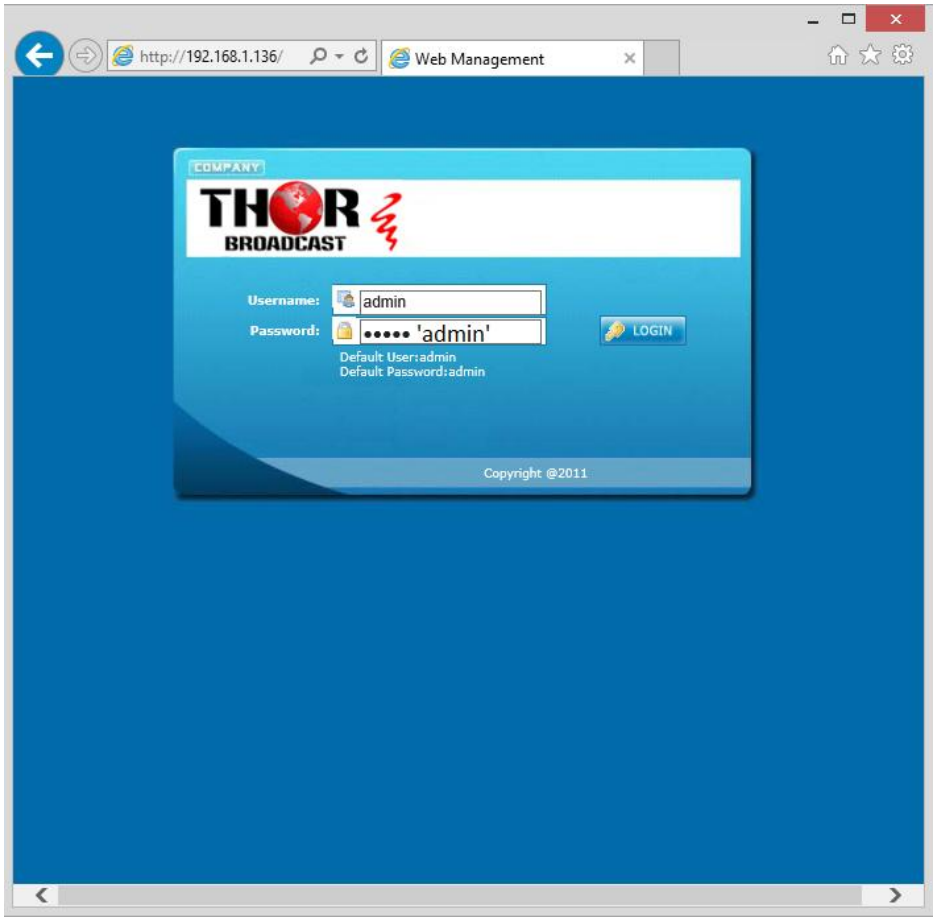
Encoder Modulator

IPTV Setup



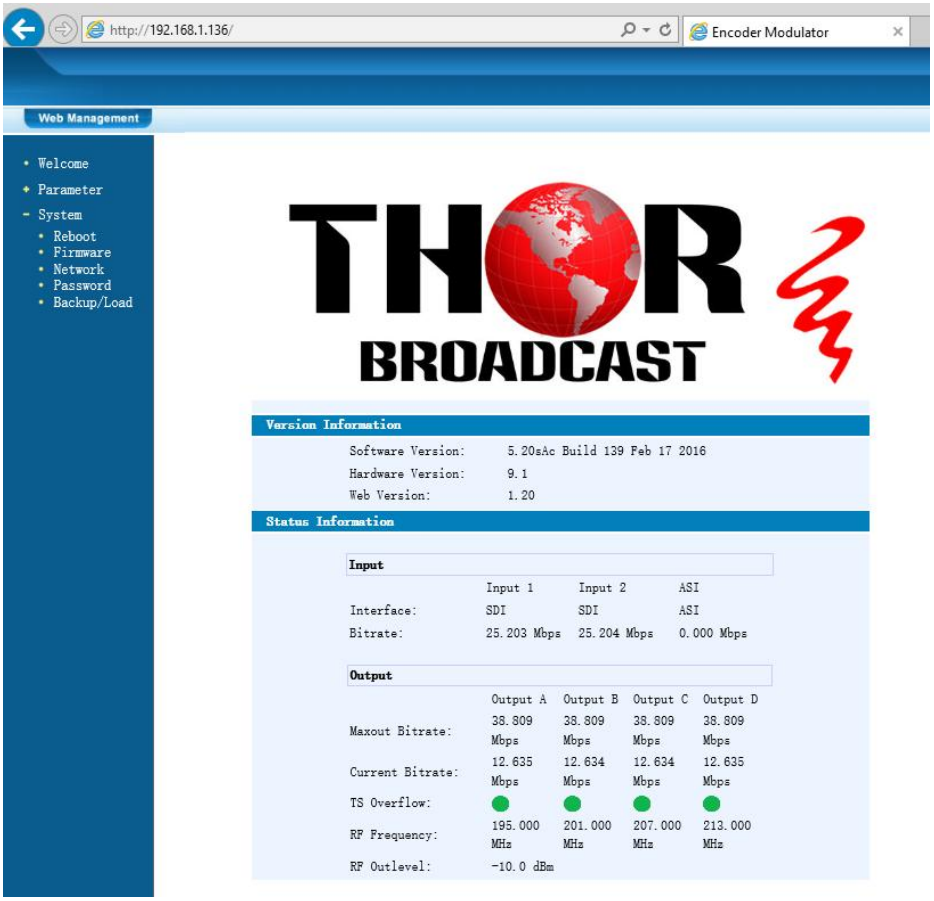
INTRO

Thor Broadcast ships from our facility in Los Angeles with a preloaded NMS GUI firmware

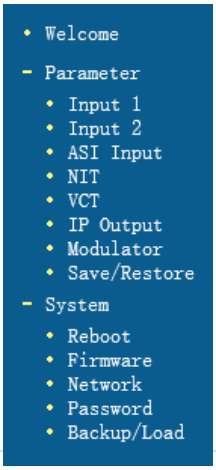
Generally the IP address will be 192.168.0.136 ; this goes into any internet browser URL line

Once you're at the login screen; default username and admin passwords are both: admin

Here we changed the IP on the units front panel to 192.168.1.136 to match the PC's nic.



***If you do not have a green light at the bottom of this screen as shown to the left here, that means the unit is not reading the input(red light) which means that your resolution is above or below the units threshold of 720 to 1080 (could be 480 if using composite inputs)



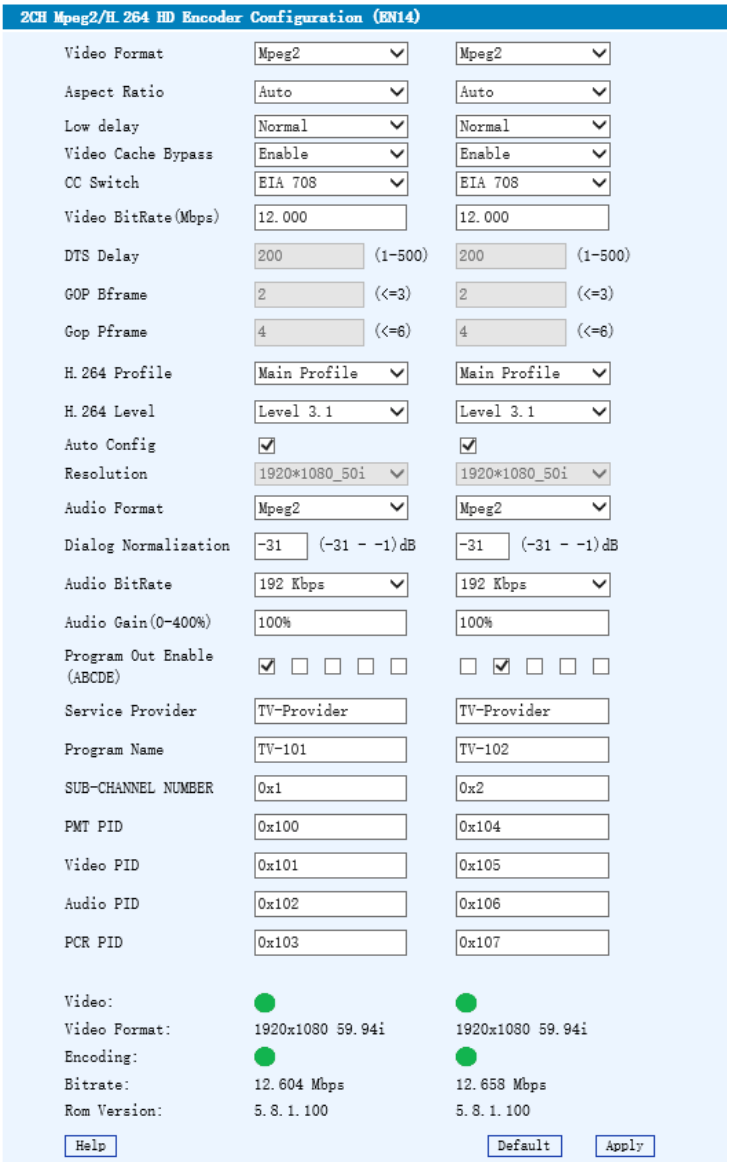
The Welcome Screen above has general information of your operating encoder

On the left hand side you can quickly switch to Thor's Parameters and System Control

Input 1 reflects the first TWO HDSDI inputs 1 & 2

Input 2 reflects the next TWO HDSDI inputs 3 & 4

In this example – we have inserted 4 HD-SDI inputs into our unit



INPUTS 1 & 2 for HD-SDI (2 channels)

You can see that there are a variety of ways to alter the functions and options using simple drop down menus when perusing the various menu options.

However Thor's unique hardware systems are developed to automate most of these options for you. It's important for you to always save and hit APPLY at the bottom to save the work you've done.

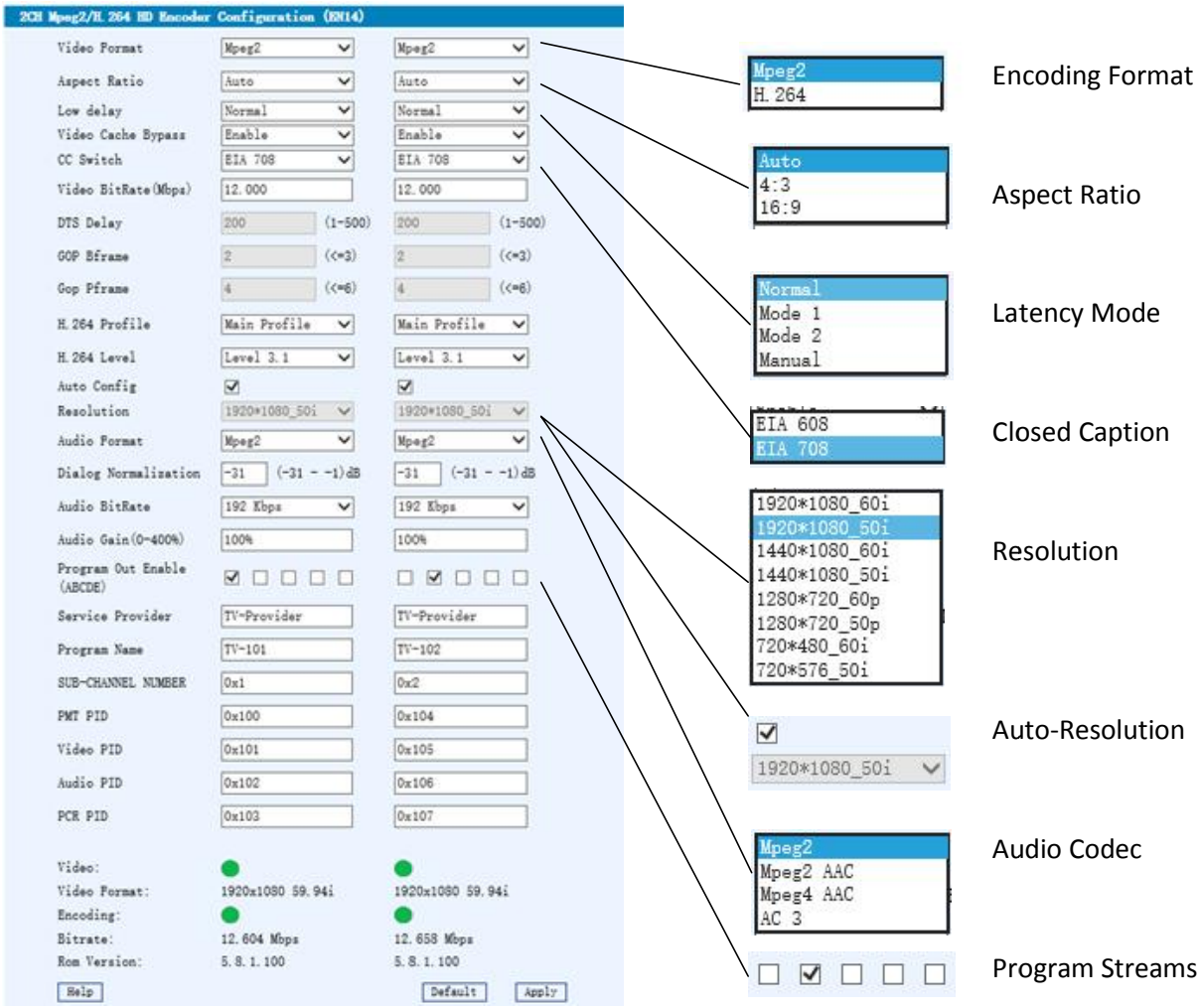
You can set up virtual channels and program ID features as well.

At the bottom the green light indicates the unit is operational and digesting the video stream at about 12.5mb/s.

If you have RED lights, there is a 99% certainty that this problem is related to resolution.

The drop down menus offer an abundance of options, here we have standardized the unit to ingest HD-SDI video and to encode those streams in MPEG2 with EIA Closed Captions 708 embedded on the SDI.

These are just a few of the drop down menu options you can manipulate in the NMS gui



While the unit will automate many options and tune to ideal settings when first powered on, there are still numerous options inherently available for your fine tuning including bit rate and latency.

Once you have selected your options we will turn our attention to the 5 boxes next to program streams.

These boxes ☐ ☑ ☐ ☐ ☐ are defined as A B C D E

A B C D are your 4 HD-SDI input signals and E is for Multiplexing on ASI and IP output(MPTS)

You'll find these ☐ ☑ ☐ ☐ ☐ on the • IP Output • Modulator menus as well, these check marks indicate where your streams will be output in the IP and Modulator sections, but in the • Input 1 • Input 2 menu's this

is where you activate those streams for encoding, if these boxes are left unchecked, this will disallow any programs from being output

Input 1: 

Here A & B are on

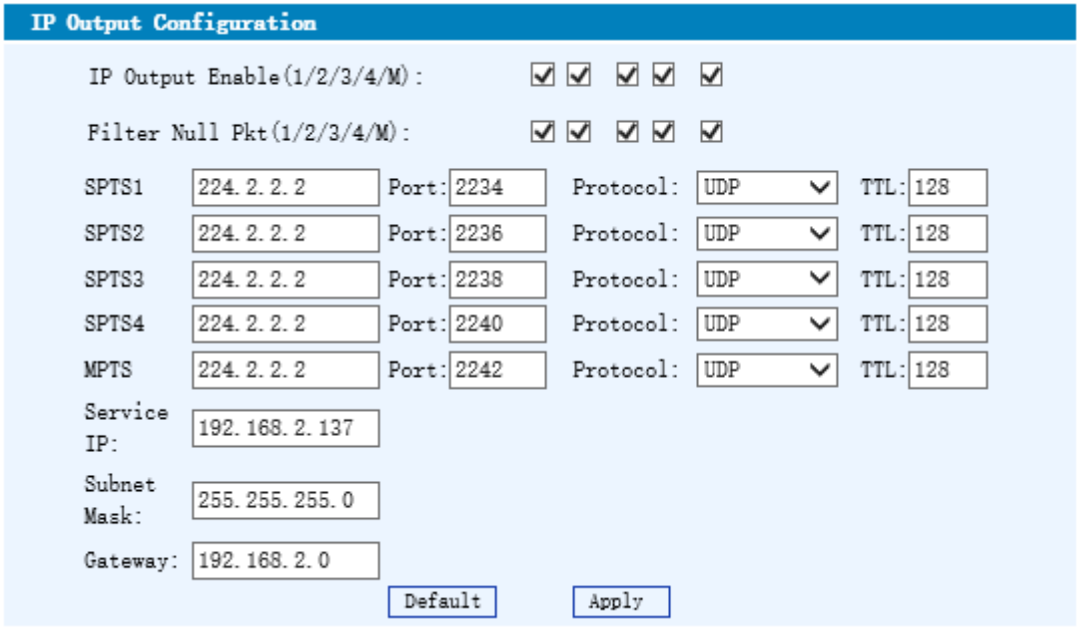
Input 2: 

Here C & D are on

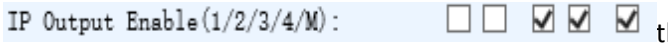
Together all output streams are on and transmitting all inputs A B C D or 1, 2, 3, & 4.

Now when you click on the IP Out button on the main menu 

you'll see the boxes again



Above you can see all boxes are checked and outputting IP on Multicast for both SPTS and MPTS

If you were to uncheck boxes 1&2 

then in this scenario you will only be outputting HDSDI inputs 3 and 4 in IP

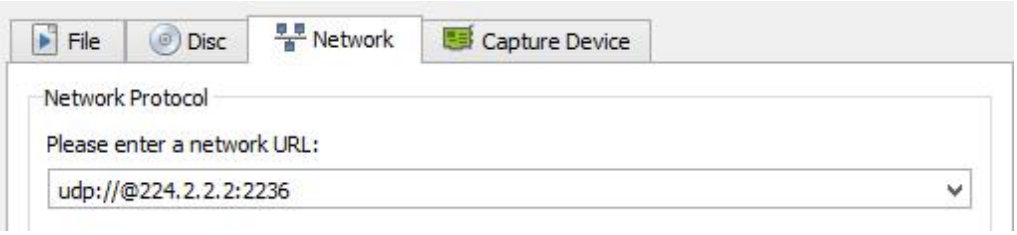
Having this kind of flexibility allows you to output channels in RF or IP in any format (Mpeg2, H.264)

For example you can input the same SDI video source in inputs 1&2 and encode them separately in two different formats so you can output the same video in Mpeg2 on RF and H.264 in IP simultaneously at the same latency so your viewers can see the video regardless if it's on TV or a PC.

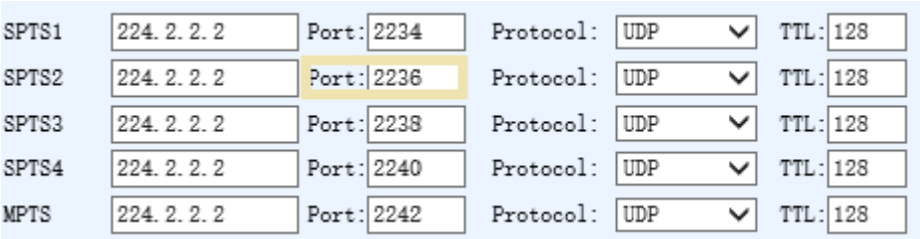
Current Protocol options in the drop down are as shown: 

Another important element here is to ensure the NMS gui is not on the same subnet as the DATA port. So if you can recall we used 192.168.1.136 for NMS, above you see we used 192.168.2.137 for IP out. If you do not put them on different subnets there will be IP collisions and neither will work correctly.

To check your work and make sure your SPTS or MPTS is streaming, a simple easy way to test your stream is to use some freeware found on the internet.



Here we are testing out SPTS #2, you can see below it matches port 2236



Right away the testing image has begun scrolling, in this case our test generator was color bars

For Further Tech Support

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