

Quick configuration Guide for **H-4ADHD-QAM-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

192.168.0.136

Encoder - SDI HD

Video

2 Video Format: Mpeg2

3 Video Cache: On

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

Field/Picture Encoding: Picture

CC Switch: CC Off

Low Delay: Normal

H.264 Level: Level 4

Share PCR PID:

6 Closed Captioning

Audio

7 Group 1

5 Audio Format: Mpeg2

Audio Group: Group 1

Audio Gain: 100 (0 ~ 400%)

Bitrate: 192 Kbps

Audio Pair: Pair 1

Audio Delay: 0 (0 ~ 1000ms)

Status

Encoder Chip Version: 2.7.3.211

Input Information: 1920x1080 59.94i

Encode Status: Completed

Input Lock:

Bitrate: 14.652 Mbps

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

8 Apply

- 1 Select ENCODER1 (H-4ADHD unit has also ENCODER2 for CH # 2)
- 2 Video encoding MPEG2 or H.264 (**MPEG2** is a US, Canada, Mexico standard)
- 3 Video Cache - is a Video buffer ON/OFF, The default is OFF, it need to be set ON if SDI input resolution is fluctuation
- 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 Closes captioning Setting, (if CC is enabled, the Video Cache need to be OFF)
- 7 The Unit support 2 Audios, The Audio tracks can be selected from SDI group 1-4 each pair 1 or 2
- 6 Once configured click apply

Ver.2023

<https://thorbroadcast.com>

800-521-8467

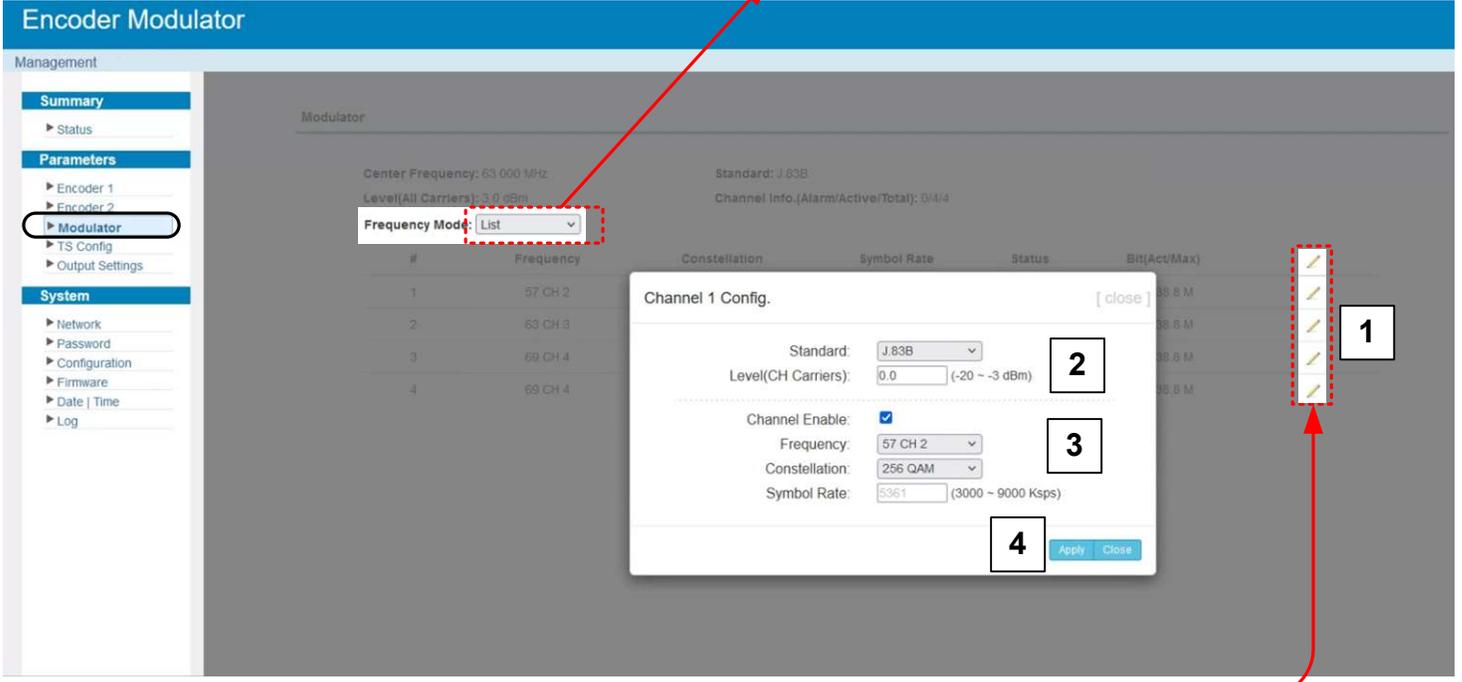
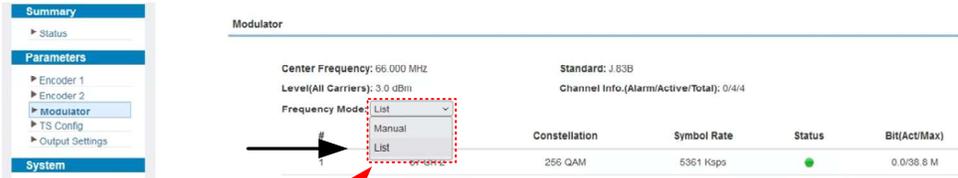
sales@thorfiber.com



Modulator Setup

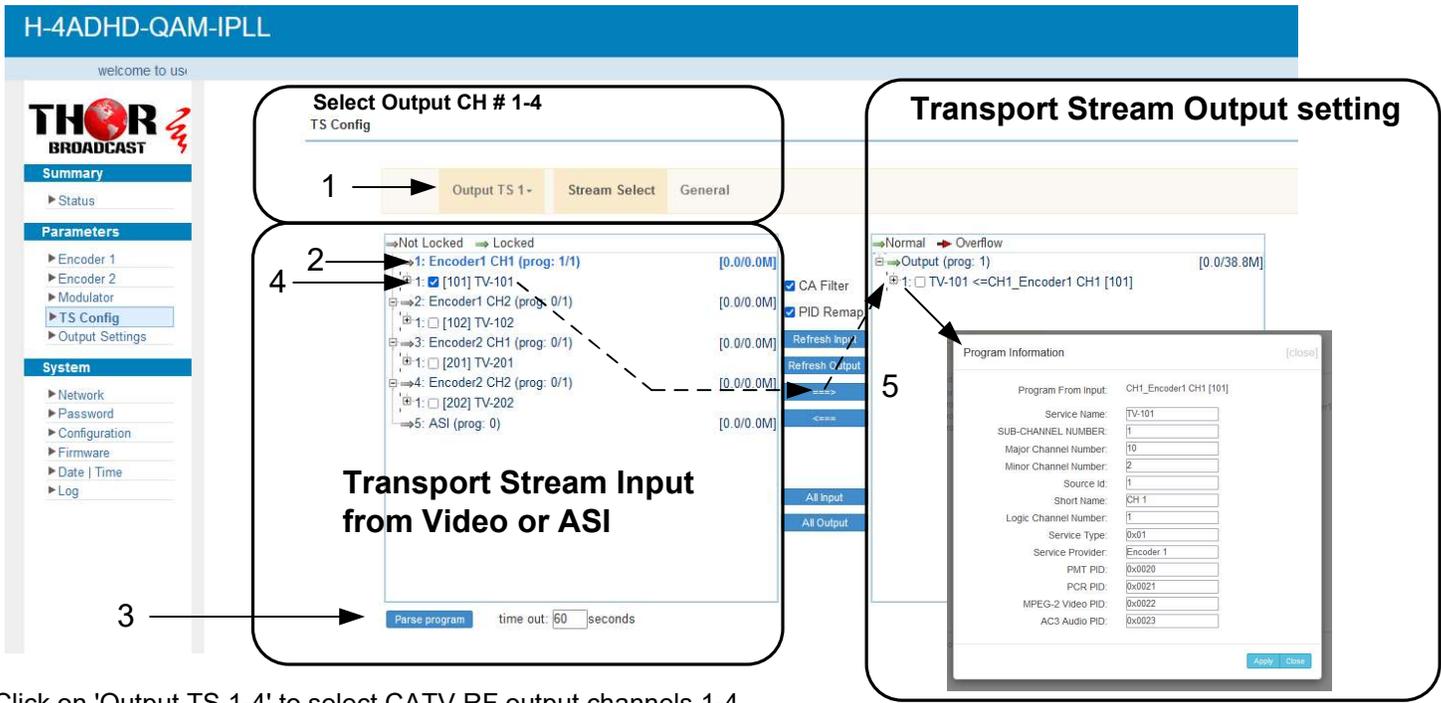
The modulator setup allows you to set the CATV channel constellation and control the RF power.

- 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



1. Press the pencil icon to bring up edit window
2. Standard should be J.83B (US Standard) J.83A(Europe Standard) H-1/2HDMI-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)



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."

The screenshot shows the THOR Broadcast TS Config interface. On the left is a navigation menu with sections: Summary (Status), Parameters (Encoder 1, Modulator, TS Config, Output Settings), and System (Network, Password, Configuration, Firmware, Date | Time, Log). The main area is the 'Stream Select' tab for 'Output TS 1'. A dropdown menu labeled '1' is open, showing 'Encoder 1 (prog: 1/1) [14.7/17.1M]'. A dialog box titled 'Program Information' is open, showing fields for: Program From Input (CH1_Encoder 1 [101]), Service Name (TV-101), SUB-CHANNEL NUMBER (1), Major Channel Number (2), Minor Channel Number (1), Source Id (1), Short Name (NBC), Logic Channel Number (1), Service Type (0x01), Service Provider (Encoder 1), PMT PID (0x0020), PCR PID (0x0021), MPEG-2 Video PID (0x0022), and MPEG-2 Audio PID (0x0023). Arrows 1-6 point to the dropdown, the dialog, the Major Channel Number field, the Minor Channel Number field, the Short Name field, and the Apply button respectively.

1. Click Steam Select tab to go back to the previous screen
2. Click the number “1” - Drop box will open – program information
3. Set major channel number to your preference
4. Set minor channel number to your preference
- 5 Set Short Name (will display on the TV)
6. Click apply

The screenshot shows the THOR Broadcast TS Config interface with the 'General' tab selected. The 'VCT' section is highlighted in green. Fields include: VCT Insert (checked), VCT Mode (CVCT), Modulation Mode (4), and Carrier Frequency (500.000 MHz). Arrows 1, 2, and 3 point to the General tab, the VCT Insert checkbox, and the Apply button respectively.

1. Click the general tab
2. Check the VCT insert check box
3. Press apply

If VCT Insert is not apply the TV will scan and show physical channel number as a Major channel and Service ID (Sub-Channel number) as Minor, for example 2.1

IP Output Settings

MPTS's

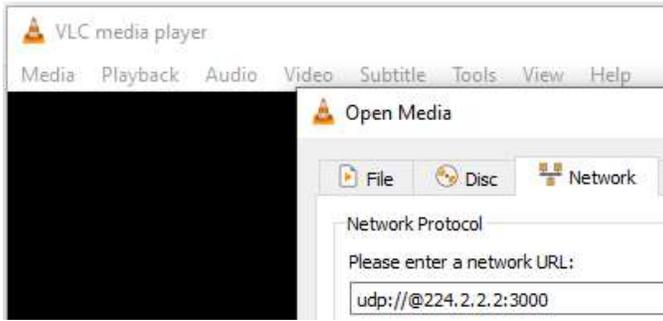
#	IP Address	Port	Protocol	Pkt Length	Null PKT Filter	Program	Status	Bit(Act/Max)
MPTS 1	224.2.2.2	2000	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 2	224.2.2.2	2002	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 3	224.2.2.2	2004	UDP	7	<input type="checkbox"/>		●	14.7/38.8 M
MPTS 4	224.2.2.2	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

SPTS's

ASI Out Control

Output Select:

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

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!