



570ASI-X19-10GE2 Series User Manual

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Version 1.0, March 2020

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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

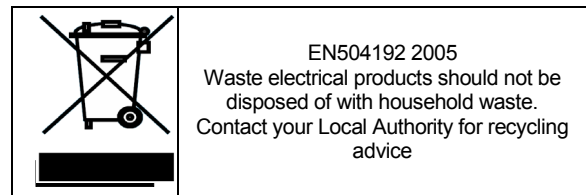
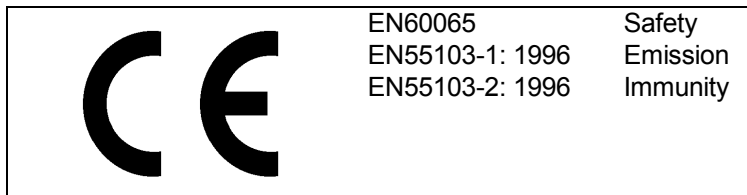
THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

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.



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.

REVISION HISTORY

<u>REVISION</u>	<u>DESCRIPTION</u>	<u>DATE</u>
1.0	First Release	Mar 2020

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1. OVERVIEW

The 570ASI-X19-10GE2 platform is a complete solution to concurrently convert SDI to SMPTE ST 2022-6/2110, SMPTE ST 2022-6/2110 to SDI*, ASI to IP and IP to ASI.

The 570ASI-X19-10GE2 is a high density, high performance encap/de-encapsulator. With a truly unique and flexible design, the 570ASI-X19-10GE2 supports a variety of operating modes depending on the APP loaded.

570ASI-APP-ASI: This APP enables 10x ASI to IP and 10x IP to ASI conversions concurrently. Up to 2x 10GbE ports are utilized and customers have the option of selecting any of the 2 ports to input/output IP streams.

570ASI-APP-IPG: This APP enables 6x6 conversions of SDI to SMPTE ST 2022-6/2110, SMPTE ST 2022-6/2110 to SDI*, ASI to IP and IP to ASI. Up to 6x 10GbE ports can be utilized and customers have the option of selecting any of the 6 ports to input/output IP streams.

The 570ASI-X19-10GE2 supports hitless merge for both compressed and uncompressed streams. It also supports main and backup outputs.

The 570ASI-X19-10GE2 can be managed via integrated HTTP web interface as well as SNMP management via Frame controller.

Features & Benefits

- High Density conversions
- On-the-fly per-port configuration
- SMPTE ST 2110/2022-6 conversions

* Must order 570ASI-FK-FSE

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2. SPECIFICATIONS

2.1. SERIAL DIGITAL VIDEO

Standards: SMPTE ST 424M (3Gb/s),
SMPTE ST 292M (1.5Gb/s),
SMPTE ST 259M (270Mb/s)
SMPTE ST 2022-6

2.2. SERIAL VIDEO/ASI INPUT

Number of Inputs:
570ASI-APP-ASI: 10x ASI
570ASI-APP-IPG: 6x SDI/ASI

Connector: DIN

Input Equalization: Automatic to 100m @ 3 Gb/s,
150m @ 1.5 Gb/s,
350m @ 270 Mb/s

Return Loss: > 15dB up to 0.5 GHz,
> 10dB up to 3 GHz

2.3. IP INPUT

Ethernet Interface: 570ASI-APP-ASI: 2x 10GbE SFP/SFP+
570ASI-APP-IPG: 6x 10GbE SFP/SFP+

Encapsulation: MPEG-2 TS over IP

Uncompressed: SMPTE ST 2022-6, ST 2110

2.4. SERIAL VIDEO/ASI OUTPUT

Number of Outputs:
570ASI-APP-ASI: 10x ASI
570ASI-APP-IPG: 6x SDI

Connector: DIN

Rise and Fall Time: Per SMPTE spec

2.5. IP OUTPUT

Ethernet Interface:
570ASI-APP-ASI: 2x 10GbE SFP/SFP+
570ASI-APP-IPG: 6x 10GbE SFP/SFP+

Ethernet/IP Signaling: Multicast IGMP V2/V3 (SSM Support)

2.6. ELECTRICAL

Power:	90W
Voltage:	12VDC
EMI/RFI:	Complies with FCC Part 15, Class A EU EMC directive

2.7. ENCLOSURES

570FR:	3RU chassis
S570FR:	1RU chassis

2.8. ORDERING INFORMATION

570ASI-X19:	Bulk IP/ASI media processor, up to 12x 10GbE interfaces using SFP+ cages (SFPs sold separately). A 570ASI-APP must be purchased with each card.
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2.9. ORDERING OPTIONS

570ASI-APP-ASI:	570ASI-X19 App to enable 10x ASI in and 10x ASI out IP Gateway, up to 2x 10GbE ports
570ASI-APP-IPG:	570ASI-X19 App to enable 6x6 conversions of SDI, ASI, SMPTE ST 2022-6 and ST 2110, up to 10x 10GbE ports

2.10. SFP MODULES

SFPTR-RJ45-SGM-AV	1GbE electrical SFP
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3. GETTING STARTED

- For the 570ASI-APP-IPG
- For the 570ASI-APP-ASI

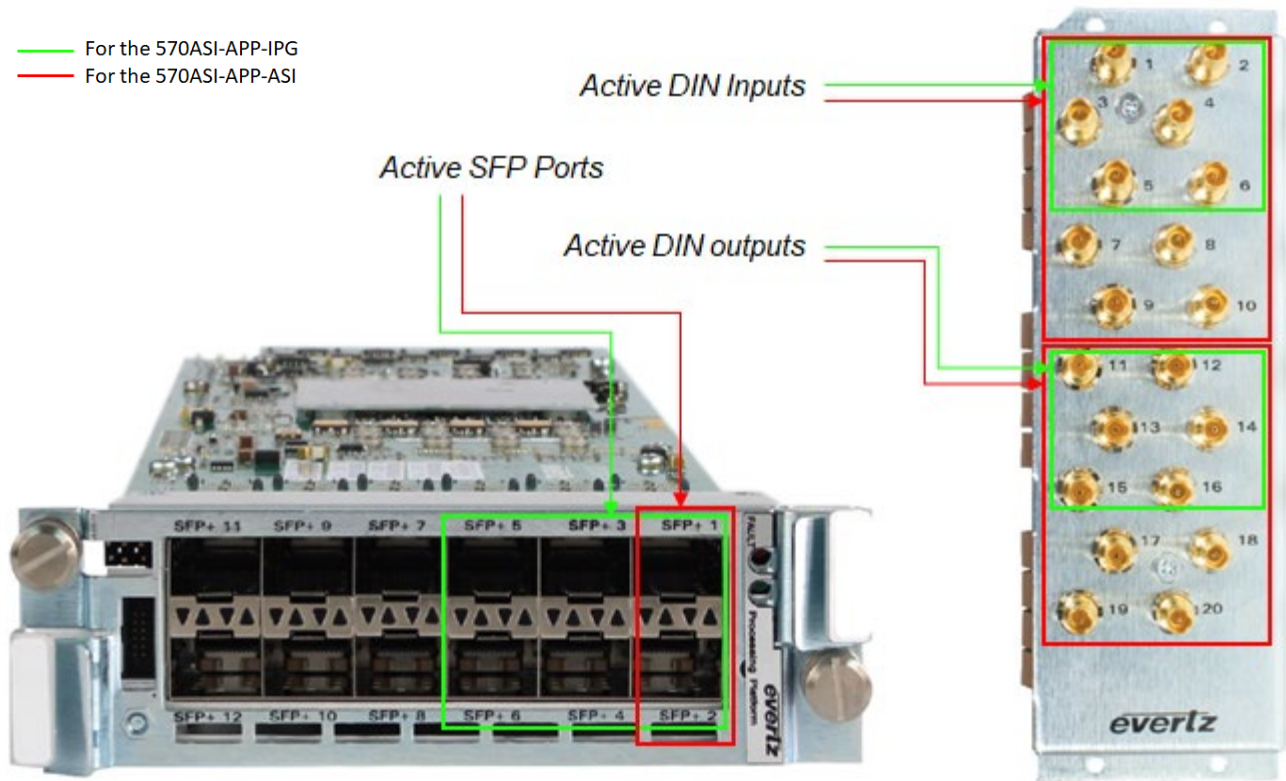


Figure 3-1: 570ASI-X19-10GE2 Front (Left) and Rear Plate (Right)

3.1. FRONT PLATE

The front of the 570ASI-X19-10GE2 is equipped with 12x SFPs ports capable of passing 10Gb of data per port.

3.2. BACK PLATE

The rear plate of the 570ASI-X19-10GE2 is equipped with 20 Mini-Din connectors. The first 18 are 3G/HD/SD bidirectional on the fly configurable copper coax ports and the last 2 are currently not used.

3.3. CARE AND HANDLING OF OPTICAL FIBER

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.



Note: 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.

3.4. HARDWARE INSTALLATION

To successfully install the 570ASI-X19-10GE2, the following is required:

1. 570 Series Frame
2. 570 Frame Controller
3. Web browser connected to the 570FC frame controller with 570ASI-X19-10GE2 installed in frame

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 2 adjacent vacant slots on the chassis. Unpack the 570ASI-X19-10GE2 and separate the rear panel from the main card. Locate on the rear of the rack the two slots and remove the blanking panels. Insert the rear panel into the back of the chassis and secure using the four screws provided.

Now insert the 570ASI-X19-10GE2 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 **firmly** into the slot ensuring that when it mates with the rear card it has been firmly pushed into a seated position. The card is secured to the frame with two thumb screws on the front. Hand tighten the thumb screws instead of using a screw driver to avoid over tightening.

This procedure can be completed on all the other modules. The cards are hot swappable allowing for the frame to be powered on while installing.

4. WEB INTERFACE

After the card has been installed and configured with the required network addresses for the control ports, it can be completely configured using the web interface. To do this, simply type in the IP address of the **Control Port** on the 570ASI-X19 module in the web browser.



Note: We are assuming that the 570FR or S570FR frame is connected to the network and the computer is able to communicate to the frame on the Control Port IP address of the 570ASI-X19

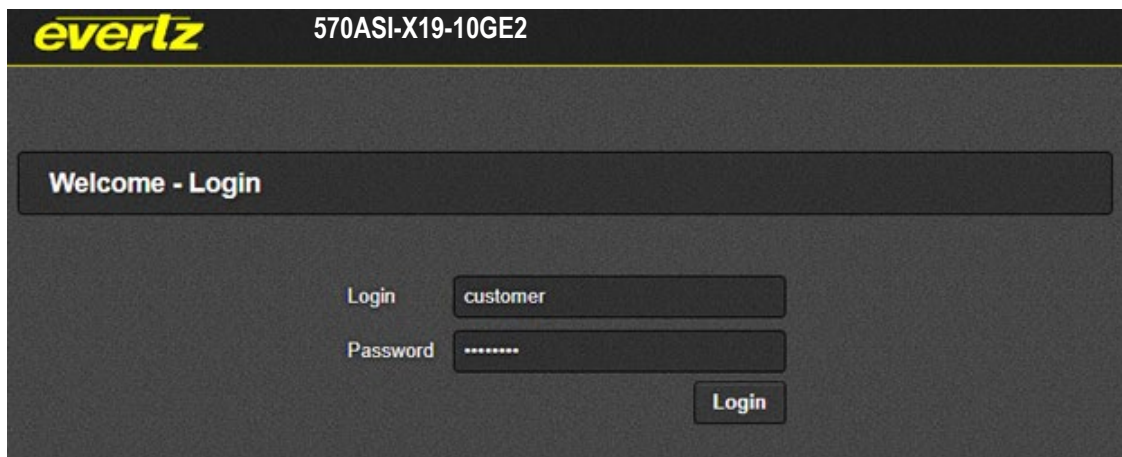


Figure 4-1: WebEASY® - Login Menu

For login and password, type in “*customer*”.

Upon entering the correct credentials, the user will be directed to the main User Interface that displays the following information:

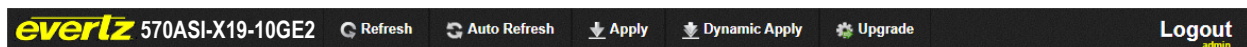


Figure 4-2: WebEASY® - Top Navigation Bar

- **Top Navigation Bar**
 - Product Name: Displays the product Name
 - Refresh: Manually refreshes the user’s configuration
 - Auto Refresh: Automatically refreshes the user’s configuration
 - Apply: Manually saves the user’s configuration
 - Dynamic Apply: Automatically saves the user’s configuration
 - Upgrade: Upgrade the Firmware’s version of the product
 - Logout: Logs the user out of the User Interface

Menu
System
Product Features
IP Input Control
DIN Input Control
PTP and Master PCR Control
IP Output Control
DIN Output Control
System Notify
ASI Input Notify
IP Input Notify
SNMP Setup

Figure 4-3: WebEASY® - Side Menu

- **Side Menu:** Displays a menu of all tabs the user is able to monitor/configure.
- **Main Tab:** Middle section of the interface, displays all the fields for the item selected from the side menu. These menu tabs and fields will be fully described in the following sections.



Note: Due to the size of the certain menu tabs, screen tab images will be broken into multiple images.

4.1. SYSTEM

Control Port Configuration -

Eth0

USB0

IP Address	192.168.243.50
Netmask	255.255.255.0
Gateway	192.168.243.1

SFPP

1

2

3

4

5

6

Data Port Configuration -

IP Address	0.0.0.0
Netmask	0.0.0.0
Gateway	0.0.0.0
Mac Address	00:02:c5:24:c1:1c

Data Port Monitor -

Port Link Status	Up
Received Data Ethernet Total Bitrate	0 <small>Kbps</small>
Transmitted Data Ethernet Total Bitrate	0 <small>Kbps</small>
Rx Frame Count	11
Rx CRC Error Frame Count	0
Rx Undersized Frame Count	0
Rx Oversized Frame Count	0
Tx Frame Count	0
Tx Oversized Frame Count	0

SFP Monitor -

SFP Part Number	SFP10G-TR13-A
SFP Type	OPTICAL
SFP Rx Power Level	-2.18 <small>dBm</small>
SFP Tx Power Level	-2.16 <small>dBm</small>

Figure 4-4: WebEASY® - System (Part 1 of 2)

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4.1.1. Control Port Configuration

For Eth0 or USB0

MAC Address: This field displays the MAC Address of the 570ASI-X19-10GE2.

IP Address: This field allows the user to enter the IP address to be assigned to control port of the 570ASI-X19-10GE2.

Netmask Address: This field allows the user to enter the Netmask address for the device control port.

4.1.2. Data Port Configuration

For SFPP 1-6

IP Address: This parameter allows the user to set the data port's IP address.

Netmask: This parameter allows the user to set the data port's Netmask.

Gateway: This parameter allows the user to set the data port's Gateway.

4.1.3. Data Port Monitor

For SFPP 1-6

Port Link Status: This field displays the link status of the port.

Received Data Ethernet Total Bitrate: This field displays the total bitrate (in Kbps) that has been received.

Transmitted Data Ethernet Total Bitrate: This field displays the total bitrate (in Kbps) that has been transmitted.

Rx Frame Count: Counter for good frames received on the trunk.

Rx CRC Error Frame Count: Counter for CRC Error frames received on the trunk.

Rx Undersized Frame Count: Counter for undersized frames received on the trunk.

Rx Oversized Frame Count: Counter for oversized frames received on the trunk.

Tx Frame Count: Counter for good frames transmitted on the trunk.

Tx Oversized Frame Count: Counter for oversized frames transmitted on the trunk.

4.1.4. SFP Monitor

For SFPP 1-6

SFP Part Number: This parameter shows the part number of SFP model installed.

SFP Type: This parameter shows the type of SFP installed.

SFP Rx Power level: This parameter shows the SFP's received power level.

SFP Tx Power level: This parameter shows the SFP's transmitted power level.

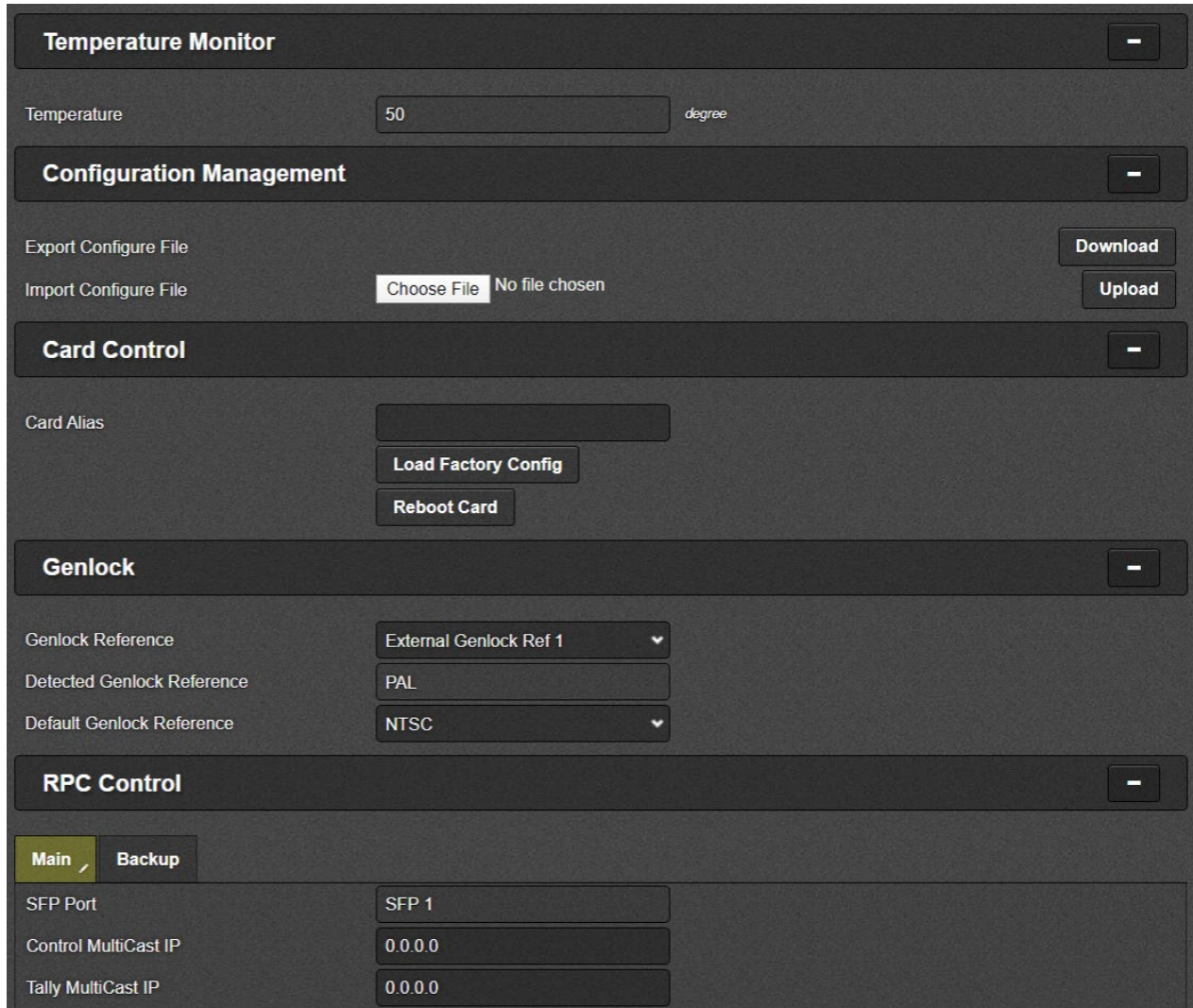


Figure 4-5: WebEASY® - System (Part 2 of 2)

4.1.5. Temperature Monitor

Temperature: This monitor will display the temperature of the FPGA.

4.1.6. Configuration Management

Export Configure File: The “Download” button allows the user to download & save the card’s current configuration to a file “570asi_config.json” on a local PC. Configuration files are useful for backing up a card’s settings for future use or to aid Evertz technical support for debugging purposes.

Note that when the user saves a configuration, it saves all subscribed routes that were present on the card. Keep in mind that when this configuration is loaded back on the 570ASI & Magnum reconnects to the card, it will push new routes to the 570ASI! *Magnum SDVN **does not** tear down routes it does not know exist that may be present on the 570ASI. **These routes can potentially create over subscription problems!***

Import Configure File: This “Upload” button allows the user to load a previously saved configuration file to the card. Click the “Choose File” button then browse to the saved file “570asi_config.json”, then click on the “upload” button & wait for the configuration to take effect. **Note a reboot is not required.**

4.1.7. Card Control

Card Alias: If desired the user may enter a custom card name which will be shown on the top left hand corner of the card's webpage in yellow:



Figure 4-6: WebEASY® - System / Card Control

To set/change the card alias, simply enter in the desired text and click on the “Apply” button on the top of the page.

Load Factory Config: Pressing this button results in the factory configuration being loaded on the card.

Reboot Card: This control is used to reboot the card. A pop up message will ask the user to confirm the reboot. Click “OK”, when prompted. A reboot can take up to a few minutes, so be patient.

4.1.8. Genlock

Genlock Reference: This control allows the user to select the reference type for genlock audio & video sync. Options include External Genlock Ref 1, External Genlock Ref 2, PTP / Master PCR, Free Run.

Detected Genlock Reference: This control displays the detected genlock reference. The possible genlock references include unsupported, absent, PAL, NTSC.

Default Genlock Reference: This control allows the user to configure genlock reference rate. The possible genlock references include NTSC and PAL.

4.1.9. RPC Control

For Main and Backup Ports

SFP Port: This field allows the user to select the SFP port for RPC control and tally.

Control MultiCast IP: This parameter allows the user to assign the IP address for RPC Control MultiCast.

Tally MultiCast IP: This parameter allows the user to assign the IP address for RPC Tally MultiCast.

4.2. PRODUCT FEATURES

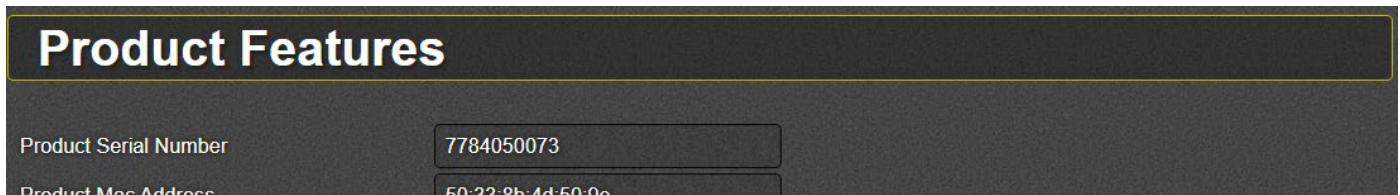


Figure 4-7: WebEASY® - Product Features

Product Serial Number: This field displays the serial number of the 570ASI-X19. Evertz requires you to provide this serial number when requesting a product license.

Product Mac Address: This field displays the MAC address of the Product.

4.3. IP INPUT CONTROL

IP Input

1 2 3 4 5 6

MPPM Control [-]

Link Select: Auto Packet Merge

Stream Selection [-]

IP Input Detect: None

IP Input Sync Detect: Undetected

SMPTE 2110 & 2022-6 Receiving Buffer Mode [-]

Buffer Mode: Error Concealment Mode

Horizontal Phase Offset: 0 pixels

Vertical Phase Offset: 0 lines

Input SFP Port Selection [-]

Main SFP Port Selection: SFP 1

Backup SFP Port Selection: SFP 2

Audio 1 Main SFP Port Selection: SFP 1

Audio 1 Backup SFP Port Selection: SFP 2

Audio 2 Main SFP Port Selection: SFP 1

Audio 2 Backup SFP Port Selection: SFP 2

Audio 3 Main SFP Port Selection: SFP 1

Audio 3 Backup SFP Port Selection: SFP 2

Audio 4 Main SFP Port Selection: SFP 1

Audio 4 Backup SFP Port Selection: SFP 2

ANC Main SFP Port Selection: SFP 1

ANC Backup SFP Port Selection: SFP 2

IP Input Settings [-]

	Stream Alias	IP Address	UDP Port Number (1 to 65535)	IGMPv3 Mode	IGMPv3 SSM #1	IGMPv3 SSM #2	IGMPv3 SSM
SFPP 1		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0
SFPP 2		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0
SFPP 3		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0
SFPP 4		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0
SFPP 5		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0
SFPP 6		0.0.0.0	1,234	Exclude	0.0.0.0	0.0.0.0	0.0.0.0

Figure 4-8: WebEASY® - IP Input Control (Part 1 of 2)

4.3.1. MPPM Control

For IP Inputs 1 to 6

Link Select: The link select control allows the user to configure the decoder link to Auto Packet Merge, Main, Backup or Fail Over.

- **Auto Packet Merge:** Selecting this control will force the de-encapsulator link to merge valid packets from both the main and backup links. It will disregard the extra good packet if received. This control employs MPPM multi path packet merge.
- **Main Port:** Selecting this control will force the de-encapsulator link to accept packets only from the Main Port.
- **Backup Port:** Selecting this control will force the de-encapsulator link to accept packets only from the Backup Port.
- **Fail Over:** Selecting Fail Over, will allow for a simple redundancy model as highlighted with below controls.

4.3.2. Stream Selection

For IP Inputs 1 to 6

IP Input Detect: The 570ASI-X19 card can accept both SMPTE 2022-2 and SMPTE 2110/SMPTE 2022-6 sources. The 570ASI-X19 will automatically detect the IP input type provided. The IP Input field reflects the detected type of IP input stream.

IP Input Sync Detect: This field indicates whether the IP input is synced with the card.

4.3.3. SMPTE 2110 & 2022-6 Receiving Buffer Mode

For IP Inputs 1 to 6

SDI Output Buffer Mode: This field allows the user to set the virtual SDI output mode. Possible options are Low Latency (Engineering/Test Mode), Frame Buffer (Error Concealment Mode) and Line Buffer (H/V Offset Mode).

SDI Output H Offset: This control allows the user to adjust the horizontal offset on the stream.

SDI Output V Offset: This control allows the user to adjust the vertical offset on the stream.

4.3.4. Input SFP Port Selection

For Main, Backup, Audio 1-4 Main, Audio 1-4 Backup, ANC Main & ANC Backup

SFP Port Selection: This dropdown menu allows the user to assign an Input Data Port as the Main Data Port. The main data port will accept traffic and provide it to the decoder core.

4.3.5. IP Input Settings

For IP Inputs 1 to 6

Stream Alias: This field allows the user to define the input stream alias name.

IP Address: This parameter allows the user to define input IP address / multicast address they want to receive.

UDP Port Number: This parameter allows the user to select the input UDP port number.

Input IGMPV3 Mode: This parameter allows the user to include/exclude input configured SSM Sources.

IGMPV3 SSM Src <1-6> IP Address: This parameter allows the user to set IP addresses which will be used while forming the source filter “SSM sources” for IGMPV3 communications.

Audio Group 1 IP Input -

	IP Input Status	Audio Group 1 IP Address	Audio Group 1 UDP Port <small>(1 to 65535)</small>	IP Input Present
SFPP 1	Disabled	0.0.0.0	1234	No
SFPP 2	Disabled	0.0.0.0	1234	No
SFPP 3	Disabled	0.0.0.0	1234	No
SFPP 4	Disabled	0.0.0.0	1234	No
SFPP 5	Disabled	0.0.0.0	1234	No
SFPP 6	Disabled	0.0.0.0	1234	No

Audio Group 2 IP Input -

	IP Input Status	Audio Group 2 IP Address	Audio Group 2 UDP Port <small>(1 to 65535)</small>	IP Input Present
SFPP 1	Disabled	0.0.0.0	1234	No
SFPP 2	Disabled	0.0.0.0	1234	No
SFPP 3	Disabled	0.0.0.0	1234	No
SFPP 4	Disabled	0.0.0.0	1234	No
SFPP 5	Disabled	0.0.0.0	1234	No
SFPP 6	Disabled	0.0.0.0	1234	No

Audio Group 3 IP Input -

	IP Input Status	Audio Group 3 IP Address	Audio Group 3 UDP Port <small>(1 to 65535)</small>	IP Input Present
SFPP 1	Disabled	0.0.0.0	1234	No
SFPP 2	Disabled	0.0.0.0	1234	No
SFPP 3	Disabled	0.0.0.0	1234	No
SFPP 4	Disabled	0.0.0.0	1234	No
SFPP 5	Disabled	0.0.0.0	1234	No
SFPP 6	Disabled	0.0.0.0	1234	No

Audio Group 4 IP Input -

	IP Input Status	Audio Group 4 IP Address	Audio Group 4 UDP Port <small>(1 to 65535)</small>	IP Input Present
SFPP 1	Disabled	0.0.0.0	1234	No
SFPP 2	Disabled	0.0.0.0	1234	No
SFPP 3	Disabled	0.0.0.0	1234	No
SFPP 4	Disabled	0.0.0.0	1234	No
SFPP 5	Disabled	0.0.0.0	1234	No
SFPP 6	Disabled	0.0.0.0	1234	No

ANC IP Input -

	IP Input Status	ANC IP Address	ANC UDP Port <small>(1 to 65535)</small>	IP Input Present
SFPP 1	Disabled	0.0.0.0	1234	No
SFPP 2	Disabled	0.0.0.0	1234	No
SFPP 3	Disabled	0.0.0.0	1234	No
SFPP 4	Disabled	0.0.0.0	1234	No
SFPP 5	Disabled	0.0.0.0	1234	No
SFPP 6	Disabled	0.0.0.0	1234	No

IP Packet Monitor -

	Drop Count	Bit Rate <small>Kbps</small>
SFP 10G Main	0	0
SFP 10G Backup	0	0

Drop Count Clear -

Figure 4-9: WebEASY® - IP Input Control (Part 2 of 2)

4.3.6. Audio Group 1-4 IP Input

for SFPP 1 to 6

IP Input Status: This parameter indicates if the selected input stream type, MPPM mode, and SFP selections have enabled usage of this audio group's IP address.

Audio Group IP Address: This parameter allows the user to select the input IP address / multicast address for the audio that they want to receive.

Audio Group UDP Port: This parameter allows the user to select an input UDP Port Number for audio that they want to receive.

IP Input Present: This display shows the user if the IP input is detected over this SFP at the associated IP address.

4.3.7. ANC IP Input

for SFPP 1 to 6

IP Input Status: This parameter indicates if the selected input stream type, MPPM mode, and SFP selections have enabled usage of this audio group's IP address.

Audio Group IP Address: This parameter allows the user to select the input IP address / multicast address for the audio that they want to receive.

Audio Group UDP Port: This parameter allows the user to select an input UDP Port Number for audio that they want to receive.

IP Input Present: This display shows the user if the IP input is detected over this SFP at the associated IP address.

4.3.8. IP Packet Monitor

For Main and Backup

Drop Count: This parameter displays the total count of sync loss.

Bit Rate: This parameter displays the IP Packet Bit rate.

4.3.9. Drop Count Clear

Clear Status: This button allows the user to reset the value of the Drop Count field.

4.4. DIN INPUT CONTROL

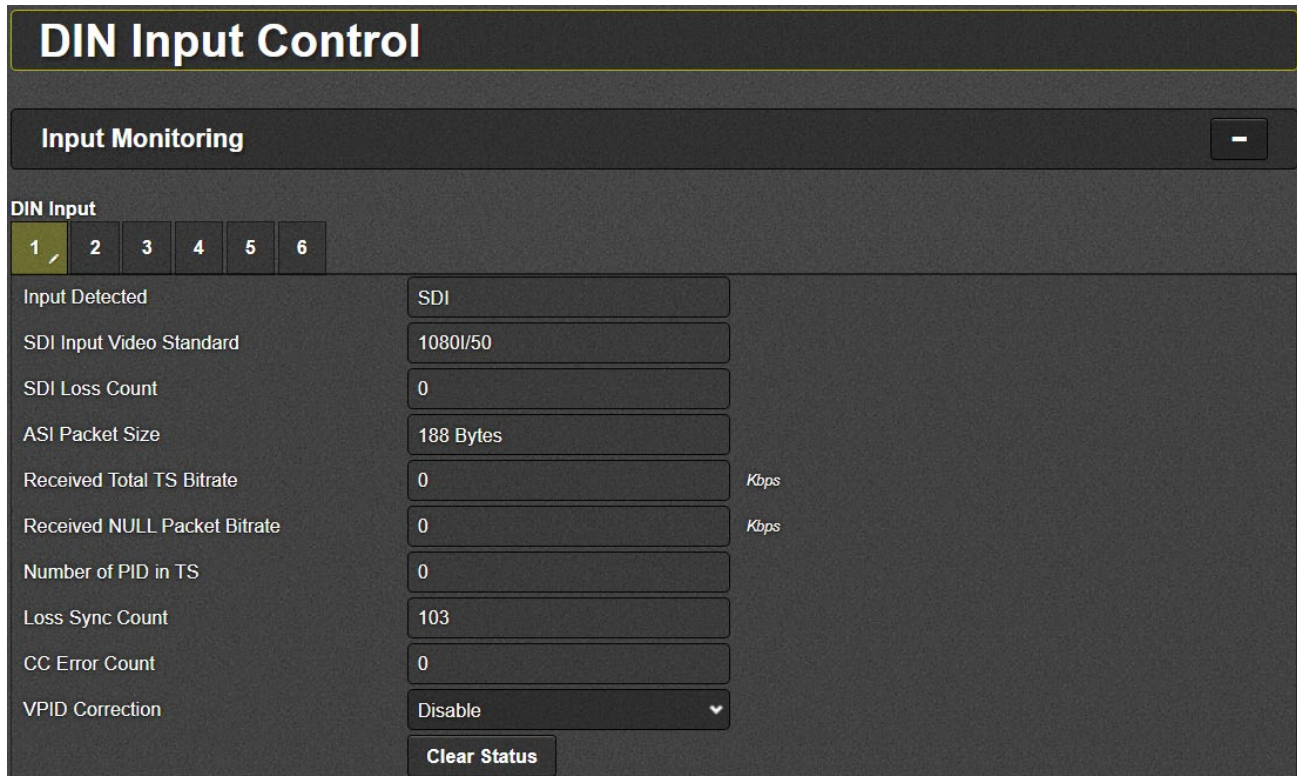


Figure 4-10: WebEASY® - DIN Input Control

4.4.1. Input Monitoring

For DIN Inputs 1 to 6

Input Detected: The 570ASI-X19 card can accept both SDI and ASI sources. The 570ASI-X19 will automatically detect the DIN Input type provided. The Input detected field reflects the detected type of DIN input stream.

Input Video Standard: This display shows the video standard of the SDI input. (not applicable for ASI input).

SDI Loss Count: This field displays the SDI input video loss counter.

ASI Packet Size: This field displays the transport stream packet size in bytes.

Received Total TS Bitrate: This field displays the total bitrate for the multicast stream specified.

Received NULL Packet Bitrate: This field displays the total NULL packet bitrate for multicast stream specified.

Number of PID in TS: This field displays the total number of Packet IDs in the transport stream.

Loss Sync Count: This field displays the total count of sync loss.

CC Error Count: This field displays the total count of Closed Captioning error.

VPID Correction: This control allows the user to enable or disable VPID correction for incoming SDI signal.

Clear Status: This button allows the user to reset the values for the selected DIN Input.

4.5. PTP AND MASTER PCR CONTROL

PTP and Master PCR Control

PTP and Master PCR Control -

PTP or Master PCR Selection:

Main Data Port Select:

Backup Data Port Select:

Fail Over Mode Selection:

Fail Over Status:

PTP or Master PCR Presence:

PTP or Master PCR Locked:

PTP Control -

SFPP

1 2 3 4 5 6

Domain Number: (0 to 128)

Master PCR Control -

	IP Address	UDP Port Number <small>(1 to 65535)</small>	PCR PID <small>(16 to 80190)</small>	PCR Presence	IGMPv3 Mode	IGMPv3 SSM #1	IGMPv3 SSM #2	IGMPv3 SSM #3	IGMPv3 SSM #4
SFPP 1	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SFPP 2	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SFPP 3	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SFPP 4	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SFPP 5	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SFPP 6	<input type="text" value="0.0.0.0"/>	<input type="text" value="1,234"/>	<input type="text" value="256"/>	<input type="text" value="No"/>	<input type="text" value="Exclude"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>

Figure 4-11: WebEASY® - PTP and Master PCR Control

4.5.1. PTP and Master PCR Control

PTP or Master PCR Selection: This parameter allows the user to select the reference as either PTP or Master PCR.

Main Data Port Select: This dropdown allows the user to select the main data port; select between SFP 1 to SFP 6.

Backup Data Port Select: This dropdown allows the user to select the backup data port; select between SFP 1 to SFP 6.

Fail Over Mode Selection: This dropdown allows the user to select the failover mode for the received master PCR stream.

- Automatic
- Main
- Backup

Fail Over Status: This parameter displays the current status of the master PCR fail over.

PTP or Master PCR Presence: This parameter indicates whether a valid Master PCR is present or a valid PTP stream is present.

Locked: This parameter indicates whether the card is locked to Master PCR or PTP.

4.5.2. PTP Control

For SFPP 1 to 6

Domain Number: This control allows the user to set the domain number.

4.5.3. Master PCR Control

IP Address: This field allows the user to set the IP address from which to obtain the Master PCR time reference.

UDP Port Number: This field allows the user to set the UDP port number from which to obtain the Master PCR time reference.

PCR PID: This parameter allows the user to set the expected PCR PID.

PCR Presence: This field indicates whether PCR presence is detected on this data port or not.

IGMPv3 Mode: This field allows the user to select the Master PCR IGMP V3 mode.

IGMPv3 SSM Src 1-6: This parameter allows the user to set Master PCR IP addresses which are used when forming the source filter for IGMPv3 communications.

4.6. IP OUTPUT CONTROL

IP Output

1 2 3 4 5 6

Configuration

IP Output Configuration: SMPTE2022-6

Uncompressed Encap Rate Limit: 3G

Default Uncompressed Type Selection: SMPTE2022-6

ASI IP Output Control

	IP Output Enable	Source IP Address	Source UDP Port (# to 65535)	Destination IP Address	Destination UDP Port (# to 65535)	Time To Live (# to 255)	DSCP	RTP Mode
SFPP 1	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable
SFPP 2	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable
SFPP 3	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable
SFPP 4	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable
SFPP 5	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable
SFPP 6	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Disable

Uncompressed IP Output Control

	IP Output Enable	Source IP Address	Source UDP Port (# to 65535)	Destination IP Address	Destination UDP Port (# to 65535)	Time To Live (# to 255)	DSCP	RTP Mode
SFPP 1	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable
SFPP 2	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable
SFPP 3	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable
SFPP 4	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable
SFPP 5	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable
SFPP 6	Disabled	0.0.0.0	1	0.0.0.0	1	64	Default (Best Effort)	Enable

Audio Group 1

	IP Output Enable	Destination IP Address	Destination UDP Port Number (# to 65535)
SFPP 1	Disabled	0.0.0.0	1234
SFPP 2	Disabled	0.0.0.0	1234
SFPP 3	Disabled	0.0.0.0	1234
SFPP 4	Disabled	0.0.0.0	1234
SFPP 5	Disabled	0.0.0.0	1234
SFPP 6	Disabled	0.0.0.0	1234

Audio Group 2

	IP Output Enable	Destination IP Address	Destination UDP Port Number (# to 65535)
SFPP 1	Disabled	0.0.0.0	1234
SFPP 2	Disabled	0.0.0.0	1234
SFPP 3	Disabled	0.0.0.0	1234
SFPP 4	Disabled	0.0.0.0	1234
SFPP 5	Disabled	0.0.0.0	1234
SFPP 6	Disabled	0.0.0.0	1234

Audio Group 3

	IP Output Enable	Destination IP Address	Destination UDP Port Number (# to 65535)
SFPP 1	Disabled	0.0.0.0	1234
SFPP 2	Disabled	0.0.0.0	1234
SFPP 3	Disabled	0.0.0.0	1234
SFPP 4	Disabled	0.0.0.0	1234
SFPP 5	Disabled	0.0.0.0	1234
SFPP 6	Disabled	0.0.0.0	1234

Audio Group 4

	IP Output Enable	Destination IP Address	Destination UDP Port Number (# to 65535)
SFPP 1	Disabled	0.0.0.0	1234
SFPP 2	Disabled	0.0.0.0	1234
SFPP 3	Disabled	0.0.0.0	1234
SFPP 4	Disabled	0.0.0.0	1234
SFPP 5	Disabled	0.0.0.0	1234
SFPP 6	Disabled	0.0.0.0	1234

ANC

	IP Output Enable	Destination IP Address	Destination UDP Port Number (# to 65535)
SFPP 1	Disabled	0.0.0.0	1234
SFPP 2	Disabled	0.0.0.0	1234
SFPP 3	Disabled	0.0.0.0	1234
SFPP 4	Disabled	0.0.0.0	1234
SFPP 5	Disabled	0.0.0.0	1234
SFPP 6	Disabled	0.0.0.0	1234

SMPTE 2110 RTP Payload Type

RTP Payload Type	96	(96 to 127)
Audio RTP Payload Type	97	(96 to 127)
ANC RTP Payload Type	100	(96 to 127)

Figure 4-12: WebEASY® - IP Output Control

4.6.1. Configuration

For IP Outputs 1 to 6

IP Output Configuration: This control configures how to process the incoming streams into the outgoing streams

Uncompressed Encap Rate Limit: This dropdown allows the user to set the bandwidth limit of uncompressed encapsulated streams. Choices are:

- SD
- HD
- 3G

Default Uncompressed Type Selection: This dropdown configures the uncompressed IP output. Choices are:

- SMPTE2022-6
- SMPTE2110-20

4.6.2. ASI IP Output Control

For IP Outputs 1 to 6

IP Output Enable: This parameter is used to enable or disable an output.

Source IP Address: This parameter allows the user to define source IP address.

Source UDP Port: This parameter allows the user to define source UDP port.

Destination IP Address: This parameter allows the user to define destination IP address.

Destination UDP Port: This parameter allows the user to define destination UDP port.

Time to Live: This parameter allows the user to define time to live.

DSCP: This parameter allows the user to define differentiated services code point. Choices are:

- Default
- AF12
- AF22
- AF32
- AF42
- CS2
- CS5
- EF
- AF13
- AF23
- AF33
- AF43
- CS3
- CS6
- AF11
- AF21
- AF31
- AF41
- CS1
- CS4
- CS7

RTP Mode: This parameter allows the user to enable or disable Redundant Packet Transmission.

4.6.3. Uncompressed IP Output Control

For IP Outputs 1 to 6

IP Output Enable: This parameter is used to enable or disable an output.

Source IP Address: This parameter allows the user to define source IP address.

Source UDP Port: This parameter allows the user to define source UDP port.

Destination IP Address: This parameter allows the user to define destination IP address.

Destination UDP Port: This parameter allows the user to define destination UDP port.

Time to Live: This parameter allows the user to define time to live limit (in # of hops) for IP output.

DSCP: This parameter allows the user to define a differentiated services code point. Choices are:

- Default
- AF12
- AF22
- AF32
- AF42
- CS2
- CS5
- EF
- AF13
- AF23
- AF33
- AF43
- CS3
- CS6
- AF11
- AF21
- AF31
- AF41
- CS1
- CS4
- CS7

RTP Mode: This parameter allows the user to enable or disable Redundant Packet Transmission.

4.6.4. Audio Groups 1-4

For IP Outputs 1 to 6

IP Output Enable: This parameter allows the user to enable the SMPTE 2110 audio.

Destination IP Address: This parameter allows the user to set output IP address/multicast address.

Destination UDP Port Number: This parameter allows the user to set the output UDP port number.

4.6.5. ANC

For IP Outputs 1 to 6

IP Output Enable: This parameter allows the user to enable the SMPTE 2110 audio.

Destination IP Address: This parameter allows the user to set output IP address/multicast address.

Destination UDP Port Number: This parameter allows the user to set the output UDP port number.

4.6.6. SMPTE 2110 RTP Payload Type

RTP Payload Type: This field allows the user to set the RTP payload type.

Audio RTP Payload Type: This parameter allows the user to set the Payload Type for audio RTP header.

ANC RTP Payload Type: This parameter allows the user to set the Payload Type for ANC RTP header.

4.7. DIN OUTPUT CONTROL

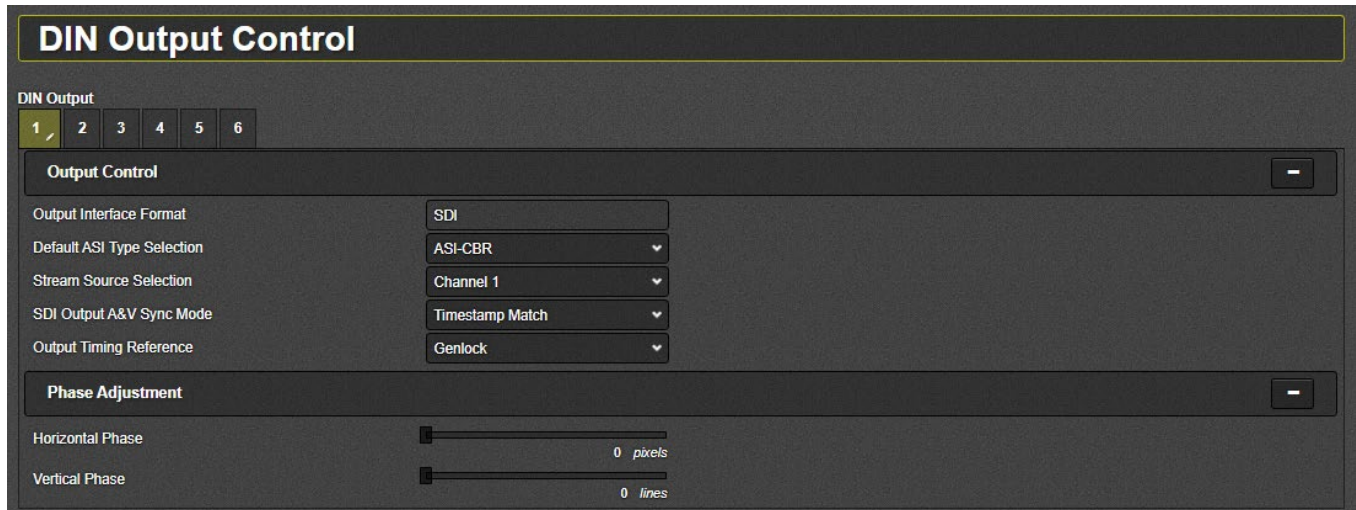


Figure 4-13: WebEASY® - DIN Output Control

4.7.1. Output Control

For DIN Outputs 1 to 6

Output Interface Format: This field displays the Output Interface Format for the selected DIN output.

Default ASI Type Selection: This control allows the user to select which ASI output type is sent out when receiving an ASI encapsulated feed. Options are: ASI-CBR or ASI-VBR

Stream Source Selection: This control allows the user to select which input channel is to be the source for the DIN output.

SDI Output A&V Sync Mode: This control allows the user to choose the synchronization mode for the audio and video. Options are:

- Bypass
- Timestamp Match
- Latency Match

Output Timing Reference: This control allows the user to select the timing reference for the selected Din output. Options are Genlock or Flow Input.

4.7.2. Phase Adjustment

For DIN Outputs 1 to 6

Horizontal Phase: This slider allows the user to adjust the horizontal phase offset for the stream.

Vertical Phase: This slider allows the user to adjust the vertical phase offset for the stream.

4.8. SYSTEM NOTIFY

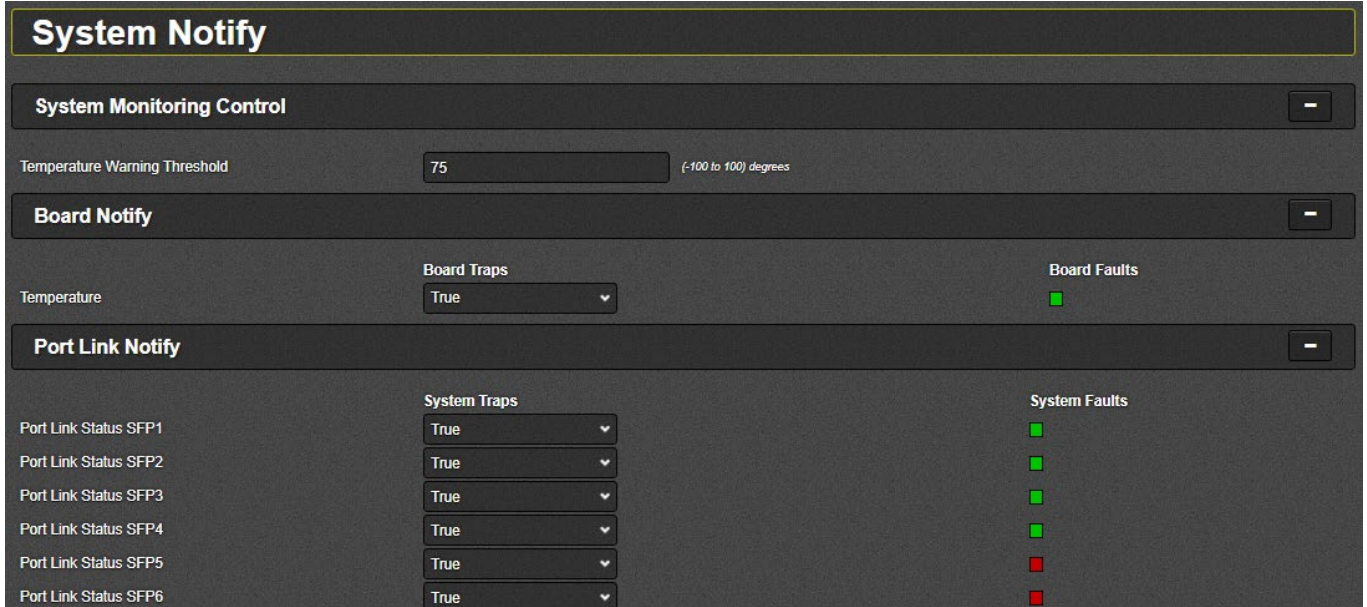


Figure 4-14: WebEASY® - System Notify

4.8.1. System Monitoring Control

Temperature Warning Threshold: This control allows the user to set the temperature threshold. If the temperature exceeds the configured temperature threshold, the temperate status will change to active.

4.8.2. Board Notify

Temperature Traps: This control allows the user to turn Enable/Disable the Temperature Trap.

Temperature Faults: This temperature status is highlighted with this parameter. If a fault is active: the temperature exceeds the temperature threshold, it is reflected with a red status. If a fault is inactive, it is reflected as a green status.

4.8.3. Port Link Notify

For SFP1 to 6

Port Link Status SFP: This status highlights Data port status. If the port is up, the status will be inactive / green. If the port is down, the status will be active / red.

Port Link SFP Trap: This control allows the user to enable trap receiving when the port is down and an associated correction trap when the port is up.

4.9. ASI INPUT NOTIFY

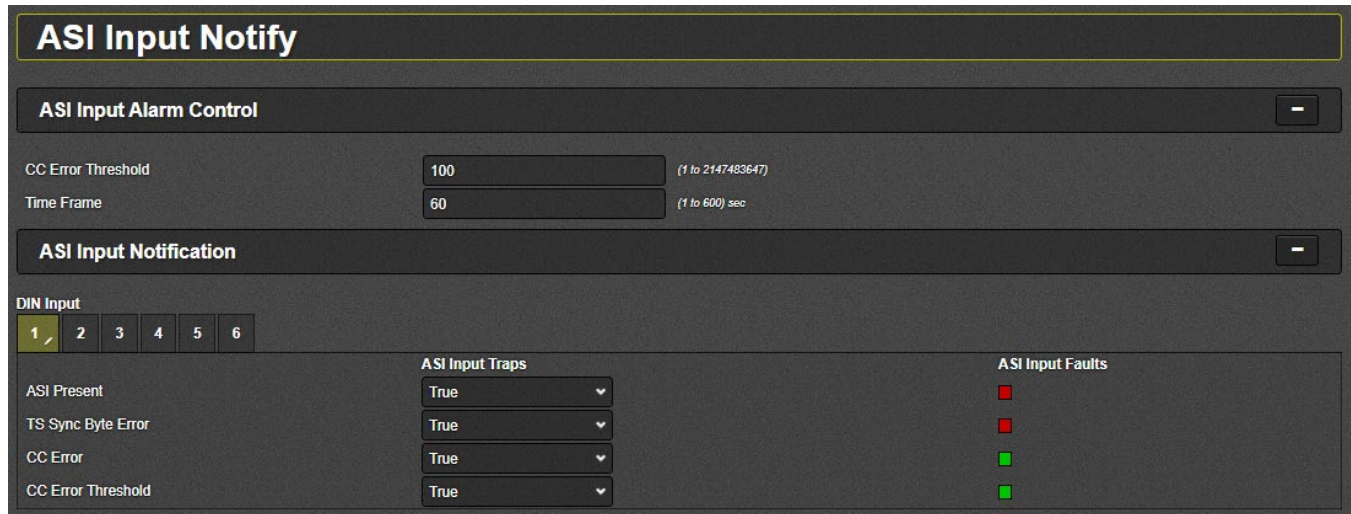


Figure 4-15: WebEASY® - ASI Input Notify

4.9.1. ASI Input Alarm Control

CC Error Threshold: This control sets the Closed Captioning Error Threshold before an alarm is sent.

Time Frame (1 to 600): This control sets the period, in seconds, over which the threshold can surpass.

4.9.2. ASI Input Notification

For DIN input 1 to 6

ASI Input Traps: This parameter is used to turn input traps On and Off.

ASI Input Faults: This control checks whether an input fault is currently present or not.

4.10. IP INPUT NOTIFY

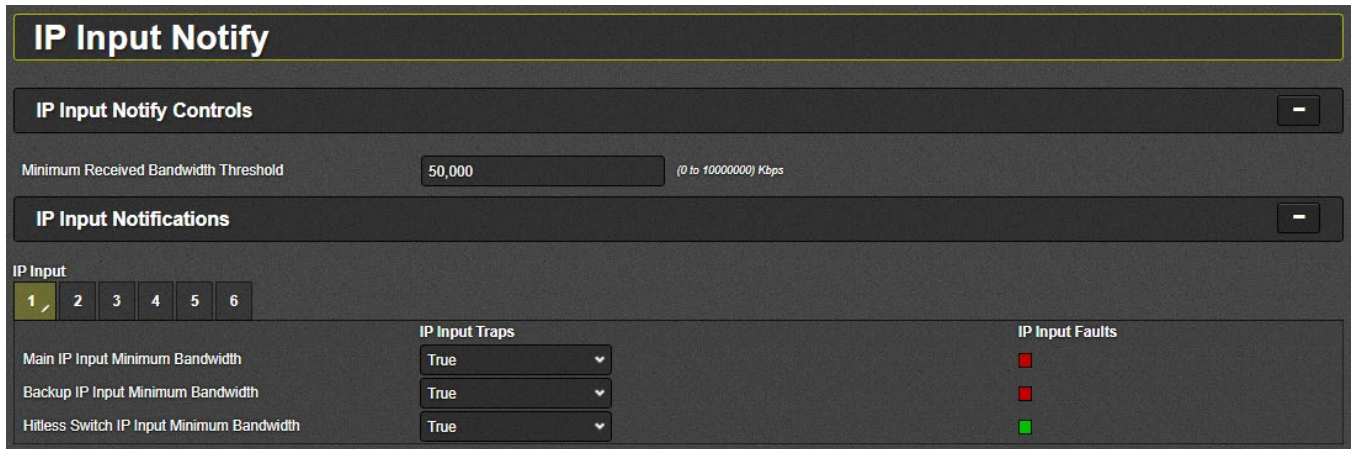


Figure 4-16: WebEASY® - IP Input Notify

4.10.1. IP Input Notify Controls

Minimum Received Bandwidth Threshold: This control sets the minimum amount of bandwidth that must be present before an alarm is sent.

4.10.2. IP Input Notifications

For IP input 1 to 6

IP Input Traps: This parameter is used to turn input traps On and Off.

IP Input Faults: This control checks whether an input fault is currently present or not.

4.11. SNMP SETUP

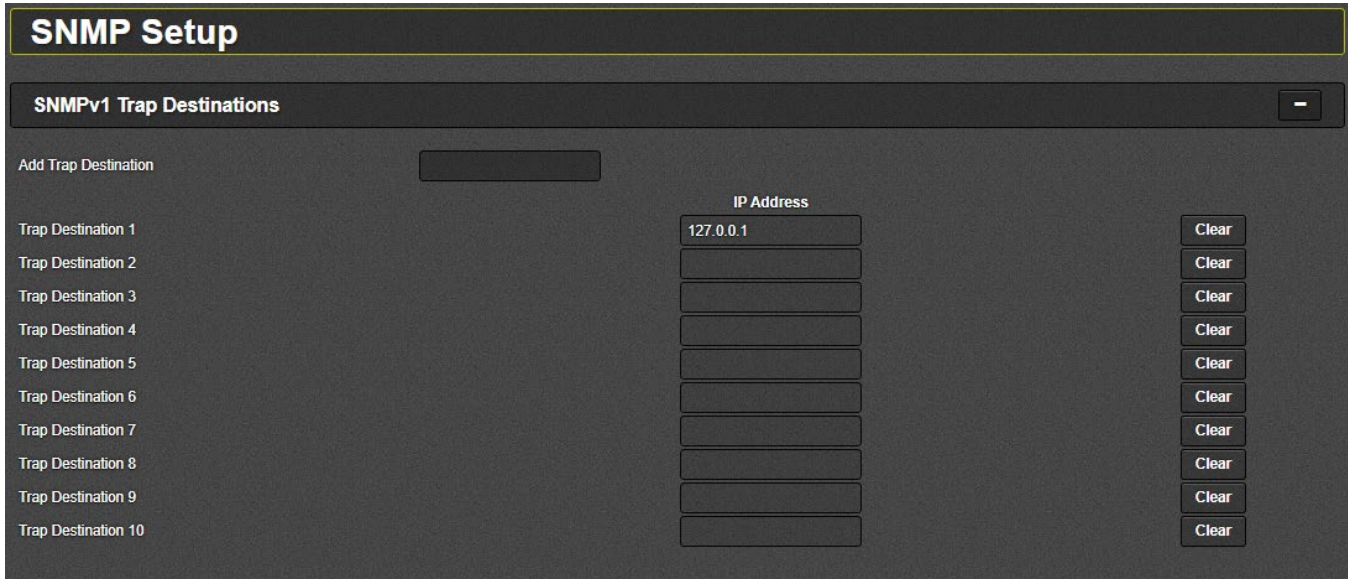


Figure 4-17: WebEASY® - SNMP Setup

4.11.1. SNMPv1 Trap Destinations

Add Trap Destination: This parameter allows the user to enter a new SNMPv1 trap destination IP address.

Trap Destination 1 to 10: These Parameters show the current SNMPv1 trap destination IP address.

Clear Button: Each of these buttons clear the IP address displayed for its respective trap destination.

5. FIRMWARE UPGRADE

Using the WebEASY® on a web interface is the fastest and recommended procedure to load the firmware onto the 570ASI-X19-10GE2.

5.1. FIRMWARE UPGRADE USING WEBEASY®

When first visiting the 570ASI-X19-10GE2 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 570ASI-X19-10GE2, there is a tab labeled **Upgrade**. The **Upgrade** tab is used to check current firmware version and upload the latest firmware.

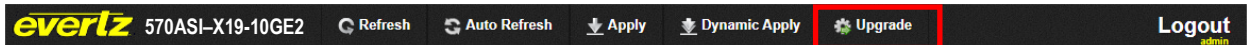


Figure 5-1: WebEASY® - Upgrade Button on Top Menu Bar

Selecting the *Upgrade* tab, will open a new window as shown in Figure 5-2 where the current firmware version is shown. Should the firmware version be outdated, the user will need to download the firmware image file.



Note: Contact Evertz get the latest firmware file.

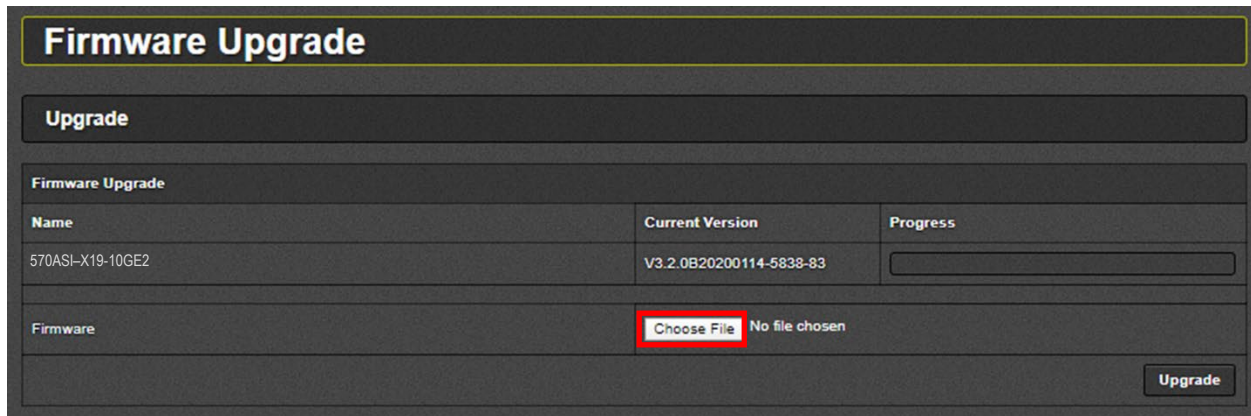


Figure 5-2: WebEASY® - Firmware Upgrade Menu

Click **Choose File** and browse to locate image file.

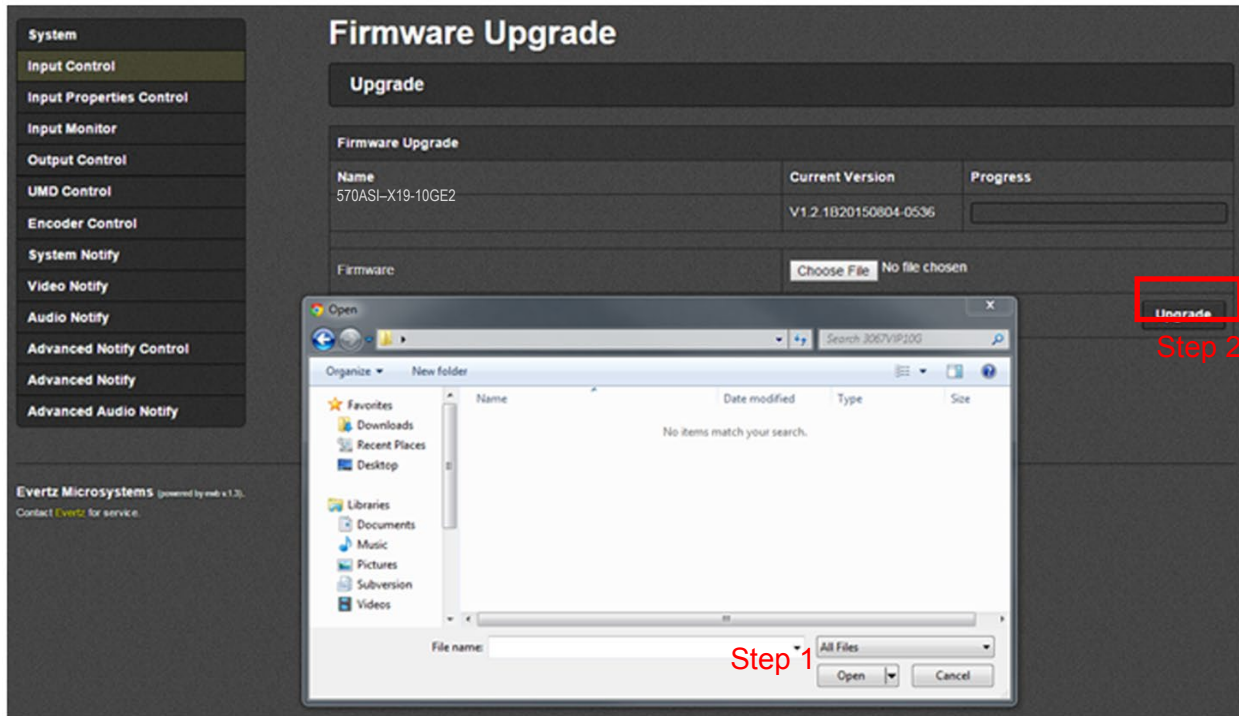


Figure 5-3: WebEASY® - Firmware Upgrade Menu

Once selected, click **Open** (Step 1) to advance to next step. Click **Upgrade** (Step 2) and watch progress bar for status. Once completed, the device will automatically restart.