

SKD7150P User Manual

DVB-S/S2 with CI Slot Input to IP Output IP Gateway



Preface

Thank you for choosing our product.

This manual details the performance, installation and operation of the product. Please read this manual before use.

Our company, Ding Sheng Wei Electronics Co., Ltd., does not assume any responsibility for any losses caused by violation of safety regulations.

1. Incoming inspection

- (1) Open the equipment box and check the contents against the product packing list.
- (2) If the packing list does not match the actual item, please contact us.

2. Read the instruction manual

Please read the instructions and follow all instructions.

(1) Power

The power supply used with this device must comply with the indicated power supply and be grounded. When not using the machine for a long time, please unplug the power cord.

(2) Working environment

Keep the equipment working in a ventilated and dry place. Avoid excessive heat, moisture, dust and heat.

(3) Equipment cleaning

Before cleaning the device, unplug the power cord. Do not use liquid or spray cleaners.

(4) Power cable protection

Pay special attention to the safety protection of plugs, sockets and power cords

(5) Overload

Be careful not to overload the power supply at the outlet. Use caution when using extension cords or integrated sockets as this may result in electric shock and fire.

(6)Lightning

To prevent damage caused by lightning, please use this device in a lightning protection device, which can effectively prevent damage caused by lightning or power grid fluctuations.

(7) Foreign matter or liquid intrusion

Do not insert foreign objects into the machine or spill any liquid into the machine.



(8) Attachments

Do not use accessories not recommended by the manufacturer, as this may cause danger (9)Transportation

When transporting the machine, the original packaging of the product should be used to avoid damage. Do not place heavy objects on the machine or step on it. Otherwise, personal injury may occur and the machine may be damaged.

(10)Maintenance

Do not open the box and repair by yourself to avoid personal injury or serious damage to the machine.

During the warranty period, if the product is damaged due to natural causes and is disassembled without authorization, free warranty will not be provided.



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1. Product description

SKD7150P is a platform product for centralized processing of small IP TV front-end services.

The installation method is flexible and can be installed in cabinet, wall-mounted or desktop. Device parameters can be configured through local or cloud network operation. The WEB page is beautiful and easy to understand, and the operation is simple. It has intelligent functions such as batch import and export of parameters and exception reminders. It is a highly integrated and cost-effective IP TV front-end signal comprehensive processing equipment.

1.1. Picture

Frontal panel



Rear panel



1



1.1.1. SKD7150P parameter

SKD7150P Host performance parameters			
Size	318(L)*260(W)*44(H)mm		
Installation form	1U 19 inch chassis, Support Desktop, Rack-mounted and wall-mounted.		
Working			
temperature,	-10°C-45°C、40%-70%		
humidity			
Storage			
temperature and	-40°C-70°C、40%-95%		
humidity			
Power	Supply voltage	DC12V	
	Maximum	7000mA	
parameters	current		
	Total number of	2	
DVB-S/S2 with CI	slots		
Slot input module	Each slot can		
parameter	support 2 CI	2 CAM slots	
	Slot		
	IP output	1 Gigabit RJ45 network port	
ID actions	conector	1 Olgabit 17040 Hetwork port	
IP output		Supports UDP/RTP protocol output, supports	
parameter	Output format	SPTS/MPTS stream processing, output IP Stream in	
		MPTS with 4 IP Address or SPTS with 256 IP address	

1.2. Features

- A single device supports up to 2 input modules.
- Supports 2 or 4 DVBS-S2 input with CI Slot, independent PCMCIA card decryption



- Supports PID remapping, PSI/SI information editing and insertion
- Supports optional MPTS or SPTS output. For MPTS, the maximum supported is 4 IP addresses; for SPTS, the maximum supported is 256 IP addresses.
- 1 Gigabit port and 1 management port
- Operated through PC (WEB), the device supports cloud management

1.3. Application scenarios

- Business travel hotel
- Clubhouse
- Hospital
- Baths
- School
- Leisure and entertainment clubs
- Prison

2. Structure diagram

2.1. SKD7150P



Number	Function		
4	PER This indicator light lights up when the device is powered on		
l	RUN	This indicator light lights up when the device is running	
2	CH1 When the No. 1 port receive the signal, the indicator light lights up.		

3



	CH2	When the No. 2 port receive the signal, the indicator light lights up.
	CH5	When the No. 5 port receive the signal, the indicator light lights up.
	CH6	When the No. 6 port receive the signal, the indicator light lights up.
3	DATA OUT	Gigabit output network port
4	NMS	Management
	DUEALUE	Restore factory settings button. If you need to restore factory settings,
5	DUFAULT	you need to press and hold for 15 seconds.

2.2. Rear panel



Number	Function			
4	RF1	Signal access interface, the corresponding PCMICA card needs to be inserted		
1	RF2	Signal access interface, the corresponding PCMICA card needs to be inserted		
	RF1	Signal access interface, the corresponding PCMICA card needs to be inserted		
RF2		Signal access interface, the corresponding PCMICA card needs to be inserted		
3	Switch			
4	Ground			
5	Power inlet			



3. Installation guide

3.1. Installation preparation

When installing the device, follow these steps:

- > Check for possible loss or damage of equipment during transportation;
- Prepare a suitable environment for installation;
- Install the required input and output cables;

Each detail of the equipment installation is described in the remainder of this chapter, using the rear panel diagram as a reference for specific locations.

3.2. Equipment installation process

Step 1:Unpacking and inspecting goods

Step 2:Fixed equipment

Step 3:Connect power and ground wires

Step 4: Connect signal cable

Step 5:Set device parameters

Step 6:Equipment operation

3.3. Environmental conditions requirements

Project	Requirement				
Control room	When installing multiple rows of cabinets, the distance between the front				
Control room space	and rear doors of the cabinet is 1.2~1.5m and the distance from the wall is				
	0.8m.				



Control room floor	Non-conductive and dust-free. The volume resistivity of the ground anti-static material is 1X107~1X1010, and the grounding current limiting resistance is 1M. The floor load-bearing should be greater than 450Kg/m2.				
Ambient temperature	For long-term work in an environment of 5~40°C, and for short-term work in an environment of 0~45°C, it is best to install air conditioners in places to facilitate heat dissipation.				
Relative	Work long-term in the 20% to 95% environment and short-term in the 10%				
humidity	to 97% environment.				
Ambient air pressure	86kPa~106kPa。				
Windows	Dust-proof rubber strips must be added for sealing. It is recommended that windows be installed with double-glazing and strictly sealed.				
Wall	Wallpaper can be applied or matte paint can be applied, but paint that is easily powdered should not be applied.				
Fire protection	The control room should be equipped with an automatic fire alarm system				
requirements	and a portable fixed fire extinguishing system.				
Power requirements	Three independent power supply systems are required for equipment power supply, air conditioning power supply, and lighting power supply. The equipment is powered by AC power supply. The AC power supply adopts 220V±20% 50/60Hz. Please check carefully before operating the equipment.				

3.4. Grounding requirements

- The good ground wire design of each functional module is the basis for the stable and reliable operation of the whole machine, and is the primary guarantee for lightning protection and anti-interference. Therefore, system grounding must follow the following principles;
- > The ground conductor must use copper conductor to reduce high-frequency impedance, and the ground wire should be as thick and short as possible;



- The connection points at both ends of the grounding wire should be confirmed to have good electrical contact and should be treated with anti-corrosion treatment;
- It is strictly prohibited to use other equipment as part of the electrical connection of the ground wire;
- ➤ The cross-sectional area of the ground wire connecting the cabinet to the lightning protection unit must be greater than or equal to 25mm2.

3.4.1. Cabinet grounding

The ground terminals of each cabinet in the same computer room should be connected to the protective ground copper bar provided by the control room. The grounding wire is required to be as short as possible. If the wiring is too long during project installation, it should be cut off to avoid coiling of the grounding wire. The cross-sectional area of the conductor from the ground terminal to the ground bar must be greater than or equal to 25mm2.

4. Built-in web management terminal operation

4.1. Preparation before operation

- > The NMS network port of the device is connected to the PC network port;
- Power the equipment;

4.2. Login interface

- You can check the IP address of the device through the operation panel.
- Open IE browser/Firefox browser/Google Chrome/Opera browser/Maxthon browser, enter the device IP address in the address bar (generally default: 192.168.1.30),



and after confirmation, the login interface will be displayed as follows:

- Enter username and password, the default is: user
- Click to log in



Notice:

- 1. If the connection cannot be made, please check whether the PC and the device are on the same network segment. If not, please add a new network segment in the advanced TCP/IP settings of the PC. For example: the PC's IP address is 192.168.99.252, which can be changed to 192.168.1.xxx (xxx can be any value from "1" to "254" except "252" to avoid IP conflicts).
- 2. If you still cannot connect after the above operations, or you forgot to log in to the IP address, please operate the front panel of the device to restore the factory default values.
- 3. If you need to change the language, please change it in the upper right corner of the page. Select ENGLISH/简体中文.



4.3. Device status



Serial ID	Display device serial number			
Software	Display the current software version number of the device			
version				
	Display the temperature of the device's core board, and display the			
Temperature	number of temperature progress bars based on the number of core			
	boards.			
Poor panel	Display the current access status of the rear panel. Green: connected;			
Rear panel	gray: not connected			
	Display the operating status of the fans in the device. Under normal			
Cooling Fans	conditions, all fans will rotate. Blue: running; black: stopped; the fan stops			
	running and a yellow triangle warning appears. △			
Front panel	Displays the current access status of the front panel. Green: connected;			
Front paner	gray: not connected			
Language	简体中文/ENGLISH			
settings	即评于文/ENGLISH			
User name	Display the user name currently logged in to the device backend			
Quit	Exit the device background management terminal			
Cloud network	Displays the binding status of the device on souka cloud. Green: bound;			
management	gray: unbound			



binding status

4.4. Input management



No.	Display the serial number of the channel number to visually display the
NO.	number of channels
	Display the signal status of the channel.
State	Gray: Not connected;
State	Orange: signal locked;
	Green: The signal is locked and analyzed successfully;
01.1	Display the card and corresponding channel number. For example: 1-1
Slot	represents the first channel of card 1.
Strongth	Displays the signal strength of each channel, the higher the signal
Strength	strength, the better
Quality	Displays the signal quality of each channel. Orange indicates poor
Quality	signal quality. The higher the signal quality, the better.
Offset (MHz) Display the signal frequency offset value of each channel	
PER	Displays the bit errors of the signal for each channel
Bitrate (Kbps)	Display the code rate of the signal of each channel



	The value range is 0-100000. Fill in according to the label of the tuner.
LNB FREQ.(MHz)	The outdoor unit of the satellite radio and television receiving system is
	composed of receiving antenna, feed source, tuner and transmission
	feeder. The tuner is the most front-end equipment in the entire satellite
	radio and television receiving system.
	Parameters of accepted satellites. First, you need to determine the
CAT	position of the tuner, confirm the parameter information of the aligned
SAT	satellite, and then fill in the accurate values according to the satellite
FREQ.(KHZz)	reference table provided by the merchant, or check the satellite
	reference table online. The value range is 0-100000.
	Parameters of accepted satellites. First, you need to determine the
	position of the tuner, confirm the parameter information of the aligned
Symbol	satellite, and then fill in the accurate values according to the satellite
rate(KHZz)	reference table provided by the merchant, or check the satellite
	reference table online, and match it with the downlink frequency. Scope
	of value: 1000-45000
	Feedback selection, 13V, 18V or OFF. The different purpose of the 13V
	and 18V voltage levels is to choose the polarization method of the high
	-frequency head of the satellite pot. The corresponding signal radiation
	methods of the polarization method are different, and the signal
LNB control	strength is different. Normal 13V corresponds to vertical polarization;
	18V corresponds to the 18V horizontal polarization method. In the
	actual situation, we don't know how long the user's coaxial axis is, so
	the output voltage needs to be changed, which can compensate the
	effect of the long coaxial axis
	You can select ON or OFF. ON means that the satellite signal flows
001411	through the 22K port line. After the 22K switch receives this pulse
22KHz	signal, it gets a DC voltage after rectification by the internal rectification
	circuit of the 22K switch to drive the 22K switch from normally closed



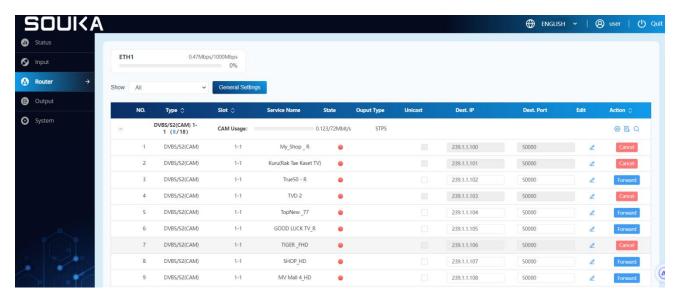
	end conduction to normally open end conduction to achieve the purpose of switching. The function of the 22k switch is to switch.				
DiSEqC	Optional A, B, C, D or off				
	1 CI Setting X Card Speed 72 Mbbl/s	Card speed	Range: 24-108Mbit/s		
	Range : 24-108Mbit/s PID Usage 128	PID Usage	Range	e: 4-256	
	Range : 4-256 TS Delay 0 S Range : 5-20S	TS delay	Range	e: 5-205	
	Stream Bypass Error Recovery		Wheth	ner to check, the	
	Reset CAM	Stream	data f	low after checking is	
	Cancel Submit	bypass	not t	through the smart	
CI setting			card		
			Whether to check, after		
	Error recover	Error recovery	checking, the smart card		
			will automatically reboot		
			when the bit rate and		
			other abnormalities occur.		
	CAM reset	CAM reset	Click the reset button to		
				the set data	
		CAM inserted		Inserted/No	
	CAM Initial State		Success/Failed		
		CAM Name CAM SystemID System Input Bitrate (kbps)		SMIT, smart card's	
				name	
				4A02/4A0E , smart	
CI states				card ID	
				Display the input	
				code rate of the	
				system	
		CAM	Input Display the input bit		
		Bitrate (kbps)		rate of the smart card	



	I CI State X	CAM Output	Display the output bit
	CAM bearted CAM bolist State CAM Name No boarted Falled. CAM SystemID	Bitrate (kbps)	rate of the smart card
	Bystem Ingus Bitrate (shipu): CAM Ingus Bitrate (shipu): CAM Output Bitrate (shipu): 6,000 6,000	Smart information	Display data from
	Smartcard information		smart card
		Status information	The times of restarts
			of smart cards
Analysis	After clicking the Apply t	outton, the signal of the	channel is analyzed.

4.5. Router management

In routing management, we can analyze and forward programs.



	You need to click the + sign first to expand the program before you can select
Check	the program.
Check	The all-select check box can only select all expanded programs. Programs that
	have not been expanded by pressing the plus sign cannot be selected.
Cancel	First check, then click the Cancel Forward button to cancel forwarding the

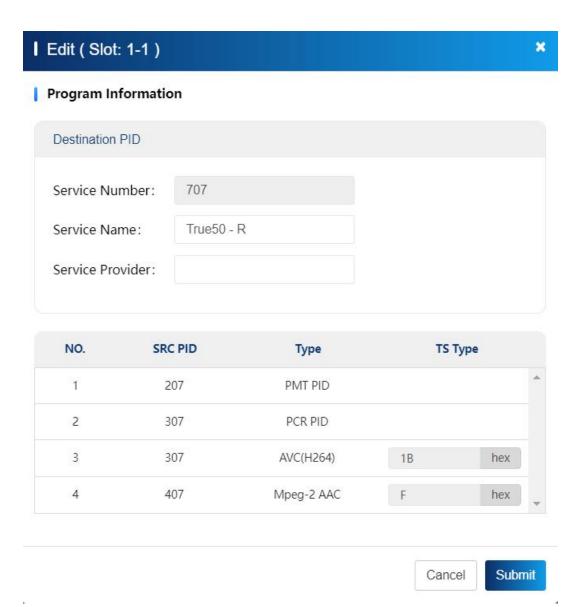
13



	program		
No.	Represents: signal source subcard-channel (number of forwarded programs/total number of programs) Click the "+" sign to expand and display the program list under the channel. The programs can be set, analyzed and forwarded; Click the "-" sign to close the program list;		
Туре	Display the input type of this program		
Slot	Display the input channel of the program		
Service name	Display service name. It is analyzed from the program source and can be modified.		
State	Display the status of the program, green: normal; red: interruption; yellow: PSI change; Program playback conditions are different in different states. When green and yellow, the program plays normally. When red, the program plays abnormally.		
Dest.IP	Display the IP address information of the program		
Edit	Edit program information, which will be explained in detail below.		
Forward	Forwarding a program, when clicked, it will turn into a cancel button, allowing you to canclel the forwarding.		







Program information		
		Fill in according to actual needs, the value range is:
	Service number	1-65535. The content shown in gray below is the target
		program number analyzed in the program source.
Destination		Fill in the actual value, the value range is: 32 bytes. The
PID	Service name	content shown in gray below is the name of the target
		program analyzed in the program source.
	Service	It is analyzed from the program source and does not need
	Provider	to be changed. The value range is: 32 bytes.
SRC PID	Service number	Comment the source service number and prompt the user



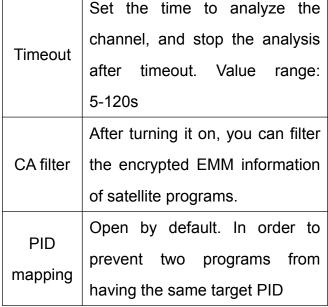
		for the value of the source service number.	
Comico vocas		Annotate the source service name and prompt the user for	
	Service name	the value of the source service name.	
	Service	Annotate source service name, prompt user service	
	provider	provider value.	
Detailed explanation of editing program information			
NO.		List serial number	
SRC PID		Each media data stream has a unique PID that identifies	
		the source and type of media packets	
_		The type of genre is determined by the content contained in	
Type		the program source, and there may be more genres	
	PMT PID	Each program has a unique PMT PID that identifies the	
		program's PMT.	
	202 212	Each program needs an independent PCR PID to	
Туре	PCR PID	synchronize the audio and video streams of the program.	
•	L	I.	

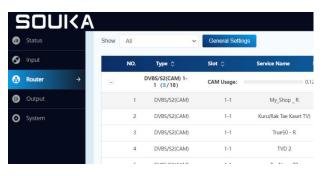
			Settings button
	AVC(H264)	Video compression standards	
	Mpeg-1 Audio	Digital audio	compression format
Dest.PID	Based on analysis of program source data and does not need to be changed.		
Stream type	Based on analysis of program source data and does not need to be changed.		
Enable	It can be controlled to open or close. It will not take effect after it is closed.		
Submit	After the modified content is submitted successfully, it will take effect.		
Cancel	Close editing page		



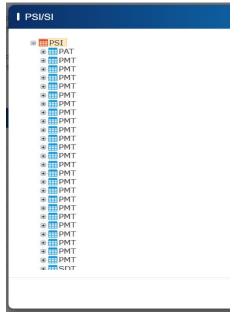














DVBS/S2 signal source details		
	PSI information consists of program	
PSI	association table PAT, program	
FSI	mapping table PMT and network	
	information table SDT.	
	The program association table	
DAT	associates the program number with	
PAT	the program mapping table PID, which	
	is the beginning of data acquisition;	
PMT	Program mapping table, specifying	
	the PID of one or more programs;	
SDT	Describe various program and service	
	information in the transmitted digital	
	television signal	

Analysis: Analyze the programs in the signal source. When not analyzed, the total number of black programs is 0.

In the SKD7150 module, each channel will display a CAM load progress bar, showing the CAM load of the channel.

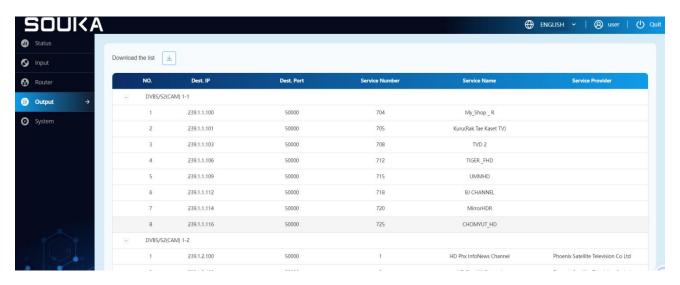
The maximum value of the load is set in the read rate in the CI settings in the input management.





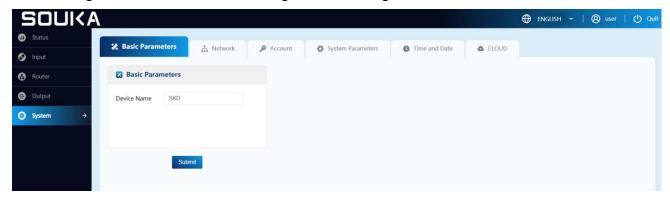
4.6. Output management

Output management mainly manages output programs and exports program lists.



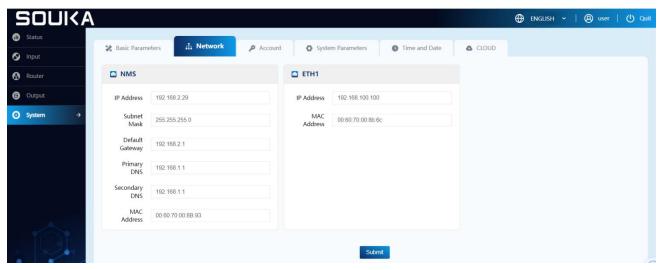
4.7. System

Able to set network and IP output network ports, password settings, system configuration, time settings and cloud network management binding.





4.7.1. Network setting



	Network
NMS	Network management port, connected computers must be in the same network
	segment.
ETH1	Network port 1, fill in according to actual needs.

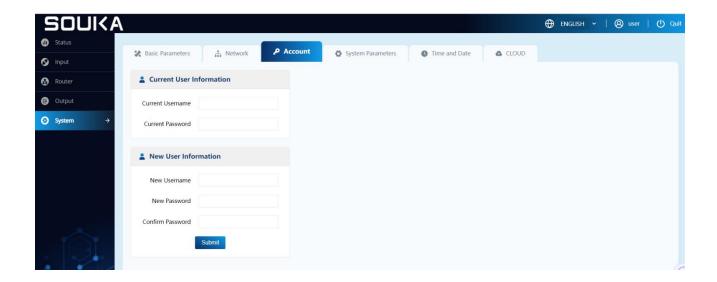
IGMP version: IGMPv1 defines the basic group member query and reporting process. IGMPv2 adds a mechanism for querier election and group member departure on this basis. The main function added in IGMPv3 is that members can specify to receive or not to receive certain Packets from the multicast source.

4.7.2. Password setting

Reset a new username and password.

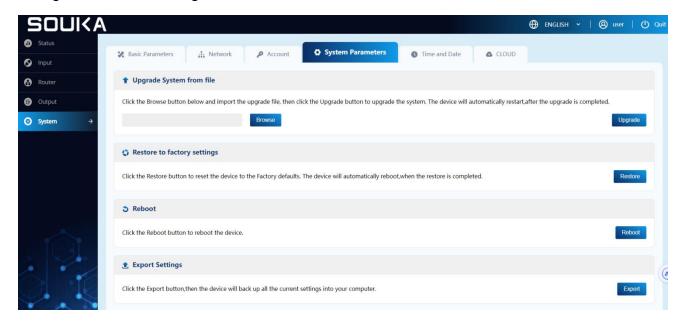
Operation steps: First fill in the username and password in the initial information, and then fill in the new username and password. Only when the initial username and password are entered correctly can the password be modified.





4.7.3. System parameters

In the system configuration, follow the operating instructions to upgrade the system, restore the factory, restart, export the system configuration file, and import the system configuration file. The import and export files can manually back up the system configuration information. When you need to restore the previous configuration information, import The corresponding configuration file is enough.

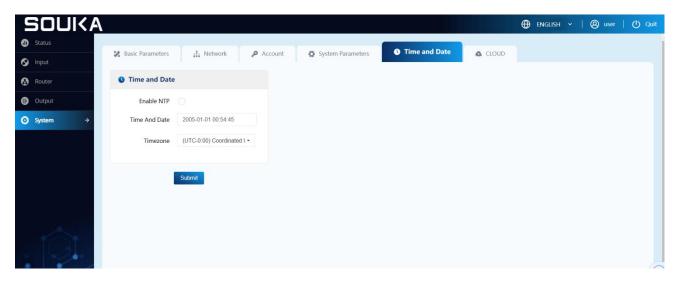


4.7.4. Time setting

It can automatically calibrate time information, or manually set the time and adjust the time

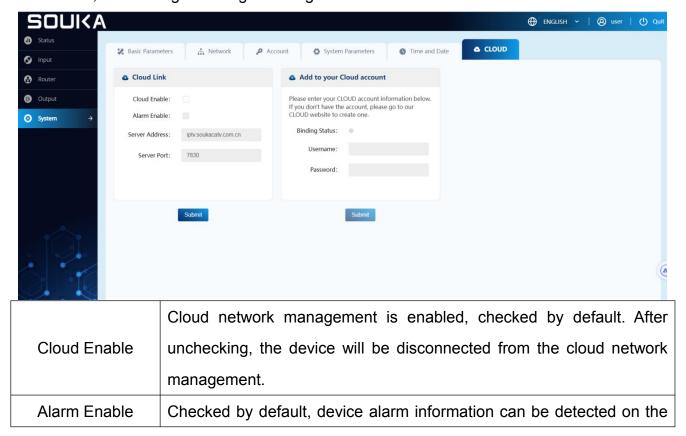


zone according to actual needs.



4.7.5. Cloud network management binding

Please enter the cloud network management system account to bind the device. If you do not have an account, please register an account in the cloud network management system. Enter the cloud network management account and password to bind. After the binding is successful, the binding status light turns green.





	cloud network management.	
Server Address	Fill in the server domain name of the cloud network management,	
	default: iptv.soukacatv.com.cn	
Server Port	Fill in the server port of the cloud network management, the default is	
	7830	
Binding Status	Binding Status Green: Binding successful; Gray: Unbound	
Username	User name registered on the cloud network management system	
Password	Password registered on the cloud network management system	

5. Equipment operation precautions

The company's product quality assurance system includes equipment testing and operating procedure inspections to ensure the reliability of product quality. The company has taken all possible measures before the product leaves the factory. The optical, electrical and mechanical indicators of the products all meet national standards. During use, in order to prevent possible potential problems, the following precautions should be strictly followed for relevant operations.

5.1. Precautions

- 1. Place the device at an ambient temperature of $0\sim45\,^\circ$ C. Other conditions meet the required scope of work.
- 2. Make sure the rear panel radiator is well ventilated and make sure all jacks are not blocked
- 3. Check whether the power supply voltage is within the specified range and whether all connections are correct
- 4. Check whether the connection of each signal line is loose.
- 5. Please do not switch machines frequently (the switching interval should be at least 10 seconds)



5.2. The chassis needs to be unplugged from the power supply

- 1. The power cord or socket is damaged
- 2. If there is liquid injection equipment
- 3. Any debris falls into the chassis hole, causing an internal short circuit
- 4. Use water or soak
- 5. Collision or internal damage
- 6. Do not use this machine for a long time
- 7. If the preset is restored and the power is turned on, the device still does not work properly
- 8. Equipment needs maintenance

5.3. Common malfunctions

1. Missing program: Please check whether there is a channel conflict, whether the video signal input is normal, and restart the device.

These terms are subject to change without prior notice, and we reserve the right of final interpretation. If you have any further questions, please contact our sales department directly.