



# **24 Analog CVBS Video Audio H.264 SD Encoder**

**Streamer & Mux ASI and IPTV output** 

# H-24AV-IP



# About This Manual

## **Intended Audience**

This user manual has been written to help people who have to use, to integrate and to install the product. Some chapters require some prerequisite knowledge in electronics and especially in broadcast technologies and standards.

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# **Chapter 1 Introduction**

### **1.1 Product Overview**

**H-24AV-IP**Multi-Channel Encoder is a professionalaudio & video encoding and multiplexing device. It supports convert8/12/24 CVBSvideo inputs MPTS or SPTS IP output. To meet customers' various requirements, it is also equipped with 1 ASI output as copy of MPTS. In conclusion, its high integrated and cost effective design makes the device widely used in varieties of digital distribution systems such as cable TV digital head-end, satellite digital TV broadcasting etc.

#### **1.2 Key Features**

- 8/12 CVBS video inputs with 8/12 SPTS and 1 MPTS output through Data 1 or Data
   2
- 24×CVBS video inputs with 24 SPTS or 1 MPTS output through Data 1 or Data 2
- Supports PAL and NTSC SD video formats, MPEG-2 Video encoding
- Support MPEG1 Layer II, AC3 (2.0) Audio encoding and support audio gain adjustment
- Support 1 ASI output as copy of MPTS
- Support CC (closed caption)
- Support "Null PKT Filter" function
- Support PID Remapping/PCR accurate adjusting/PSI/SI editing and inserting
- Real-time effective encoding output bit-rate monitoring
- Control via web management, and easy updates via web

#### **1.3Specifications**

Input 8/12/24CVBS inputs , RCA interface



	Pasalution	720× 352×	480_60i, 544×480_60i, 352×480_60i 240_60i,320×240_60i,176×240_60i, 176×120_60i					
	Resolution	720× 320×	576_50i,704×576_50i,640×576_50i, 352×288_50i, 288_50i, 176×288_50i, 176×144_50i					
Video	Encoding	MPE	G-2					
	Bit-rate	0.5M	[bps~8Mbps each channel					
	Rate Control	CBR	/VBR					
	GOP Structure	GOP_0_B, GOP_1_B, GOP_2_B, GOP_3_B						
	Advanced Pretreatment	De-interlacing, noise reduction						
	Encoding	MPE	G-1 Layer 2, AC3(2.0)					
Audio	Sampling rate	48KHz						
	Resolution	24-bit						
	Bit-rate	64Kbps,128Kbps,192kbps,256kbps,320kbps,384kbpseac channel						
		PID remapping (automatically or manually)						
Multiplexing	Function	Accurate PCR adjusting						
		Generate PSI/ SI table automatically						
	1 ASI as copy of MPTS							
Stream output	IP (MPTS/SPTS)	IP (MPTS/SPTS) output over UDP/RTP/RTSP						
	8/12 CVBSinputs	8/12 CVBSinputs with 8/12 SPTS and 1 MPTS output						
	24×CVBS inputs	24×CVBS inputs with 24 SPTS or 1 MPTS output						
System function	Chinese and Engl	ish lan						
System function	Ethernet software	11nora	de					
	Dimension(W×L>	(H)	482mm×410mm×44mm					
Miscellaneous	Environment	)	$0 \sim 45^{\circ} C(\text{work}); -20 \sim 80^{\circ} C(\text{Storage})$					
	Power requirement	nts	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz					

## **1.4 Principle Chart**



Tel: (800) 521-8467

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## **1.5 Appearance and Description**

### Frontand Rear Panel Illustration



1	Port Power supplyand Grounding Pole
2	24CVBS input
3	Reset Key
4	Indicators
5	DATA Port (IP stream output through DATA 1 or DATA2)
6	NMS(Web management)

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# **Chapter 2Installation Guide**

This section is to explain the cautions the users must know in some case that possible injure may bring to users when it's used or installed. For this reason, please read all details here and make in mind before installing or using the product.

### **2.1 General Precautions**

- ✓ Must be operated and maintained free of dust or dirty.
- ✓ The cover should be securely fastened, do not open the cover of the products when the power is on.
- ✓ After use, securely stow away all loose cables, external antenna, and others.

### 2.2 Power precautions

- $\checkmark$  When you connect the power source, make sure if it may cause overload.
- ✓ Avoid operating on a wet floor in the open. Make sure the extension cable is in good condition
- $\checkmark$  Make sure the power switch is off before you start to install the device

## 2.3 Device's Installation Flow Chart Illustrated as following



## 2.4 Environment Requirement

Item		Requirement
Machine	Hall	When user installs machine frame array in one machine hall,
Space		the distance between 2 rows of machine frames should be



	1.2~ $1.5$ m and the distance against wall should be no less than $0.8$ m.						
Machine Hall Floor	Electric Isolation, Dust Free Volume resistivity of ground anti-static material: $1 \times 10^7 \sim 1 \times 10^{10} \Omega$ , Grounding current limiting resistance: $1M\Omega$ (Floor bearing should be greater than $450 \text{Kg/m}^2$ )						
Environment Temperature	5~40°C(sustainable), 0~45°C(short time), installing air-conditioning is recommended						
Relative Humidity	20%~80% sustainable 10%~90% short time						
Pressure	86~105KPa						
Door & Window	Installing rubber strip for sealing door-gaps and dual level glasses for window						
Wall	It can be covered with wallpaper, or brightness less paint.						
Fire Protection	Fire alarm system and extinguisher						
Power	Requiring device power, air-conditioning power and lighting power are independent to each other. Device power requires AC 110V $\pm$ 10%, 50/60Hz or AC 220V $\pm$ 10%, 50/60Hz. Please carefully check before running.						

## **2.5 Grounding Requirement**

- ✓ All function modules' good grounding is the basis of reliability and stability of devices. Also, they are the most important guarantee of lightning arresting and interference rejection. Therefore, the system must follow this rule.
- ✓ Grounding conductor must adopt copper conductor in order to reduce high frequency impedance, and the grounding wire must be as thick and short as possible.
- $\checkmark$  Users should make sure the 2 ends of grounding wire well electric conducted and be antirust.
- $\checkmark$  It is prohibited to use any other device as part of grounding electric circuit
- ✓ The area of the conduction between grounding wire and device's frame should be no less than 25 mm<sup>2</sup>.



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## **Chapter 3WEB NMS Operation**

User can control and set the configuration in computer by connecting the device to web NMS Port. User should ensure that the computer's IP address is different from this device's IP address; otherwise, it would cause IP conflict.

### 3.1 Encoder login

The default IP address of this device is 192.168.0.136.

Connect the PC (Personal Computer) and the device with net cable, and use ping command to confirm they are on the same network segment.

I.G. the PC IP address is 192.168.99.252, we then change the device IP to 192.168.99.xxx (xxx can be 1 to 254 except 252 to avoid IP conflict).

Use web browser to connect the device with PC by inputting the Encoder's IPaddress in the browser's address bar and press Enter.

It will display the Login interface as Figure-1. Input the Username and Password (Both the default Username and Password are"admin".) and then click "LOGIN"to start the device setting.





Figure-1

### **3.2 Encoder Operation**

### Status

When we login into encoder module, it will display the status interfaceas Figure-2.

Encoder	
	Ex
Summary  Status	DEVICE INFORMATION
Parameters	
Module 1	System Information
Module 2	Software Version: 4.64 Build 153.01 Apr 11 2017
Module 3	Hardware Version: 1.108.0.0.0
Module 4	Web Version: 1.01
Module 5	Sector Version 2004 Col
► Module 6	System Version: 2.01.1.61
TS Config	Product ID: 03542400-00000010-0000000000000000000000000
▶ IP Stream	Uptime: 5 Day-23:18:42
System	
► Device	
Network	User sep slick any item here to opter the
Password -	Set can click any item here to enter the
Configuration	corresponding interface to check
Firmware	
Date Time	information or set the parameters.



## Parameters → Module 1-6

H-24AV-IP supports up to 6 modules with 24 CVBS input. From the menuon left side of the webpage, clicking"Module1-6", it will display the information of each encoding channel as Figure-3.

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Summany						î	
► Status	CHS MPEG2 ENCODER						
Parameters							
Module 1	Enc CH 1	Enc CH 2 Enc CH 3	Enc CH 4				
Module 2							
Module 3	Video						
Module 4						-	General setting
Module 5	Brightness:	128	(0 ~ 255)	Bitrate:	4.00	(0.5 ~ 8 Mbp	
Module 6	Saturation:	128	(0 ~ 255)	Rate Mode:	CBR	-	the Encoding
TS Config	Contrast:	128	$(0 \sim 255)$	Aspect Ratio:	4:3	- ib	nrogram: User
► IP Stream	Huer	0	(100 - 107)	Video Sharphose:	Class		program. Oser
System	nue.	U	(-120~127)	video Silaipiless.	Close	I	edit anv item lis
	B Frame:	GOP_2_B	<u>*</u>	Out Resolution:	Auto	<u> </u>	
Device	PCR PID Sync:	V				1	as needed.
P Network	Audio					<b></b>	
Configuration	Audio						
<ul> <li>Firmware</li> </ul>	Format:	MPEG1 Layer2	·•	Bitrate:	256 Kbps	•	
Date   Time	Audio Gain:	0	(-12 ~ +40)	Audio Broadcast:			
Log							
	Status						
	Video Lock:	•		Video Resolution:	720x576 501	1	
	Video Norm:	PAL BGHID		Bitrate:	4.355 Mbps	Ť	
	Rom Version:	1 <u>6</u>					
		+					

Figure-3

## **Parameters** → **TS Config:**

From the menuon left side of the webpage, clicking"TS Config", it will display the interface where users can configure the TS output parameters.

#### ➤ TS Config→Stream select:

From the menuon up side of the webpage, clicking"Stream select", it will display the interface where users can select program(s) to multiplex out and modify program info. (Figure-4)

Status      Parameters      Module 1     Module 2     Module 3     Module 5     Module 5     Module 5     Module 5     Module 5     Module 6     Program Number: 101     Berrice Tryle: 0x067     Module 5     Module 5     Module 5     Module 6     Module 6     Module 6     Module 6     Module 6     Module 7     Module 7     Module 7     Module 7     Module 6     Module 6     Module 6     Module 6     Module 7     Module 8     Module 8     Module 9	7// CH2_Module 2 [201] umber: 1001 sv:0x01 wider: Tv-Provider sv020	[9.3/160.
Parameters         Stream Select         General         PID Bypass           Module 1         Module 2         Image: Stream Select         General         PID Bypass           Module 2         Image: Stream Select         General         PID Bypass         Image: Stream Select         Image: Stream Se	w CH2_Module 2 [201] umber: 1001 wider: TV-Provider wider: TV-Provider w0200	[9.3/160
Module 1              workson 2000               workson 2000             workson 2000               workson 2000               workson 2000               workson 2000               workson 2000               workson 2000               workson 2000               workson 2000               workson 2000               workson 2000             workson 2	w CH2_Module 2 [201] umber: 1001 >e: 0x01 vider: TV-Provider ix0020	[9.3/160
Module 2         ⇒ Lose ⇒ Locked         ⇒ Normal → Over           Module 3         ⊕ →1 Module (grog 14)         [19.2/19.2/19.2/19]         ⊕ →0.tpot (grog 2           Module 4         ⊕ +1 Module (grog 14)         [19.2/19.2/19.2/19]         ♥ Diamong         ♥ Porgram           Module 5         ⊕ Program Number: 101         ₩ Module 5         ♥ Porgram         ₩ Module 6         ♥ Porgram         ₩ Module 7.VProvider         ₩ Module 5         ♥ Porgram         ₩ Module 6         ♥ Porgram         ₩ Module 7.VProvider         ♥ Porgram	ow CH2_Module 2 [201] umber: 1001 se: 0x01 ivider: TV-Provider ix0020	[9.3/160
Module 3     ⊕ →1: Module 1 (reg: 14)     [19.2/19.2/1]     ₽ →0.0/µ/µ (reg: 3       Module 4     ⊕ 1: 10 (101) TV-101     ₽ DID Rempt       Module 5     ← Program Number: 101     ₽ DID Rempt       Module 6     ← Program Number: 101     ₽ Benker       Module 6     ← Program Number: 101     ₽ Benker       Module 6     ← Program Number: 101     ₽ Benker       P T3 Config     ← Program Number: 101     ₽ Benker       P T3 Config     ← Program Number: 101     ₽ Benker       P T3 Program     ← Program Number: 101     ₽ Benker       P T3 Config     ← Program Number: 101     ₽ Benker       P T3 Config     ← Program Number: 101     ₽ Benker       P Steam     ← Program Number: 101     ₽ Benker       P Steam     ← Program Number: 101     ₽ Benker       P Device     ← Program     ₽ Benker	CH2_Module 2 [201] umber: 1001 se: 0x01 ivider: TV-Provider ix0020	[9.3/160
Module 4     P 1: 2/ [101] TV-101     Module 5     Module 6     Porgram IV Number: 101     Porgram IV Program IV     Porgram IV Provider     TV-Foroider     Porden IV-Foroider	CH2_Module 2 [201] umber: 1001 be: 0x01 ivider: TV-Provider ix0020	
Module 5     Module 5     Module 5     Module 5     Module 6     Module 6     Module 7	umber: 1001 be: 0x01 wider: TV-Provider Ix0020	
Module 6  Module 7  Service Type: 0x01  Service Type: 0x04  Servi	pe: 0x01 pvider: TV-Provider 1x0020	
Instruction         Device Provider         Device Provid	wider: TV-Provider 1x0020	
	1x0020	
System B≧Elements B BEG-2 Video PID: 0x0067 B B BElements	1×0021	
Davice	140021	
MPEG-1 Audio PID: 0X0066	Video PID: 0x0021	
▶ Network	Addio PID. 0x0022	
▶ Password	CH1_Module 1 [101]	
Configuration 7 3 are 1003 1V-103 All Input		
Firmware Input Area At Output		
► Date   Time ====2: Module 2 (prog: 1/4)	Output Area	
▶ Log	Output Alea	
<sup>#</sup> 2: □ [202] TV-202		
alla l		

Figure-4

Configure 'Input Area' and 'Output Area' with buttons in 'Operation Area'. Instructions are as

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#### below:

→Lose → Locked : To check input IP lock or not, green means current IP locked

→Normal → Overflow: To check current TS overflow or not, red color means current TS overflow,

#### need reduce program

<sup>ℤ</sup> PID Remap : To enable/disable the PID remapping

Refresh Input To refresh the inputprogram information

Refresh Output To refresh the outputprogram information

Select one input program first and click this button to transfer the selected program to the right box to output.

Similarly, user can cancel the multiplexed programs from the right box.

All Input To select all the input programs

All Output To select all the output programs

Parse program To parse programs time out 50 seconds time limitation of parsing input programs

#### Program Modification:

The multiplexed program information can be modified by clicking the program in the 'output' area. For example, when clicking<sup>1: TV-201 <=CH2\_Module 2 [201]</sup>, it triggers a dialog box (Figure 5) where users can input new information.

Program From Input:	CH2_Module 2 [201]	
Service Name:	TV-201	
Program Number:	1001	
Service Type:	0x01	
Service Provider:	TV-Provider	
PMT Descriptor Tag:	🖾 0x00	
PMT Descriptor Data:		(Hex)
PMT PID:	0x0020	
PCR PID:	0x0021	
MPEG-2 Video PID:	0x0021	
MPEG-1 Audio PID:	0x0022	

Figure-5

#### ➤ TS Config→General:

From the TS Configmenuon up side of the webpage, clicking"General", it will display the interface where users can check and set parameters. (Figure-6)



Summany							
► Status	TS CONF	G					
Parameters							
Module 1		Stream Select	General	PID Bypass			
Module 2			l	- The second sec			
Module 3		raam					
Module 4	51	Team					
Module 5		Output Bitrate:	160.000	Mbps	TS ID:	1	
Module 6		ON ID:	1		PCR Correct	V	
► TS Config		DCD Croad DW			DCD State DW	4	
► IP Stream		FCK Speed BW	1	•	PCK State BW		
System		PCR Compensate	0	•			
► Device							Apply
Network							
▶ Password							
Configuration							
► Firmware							
Date   Time							
▶ Log							



#### ➤ TS Config→PID Bypass:

From the TS Configmenuon up side of the webpage, clicking"PID Bypass", it will display the interface as Figure-7 where user can add PIDs to be passed, click the "+" symbol, input current IP channel number, then input current IP source Pid and output Pid which is customer needed , then click "set"

Encoder		
Summary	TS CONFIG	[Exit]
Status     Parameters	Stream Select General PID Bynass	
Module 1	occani ocicci ocinciai i i biypass	
Module 3	Indust Insuit Observal Insuit DID(0)1 Output DID(0)1	
Module 4		
Module 5		
Module 6	2	
► TS Config		
► IP Stream		
System		Set Dei-All
Device		
Network		
▶ Password		
Configuration		
Firmware		
Date   Time		
► Log		

Figure-7

### **Parameters** → **IP** Stream:

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 Email: sales@thorfiber.com
 https://thorbroadcast.com



H-24AV-IP supports TS to output in IP (24\*SPTS or 1\*MPTS) format through the DATA1or DATA2 port.

Click 'IP Stream', it will display the interface where to set IP out parameters(Figure-8).

ncoder											
										[Exit]	
Summarv											
▶ Status	IP ST	REAM									
Polalus											
Parameters		#	IP Address	Port	Protocol	Pkt Length	Null PKT Filter	Statue	Bit(Act/Max)		Quickly Config
Module 1		m.	II Address	TOIL	11010001	i ki Lengui	Null I I I I I I I I I I I I I I I I I I	otatus	DidAcomax)		<b>-</b>
Module 2		MPTS 1	224.2.2.2	2001	UDP	7			112.3/160.0 M	2	
Module 3										ii	Channel Config
Module 4											channel comig
Module 5											
Module 6											
TS Config											
► IP Stream											
system											
Device											
Network											
Password											
Configuration											
Firmware											
Date   Time											
Log											

Figure-8

### System→Device:

Click "Device", it will display the interface where to select IP outmode (Figure-9). Users can select one of IP mode (SPTS or MPTS), and new mode will work after reboot the device.

ncoder	
Summary  Status	DEVICE
Parameters	
Module 1	Warning:
Module 2	New mode will work after device reboot.
Module 3	
Module 4	
Module 5	······
Module 6	Current Mode: MPTS
► TS Config	Delete Mode: NULL MPTS
► IP Stream	SPTS
System	
▶ Device	
Network	
Password	
Configuration	
▶ Firmware	
Date   Time	
► Log	

Figure-9

## System→Network:





	NETWORK				
Summary					
Status	NMC				
Parameters	NMS				
urumotors		IP Address:	192.168.0.136		
Module 1		Subnet Mask:	255.255.255.0		
Module 2		Gateway:	192.168.0.1		
Nodule 3		Web Manage Port	90		
Module 5		neb manager or .	00		
Module 6		MAC Address:	20:17:09:20:14:58		
► TS Config					
► IP Stream					Apply
System	DATA				
▶ Device	PAIA				
Network		DATA SWITCH:	DATA 1 (1000M)	•	
► Password		IP Address:	192.168.2.136		
Configuration		Subnet Mask:	255 255 255 0		
Firmware		Gatoway	400.400.0.4		
Date   Time		Galeway.	192.168.2.1		
▶ Log		MAC Address:	20:27:09:20:14:58		

Click "Network", it will display the interfaceas Figure-10 where to set network parameters.

Figure-10

#### System→password

From the menuon left side of the webpage, clicking"Password", it will display the screen as Figure-11 where to set the login account and password for the web NMS.

Encoder		
We		Exit]
Summary	DACOWORD	
▶ Status	PASSWORD	
Parameters		
Module 1	Modify the login name and password to make the device safely. If forget the name or password, you can reset it by	
Module 2	keyboard. The default login name and password is "admin". Also please note the capital character and lowercase	
Module 3	character.	
Module 4		
Module 5		
Module 6	Current UserName: admin	
TS Config	Current Password:	
► IP Stream	New UserName:	
System	New Password:	
▶ Device	Confirm New Password:	
Network		
▶ Password	Ante	
► Configuration	A99	
► Firmware		
Date   Time		
► Log		
	۲. m	

Figure-11

#### System→Configuration:

From the menuon left side of the webpage, clicking"Configuration", it will display the screen as Figure-12 where to save/ restore/factory setting/ backup/ load your configurations.

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Summary  Status  Parameters  Module 1  Module 2  Module 3  Module 4  Module 4  Module 5  Module 6  TS Config  IP Stream  System  Device Network  Password  Configuration  Firmware Date Time Eugg Gue			Evit
Summary  Status  Parameters  Module 1  Module 3  Module 5  Module 5  Module 6  TS Config  System  Device Network  Password Configuration Fimmare Date   Time Log			EXIL
Status  Parameters  Module 1  Module 2  Module 3  Module 5  Module 6  TS Config  FIP Stream  System  Configuration  Firmware  Date Timme  Log  Guide Configuration  Firmware  Date Timme  Configuration  Firmware  Configura	Summary		
Save       Restore       Factory Set       Backup       Load         Module 2       Module 3       When you change the parameter, you shoud save configuration , otherwise the new configuration will lost after reboot.         Module 5       Module 6       Factory Set       Backup       Load         Vhen you change the parameter, you shoud save configuration , otherwise the new configuration will lost after reboot.       When you change the parameter, you shoud save configuration , otherwise the new configuration will lost after reboot.         Module 6       Saver config       Saver configuration , otherwise the new configuration will lost after reboot.         System       Saver configuration       Saver configuration         > Device       Password       Saver configuration         > Firmware       Date   Time       Log	▶ Status	CONFIGURATION	
<ul> <li>Module 1</li> <li>Module 2</li> <li>Module 3</li> <li>Module 3</li> <li>Module 4</li> <li>Module 5</li> <li>Module 5</li> <li>Ts Config</li> <li>IP Stream</li> <li>System</li> <li>Service</li> <li>Network</li> <li>Password</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	Parameters		
<ul> <li>Module 2</li> <li>Module 3</li> <li>Module 4</li> <li>Module 5</li> <li>Module 5</li> <li>Module 6</li> <li>TS Config</li> <li>IP Stream</li> </ul> Service Network Password Configuration Configuration Firmware Date   Time Log	Module 1	Save Restore Factory Set Backup Load	
<ul> <li>Module 3</li> <li>Module 4</li> <li>Module 5</li> <li>Module 6</li> <li>TS Config</li> <li>P Stream</li> <li>Vetwork</li> <li>Password</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	Module 2		
<ul> <li>Module 4</li> <li>Module 5</li> <li>Module 6</li> <li>TS Config</li> <li>IP Stream</li> <li>Device</li> <li>Network</li> <li>Password</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	Module 3		
<ul> <li>Module 5</li> <li>Module 6</li> <li>TS Config</li> <li>IP Stream</li> <li>Save config</li> <li>Device</li> <li>Network</li> <li>Password</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	Module 4	When you change the parameter, you shoud save configuration otherwise the new configuration will lost after	
<ul> <li>Module 6</li> <li>TS Config</li> <li>IP Stream</li> <li>Sevice</li> <li>Network</li> <li>Password</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	Module 5	reboot.	
► TS Config ► IP Stream Serve config ► Vetwork ► Password ► Configuration ► Firmware ► Date   Time ► Log	Module 6		
► IP Stream System ► Device ► Network ► Password ► Configuration ► Firmware ► Date   Time ► Log	► TS Config		
System     Save comp       Device     Network       Password     Configuration       Firmware     Date   Time       Date   Time	► IP Stream		
Device  Network  Password  Configuration  Firmware  Date   Time  Log	ystem	Save comig	
<ul> <li>Network</li> <li>▶ Password</li> <li>▶ Configuration</li> <li>▶ Firmware</li> <li>▶ Date   Time</li> <li>▶ Log</li> </ul>	▶ Device		
<ul> <li>▶ Password</li> <li>▶ Configuration</li> <li>▶ Firmware</li> <li>▶ Date   Time</li> <li>▶ Log</li> </ul>	Network		
▶ Configuration ▶ Firmware ▶ Date   Time ▶ Log	▶ Password		
▶ Firmware ▶ Date   Time ▶ Log	▶ Configuration		
▶ Date   Time ▶ Log	▶ Firmware		
▶ Log	Date   Time		
	▶ Log		
		<u>د</u>	

Figure-12

#### System → Firmware:

From the menuon left side of the webpage, clicking"Firmware", it will display the screen as Figure-13 where to update firmware for the encoder.

		[ Exit
Summary	FIRMWARE	
Status		
Parameters		
Module 1	Warning:	
Module 2	1. Upgrade firmware(software and hardware)	to get new function, please choose the right firmware to
Module 3	upgrade. If you use a wrong file, the device ma	ay not work.
Module 4	<ol><li>Upgrade will keep a long time, please do no</li></ol>	ot turn off the power, otherwise the device will not work.
Module 5	3. After upgrade, you must reboot device man	ually.
Module 6		
► TS Config		
► IP Stream	Current Software Version:	4.64 Build 153.01 Apr 11 2017
System	Current Hardware Version:	1.108.0.0.0
▶ Device	File:	Browse No File Selected
Network		
Password		Deepede
Configuration		MAGE RED.
► Firmware		
Date   Time		
▶ Log		

Figure-13

#### System→ Date/Time:

From the menuon left side of the webpage, clicking"Date/Time", it will display the screen as Figure-14 where to set date and time for the device.



Summary ▶ Status	DATE   TIME			
Parameters				
			1970-01-06 23:24:19	
Module 1		Timezone:	(GMT) Greenwich Mean Time, Dublin, Edinburgh -	
Module 2		NTB Conver 4	()	
Module 3		NTF Server 1.		
Module 4		NTP Server 2:		
Module 5		NTP Server 3:		
Module 6		NTP Server 4:		
IS Config		NTD Comments		
IP Stream		NTP Server 5:		
System				
▶ Device			Set Timezone Set NTP Update fi	rom browser
Network				
▶ Password				
Configuration				
▶ Firmware				
Date   Time				
▶ Log				

Figure-14

### System→ Log:

From the menuon left side of the webpage, clicking"Log", it will display the log interface as Figure-15 where to check or export the Kernel/System log.

Encoder			
	[Exit]		
Summary	Î		
Ctatus	LOG		
► Status			
Parameters			
Module 1	Log Type: Kernel Log • Auto Kerresh: 0 • Export Chair ba		
Module 2	[ 0.00000] Booting Linux on physical CPU 0x0		
Module 3	0.000000] Linux version 3.19.0-xilinx (root@localhost.localdomain) (gcc version 4.9.1 (Sourcery CodeBench Lite 20		
Module 4	0.000000 CPU: ARMV/ Processor (413tc090) revision 0 (ARMV/), cr=18c538/d		
Module 5	0.000000 Machine medal vitex rung 7000     000000 Machine medal vitex rung 7000		
Module 6	[ 0.00000] mar Reserved 16 Mills at 0x04800000		
► TS Config	0.000000] Memory policy: Data cache writealloc		
► IP Stream	0.000000] On node 0 totalpages: 65536		
	[ 0.000000] free_area_init_node: node 0, pgdat 40596180, node_mem_map 4fdf0000		
System	[ 0.000000] Normal zone: 512 pages used for memmap		
► Device	[ 0.000000] Normal zone: 0 pages reserved		
Network	0.000000] Normal zone: 65536 pages, LIFO batch:15		
▶ Password	0.000000 PERCPU: Embedded 9 pages/cpu @afddas000 s5126 f73192 d20544 u36864		
Configuration	[ 0.00000] pcpu-alloc. 50 10 12 02044 030004 alloc-9 4090		
► Firmware	0.0000000 Built 1 conelists in Zone order mobility grouping on Total pages: 65024		
Date   Time	0.000000 Kernel command line: console=ttyPS0.115200 root=/dev/ram rw earlyprintk		
► Log	0.000000] log_buf_len individual max cpu contribution: 131072 bytes		
	0.000000] log_buf_len total cpu_extra contributions: 131072 bytes		
	[ 0.000000] log_buf_len min size: 131072 bytes		
	[ 0.000000] log buf len: 262144 bytes		

Figure-15

# TH�R

# **Chapter 4 Troubleshooting**

THOR'S ISO9001 quality assurance system has been approved by CQC organization. For guarantee the products' quality, reliability and stability. All THOR products have been passed the testing and inspection before ship out factory. The testing and inspection scheme already covers all the Optical, Electronic and Mechanical criteria which have been published by THOR. To prevent potential hazard, please strictly follow the operation conditions.

#### **Prevention Measure**

- ▶ Installing the device at the place in which environment temperature between 0 to 45 °C
- Making sure good ventilation for the heat-sink on the rear panel and other heat-sink bores if necessary
- Checking the input AC within the power supply working range and the connection is correct before switching on device
- > Checking the RF output level varies within tolerant range if it is necessary
- Checking all signal cables have been properly connected
- Frequently switching on/off device is prohibited; the interval between every switching on/off must greater than 10 seconds.

#### Conditions need to unplug power cord

- Power cord or socket damaged.
- > Any liquid flowed into device.
- Any stuff causes circuit short
- Device in damp environment
- Device was suffered from physical damage
- ➢ Longtime idle.
- After switching on and restoring to factory setting, device still cannot work properly.
- Maintenance needed



# **Chapter 5Packing List**

H-24AV-IP Multi-Channel Encoder1 pc

UserManual	1 pc
Power Cord	1pc

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