

THOR BROADCAST

User Manual



**IRD - Satellite or ATSC Decoder to SDI, IP,
ASI, Closed Captions**

H-IRD-V3

Tuner Input Options: DVS/S2; ATSC; QAM; DVB-T; ISDB-T

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 Product Outline

1.1 Outline

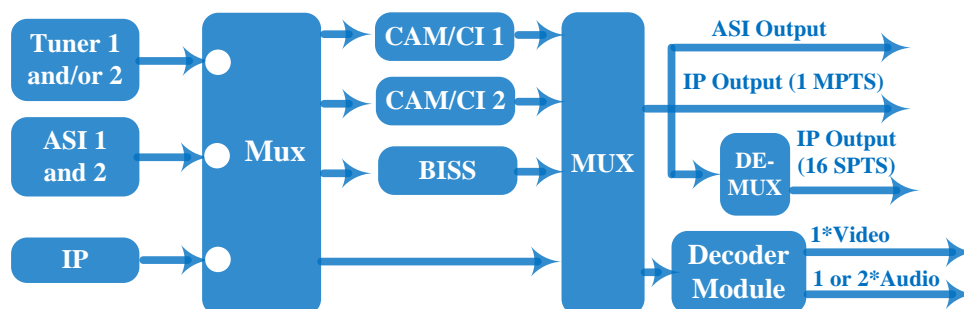
H-IRD-V3 is a Thor decoder which can receive signals from RF (DVB-C, DVB-T/T2, DVB-S/S2/S2X, ATSC-T, ISDBT optional), ASI and IP. After demodulating, de-scrambling, re-multiplexing and decoding, it gives content out through various video/audio interfaces (HDMI, CVBS, 3G-SDI) or ASI or IP.

This IRD is featured with two CAM/CI slots and BISS which supports to descramble encrypted Tuner, ASI or IP signals.

1.2 Key Features

- **Demodulator + descrambler +re-mux+ decoder in one box**
- **1 Tuner input (DVB-C/T/T2/S/S2/S2X/ATSC-T/ISDB-T optional)**
- **2 ASI & 16 IP UDP/RTP input for re-mux**
- **1ch HDMI/CVBS/3G-SDI video out (SDI1 and SDI2 mirrored out)**
- **2ch Audios out**
- **HD/SD MPEG2, MPEG4 AVC/H.264, HEVC/H.265 and AVS/AVS+ decoding**
- **MPEG 1 Layer II, LC-AAC, HE-AAC, HE-AAC V2, Dolby Digital/Dolby Digital Plus decoding and AC3 passthrough**
- **IP (1 *MPTS & 16* SPTS) output over UDP and RTP/RTSP; 2 ASI mirrored out as a copy of the IP MTPS**
- **Each CAM can decrypt multiple programs from Tuner/ASI/IP**
- **BISS descrambling (Up to 120Mbps)**
- **CC (EIA608, EIA708) & Teletext (Applicable for SDI port)**
- **Support maximum 128 PID mapping per input**
- **LCD/Keyboard and web-based NMS management**
- **Updates via web**

1.3 Flow Chart



1.4 Technical Specifications

Input		1 Tuner option, F type, (DVB-C/T/T2/S/S2/S2X/ATSC-T/ISDB-T) 2*ASI input for re-mux, BNC interface 16*IP input for re-mux (UDP/RTP), RJ45			
Tuner Section	Multi-mode tuners switchable	Cable QAM	Input Frequency	60~890 MHz	
			Standard	DVB-C/J.83A, J.83C	J.83B
			Constellation	16/32/64/128/256 QAM	64/256 QAM
			Symbol rate	1.0~7.0Msps	
		DVB-T	Input Frequency	60~890 MHz	
			Constellation	QPSK, 16QAM, 64QAM	
			Bandwidth	6/7/8 M	
		DVB-T2	Input Frequency	60~890 MHz	
			Constellation	QPSK, 16QAM, 64QAM, 256QAM	
			Bandwidth	5/ 6/7/8 M	
		ISDB-T	Input Frequency	60~890 MHz	
			Constellation	DQPSK, QPSK, 16QAM, 64QAM	
	Satellite	DVB-S	Input Frequency	950~2150MHz	
			Symbol rate	0.5~45Msps	

	DVB-S2	Signal Strength	- 65- -25dBm
		FEC	1/2, 2/3, 3/4, 5/6, 7/8
		Constellation	QPSK
		Input Frequency	950~2150MHz
		Symbol rate	QPSK/8PSK/16APSK: 0.5~45Msps 32APSK: 0.5~40Msps;
		FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
	DVB-S2X	Constellation	QPSK, 8PSK, 16APSK, 32APSK
		Input Frequency	950~2150MHz
		Symbol rate	QPSK/8PSK/16APSK: 0.5~45Msps 8APSK/32APSK: 0.5~40Msps
		FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 8APSK: 5/9-L, 26/45-L 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9, 77/90 32APSK: 3/4, 4/5, 5/6, 8/9, 2/3-L, 32/45, 11/15, 7/9
		Constellation	QPSK, 8PSK, 8APSK, 16APSK, 32APSK
	ATSC	Input Frequency	54~858MHz
		Bandwidth	6M
Constellation		8VSB	
Descrambling	CAM/CI Quantity	2	
	BISS Mode	Mode 1, Mode E (up to 120Mbps)	

Output	IP (1*MPTS & 16*SPTS) out over UDP, RTP/RTSP.		
	1000Base-T Ethernet interface (unicast / multicast)		
	2×ASI mirrored out, BNC interface		
	Decode Output	Video	Interface: 1* CVBS/HDMI/3G-SDI (SDI1 and SDI2 mirrored out)
			Decode: MPEG-2, MPEG4 AVC/H.264, HEVC/H.265 and AVS/AVS+
			Resolution:1920×1080_60p, 1920×1080_60i, 1920×1080_50p; 1920×1080_50i; 1280×720_60P, 1280×720_50P; 480i, 576i
			Chroma: 4:2:0
	Decode Output	Audio	Interface: HDMI, SDI, DB15 to (XRL, RCA, AES, S/PDIF)
			Number of channels: 2
			Decode: MPEG 1 Layer II, LC-AAC, HE-AAC, HE-AAC V2, Dolby Digital/ Dolby Digital Plus
Audio Output Mode: Left, Right, Stereo audio			
System	Local interface	LCD + control buttons	
	Remote management	Web Management	
	Language	English	
	Upgrade	USB, web management	
Miscellaneous	Dimension	482*300*44.5mm (W×L×H)	
	Approx weight	3.5kg	
	Environment	0~45℃(work); -20~80℃ (Storage)	
	Power requirements	100~240VAC, 50/60Hz	
	Power consumption	20W	

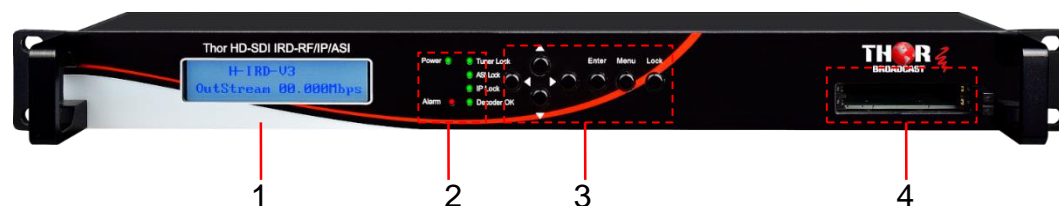
Order Guide

Please specify both **Tuner Input** option when you place order:

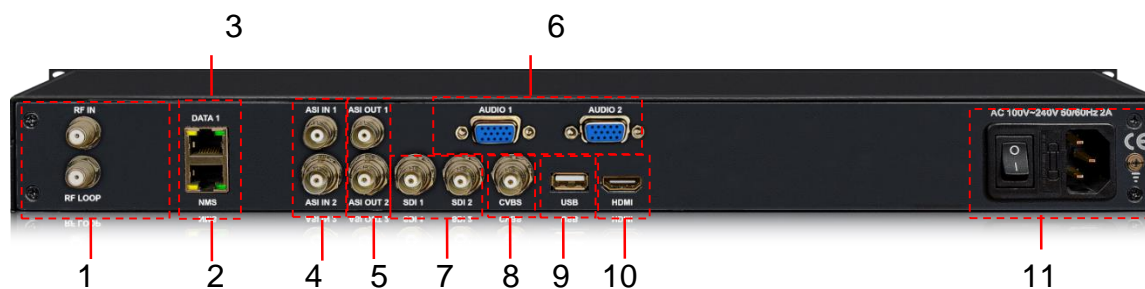
Tuner Input	H-IRD-V3S	1*DVB-S/S2/S2X tuner
	H-IRD-V3-ISDBT	1*DVB-ISDB-T tuner
	H-IRD-V3A	1*ATSC-T tuner
	H-IRD-V3Q	1*DVB QAM
	H-IRD-V3-DVBT	1*DVB-T

1.5 Appearance and Description

Front Panel Illustration:



1	LCD display for device control and configuration
2	Indicator Area (to indicate locking status of tuner, ASI and IP input; Decoder: to indicate the decoding status)
3	Up/Down/Left/Right Buttons
3	Enter Key Menu Key Lock Key
4	CAMs /Smart card slots A & B

Rear Panel Illustration:


1	RF signal input
2	NMS port for management
3	Data port for IP in and out
4	ASI input Port for re-mux
5	ASI mirrored output ports
6	Analog audio output interface
7	SDI video/audio output interfaces, SDI2 out as mirror of SDI1
8	Composite video output interface (CVBS)
9	USB upgrade port
10	HDMI video/audio output interface
11	Power switch/Fuse/Socket/ Grounding Wire

Chapter 2 Installation Guide

2.1 In the Box

Make sure that everything is in the box prior to installation

- H-IRD-V3
- HDMI Cable
- CVBS Cable
- SDI Cable

- Audio adapt cables
- Power Cord
- Ground Cable

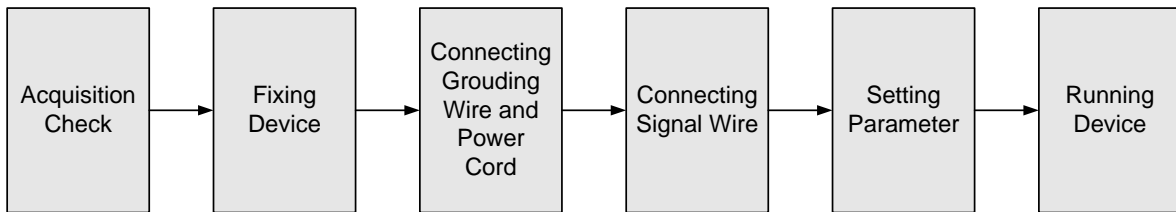
If any item is missing or mismatching with the list above, please contact our company.

2.2 Installation Preparation

The main content of this chapter includes:

- Checking the device for missing parts or damage during transport
- Preparing environment for installation
- Connecting signal cables
- Connecting communication port with PC

2.2.1 Device's Installation Flow Chart Illustrated as following :



2.2.2 Environment Requirement

Item	Requirement
Spacing	During install make sure the area has plenty of space and ventilation, especially if installed in rack
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

Power	Requiring device power, air-conditioning power and lighting power are independent to each other. Device power requires AC power 100-240V 50-60Hz. Please carefully check before running.
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2.2.3 Grounding Requirement

- Coaxial cables outer conductor and isolation layer should keep proper electric conducting with the metal housing of device.
- 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.
- Users should make sure the 2 ends of grounding wire are well conducted and be antirust.
- 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 25mm².

2.2.4 Frame Grounding

All the machine frames should be connected with protective copper strip. The grounding wire should be as short as possible and avoid circling. The area of the conduction between grounding wire and grounding strip should be no less than 25mm².

2.2.5 Device Grounding

Connecting the device's grounding rod to frame's grounding pole with copper wire.

2.3 Wire's Connection

- Connecting Power Cord

User can insert one end into power supply socket, while insert the other end to AC power.

- Connecting Grounding Wire

When the device solely connects to protective ground, it should adopt independent way, say, share the same ground with other devices. When the device adopts united way, the grounding resistance should be smaller than 1Ω .

⚠ Caution:

Before connecting power cord to H-IRD-V3, set the power switch to “OFF”.

2.4 Signal Cable Connection

The signal connections include the connection of input signal cable and the connection of output signal cable. The details are as follows:

2.4.1 H-IRD-V3 Cables Illustration:

- **IP Input/output Cable Illustration:**



- **Tuner Cable Illustration:**



- **ASI Input/output Cable Illustration:**



- **Video & Audio output Cable Illustration:**



CVBS Cable



HDMI Cable



SDI Cable

- **Audio adapt cables Illustration:**



Chapter 3 Front Panel Operation

The front panel of the H-IRD-V3 is the interface used to conveniently operate and manage the device without connecting to a PC; displayed on the LCD:

Keyboard Function Description:

MENU: Cancel current entered value, resume previous setting; Return to previous menu.

ENTER: Activate the parameters which need modifications, or confirm the change after modification.

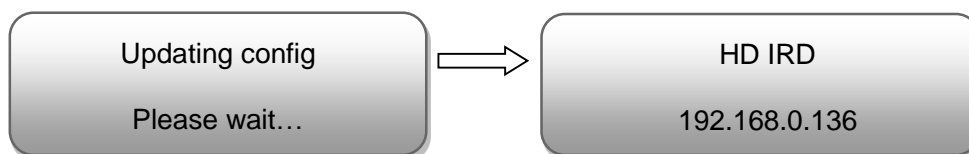
LEFT/RIGHT: Choose and set the parameters.

UP/DOWN: Modify activated parameter or paging up/down when parameter is inactivated.

LOCK: Lock the screen/cancel the lock state. After pressing the lock key, the LCD will display the current configuring state.

3.1 General Setting

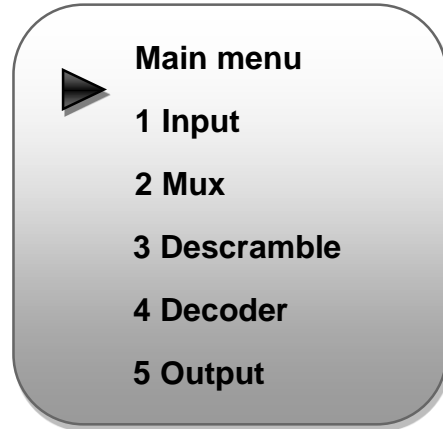
Switch on the device and after a few seconds' initialization, it presents start-up pictures as below:



- **HD IRD:** Device's name

- **192.168.0.136** indicates the current NMS IP address.

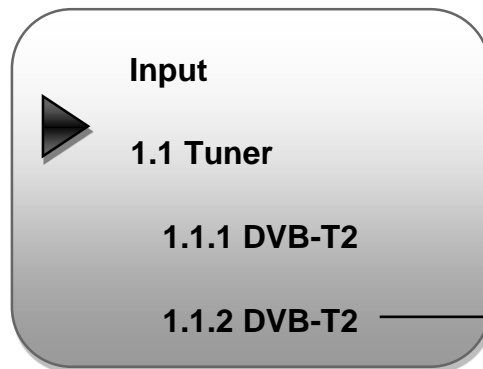
Press LOCK key on the front panel to enter the main menu. The LCD will display the following pages where user can configure the parameters for the device:



User could do all the settings according to the 7 directions displayed on the LCD. User can press UP/DOWN buttons to specify menu item, and then press ENTER to enter the submenus as below:

1 Input

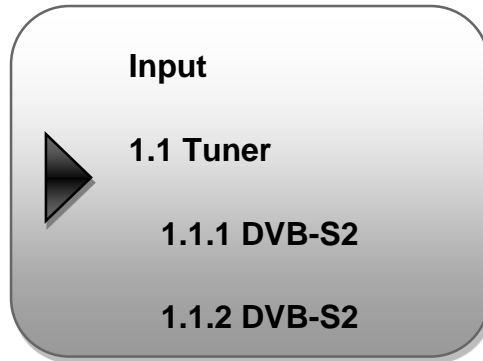
H-IRD-V3 can support 1 tuner input, 2 ASI inputs and 16 IP stream inputs. Users can enter 'Input Sets' to configure the tuner/IP parameters to receive the transport streams and select programs to mux out. It displays as below:



DVB-C(J.83A/C)/J.83B/DVB-T/T2/
ISDB-T switchable tuner,
here DVB-T2 as an example

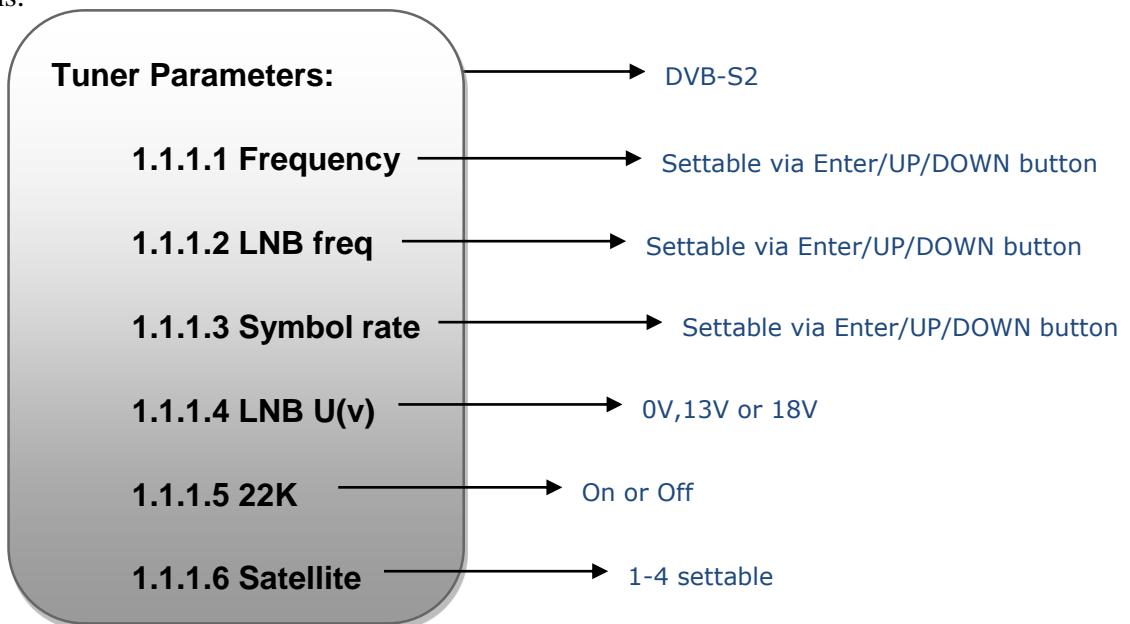
➤ **Tuner DVBS/S2:**

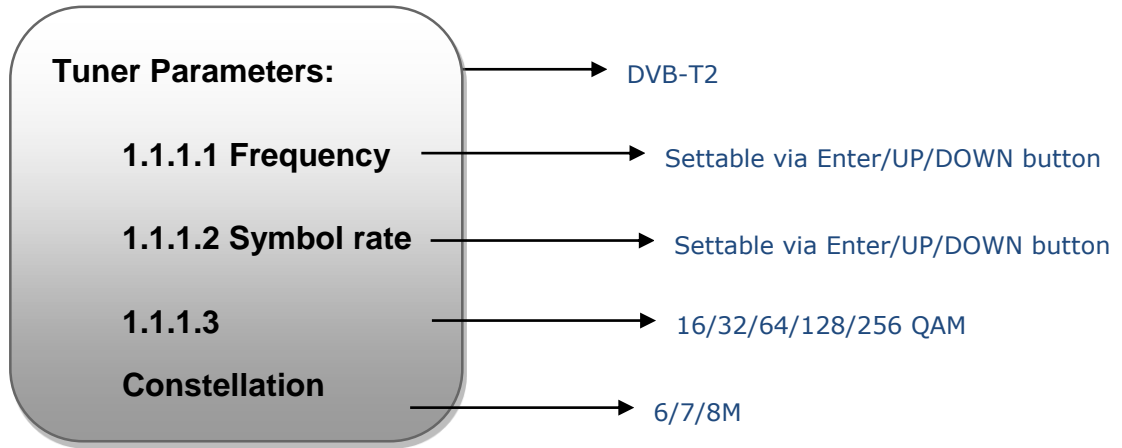
Press ENTER key to enter '1 Tuner DVB-S2' (or '2 Tuner DVB-S2'), it displays as below:



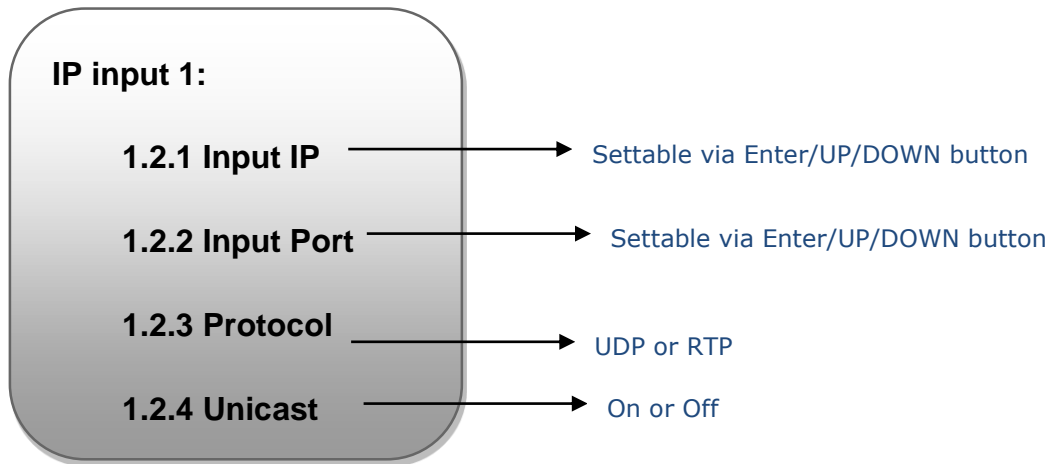
Tuner Parameters:

Users can enter this menu to configure the tuner parameters separately to receive the tuner programs.






IP input parameters:

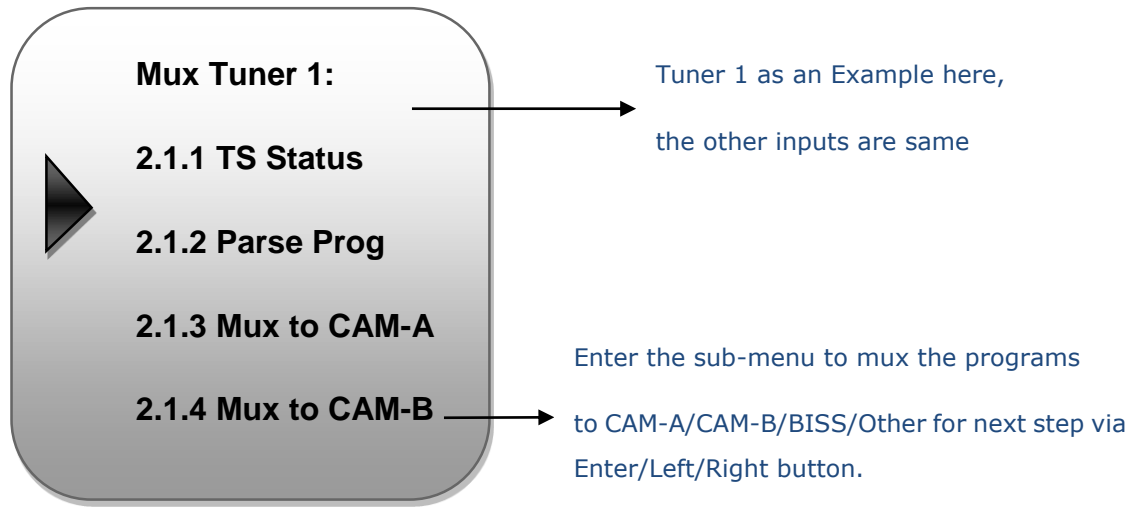


2 Mux

You can parse the Tuner input program list and select program(s) to mux out in this menu.

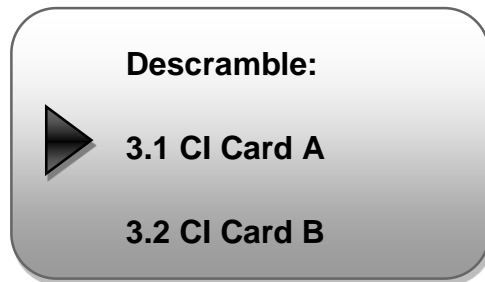
 **NOTE:** Multiplexing operation can take effect only on condition that the “MPTS output mode” is set to “Mux” under ‘Output’. (i.e.: *Output* → *MPTS output mode* → *Mux*)





3 Descrambling

H-IRD-V3 supports 2 CI cards (Card A & Card B) to descramble programs from either encrypted RF, ASI or IP. Users can press ENTER key to enter 'CI Card' to configure the 2 cards respectively.

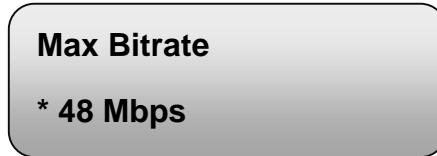


Press ENTER key to enter Card A (or Card B):

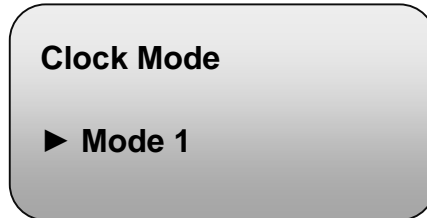


➤ **Max Bit rate**

CI Max Bitrate options range from 48-108Mbps. Move the triangle to select a value as principle: Actual Input Bitrate ≤ Max Bitrate ≤ CI Max decrypting capacity

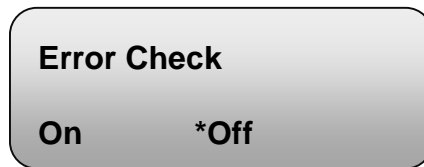


➤ **Clock Mode**

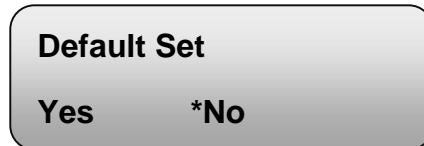


➤ **Error Check**

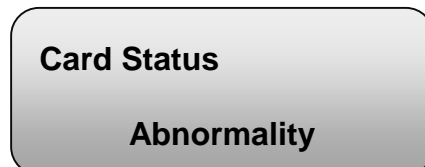
Users can decide whether to enable or disable the card error check function in this menu.



➤ **Default set**

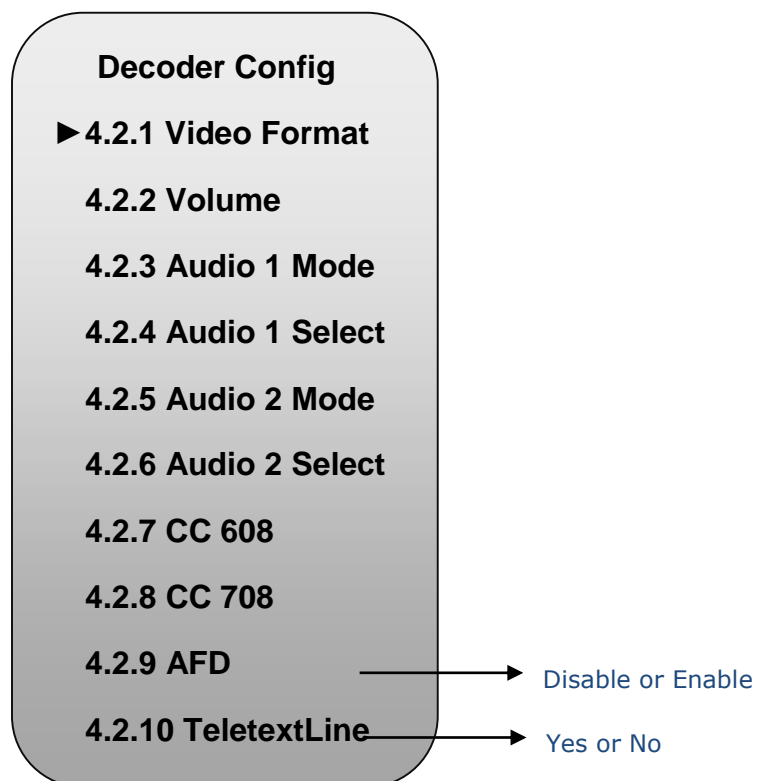
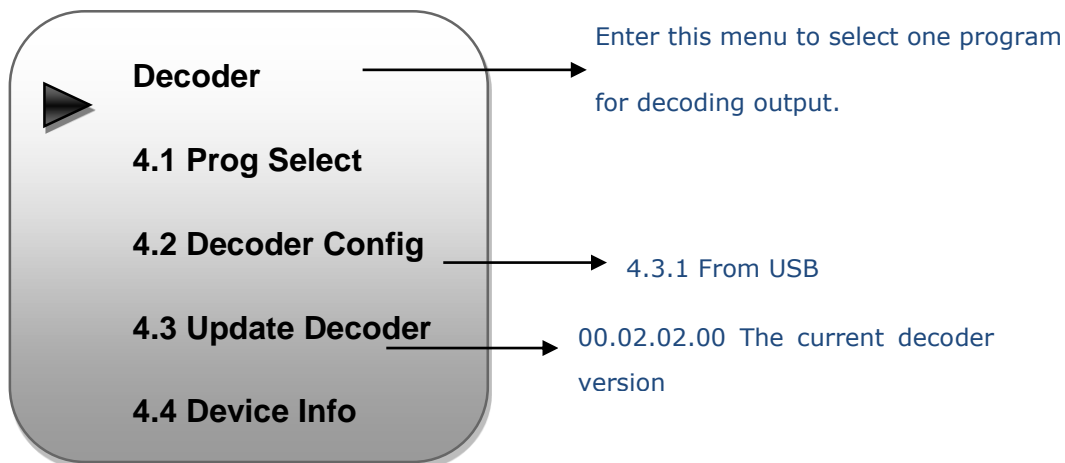


➤ **Card Status**



4 Decoder

Press ENTER key to enter ‘Decoder’ to set the video to be decoded. H-IRD-V3 IRD supports one channel program to output at various interfaces at the same time (HDMI/SDI/CVBS).



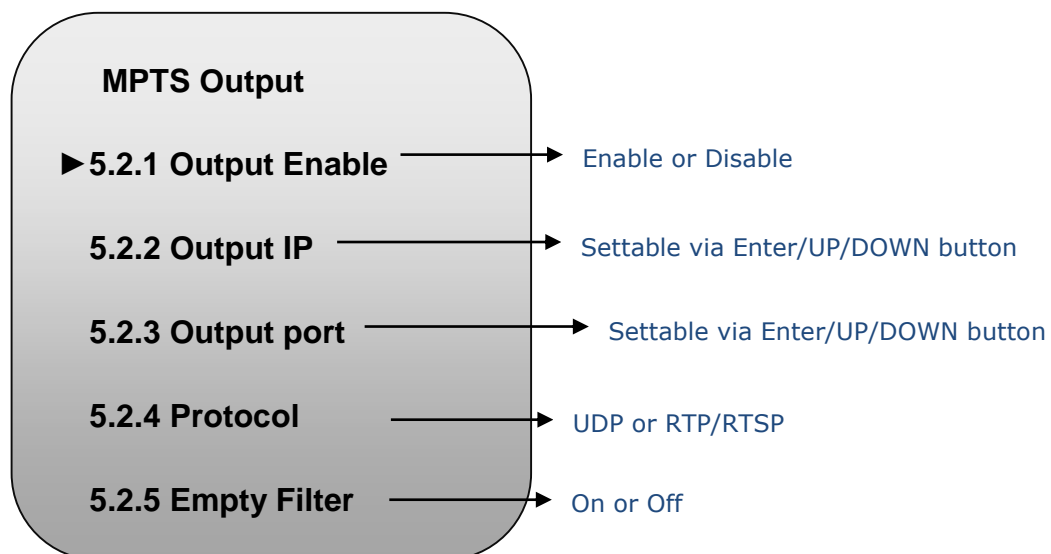
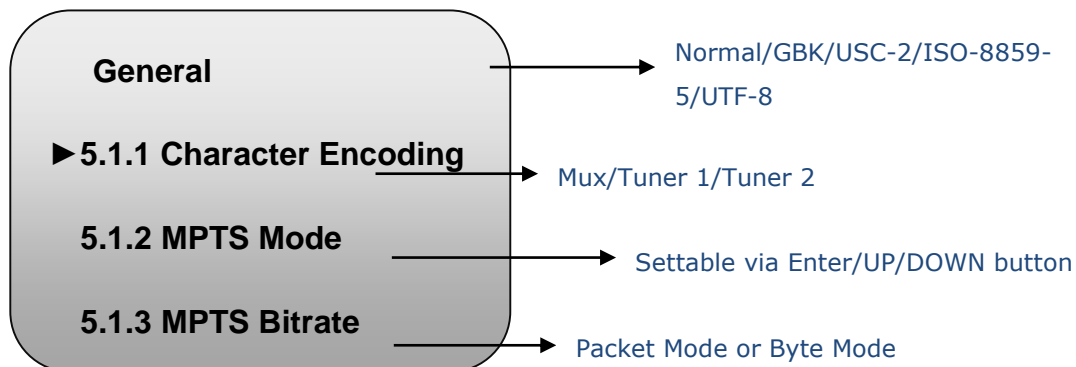
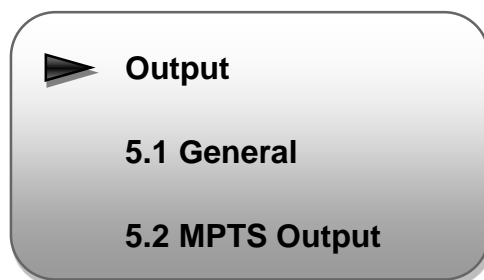
Video format: 1920×1080_60p, 1920×1080_60i, 1920×1080_50p; 1920×1080_50i; 1280×720_60P, 1280×720_50P; 480i, 576i

Audio 1/2 Mode: Left/Right/Stereo/Mux

CC 608/CC 708/AFD/TeletextLine: Disable/4-15 for optional

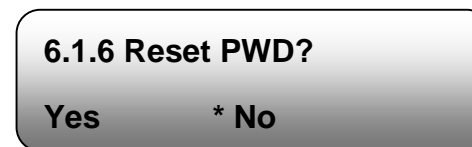
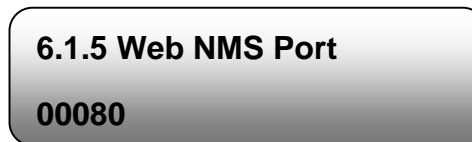
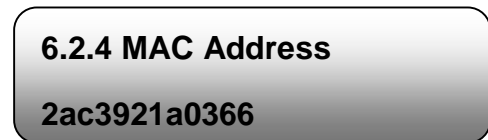
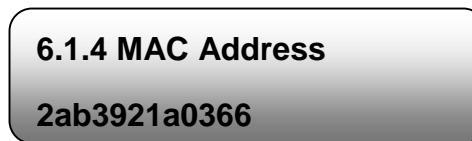
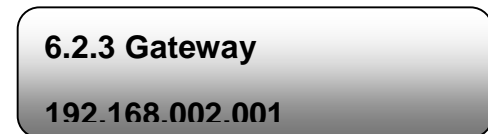
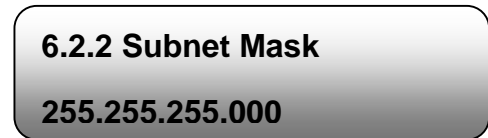
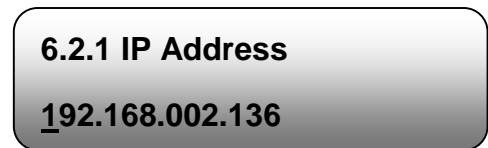
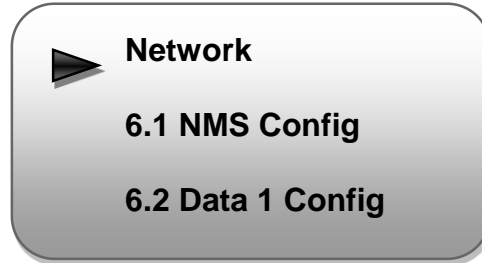
5 Output

H-IRD-V3 supports 1MPTS and 16 SPTS over IP (UDP, RTP/RTSP) output and 1 ASI out.



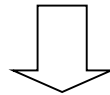
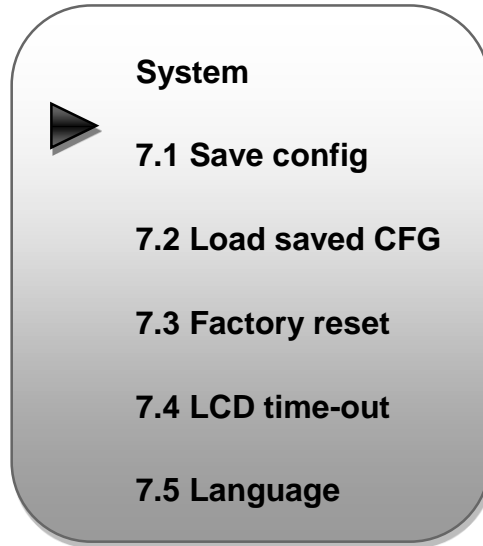
6 Network

Users can set network parameters in this menu. Enter 'Network' sub-menus to separately set corresponding parameters.



7 System

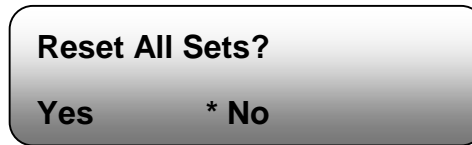
Users can set the system parameters in this menu. Enter 'System' sub-menus to separately set corresponding parameters.



Choose yes to save settings. and press ENTER to confirm



Choose yes to restore the device into the last saved configuration.



Choose yes to restore the device into factory's default configuration.



Press DOWN/UP key to select a time out for the LCD lighting duration



The user manual is based on this version

Chapter 4 Web-based NMS Management

User not only can use front buttons for setting configuration, but also 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 IP address; otherwise, it would cause IP conflict.

4.1 Login

The default IP address of this device is 192.168.0.136. (We can modify the IP through the front panel.)

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 device's IP address 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 click "LOGIN" to start the device setting.

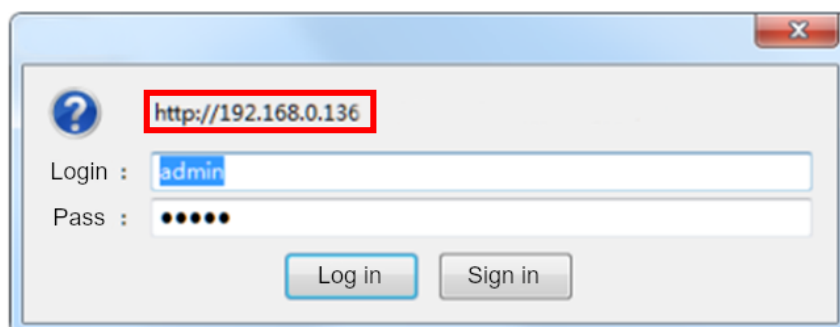


Figure-1

4.2 Operation

Summary:

When we confirm the login, it displays the WELCOME interface as Figure-2 where users can have an overview of the device’s system information and uptime.

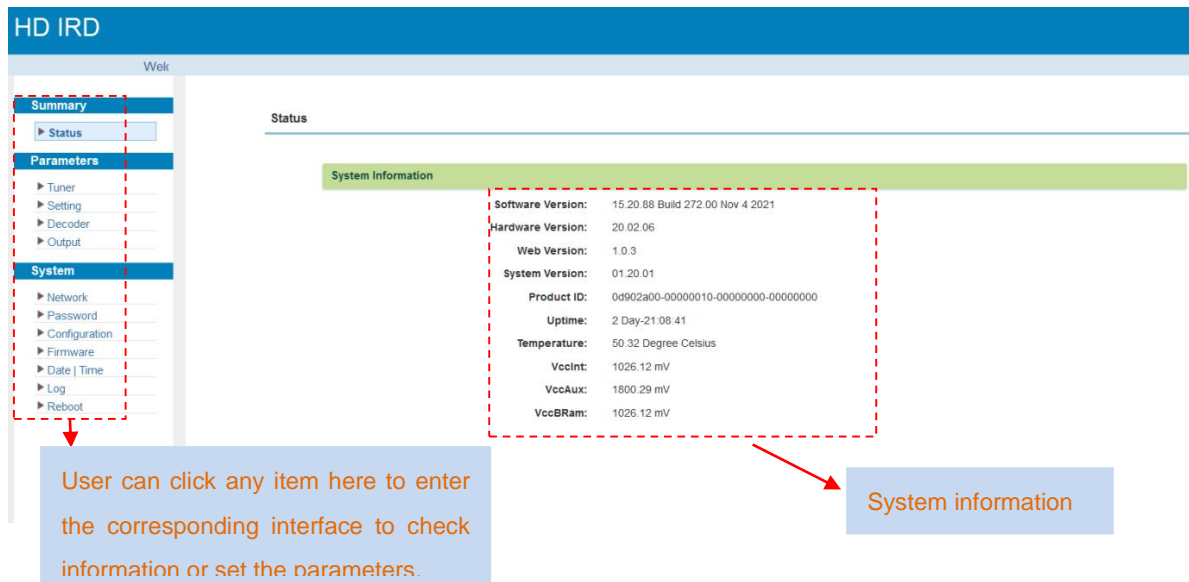


Figure-2

Parameters → Tuner:

Clicking “Tuner”, it displays the TS Lock status, Signal Status and Frequency parameters information of the Tuner inputs. Click “Edit” button to get a pop-up window where users can set the wanted frequency parameters to lock the corresponding signal. DVB-C/T/T2/ISDB-T or DVB-S2 tuner input is up to users’ order option.

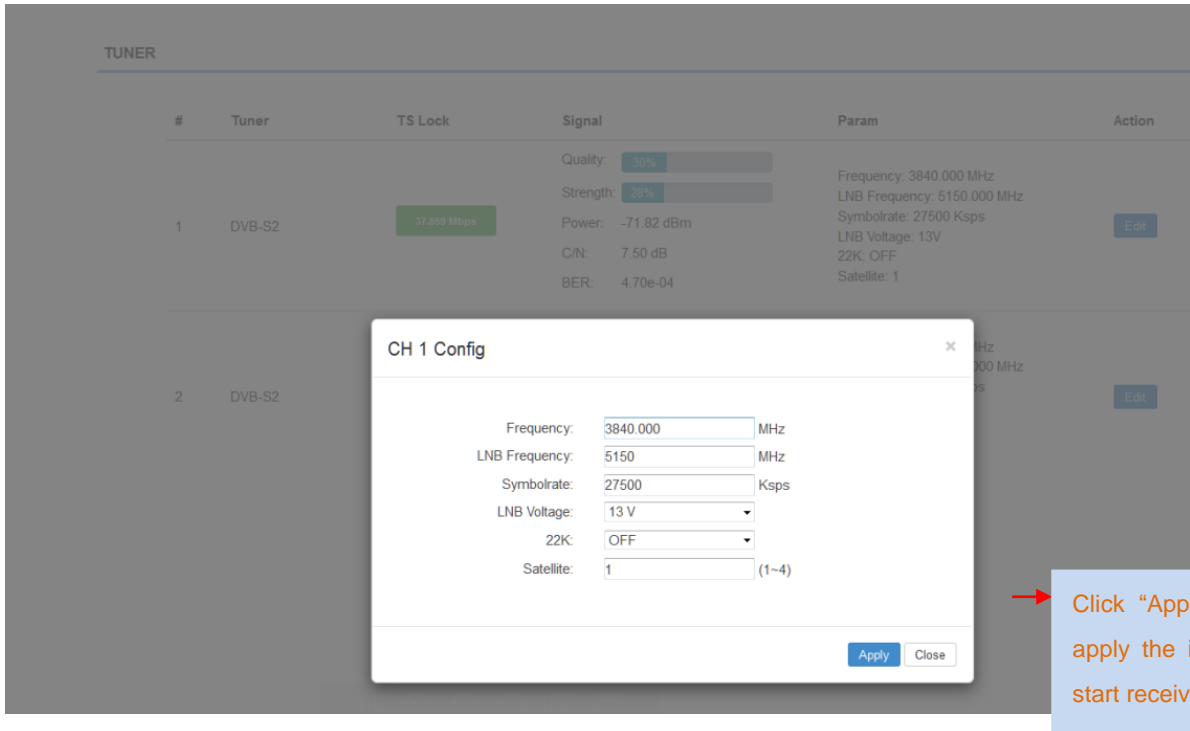


Figure-4

Parameters → Setting:

Click “Setting” for Multiplexing, CI descrambling and BISS descrambling operation.

Mux:

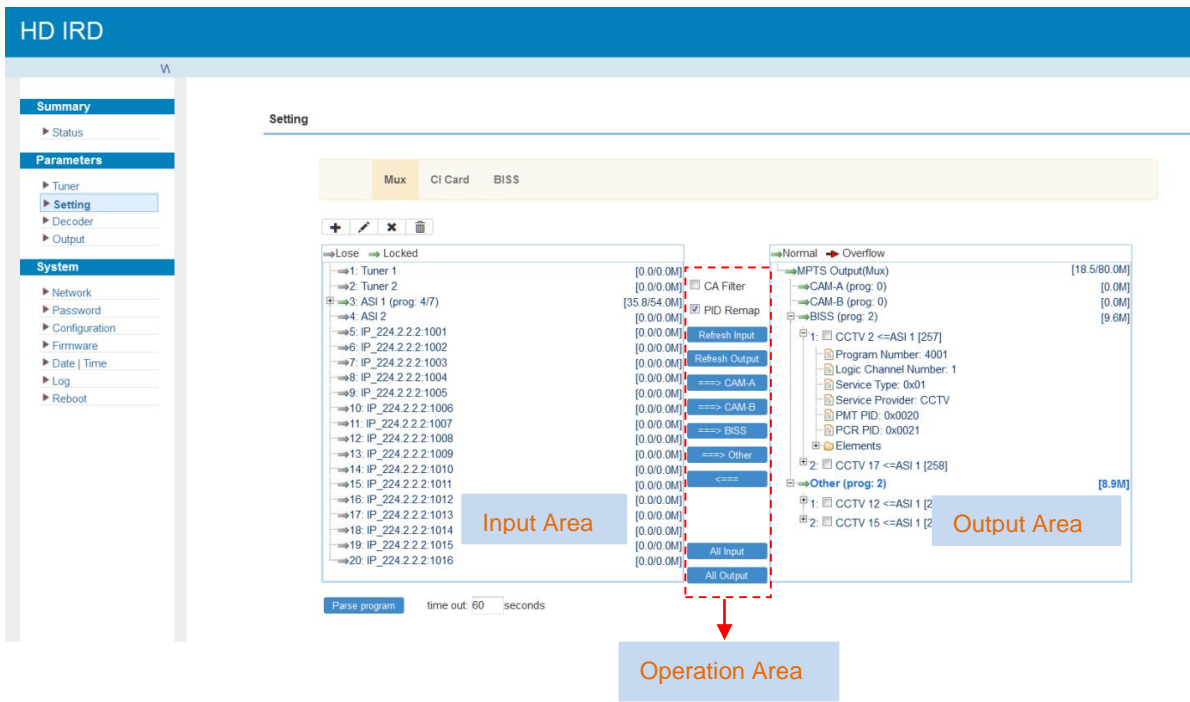


Figure-5

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

CA Filter : To enable/disable the CA filter

PID Remap: To enable/disable the PID remapping

Refresh Input To refresh the input program information

Refresh Output To refresh the output program information

====> CAM-A Select the wanted input program(s) firstly and click this button to transfer the selected program(s) to the CAM-A for CI-descrambling setting.

====> CAM-B Select the wanted input program(s) firstly and click this button to transfer the selected program(s) to the CAM-B for CI-descrambling setting.

====> BISS Select the wanted input program(s) firstly and click this button to transfer the selected program(s) to BISS channel for BISS descrambling setting.

====> Other Select the wanted input program(s) firstly and click this button to transfer the selected program(s) to output.

<==== Cancel the multiplexed programs from the output area after your program selection.

All Input To select all the input programs

All Output To select all the output programs

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

*All the programs in CAM-A, CAM-B, BISS and Other will be in MPTS out.

In Setting-Mux Web page, click “+” button to add the input ip streams.

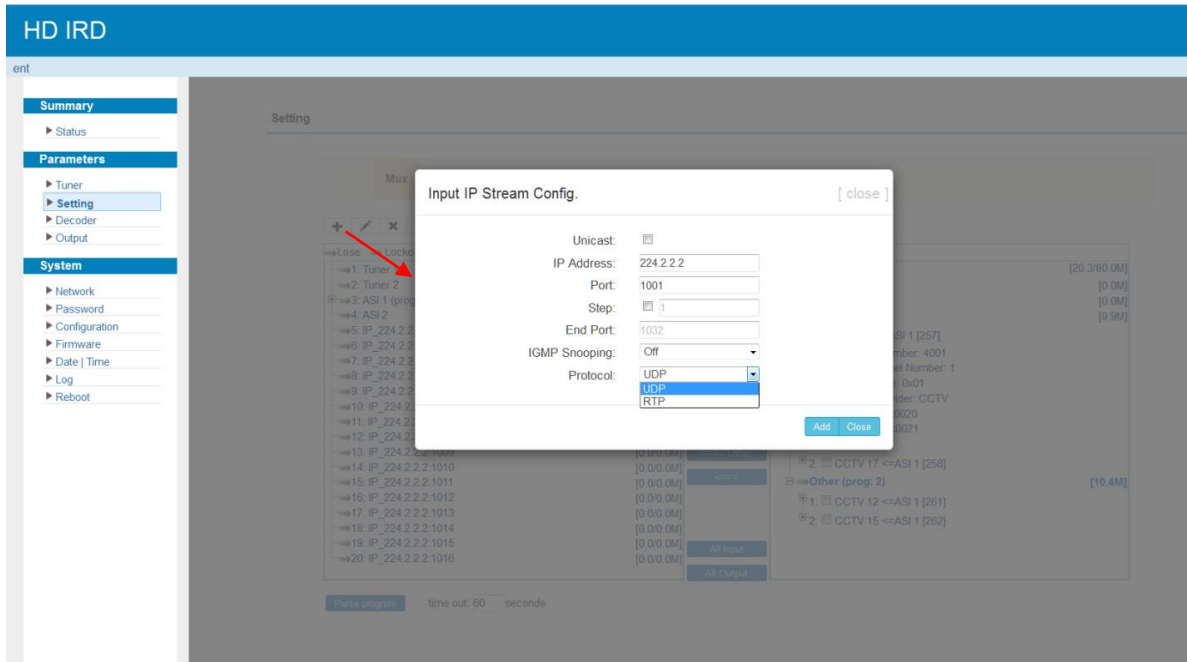


Figure-6

➤ **Program Modification:**

The multiplexed program information can be modified by clicking the program in the ‘output’ area. For example, when clicking 1: CCTV 2 <=ASI 1 [257] , it triggers a dialog box (Figure 7) where users can input new information.

Program Information
[close]

Program From Input:	ASI 1 [257]	
Service Name:	<input type="text" value="CCTV 2"/>	
Program Number:	<input type="text" value="4001"/>	
Logic Channel Number:	<input type="text" value="1"/>	
Service Type:	<input type="text" value="0x01"/>	
Service Provider:	<input type="text" value="CCTV"/>	
Biss Descramble:	<input style="border-bottom: 1px solid black;" type="text" value="Biss key 1"/>	
PMT Descriptor Tag:	<input type="checkbox"/> <input type="text" value="0x00"/>	
PMT Descriptor Data:	<input type="text"/>	(Hex)
PMT PID:	<input type="text" value="0x0020"/>	
PCR PID:	<input type="text" value="0x0021"/>	
MPEG-2 Video PID:	<input type="text" value="0x0022"/>	
MPEG-2 Audio PID:	<input type="text" value="0x0023"/>	

Figure-7

*Input new data and click ‘Save’ button at last to confirm the modification.

*When users add the BISS keys in the BISS web page, please select the corresponding BISS key for Biss Descramble in the pop-up window to descramble the corresponding program.

CI Card:

H-IRD-V3 supports 2 CI cards (Card A & Card B) to descramble programs from either encrypted Tuners, ASI or IP. Users can click and enter ‘CI Card’ to configure the 2 cards respectively. (Figure-8)

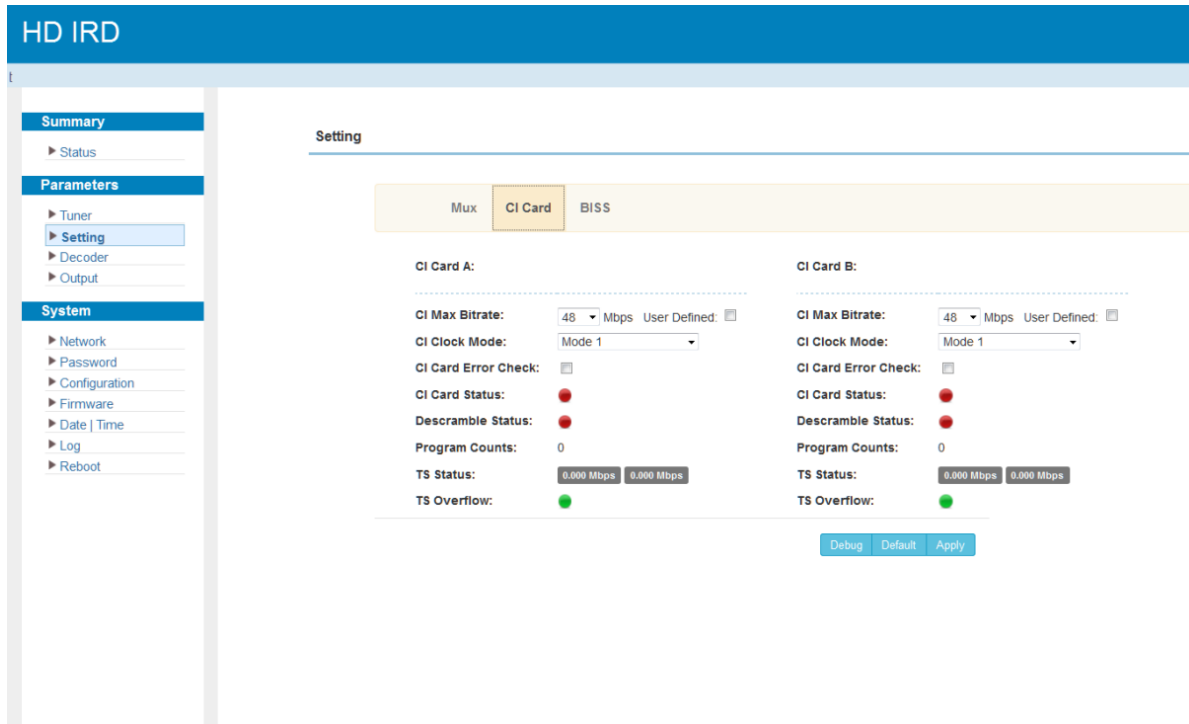
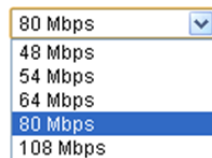
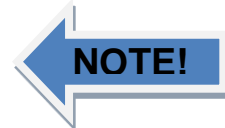


Figure-8

➤ **CI Max Bit rate**

CI Max Bitrate options range from 48-108Mbps. Select a value in the pull-down list as principle: $Actual\ Input\ Bitrate \leq Max\ Bitrate \leq CI\ Max\ decrypting\ capacity$.



CI Max Bitrate can be defined according to the actual CAM conditions of the users after

enabling **User Defined:** .

➤ **CI Clock Mode**

Usually, Mode 1 is working well in most of the CI-descrambling cases. If you want to change it to Mode 2, please contact our technician for setting guide.

➤ **CI Card Error Check**

Users can decide whether to enable the card error check function by checking the box.

CI Card Error Check:

After configuring CI card parameters, click Apply button to apply the input data to start descrambling the selected program(s). The program quantity to be descrambled will depend on the CAM/CI performance you apply to.

BISS:

Clicking “BISS”, it displays the interface where users can add the BISS keys and descramble the selected programs in the MUX Web page. (Figure-9)

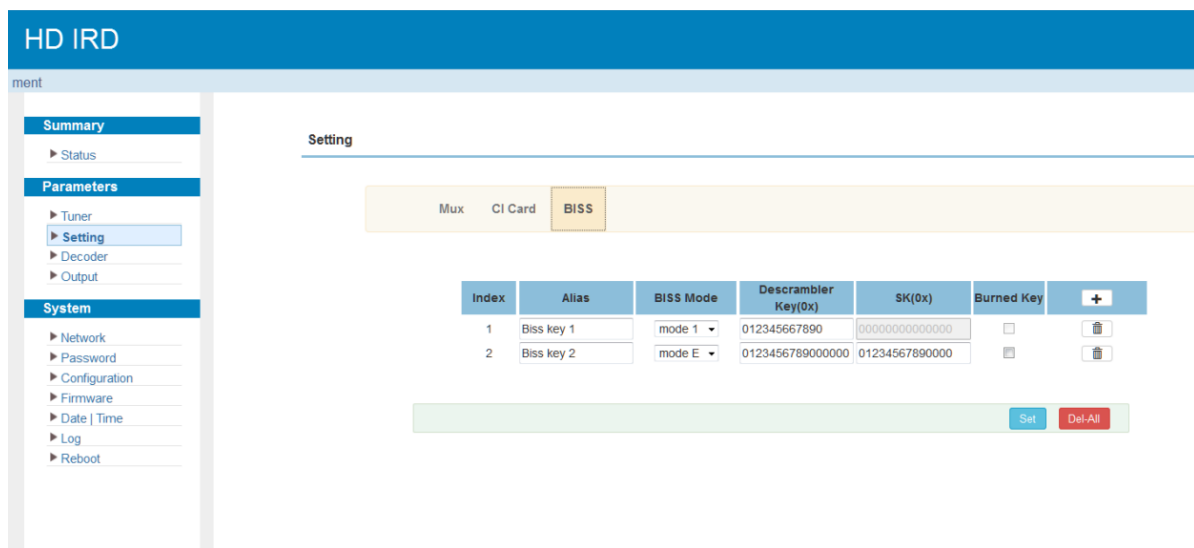


Figure-9

Items showing above are working as per the keys or codes set in the BISS scrambling side (the corresponding modulators).

Input corresponding items and data to active the BISS descrambling as principles be

Modulating Side (BISS SCR)	Receiving Side (BISS DESC)	Digit (0x----)
Mode 1+SW Data	Mode 1+Descrambler Key	12
Mode E+ESW Data + Device	Mode E + Descrambler Key + Burned Key	16
Mode E+ESW Data + Input ID	Mode E + Descrambler Key + SK	14

*After adding the above BISS keys, users need to come back to the Mux Web page and click the selected program name in BISS channel to get a pop-up window where the right BISS key will be selected and applied to descramble the corresponding program.

Parameters → Decoder:

H-IRD-V3 supports to decode one TV program to output via HDMI/SDI/CVBS. Users can configure the 1 Video/Audio output parameters in this Web page. Audio 2 will work only when your ordered version supports 2 audio decoding. (Figure-10)

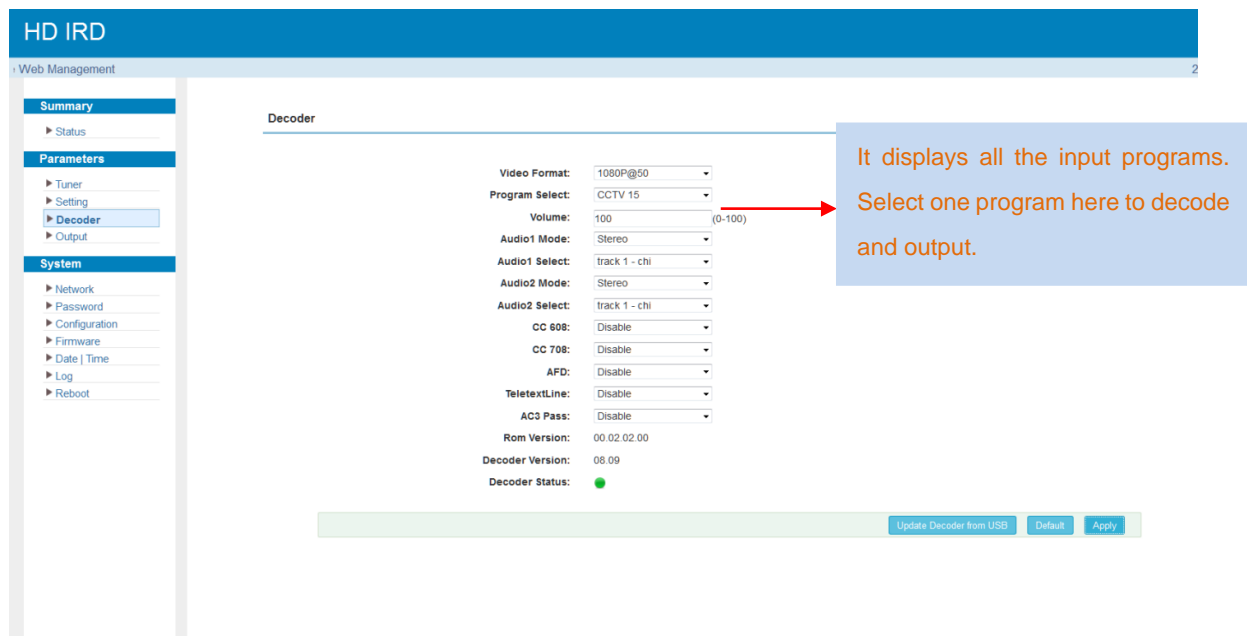


Figure-10

*Some professional parameters, such as AFD, please contact our technician for setting guide.

Parameters → Output:

This IRD supports TS output in IP (1 MPTS & 16 SPTS) and in ASI out. Click “Output” and it displays the interface where users can configure the MPTS & SPTS out parameters. (Figure-11)

#	Output Enable	IP Address	Port	Protocol	Null_PKT Filter	Program	Output Bitrate	Status	Bit(Act/Max)
MPTS	<input checked="" type="checkbox"/>	224.2.2.2	12010	UDP	<input type="checkbox"/>			●	16.7/80.0 M
SPTS-1	<input type="checkbox"/>	224.2.2.2	3002	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-2	<input type="checkbox"/>	224.2.2.2	3003	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-3	<input type="checkbox"/>	224.2.2.2	3004	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-4	<input type="checkbox"/>	224.2.2.2	3005	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-5	<input type="checkbox"/>	224.2.2.2	3006	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-6	<input type="checkbox"/>	224.2.2.2	3007	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-7	<input type="checkbox"/>	224.2.2.2	3008	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-8	<input type="checkbox"/>	224.2.2.2	3009	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M
SPTS-9	<input type="checkbox"/>	224.2.2.2	3010	UDP	<input type="checkbox"/>	NULL	20	●	0.0/20.0 M

Figure-11

In this page, user can enable or disable the corresponding IP output, modify the output address and port, modify the output protocol, define which SPTS is for which program, and set the MPTS output bitrate in this page.

Output

General

Character Encoding:

MPTS Output Mode:

MPTS Output Bitrate: Mbps


ASI Output Mode:

***Character Encoding:** users can choose the option as per their language environments.

***MPTS output mode:** Mux, Tuner 1 and Tuner 2. Tuner 1 and Tuner 2 here means the tuner signal passthrough.

***ASI Output Mode:** Packet Mode and Byte Mode, usually it is Packet Mode by default.

Byte mode is used in some special case where only Byte mode can enable the TS locking at the receiver side. Please contact our technician for setting guide when you need to use it.

After finishing the configuration, click  to confirm.

System → Network:

From the menu on left side of the webpage, clicking “Network”, it will display the screen as Figure-12 where to configure the network parameters for the device.

HD IRD

Welcome to use

Network

NMS

IP Address:

Subnet Mask:

Gateway:

Web Manage Port:

MAC Address:

DATA1

IP Address:

Subnet Mask:

Gateway:

MAC Address:

Set NMS IP address to connect the device to PC for management.

Figure-12

System → Password:

From the menu on left side of the webpage, clicking “Password”, it will display the screen as Figure-13 where to set the login account and password for the web NMS.

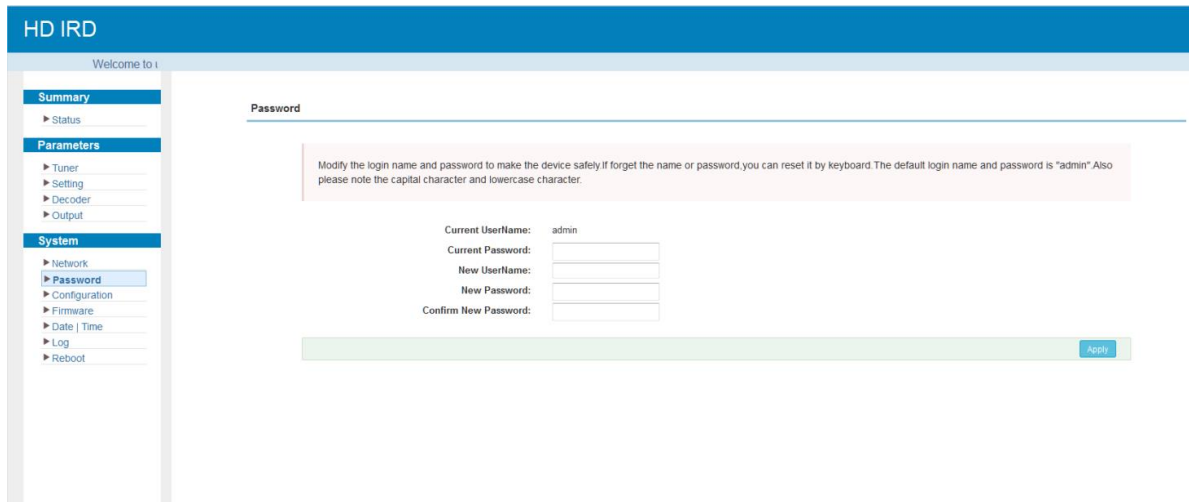
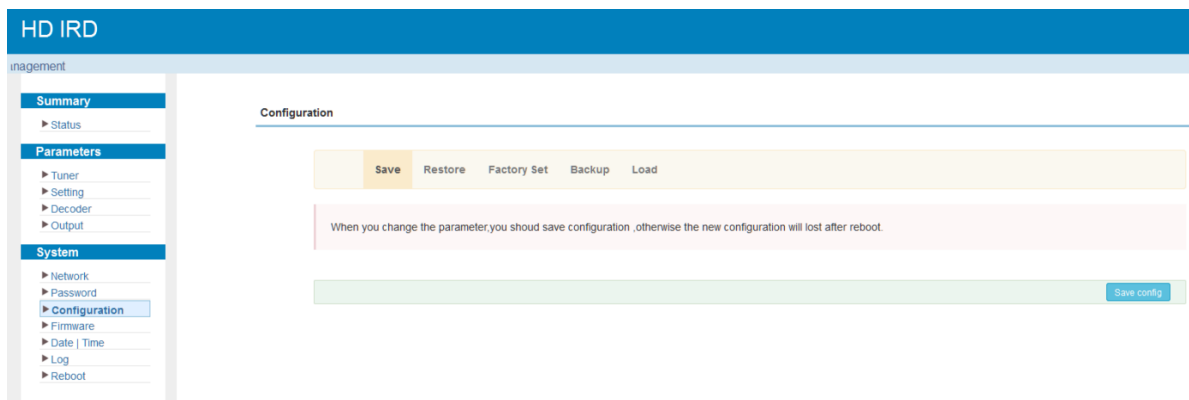


Figure-13

System → Configuration:

From the menu on left side of the webpage, clicking “Configuration”, it will display the screen as Figure-14 where to save, restore, make factory set, backup and load your configurations.



HD IRD

to use Web Management

- Summary
 - Status
- Parameters
 - Tuner
 - Setting
 - Decoder
 - Output
- System
 - Network
 - Password
 - Configuration
 - Firmware
 - Date | Time
 - Log
 - Reboot

Configuration

Save Restore Factory Set Backup Load

Load latest saved configuration, after click the "Restore" then please click the "Save config" button, otherwise the "Restore" parameter will lost after reboot.

Restore

HD IRD

gement

- Summary
 - Status
- Parameters
 - Tuner
 - Setting
 - Decoder
 - Output
- System
 - Network
 - Password
 - Configuration
 - Firmware
 - Date | Time
 - Log
 - Reboot

Configuration

Save Restore Factory Set Backup Load

Set all configuration back to default, after click the "Factory Set" then please click the "Save config" button, otherwise the default parameter will lost after reboot.

Factory set

HD IRD

- Summary
 - Status
- Parameters
 - Tuner
 - Setting
 - Decoder
 - Output
- System
 - Network
 - Password
 - Configuration
 - Firmware
 - Date | Time
 - Log
 - Reboot

Configuration

Save Restore Factory Set Backup Load

Backup current configuration to the local file, we suggest do this before set the configuration or update firmware.

Backup config

HD IRD

Management

- Summary
 - Status
- Parameters
 - Tuner
 - Setting
 - Decoder
 - Output
- System
 - Network
 - Password
 - Configuration
 - Firmware
 - Date | Time
 - Log
 - Reboot

Configuration

Save Restore Factory Set Backup Load

Load the backup file to restore your configuration

Warning:

1. New configuration will replace the old one, please backup current configuration before load file. If you use a wrong file, the device may not work.
2. Please do not turn off the power while file loading, otherwise the device will not work.

Browse Load

Load config

Figure-14

System → Firmware:

From the menu on left side of the webpage, clicking “Firmware”, it will display the screen as Figure-15 where to update firmware for the device.

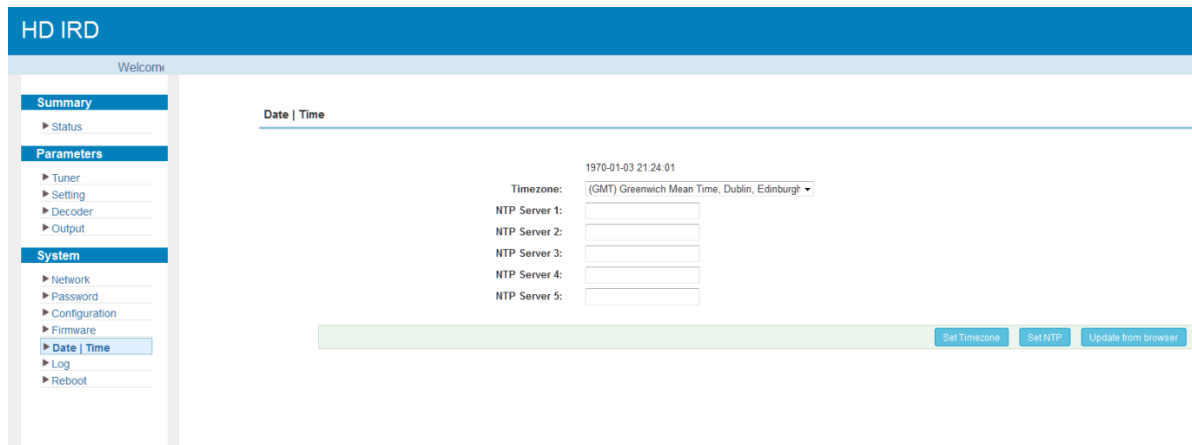
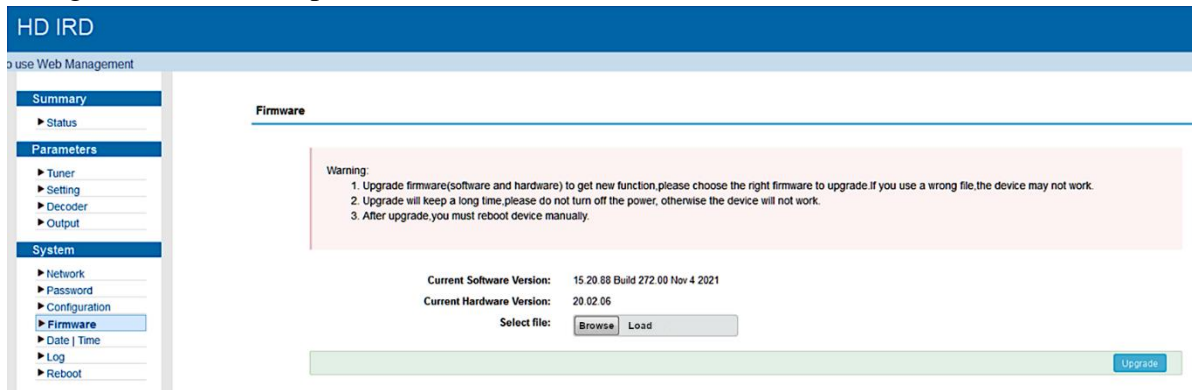


Figure-16

System → Log:

The Kernel and System log here are for the R&D debugging reference.

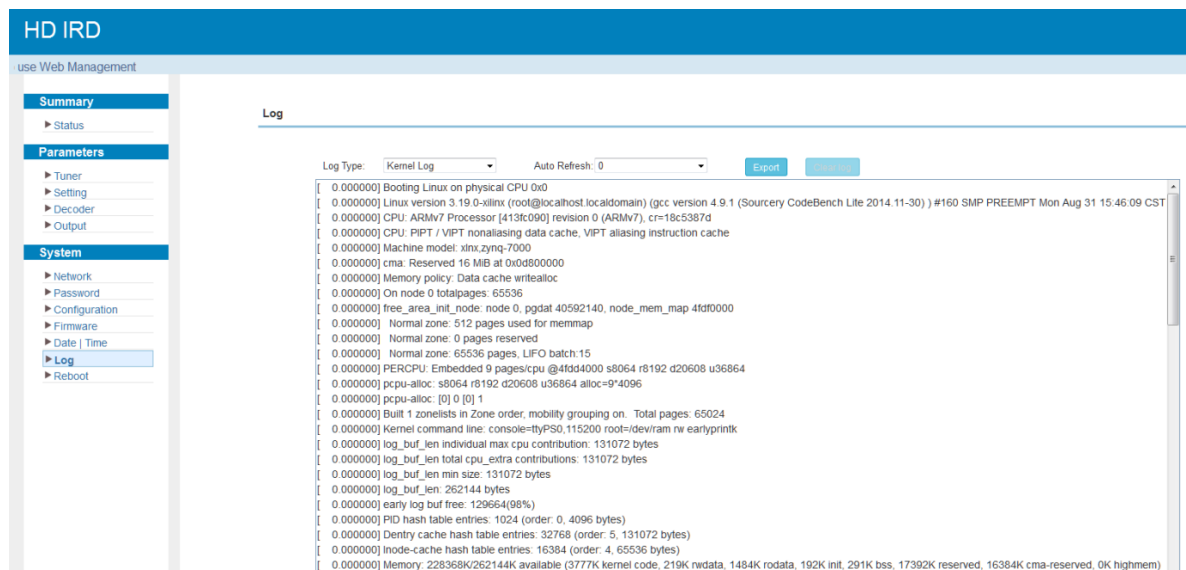


Figure-17

System → Reboot:

Users can reboot the CPU of the device in this page, and it is not same as manually rebooting.

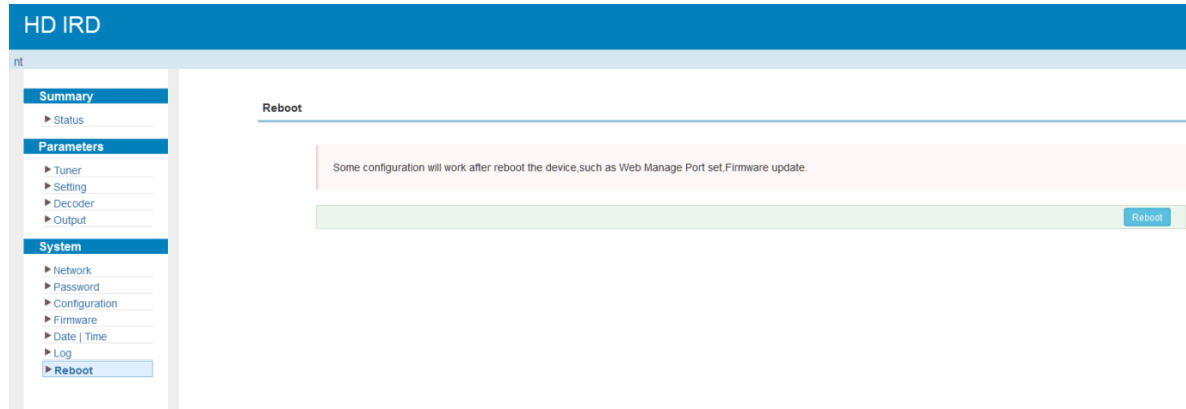


Figure-18

Chapter 5 Troubleshooting

Thor H-IRD-V3 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 which has 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 voltage 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 spilled into device.
- Any stuff that can cause circuit short
- Device in damp environment
- Device suffered from physical damage
- Longtime idle.
- After switching on and restoring to factory setting, device still cannot work properly.
- Maintenance needed

For Support Please contact Thor directly
1800-521-8467 ext 2
Support@thorfiber.com