

# Quick configuration Guide for H-4ADHD-QAM-IPLL and H-4ADHD-ATSC-IPLL

## Login instructions:

In order to log in to the Modulator NMS port, please set your PC's NIC Ethernet card to the following IP address: 192.168.0.100.

Access Modulator GUI by typing derail IP address **192.168.0.136** in to the browser

**Login /password – admin/admin**

## Encoder 1 Page Control Setup for HDMI, YPbPr, or CVBS 1 and 2

### Encoding Setup page for HDMI 1, 2

192.168.0.136

H-4ADHD-QAM-IPLL

Encoder - Multi IN 1 HD

CH 1-  
CH 1  
CH 2

Setup for HDMI Input 1  
Setup for HDMI Input 2

Advanced mode controls detailed encoding parameters and latency

1 Encoder 1 HDMI INPUT 1/2  
HDMI INPUT 3/4

2 Interface: HDMI

3 Video Format: Mpeg2

4 Video Bitrate: 14.0 Mbps (1.0 ~ 19.5 Mbps)

5 Format: AC 3

6 Apply

Video  
Interface: HDMI  
Aspect Ratio: Auto  
Out Resolution: Auto  
Video Format: Mpeg2  
Video Bitrate: 14.0 Mbps (1.0 ~ 19.5 Mbps)

Audio  
Interface: Auto  
Bitrate: 192 Kbps  
Format: AC 3

Status  
Encoder Chip Version: 1.1.3.211  
Input Information: 1920x1080 60i  
Input Lock: [Green LED]  
Bitrate: 14.628 Mbps  
Encode Status: Completed

When HDMI video is detected, it will show INPUT LOCK, Green LED, Bit rate and Video detected resolution

1 Select ENCODER1

2 Video interface: HDMI / CVBS / YPbPr

3 Video encoding MPEG2 or H.264 (**MPEG2** is a US, Canada, Mexico standard)

4 Video Encoding bitrates up to 18Mbps

5 Audio encoding format AC3,AC3 Pass,AAC,MPEG2 (The **AC3** is a US, Canada, Mexico standard)

6 Once configured click apply

## Encoding Setup page for VIDEO 3/4

The screenshot shows the 'H-4ADHD-QAM-IPLL' web management interface. The left sidebar contains navigation links: Summary, Parameters, System, Network, Password, Configuration, Firmware, Date | Time, and Log. The main content area is titled 'CH 1 - Setup for HDMI Input 3/4'. It features several configuration sections: Video, Audio, and Status. The Video section includes settings for Interface (HDMI), Aspect Ratio (Auto), Out Resolution (Auto), Video Format (Mpeg2), Video Bitrate (14.0 Mbps), Field/Picture Encoding (Picture), H.264 Level (Level 4), Contrast (128), Hue (0), DTS Delay (200), GOP Pframe (4), and Share PCR PID. The Audio section includes settings for Interface (Auto), Bitrate (192 Kbps), Dialog Normalization (-31), and Audio Delay (0). The Status section shows Encoder Chip Version (1.1.3.211), Input Lock (Green LED), Input Information (1920x1080 60i), Bitrate (14.640 Mbps), and Encode Status (Completed). A red dashed box highlights the 'HDMI INPUT 3/4' section, and another red dashed box highlights the 'Status' section. A blue 'Apply' button is located at the bottom right.

1 Select ENCODER2

2 Select CH1 for Input 3, CH2 for Input 4

3 Select Video interface : HDMI / CVBS / YPbPr

4 Video encoding MPEG2 or H.264 (MPEG2 is a US, Canada, Mexico standard)

5 Set Video Encoding bitrates up to 18Mbps

6 Set Audio encoding format MPEG2 / AC3 / AAC / AC3 Pass (AC3 Dolby is a US, Canada, Mexico standard)

7. Once configured click apply

1 Select ENCODER2

2 Select CH1 for Input 3, CH2 for Input 4

3 Select Video interface : HDMI / CVBS / YPbPr

4 Video encoding MPEG2 or H.264 (MPEG2 is a US, Canada, Mexico standard)

5 Set Video Encoding bitrates up to 18Mbps

6 Set Audio encoding format MPEG2 / AC3 / AAC / AC3 Pass

(AC3 Dolby is a US, Canada, Mexico standard)

7. Once configured click apply

## Modulator Setup

The modulator setup allows you to set the CATV channel constellation and control the RF power.

H-4ADHD-QAM-IPLL – DVB-C annex A/B  
QAM 64 /QAM 256  
H-4ADHD-ATSC-IPLL – ATSC modulation  
H-4ADHD-ISDBT-IPLL – ISDB-T modulation  
H-4ADHD-DVBT-IPLL – DVB-T modulation

**Summary**

► Status

**Parameters**

► Encoder 1

► Encoder 2

► **Modulator**

► TS Config

► Output Settings

**System**

**Modulator**

Center Frequency: 66.000 MHz

Standard: J.83B

Level(All Carriers): 3.0 dBm

Channel Info (Alarm/Active/Total): 0/4/4

Frequency Mode: **List**

#	Frequency	Constellation	Symbol Rate	Status	Bit(Act/Max)
1	57 CH 2	256 QAM	5361 Kbps	●	0.0/38.0 M

## Encoder Modulator

**Management**

**Summary**

► Status

**Parameters**

► Encoder 1

► Encoder 2

► **Modulator**

► TS Config

► Output Settings

**System**

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

**Modulator**

Center Frequency: 63.000 MHz

Standard: J.83B

Level(All Carriers): 3.0 dBm

Channel Info (Alarm/Active/Total): 0/4/4

Frequency Mode: **List**

#	Frequency	Constellation	Symbol Rate	Status	Bit(Act/Max)
1	57 CH 2	256 QAM	5361 Kbps	●	0.0/38.0 M
2	63 CH 3	256 QAM	5361 Kbps	●	0.0/38.0 M
3	69 CH 4	256 QAM	5361 Kbps	●	0.0/38.0 M
4	69 CH 4	256 QAM	5361 Kbps	●	0.0/38.0 M

**Channel 1 Config.**

Standard: J.83B

Level(CH Carriers): 0.0 (-20 ~ -3 dBm)

Channel Enable: ☒

Frequency: 57 CH 2

Constellation: 256 QAM

Symbol Rate: 5361 (3000 ~ 9000 Kbps)

Apply Close

1. Press the pencil icon to bring up edit window
2. Standard should be J.83B (US Standard) J.83A(Europe Standard) H-4ADHD-ATSC-IPLL has ATSC modulation frequency table listed
3. Frequency should be 57 for CH 2
4. Press apply

## TS Config (Encoded Transport Stream from the Video Audio Input selection for the CATV RF/ASI/IP Output)

**H-4ADHD-QAM-IPLL**

welcome to us

**THOR BROADCAST**

**Summary**

► Status

**Parameters**

► Encoder 1

► Encoder 2

► **Modulator**

► **TS Config**

► Output Settings

**System**

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

**Select Output CH # 1-4**

TS Config

1 → Output TS 1-4 Stream Select General

2 →

4 →

Not Locked → Locked

1: Encoder1 CH1 (prog: 1/1) [0.0/0.0M]

2: Encoder1 CH2 (prog: 0/1) [0.0/0.0M]

3: Encoder2 CH1 (prog: 0/1) [0.0/0.0M]

4: Encoder2 CH2 (prog: 0/1) [0.0/0.0M]

5: ASI (prog: 0) [0.0/0.0M]

Parse program time out: 60 seconds

**Transport Stream Input from Video or ASI**

**Transport Stream Output setting**

Normal → Overflow

Output (prog: 1) [0.0/38.8M]

TV-101 <CH1\_Encoder1 CH1 [101]

Program Information

Program From Input: CH1\_Encoder1 CH1 [101]

Service Name: TV-101

SUB-CHANNEL NUMBER: 1

Major Channel Number: 10

Minor Channel Number: 2

Source id: 1

Short Name: CH 1

Logic Channel Number: 1

Service Type: 0x01

Service Provider: Encoder 1

PMT PID: 0x0020

PCR PID: 0x0021

MPEG-2 Video PID: 0x0022

AC3 Audio PID: 0x0023

Apply Close

1. Click on 'Output TS 1-4' to select CATV RF output channels 1-4.
2. Highlight 'Encoder CH 1'.
3. Parse the program (scanning function) and click the plus sign to expand encoder channel options.
4. Check the box next to the desired source.
5. Press the '==>' button to move the encoded video to the output channel. Multiple videos can be multiplexed on a single RF channel, up to a total bit rate of 38Mbps, as sub-channels like 2.1, 2.3, 2.4, etc."

## VCT Virtual Channel Table Setup

(if VCT is not turned on, the TV will show physical channel numbers +SUB-Channel number).

The screenshot shows the 'Encoder Modulator' web interface. On the left, a sidebar contains 'Summary', 'Parameters', 'Modulator', 'TS Config', and 'System'. The 'TS Config' tab is selected. The main area is titled 'TS Config' and has three tabs: 'Output TS 1-4', 'Stream Select', and 'General'. The 'General' tab is active and contains fields for 'Character Encoding' (NORMAL), 'SDT Insert' (checked), 'TS ID' (1), 'ON ID' (1), 'NIT Insert' (Not insert), 'VCT Insert' (checked with an 'X'), 'VCT Mode' (CVCT), 'Modulation Mode' (4), and 'Carrier Frequency' (500.000 MHz). A red dashed box labeled '1' highlights the 'General' tab. Another red dashed box labeled '2' highlights the 'VCT Insert' checkbox. A third red dashed box labeled '3' highlights the 'Apply' button.

CVCT is the CABLE TV QAM standards TVCT is the ATSC standards

1. Click the general tab

2. Check the VCT insert check box (if VCT is not turned on, the TV will show physical channel numbers).

3. Press apply

The screenshot shows the 'Encoder Modulator' web interface with the 'TS Config' page. The 'General' tab is selected (1). The 'Stream Select' tab is selected (2). The 'Program Information' dialog box is open (3). The 'SUB-CHANNEL NUMBER' is set to 1 (4). The 'Major Channel Number' is set to 1 (5). The dialog box also shows 'Service Name: TV-101', 'Minor Channel Number: 1', 'Source Id: 1', 'Short Name: prog1', 'Logic Channel Number: 1', 'Service Type: 0x01', 'Service Provider: Encoder 1', 'PMT PID: 0x0020', 'PCR PID: 0x0021', 'MPEG-2 Video PID: 0x0022', and 'AC3 Audio PID: 0x0023'. Arrows point from the 'SUB-CHANNEL NUMBER' and 'Major Channel Number' fields to text boxes explaining their display on TV. The 'Apply' button is highlighted with a red dashed box labeled '5'.

1 Click on the Output 1-4 tab, which corresponds to the CATV RF channel output.

2 Click Stream Select

3 Click on the number "1" and a drop-down box will open showing program information.

4 Change the major channel number to your preference.

5 Change the minor channel number to your preference.

6 Click apply.

# IP Output Settings

H-4ADHD-QAM-IPLL

**Output Settings**

IP Stream(GE\_DATA)

Channel Info.(Alarm/Active/Total): 0/4/8

#	IP Address	Port	Protocol	Pkt Length	Null PKT Filter	Program	Status	Bit(Act/Max)
MPTS 1	224.2.2.2	2000	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 2	224.2.2.2	2002	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 3	224.2.2.2	2004	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 4	224.2.2.2	2006	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
SPTS 1	224.2.2.2	3000	UDP	7	<input checked="" type="checkbox"/>	TV-101(MPTS1)	●	14.7/20.0 M
SPTS 2	224.2.2.2	3002	UDP	7	<input checked="" type="checkbox"/>	TV-102(MPTS2)	●	14.7/20.0 M
SPTS 3	224.2.2.2	3004	UDP	7	<input checked="" type="checkbox"/>	TV-201(MPTS3)	●	14.7/20.0 M
SPTS 4	224.2.2.2	3006	UDP	7	<input checked="" type="checkbox"/>	TV-202(MPTS4)	●	14.7/20.0 M

**ASI Out Control**

Output Select:

**SPTS 1 Config.**

ENABLE ON/OFF: ☒

Output Bitrate: 20.000 Mbps

IP Address: 224.2.2.2

Port: 3000

Protocol: UDP

Pkt Length: 7

Null PKT Filter: ☒

Program: TV-101(MPTS1)

**VLC media player**

Open Media

File Disc Network

Network Protocol

Please enter a network URL:

udp://@224.2.2.2:3000

**Annotations:**

- 1. Click the pencil icon for MPTS's or SPTS's section. Drop box will open to configure channel 1
- 2. Enable and edit your IP preferences
- 3. Press apply

IPTV streaming is sent out from the data port and can be tested using VLC player.

UDP syntax example is `udp://@224.2.2.2:3000`

RTP syntax example is `rtp://@224.2.2.2:3000`

RTSP syntax example is `rtsp://( DATA IP ADDRESS):5000/1-4`

1. Click the pencil icon for MPTS's or SPTS's section. Drop box will open to configure channel 1
2. Enable and edit your IP preferences
3. Press apply

## Configuration Saving / Backup / Restore

**H-4ADHD-QAM-IPLL**

welcome to use Web A

**THOR BROADCAST**

**Configuration**

**SAVE Backup to PC Restore**

Save Restore Factory Set Backup Load

When you change the parameters, you should save configuration, otherwise the new c

Save config

1. Click the configuration tab on the left hand side
2. Click the save tab
3. Press save config –

**YOU MUST SAVE OR ALL CHANGES WILL BE LOST AFTER RESTART!**