7882J2KX-IPASI

Single Channel J2K Encoder/Decoder

User Manual

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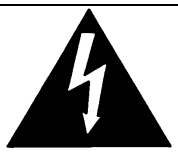
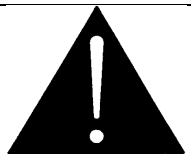
IMPORTANT SAFETY INSTRUCTIONS

	The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “Dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE

WARNING
DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT

WARNING
TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

WARNING
THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

INFORMATION TO USERS IN EUROPE

NOTE

CISPR 22 CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE

EN60065	Safety
EN55103-1: 1996	Emission
EN55103-2: 1996	Immunity

EN504192 2005
Waste electrical products should not be disposed of with household waste.
Contact your Local Authority for recycling advice

INFORMATION TO USERS IN THE U.S.A.

NOTE

FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

Changes or Modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment.

Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.

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REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	First Release	Mar 2017

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1. OVERVIEW

The 7882J2KX-IPASI is the most flexible solution for interfacing 3G/HD/SD to IP and ASI networks through JPEG2000 compression. The 7882J2KX-IPASI is bi-directional and can encode and decode video simultaneously. Using the 7882J2KX-IPASI, Evertz customers can deploy high quality 3G/HD/SD video over bandwidth limited networks.

This is the perfect product for low density video contribution applications that require superior video quality with low end-to-end delay.

The 7882J2KX-IPASI supports dual network interfaces (main & redundant) to ensure robust transmission over wide area networks.

The 7882J2KX-IPASI includes a dedicated control port that offers a built-in web server for quick and easy configuration, including true SNMP control from the award winning VistaLINK® NMS and can be paired with a frame controller for multiple control options. For those mission critical applications, the 7882J2KX-IPASI can be intelligently managed using the Evertz Compression Systems Manager (CSM) software which offers complete provisioning, monitoring and redundancy management of the contribution compression head end.

Features & Benefits

- 1x 3G/HD/SD-SDI JPEG2000 Encode
- 1x 3G/HD/SD-SDI JPEG2000 Decode
- Supports: 1080p/50, 1080p/59.94 Level A, 1080i/59.94,1080i/50,720p/59.94, 720p/50, 525i/59.94, 625i/50, @Visually Lossless compression
- Low delay encode/decode process
- Superior quality without blocking, tiling or motion dependence

Mezzanine Encode Processing

- Video JPEG2000 encoded to native resolution
- 4x groups of embedded audio encapsulated
- Supports VANC data through SMPTE 2038

Mezzanine Decode Processing

- Video JPEG2000 decoded from native resolution
- 4 de-capsulated groups of audio
- Supports VANC data through SMPTE 2038

Control and Baseband Processing

- Support control via frame controller or direct Ethernet interface to the card.
- SNMP control from Vistalink or Magnum Unified Control

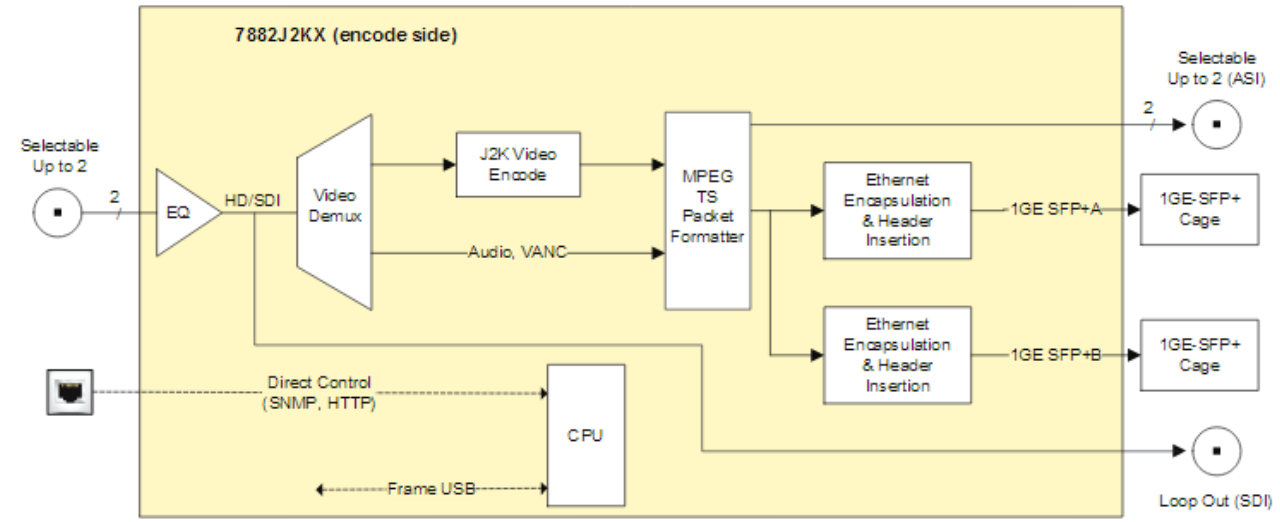


Figure 1-1 : 7882J2KX-IPASI Encoder Block Diagram

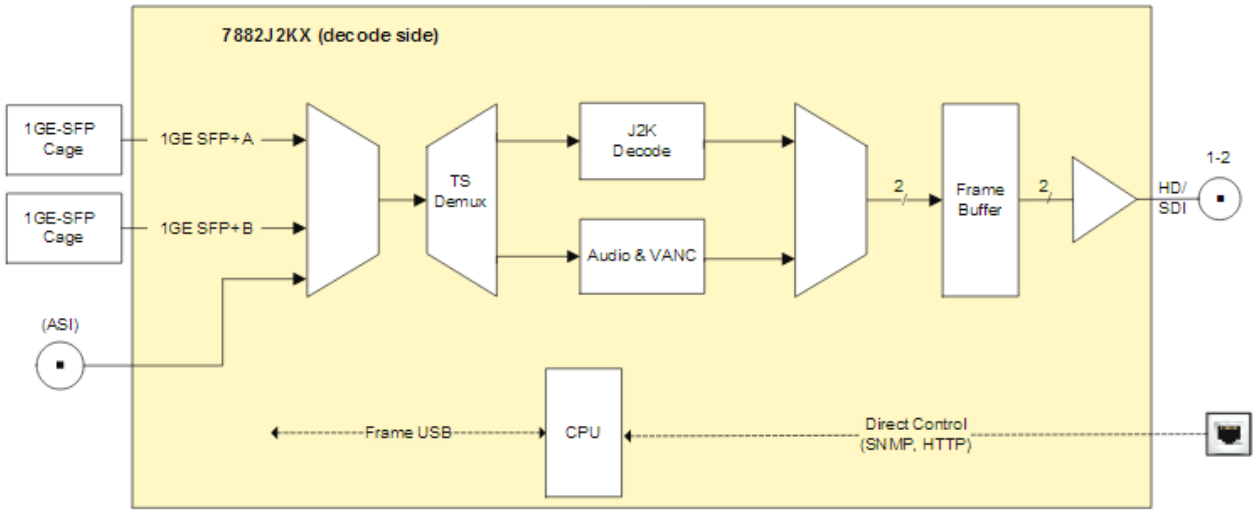


Figure 1-2 : 7882J2KX-IPASI Decoder Block Diagram

2. SPECIFICATIONS

2.1. SERIAL VIDEO INPUT SPECIFICATIONS

Standard:	HD-SDI (SMPTE ST 292-1)
	SD-SDI (SMPTE ST 259-C)
Video Resolution:	1920x1080 @ 25, 29.97
	1280x720 @ 50, 59.94
	720x576 @ 25Hz (ITU-R BT.656-4)
	720x480 @ 29.97Hz (SMPTE 125M)
Number of Inputs:	2
Connectors:	BNC IEC 61169-8 Annex A
Embedded Audio:	SMPTE ST 272-A, ST 299-1

2.2. VIDEO ASI OUTPUT STANDARDS

Standard:	ASI per DVB TR 101 891 (Max 213Mb/s)
Number of Outputs:	4
Connectors:	BNC IEC 61169-8 Annex A

2.3. ETHERNET:

Control Port:	1x GbE Control Port (RJ-45)
Data Ports:	2x GbE Data Ports (SFPTR-RJ45-SGM-AV)

2.4. COMPRESSION AND ENCAPSULATION SPECIFICATIONS

Encapsulation:	RTP SPTS
Video Compression:	JPEG 2000 422 10 BIT

2.5. AUDIO SPECIFICATIONS

Number of Channels:	16x Channels of Embedded PCM, supports up to 4 Audio Pids.
Compression Formats:	PCM Pass-through
Ancillary Specifications:	
Embedding of:	Audio Pass Through Closed Caption/Teletext Ancillary Data AFD Timecode Ancillary Data SMPTE 2038

2.6. CONFIGURATION & MGMT

Web Server: Integrated HTTP with full control

SNMP: VistaLINK remote control and monitoring via Frame Controller

2.7. ELECTRICAL

Input Voltage: Auto ranging 100 – 240VAC

Power: <48W

EMI/RFI: Complies with FCC regulations for class-A devices

Complies with EU EMC directive

2.8. PHYSICAL (NUMBER OF SLOTS)

7800FR: 2

7800FR-QT: 2

7801FR: 2

3700FR: 2

3. GETTING STARTED

The 7882J2KX-IPASI module comes with a companion rear plate that occupies two slots in the frame.

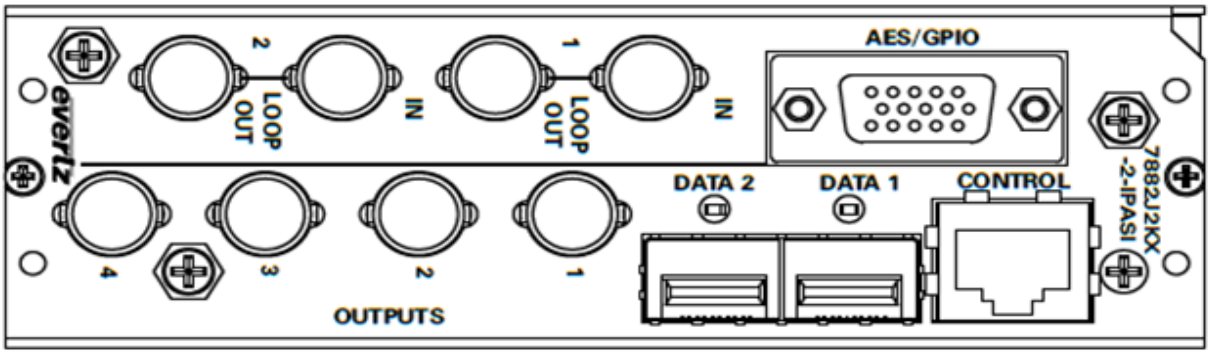


Figure 3-1 : 7882J2KX-IPASI Rear Plate

IN 1, 2: BNC connectors used to input HD/SD SDI with embedded audio.

LOOP OUT 1, 2: BNC connector used to Bypass HD/SD SDI.

OUTPUT 1: J2K encoder ASI output, Decoder, or Video Processing HD/SD SDI Loopout.

OUTPUT 2: J2K encoder ASI output, Decoder, or Video Processing HD/SD SDI Loopout.

OUTPUT 3: J2K encoder ASI output, Decoder, or Video Processing HD/SD SDI Loopout.

OUTPUT 4: J2K encoder ASI output, Decoder, or Video Processing HD/SD SDI Loopout.

DATA 1-2: There are two SFP cages for streaming out J2K or inputting a J2K stream for decoding. RJ-45 SFPs can be provided for Ethernet connection.

CONTROL: This RJ-45 Ethernet port is for communications with WebEASY® using a web browser or VistaLINK®.

3.1. CONNECTING TO AN ETHERNET NETWORK

3.1.1. Ethernet Connection for the Control Port

The 7882J2KX-IPASI is designed to be used with either 10Base-T (10 Mbps) or 100Base-TX (100 Mbps), also known as *Fast Ethernet* cabling systems. When connecting for 10Base-T systems, category 3, 4, or 5 UTP (unshielded twisted pair) cable as well as EIA/TIA – 568 100Ω STP (shielded twisted pair) cable may be used. When connecting for 100Base-TX systems, category 5 UTP cable or better is required. When connecting for 1000Base-T system, category 5, 5e, 6, or 7 UTP cable is required. The cable must be "straight-through" with a RJ-45 connector at each end. Make the network connection by plugging one end of the cable into the RJ-45 receptacle of the S570FR at the front of the frame and the other end into a port of the supporting switch or directly to a computer.

The straight-through RJ-45 cable can be purchased or can be constructed using the pin out information in Table 3-1 or Table 3-2 for the current RJ-45 standards (AT&T 258A, EIA/TIA 568A or EIA/TIA 568B - colour coding listed). Also refer to the notes following the table for additional wiring guide information.

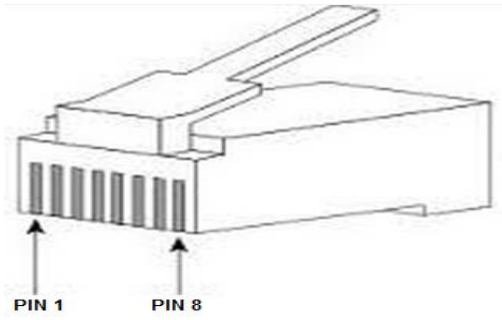
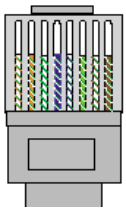


Figure 3-2 : RJ-45 Connector Pin-Out Locations

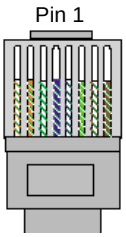


Pin #	Signal	EIA/TIA 568A	AT&T 258A or EIA/TIA 568B	10BaseT or 100BaseT
1	Transmit +	White/Green	White/Orange	X
2	Transmit –	Green/White or White	Orange/White or Orange	X
3	Receive +	White/Orange	White/Green	X
4	N/A	Blue/White or Blue	Blue/White or Blue	Not used (required)
5	N/A	White/Blue	White/Blue	Not used (required)
6	Receive –	Orange/White or Orange	Green/White or Green	X
7	N/A	White/Brown	White/Brown	Not used (required)
8	N/A	Brown/White or Brown	Brown/White or Brown	Not used (required)

Table 3-1 : 10BaseT and 100BaseT Straight Through Wiring Connections

Note the following cabling information for this wiring guide:

- On 10Base-T and 100Base-T, only two pairs of wires are used in the 8-pin RJ-45 connector to carry Ethernet signals. Even though pins 4, 5, 7 and 8 are not used, it is mandatory that they be present in the cable
- Pairs may be solid colours and not have a stripe
- Category 5 cable must use Category 5 rated connectors



Pin #	Signal	EIA/TIA 568A	AT&T 258A or EIA/TIA 568B
1	DA +	White/Green	White/Orange
2	DA -	Green/White or White	Orange/White or Orange
3	DB +	White/Orange	White/Green
4	DC +	Blue/White or Blue	Blue/White or Blue
5	DC -	White/Blue	White/Blue
6	DB -	Orange/White or Orange	Green/White or Green
7	DD +	White/Brown	White/Brown
8	DD -	Brown/White or Brown	Brown/White or Brown

Table 3-2 : 1000BaseT Straight Through Wiring Connections

The maximum cable run between the 7882J2KX-IPASI and the supporting hub is 328 ft (**100 m**). The maximum combined cable run between any two end points (i.e. 7882J2KX-IPASI and PC/laptop via network hub) is 675 feet (205 m).

Devices on the Ethernet network continually monitor the receive data path for activity as a means of checking that the link is working correctly. When the network is idle, the devices also send a link test signal to one another to verify link integrity. The 7882J2KX-IPASI Ethernet port is fitted with two LEDs to monitor the Ethernet connection.

3.2. CARE AND HANDLING OF OPTICAL FIBER WHEN USING SFP MODULES

3.2.1. Handling and Connecting Fibers

Never touch the end face of an optical fiber. Always keep dust caps on optical fiber connectors when not connected and always remember to properly clean the optical end face of a connector before making a connection.

The transmission characteristics of the fiber are dependent on the shape of the optical core and therefore care must be taken to prevent fiber damage due to heavy objects or abrupt fiber bending. Evertz recommends that the user maintains a minimum bending radius of 5 cm to avoid fiber-bending loss that will decrease the maximum attainable distance of the fiber cable. The Evertz fiber optic modules come with cable lockout devices, to prevent the user from damaging the fiber by installing a module into a slot in the frame that does not have a suitable I/O module.

3.3. HARDWARE INSTALLATION

3.3.1. Three Different Ways to Control and Configure the 7882J2KX-IPASI

There are three different ways that 7882J2KX-IPASI can be controlled and configured.

1. WebEASY® using the Control Port on the 7882J2KX-IPASI.
2. VistaLINK® using the Control Port on the 7882J2KX-IPASI.
3. VistaLINK® using the 7800FC (frame controller) with 7882J2KX-IPASI installed in frame.

When using the Control Port on the 7882J2KX-IPASI, each module will need to be assigned to an IP address in order to communicate. When using a frame controller, multiple cards can be inserted in the frame and be controlled using only one IP address of the frame controller.

3.3.2. Module Installation

Before handling the card it is important to minimize the potential effects of static electricity. It is therefore recommended that an ESD strap be worn.

Locate on a frame chassis two adjacent vacant slots. Unpack the 7882J2KX-IPASI and separate the rear plate module from the main card. Locate on the rear of the rack the two slots and remove the blanking panels. Insert the rear plate module into the back of the chassis and secure using the four screws provided.

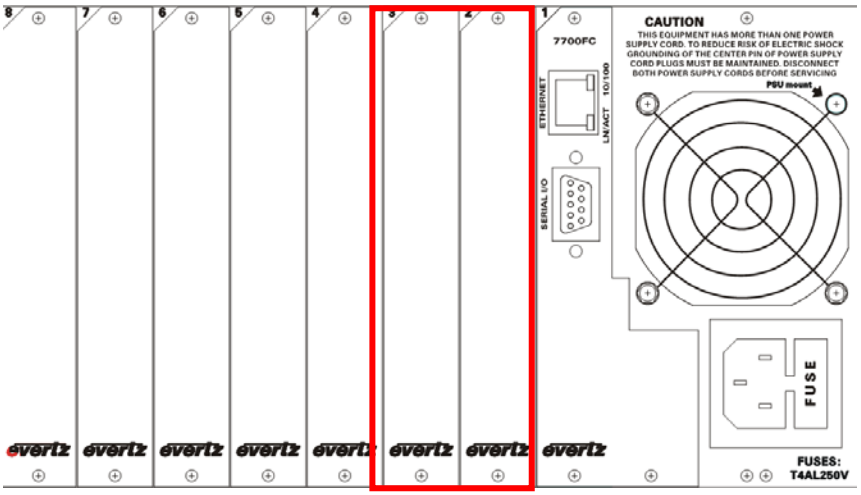


Figure 3-3 : 7800 Chassis

Insert the 7882J2KX-IPASI card into the corresponding front slots ensuring the card lines up with the slot runners on the bottom and the top of the chassis. Push the card into the slot ensuring that when it mates with the rear card that is has been firmly pushed into a seated position. This can be confirmed when the connectivity lights for the Ethernet port are illuminated by connecting the module's Ethernet port to an active port of a computer using an Ethernet cable then remove.

Do not connect any cables to the rear card (failure to do this could cause unwanted network issues) until the initial configuration has been completed.

3.3.3. Control Port Configurations for the 7882J2KX-IPASI

Communication through the control port allows the module to be controlled and configured by using WebEASY® on a web interface or VistaLINK®. ***When using a 7800FC frame controller to control the module, this step is not necessary for setting the control port on the 7882J2KX-IPASI.***

1. Connect the Evertz serial upgrade cable (ribbon cable) to the 2x3 header at the front edge of the 7882J2KX-IPASI card.

2. Start a terminal program and configure the port settings.

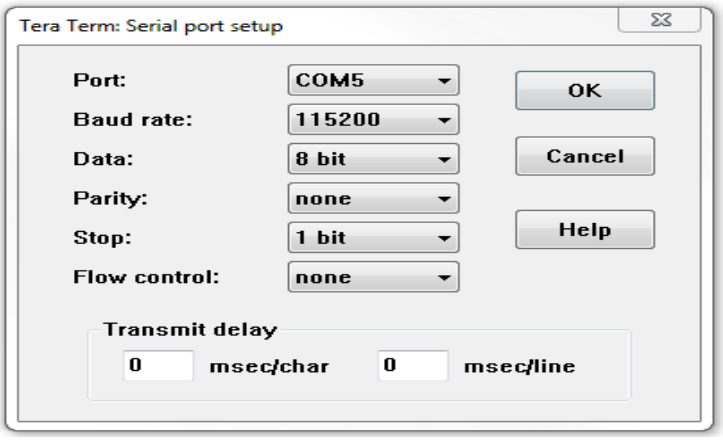


Figure 3-4 : COM Port – Serial Port Settings

3. Boot up module and a “Tera Term-platform login” prompt, enter:

- “**customer**” for user name <Enter>
- “**customer**” for password <Enter>

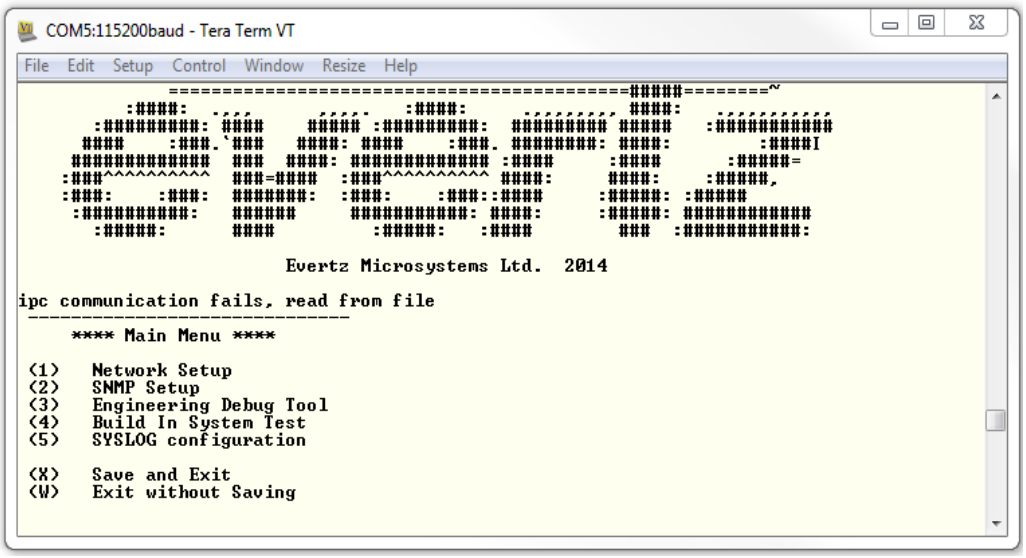


Figure 3-5 : COM Port - Main Menu

4. From the main menu, several selections are available. Select *Network Setup* and the menu illustrated below will appear. Set the desired network addresses per your requirement. After entering all settings choose *Exit* two times to save configurations and get back to main menu. The card must be rebooted for all the network settings to take effect. Pull module out and in to reboot when all changes have been completed and saved.

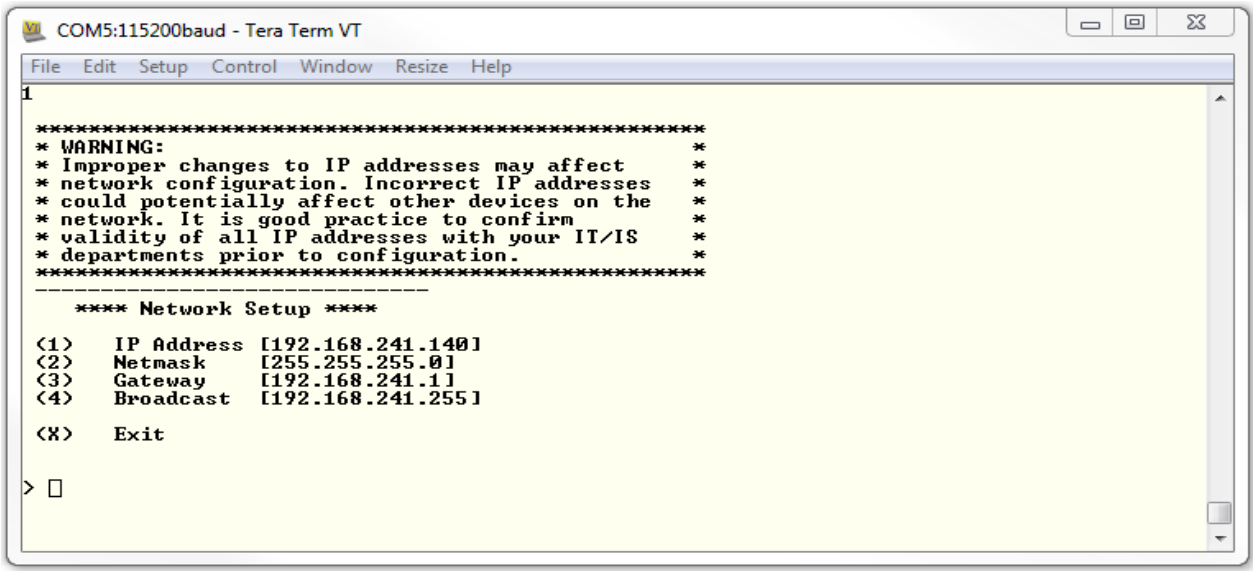


Figure 3-6 : COM Port – Network Settings

4. WEB INTERFACE

After the card has been installed and configured with the required network address for the control port, it can be completely configured using the web interface. Simply type the IP address of the control port in the web browser.

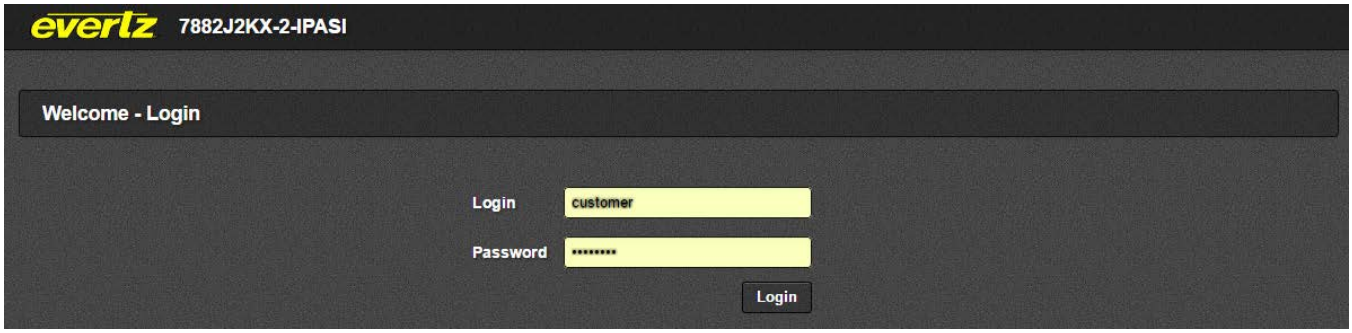


Figure 4-1 : WebEASY® – Login Menu

Login and password are “root” and “evertz” respectively.

Due to the size of the certain menu tabs, we will be breaking up screen tab images into multiple images. Some of the screen shots will also require the user to zoom in to see the image more clearly.

4.1. SYTEM TAB

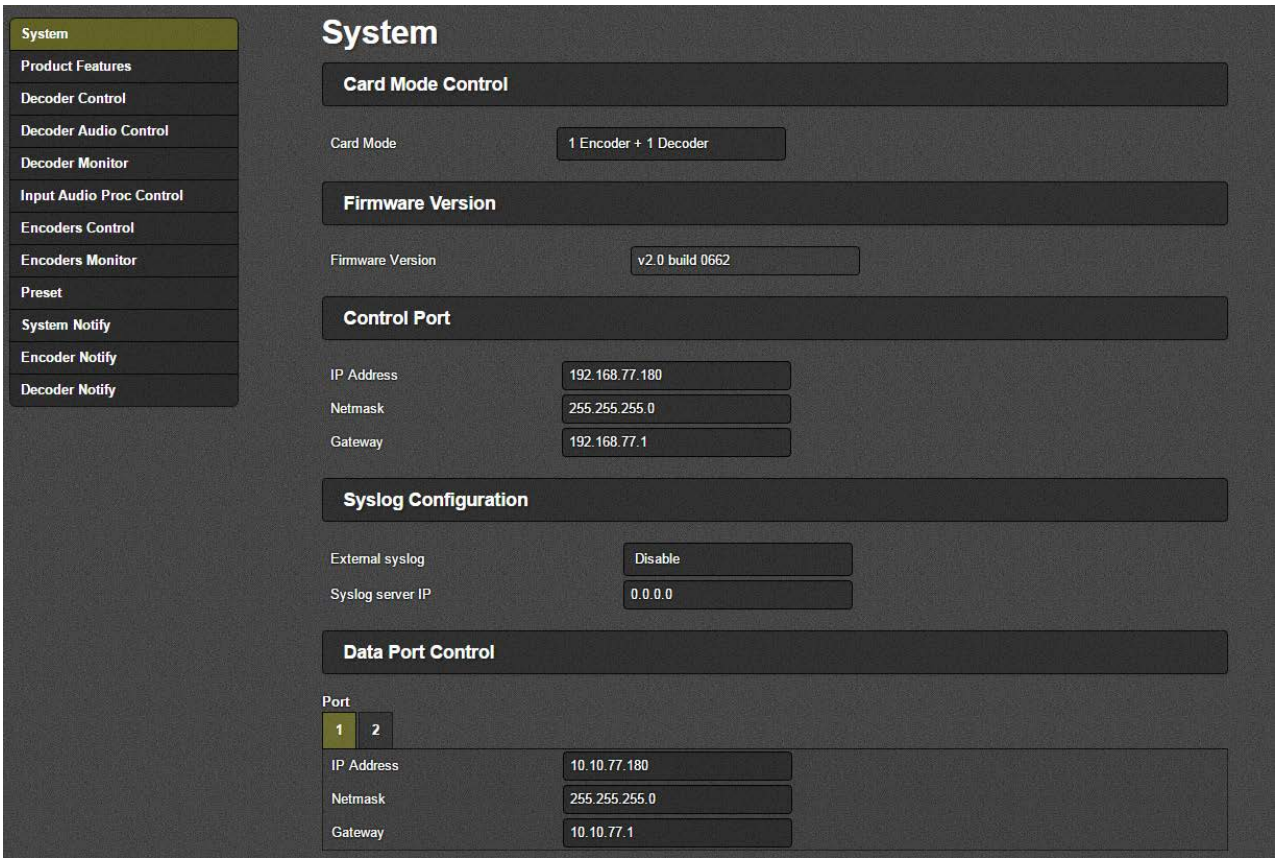


Figure 4-2 : WebEASY® – System Tab Part 1

Card Mode Control

Card Mode: This monitor displays the behavior of the module**.**

Firmware Version

Firmware Version: This monitor displays the current firmware version.

Note: For IP address settings on Control and Data ports, after applying any changes, the device must be rebooted for the changes to take. Reboot can be pressed at the bottom of this System tab after all changes are made.

Control Port

IP Address: This control allows the user to set the IP address on the Control Port. This control will also display the currently set IP address.

Netmask: This control allows the user to set the Netmask for the Control Port IP address. This control will also display the currently set Netmask.

Gateway: This control allows the user to set the Gateway for the Control Port. This control will also display the currently set Gateway address.

Syslog Configuration

Syslog is a valuable tool for debugging the device operation. It is essentially serial readouts over IP, sent to a dedicated server. If issues are present, Evertz can help install and setup a syslog server for constant monitoring of the device activity.

External Syslog: This parameter allows the user to enable or disable sending syslog information to the configured external server.

Syslog Server IP: This parameter allows the user to assign the external syslog server IP address. This will be the address of a PC with the syslog server software installed (ex Kiwi Syslog Server).

Data Port Control

(must reboot in order for new settings to take effect)

IP Address: This control allows the user to set the IP address on the Data Port. This control will also display the currently set IP address.

Netmask: This control allows the user to set the Netmask for the Data Port IP address. This control will also display the currently set Netmask.

Gateway: This control allows the user to set the Gateway for the Data Port. This control will also display the currently set Gateway address.

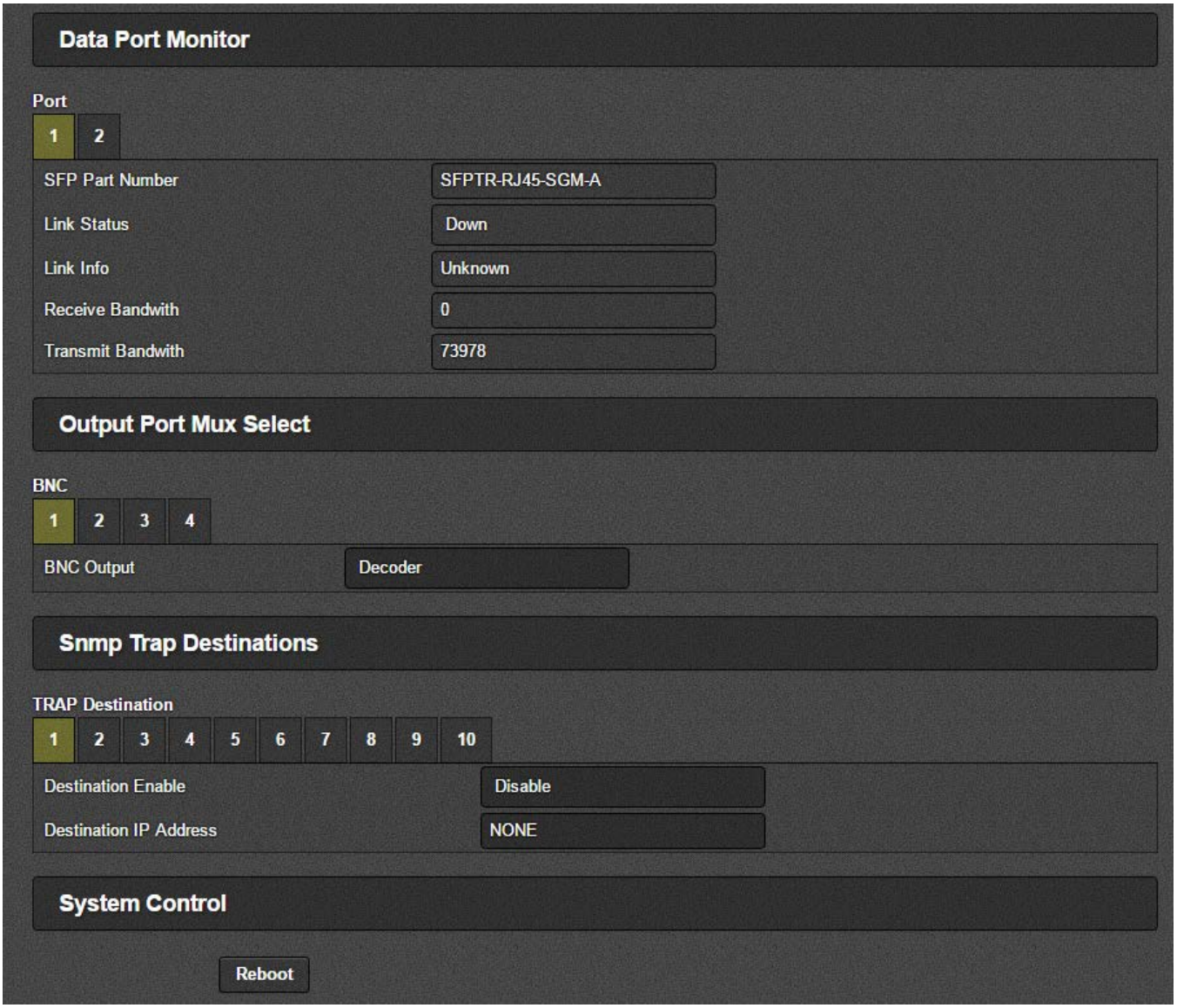


Figure 4-3 : WebEASY® – System Tab Part 2

<u>Data Port Monitor</u> (Data Ports 1 and 2)

SFP Part Number: This parameter returns the part number of the SFP located in the Data Port.

Link Status: This parameter returns the link status for the Data Port. The status could be either Up or Down.

Link Info: When the link is Up, this parameter returns link speed & duplex mode information for Data Port.

Receive Bandwidth: When the link is Up, this parameter returns the receive bandwidth currently being read on the Data Port. Reading is in kbps.

Transmit Bandwidth: When the link is Up, this parameter returns the transmit bandwidth currently being sent on the Data Port. Reading is kbps**.**

Output Port Mux Select

BNC 1-4 Output: This parameter allows the user to select the BNC output type. Choices available are *V-Proc HD/SD-SDI Loopout* (forwards the currently selected input), *J2K ASI* or *Decoder*.

SNMP Trap Destinations

There are 10 trap destinations that can be configured and enabled.

Destination Enable: This control is used to enable or disable sending out traps.

Destination IP Address: This control is used to specify the trap IP address.

System Control

Reboot: This control can be used to soft reboot the device. It will cycle the power relay and cause an effective power cycle.

4.2. PRODUCT FEATURES TAB

The 7882J2KX-IPASI has the ability to enable features by adding/updating applicable licenses. Please contact Evertz Microsystems Ltd for any additional License generation along with Product Serial Number and Product MAC address.

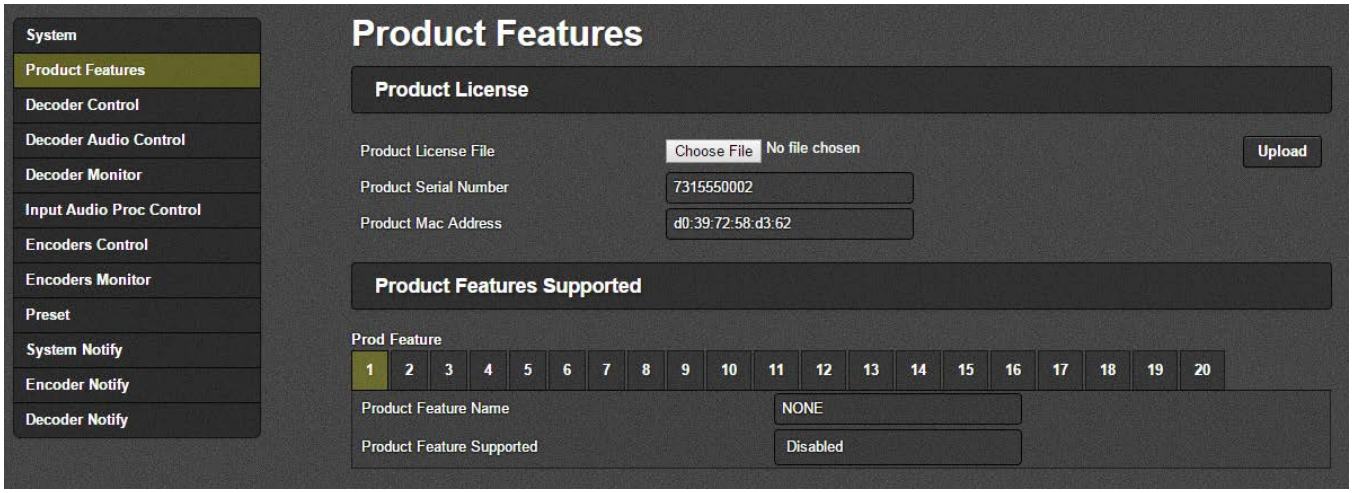


Figure 4-4 : WebEASY® - Product Features Tab

Product License

Product License File: This parameter allows the user to apply new License key provided by Evertz Microsystems Ltd. Reserved for future use. The 7882J2KX-IPASI supports 1 encoder and 1 decoder by default.

Product Serial Number: This parameter displays the card serial number. This is required by Evertz when generating or updating license files on the 7882J2KX-IPASI.

Product MAC Address: This parameter displays the card MAC address. This is required by Evertz when generating or updating license files on the 7882J2KX-IPASI.

Product Feature Supported

Product Feature Name: This parameter displays the possible product features supported on the 7882J2KX-IPASI if it is available on the platform.

Product Feature Supported: This parameter displays the status of features currently supported. Enabled means the license key is installed and disabled means the license key is not installed.

4.3. DECODER CONTROL TAB

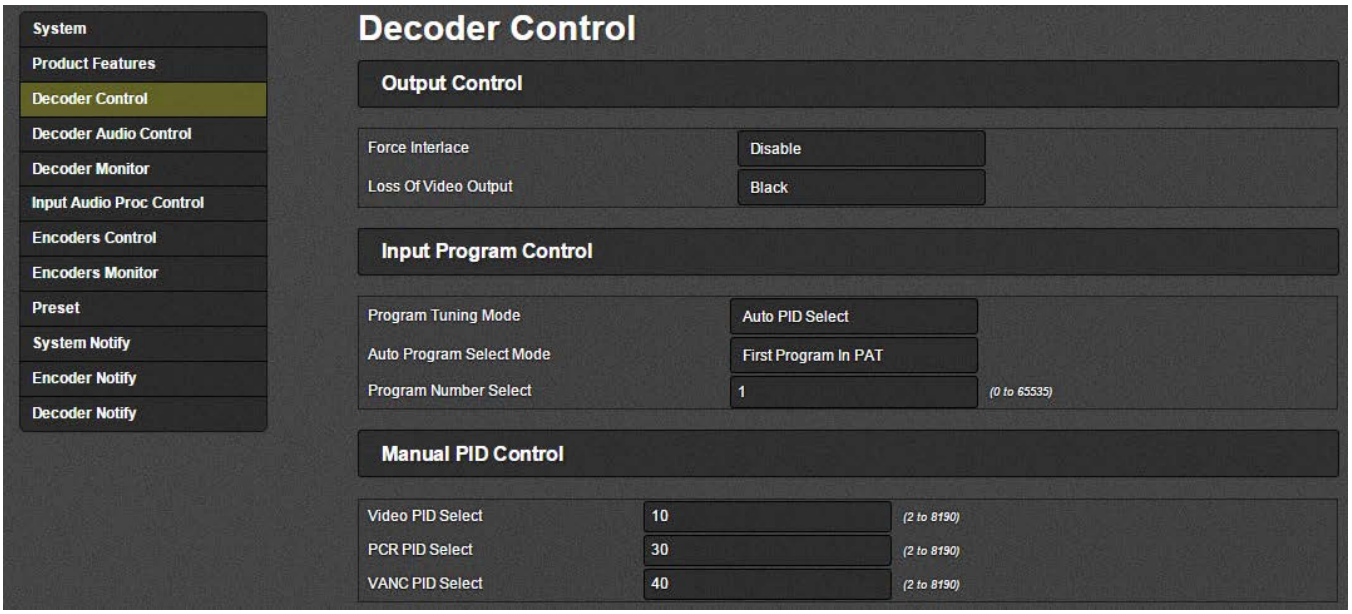


Figure 4-5 : WebEASY® - Decoder Control Tab - Part 1

Output Control

Force Interface: This is an engineering control. Please leave it configured to the default setting.

Loss of Video Output: This control allows the user to select the decoder output on a loss of video output.

Input Program Control

Program Tuning Mode: Options are Auto PID Select or Manual PID Select.

Selection of ***Auto PID Select*** will set the decoder to decode:

- First Program In The PAT
- Lowest Program Number
- Specific Program Select
- Specific Service Name

Manual PID Select allows the user to define the *Manual PID Control* section.

- Program Number
- Video PID Select
- PCR PID Select
- VANC PID Select

Auto Program Select Mode: Options are First Program in PAT or Lowest Program Number.

- First program indicates the first program defined within the PAT.
- Lowest program number will select the program with the lowest Program ID.
- Specific Program Select

Program Number Select: This control is used to specify the program number for decoding.

Manual PID Control

When Program Tuning Mode is set to Manual PID Select, only then will these values be applied.

Video PID Select (2 – 8190): This control is used to specify the video PID for decoding.

PCR PID Select (2 – 8190): This control is used to specify the PCR PID for decoding.

VANC PID Select (2 – 8190): This control is used to specify the VANC PID for decoding.

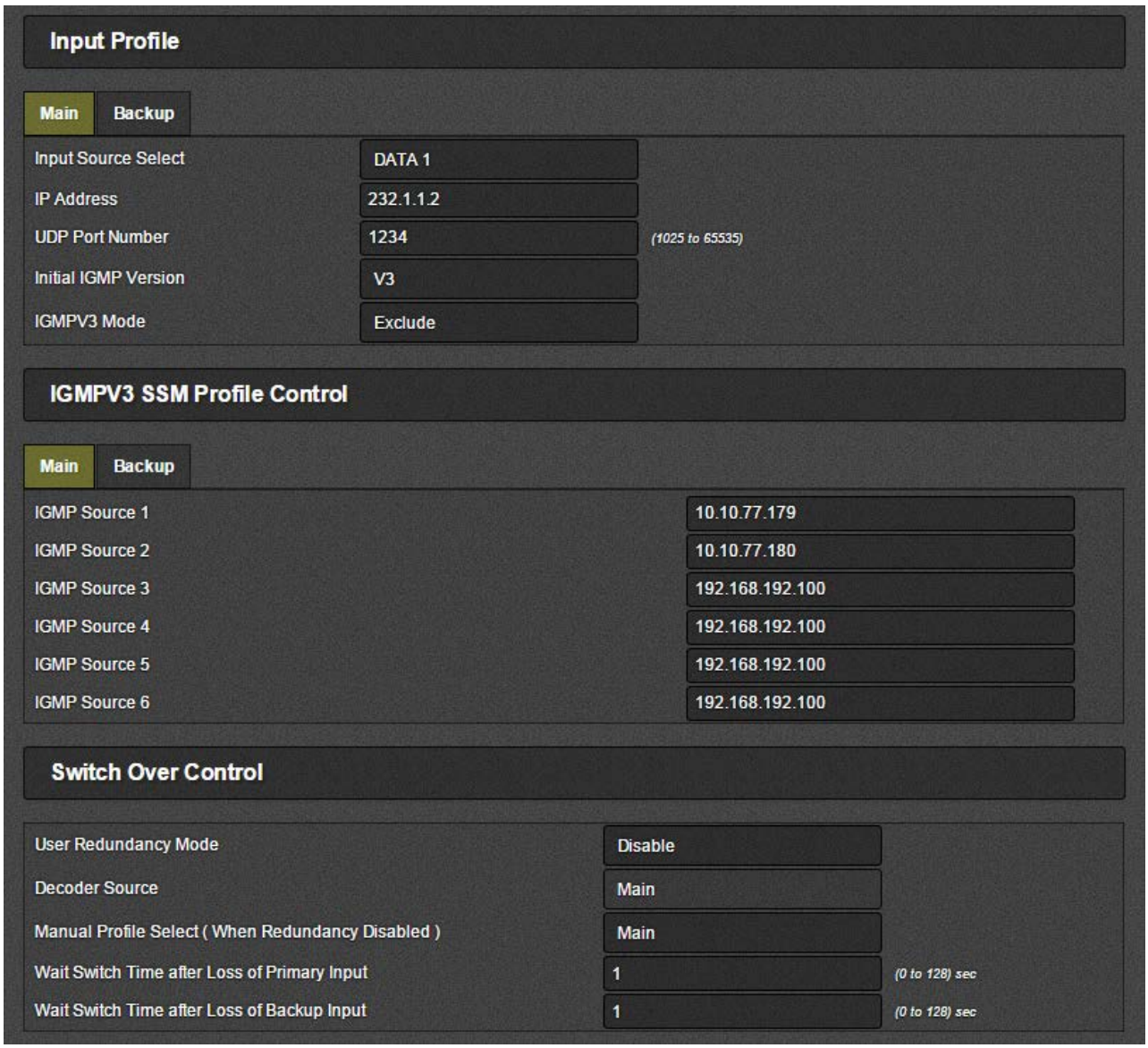


Figure 4-6 : WebEASY® – Decoder Control Tab - Part 2

Input Profile

For Main and Backup:

Input Source Select: This control is used to select the physical input source for the Decoder. Options are Data 1, Data 2, ASI 1 or ASI 2.

IP Address: This control is used to specify the multicast address to be received.

UDP Port Number: This control is used to specify the associated UDP port number for the multicast.

Initial IGMP Version: This control is used to specify the initial IGMP version to use. Options are V2 or V3.

IGMPV3 Mode: This control is used to specify the type of V3 mode to use.

IGMPV3 SSM Profile Control

For Main and Backup

IGMP Source 1 to 6: The user can add the required SSM sources for V3.

Switch Over Control

User Redundancy Mode: This control is used to enable redundancy mode for switch over on a loss input. When redundancy mode is enabled, Main will be the primary source input for the decoder.

Decoder Source: This monitor displays the Decoder source used for the output.

Manual Profile Select (when redundancy disabled): This control is used to manually select which input profile to use. Options are Main or Backup.

Wait Switch Time after Loss of Primary Input: This control is used to set the amount of time in seconds on a loss signal of the primary input before switching over to the Backup feed.

Wait Switch Time after Loss of Backup Input: This control is used to set the amount of time in seconds on a loss signal of the backup input before switching over to the Main feed.

4.4. DECODER AUDIO CONTROL TAB

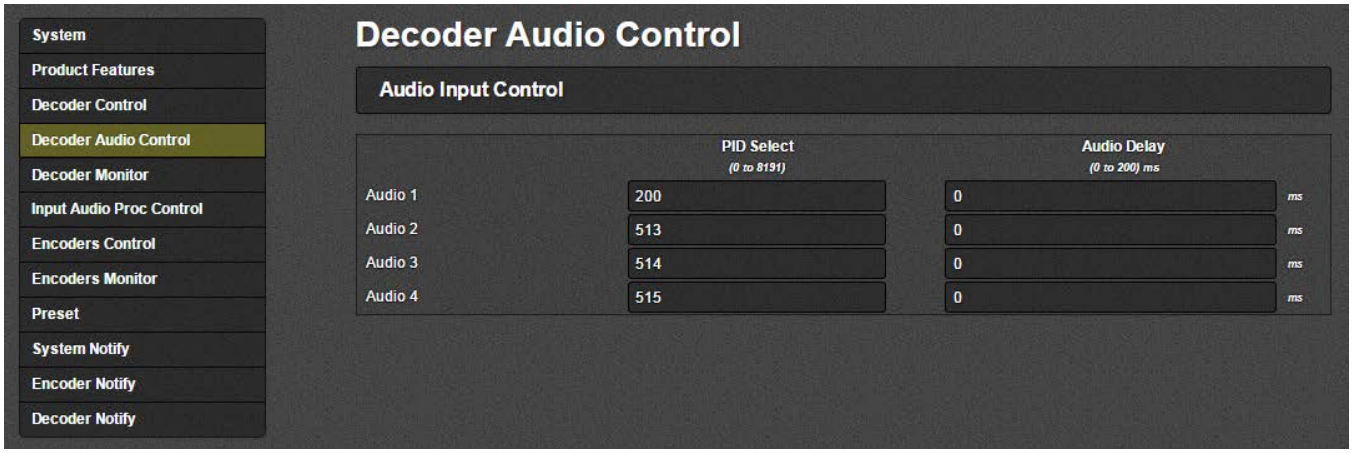


Figure 4-7 : WebEASY® – Decoder Audio Control Tab

Audio Input Control

For Audio 1-4:

PID Select: This control is used to select the audio PID to use for decoding.

Audio Delay: This control is used to set an audio delay in ms.

4.5. DECODER MONITOR TAB

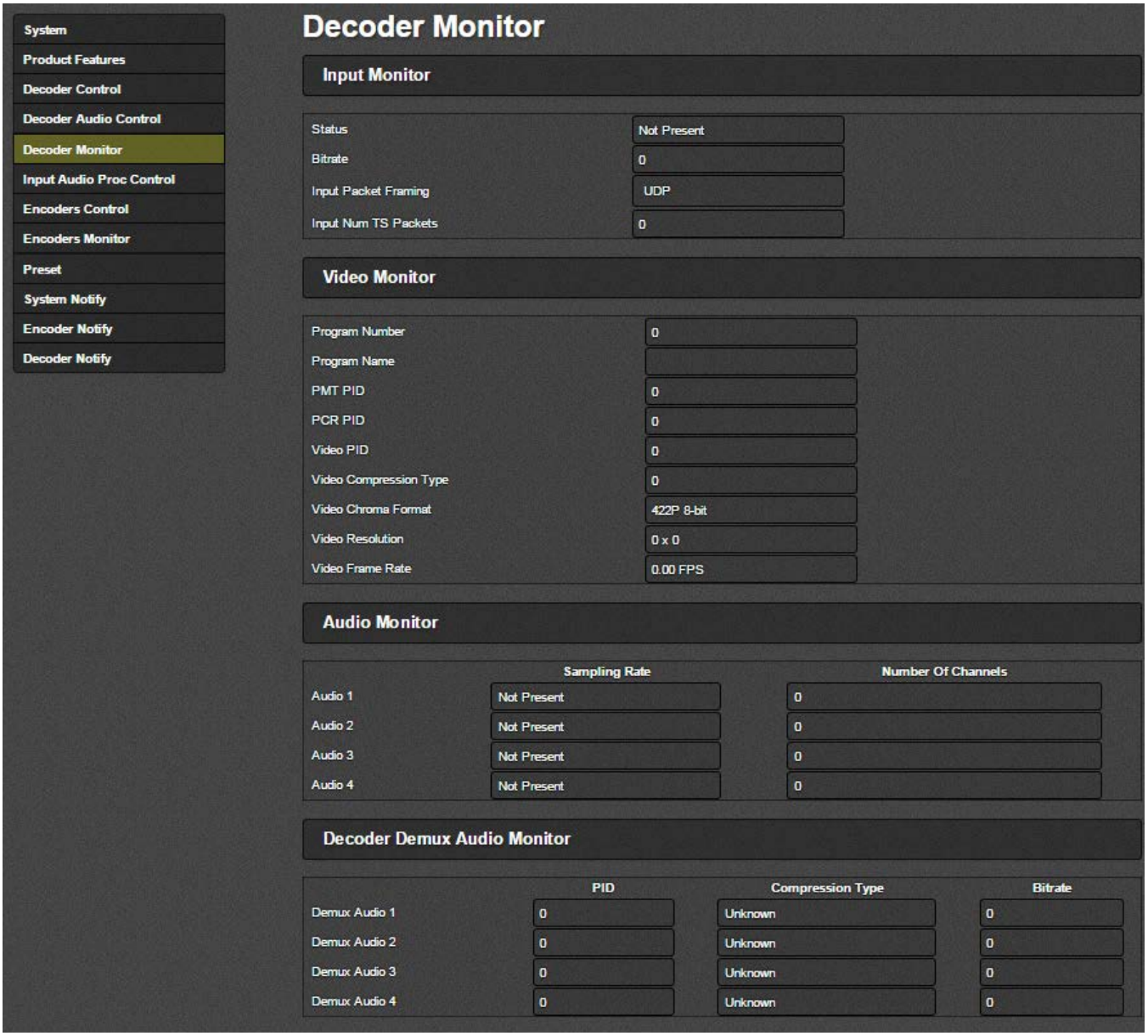


Figure 4-8 : WebEASY® – Decoder Monitor Tab

Input Monitor

Status: This field displays if an input is detected on the decoder.

Bitrate: This field displays the detected bitrate for the input.

Input Packet Framing: This field displays the type of packet framing detected. Options are RTP or UDP.

Input Num TS Packets: This field displays the number of TS packets received in one IP packet.

Video Monitor

Program Number: This field displays the program number.

Program Name: This field displays the program name.

PMT PID: This field displays the PMT PID.

PCR PID: This field displays the PCR PID.

Video PID: This field displays the Video PID.

Video Compression Type: This field displays the compression type.

Video Chroma Format: This field displays chroma format.

Video Resolution: This field displays the video resolution.

Video Frame Rate: This field displays the frame rate.

Audio Monitor

For Audio 1 -4:

Sampling Rate: This field displays the sampling rate on the audio.

Number of Channels: This field displays the number of audio channels being decoded.

Decoder Demux Audio Monitor

For Demux Audio 1-4:

PID: This field displays PID number used for the audio demuxing.

Compression Type: This field displays audio compression type used for the audio demuxing.

Bitrate: This field displays the bitrate on the audio.

4.6. INPUT AUDIO PROC CONTROL TAB

Figure 4-9 : WebEASY® – Input Audio Proc Control Tab

Input Audio Proc Control

Enable Audio Proc: If this is disabled, Audio will follow the embedded audio. If this parameter is enabled, it allows the user to select which incoming embedded audio channel goes to which Encoder source channel. Effectively enabling or disabling an audio router at the source of the encoder.

Encoder Audio Source Select: The drop down menu allows the user to select any embedded audio channel 1-16 or Mute. When Audio Proc is enabled the respected input channel will be routed to the Encoder audio source channel as defined by the user.

4.7. ENCODERS CONTROL TAB

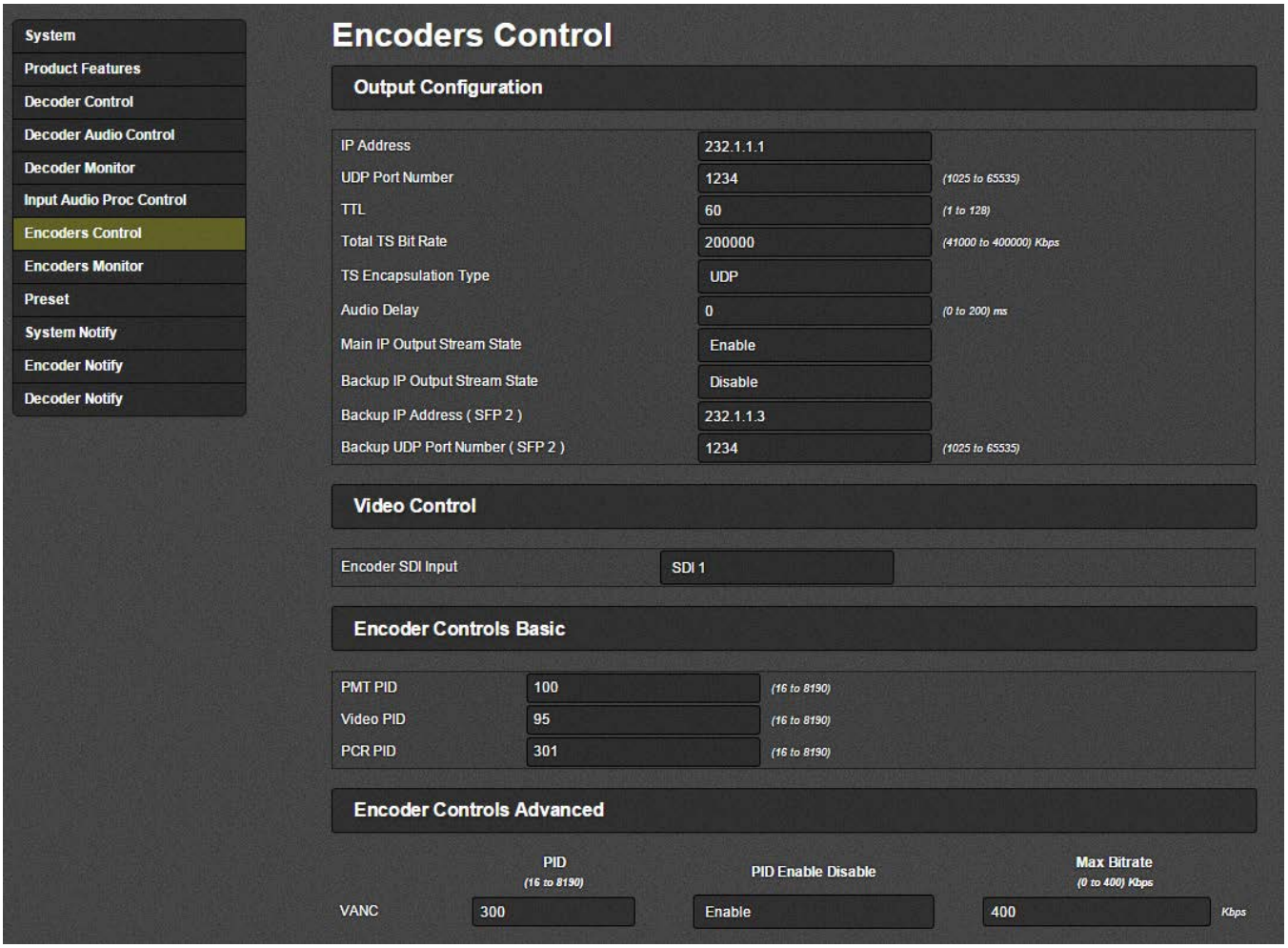


Figure 4-10 : WebEASY® – Encoders Control Tab - Part 1

Output Configuration

IP Address: This parameter allows the user to select a streaming output IP address for the Encoder. Can be a Multicast or Unicast address.

UDP Port Number: This parameter allows the user to select the destination UDP port number of the streaming output.

TTL: This parameter allows the user to set the TTL (Time To Live) field of the output IP packets.

Total TS Bit Rate: This parameter allows the user to select the output TS Bitrate in kbps. The device will automatically adjust the bitrate for video based on audio and advanced PID configuration to maintain the set TS bitrate.

TS Encapsulation Type: This parameter allows the user to select the output encapsulation type. The options are UDP or RTP.

Audio Delay: This control allows for the user to add audio delay. Range is 0 to 200 ms.

Main IP Output Stream State: This parameter allows the user to enable or disable streaming out of the device. When this control is configured to disabled, the IP output will stop.

Backup IP Output Stream State: This parameter enables or disables SFP 2 to be used for back up.

Backup IP Address (SFP 2): This parameter allows the user to select a streaming output IP address for the Contribution Backup Encoder. Can be a Multicast or Unicast address.

Backup UDP Port Number (SFP 2): This parameter allows the user to select the destination UDP port number of the backup streaming output.

Video Control

Encoder SDI Input: This control selects the SDI input to use for encoding.

Encoder Controls Basic

PMT PID: This parameter allows the user to select the PMT PID number of the output stream.

Video PID: This parameter allows the user to select the Video PID number of the output stream.

PCR PID: This parameter allows the user to select the PCR PID number of the output stream**.**

Encoder Controls Advanced

VANC PID: This parameter allows the user to select the VANC PID number of the output stream**.**

VANC PID Enable Disable: This parameter allows the user to enable or disable the VANC PID number of the output stream**.**

Max Bitrate: This parameter allows the user to set the maximum bitrate for the VANC data on the output stream in Kbps. Range is 0 to 400 Kbps.

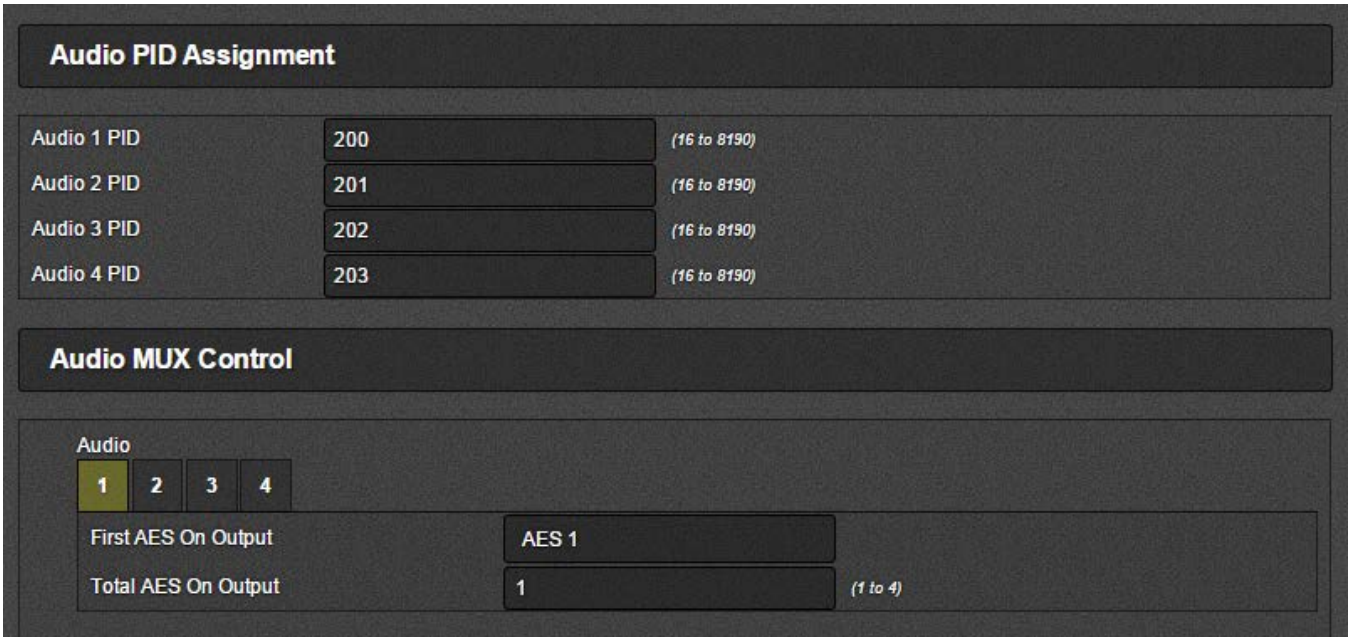


Figure 4-11 : WebEASY®– Encoders Control Tab - Part 2

Audio PID Assignment

Audio 1 to 4 PID: The 7882J2KX-IPASI has 4 x Audio Pids. These parameters allow the user to select the Audio PID number.

Audio MUX Control

For Audio 1 to 4:

First AES On Output: This parameter allows the user to select the de-embedded audio pair on the audio encoder.

Total AES On Output: This parameter allows the user to set the number of AES pair on a certain PID.

4.8. ENCODERS MONITOR TAB

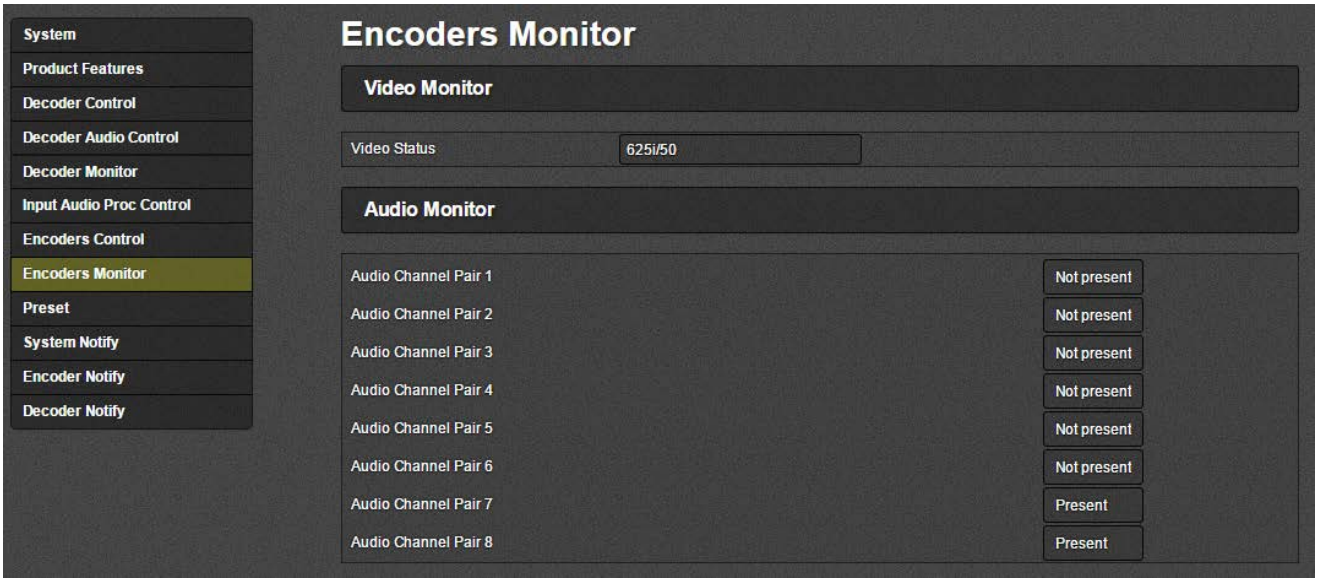


Figure 4-12 : WebEASY® – Encoders Monitor Tab

Video Monitor

Video Status: This parameter displays the detected video resolution of the encoder.

Audio Monitor

Audio Status: This parameter displays audio channel pairs that are present at the input. It monitors the audio control packets.

4.9. PRESET TAB

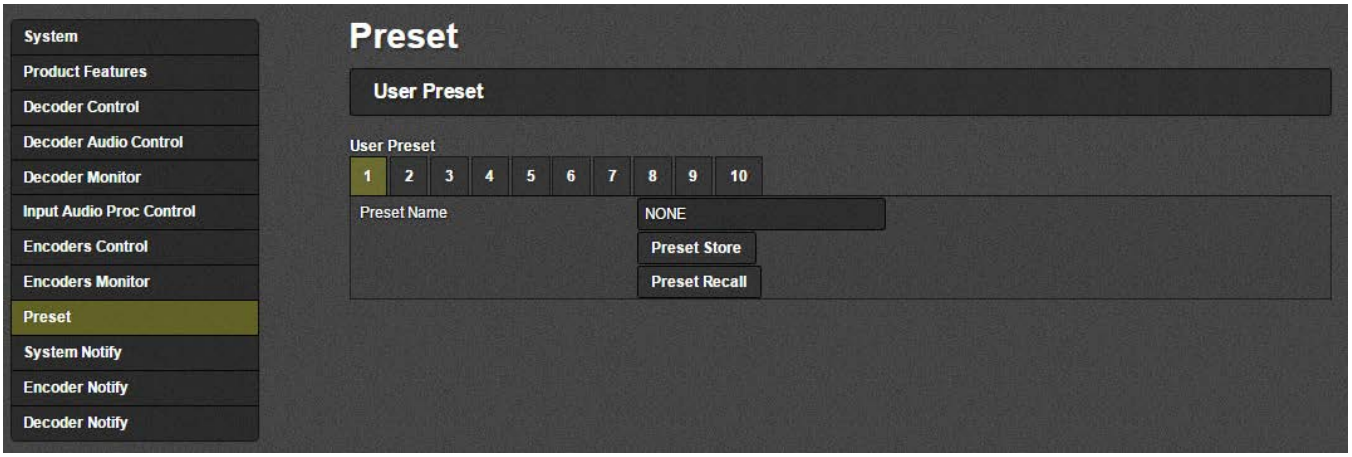


Figure 4-13 : WebEASY® – Preset Tab

For each of the 10 Presets the following parameters are available:

Preset Name: This field allows the user to enter a name for each preset.

Preset Store: This control will take the current 7882J2KX-IPASI settings and save them to a Preset. When storing a preset, all parameters will be stored except the following:

- Control Port IP address, Netmask and Gateway
- Data Port 1 and 2 IP address, Netmask and Gateway
- Syslog Configuration
- Presets
- SNMP Trap destinations, Faults and Video Notify status

Preset Recall: This control will take the stored 7882J2KX-IPASI settings and apply them. When recalling a preset all parameters will be set except the following:

- Control Port IP address, Netmask and Gateway will not change
- Data Port 1 and 2 IP address, Netmask and Gateway will not change
- Syslog Configuration will not change
- Presets will not change
- SNMP Trap destinations, Faults and Video Notify status will not change

4.10. SYSTEM NOTIFY TAB

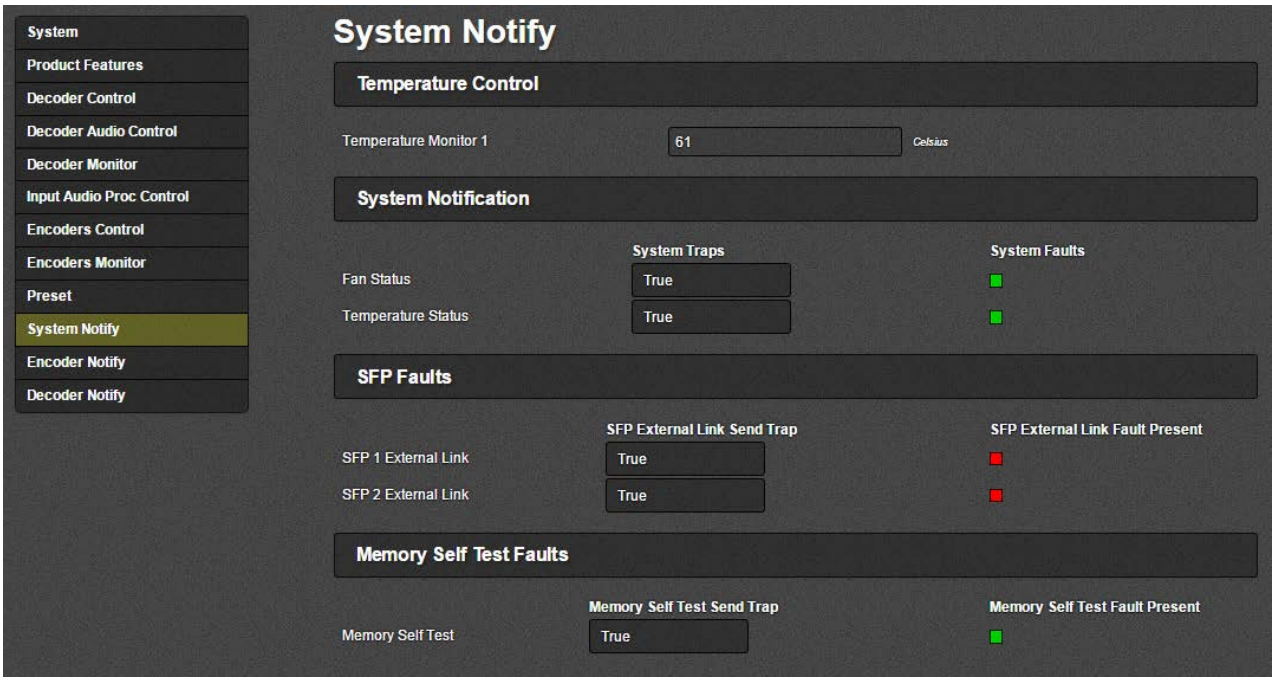


Figure 4-14 : WebEASY® – System Notify Tab

Temperature Control

Temperature Monitor 1: This field displays the module's temperature.

System Notification

Fan Status: This control sends out a trap if there is a fault generated by the Fan when enabled.

System Faults monitor displays if there is a fault condition on the Fan. Green indicates healthy while red indicates a fault.

Temperature Status: Reserved for Engineering Use.

SFP Faults

SFP 1 External Link: This control sends out a trap if there is a fault generated by a link loss on SFP 1 when enabled.
SFP External Link Fault Present monitor displays if there is a fault condition on the SFP 1. Green indicates healthy while red indicates a fault.

SFP 2 External Link: This control sends out a trap if there is a fault generated by a link loss on SFP 2 when enabled.
SFP External Link Fault Present monitor displays if there is a fault condition on the SFP 2. Green indicates healthy while red indicates a fault.

Memory Self Test Faults

Memory Self Test: This control sends out a trap if there is a fault generated by the memory self test when enabled.Memory Self Test Fault Present monitors if there is a fault condition on the memory self test. Green indicates healthy while red indicates a fault.

4.11. ENCODER NOTIFY TAB

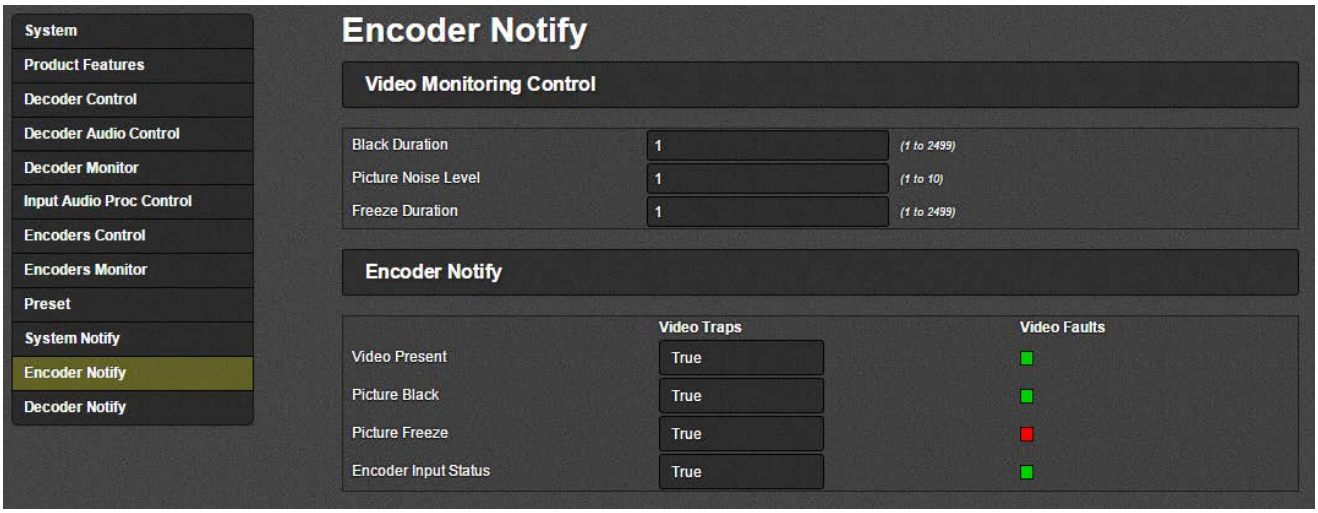


Figure 4-15 : WebEASY® – Encoder Notify Tab

Video Monitoring Control

Black Duration: This control allows the user to set the duration, in frames of active picture content below 7 IRE that is considered a fault. This parameter is adjusted in four-frame increments. As in 1 = 4 frames and 10 = 40 frames. The range is 1 (4 frames) to 2499 (9996 frames).

Picture Noise Level: This control allows the user to set approximate level of noise expected in video signal feed. It is used by the freeze detect feature to distinguish motion from background noise on top of a video feed.

Freeze Duration: This control allows the user to set the duration, in frames of video activity under the Picture Noise Level that is considered a fault. This parameter is adjusted in four-frame increments. As in 1 = 4 frames and 10 =40 frames. The range is 1 (4 frames) to 2499 (9996 frames).

Encoder Notify

Video Present: This is the video presence detected by the encoder. By default a grey test pattern is generated when input video is removed. Hence the video presence will still be active.

This control sends out a trap, if there is a fault generated by a lost video signal when enabled.

Video Faults displays if there is a fault condition on the Video Present. Green indicates healthy while red indicates a fault.

Picture Black: This control sends out a trap if there is a fault generated by the Picture Black exceeding the threshold when enabled.

Video Faults displays if there is a fault condition on the Picture Black. Green indicates healthy while red indicates a fault.

Picture Freeze: This control sends out a trap if there is a fault generated by the Picture Freeze exceeding the threshold when enabled.

Video Faults displays if there is a fault condition on the Picture Freeze. Green indicates healthy while red indicates a fault.

Encoder Input Status: This control sends out a trap if there is a fault generated by the Encoder Input Status when enabled. This reports the input video status. If no input is provided, this fault will be active.

Video Faults displays if there is a fault condition on the Encoder Input Status. Green indicates healthy while red indicates a fault.

4.12. DECODER NOTIFY TAB

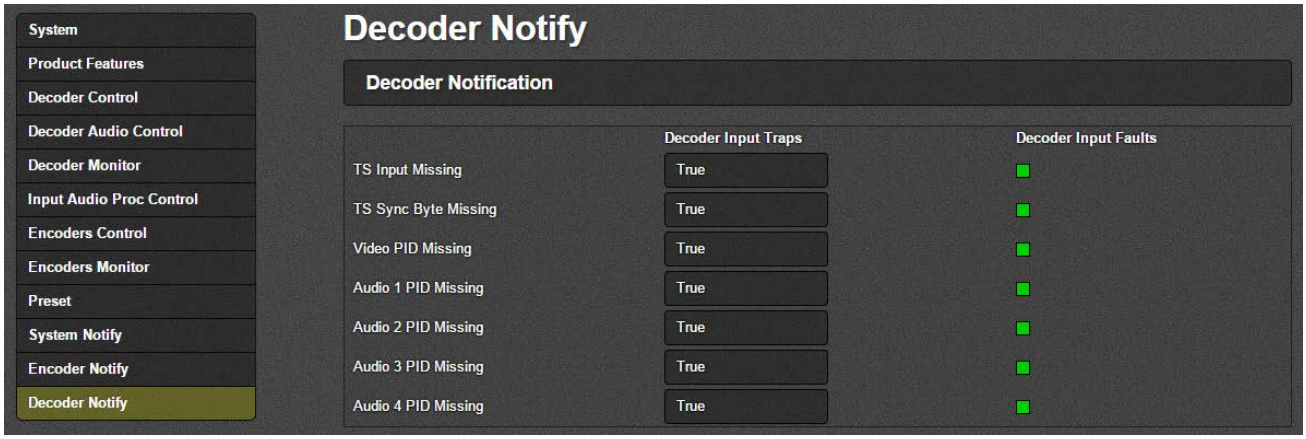


Figure 4-16 : WebEASY® - Decoder Notify Tab

Decoder Notification

TS Input Missing: This control sends out a trap if there is a fault generated by a missing TS input when enabled.

Decoder Input Faults displays if there is a fault condition on the TS Input Missing. Green indicates healthy while red indicates a fault.

TS Sync Byte Missing: This control sends out a trap if there is a fault generated by a missing TS Sync Byte when enabled.

Decoder Input Faults displays if there is a fault condition on the TS Sync Byte Missing. Green indicates healthy while red indicates a fault.

Video PID Missing: This control sends out a trap if there is a fault generated by a missing Video PID when enabled.

Decoder Input Faults displays if there is a fault condition on the Video PID Missing. Green indicates healthy while red indicates a fault.

Audio 1 to 4 PID Missing: This control sends out a trap if there is a fault generated by a missing Audio PID when enabled.

Decoder Input Faults displays if there is a fault condition on the Encoder Input Status. Green indicates healthy while red indicates a fault.

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5. VISTALINK® PRO INTERFACE

This chapter assumes that VistaLINK® PRO server and client are already configured for your network and you have basic knowledge of the VistaLINK® PRO interface. It also assumes that the user or network administrator has already added the appropriate jar file to the server, and both the client and server applications have been restarted

There are two methods that can be used to communicate with the 7882J2KX-IPASI and VistaLINK® PRO.

1. 7800FC Frame Controller and 7882J2KX-IPASI with appropriate Jar file

   Open VistaLINK® PRO and click on the refresh tree icon. Expand the hardware tree by clicking on the "+" button. The 7800FC should show up and the number of 7882J2KX-IPASI cards installed after it in the tree formation

2. Using the 7882J2KX-IPASI control port and appropriate Jar file

Open VistaLINK® PRO and click on the refresh tree icon. Select 7882J2KX-IPASI and right click to "***View Configuration...***"

Please consult your network administrator if you continue to have problems connecting the card with VistaLINK® PRO, alternatively contact Evertz Microsystems Ltd. or your authorized reseller for technical support.

5.1. SYSTEM TAB

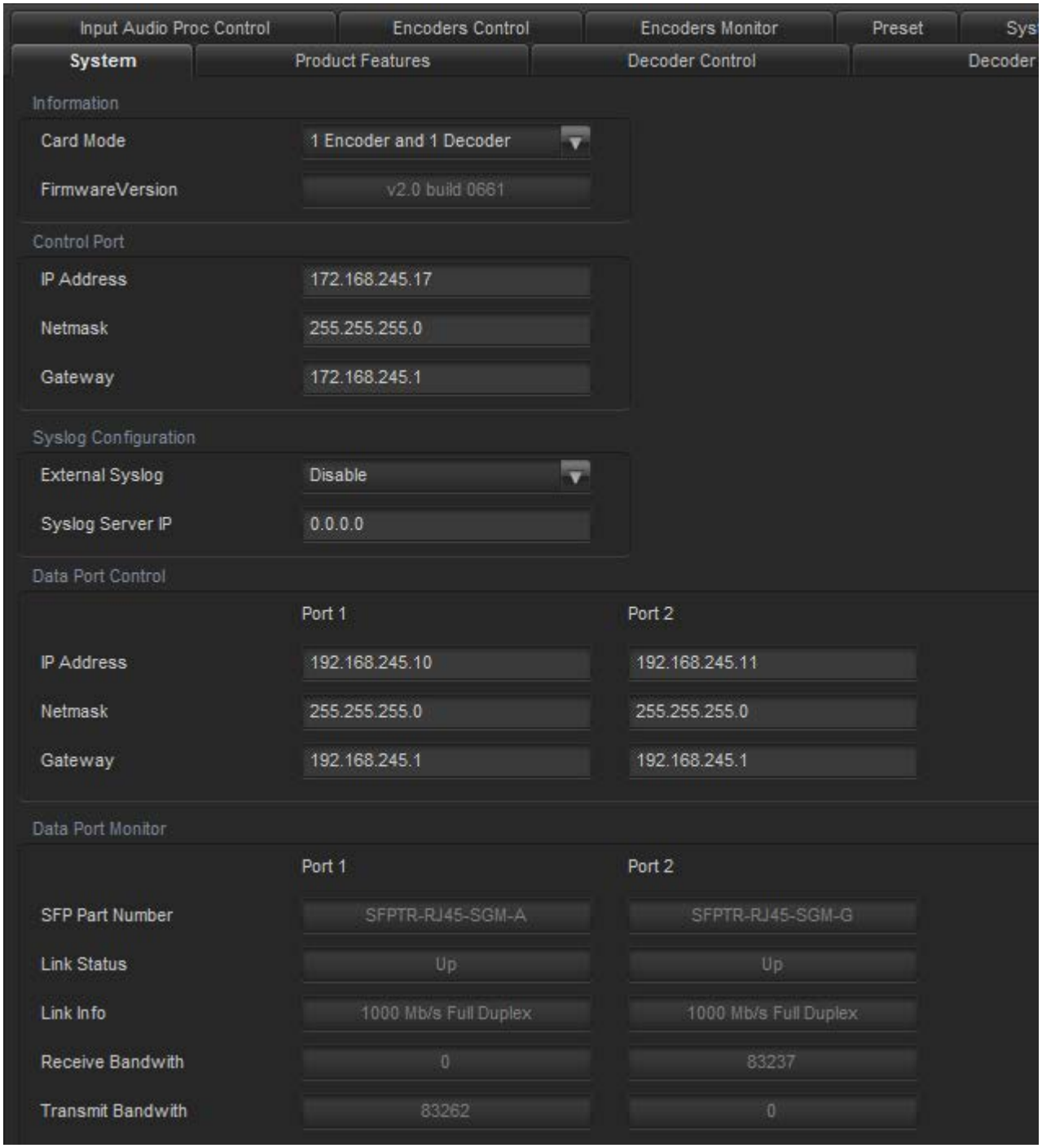

Figure 5-1 : VistaLINK® - System Tab Part 1

Note: For IP address settings on Control and Data ports, after applying any changes, the device must be rebooted for the changes to take effect. Reboot can be pressed at the bottom of this System tab after all changes are made.

Information

Card Mode: This monitor displays the behavior of the module**.**

Firmware Version: This monitor displays the current firmware version.

Control Port ***(must reboot in order for new settings to take effect)***

IP Address: This control allows the user to set the IP address on the Control Port. This control will also display the currently set IP address.

Netmask: This control allows the user to set the Netmask for the Control Port IP address. This control will also display the currently set Netmask.

Gateway: This control allows the user to set the Gateway for the Control Port. This control will also display the currently set Gateway address.

Syslog Configuration

Syslog is a valuable tool for debugging the device operation. It is essentially serial readouts over IP, sent to a dedicated server. If issues are present Evertz can help install and setup a syslog server for constant monitoring of the device activity.

External Syslog: This parameter allows the user to enable or disable sending syslog information to the configured external server.

Syslog Server IP: This parameter allows the user to assign the external syslog server IP address. This will be the address of a PC with the syslog server software installed (ex Kiwi Syslog Server).

Data Port Control ***(must reboot in order for settings new to take effect)***

IP Address: This control allows the user to set the IP address on the Data Port. This control will also display the currently set IP address.

Netmask: This control allows the user to set the Netmask for the Data Port IP address. This control will also display the currently set Netmask.

Gateway: This control allows the user to set the Gateway for the Data Port. This control will also display the currently set Gateway address.

Data Port Monitor (Data Ports 1 and 2)

SFP Part Number: This parameter returns the part number of the SFP located in the Data Port.

Link Status: This parameter returns the link status for the Data Port. The status could be either Up or Down.

Link Info: When the link is Up, this parameter returns link speed & duplex mode information for Data Port.

Receive Bandwidth: When the link is Up, this parameter returns the receive bandwidth currently being read on the Data Port. Reading is in kbps.

Transmit Bandwidth: When the link is Up, this parameter returns the transmit bandwidth currently being sent on the Data Port. Reading is kbps**.**

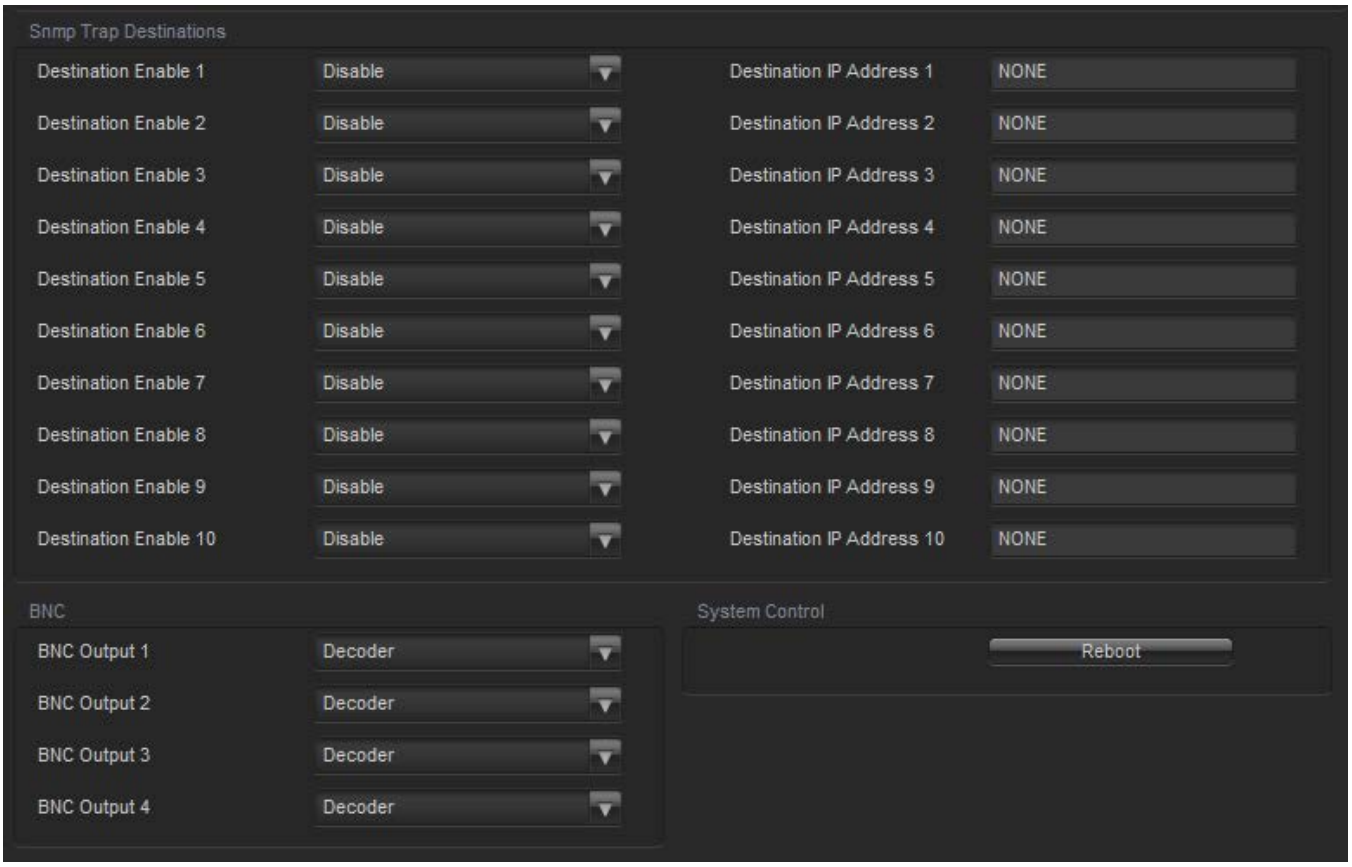

Figure 5-2 : VistaLINK® - System Tab Part 2

SNMP Trap Destinations

There are 10 trap destinations that can be configured and enabled.

Destination Enable: This control is used to enable or disable sending out traps.

Destination IP Address: This control is used to specify the trap IP address.

BNC

BNC Output 1-4: This parameter allows the user to select the BNC output type. Available options are *V-Proc HD/SD-SDI Loopout* (forwards the currently selected input), *J2K ASI* and *Decoder*.

System Control

Reboot: This control can be used to soft reboot the device. It will cycle the power relay and cause an effective power cycle.

5.2. PRODUCT FEATURES

The 7882J2KX-IPASI has the ability to enable features by adding/updating applicable licenses. Please contact Evertz Microsystems Ltd for any additional License generation along with Product Serial Number and Product MAC address.

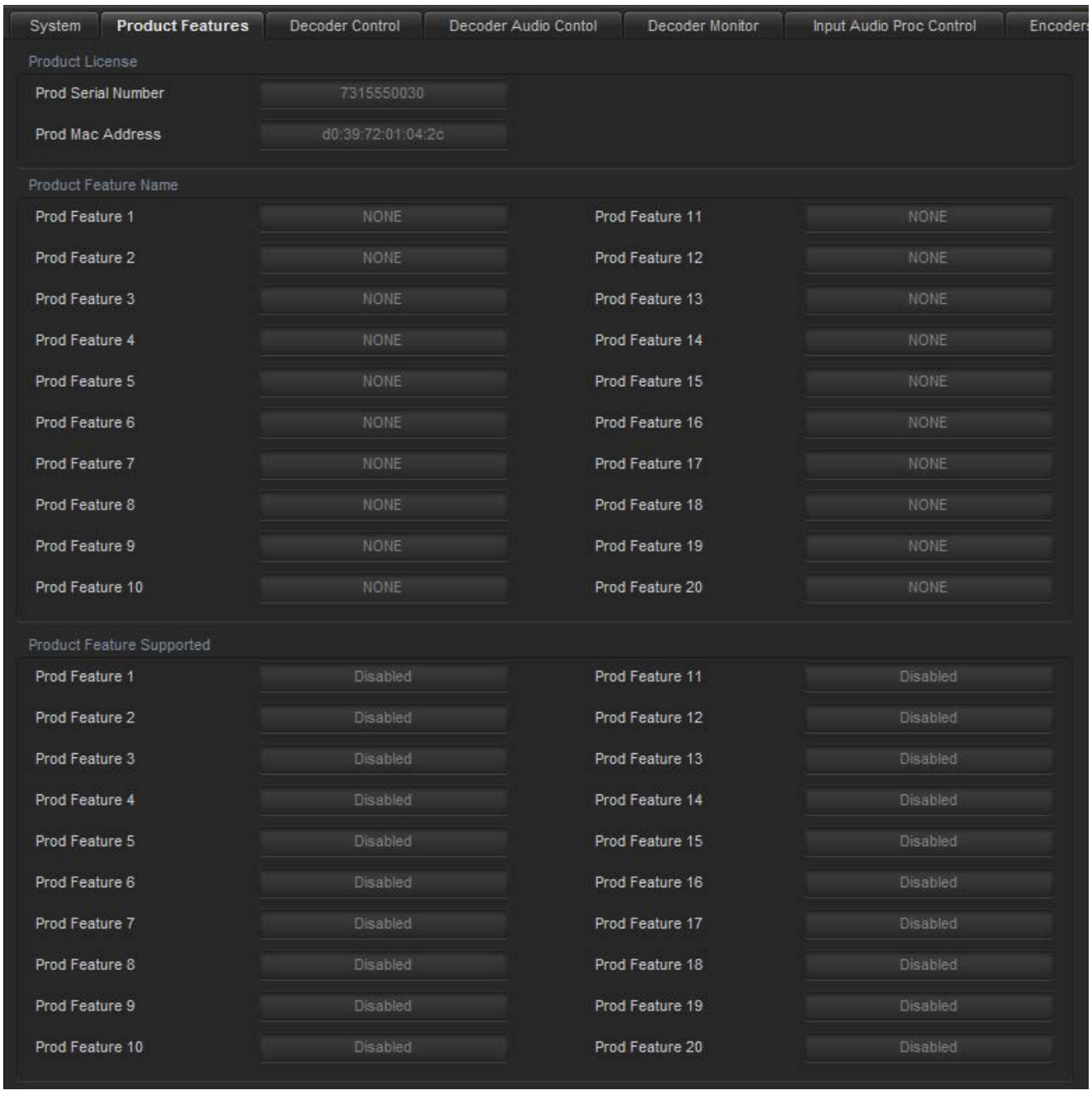

Figure 5-3 : VistaLINK® - Product Features Tab

The 7882J2KX-IPASI supports 1 encoder and 1 decoder by default.

Product License

Product Serial Number: This parameter displays the card serial number. This is required by Evertz when generating or updating license files on the 7882J2KX-IPASI.

Product MAC Address: This parameter displays the card MAC address. This is required by Evertz when generating or updating license files on the 7882J2KX-IPASI.

Product Features Supported

Product Feature Name: This parameter displays the possible product features supported on the 7882J2KX-IPASI if it is available on the platform.

Product Feature Supported: This parameter displays the status of features currently supported. Enabled means the license key is installed and disabled means the license key is not installed.

5.3. DECODER CONTROL

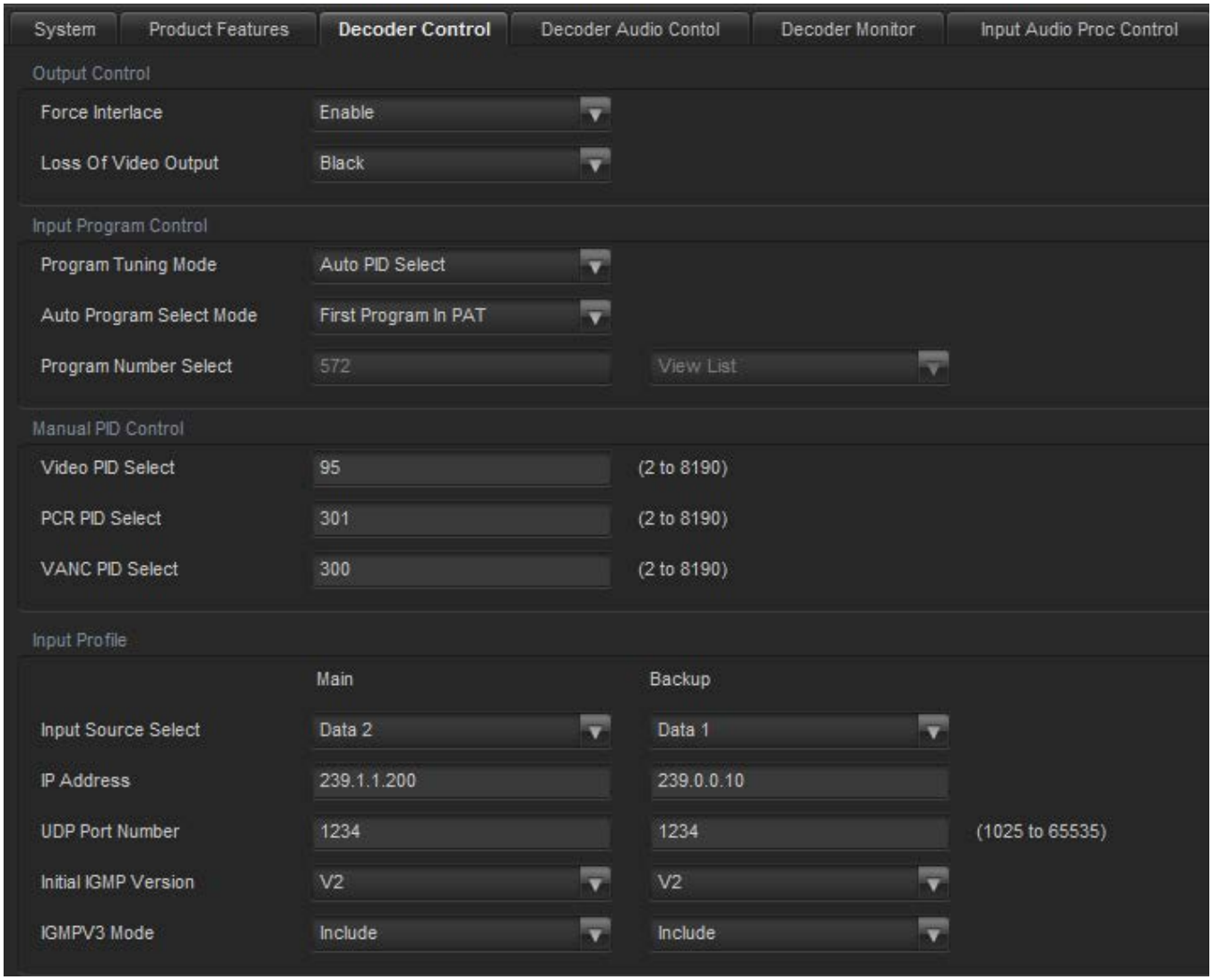

Figure 5-4 : VistaLINK® - Decoder Control Tab (Part 1)

Output Control

Force Interface: This is an engineering control. Please leave it configured to the default setting.

Loss of Video Output: This control allows the user to select the decoder output on a loss of video output.

Input Program Control

Program Tuning Mode: Options are Auto PID Select or Manual PID Select.

- Selection of ***Auto PID Select*** will set the decoder to decode either the
  - First Program In The PAT
  - Lowest Program Number
  - Specific Program Select
  - Specific Service Name

- ***Manual PID Select*** allows the user to define the *Manual PID Control* section.
  - Video PID Select
  - PCR PID Select
  - VANC PID Select

Auto Program Select Mode: Options are First Program in PAT or Lowest Program Number.

- First program indicates the first program defined within the PAT.
- Lowest program number will select the program with the lowest Program ID.
- Specific Program Select

Program Number Select: This control is used to specify the program number for decoding; only applicable in auto mode.
When the Program Tuning mode is set to Auto PID Select and Auto Program Select is set to Specific Program Select, the Program Number and View list will be available to make your selections. Enter in the program number manually or use the View List drop down menu to make your selection.

Manual PID Control

When Program Tuning Mode is set to Manual PID Select, then these values will be applied.

Video PID Select (2 – 8190): This control is used to specify the video PID for decoding.

PCR PID Select (2 – 8190): This control is used to specify the PCR PID for decoding.

VANC PID Select (2 – 8190): This control is used to specify the VANC PID for decoding.

Input Profile

For Main and Backup:

Input Source Select: This control is used to select the physical input source for the Decoder. Options are Data 1, Data 2, ASI 1 or ASI 2.

IP Address: This control is used to specify the multicast address to be received.

UDP Port Number: This control is used to specify the associated UDP port number for the multicast.

Initial IGMP Version: This control is used to specify the initial IGMP version to use. Options are V2 or V3.

IGMPV3 Mode: This control is used to specify the type of V3 mode to use.

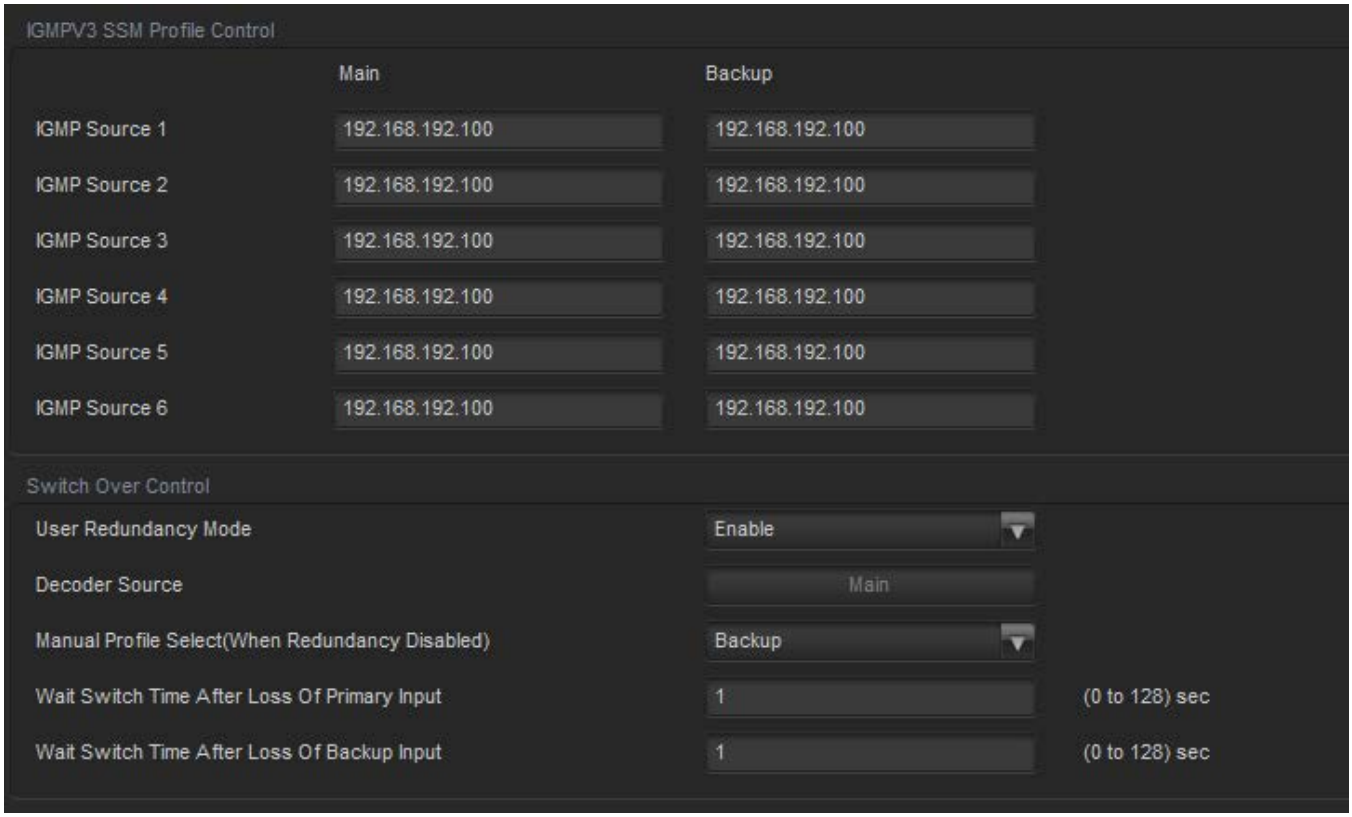

Figure 5-5 : VistaLINK® - Decoder Control Tab (Part 2)

IGMPV3 SSM Profile Control

For Main and Backup:

IGMP Source 1 to 6: The user can add the required SSM sources for V3.

Switch Over Control

User Redundancy Mode: This control is used to enable redundancy mode for switch over on a loss input. When redundancy mode is enabled, Main will be the primary source input for the decoder.

Decoder Source: This monitor displays the Decoder source used for the output.

Manual Profile Select (when redundancy disabled): This control is used to manually select which input profile to use. Options are Main or Backup.

Wait Switch Time after Loss of Primary Input: This control is used to set the amount of time in seconds on a loss signal of the primary input before switching over to the Backup feed.

Wait Switch Time after Loss of Backup Input: This control is used to set the amount of time in seconds on a loss signal of the backup input before switching over to the Main feed.

5.4. DECODER AUDIO CONTROL TAB

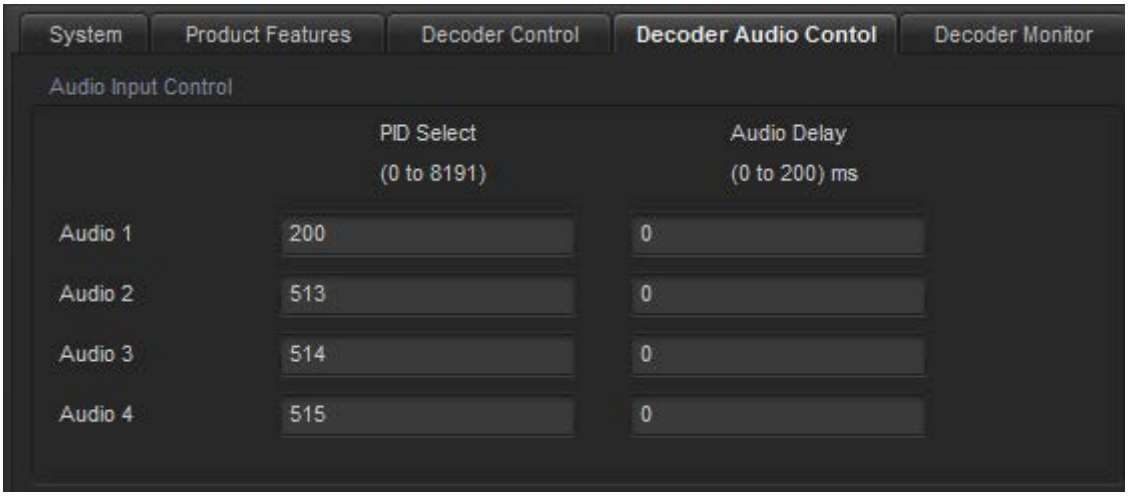

Figure 5-6 : VistaLINK® - Decoder Audio Control Tab

Audio Input Control

For Audio 1-4:

PID Select: This control is used to select the audio PID to use for decoding.

Audio Delay: This control is used to set an audio delay in ms.

5.5. DECODER MONITOR TAB

Figure 5-7 : VistaLINK® - Decoder Monitor Tab

Input Monitor

Status: This field displays if an input is detected on the decoder.

Bitrate: This field displays the detected bitrate for the input.

Input Packet Framing: This field displays the type of packet framing detected. Options are RTP or UDP.

Input Num TS Packets: This field displays the number of TS packets received in one IP packet.

Video Monitor

Program Number: This field displays the program number.

Program Name: This field displays the program name.

PMT PID: This field displays the PMT PID.

PCR PID: This field displays the PCR PID.

Video PID: This field displays the Video PID.

Video Compression Type: This field displays the compression type.

Video Chroma Format: This field displays chroma format.

Video Resolution: This field displays the video resolution.

Video Frame Rate: This field displays the frame rate.

Audio Monitor

For Audio 1 -4:

Sampling Rate: This field displays the sampling rate on the audio.

Number of Channels: This field displays the number of audio channels being decoded.

Decoder Demux Audio Monitor

For Demux Audio 1 – 4

PID: This field displays PID number used for the audio demuxing.

Compression Type: This field displays audio compression type used for the audio demuxing.

Bitrate: This field displays the bitrate on the audio.

5.6. INPUT AUDIO PROC CONTROL

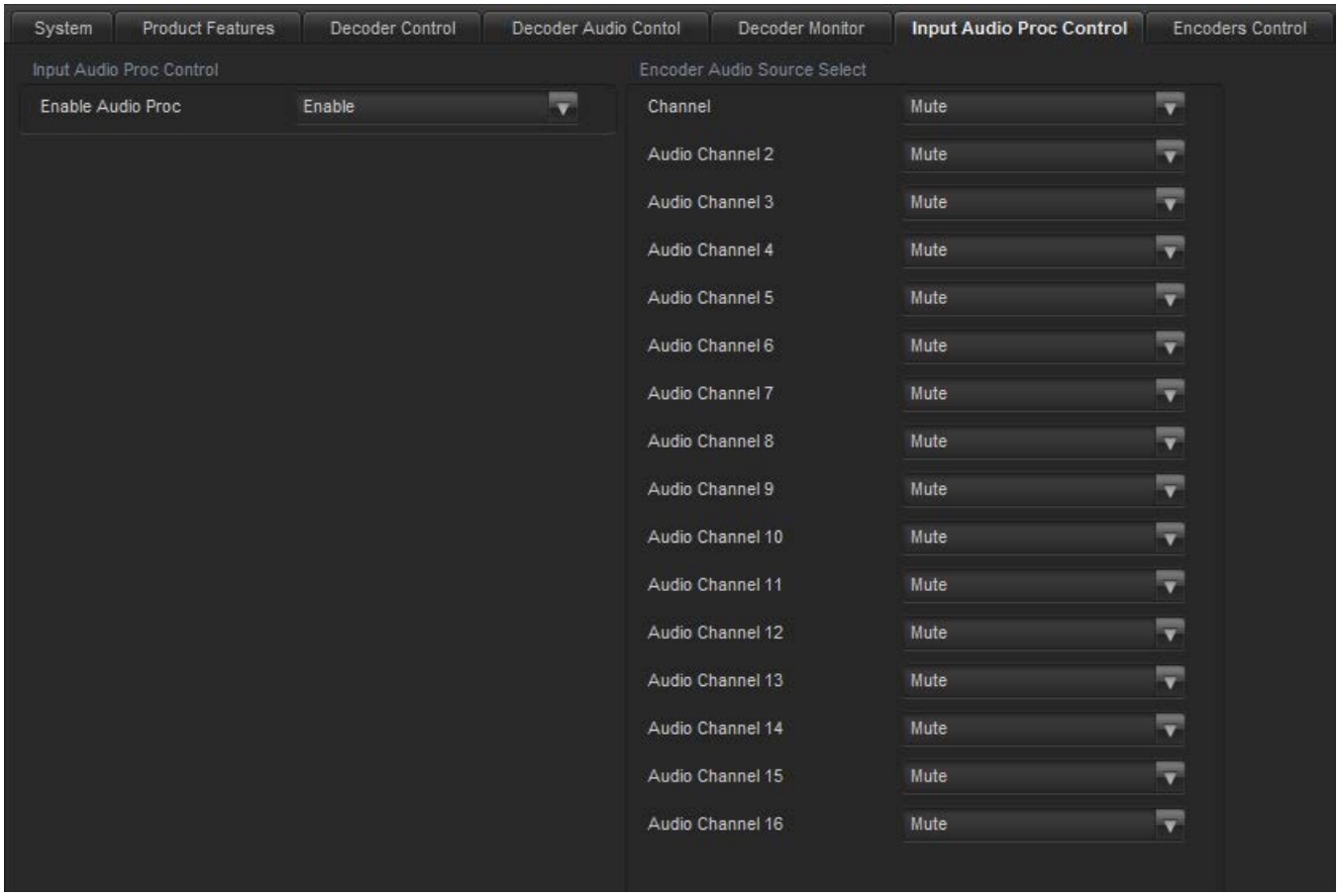

Figure 5-8 : VistaLINK® - Input Audio Proc Control Tab

Input Audio Proc Control

Enable Audio Proc: If this is disabled, Audio will follow the embedded audio. If this parameter is enabled, it allows the user to select which incoming embedded audio channel goes to which Encoder source channel. Effectively enabling or disabling an audio router at the source of the encoder.

Encoder Audio Source Select: The drop down menu allows the user to select any embedded audio channel 1-16 or Mute. When Audio Proc is enabled the respected input channel will be routed to the Encoder audio source channel as defined by the user.

5.7. ENCODERS CONTROL TAB

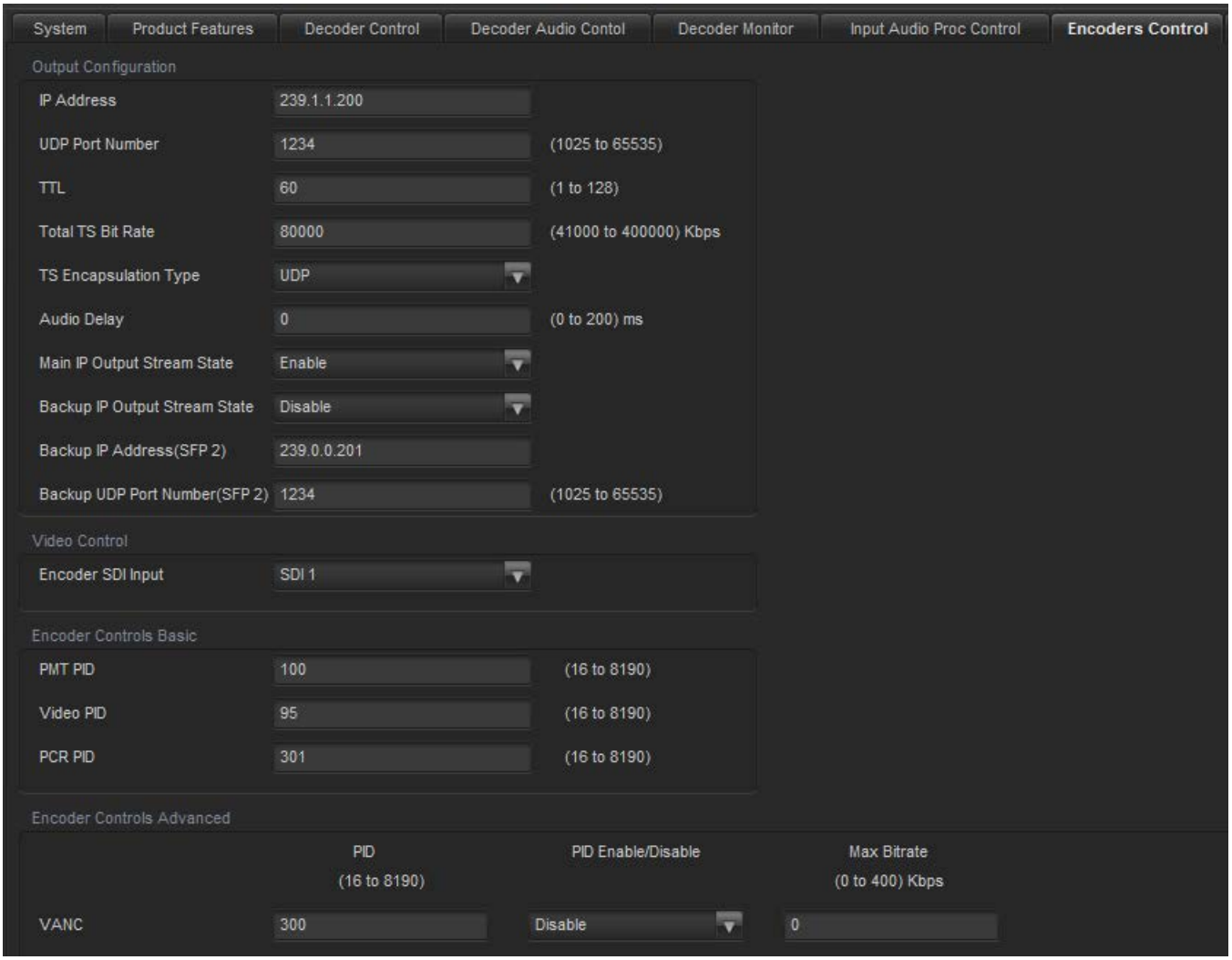

Figure 5-9 : VistaLINK® - Encoders Control Tab Part 1

Output Configuration

IP Address: This parameter allows the user to select a streaming output IP address for the Encoder. It can be a Multicast or Unicast address.

UDP Port Number: This parameter allows the user to select the destination UDP port number of the streaming output.

TTL: This parameter allows the user to set the TTL (Time To Live) field of the output IP packets.

Total TS Bit Rate: This parameter allows the user to select the output TS Bitrate in kbps. The device will automatically adjust the bitrate for video based on audio and advanced PID configuration to maintain the set TS bitrate.

TS Encapsulation Type: This parameter allows the user to select the output encapsulation type. The options are UDP or RTP.

Audio Delay: This control allows for the user to add audio delay. Range is 0 to 200 ms.

Main IP Output Stream State: This parameter allows the user to enable or disable streaming out of the device. When this control is configured to disabled, the IP output will stop.

Backup IP Output Stream State: This parameter enables or disables SFP 2 to be used for back up.

Backup IP Address (SFP 2): This parameter allows the user to select a streaming output IP address for the Contribution Backup Encoder. Can be a Multicast or Unicast address.

Backup UDP Port Number (SFP 2): This parameter allows the user to select the destination UDP port number of the backup streaming output.

Video Control

Encoder SDI Input: This control selects the SDI input to use for encoding.

Encoder Controls Basic

PMT PID: This parameter allows the user to select the PMT PID number of the output stream.

Video PID: This parameter allows the user to select the Video PID number of the output stream.

PCR PID: This parameter allows the user to select the PCR PID number of the output stream**.**

Encoder Controls Advanced

VANC PID: This parameter allows the user to select the VANC PID number of the output stream**.**

VANC PID Enable Disable: This parameter allows the user to enable or disable the VANC PID number of the output stream**.**

Max Bitrate: This parameter allows the user to set the maximum bitrate for the VANC data on the output stream in Kbps. Range is 0 to 400 Kbps.

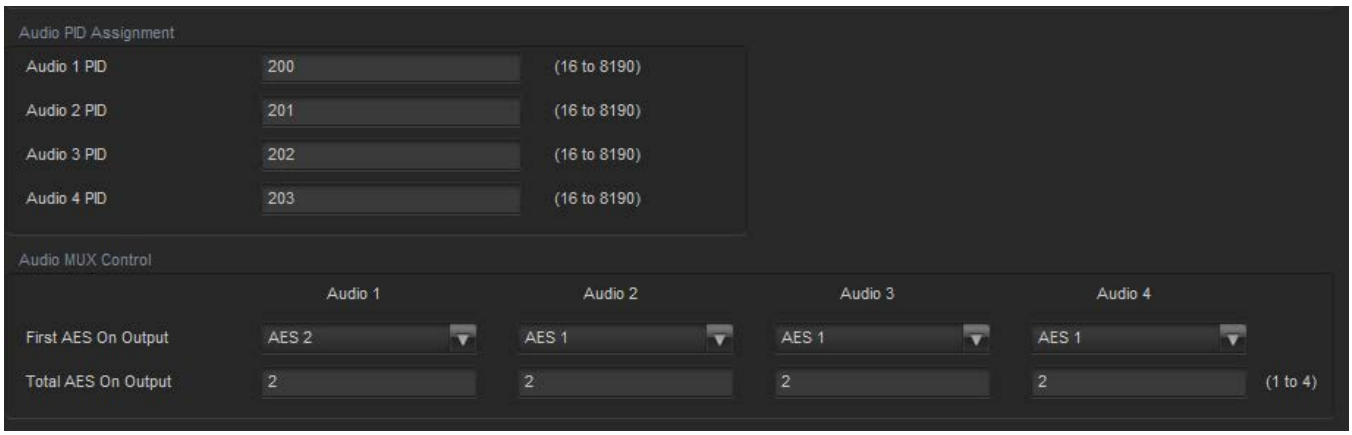

Figure 5-10 : VistaLINK® - Encoders Control Tab Part 2

Audio PID Assignment

Audio 1 to 4 PID: The 7882J2KX-IPASI has 4 x Audio Pids. These parameters allow the user to select the Audio PID number.

Audio MUX Control

For Audio 1 to 4:

First AES On Output: This parameter allows the user to select the de-embedded audio pair on the audio encoder.

Total AES On Output: This parameter allows the user to set the number of AES pair on a certain PID.

5.8. ENCODERS MONITOR TAB

Figure 5-11 : VistaLINK® - Encoder Monitor Tab

Video Monitor

Video Status: This parameter displays the detected video resolution of the encoder.

Audio Monitor

Audio Channel Pair: This parameter displays audio channel pairs that are present at the input. It monitors the audio control packets.

5.9. PRESET TAB

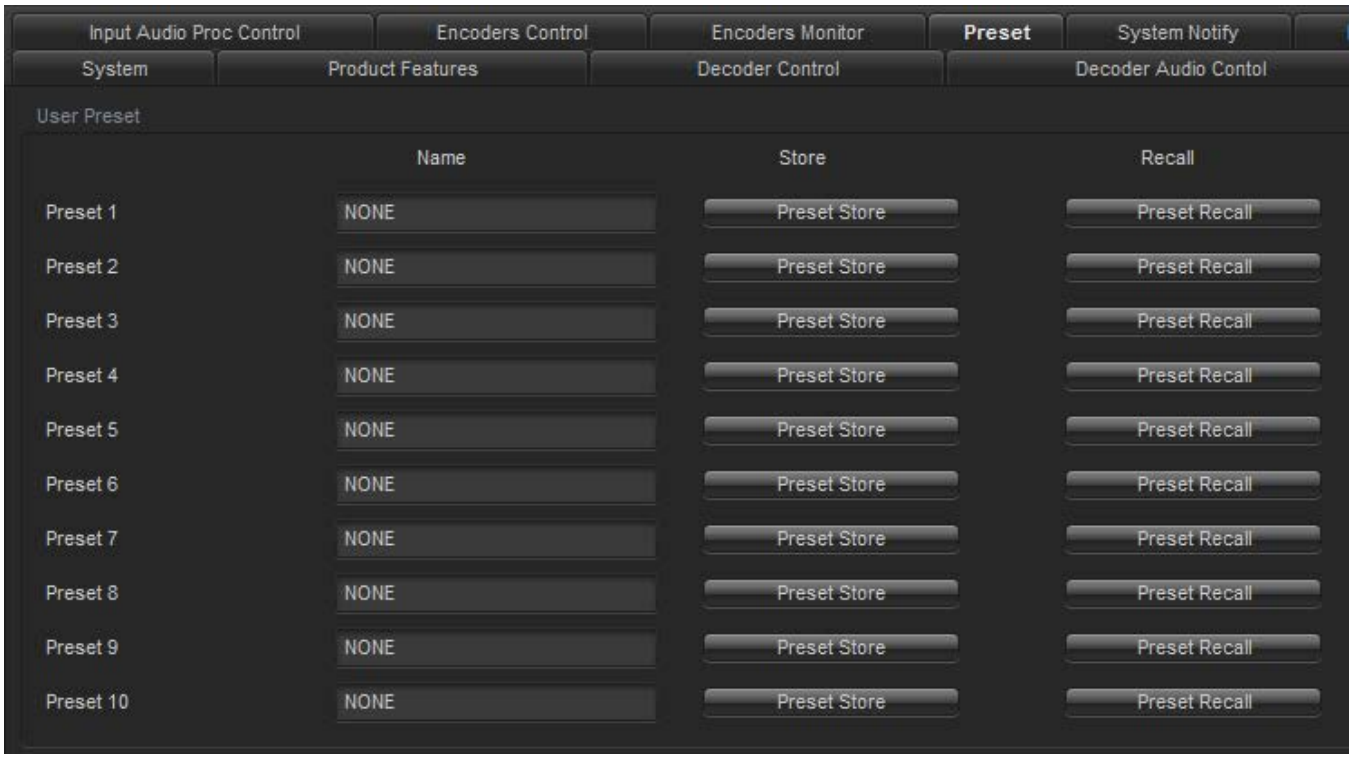

Figure 5-12: VistaLINK® - Preset Tab Part 1

For each of the 10 Presets the following parameters are available:

Preset Name: This field allows the user to enter a name for each preset.

Preset Store: This control will take the current 7882J2KX-IPASI settings and save them to a Preset. When storing a preset all parameters will be stored except the following:

- Control Port IP address, Netmask and Gateway.
- Data Port 1 and 2 IP address, Netmask and Gateway.
- Syslog Configuration.
- Presets.
- SNMP Trap destinations, Faults and Video Notify status.

Preset Recall: This control will take the stored 7882J2KX-IPASI settings and apply them. When recalling a preset all parameters will be set except the following:

- Control Port IP address, Netmask and Gateway will not change.
- Data Port 1 and 2 IP address, Netmask and Gateway will not change.
- Syslog Configuration will not change.
- Presets will not change.
- SNMP Trap destinations, Faults and Video Notify status will not change.

5.10. SYSTEM NOTIFY TAB

Figure 5-13 : VistaLINK® - System Notify Tab

Temperature Control

Temperature Monitor 1: This field displays the module's temperature.

System Notification

Fan Status: This control sends out a trap if there is a fault generated by the Fan when enabled.

System Faults monitor displays if there is a fault condition on the Fan. Green indicates healthy while red indicates a fault.

Temperature Status: Reserved for engineering use.

SFP Faults

SFP 1 External Link: This control sends out a trap if there is a fault generated by a link loss on SFP 1 when enabled.

SFP External Link Fault Present monitor displays if there is a fault condition on the SFP 1. Green indicates healthy while red indicates a fault.

SFP 2 External Link: This control sends out a trap if there is a fault generated by a link loss on SFP 2 when enabled. SFP External Link Fault Present monitor displays if there is a fault condition on the SFP 2. Green indicates healthy while red indicates a fault.

Memory Self Test Faults

Memory Self Test: This control sends out a trap if there is a fault generated by the memory self test when enabled.
Memory Self Test Fault Present displays if there is a fault condition on the memory self test. Green indicates healthy while red indicates a fault.

5.11. ENCODER NOTIFY TAB

Figure 5-14: VistaLINK® - Encoder Notify Tab

Video Monitoring Control

Black Duration: This control allows the user to set the duration, in frames of active picture content below 7 IRE that is considered a fault. This parameter is adjusted in four-frame increments. As in 1 = 4 frames and 10 = 40 frames. The range is 1 (4 frames) to 2499 (9996 frames).

Picture Noise Level: This control allows the user to set approximate level of noise expected in video signal feed. It is used by the freeze detect feature to distinguish motion from background noise on top of a video feed.

Freeze Duration: This control allows the user to set the duration, in frames of video activity under the Picture Noise Level that is considered a fault. This parameter is adjusted in four-frame increments. As in 1 = 4 frames and 10 =40 frames. The range is 1 (4 frames) to 2499 (9996 frames).

Encoder Notify

Video Present: This control sends out a trap if there is a fault generated by a lost video signal. Please note the alarm is generated if trap is enabled. Also note this is the video presence of the encoder. By

default a grey test pattern is generated when input video is removed. Hence the video presence will still be active.

Video Faults display if there is a fault condition on the Video Present. Green indicates healthy while red indicates a fault.

Picture Black: This control sends out a trap if there is a fault generated by the Picture Black exceeding the threshold when enabled.

Video Faults displays if there is a fault condition on the Picture Black. Green indicates healthy while red indicates a fault.

Picture Freeze: This control sends out a trap if there is a fault generated by the Picture Freeze exceeding the threshold when enabled.

Video Faults displays if there is a fault condition on the Picture Freeze. Green indicates healthy while red indicates a fault.

Encoder Input Status: This control sends out a trap if there is a fault generated by the Encoder Input Status when enabled. This reports the input video status. If no input is provided, this fault will be active.

Video Faults displays if there is a fault condition on the Encoder Input Status. Green indicates healthy while red indicates a fault.

5.12. DECODERS NOTIFY TAB

Figure 5-15: VistaLINK® - Decoder Notify Tab

Decoder Notification

TS Input Missing: This control sends out a trap if there is a fault generated by a missing TS input when enabled.

Decoder Input Faults displays if there is a fault condition on the TS Input Missing. Green indicates healthy while red indicates a fault.

TS Sync Byte Missing: This control sends out a trap if there is a fault generated by a missing TS Sync Byte when enabled.

Decoder Input Faults displays if there is a fault condition on the TS Sync Byte Missing. Green indicates healthy while red indicates a fault.

Video PID Missing: This control sends out a trap if there is a fault generated by a missing Video PID when enabled.

Decoder Input Faults displays if there is a fault condition on the Video PID Missing. Green indicates healthy while red indicates a fault.

Audio 1 to 4 PID Missing: This control sends out a trap if there is a fault generated by a missing Audio PID when enabled.

Decoder Input Faults displays if there is a fault condition on the Encoder Input Status. Green indicates healthy while red indicates a fault.

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6. UPGRADE PROCEDURES

6.1. UPDATING VLPRO SERVER JAR FILE

Products from Evertz are constantly evolving and new features are often added. It is therefore important to update the JAR files in use to provide access to all the latest features or enhancements. It will also be necessary to add JAR files for new products.

To perform a JAR update, ensure that all VLPro clients are closed (those clients which are not closed will automatically be disconnected as soon as the VLPro Server is restarted). Maximize the VLPro Server window from the Windows task bar, select *Help> Apply Update> Product* from the menu.

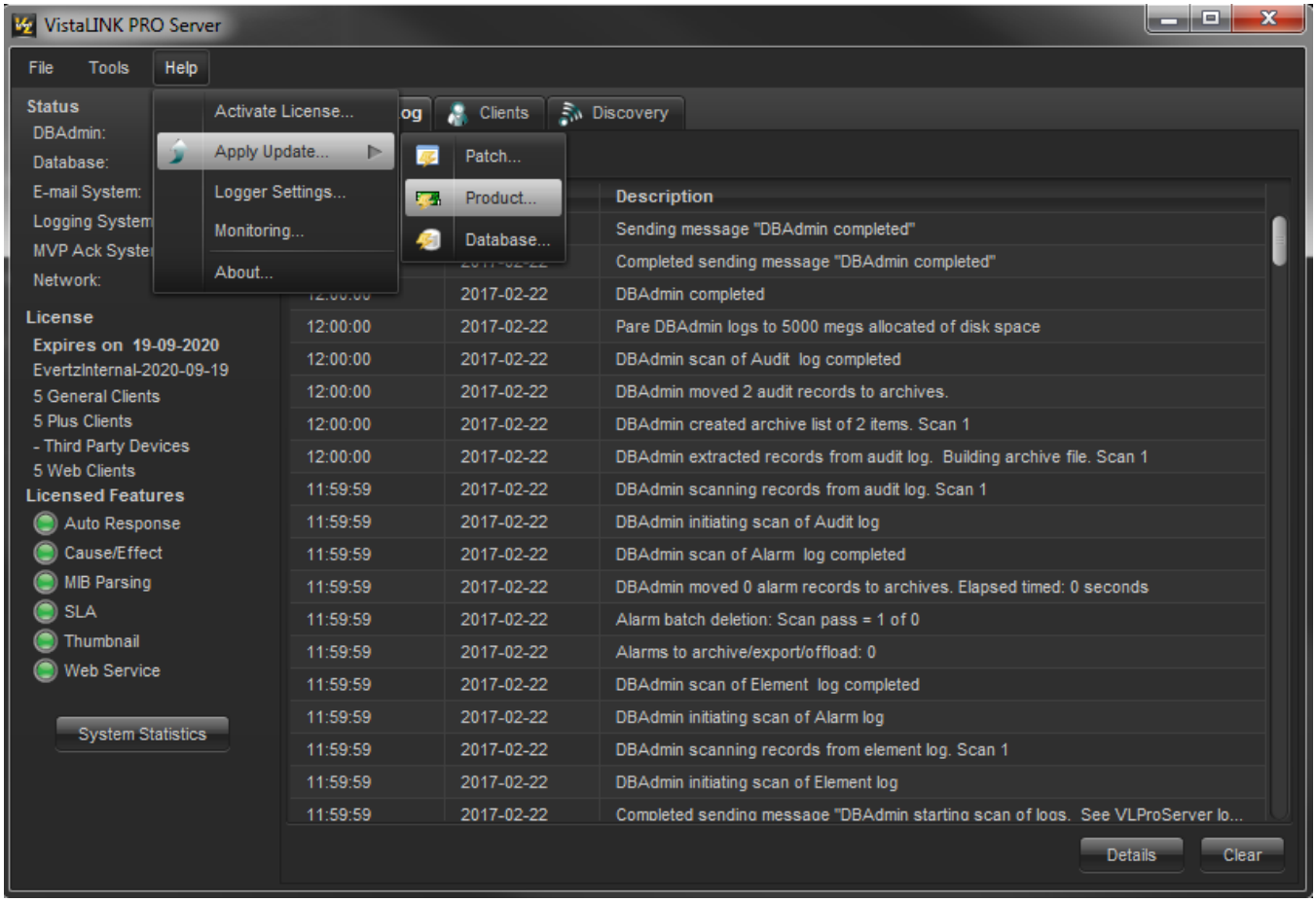

Figure 6-1 : VistaLINK® PRO Server

A window will appear, as shown in Figure 6-2. Navigate to the location of the new JAR file and double click to select the file. The window will automatically close and the update will be applied in the background.

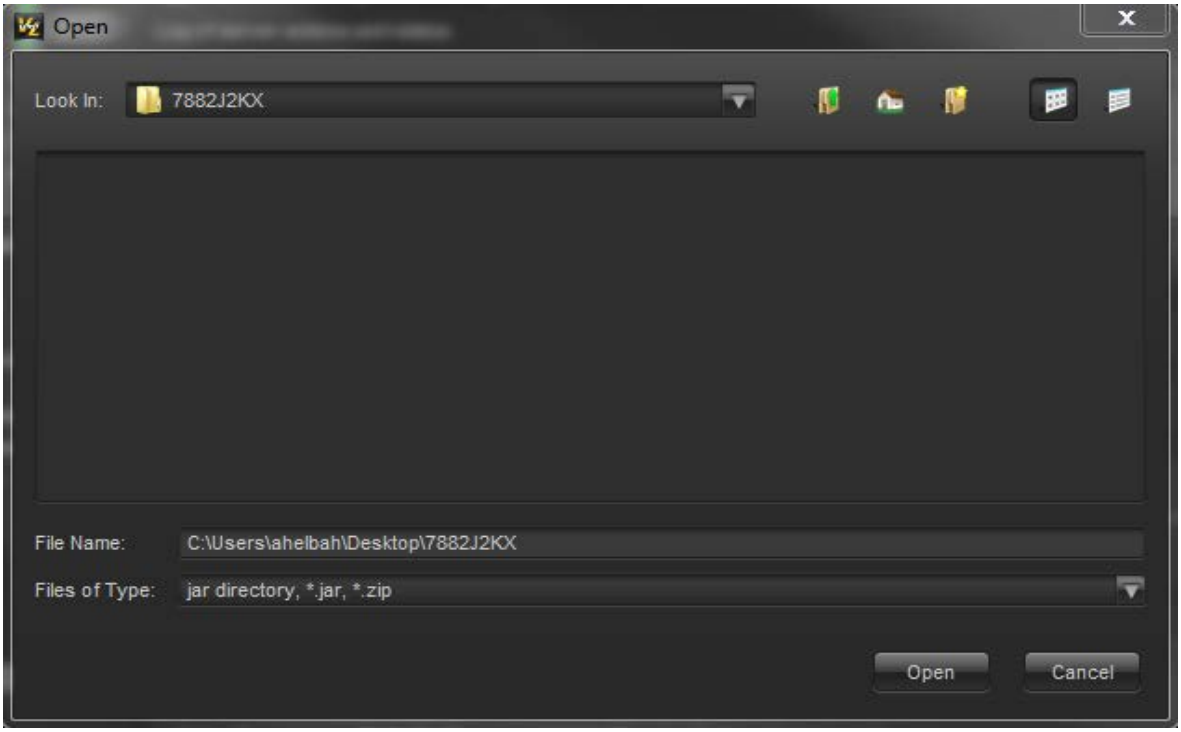

Figure 6-2 : VistaLINK® PRO – Applying JAR Updates

You will be prompted to restart the server to enable the change to take effect. Apply as many JAR updates as required before restarting the server.

NOTE: You may confirm that all updates have been successfully applied by selecting from the menu *Tools>View>Show/Hide Product* update log.

Shutdown the server by selecting from the menu: *File>Shutdown Server*. Now re-open the server, it is normal for the start up to take marginally longer while each individual update is being applied. Once complete, you may restart the VLPro Clients. As the Client restarts you will experience a short delay while the update is applied. A prompt will appear confirming that the updates have been applied.

6.2. FIRMWARE UPGRADE

There are two recommended ways to upgrade the firmware for the 7882J2KX-IPASI.

1. WebEASY®
2. VistaLINK®

Using the WebEASY® on a web interface is the fasted and recommended procedure to load the firmware onto the 7882J2KX-IPASI.

6.3. FIRMWARE UPGRADE USING WEBEASY®

When first visiting the 7882J2KX-IPASI web interface, the user will be asked to enter a Login and Password. Enter "***customer***" for Login and "***customer***" for Password.

On the top of the web page for the 7882J2KX-IPASI, there is a tab labeled **Upgrade**. The **Upgrade** tab is used to check current firmware version and upload the latest firmware.

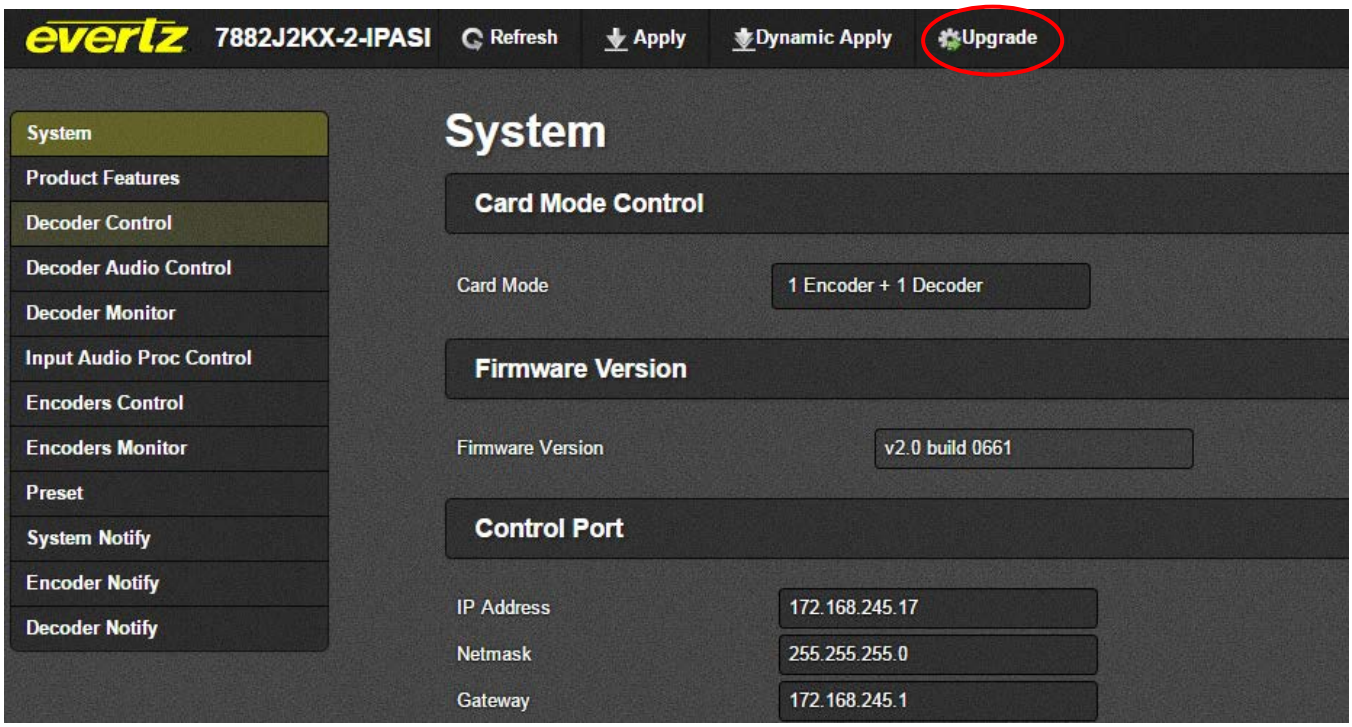

Figure 6-3 : WebEASY® - Upgrade Button on Top Menu Bar

Selecting the Upgrade tab, will take you to Figure 6-4 where the current firmware version is shown. Should the firmware version be outdated, you will need to download the firmware image file.

NOTE: Contact Evertz get the latest firmware file.

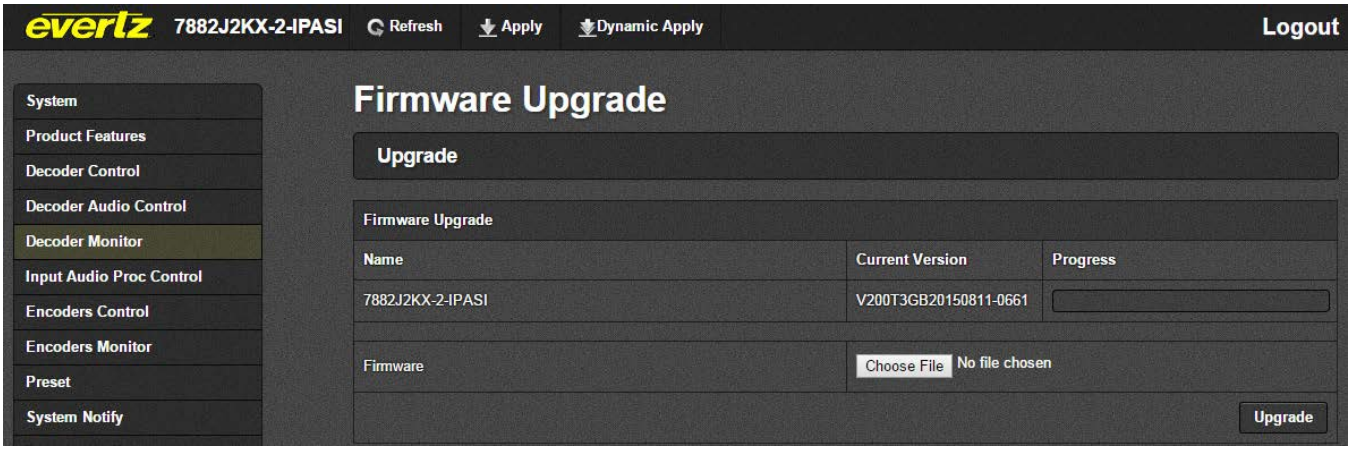

Figure 6-4 : WebEASY® - Firmware Upgrade Menu

Click ***Choose File*** and browse to locate image file. Once selected, click ***Open*** to advance to next step. Click ***Upgrade*** and watch progress bar for status. Once completed, the device will automatically restart.

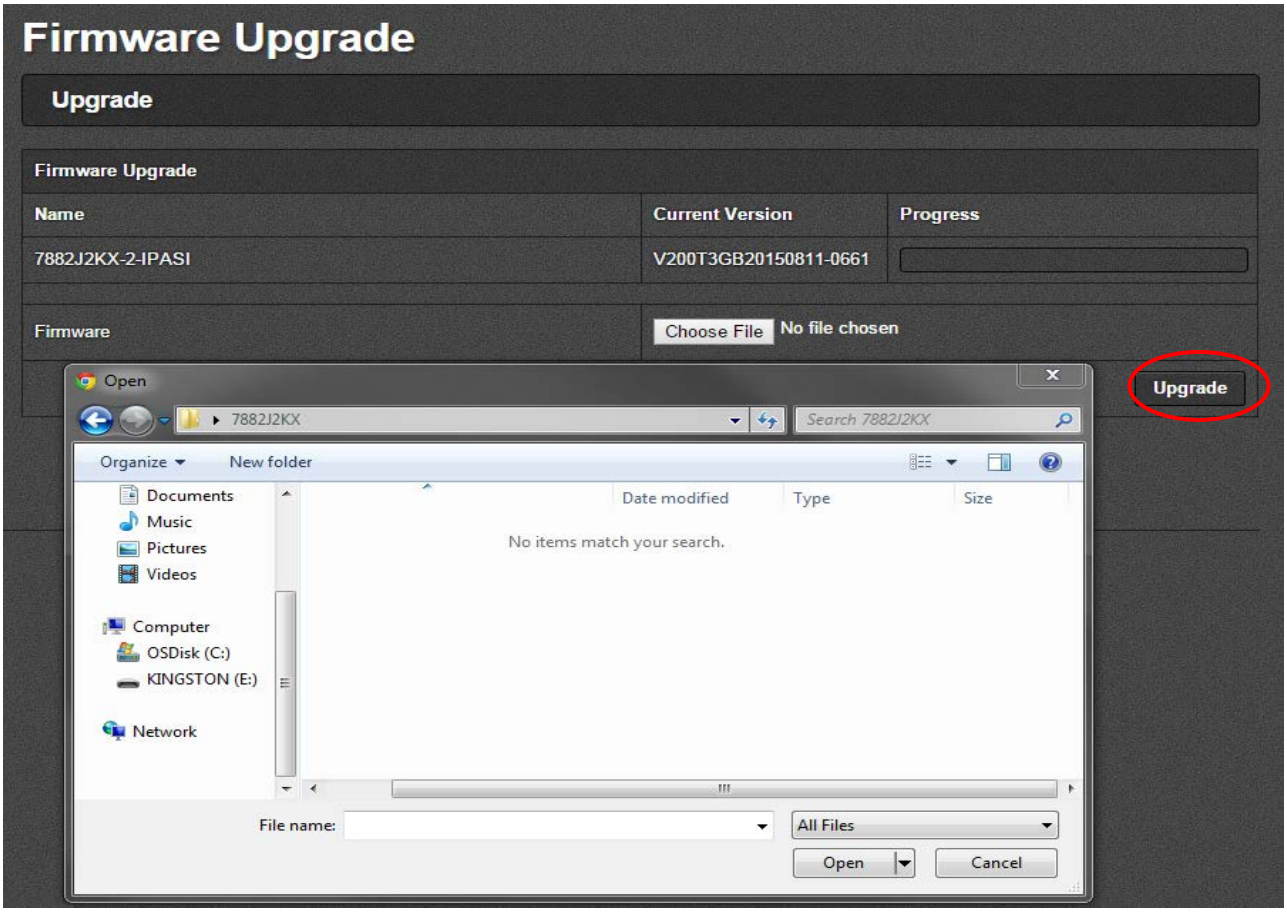

Figure 6-5 : WebEASY® - Firmware Upgrade Menu

6.4. FIRMWARE UPGRADE USING VISTALINK®

Upgrading the firmware using VistaLINK® can be accomplished using the control port of the 7882J2KX-IPASI or using the 7800FC frame controller. Both methods use the same procedure.

Ensure that the 7882J2KX-IPASI is running the latest firmware, to check this simply right click on the cards address in VLPro Client and select *Version Information* as shown in Figure 6-6.

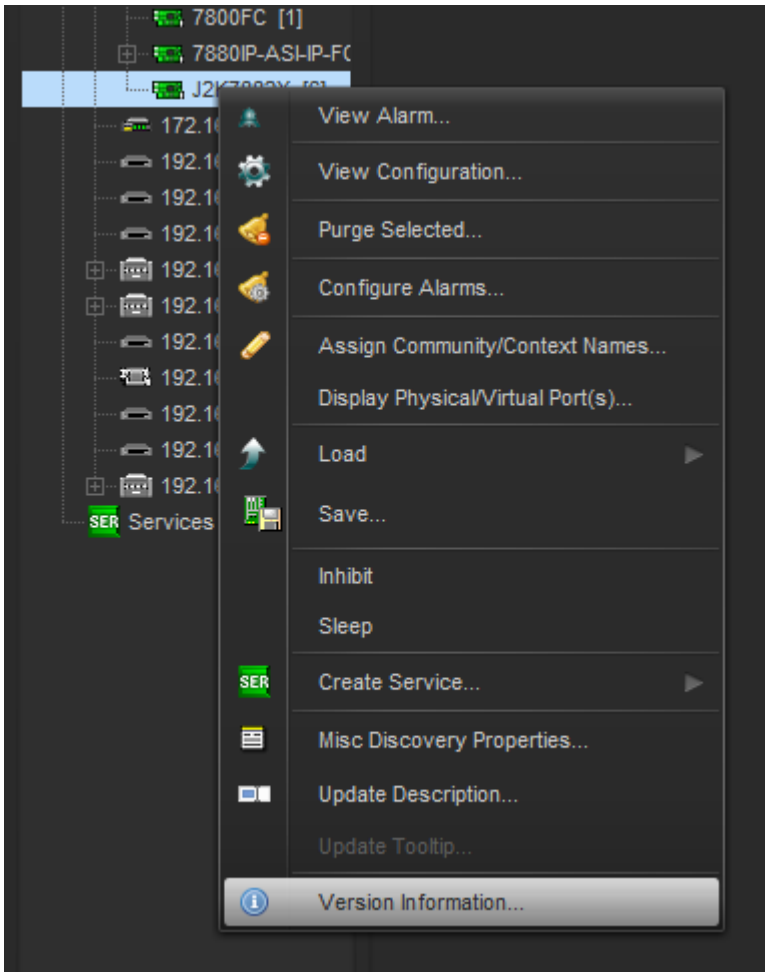

Figure 6-6 : VistaLINK® - Selecting Version Information

Once *Version Information* is selected, Figure 6-7 will appear and the module will be able to be selected for upgrade.

- Open hardware tree and select card to be upgraded.
- Check mark card to be upgraded.

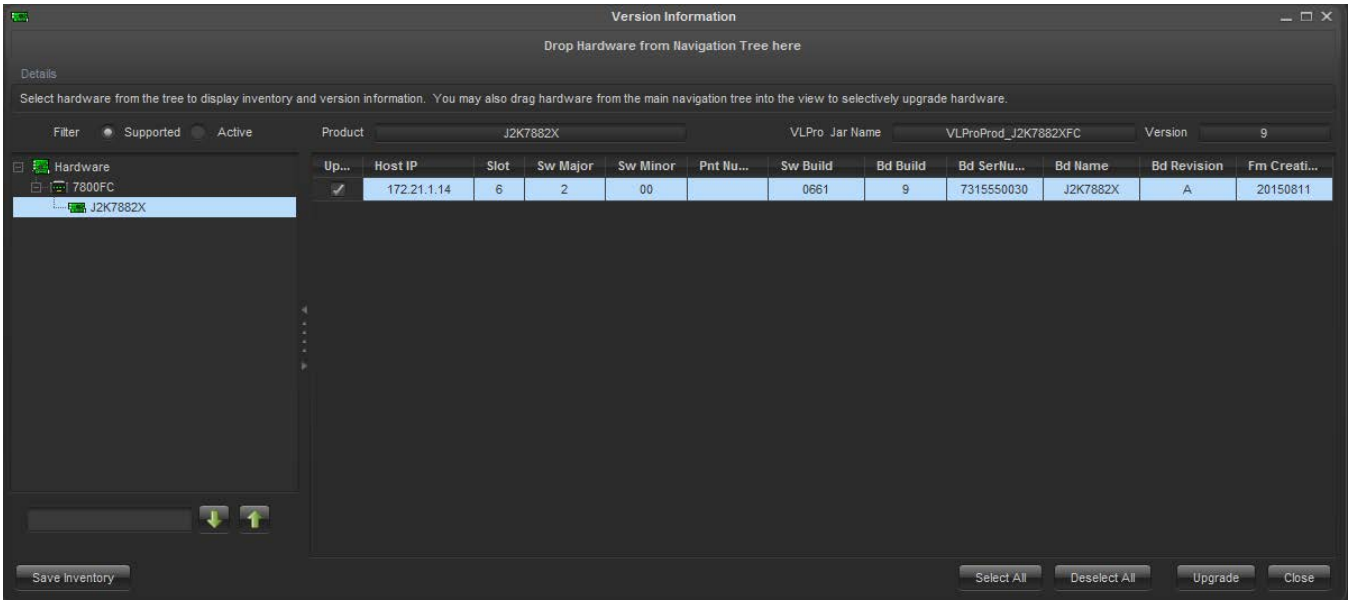

Figure 6-7 : VistaLINK® - Selecting Card for Upgrade

- Click the 'Upgrade' button on bottom right corner
- Click the 'Browse' button to select the 7882J2KX-IPASI image file.
- Click the 'Upgrade' button and wait for the upload to complete. This will take approximately 5 to 10 minutes depending on network traffic. The progress bar to the right will provide feedback on the status of the upgrade.

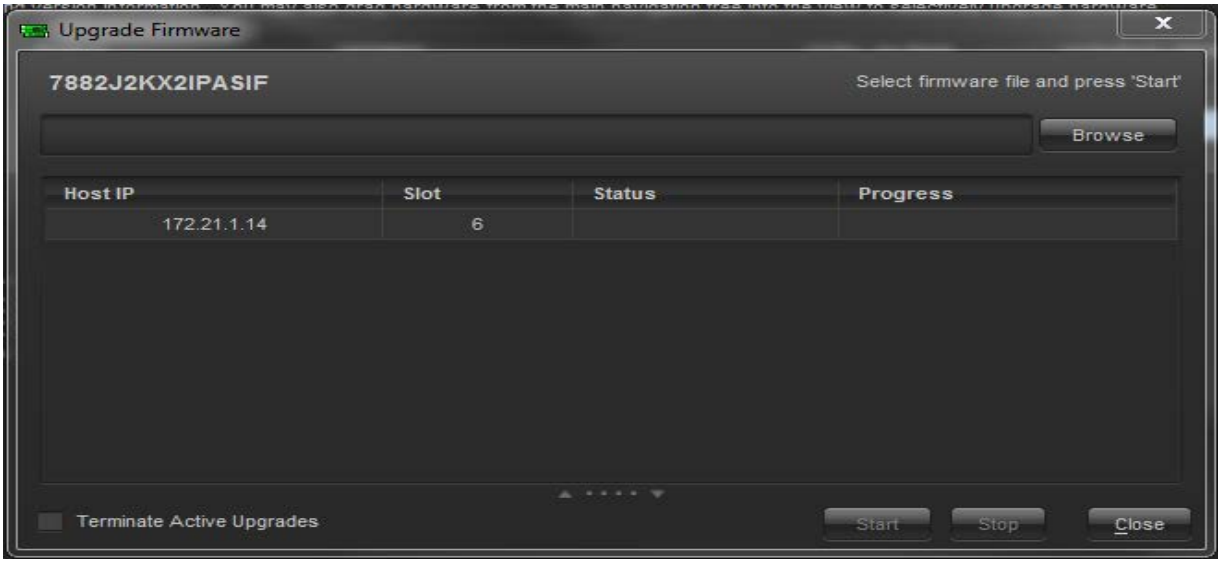

Figure 6-8 : Selecting File for Firmware Upgrade

- Upon completion, the 7882J2KX-IPASI module will reboot automatically and return online in normal "run" mode.