

ANT-48100 User Manual



1 Channel Transcoder (4 Channel Decoder)



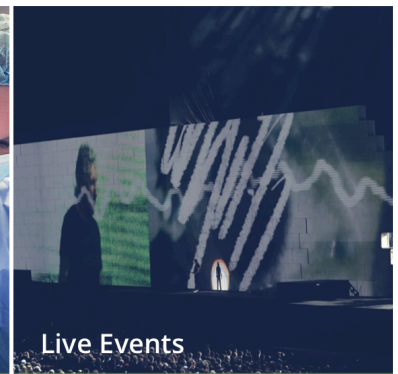
CCTV & Security



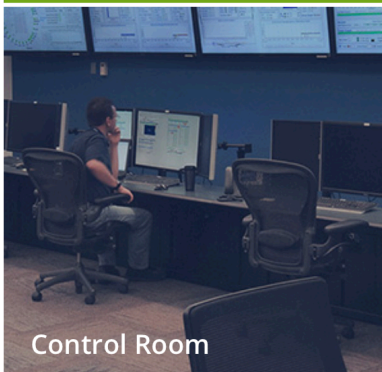
Broadcast



Medical



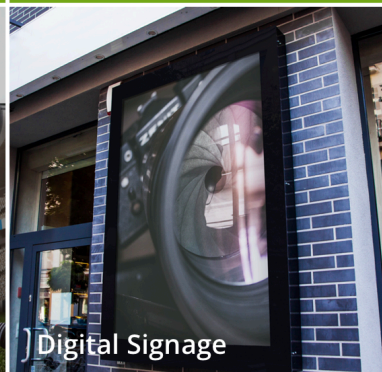
Live Events



Control Room



Sport Video



Digital Signage



Transport



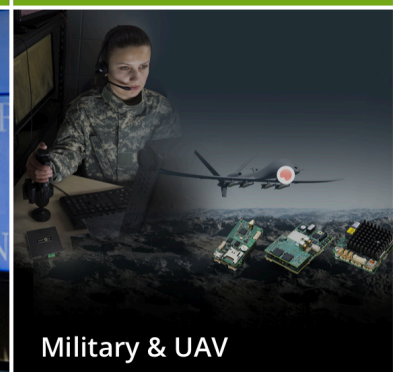
Betting



Worship



IPTV BROOKINGS



Military & UAV

Contents

Overview

1.0 Whats in the box

2.0 Setting up the ANT-48100

3.0 Configuring the ANT-48100

4.0 Network

5.0 Operation Mode

6.0 Encoder

7.0 Decoder

8.0 Transcoder

9.0 Mixer Mode

10.0 Display

11.0 Extensions

12.0 System

13.0 Other Information

Overview

The ANT-48100 TRANSCODER is a highly flexible IP to IP transcoder. Featuring up to 4 channels of decoding on one Ethernet port (NIC) and 1 channel of re-encoding (Transcoding) on a second Ethernet Port (NIC). This transcoder is intended for IP to IP transcoding without offering any local video inputs or outputs. The Transcoder engine can take up to 4 decoded streams and re encode them as a 1x1 or 2x2 image with a single stream (no secondary stream is available) . The decoder block can decode 1-4 streams then combine them as a quad image or in the case of one decoded stream a single image. These quad and single images can also be scaled to 1080P 720P and 576P resolutions. Additionally the decoder engine can decode URLs or pre recorded video files. SRT decoding is supported.

Once decoded and scaled the images pass to the Encoder engine. The encoder can then re-encode (transcode) these decoded streams as HTTP RTSP RTP MPEG-TS , RTMP and SRT streams on to a completely independent LAN Network Interface.

As the Transcoder features two independent Network interfaces it acts as an effective Video stream air gap between two networks.

1.What's in the Box

The ANT-48100 box contains

- ANT-48100 Transcoder
- 12 Volt Power converter (requires an IEC AC mains lead)
- UK/EU/USA or China IEC 110/240v AC Lead (depending on your location)
- HDMI leads x1
- 1 sets of stereo Audio line input cables

2. Setting up the ANT-48100

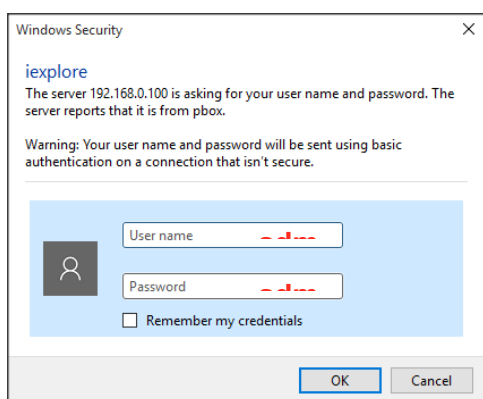
Connect the ANT-48100 to a laptop or PC via an Ethernet switch using standard ethernet cables.

Connect the Output Video using an HDMI OUTPUT to a suitable monitor. Connect the HDMI input to a suitable HDMI source.

Connect the 12 volt power input and switch on.

The ANT-48100 will take approximately 1 minute to boot up. You will see there are 3 LEDs on the front panel ...Power, Not Used and LAN. On power up the RED LED will illuminate and the Green LAN LED will illuminate if connected via ethernet to a switch or laptop PC. You are now ready to setup the ANT-48100 Transcoder

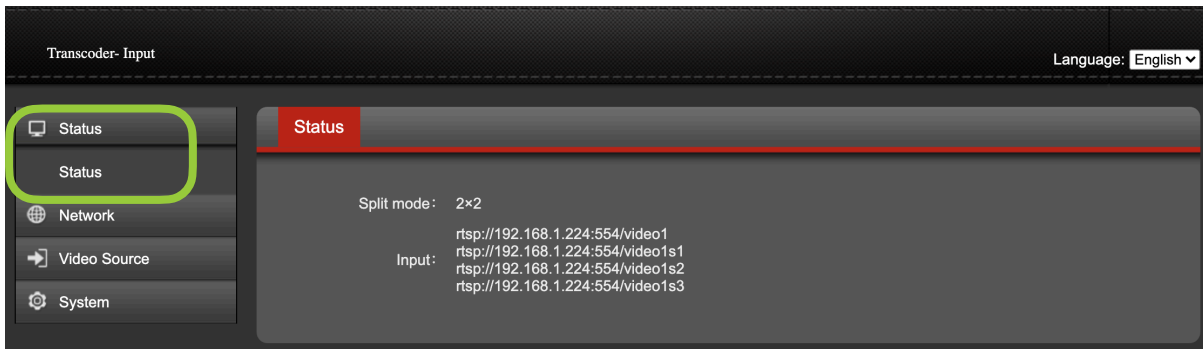
3. ANT-48100 IP addresses and Log In



The ANT-48100 default IP address is **192.168.1.168 (Encoder IP output) and 192.168.1.160 (Decoder IP Input)**. Please set the laptop/PC Ethernet IP address to be in the same sub-domain e.g **192.168.1.XXX**
Open Chrome to view settings and Preview video (or other up to date browser to just view settings without video preview) and browse to **192.168.1.168/160** You will be asked to LOGIN: **User : admin , password: admin**

4.0 Setup of the ANT-48100 in IP INPUT (Decoder) mode (192.168.1.160)

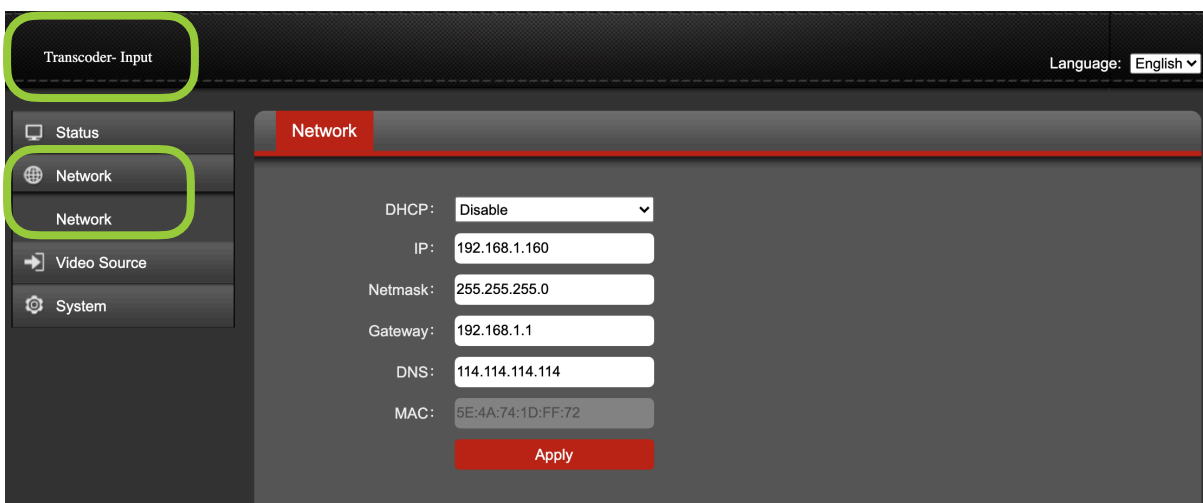
4.1 Status



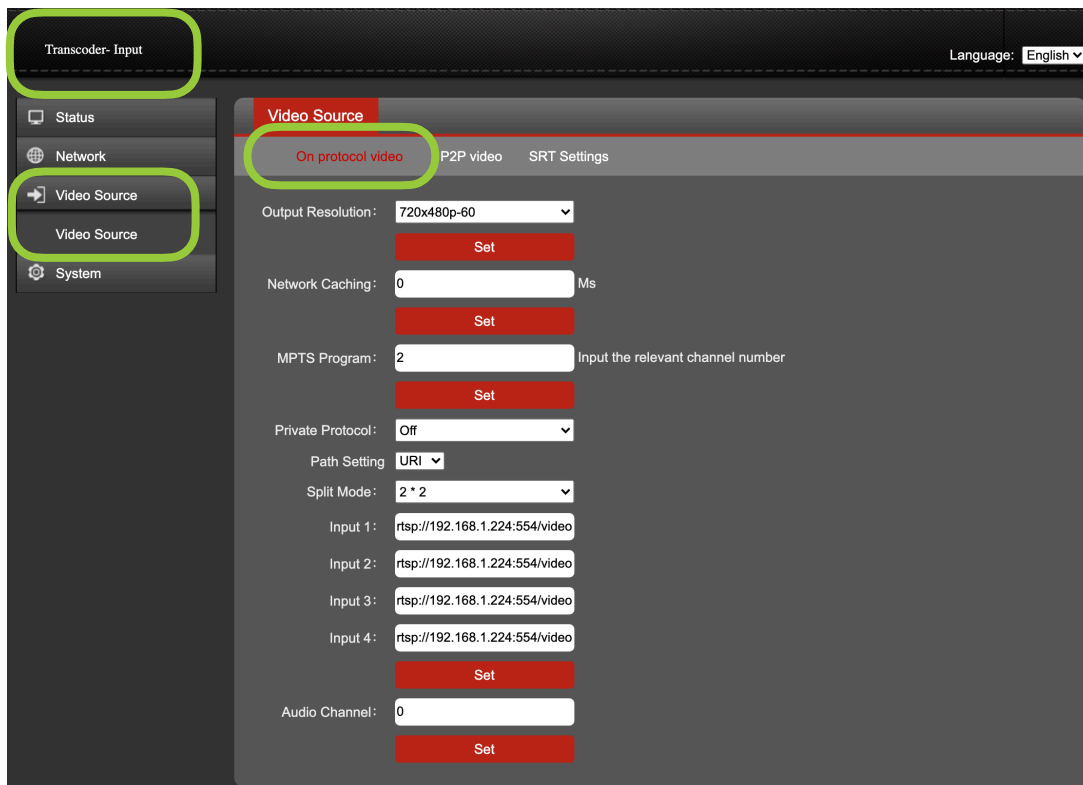
The status tab will show you information on the IP Input settings . This is effectively a decoder within the transcoder and can decode up to 4 streams or files. This screen will show if you are in 1x1 mode (1-1 transcode) or 2x2 mode (4 channels decoded and arranged as a quad image then transcoded) . The input URLs or files are shown here

4.2 Network

This section defines the network settings of the IP Ethernet input port. NOTE! The ANT-48100 has two ethernet ports (NICs) which are independent . This setting is for the Transcoder IP input (decode)



4.3 Video Source



Video source has 3 sub sections (tabs): On protocol Video , P2P video and SRT settings

4.31 On Protocol Video XXXXXX?????

Output Resolution: This allows you to set the resolution of the decoded image/ images prior to re encoding

Network Caching: This is a buffer for the decoder section and helps with Network jitter but as a result introduces latency in the overall Transcode process.

MPTS Program: XXXXXXXXXXXXXXXX????

Private Protocol: On or OFF XXXXXXXXXXXXXXXX???

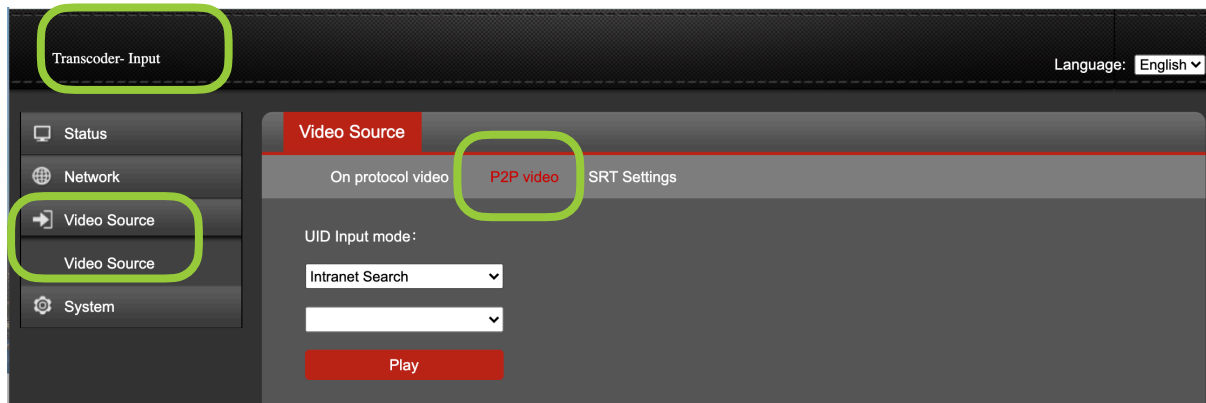
Path Setting: This is either a URL or a .SDP file location for using as the source of the decoder section

Split Mode (if using a URL): Select 1x1 or 2x2 mode (quad) for decoding

Input: 1-4: These are the URLs for the 4 decoded inputs . Generally you would use 1 input in 1x1 mode or 2,3 or 4 inputs for 2x2 mode .

Audio Channel: This defines which URL Input you will be using as the source of the audio . Enter XXXXXXXXXXXX in this section

4.3.2 P2P Video

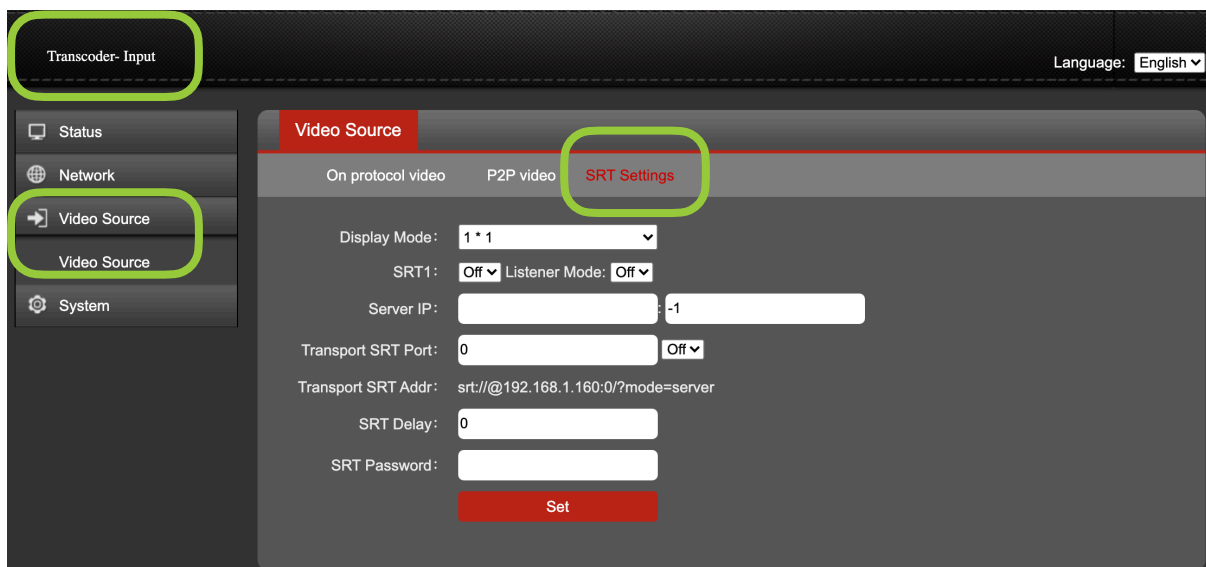


In this section you are able to XXXXXXXX

Intranet Search or Manual input: Allows you to XXXXXXXX

Play: This will enable XXXXXXXX

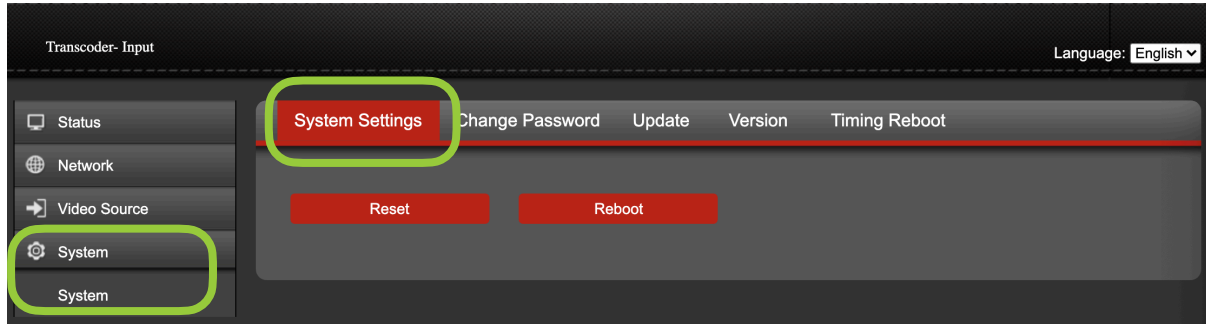
4.3.3 SRT Settings



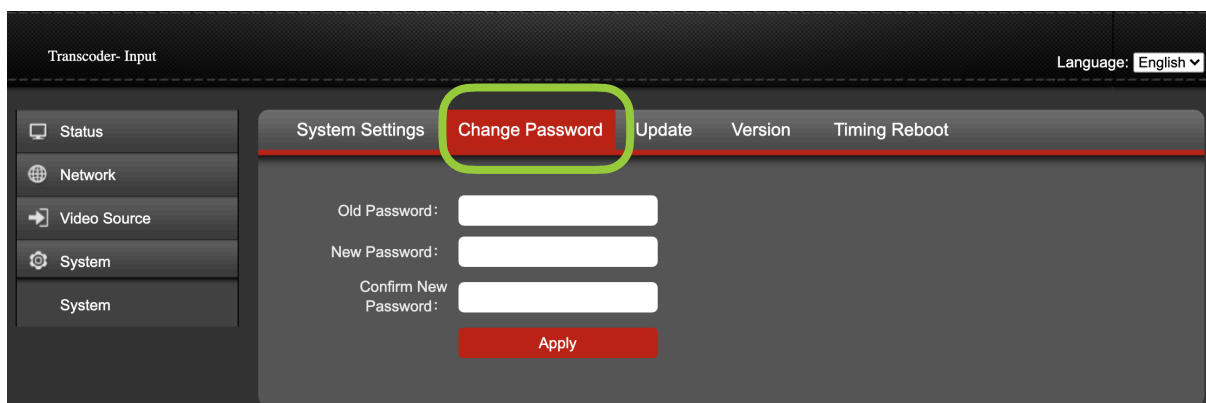
This section allows Secure Reliable Transport settings to be input if XXXXXXXX

4.4 System

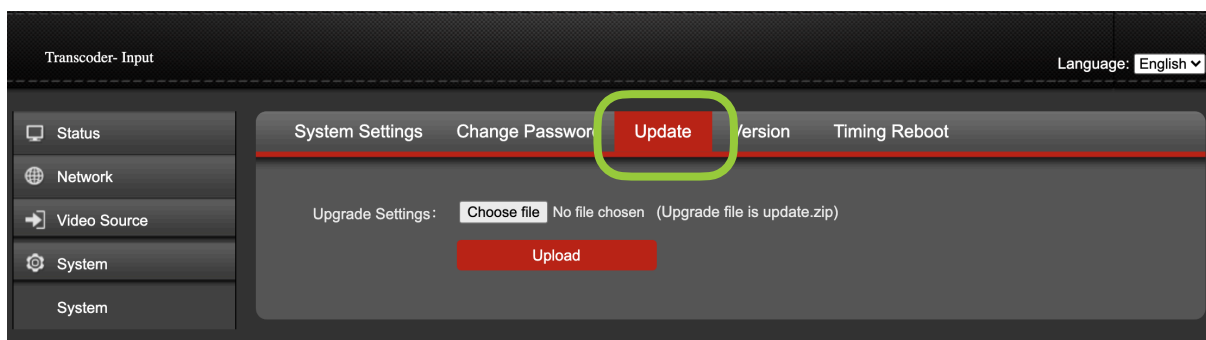
System Settings Tab: This allows the Decoder section of the transcoder to be Factory reset or rebooted



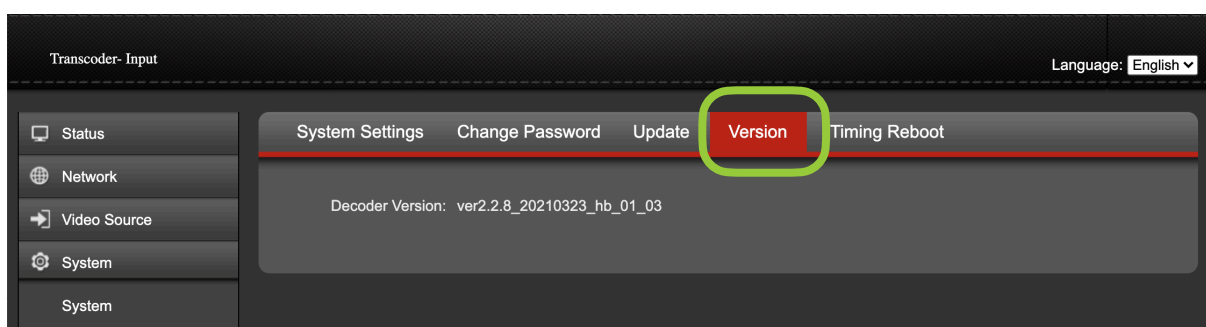
Change Password: Allows for the default admin password or previously used password to be changed.



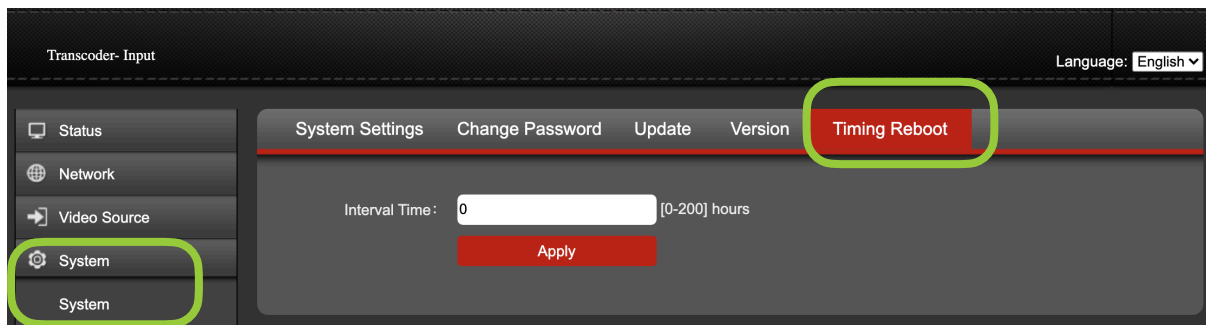
Update: This allows firmware for the decoder section to be upgraded



Version: The firmware currently installed for the Decoder part of the Transcoder.



Timing Reboot: Allows the Decoder section to be rebooted automatically every N Hours (0-200 Hours)

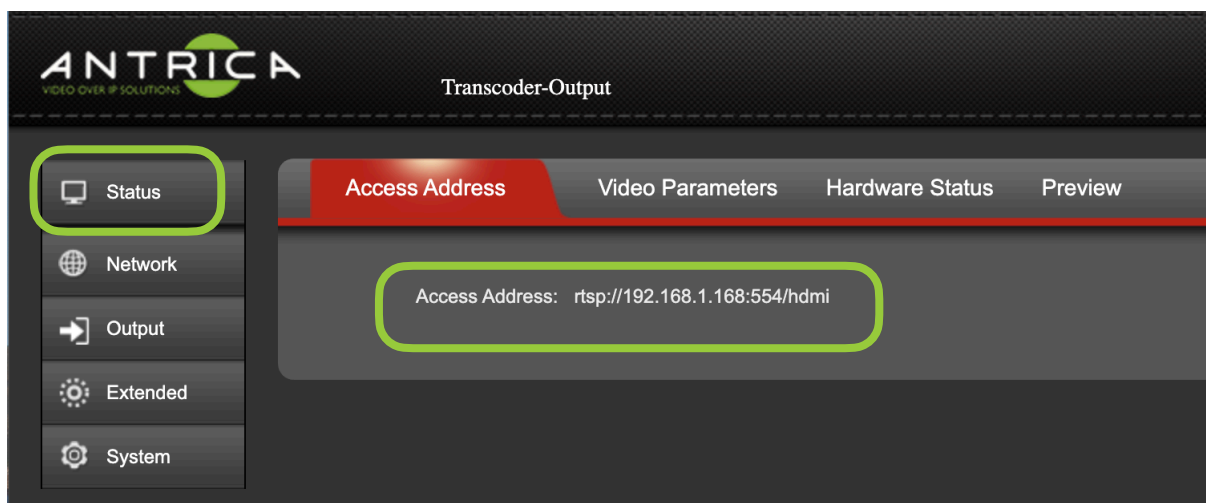


5.0 Setup of the ANT-48100 in IP OUTPUT (Encoder) mode (192.168.1.168)

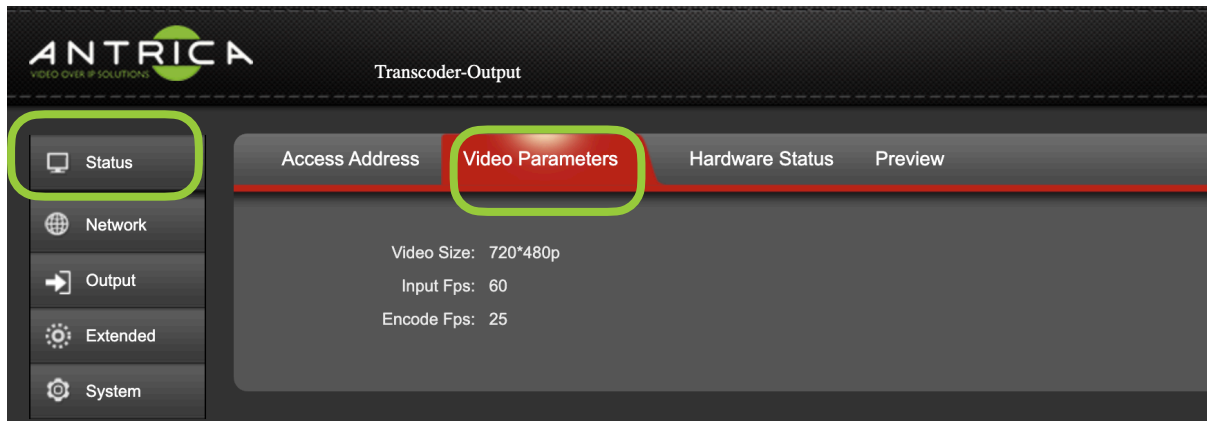
5.1 Status

Status shows information about the Encoder section of the ANT-48100 Transcoder and is broken down into 4 sections:

Access Address: The URL of the encoded stream depending what stream method is selected HTTP RTSP RTP etc .

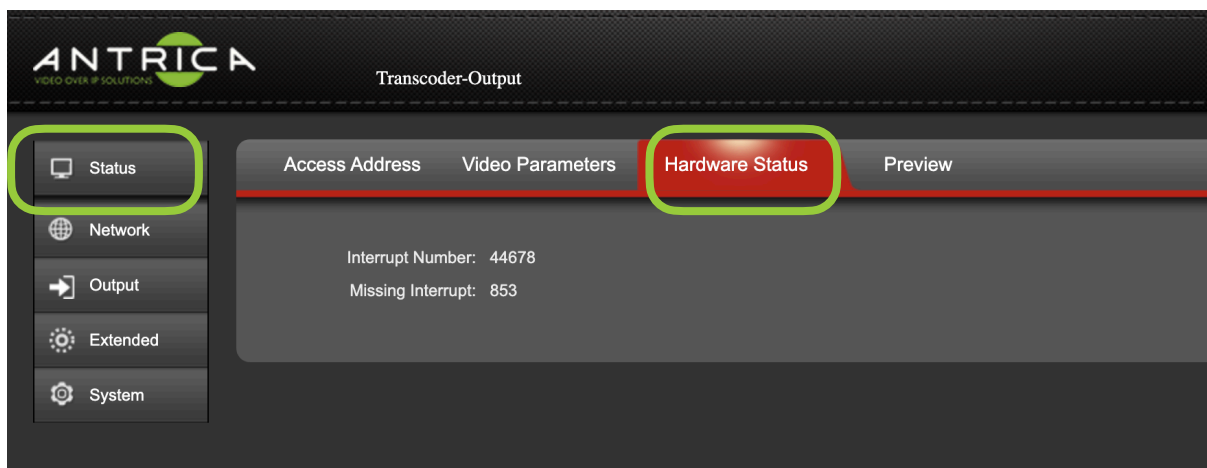


Video Parameters: Defines the resolution and frame rate of the encoder input being

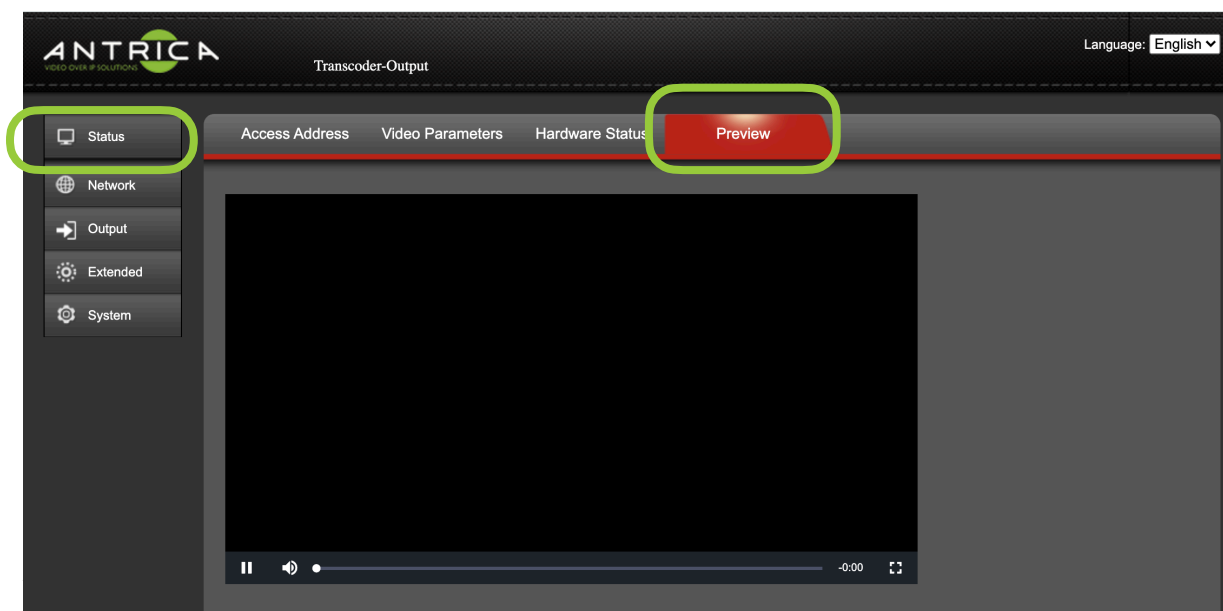


supplied by the decoder section.

Hardware Status: A visual indication of XXXXXXXX

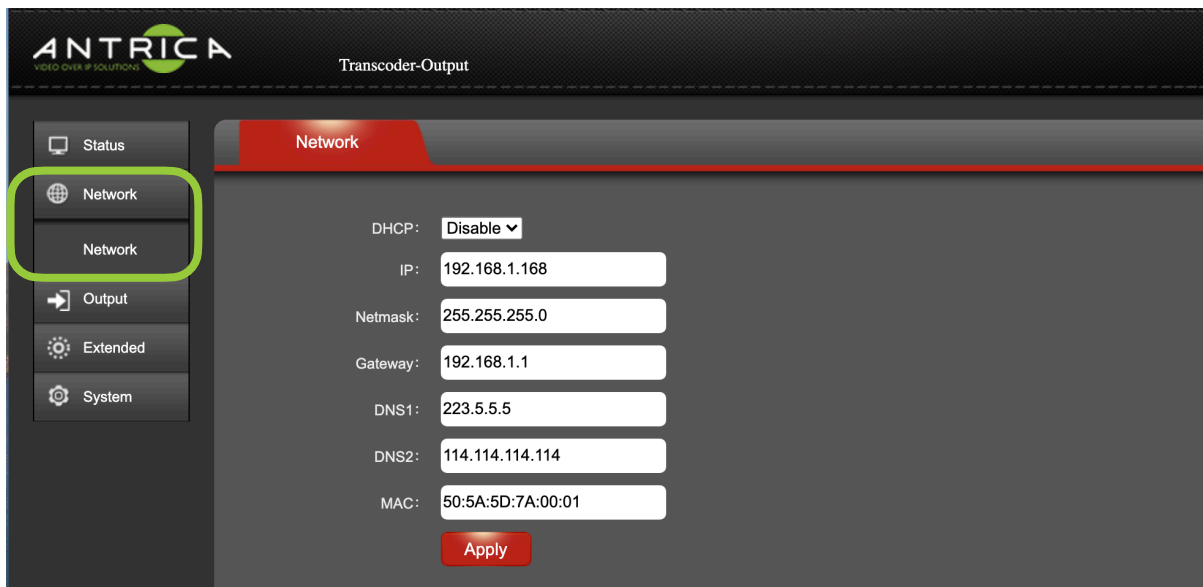


Preview: Allows a preview of the encoded video stream if using Chrome as a browser. XXXXXXXX



5.2 Network

This section allows you set the Transcoder (Encoder) network IP address , DHCP On/Off and other network settings such as Gateway , Netmask, DNS and information about the MAC address.



5.3 Output :

This section defines the Encoder parameters , type off Codec and all other encoder settings.

HDMI MAIN: This Encoder only has one stream called MAIN , no sub stream settings

Set Stream Venc: Choose H264 or H265 Encoding codec

Channel Name: Choose a channel ID / Name XXXXXXXX

Mirror Control: Reverses the image in the vertical plane

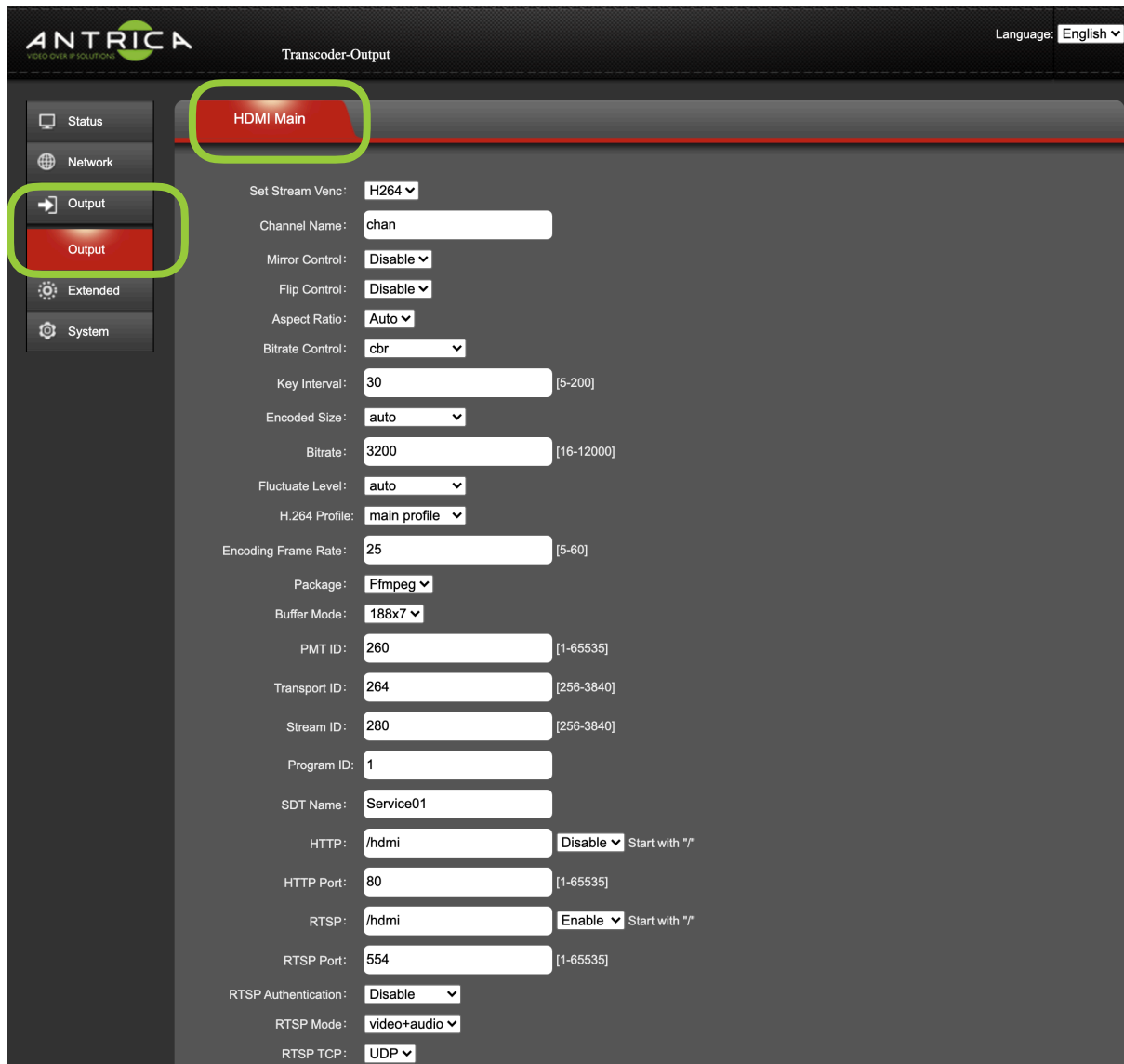
Flip Control: Flips the image in the Horizontal plane

Aspect Ratio: Defines Auto, 16:9 or 4:3 aspect ratio for the streamed image

Bitrate Control: CBR or VBR modes

Key Interval: This is the GOP for the encoder ratio of I to P frames.

Encoded Size: Streams the Decoded image or scales this image based on these settings



Bitrate: Set the encoder bit rate in kilo bits per second (1 = 1kB/s)

Fluctuation Levels: Sets the fluctuation of data ratesXXXXX

H.264 Profile: Choose Baseline Main or High profile

Encoded Frame Rate: Frames per second of encoded stream

Package: Uses FFMPEG or VLC codec packages

Buffer Mode: XXXXXX

PMT ID: XXXXXXXX

Transport ID: XXXXXXXX

Stream ID : XXXXXXXX

Program ID: XXXXXXXX

SDT Name: XXXXXXXXXXXXXXXX

HTTP: Select Enable if you wish to use http streaming and edit the stream identifier

HTTP Port: Select the port used for HTTP streaming

RTSP: Select Enable to use RTSP mode and edit the stream identifier (/HDMI is default)

RTSP PORT: Defines the RTSP port 554 default

RTSP Authentication: Enable user name password RTSP authentication

RTSP Mode: Video + Audio, video or Audio only

RTSP TCP: select UDP or TCP streaming

The screenshot shows a configuration panel for RTSP settings. The background is dark grey. The settings are as follows:

- TTL: 16 [0-255]
- Unicast IP: 192.168.1.200 [Disable] [Support domain or ip format]
- Unicast Port: 1234 [1-65535]
- Multicast IP: 238.0.0.1 [Disable]
- Multicast Port: 1234 [1-65535]
- RTP Server IP: 192.168.1.123 [Disable]
- RTP Port: 6666 [1-65535]
- RTMP: URL MODE [Disable]
- RTMP Mode: video+audio
- RTMP URL: rtmp://
- SRT: Listener [Disable]
- Encrypto: Disable
- Listen Port: 9000
- Latency: 0 [unit.ms]

At the bottom of the form is a red 'Apply' button.

TTL: Time to live setting

Unicast IP: Enable MPEG-TS Unicast here and set destination IP

Unicast Port: Set the port for unicast MPEG-TS

Multicast IP: Enable multicast MPEG-TS and set the IP

Multicast Port: Define the multicast MPEG-TS Port

RTP Server: Enable RTP mode and set IP

RTP Port: Set the RTP port

RTMP: Enable RTMP mode and define either IP addressing or URL addressing here

RTMP Mode: Define video + Audio, Video or Audio only

RTMP URL: If using URL mode set the URL here. If using IP mode then other boxes will appear regarding server details for RTMP IP streaming

SRT: Enable SRT here and define if listener or caller

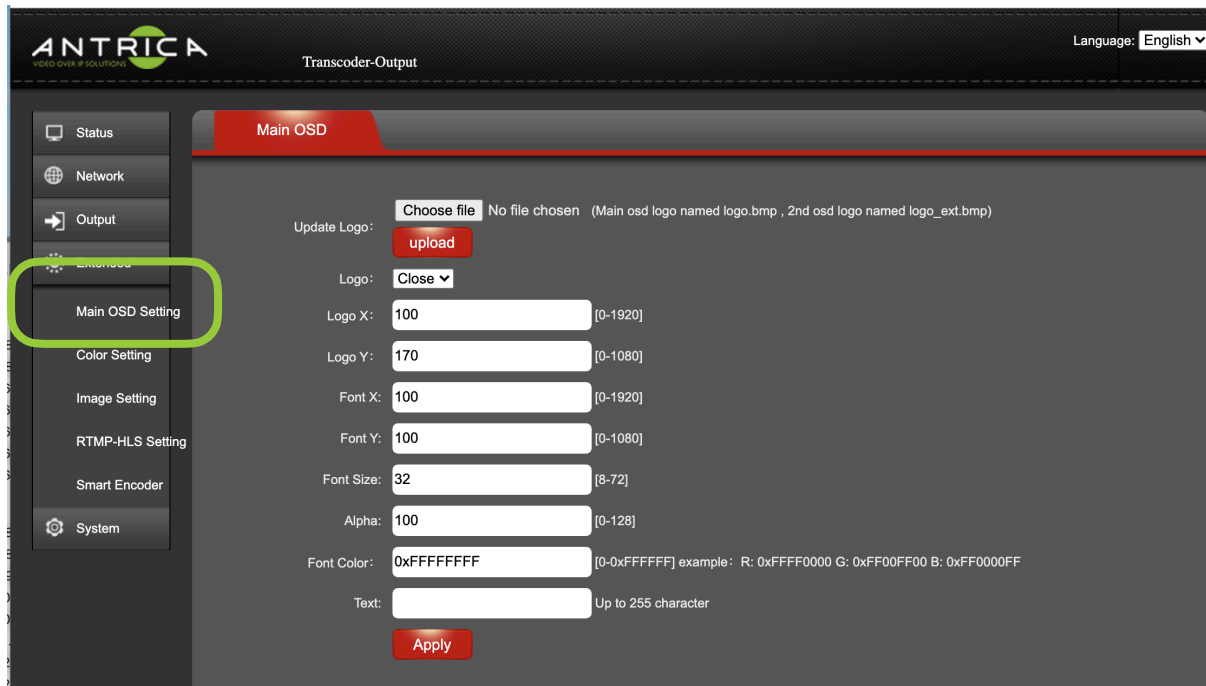
Encrypto: enable or disableXXXXXXXX

Listen Port : Define the listener port if this mode selected.

Latency: XXXXXXXXXXX

5.4 Extended

5.41 Main OSD

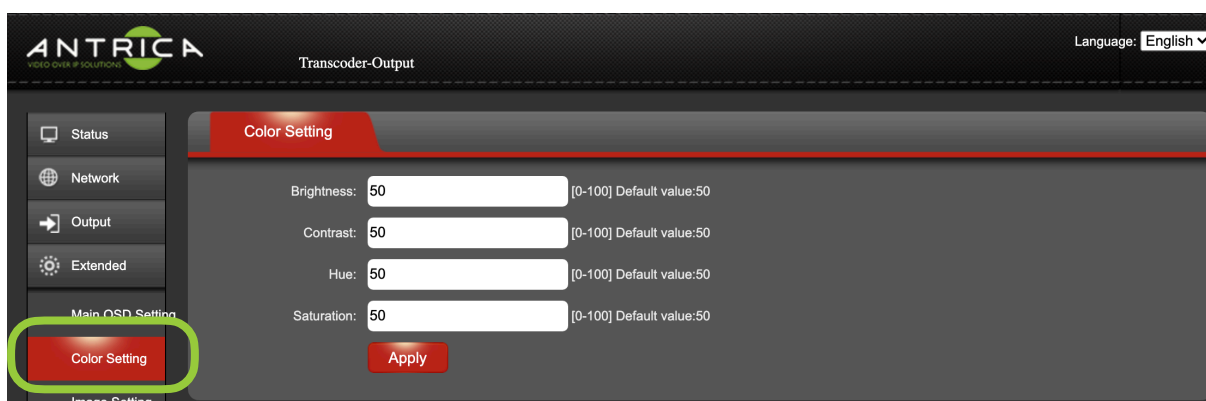


The extended /Main OSD Setting tab allows for a logo and text to be overlaid on the encoded images. A Logo file names logo.bmp can be uploaded and then positioned using the Logo X and Y parameters in numbers of pixels. (1920 x1080)

Text can be written and positioned like the logo file using X and Y co-ordinates and font size/ colour and alpha can be selected.

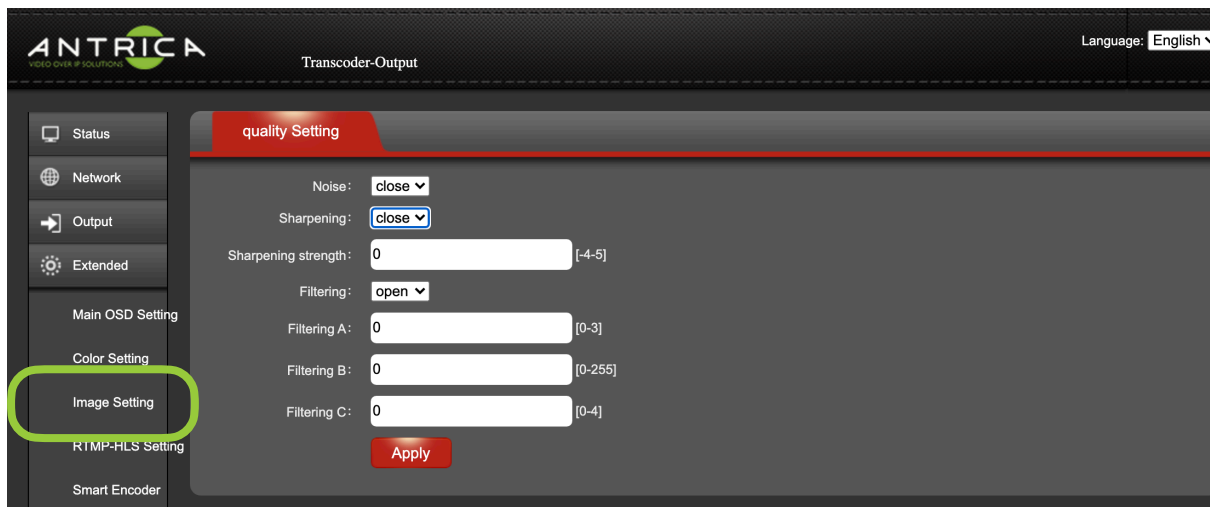
Note! The Logo file must be encoded as a XXXXXXXXbit bitmap

5.42 Color Setting

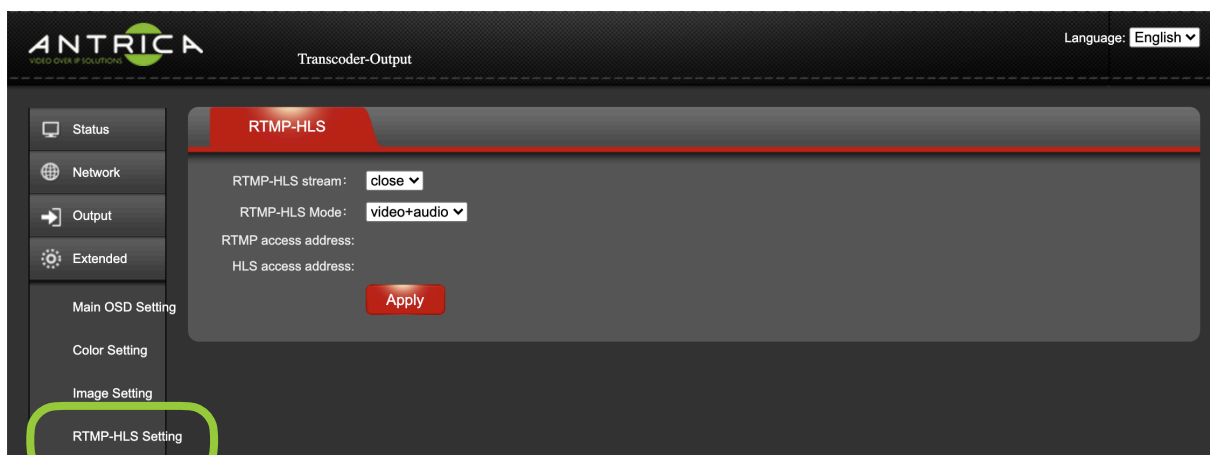


Color setting allows adjustment of the OSD parameters.

5.43 Image Setting

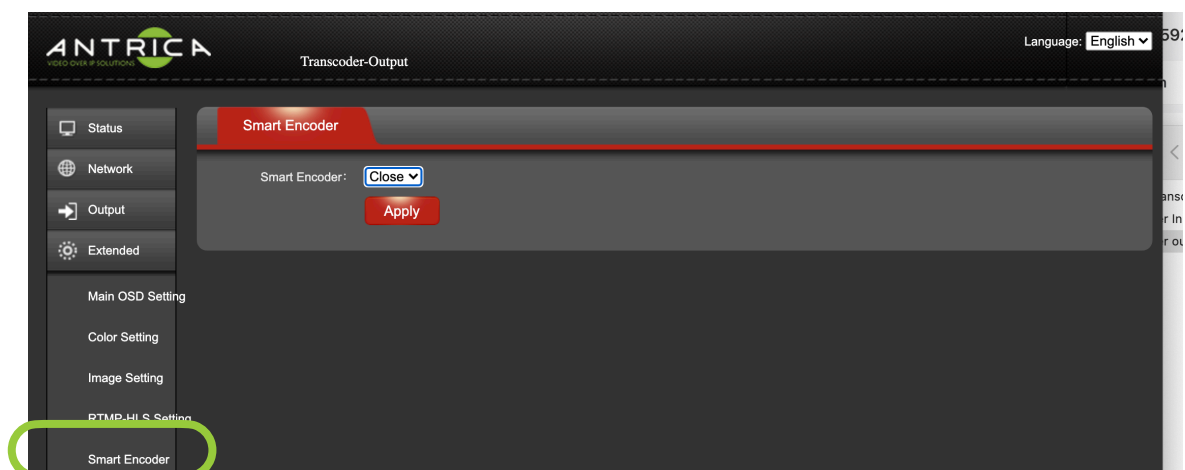


5.44 RTMP-HLS Setting



In this section if using RTMP or HLS parameters are input here.

5.45 Smart Encoder



Smart encoder allows for XXXXXXXXXXXX

13.0 Other Information

Please visit our website www.antrica.com and browse to the product page (e.g ANT-48100) where you can find a DOWNLOADS SECTION :

- application notes
- Full User manuals
- FAQs
- Firmware
- Other useful information
- More help Open up a Technical Support Ticket from the support page.

Contact: support@antrica.com

Call : +44 1628 626098 x3

