

H-4SDI-ATSC-IP-LL

Quick Setup Guide

*This guide also applies to H-2SDI-ATSC-IP-LL and H-1SDI-ATSC-IP-LL

Step 1: CONNECT AND LOGIN

Connect power cable



Connect SDI Inputs 1 through 4



- Open web browser and go to <http://192.168.0.136>
- Login/Password: admin/admin

Connect the NMS port to your PC using an ethernet cable

Step 2: SELECT "Encoder 1" FROM MAIN MENU

Parameters

- ▶ Encoder 1 ←
- ▶ Encoder 2
- ▶ Modulator
- ▶ TS Config
- ▶ Output Settings

Recommended Settings:

- Video Format: MPEG2
- Video Bitrate: 18.0
- Audio Format: AC3

IMPORTANT:

INPUT LOCK MUST BE GREEN & SHOWING BITRATE INFORMATION

Input Lock:

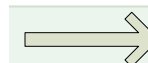


Bitrate:

18.862 Mbps

The screenshot shows the web interface for the Thor 4 SDI HD Encoder-RF Modulator. At the top, there is a "CH 1" dropdown menu with an arrow pointing to it and the text "Select Channel 1 or 2". Below this, the "Video" section is highlighted in green. It contains two settings: "Video Format" set to "Mpeg2" and "Video Bitrate" set to "18.0" Mbps (with a range of 1.0 ~ 19.5 Mbps). Below the "Video" section, the "Audio" section is also highlighted in green. It contains one setting: "Format" set to "AC 3".

Click "Apply" to save changes



Apply

REPEAT THESE STEPS AS NEEDED FOR ENCODER 2

Step 3: SELECT “Modulator” FROM MAIN MENU









Parameters

- ▶ Encoder 1
- ▶ Encoder 2
- ▶ Modulator
- ▶ TS Config
- ▶ Output Settings

IMPORTANT:

**STATUS LIGHTS
ARE GREEN ONLY
WHEN CHANNEL IS
ENABLED**

Select the very top
pencil icon to edit all

#	Frequency	Status	Bit(Act/Max)	
1	57 CH 2		18.8/19.4 M	
2	63 CH 3		18.8/19.4 M	
3	69 CH 4		18.8/19.4 M	
4	79 CH 5		14.7/19.4 M	

Select the pencil icon on the
same line to edit individually

Check box
to enable
channel

Quickly Config. [close]

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

Channel Enable: ☒

Start Frequency:

Select desired
frequency and
channel

Hit “Apply” to
save changes

Frequency Mode:

#	Frequency
1	57.000 MHz
2	63.000 MHz
3	69.000 MHz
4	79.000 MHz

OPTIONAL:
Choose your own
frequencies by setting
frequency mode to
“Manual”

Step 4: SELECT "TS Config" FROM MAIN MENU

Parameters

- ▶ Encoder 1
- ▶ Encoder 2
- ▶ Modulator
- ▶ TS Config
- ▶ Output Settings

1). Select
Output
TS (1-4)

Output TS 1 ▾ Stream Select General

⇒ Not Locked ⇒ Locked

1: Encoder1 CH1 (prog: 0/1) [18.7/21.9M]

2: Encoder1 CH2 (prog: 0/1) [18.6/21.9M]

2). Discover Inputs:
Click "Parse Program"

Parse program time out: 60 seconds

3). Click "+" to expand

⇒ Not Locked ⇒ Locked

1: Encoder1 CH1 (prog: 0/1) [18.7/21.9M]

2: Encoder1 CH2 (prog: 0/1) [18.7/21.9M]

3: Encoder2 CH1 (prog: 0/1) [18.7/21.9M]

4: Encoder2 CH2 (prog: 0/1) [14.7/17.1M]

4). Assign outputs:
Click the checkbox selecting
the discovered TS program

⇒ Not Locked ⇒ Locked

1: Encoder1 CH1 (prog: 1/1)

1: [101] TV-101

5). Press the Blue "➡" button to move the
selected program from the Input side to the
Output side

⇒ Normal ➡ Overflow

Output (prog: 1)

1: [] TV-101 <=CH1_Encoder1 CH1 [101]

☒ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

➡➡

6). Click the name of
the output program
for more options

7). OPTIONAL:
You may set
the Major and
Minor channels
to preference
(VCT must be
enabled)

⇒ Normal ➡ Overflow

Output (prog: 1)

1: [] TV-101 <=CH1_Encoder1 CH1 [101]

Program From Input: CH1_Encoder1 CH1 [101]

Service Name: TV-101

SUB-CHANNEL NUMBER: 1

Major Channel Number: 1

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

AC3 Audio PID: 0x0023

Click "Apply" to
save changes

Apply Close

REPEAT THE ABOVE STEPS AS NEEDED TO CONTINUE ADDING MORE PROGRAMS

Step 5: TS Config (Virtual Channel Table)

Click “General” tab

Output TS 1

Stream Select

General

Stream

Character Encoding:

NORMAL

TS ID:

1

NIT

NIT Insert:

Not insert

VCT

VCT Insert:

☒

VCT Mode:

CVCT

Check the box to enable VCT

Click “Apply” to save changes

Apply

If VCT is ENABLED:
The virtual channel numbers will override the physical channel number. The TV will display the values set in the Program Information settings as the major channel number / minor channel number

Service Name:

TV-101

SUB-CHANNEL NUMBER:

1

Major Channel Number:

2

Minor Channel Number:

1

Source Id:

1

Short Name:

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

TV will display VCT channel 2-1

If VCT is DISABLED:

The TV will display the physical channel number according to the modulator frequency. For example, 57 MHz (Channel 2) will show as the major channel number, and the Sub-channel Number will be shown as the minor channel number.

Frequency Mode:

Manual

#	Frequency
1	57.000 MHz
2	63.000 MHz
3	69.000 MHz
4	79.000 MHz

CH 2 Major

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:

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

Sub-Channel 1 Minor

TV will display physical channel 2-1

Step 6: IP Preferences

Parameters

► Encoder 1

► Encoder 2

► Modulator

► TS Config

► **Output Settings**

Select "Output Settings" from the main menu

IMPORTANT:

**TO ACCESS STREAMS, CONNECT
DEVICES TO THE DATA PORT USING
AN ETHERNET CABLE**

SPTS 1	224.2.2.2	3000	UDP	7	<input type="checkbox"/>	TV-101(MPTS1)		18.8/20.0 M	
SPTS 2	224.2.2.2	3002	UDP	7	<input type="checkbox"/>	TV-102(MPTS2)		18.8/20.0 M	
SPTS 3	224.2.2.2	3004	UDP	7	<input type="checkbox"/>	TV-201(MPTS3)		18.8/20.0 M	
SPTS 4	224.2.2.2	3006	UDP	7	<input type="checkbox"/>	TV-202(MPTS4)		14.7/20.0 M	

Click the pencil icon to edit

From the popup window, you can enable and edit your IP preferences

Enable: ☒

Output Bitrate: Mbps

IP Address:

Port:

Protocol:

Pkt Length:

Null PKT Filter: ☐

Program:

Click "Apply" to save changes

Apply Close

Connect to the stream using the appropriate IP and Port Number

Example:
udp://@224.2.2.2:3000

Step 7: SAVE SETTINGS

IMPORTANT:

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

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

1. Click "Configuration"

2. Click the "Save" tab

CONFIGURATION

Save

Restore

Factory Set

Backup

Load

When you change settings, you should save the configuration once done.

3. Press "Save config" button

Save config

saving configuration, please wait...

4). Confirmation message will appear briefly until saving is complete.

Scan for more info:



ATSC - US Television Channels (MHz)					
Channel	MHz Center Frequency	Channel	MHz Center Frequency	Channel	MHz Center Frequency
2	57	27	551	52	701
3	63	28	557	53	707
4	69	29	563	54	713
5	79	30	569	55	719
6	85	31	575	56	725
7	177	32	581	57	731
8	183	33	587	58	737
9	189	34	593	59	743
10	195	35	599	60	749
11	201	36	605	61	755
12	207	37	611	62	761
13	213	38	617	63	767
14	473	39	623	64	773
15	479	40	629	65	779
16	485	41	635	66	785
17	491	42	641	67	791
18	497	43	647	68	797
19	503	44	653	69	803
20	509	45	659		
21	515	46	665		
22	521	47	671		
23	527	48	677		
24	533	49	683		
25	539	50	689		
26	545	51	695		