory, which can improve the encoding performance. In addition, it supports UDP, RTP, RTMP, HTTP protocols transmission, multicast and unicast IP output.

Using FPGA technique, deinterlace technique and optimized preprocessing compression technique. Compared with common encoders which use ASIC chips, this equipment is of much better video and image quality. The superior performance of this equipment can be reflected especially when the images move very quickly.

This equipment can support 1080 QCIF output, baseline, main and High profile. According to different resolution, encoding level and frame rate, it can support multichannel output with different screen.

3 Device Data

3.1 Safety Cautions

This equipment is designed and tested in accordance with National Standard Electrical Safety Regulations, which complies with safety conditions. The information and warnings of this manual fully comply with safety operation and maintenance.

3.2 Technical Parameters

INPUTS				
IP stream input	One Gig Ethernet Ports per module MPEG-TS with H.264/MPEG4/MPEG2;MPEG-1 Layer II,AAC,AC3 UDP/RTP/RTSP/HTTP/MMS/FTP			
OUTPUTS				
IP Output type	One Gig Ethernet Ports per module			
Streaming format	Mpeg-2/H.264/H.263/MPEG4 SP/MPEG4 ASP; MPEG-1 Layer II,AAC,AC3,AMR,WM A ,MP3 TS Over UDP/RTP/HTTP 3GP Over RTP FLV Over HTTP/RTMP HTTP Live streaming Apple HLS (m3u8) Mp4			
File Output				
Encoding	3GPP/3GPP2/WMV/FLV/TS			
	File output support timing and capacitive record			
Pre-processing				
Image setting	Video adjustments(Brightness, contrast, Saturation, Hue)			
Frame rate	from 2fps to 30fps			
Aspect ratio	4:3 and 16:9, WSS control			
Image insertion	LOGO insertion			
Subtitle Overlay	Static or roll subtitle, up to 3 way (optional)			
PID Configuration	Depending on the configuration, it forwards selected programs via IP data casting; PAT, PMT, video PID, audio PID(s) and PCR information are transmitted.			
Video encoding				
Bitrate mode	VBR,CBR			
Resolutions	80x64 • 176x120 • 128x96 (4:3) • 176x128 • 144x80 • 176x144 • 144x140 • 220x176 • 160x90 (16:9) • 240x176 • 320x240 352x288 • 400x300 • 480x360 • 720x576 • 1024x768 854x480(16:9) • 1280x720p • 1920x1080p • 1920x1080i			
Max channels per RU	MPEG-2 Input	H.264 Out	Channels	Notes
	Standard def.	Standard def.	Up to 200 streams	Take those information as reference only ,For details contact us
	720P	720P	Up to 80 streams	
	1080P	1080P	Up to 60 streams	
	Up to multiple concurrent outputs per one stream input			

Video codec	H.263 Profile0, Levels 10,20,30 MPEG-4 SP, Levels 0,0b, 1,2,3 H.264 Baseline Levels 1,1b,2,3; H.264 Main Profile/High Profile 3.0- 5.1 MPEG-2 MP@ML 4:2:0
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3.7 Electrical Safety Features

Compliant to EN60950

4 Installation

4.1 Initial Inspection

If the contents are incomplete or damaged a claim should be filed with the carrier immediately, and the TELELYNX Customer Support should be notified, in order to facilitate the repair or replacement of the instrument.

4.2 Safety Instruction

4.2.1 Earthing

Before any other connection is made, the instrument must be connected to a protective earth conductor in one of the following ways: via the three-core mains cable via the protective earth terminal marked.

Before connecting the equipment to the mains of the building installation, the proper functioning of the protective earth lead of the building installation needs to be verified.

Warning: Any interruption of the protective conductor inside or outside the instrument, or disconnection of the protective earth terminal, is likely to make the instrument dangerous. Intentional interruption is prohibited.

4.3 Mains Voltage Cord and Fuses

Different power cords are available for the various voltage outlets.

Note: If the mains plug has to be adapted for local use, only a qualified person should carry out this task.

This instrument is equipped with a tap-less switch mode power supply that covers most nominal voltage ranges in use: 90-250V AC RMS. This obviates the need to adapt to the local mains voltage.

The mains frequency is 48-63 Hz.

Warning: This instrument shall be disconnected from all voltage sources when replacing a fuse.

Mains fuse rating: 2 pcs. 1.25A slow blow, 250 V.

The mains fuse-holder is located on the rear panel of the instrument.

If the mains fuse has to be replaced please proceed as follows:

1. Remove the power cable.
2. Lift the plastic cover (fuse-holder) by means of a small screwdriver.
3. Insert the new fuse into the top of the fuse-holder.
4. Re-insert the cover (fuse-holder).

Warning: Make sure that only fuses of the required rating, voltage, and of the specified type are used for replacement.

The use of repaired (jumped) fuses and/or the short-circuiting of the fuse holder are prohibited

Fuses must only be replaced by a qualified person who is aware of the hazards involved.

4.4 Rack Mounting

This TELELYNX instrument is delivered in a 19" cabinet. If several cabinets are mounted in a 19" rack, special attention must be paid to the temperature inside the rack.

Note: The operation of the fan is temperature controlled.

If the TX-6000 series is mounted between other instruments with high surface temperature, this cooling may not be sufficient. Under these circumstances, it is recommended to make space between the instruments, and to establish forced circulation (cooling) in the rack.

4.5 Cleaning

- Disconnect the instrument from the mains voltage supply before cleaning
- Use only a damp cloth
- Make sure that no liquid is spilled inside the instrument

4.6 Access to and Replacement of Parts

4.6.1 Safety

The opening of covers or removal of parts, except those to which access can be gained by hand, is liable to expose live parts.

The instrument must be disconnected from all voltage sources before performing any adjustment, replacement, maintenance, or repair, which requires the instrument to be opened. If repair of the opened instrument is unavoidable, it must only be carried out by a skilled person, who is aware of the hazards involved. To guarantee safety only original spare parts must be used.

4.6.2 Access to the Units

To gain access to the units, remove the screws that secure the top cover of the instrument and lift the cover up.

5 Operating Instructions

5.1 Front Panel

Front Panel



5.2 Rear Panel



5.3 Overview

Web user interface is one of the network management interfaces of this equipment.

Generally, we recommend to use browser to operate the WEB page.
IP Address: you can find the Default IP address on the device.

5.4 Login Screen

Only enter the correct user name and password to have the access to the next step.

The default login IP address is **192.168.1.41/webtrans**

The default user name is **admin** ; The default password is **<123>**

AnyStreaming

The login screen for AnyStreaming. It features a light gray background with the 'AnyStreaming' logo at the top. Below the logo is a white rectangular box containing the login form. The form has three input fields: '用户名' (User Name) with a placeholder 'User Name', '密码' (Password) with a placeholder 'Password', and '语言' (Language) with a dropdown menu showing 'English'. At the bottom of the form is a blue button with the text '登录' (Login).

Note: **Username:** please enter user name, such as :**admin**

Password: please enter password, such as: **123**

Login: Press this button to land on the management interface and enter into the homepage

5.5 Overall Situation Screen

The screenshot shows the AnyStreaming web interface. The top header is blue with the 'AnyStreaming' logo on the left and a 'Sign out' button on the right. A sidebar on the left contains navigation links: Task Management (selected), Device Management, Host Management, Channel Management, Parameter Template, System Management, Network Settings, System Control, and Password Setting. The main content area is titled 'Task Management / TASK' and includes buttons for 'Channels Mgmt', '+Add Complex Channel', and '+Create by XML'. Below these is a table with columns: Name, Bitrate, Format, Output, State, and Ops. The table lists 9 tasks, all with a bitrate of 1500 and format of h264. The output for each task is 'TS -> 224.1.1.1:1001' through '1009'. All tasks are in the 'Running' state. The 'Ops' column contains icons for various actions. Above the table, there is a search bar and a dropdown menu showing 'Model 1[udp://224.6.6.6001@192.168.1.41](25)'. To the right of the dropdown are buttons for 'Start All', 'Stop All', 'Create Task', and 'Other Actions'.

Name	Bitrate	Format	Output	State	Ops
Model 1[udp://224.6.6.6001@192.168.1.41](25)					
1	1500	h264	TS -> 224.1.1.1:1001	Running	[Icons]
2	1500	h264	TS -> 224.1.1.1:1002	Running	[Icons]
3	1500	h264	TS -> 224.1.1.1:1003	Running	[Icons]
4	1500	h264	TS -> 224.1.1.1:1004	Running	[Icons]
5	1500	h264	TS -> 224.1.1.1:1005	Running	[Icons]
6	1500	h264	TS -> 224.1.1.1:1006	Running	[Icons]
7	1500	h264	TS -> 224.1.1.1:1007	Running	[Icons]
8	1500	h264	TS -> 224.1.1.1:1008	Running	[Icons]
9	1500	h264	TS -> 224.1.1.1:1009	Running	[Icons]

After the successfully landing, the web browser will display an overall situation screen of AnyStreaming, which provides the setting information of relevant parameters

The left side of the manual:

【Task Management】 The current configuration list, including the name of the added equipment, as shown below: TASK, the main function is to show the new tasks and the name of the programs which the transcoder has already input, as shown below

AnyStreaming Sign out

Task Management / TASK Channels Mgmt + Add Complex Channel + Create by XML

Task Management

TASK

Device Management
Host Management
Channel Management
Parameter Template

System Management
Network Settings
System Control
Password Setting

Name	Bitrate	Format	Output	State	Ops
— Model 1[udp://224.6.6.6:6001@192.168.1.41](25) ▶ Start All ⏸ Stop All + Create Task Other Actions ▼					
1	1500	h264	TS -> 224.1.1.1:1001	Running	
2	1500	h264	TS -> 224.1.1.1:1002	Running	
3	1500	h264	TS -> 224.1.1.1:1003	Running	
4	1500	h264	TS -> 224.1.1.1:1004	Running	
5	1500	h264	TS -> 224.1.1.1:1005	Running	
6	1500	h264	TS -> 224.1.1.1:1006	Running	
7	1500	h264	TS -> 224.1.1.1:1007	Running	
8	1500	h264	TS -> 224.1.1.1:1008	Running	
9	1500	h264	TS -> 224.1.1.1:1009	Running	

【Device Management】 including **【Host Management】** 、 **【Channel Management】** 、 **【Parameter Template】**

- 1、 **【Host Management】** To manage the host of the equipment, It doesn't need to reset the configuration, because the equipment has already been configured by our engineer before delivery
- 2、 **【Channel Management】** To manage and configure the **SPTS** streams
- 3、 **【Parameter Template】** Configure the parameters of the ongoing tasks before invoking the data while editing in the task bar. It is not required for common users.

【System Management】 including **【Network Settings】** 、 **【System Control】** 、 **【Password Setting】**

- 1、 **【Network Settings】** To set the two ports ip address one by one for management
- 2、 **【System Control】** To provide the general information of this device
- 3、 **【Password Setting】** Setting or Modify Password

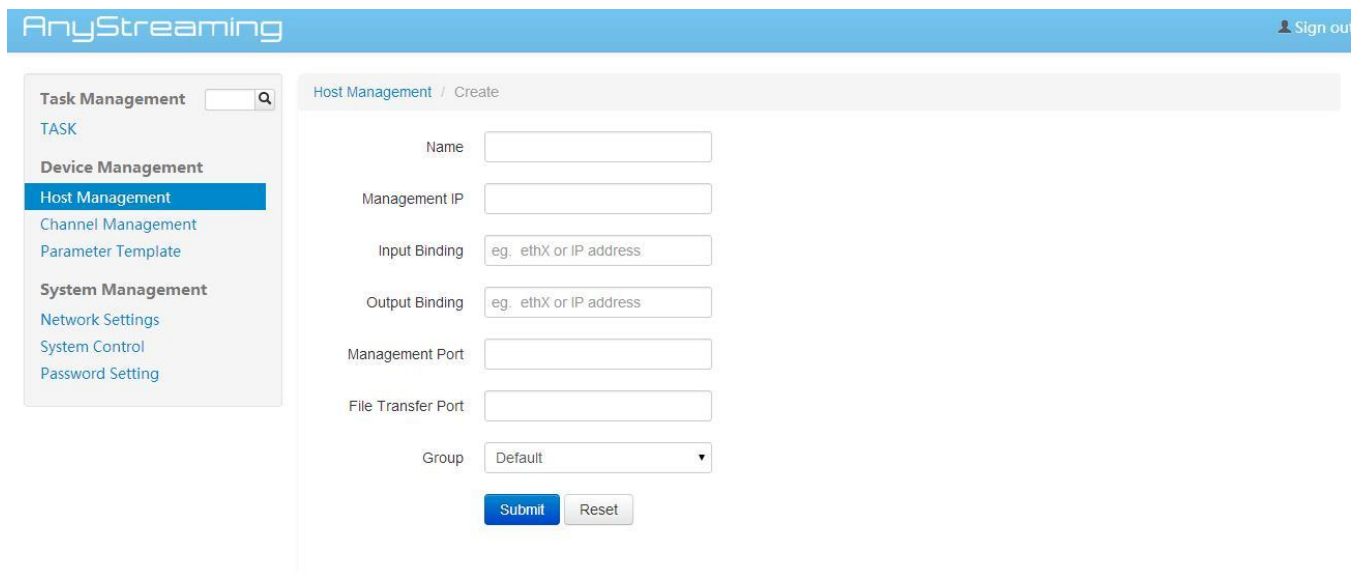
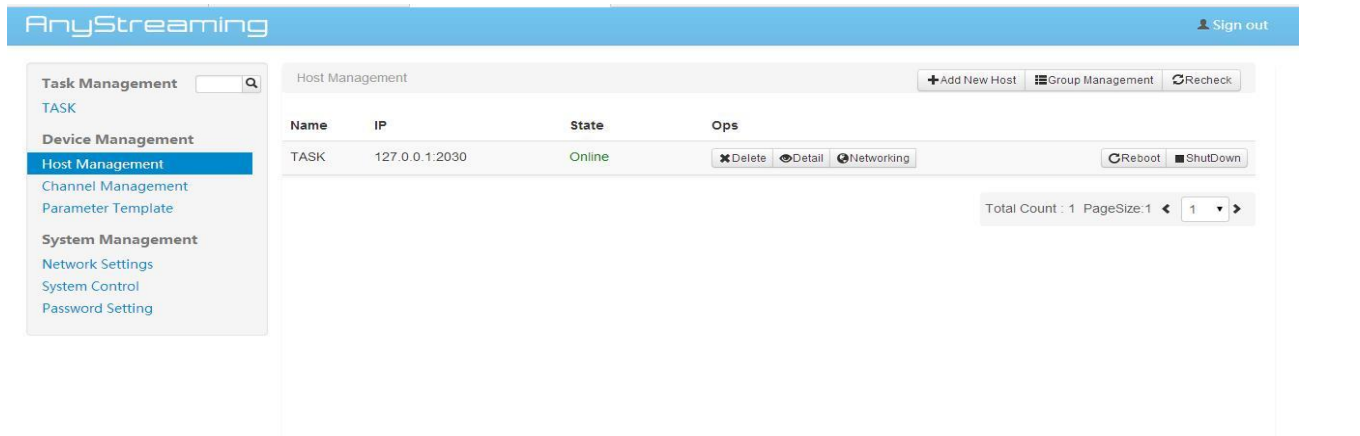
The right side of the manual:

【Task Management】 show the name of the programs and channels and the current tasks of every channels as well

5.6 Device Management

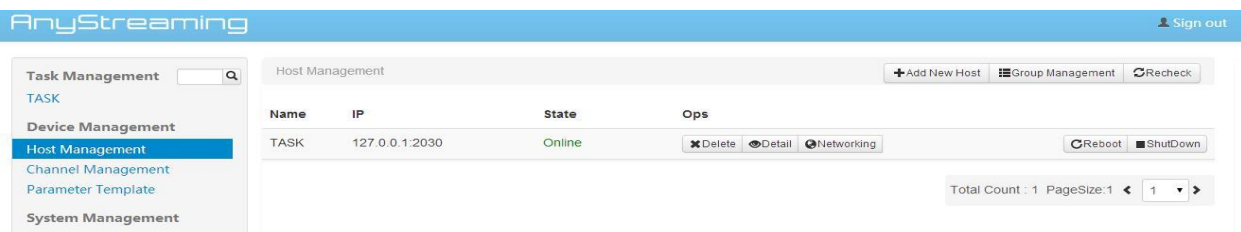
5.6.1 Host Management

Add a host when first enters the system. Click **【Device Management】-【Host Management】-【Add New Host】** , The host name is formed by letters, numbers, underlines. After configuring the parameters, click “Submit”, then you will see the added host, as shown below:



It doesn't need to reset the configuration, because the equipment has already been configured by our engineer before delivery

You can click " **Recheck** "Button in order to the latest Service/Tasks




In general, this parameter has been successfully set before leaving the factory, so the users do not need to set and change it again.

5.6.2 Parameter Template

It want to self define the added transcoding parameters, please choose **【Parameter Template】** , click "Create New Parameters", input the name and add transcoding parameters, finally click

Submit

In general, we advice the user to get the parameters from the folder  (down load) in the task management

AnyStreaming Sign out

Task Management

TASK

Device Management

Host Management

Channel Management

Parameter Template

System Management

Network Settings

System Control

Password Setting

Device Management / Transcode Parameter Management + Create New Parameters

Name	Ops
576P	Modify Save As Delete

AnyStreaming Sign out

Task Management

TASK

Device Management

Host Management

Channel Management

Parameter Template

System Management

Network Settings

System Control

Password Setting

System Management / Transcode Parameter Management

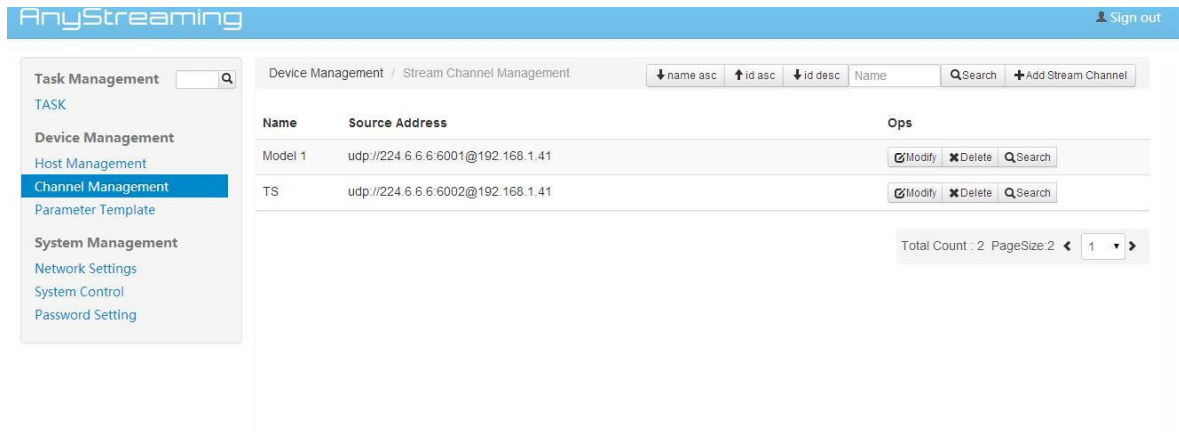
Template name

Video **Audio**

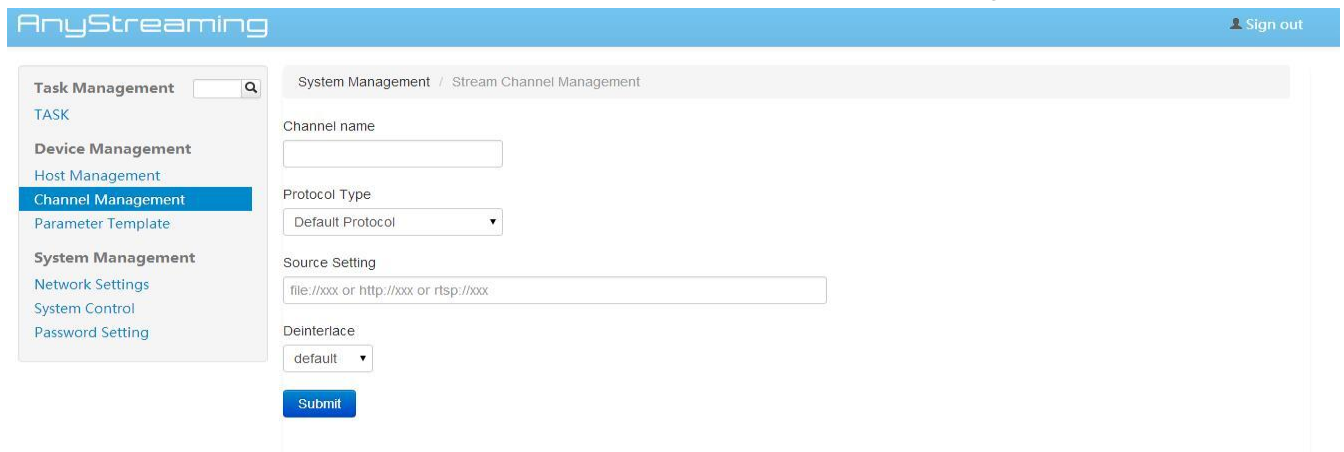
Encode format	<input type="text" value="h264"/>	Profile	<input type="text" value="baseline"/>
Level	<input type="text"/>	Bitrate control	<input type="text" value="CBR"/>
B-Frames	<input type="text" value="3"/>	Bitrate(kbps)	<input type="text" value="1024"/>
Reference frames	<input type="text" value="3"/>	Frame rate	<input type="text" value="auto"/>
Key framerate	<input type="text" value="1"/>	Keep resolution <input checked="" type="checkbox"/>	<input type="text"/> X <input type="text"/>
Display ratio	<input type="text" value="auto"/>	GOP Align	<input type="text" value="off"/>
Field mode	<input type="text" value="off"/>	Scale	<input type="text" value="Ordinary"/>
More Settings	<input type="checkbox"/>		

Save Reset Back

5.6.3 Channel Management

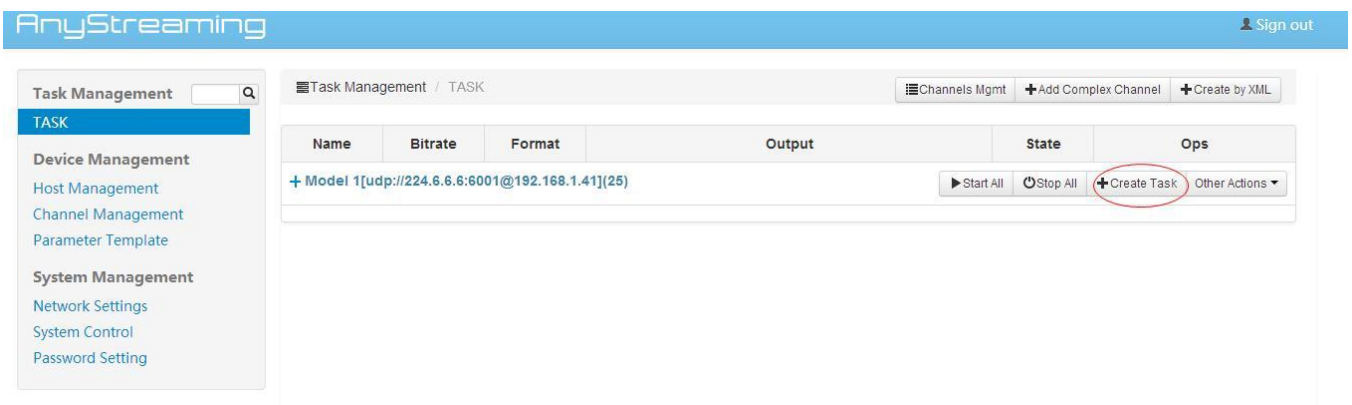


If want to add SPTS or a certain program of MPTS stream, please choose **【Channel Management】** , click “Add Stream Channel”, input the Channel name and IP address, finally click “Submit”. The stream address can be the multicast address or unicast address which is from the IP input signal source.



Add a group of “**service_id**” number in the behind “/” for example “/401” ,you can get the one certain program of MPTS ,the service_id= 401(0x191)

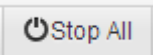
Currently, it shows the 1 configured Tasks under Model 1. If you want to add more tasks, Please click “Create New Task”

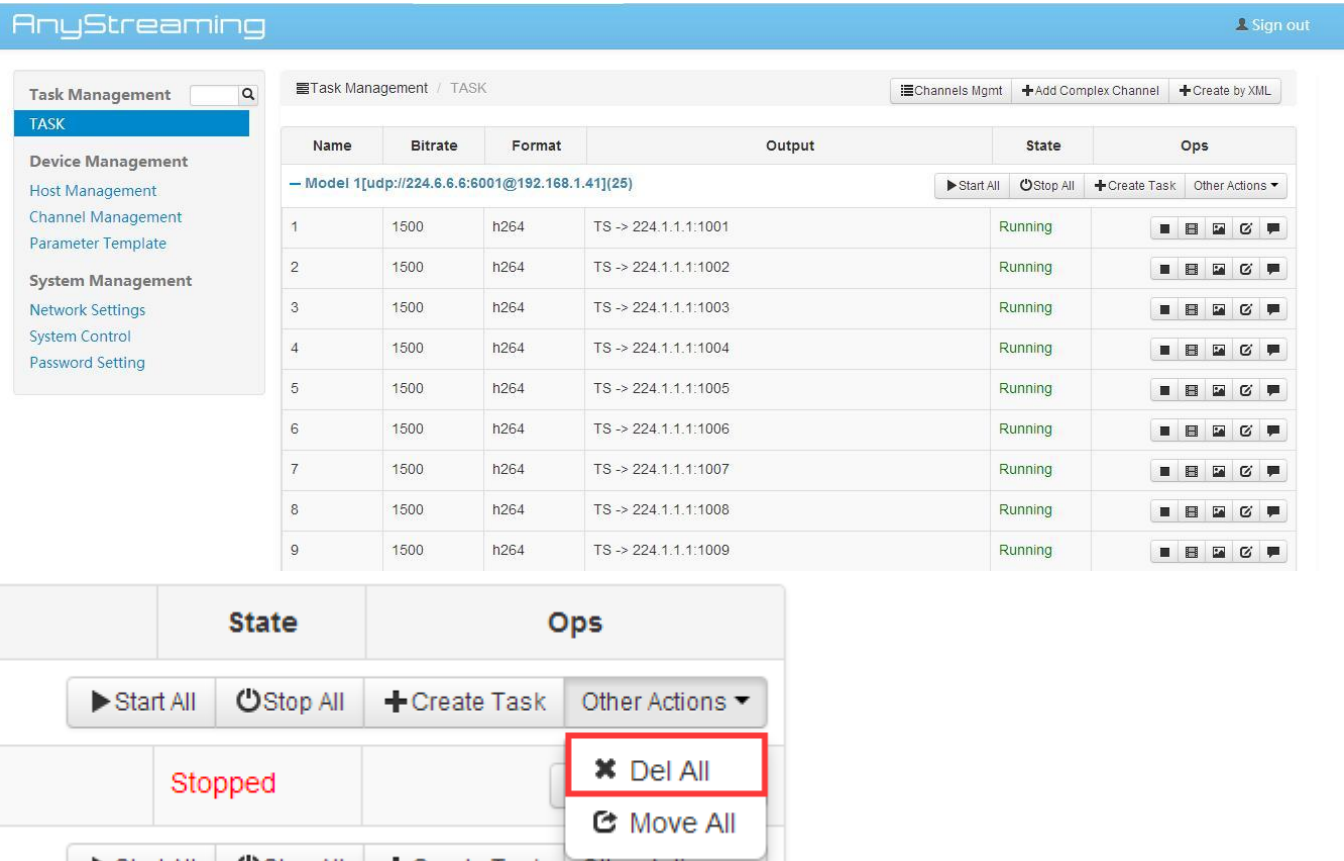


5.7 Task Management

AS shown in the following, 9 channels have been added into the current task management bar which are added through **【Channels Management】**.

Then set the parameters of every channel and output code streams. The number of added tasks will appear under the name of every channel. This equipment can support up to 200 channels SD code streams output in 8 modules.


 Press this button to stop all the tasks of the current channel (such as Model 1)



The screenshot displays the 'AnyStreaming' web interface for Task Management. On the left is a sidebar with navigation links: Task Management, Device Management, Host Management, Channel Management, Parameter Template, System Management, Network Settings, System Control, and Password Setting. The main area shows a table of tasks for 'Model 1'. The table has columns: Name, Bitrate, Format, Output, State, and Ops. All 9 tasks are in 'Running' state. Above the table are buttons for 'Start All', 'Stop All', 'Create Task', and 'Other Actions'. A red box highlights the 'Del All' button in the 'Other Actions' dropdown menu.

Name	Bitrate	Format	Output	State	Ops
Model 1[udp://224.6.6.6:6001@192.168.1.41](25)					
1	1500	h264	TS -> 224.1.1.1:1001	Running	[Icons]
2	1500	h264	TS -> 224.1.1.1:1002	Running	[Icons]
3	1500	h264	TS -> 224.1.1.1:1003	Running	[Icons]
4	1500	h264	TS -> 224.1.1.1:1004	Running	[Icons]
5	1500	h264	TS -> 224.1.1.1:1005	Running	[Icons]
6	1500	h264	TS -> 224.1.1.1:1006	Running	[Icons]
7	1500	h264	TS -> 224.1.1.1:1007	Running	[Icons]
8	1500	h264	TS -> 224.1.1.1:1008	Running	[Icons]
9	1500	h264	TS -> 224.1.1.1:1009	Running	[Icons]

Press this button to delete all the tasks of the current channel. **Please be cautious about proceeding.**

 To add a new task for the current channel, set the parameters of the task and generate a code stream.

If want to modify the tasks, please click , when you change the parameters and save it.

AnyStreaming Sign out

Task Management

TASK

Device Management

Host Management

Channel Management

Parameter Template

System Management

Network Settings

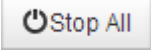
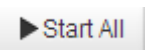
System Control

Password Setting


Task Management / TASK

Channels Mgmt + Add Complex Channel + Create by XML

Name	Bitrate	Format	Output	State	Ops
Model 1[udp://224.6.6.6001@192.168.1.41](25) ▶ Start All ⏸ Stop All + Create Task Other Actions ▼					
1	1500	h264	TS -> 224.1.1.1:1001	Running	
2	1500	h264	TS -> 224.1.1.1:1002	Running	
3	1500	h264	TS -> 224.1.1.1:1003	Running	
4	1500	h264	TS -> 224.1.1.1:1004	Running	
5	1500	h264	TS -> 224.1.1.1:1005	Running	
6	1500	h264	TS -> 224.1.1.1:1006	Running	
7	1500	h264	TS -> 224.1.1.1:1007	Running	
8	1500	h264	TS -> 224.1.1.1:1008	Running	
9	1500	h264	TS -> 224.1.1.1:1009	Running	

Press this button  (Stop) to stop the running task. And press  (start) this button to restart

it. The condition of the task will be changed from **Stopped** to **Running**

 (Edit) Edit and modify the parameters of the new added tasks. This operation can be performed only when the task is stopped. Press this button, the below page will appear:

AnyStreaming Sign out

Task Management / Task Settings

TASK

Device Management

Host Management

Channel Management

Parameter Template

System Management

Network Settings

System Control

Password Setting

Name @127.0.0.1:2030 Select template

Source Channel Export video ☒ Export audio ☒ Open Storage ☐ Auto Recover ☒

Video **Audio** **Output** **Storage** **Advance**

Encode format Profile

Level Bitrate control

B-Frames Bitrate(kbps)

Reference frames Frame rate

Key framerate Keep resolution ☐ X

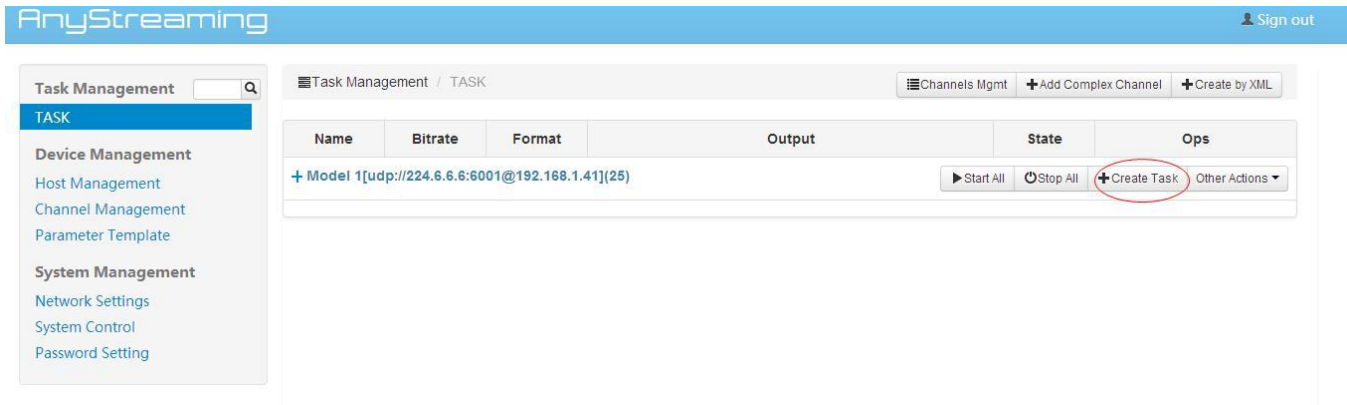
Field mode Display ratio

GOP Align Scale

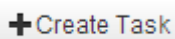
More Settings ☐

Save Reset Back

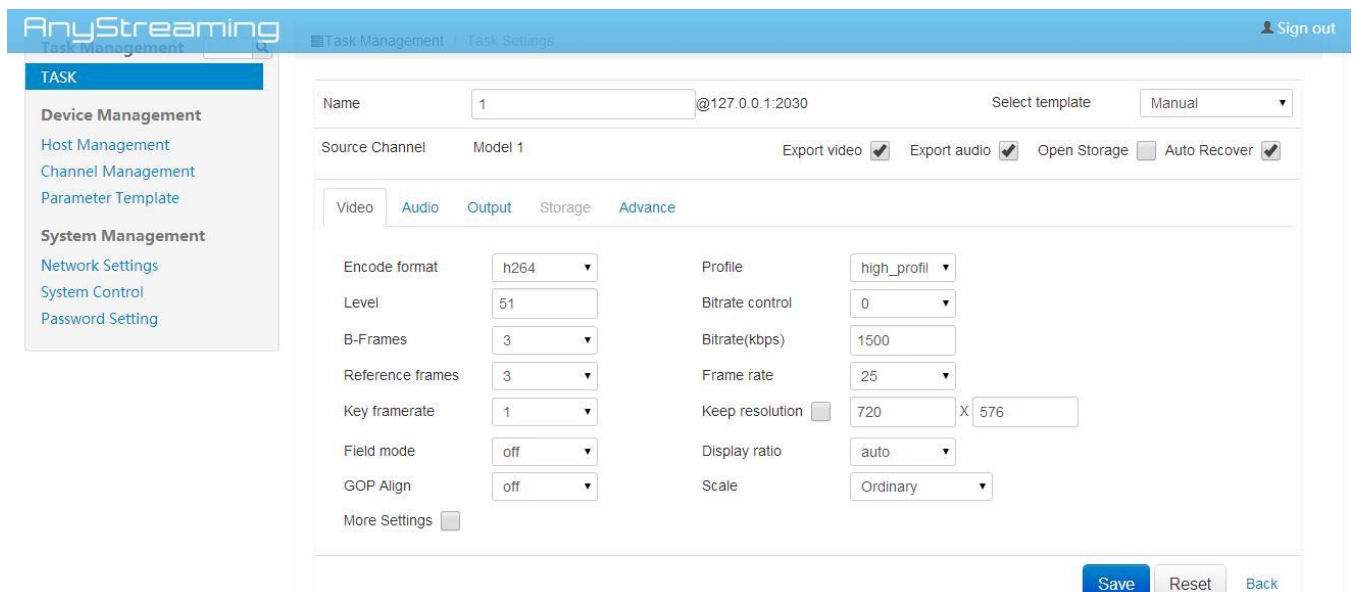
5.8 Create Task



5.8.1 Basic Configuration

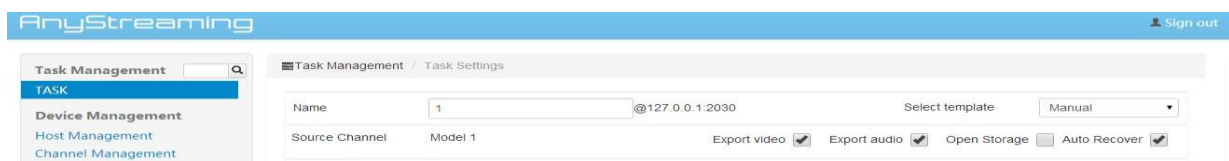


Press this button to enter the page of create task, as shown below. It mainly includes video, audio, output, storage and advance window configuration.



Introduction of the basic configuration

1. Fill in the name of the task



2. Display the IP address and port number, where the video signal sources of the current task come from.

Source Channel CCTV@224.120.120.192:1234

3. Choose allow input video and audio streams to transcode

☒ Export Video

☒ Export Audio

☒ Auto Recover

Generally, these three parameters should be selected.

4. To load the pre-configured parameters. If there are no pre-configured parameters, then no need to choose this content

Select template

port audio ☒ Open Storage

5.8.2 Video Setting

AnyStreaming Sign out

Task Management / Task Settings

Name 1 @127.0.0.1:2030 Select template 576P

Source Channel Model 1 Export video ☒ Export audio ☒ Open Storage ☐ Auto Recover ☒

Video Audio Output Storage Advance

Encode format h264 Profile high_profile

Level 51 Bitrate control 0

B-Frames 3 Bitrate(kbps) 1500

Reference frames 3 Frame rate 25

Key framerate 1 Keep resolution ☐ 720 X 576

Field mode off Display ratio auto

GOP Align off Scale Ordinary

More Settings ☐

【Encode Format】 The encoding model of output bit rate, such as [h.264](#), [h.263](#), [mpeg4](#), [transparent](#), generally choose h.264;

【Profile】 [baseline](#), [main profile](#), [high profile](#)

【Level】 The encoding level : 10-51, such as 30, 40

【Bit ate Control】 Set the video stream control to keep the video streams change regularly. CBR, 0.1-1, Default is 0.2,

【B-frames】 The number of B frames, default is 3

【Bit Rate】 The bit rate of out put video streams. Unit: Kbps, range: 32-6000kbps, SD around 700-1500kbps; QCIF around 200-500kbps; HD around 3500-6000kbps

【Reference Frames】 The setup of reference frames, default is 3

【Frame Rate】 The frame number of output video streams. In general, we set it to 25, but it also can be set in

accordance with the requirements of users. **If check this, then the input and output signal frames remain unchanged.**

【Key Framerate】 The time interval of key frame. Default is 3

【Keep Resolution】 The resolution of the output code streams. In general, for HD video streams, the resolution is 1920x1080, for SD video streams, the resolution is 720x576; the minimum QCIF resolution is 176x144. If check this, then the input and output signal resolution remain unchanged.

You can set:176x144,144x140,220x176,240x176,320x240,352x288, 400x300,480x360,720x576, 1024x768, 854x480, 1280x720,1920x1080. **Generally,the Aspect ratio of resolution is 4:3 or 16:9**

5.8.3 Audio Setting

【Audio Codec】 The audio encoding model, such as AAC 、AMR 、AC3 、MP2A 、WMA 、Transparent, default is AAC

【Bitrate】 The output audio bit rate,default is 64kbps, and can be set in line with the requirement of users. You can set 32,64,128,192,256,384kbps

【Sample rate】 The output audio sampling ratio,default is48000,If choose it, then the input and output audio sampling ratio remain unchanged

【Audio Channel 】 The sound channel of output audio, default is 2. If choose it, then the input and output audio sound channel remain unchanged

【Volume】 The volume of output audio ,range : 0-100, Default is blank, which represents that the input and output volume is the same.

【Batch number】 Default 1

5.8.4 Advance Setting

The screenshot shows the 'Advance' tab of the OTT IPTV Transcoder TX-6000 series configuration interface. It includes the following settings:

- Affinity profile:** A dropdown menu.
- AV sync:** An input field followed by 'ms'.
- disp interval:** An input field.
- Spacer file:** An input field.
- Logo:**
 - Logo file:** An input field with 'Browse' and 'Remove' buttons.
 - Left, Top, Width, Height:** Input fields for logo positioning.
- Crop Settings:**
 - Left, Top, Bottom, Right:** Input fields for video cropping.
- TS:**
 - PIDs:** An input field with the label 'PMT/Video/Audio'.
 - PCR delay:** An input field followed by 'ms'.

At the bottom right, there are 'Save', 'Reset', and 'Back' buttons.

【Affinity profile】 kernel distribution profile Do not need to choose if it is default.

【AV Sync】 The video and audio synchronization break, Unit: Millisecond, Default is 2000

【PCR Delay】 TS PCR and DTS time difference setting. Default is 700ms

【TS PIDs】 set the PMT, PID of Video and Audio. the value uses decimal system, such as 100/101/102

【disp interval】 when sending the TS, for how many packets (1316)1316 need to insert 10ms Sleep, default is turn off.

5.8.5 OUTPUT Setting

Each module has two Ethernet port, the main Ethernet port(eth0), and assistant Ethernet port(eth1). Usually the eth0 will set static IP address, sub mask and gateway. And Eth1 just can set static IP address and sub mask, can't set gateway.

So if you want to set eth1 with IP output, then the output address you will need to configurate gateway address, the output address will as following: udp://@224.2.2.2:1001@ eth1 IP address.

If you are using eth0, then the output address will be: udp://@224.2.2.2:1001. As following show

AnyStreaming Sign out

Task Management

- TASK
- Device Management
 - Host Management
 - Capture Management
 - Channel Management
 - Parameter Template
- System Management
 - Network Settings**
 - System Control
 - Password Setting

System Management / Network Settings Refresh

Tip
The interface should be modified one by one.

Main LAN(eth0) Submit

LAN(eth1) Submit

IP Address Mode ☒ Static ☐ DHCP

IPv4 Address

Subnet Mask

Gateway

DNS

IP Address Mode ☒ Static ☐ DHCP

IPv4 Address

Subnet Mask

Route

A. TS(UDP output)settings

Multicast: the output protocol please select: TS

Output multicast address: port@ transcoder IP address(port is user-defined, please check the details in network setting)

VLC paly format:udp://@multicast address:port

Video Audio **Output** Storage Advance

Output protocol TS

Output addr

☒ Uniqueness Check

Save Reset Back

- NULL
- PLAYBACK
- TS**
- TS over HTTP
- HLS over HTTP
- RTP
- RTP over HTTP
- RTMP
- FLV over HTTP
- MP3 over HTTP
- FLV
- ASF
- Multiconn Transfer

Video Audio **Output** Storage Advance

Output protocol TS

Output addr

☒ Uniqueness Check

Save Reset Back

Unicast:output protocol please select : TS

Output unicast address will be: port@ transcoder IP address(the details , please check network settings)

VLC play format:udp://@unicast address:port(the PC which with unicast ip address can play this

address)

Noted: unicast address is the same as objective terminal IP address.

B. HTTP output settings

Output protocol, please select: TS over HTTP

Output address will be: 127.0.0.1:8000/100(8000 is the default port. 100 is identifier which can distinguish stream address, you can change it by yourself)

The Channel name no need to fill in

VLC play address: http:// transcoder IP: 8000/live/100

C. RTSP output settings

Output protocol, please select: RTP over HTTP

Output address: 127.0.0.1:554/live/100(554 is default port,100 is identifier , you can change it by yourself)

Channel name no need to fill in

VLC play address:rtsp://transcoder IP:554/live/100

D. RTMP output settings

Local RTMP output

Output channel, please select:RTMP

Output address : 127.0.0.1:1935/live/100(1935 is default port, 100 is identifier, you can change it by yourself)

Channel name no need to fill in

VLC play address: rtmp:// transcoder IP:1935/live/100

2、 RTMP to streaming media server

(1)output protocol, please select : RTMP

Output address: server IP:1935/live/100(1935 is server port, default is 1935, live is channel name, 100 is stream name)

Stream name no need to fill in

Or

(2)Output protocol, please select : RTMP

Output address; server IP:1935/live (1935 is server port, default is 1935,live is channel name,100 is stream name)

Stream name please fill in100

VLC play address: rtmp://server IP:1935/live/100

E. HLS Setting

Output protocol, please select: HLS over HTTP

Output address: 127.0.0.1:8000/100(8000 is default port,100 is identifier ,which can distinguish stream address, you can change it by yourself)

Channel name no need to fill in

VLC play address: `http://transcoder IP:8000/live/100.m3u8`

[Video](#) [Audio](#) **Output** [Storage](#) [Advance](#)

Output protocol

HLS over HTTP ▾

Output addr

224.1.1.1:1001

Channel Name

☒ Uniqueness Check

Save

Reset

Back

After setting all the parameters, please press

Save

6 Common Faults Analysis

6.1 Using ping command to check if the network links up is regular

```
Microsoft Windows XP [版本 5.1.2600]
(C) 版权所有 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>ping 192.168.0.201

Pinging 192.168.0.201 with 32 bytes of data:

Reply from 192.168.0.201: bytes=32 time=1ms TTL=64
Reply from 192.168.0.201: bytes=32 time<1ms TTL=64
Reply from 192.168.0.201: bytes=32 time<1ms TTL=64
Reply from 192.168.0.201: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.201:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

6.2 Using VLC play software to check if it can play normally

网络协议

请输入网络 URL:

<http://www.example.com/stream.avi>
<rtp://@:1234>
<mms://mms.examples.com/stream.asx>
<rtsp://server.example.org:8080/test.sdp>
<http://www.youtube.com/watch?v=gg64x>

Thank you very much for
your using our product!