120M H.265 AV over IP Extender work with CMP System

Max resolution 4K@30HZ,4:4:4

Support Video Wall, Multi Viewer, Matrix

OPERATION MANUAL





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Dear Customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

1. Features

- Compression Technology: H.265
- ➤ Max resolution 4K@30HZ YUV 4:4:4
- ➤ Latency Time (from TX to RX) less than 200 millisecond
- > Transmit up to 120m over single Cat5e/6 cable, with 1x looping HDMI output
- Request for (many to many mode) IGMP Switch
- Support IP/ICMP/IGMP/TCP/UDP Control (PC Tool)
- Support KVM RS232, IR, Local HDMI output on TX
- > Additional Features VLC / Looping HDMI output
- Support RTSP/RTMP protocol
- Support Video Wall, Multi Viewer, Matrix work with CMP system supports real-time switch OSD; Displaying firmware version, IP address, MAC address, etc
- Support Multicast(one to many, many to many), Unicast (one to one)
- DC12V Power supply

Performance	
Protocol	H.265 Encoder over TCP/IP
Video format	480P/720P/1080P/4K2K/800*600/1280*1024@60hz etc
Audio format	Analog Embedded and Analog Extractor
Streaming Bit Rate	0-100Mbps Default: 20Mbps
IR frequency	38Khz
RS232 Baud Rate	115200
IP SETTING	
Request for Switch/Router	Support IGMP, support DHCP
Environmental & Power Requirements	
Operating temperature	-5 to +35 °C (+23 to +95°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Power supply	12V1A Support POE
Power consumption	TX: 4.68W; RX: 3.36W
Dimension	TX&RX: 184*95*24mm
Net Weight	TX: 465g; RX: 465g

2. Specifications

3. Package Contents

- 1). Main Unit Encoder and Decoder x1
- 2). Power Adapter DC12V1A x2
- 3). IR TX cable X1; IR RX cable X1; Phoenix terminal x2; Fixed Hanger x4
- 4). Disk (PC TOOL; User manual; Update software; CMP system) x1



5. Application:



6. CMP System:

6.1. Installation process description:

Before connecting the product, copy "CMP plate-setup" from the CD, double-click the software in the installation package to run, and install the platform on the computer.

Take Win7 operating system as an example, the installation process is as follows

DotNetFX40		
DotNetFX40Client		
vcredist_x86		
WindowsInstaller3_1		
setup.exe dinstall	443,904	192,254
🐕 Setup 1.msi	42,231,808	40,754,2

CMP (P1)

⊮ IMP-1000			_	×
Welcome to the IMP-100)0 Setup Wi	izard		
The installer will guide you throug computer.	gh the steps req	uired to instal	I IMP-1000	on your
WARNING: This computer progr international treaties. Unauthorize any portion of it, may result in sev prosecuted to the maximum exte	am is protected ed duplication o ⁄ere civil or crim nt possible und	by copyright r distribution o inal penalties er the law.	law and of this progr , and will be	am, or 9
	Cancel	< <u>B</u> ack	N	ext >
	CMP (P2)			
뤻 IMP-1000		-	_	×
Select Installation Folde	r			5
The installer will install IMP-1000 to	o the following fo	older.		
To install in this folder, click "Next click "Browse". <u>F</u> older:	". To install to a	different folde	er, enter it be	elow or
C:\Program Files (x86)\IMP	-1000\		B <u>r</u> owse	э
			<u>D</u> isk Co	st
Install IMP-1000 for yourself, or f	or anyone who	uses this com	puter:	
● <u>E</u> veryone				
⊖ Just <u>m</u> e				
	Cancel	< <u>B</u> ack	Ne	xt >

CMP (P3)

() IMP-1000	_		×
Confirm Installation			
The installer is ready to install IMP-1000 on your computer.			
Click "Next" to start the installation.			
Cancel < <u>B</u> ac	k	<u>N</u> e	ext >

CMP (P4)

🛃 IMP-1000		_		×
Installation Complete				
IMP-1000 has been successfully	installed.			
Click "Close" to exit.				
Please use Windows Update to a Framework.	check for any cri	tical updates to th	e .NET	
	Cancel	< <u>B</u> ack	<u>C</u> los	e
	CMP (P5)			
			Oper	rating In

6.2. Registration and login platform

6.2.1. Registration

Double-click the mouse to open imp-1000 integrated management platform, and the registration window will pop up when it is opened for the first time.Enter username, password, confirmation password, and any questions and answers.To retrieve the password if you forget.



~~~~ F	, , , , , , , , , , , , , , , , , , ,
🔍 Register Super User	X
User Name	
Password	
Confirm	
To avoid forgetting, plea	se fill out the real information, which will
help you get the passwoi	rd quickly by answering those questions.
Question	University student
Answer	
_	
R	egister Cancel



After registration, the login interface will pop up, enter the registered user name and password, and you can choose to log in automatically or remember the password.Click login to log in to the main interface of the platform.

🔍 Login					×
User Name	admin		_		
Password	*****				Q
Aut	o Login	R	lememb	er Pas	sword
	Login		Cance	-	

**Operating Instruction** 

## 6.2.3. Retrieve the Password

If you enter a wrong password or forget your password in the login interface, the system will automatically pop up a prompt to retrieve your password. You can enter the password retrieval interface, enter the answer to the question you filled in during registration, and reset your password.

IMP-1000	
8	Login failed. Reason: Wrong password. Whether to retrieve the password?
	Yes No
Retrieve Pass	sword X
Question	University student ID numbe
Answer	
New Password	
Confirm Password	
C	Retrieve Password Cancel

## 6.2.4. Enter CMP System

Enter the user name and password correctly and enter the main function interface.







#### 6.3. Add Device Instruction

According to the above diagram, connect the products to the switch. And the router LAN port is connected to the switch through the network cable. And the network property IPV4 is set as automatic acquisition. Because the product default DHCP is ON, the router DHCP address pool can automatically assign IP addresses to the product and computer. Then the computer can open the software platform to manage and operate.

To login to the platform for the first time, click add device in device management, and you can choose to add device quickly (automatically scan all devices in the regional network) or manually. Quick add only need to check add, manually add need to input network parameters and other settings can be successfully added.

#### 6.3.1. Specific steps

3.1 Open the software of the control platform, enter the account and password, enter the verification into the main interface, and click "Add Device" with the mouse.

Quick add: Click refresh key will automatically search all product IP address in LAN

Manually add: Enter known IP address, protocol (TX/RX), port, default username/password admin. Enter the correct IP address and other parameters by clicking "test connection" to ensure that the device added is correct.

(2) IMP-1000	introl Panel × Liv	e Preview +		
A Control Panel Home				
	Add, Edit or De	lete Device		
	🔤 Add devide or	select the device from the lis	t to edit or delete. The changi	ng item contains the local configuration of the device.
	📑 Add Device 🖉	Edit 🔂 Delete		
	Device Name	Type IP Add	ress MAC Address	Online state
7				

Add De	vice						
Quic	kly add	Manually	add				
	1	IP Address	Port	MAC Address	Protocol	Device Ic	lentifier
Sele	ct Area	noot		V		Add	Cancel

Add Device							-	
Quickly add	Manually add							
Device Name	IP/Domain/Serial number	Protocol	Port	User Name	Password	Test Link	Main S	Delete
New Device	0.0.0.0	shunxun-tx 🗸	26214	admin 🗸	*****	Test Link		
Select Area	noot							

When the device is restarted or reassigned to a new IP address, the original IP address will be temporarily invalid (reassigned to a new IP address requires the device to be added), and the platform will indicate that the device is not online with a dialog box and online status, gray means not online, and green means online

3.2 Edit:



Edit Device Name		
Edit Device Address	New Device001	
Edit Device Port Number	26214	
Edit Device Password	admin	
Edit Time Configuration		
Edit Network Configuration		
Video Configuration		
Audio Configuration		
OSD Configuration		
System status		
Password Configuration		
Reset device		
Reboot device		
Upgrade device		

In Edit page, device parameters can be configured.

3.2.1 After each device was set, click "View or Edit the Information of Other Devices" to return, and select other devices for parameter setting.

3.2.2 Edit device Name, Edit Device Address, Edit Device Port Number, Edit Device Password (the default user name/password of all devices is admin), change the password of the login device, and it will take effect immediately after it is confirmed. The above change function is only used for the platform when the device is manually added, the parameter error can be quickly modified here, and the parameter of the device itself cannot be changed.

#### 3.2.3 Edit Time Configuration

Default check the NTP server synchronization. You can check the NTP server synchronization to select time zone or un-check the NTP server synchronization for manual calibration.

Time Configuration of Dev	vice "New Device00	1"
Configure the date and the tin	ne.	
Date and Time Setting	gs	
Time Zone	GMT+08 Beijing, Hong Ko	ong, Shanghai,T 🔽
Sync Time	with NTP Server	Manual Input

**Operating Instruction** 

3.2.4 Edit Network Configuration

1. UDP port, RTSP port, Auto get IP address, IP address, Sub-net mask, Gateway and Domain name server can be implemented in the network configuration. Once the network configuration is modified, need manually restart of the device to take effect.

2. Provide two video streaming protocols: RTSP primary and secondary bit streams and RTMP live streaming protocols

3.RTSP anonymous access: check means that there is no need to enter account and password when receiving video stream; otherwise, you need to enter account and password when you do not check 4. Default account and password: admin

Note: the modified IP address cannot be the same as the IP address of all connected devices in the network

5. RTSP usage instructions:

Pre-install and open the VLC player (download address: http://www.videolan.org/) in the computer, then select media  $\rightarrow$  open the network streaming as shown in the figure below, enter the device RTSP code stream address, click play as shown in the figure below, you can successfully play the video stream encoded by the device. The device stream address is composed of IP address and RTSP port number.

Specific steps are as follows:





#### 3.2.5 Video Configuration

ا (@	MP-	1000	Control Panel	× +			
	-	-					
į	e	Stream Params					
		Main			Sub		
		Encodeing	h.265		Encodeing	h.264	
		Resolution	3840x2160		Resolution	1280x720	
		FPS	30		FPS	30	
		Bitrate	cbr		Bitrate	cbr	
		Bitrate	20480	Bitrate range64-102400kbps	Bitrate	256	Bitrate range64-4096kbps
		GOP	60	GOP range5-300	GOP	60	GOP range5-300
				ок	Cancel	3	

In video configuration, the parameters of the main and sub streams can be set as shown in the figure.Once the parameter modification is confirmed, it can take effect immediately Note: these Settings are valid only if the encoding type is set to h.264.

## 3.2.6 Audio Configuration

🔘 ІМР	-1000	Control Panel × +				
	_		_	_	_	_
•	Audio Configuration					
	Audio	HDMI				
	Sample	48000				
	Bitrate	320	Bitrate Range32-320kbps			
	Encoder	AAC				
	Analog Vol	59	Analog Vol range0-100			
			ОК	Cancel		

## 3.2.7 OSD Configuration

IMP-1000	Control Panel × +	
-		
OSD Params		
Colort		
Select	Region 1	
Switch	Closed	
Туре	Text	
	0	[0-3840],Be careful not to exceed the resolution width, otherwise it will not be visible.
	0	[0-2160],Be careful not to exceed the resolution width, otherwise it will not be visible
Text		[0-128]
Font Size	0	[1-2000]
Transparent	0	[0-255]
Background color	Color sel	
Foreground color	Color sel	
	save	return

## 3.2.8 System Status

() IMP-1000	Control Panel X			
System status				
Running time		0000/00/00 00:22:52		
CPU usage		3.7%		
Memory statu	IS	36.0M/231.7M		
Version		1.3.0		
			return	

3.2.9 Password Configuration

-	212 A2				
	Modify password				
C	old password				
١	lew password				
Ν	lew password				
		· · · · · · · · · · · · · · · · · · ·			
			OK	Cancel	
				Cancer	

1. The default password for communication between platform and device is admin

2. After the device password is changed, the connection between the platform and the device will go offline

3. Return to the device function panel, select the login device password input, enter the newly modified password to enter confirmation

4. After the device and platform verify the password successfully, it will automatically restore to the online state

## 3.3.0 Reset Device

Once the reset device is determined, the device will restore factory Settings and all parameters will be restored to the initial state.

Note: if factory Settings are restored, the router will reassign the IP address of the product. If the original address fails, the device should be added again

Reset device			
Restore the device to factory			
	ОК	return	

#### 3.3.1 Reboot Device

The parameters previously set will be saved on restart. The device can also be restarted through the restart button on the product.

The platform will be offline for a short time with the device, and the online state of the device will be automatically restored after the restart

P Reboot device			
Please wait for 30 second after reboot			
	ОК	return	

## 3.3.2 Upgrade Device

Select the path to find the upgrade file (bin format) and complete the software upgrade after confirmation. The platform upgrade device will not change the previous parameter configuration. Successful upgrade will be prompted and restart.

🕘 Upgrade (	device			
Upgrade			Select path	
	ок	return		

#### 6.4. User Management Instruction:



Access to user accounts and permissions through the function panel, you can create accounts, edit or delete user accounts, set account permissions, edit account password

#### 6.4.1. Create Account:

Super administrators can create other administrators or operators and set permissions as needed. To login to the created account, you must either logout of the current user or switch the user to the login screen in the upper right corner of the screen.

Specific operation steps:

1. Open the platform and enter the main function interface

2. Select "Create Account", fill in new account name and password, set account type (administrator, operator) and click confirm

- 3. Return to the main function interface and click "user account and permission"
- 4. Check the list of accounts created after entering

5. If the account is wrong, can click on a group of accounts to select and delete them.

Note: the first created account is super administrator by default.

(2) IMP-1000	ontrol Panel ×	Live Preview -	F	Start Sys	Help 🗕 🗆 💙	¢
Create Account	etup its basic informatior	1.				
New Account Name Password Confirm Password		*Limited to 1-60 c	haracters racters			
Account Type	<ul> <li>Administrator</li> <li>d Account</li> </ul>	Operator				
E-mail Telephone Account Description		Limited to 60 char	racters racters			
Freedun beschpilon			ОК	Limited to 2	55 characters	
	User Name: admin	CPU: 9%	RAM: 67%	2019/11/811:33	3:13	

♠ Control Panel Home		
	Edit the Account Information	
	Choose the item to edit the information of the account.	
	Edit the Account Name	
	Reset the Account Password	
	Edit the E-mail	
	Edit the Telephone Open Permission Control	
	Edit Account Description	
	Restore the Default Permission	
	Clear Account Permission	
	Close Permission Control	
	Locked Account	
	Manage Other Accounts	
A Control Panel Home		
	Create, Edit or Delete User Account and Permission Managen	nent
	Please select user account from the list to edit, delete or set permission.	
	Create a resource with the default permission	
	Account Name Account Ty Telephone E-mail Lock Account	int Description
	admin Super Admi No	and beachprion
	1 Operator No	)
Edit the permission for user \$15		
Select the relevant permission to edit.		
🐋 Camera Permission		
Device Permission  Compared Permission  Add Resource  Add Resource	Partice Retrievel	
System Permission root	Type Permission Area Live Preview, Record, PTZ Control; Playback; Ba	Camera Permission
		Record PTZ Control
		- 🗹 Playback 🔀 Backup

#### **6.5. Live Preview Instruction:**



The Live Preview can monitor the input signal source image in real time, so that it can be used as a monitoring function.

Live Preview area: can accommodate 1-100 groups of signal source devices access and view at the same time (with one key to close all and full screen)

Each group of devices can select the following functions by right mouse button:

- 1. Capture (capture five identical images in a row)
- 2. Switch between primary and secondary streams
- 3. Image setting (brightness, contrast, hue, saturation)
- 4. Turn on sound and turn off sound
- 5. Close preview
- 6. Full screen

#### Specific steps are as follows:

- 1. Open Live preview in the function panel
- 2. A list of TX device names will be displayed on the left

3. Long press the left button to select a group of devices and drag the current device name into the segmentation box

4. Complete live preview

Noted: right mouse button to select the resolution of the main stream will automatically enter the full screen state.Switch to other segmentation image to recover sub stream automatically.





6.6. Basic Instruction:

2	Device Add Device   Edit or Delete Device   View or Edit Device Settings	-	User Management Create Account   Edit or Delete User Account   Set Account Permission   Edit Account Password	Live Preview
	Video Scheme Screen Divide   Screen Splice   Matrix Config	<b>O</b> _o	Basic Select Language   OSD Switch   KVM,JR,UART Config	

## 6.6.1. Select Language:

The platform supports switching between Chinese and English. If the switching is completed, the platform needs to be restarted.

IMP-1000	ew Con	ntrol Panel × +	Sta	rt Sys	Help -	• ×
						_
System Startup and Maintenan	ce Settings					
Select Language						
Select Language	sh (United States)					
	ì					
		<u></u>				
Us	er Name: admin	CPU: 7%	RAM: 65% 2019	/11/813:46	:03	

#### 6.6.2. OSD Switch:

For large screen segmentation, large screen splicing, matrix configuration to find RX IP address and other information, in order to quickly operate the configuration.



#### 6.7. Video Scheme Instruction:



#### 6.7.1. Matrix Configuration

Before use RX with the platform. Set up the matrix configuration on the platform. Many-to-many or one-to-many can be preset as video matrix.

Factory default OSD interface is as follows:

The current software version information, RX IP address and RX MAC address are displayed in the light blue background



#### Specific steps are as follows:

1. Open the function panel and select matrix configuration

2. The top of the left column represents the preview window, and the bottom of the left column represents the TX device list information

3. The middle represents the group channel ID, and the right column represents the RX device list information

4. Click any device in the TX list once with the left mouse button, and the upper window will take the real-time preview image as the current signal source

5. Customize the channel ID of TX device (click the blank in the list to unselect it with the left mouse button)

6. The RX list corresponds to the TX device channel set to be consistent

7. Completion of matrix configuration

😌 Matrix Config	
Image Prevlew	
TX(Encoder) Chan IP address MAC Channel 001 RX(Decoder) Chan IP address MAC	
New Device002 Unde 192.168.1.251 46584E New Device001 Unde 192.168.1.246 46584	
New Device003 Unde 192.168.1.250 46584E New Device006 Unde 192.168.1.248 46584	
New Device004 Unde 192.168.1.243 96:02:82 New Device007 Unde 192.168.1.244 46:584	
New Device005 Unde 192.168.1.242 96:02:82 New Device008 Unde 192.168.1.241 96:02:8	
Apply Return	

## 6.7.2. Multiviewer:

Large screen divide means that multiple groups of signal sources are displayed in one screen. See the example image below:

1). Each group of video sources is presented as a sub stream within the large screen divide.

2). Up to 36 groups of signal source segmentation can be supported



#### Specific steps are as follows:

1) open the CMP integrated management platform and enter the main interface of the functional panel;

2) select the "OSD switch" option, check the OSD switch and return to the main interface of the functional panel;

3) select the "Screen Divide" option to enter the large-screen divide interface;

4) set the required number of divide boxes (1, 4, 16, 25, 36);

5) select the RX device to be divided according to the IP address displayed by OSD;

6) open the RX device list in the monitoring point area (left side), select the required RX device, and long press the left mouse button to drag it into the divide box;

7) open the TX device list in the monitoring point area, select the required TX device, and long press the left mouse button to drag it into the divide box;

8) large screen divide operation is completed.

Note: if the RX returns to normal one-to-many or many-to-many, it can be restored by re-entering the matrix configuration. Exit will prompt you to save the view.



## 6.7.3. Videowall:

A large screen splice consists of a single signal source splicing multiple sets of RX (TV) into a single image.See the example image below

1) . Under large screen splicing, the maximum resolution of each group of RX devices supports 4K30.

#### 2). The current maximum support is $9 \times 9$ splicing

3). Edge shielding (screen width, screen height, display width and display height) can be set separately for each group of spliced images.



#### Specific steps are as follows:

1) Open the CMP integrated management platform and enter the main interface of the functional panel;

2) Select the "OSD switch" option, check the OSD switch and return to the main interface of the functional panel;

3) Select the "Screen Splice" option to enter the big-screen splicing interface;

4) Select the required number of splicing boxes (1, 4, 16, 25, 36);

5) Select the RX device signal source required to be spliced first according to the IP address displayed by OSD;

6) Open the TX device list in the monitoring point area, select the required TX device, and long press the left mouse button to drag it into the splicing box;

7) Open the RX device list in the monitoring point area, select the required RX device, and long press the left mouse button to drag it into the splicing box;

8) Large screen splicing operation is completed.

Note: if RX returns to normal one-to-many or many-to-many, that is, reentry into matrix configuration can be restored, exit will prompt whether to save the view.

Q IMP-1000	Control Panel	Start Sys Help _ CI X
Ex € → New Device001 → New Device005 → New Device007 → New Device008		
		1100 2019/11/10

#### 6.7.4. KVM/IR/RS232 configuration:

#### KVM:

Devices can be pre-configured one to one, one to many, or many to many when paired with KVM capabilities.

## Specific operating instructions:

1) open the CMP integrated management platform and enter the main functional interface;

2) select the option of "KVM, infrared and serial port configuration" to enter the interface of KVM, infrared and serial port configuration;

3) in the configuration interface of KVM, infrared and serial ports, there are image preview window, TX device list window, RX device list window and function selection window

As shown below:

TX(Encoder)	IP address	MAC address	KVM 🔤	RX(Decoder)	IP address	MAC addres
New Device002	192.168.1.251	46:58:4E:AF:79:	frame.	New Device001	192.168.1.246	46:58:4E:A6:4F
		1000 C 100 C 100				46:59:45:40:20
New Device003	192.168.1.250	46:58:4E:AF:64:		New Device006	192.168.1.248	40.00.40.00
New Device003 New Device004	192.168.1.250 192.168.1.243	46:58:4E:AF:64: 96:02:82:0D:46:		New Device006 New Device007	192.168.1.248	46:58:4E:A3:83
New Device003 New Device004 New Device005	192.168.1.250 192.168.1.243 192.168.1.242	46:58:4E:AF:64: 96:02:82:0D:46: 96:02:82:99:68:		New Device006 New Device007 New Device008	192.168.1.248 192.168.1.244 192.168.1.241	46:58:4E:A3:83 96:02:B2:2C:EF
New Device003 New Device004 New Device005	192.168.1.250 192.168.1.243 192.168.1.242	46:58/4E:AF:64: 96:02:82:0D:46: 96:02:82:99:68:		New Device006 New Device007 New Device008	192.168.1.248 192.168.1.244 192.168.1.241	46:58:4E:A3:83 96:02:B2:2C:EF
New Device003 New Device004 New Device005	192.168.1.250 192.168.1.243 192.168.1.242	40:38:4E:AF:64: 96:02:82:0D:46: 96:02:82:99:68:		New Device006 New Device007 New Device008	192.168.1.248 192.168.1.244 192.168.1.241	46:58:4E:A3:83 96:02:82:2C:EF
New Device003 New Device004 New Device005	192.168.1.250 192.168.1.243 192.168.1.242	46:384E:A4:64 96:02:82:00:46 96:02:82:99:68		New Device005 New Device007 New Device008	192.168.1.248 192.168.1.244 192.168.1.241	46:58:4E:A3:83 96:02:B2:2C:EF
New Device003 New Device004 New Device005	192.168.1.250 192.168.1.243 192.168.1.242	46:384E:A7:04 96:02:82:00:46: 96:02:82:99:68:		New Device006 New Device007 New Device008	192.168.1.248 192.168.1.244 192.168.1.241	46:58:4E:A3:83 96:02:B2:2C:EF

1) select "KVM" in the function selection window

2) select the TX device to be configured in the TX list window;

3) in the RX list window, select the RX device to be configured (click the left mouse button to select the device, hold down the Ctrl key, then select the device with the left mouse button for multiple selection, and click the right mouse button to cancel the current selection in the blank in the window), and then click apply.

4) after the selected TX device and RX device are configured, the rx-connected keyboard and mouse will normally control the tx-connected computer.

nage Preview						
TX(Encoder)	IP address	MAC address	IR 🔤	RX(Decoder)	IP address	MAC addres
New Device002	192.168.1.251	46:58:4E:AF:79:		New Device001	192.168.1.246	46:58:4E:A6:4F
New Device003	192.168.1.250	46:58:4E:AF:64:		New Device006	192.168.1.248	46:58:4E:AD:3C
New Device004	192.168.1.243	96:02:82:0D:46:		New Device007	192.168.1.244	46:58:4E:A3:83
New Device005	192.168.1.242	96:02:82:99:68:		New Device008	192.168.1.241	96:02:B2:2C:EF

IR:

#### **RS232:**

KVM,IR,UART Config								
Image Preview								
TX(Encoder)	IP address	MAC address		-	RY(Decoder)	IP address	MAC addres	
New Device002	192,168,1,251	46:58:4E:AF:79:	UART		New Device001	192,168,1,246	45:58:4F:46:4F	
New Device003	192.168.1.250	46:58:4E:AF:64:	115200		New Device006	192.168.1.248	46:58:4E:AD:3C	
New Device004	192.168.1.243	96:02:B2:0D:46:	4800		New Device007	192.168.1.244	46:58:4E:A3:83	
New Device005	192.168.1.242	96:02:B2:99:68:	9600	-	New Device008	192.168.1.241	96:02:B2:2C:EF	
			19200					
			38400					
			57600					
			115200					
4			230400		3			
			460800					
		Apply		R	eturn			

## 7. WEB Instruction:

## 7.1. Change the IP address of your PC

Before configuring the device through the web side, it is necessary to configure the IP address of the computer configured with the device (mainly to ensure that the computer and the device are set in the same network segment).

1. Open the network control center and set the computer's IP address:

Network Status	×	🕌 Local Area Connection Properties	General
General		Networking Sharing Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Connection IP-4 Connectivity: No network ac IP-4 Connectivity: No network ac Media State: Ene Duration: 00:0 Speed: 1.00 Details Activity Sent — Rece Bytes: 3,678   3	vess bled 5:22 bbps ved 600	Intel(R) 82573V Gigabit Network Connection     Configure  This connection uses the following items:      Configure  This connection uses the following items:      Configure      Configure	Obtain an IP address automatically     ● Use the following IP address:     IP address:         I92 . 168 . 1 . 123     Subnet mask:         255 . 255 . 0     Default gateway:         Obtain DNS server address automatically     ● Use the following DNS server addresses:     Preferred DNS server:         Atternate DNS server:
Properties Disable Diagnose	Close	OK Cancel	OK Cancel

2. Choose to use Static IP, with the IP address set to 196.168.1.x (x ranges from 0 to 254, but cannot be consistent with the device's IP address),

3. Subnet mask set to 255.255.255.0

4. Gateway set to 192.168.1.1

General	
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator
Obtain an IP address automatical	у
• Use the following IP address:	
IP address:	192.168.1.123
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address autom	natically
Use the following DNS server add	resses:
Preferred DNS server:	
Alternate DNS server:	· · ·
Ualidate settings upon exit	Advanced
	OK Cancel

5. Enter the device's IP address in the web browser for the device configuration interface

Note: TX Static default IP: 192.168.1.10, RX default IP: 192.168.1.15 (device and computer directly connected by network cable).

Device DHCP default open, if there is a router will directly assign IP address.

## 7.2. System Setting:

## 1) System Status

In the "System", you can view the system status and device version

Note: the current system state does not support real-time refresh. If you want to get another refresh after entering the system, you need to reload the page.

And select the language of the interface, change the channel of the device, upgrade the device, restart the device, and restore the factory Settings.

- 2) Language Switching
- In the "System" interface, the language of the interface can be switched

• Select the language we need, after the selection is completed, we can switch the interface language (support Chinese and English)

3) Channel

• The channel of the device can be configured in advance in the "System" before configuring to use the RX device;

• If the TX and RX devices are configured on the same channel, the display connected to the RX device can play the audio and video signals from the TX device

• Through channel configuration, Can set one-to-many, many-to-many video matrix (Note: channels between TX devices and TX devices cannot be set to be consistent, otherwise channel conflict will be caused).

4) Upgrade Equipment

In the "system configuration" interface, you can upgrade the device

• Find the file (bin format) to upgrade by selecting the path, and complete the software upgrade after confirmation.

• The platform upgrade device will not change the previous parameter configuration.

Reset Device

• After confirming to Reset Device Settings, the device will restore factory Settings and all parameters will be restored to the original state;

• Reset Device Settings, and the product will be re-assigned the IP address by the router. If the original address is invalid, the device IP address should be re-entered in the web browser address bar.

6) Reboot Device

• The parameters set before reboot will be saved when reboot;

• After Reboot Device, the platform and the device will be temporarily offline, and the online state of the device will be restored automatically after the restart

System	Network	Audio	Video	OSD	Time
System state					
Produ	ct model Encod	ler(TX)			
Runn	ning time 01:19	45			
CP	U usage 12.87	%			
Memo	ry status 38.58	W/231.73M			
	Version 1.4.1				
-Language Sv	vitch				
(	English	•			
Channel swit	ching 000	• applica	tion		
Upgrade Select file P Upload	lease upload				
System Oper	ation				
Reset device	Reboot device				
User passwo	rd				
Current P	assword				
New P	assword				
Confirm P	assword				
	Dete	mine			

## 7.3. Network configuration

1) In the "Network" configuration, UDP, RTSP, Network address, Sub-net Mask, Gateway and Domain name server can be modified; After the network configuration is confirmed, the device needs to be restarted manually to take effect. (note: only when the static network address can be modified)

2) Two video streaming protocols are provided: primary and sub-code streams of RTSP; RTMP live streaming protocol.

3) RTSP anonymous access: check the box to indicate that there is no need to enter the account and password when receiving the video stream; otherwise, Need enter the account and password when not checked.

4) Default account and password: admin

5) Note: the modified IP address cannot be the same as the IP address of all connected devices in the network.

System Netw	ork Audio Video OSD	Time			
UDP port	26214				
RTSP port	554				
Acquisition mode	Static IP Address  OHCP				
Network Address	192.168.1.10				
Subnet Mask	255.255.255.0				
Gateway	192.168.1.1				
Preferred DNS	114.114.114.114				
Alternate DNS Server	8.8.8.8				
MAC address	46:58:4E:AF:64:09				
RTSP Anonymous Acc ess	•				
Main Stream RTSP	rtsp://192.168.1.10:554/profile1				
Sub Stream RTSP	rtsp://192.168.1.10:554/profile2				
RTMP Address	rtmp://192.168.1.55:8899/live/	Enable •			
	Save				

Note: How to use RTSP and RTMP refer to the operating steps of the platform

## 7.4. Audio configuration

Digital audio (HDMI) and ANALOG audio (ANALOG) can be configured on the "Audio" interface

HDMI: audio of the source (Default)

- ANALOG: ANALOG audio embedding
- Sampling rate: 48000 (default), 41000
- Coder: ACC

• Analog audio volume: used to adjust analog audio output volume, default is 50, volume range 0-100

• ANALOG embedding: access audio equipment (such as mobile phone) through 3.5mm audio line, connect to TX's ANALOG audio input, then open audio configuration, set the audio input as ANALOG audio input, then output audio will be ANALOG audio.

System	Netwo	rk	Audio		Video	OSD	Time
	Audio	HDN	И	T			
	Sample	480	00	•			
	Bitrate	180			Bitrate32	~320kbps	
E	Encoder	AAC	;	Ŧ			
An	alog Vol	40			Analog V	ol range0~100	
		s	ave				

# 7.5. Video configuration

System	Network	Audio	Video	OSD	Time			
Main					Sub			
Encodeing	h.264	▼			Encodeing	h.264	•	
Resolving power	1920*1080	v			Resolving power	1280*720	•	
FPS	30				FPS	30	v	
Bitrate	vbr	v			Bitrate	cbr	•	
Bitrate	4096		Bitrate64~10240	0kbps	Bitrate	256		Bitrate64~4096kbps
GOP	60		GOP range5-300	)	GOP	60		GOP range5-300
	Save		-					-

# 7.6. OSD configuration

System Netw	vork Audio	Video OSD Time
Select	Region 1 •	
Switch	closed •	
Туре	Text •	
Х	0	[0-3840]Be careful not to exceed the resolution width, otherwise it will not be visible
Y	0	[0-2160]Be careful not to exceed the resolution width, otherwise it will not be visible
Text		[0-128]
Font Size	0	[1-2000]
Transparent	0	[0-255]
Background color		Color sel
foreground color		Color sel
	Save	

## 7.7. Time configuration

System M
B J Estimation

## 7.8. Video Wall

1) In Video wall interface, One source splicing into a picture by multiple groups of RX devices.

2) The maximum resolution of each group of RX devices is 4K30hz



3) Edge shielding (screen width, screen height, display width and display height) can be set separately for each group of splicing images.



4) Step of doing Video Wall

• Configure the corresponding TX and RX devices as the same channel in the system configuration interface

• In the "Video Wall" interface of RX, select the required number of splices Number of vertical monitors: 0~10 (up to 8 monitors can be spliced in one column) Number of horizontal monitors: 0~10 (up to 8 monitors can be spliced in one row)

• Select the position of the RX device on the splicing screen

Row position: 0~10

Column positions: 0~10

(example: if the row position is set to 1 and the column position is set to 1, RX will play the video on the display of the first column of the first row.)

Note: if RX returns to normal one-to-many or many-to-many, re-enter "system configuration" and reset the channel



## MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner of benzine to clean this unit.

## **PRODUCT SERVICE**

#### (1) **Damage requiring service:**

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;

The unit has been dropped or the cabinet damaged.

(2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions.Refer all other servicing to authorized servicing personnel.

(3) **Replacement parts:** When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other Hazards.

(4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

#### WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will, for the length of the period indicated as below, (Parts(2)Year, Labor(90) Days) which starts with the date of original purchase ("Limited Warranty period"), at its option either(a) repair your product with new or refurbished parts, or (b) replace it with a new of a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor.

During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

## **MAIL-IN SERVICE**

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

#### LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage.

The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power

line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRNTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.