ev670–X30–HW–V2
USER MANUAL

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Version 1.0, June 2022

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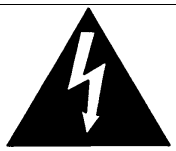
IMPORTANT SAFETY INSTRUCTIONS

	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

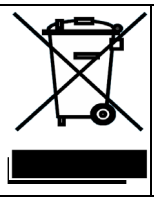
NOTE

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.

REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	First Release	June 2022

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1. OVERVIEW

The ev670–X30–HW-V2 is a next–generation virtualized media processing platform revolutionizing how media facilities are designed. The ev670–X30–HW-V2 enables customers to move an infrastructure that allows for essential core broadcast services to be applied on a generic hardware platform when required. This paradigm shift from discrete, fixed–function hardware to compute pools of generic hardware with licensable software services provides media companies a flexible, scalable and agile broadcast infrastructure to dynamically meet and adapt to changing facility requirements.

The ev670–X30–HW-V2 is an FPGA–accelerated compute blade that supports both 12G/3G/HD–SDI and IP interfaces. The ev670–X30–HW-V2 provides FPGA–based processing cores where a number different types of applications (apps) can be configured, providing services that include: multiviewers, gateway and video, audio and ancillary data processing functionality. A future–proof, FPGA–based compute blade, ev670– X30–HW provides all the scalability and flexibility of a virtualized environment while also ensuring low latency, low power and reliable real–time processing.

ev670–X30–HW-V2 utilizes Evertz' orchestration software to allow users to easily manage apps, licenses and the pool of compute resources. These software tools allow media companies to deploy the required applications (e.g. multiviewer, gateway or video/audio/ancillary processing) as needed. The ev670–X30–HW-V2 provides greater efficiency and utilization of compute resource with respect to fixed function devices or COTS–based hardware, allowing users to accomplish precisely what they need, when needed.

The ev670–X30–HW-V2 supports SNMP, JSON, REST and NMOS IS04/05 protocol. These interfaces provide seamless integration with Evertz' VUE user interface, MAGNUM, VistaLINK® PRO and third–party systems.

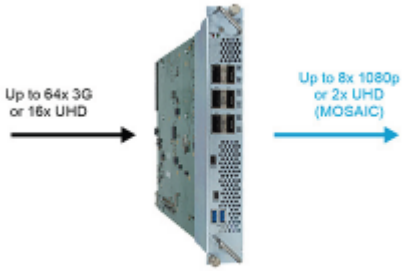
1.1. FEATURES & BENEFITS

- Modular and fits into ev1–FR, ev3–FR or ev6–FR
- Compatible with Evertz' SDVN solution
- Flexible high density FPGA–accelerated compute blade
- Supports applications for 12G–SDI and IP, including gateways for SMPTE ST 2110, multiviewer and more
- 32x32 SDI interface
- 6x 100GbE QSFP interfaces
- Support for SMPTE ST 2110 and NMOS IS–04/05
- High density gateway up to 16x16 UHD or 32x32 3G
- High density multiviewer for SDI, SMPTE ST 2110–20, ST 2110–22 and ST 2202–6 applications
- Easy to change functionality

1.2. EV670–X30–HW-V2 APPLICATIONS (APPS)

1.2.1. evVIP–APP–100G–ST2110

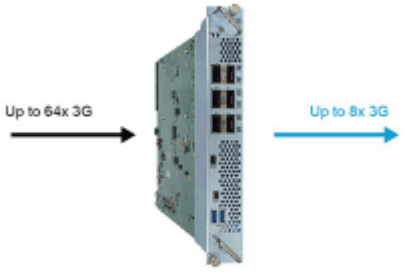
Standalone high density multi–image display processor technology. Supports up to 64x 3G or up to 16x UHD SMPTE ST 2110 input signals and up to 8x 1080p or 2x UHD outputs over SMPTE ST 2110. Also provides SDI outputs, rear plate needs to be ordered separately.



evVIP–APP–100G–ST2110

1.2.2. evVIP–APP–100G–ST2022–6

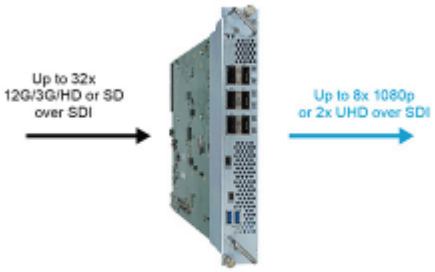
Standalone high density multi–image display processor technology. Supports up to 64x 3G SMPTE ST 2022–6 input signals and up to 8x 1080p outputs over SMPTE ST 2022–6. Also provides SDI outputs, rear plate needs to be ordered separately.



evVIP–APP–100G–ST2022–6

1.2.3. evVIP–APP–SDI

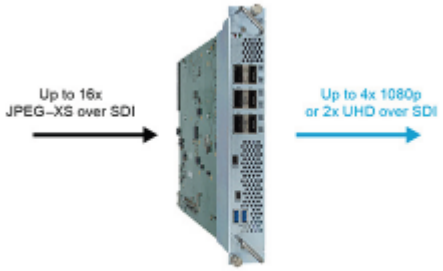
Standalone 12G–SDI multi–image display processor technology. Supports up to 32x 12G–SDI input signals and up to 4x 1080p or 2x UHD (12G–SDI) outputs. Full video, audio and ancillary monitoring.



evVIP–APP–SDI

1.2.4. evVIP–APP–JPEG–XS–SDI

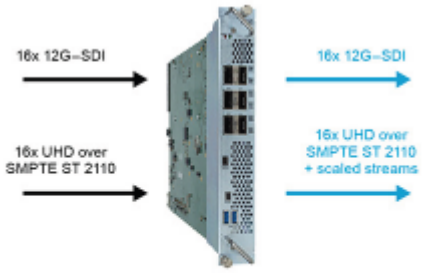
Standalone high density multi–image display processor technology. Supports up to 16x JPEG–XS over SDI input signals and up to 4x 1080p or 2x UHD outputs over SDI. Optional advanced monitoring or standard monitoring. Rear plate needs to be ordered separately.



evVIP–APP–JPEG–XS–SDI

1.2.5. evIPG–12G

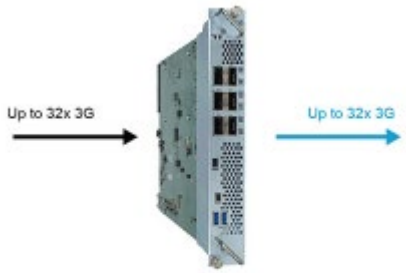
The IP Media Gateway (IPG) APP supports high density 16x 12G–SDI to SMPTE ST 2110 encapsulation and de–encapsulation.



evIPG–12G

1.2.6. evIPG–3G

The IP Media Gateway (IPG) APP supports high density 32x 3G–SDI to SMPTE ST 2110 encapsulation and de–encapsulation.



evIPG–3G

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2. SPECIFICATIONS

2.1. PHYSICAL

Form Factor	6RU in ev6–FR, also fits in ev1–FR (1RU) and in ev3–FR (3RU)
Number of Slots	2

2.2. ELECTRICAL

Voltage	12V DC
Power	220W
EMI/EFI	Compliance with FCC Part 15, Class A EU EMC Directive

2.3. SDI INPUT/OUTPUT

Format	12G, 3G, HD, SD–SDI Four groups of embedded audio
Connectors	32x mini–DIN 1.0/2.3 or HD–BNC

2.4. ETHERNET INTERFACE

Connectors	6x QSFP, 2x RJ–45

2.5. GENLOCK INPUT

Number of Connections	2
Connector Type	QSFP+

2.6. REFERENCE

Type	NTSC/PAL color black
Level	1V p–p nominal
Connector	ev6–FR genlock input BNC

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3. ORDERING INFORMATION

3.1. EV670–X30–HW-V2

Next Generation High Density Media Processing FPGA Accelerated Hardware

EV670–32X32–DIN–RP:
Rear plate for ev670–X30–HW-V2. Must with IPG apps and evVIP–SDI app. Optional for ST–2110 multiviewer where SDI outputs are preferred.

ev670–32x32–HDBNC–RP:
Rear plate for ev670–X30–HW-V2 Must with IPG apps. And evVIP–SDI app. Optional for ST–2110 multiviewer where SDI outputs are preferred.

Available QSFPs:
QSFP25G–SM–PSM4–LR–G–NFEC 100G QSFP, 4 channel 1310nm, MPO/APC connector, 10km

3.2. EVVIP–APP–100G–ST–2110

Base software license to enable SMPTE ST 2110 standalone multiviewer. Inputs, outputs and monitoring licenses sold separately.

3.2.1. Input Options

evVIP–FK–8IP–3G	License key to enable 8 SD, HD, 3G or 2 UHD inputs on evVIP–100G
evVIP–FK–16IP–3G	License key to enable 16 SD,HD, 3G or 4 UHD inputs on evVIP–100G
evVIP–FK–24IP–3G	License key to enable 24 SD,HD, 3G or 6 UHD inputs on evVIP–100G
evVIP–FK–32IP–3G	License key to enable 32 SD,HD, 3G or 8 UHD inputs on evVIP–100G
evVIP–FK–40IP–3G	License key to enable 40 SD,HD, 3G or 10 UHD inputs on evVIP–100G
evVIP–FK–48–IP–3G	License key to enable 48 SD,HD, 3G or 12 UHD inputs on evVIP–100G
evVIP–FK–56–IP–3G	License key to enable 56 SD,HD, 3G or 14 UHD inputs on evVIP–100G
evVIP–FK–64–IP–3G	License key to enable 64 SD,HD, 3G or 16 UHD inputs on evVIP–100G

3.2.2. Output Options

evVIP–FK–1OUT	License key to enable single output which support resolution up to 3480x2160
evVIP–FK–2OUT	License key to enable Two outputs which support resolution up to 3480x2160
evVIP–FK–3OUT	License key to enable Three 1080p outputs or 1 UHD and 1 1080P
evVIP–FK–4OUT	License key to enable Four outputs at 1080P or Two UHD output
evVIP–FK–5OUT	License key to enable Five outputs at 1080P. If using UHD outputs two UHD outputs is max per card.
evVIP–FK–6OUT	License key to enable Six outputs at 1080P. If using UHD outputs two UHD outputs is max per card.
evVIP–FK–7OUT	License key to enable seven outputs at 1080P. If using UHD outputs two UHD output is max per card.

evVIP–FK–8OUT License key to enable eight outputs at 1080P. If using UHD outputs two UHD output is max per card.

3.2.3. Basic Monitoring Options

evMV–FK–8MON License key to enable basic video and audio monitoring for 8 inputs

evMV–FK–16MON License key to enable basic video and audio monitoring for 16 inputs

evMV–FK–24MON License key to enable basic video and audio monitoring for 24 inputs

evMV–FK–32MON License key to enable basic video and audio monitoring for 32 inputs

evMV–FK–40MON License key to enable basic video and audio monitoring for 40 inputs

evMV–FK–48MON License key to enable basic video and audio monitoring for 48 inputs

evMV–FK–56MON License key to enable basic video and audio monitoring for 56 inputs

evMV–FK–64MON License key to enable basic video and audio monitoring for 64 inputs

3.2.4. Advanced Monitoring Options

evMV–FK–VIP–8MON–ADV
Feature Key to enable 8 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 8 inputs license.

evMV–FK–VIP–16MON–ADV
Feature Key to enable 16 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 16 inputs license.

evMV–FK–VIP–24MON–ADV
Feature Key to enable 24 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 24 inputs license.

evMV–FK–VIP–32MON–ADV
Feature Key to enable 32 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 32 inputs license.

evMV–FK–VIP–40MON–ADV
Feature Key to enable 40 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 40 inputs license

evMV–FK–VIP–48MON–ADV
Feature Key to enable 48 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 48 inputs license

evMV–FK–VIP–56MON–ADV
Feature Key to enable 56 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 56 inputs license

evMV–FK–VIP–64MON–ADV
Feature Key to enable 64 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 64 inputs license

3.3. EVVIP–APP–100G–ST2022–6

Based software license to enable ST2022–6 inputs and outputs. Inputs, outputs and monitoring options sold separately.

3.3.1. Input Options

evVIP–FK–8IP–3G License key to enable 8 SD, HD, 3G or 2 UHD inputs on evVIP–100G

evVIP–FK–16IP–3G License key to enable 16 SD,HD, 3G or 4 UHD inputs on evVIP–100G

evVIP–FK–24IP–3G License key to enable 24 SD,HD, 3G or 6 UHD inputs on evVIP–100G

evVIP–FK–32IP–3G License key to enable 32 SD,HD, 3G or 8 UHD inputs on evVIP–100G

evVIP–FK–40IP–3G License key to enable 40 SD,HD, 3G or 10 UHD inputs on evVIP–100G

evVIP–FK–48–IP–3G License key to enable 48 SD,HD, 3G or 12 UHD inputs on evVIP–100G

evVIP–FK–56–IP–3G License key to enable 56 SD,HD, 3G or 14 UHD inputs on evVIP–100G

evVIP–FK–64–IP–3G License key to enable 64 SD,HD, 3G or 16 UHD inputs on evVIP–100G

3.3.2. Output Options

evVIP–FK–1OUT License key to enable single output which support resolution up to 3480x2160

evVIP–FK–2OUT License key to enable Two outputs which support resolution up to 3480x2160

evVIP–FK–3OUT License key to enable Three 1080p outputs or 1 UHD and 1 1080P

evVIP–FK–4OUT License key to enable Four outputs at 1080P or Two UHD output

evVIP–FK–5OUT License key to enable Five outputs at 1080P. If using UHD outputs two UHD outputs is max per card.

evVIP–FK–6OUT License key to enable Six outputs at 1080P. If using UHD outputs two UHD outputs is max per card.

evVIP–FK–7OUT License key to enable seven outputs at 1080P. If using UHD outputs two UHD output is max per card.

evVIP–FK–8OUT License key to enable eight outputs at 1080P. If using UHD outputs two UHD output is max per card.

3.3.3. Basic Monitoring Options

evMV–FK–8MON License key to enable basic video and audio monitoring for 8 inputs

evMV–FK–16MON License key to enable basic video and audio monitoring for 16 inputs

evMV–FK–24MON License key to enable basic video and audio monitoring for 24 inputs

evMV–FK–32MON License key to enable basic video and audio monitoring for 32 inputs

evMV–FK–40MON	License key to enable basic video and audio monitoring for 40 inputs
evMV–FK–48MON	License key to enable basic video and audio monitoring for 48 inputs
evMV–FK–56MON	License key to enable basic video and audio monitoring for 56 inputs
evMV–FK–64MON	License key to enable basic video and audio monitoring for 64 inputs

3.3.4. Advanced Monitoring Options

evMV–FK–VIP–8MON–ADV
Feature Key to enable 8 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 8 inputs license.

evMV–FK–VIP–16MON–ADV
Feature Key to enable 16 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 16 inputs license.

evMV–FK–VIP–24MON–ADV
Feature Key to enable 24 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 24 inputs license.

evMV–FK–VIP–32MON–ADV
Feature Key to enable 32 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 32 inputs license.

evMV–FK–VIP–40MON–ADV
Feature Key to enable 40 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 40 inputs license

evMV–FK–VIP–48MON–ADV
Feature Key to enable 48 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 48 inputs license

evMV–FK–VIP–56MON–ADV
Feature Key to enable 56 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 56 inputs license

evMV–FK–VIP–64MON–ADV
Feature Key to enable 64 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 64 inputs license

3.4. EVVIP–APP–SDI

Base software license to enable SDI multiviewer. Inputs, outputs and monitoring licenses sold separately.

3.4.1. Input Options:

evVIP–SDI–FK–8IP–HD	License key to enable 8 SD or HD inputs on evVIP–SDI
evVIP–SDI–FK–16IP–HD	License key to enable 16 SD or HD inputs on evVIP–SDI
evVIP–SDI–FK–24IP–HD	License key to enable 24 SD or HD inputs on evVIP–SDI
evVIP–SDI–FK–32IP–HD	License key to enable 32 SD or HD inputs on evVIP–SDI
evVIP–SDI–FK–8IP–3G	License key to enable 8 SD,HD or 3G inputs on evVIP–SDI
evVIP–SDI–FK–16IP–3G	License key to enable 16 SD,HD or3G inputs on evVIP–SDI
evVIP–SDI–FK–24IP–3G	License key to enable 24 SD,HD or 3G inputs on evVIP–SDI
evVIP–SDI–FK–32IP–3G	License key to enable 32 SD,HD or 3G inputs on evVIP–SDI
evVIP–SDI–FK–8IP–12G	License key to enable 8 SD, HD, 3G or 12G inputs on evVIP–SDI
evVIP–SDI–FK–16IP–12G	License key to enable 16 SD,HD,3G or 12G inputs on evVIP–SDI
evVIP–SDI–FK–24IP–12G	License key to enable 24 SD,HD,3G or 12Ginputs on evVIP–SDI
evVIP–SDI–FK–32IP–12G	License key to enable 32 SD,HD, 3G or 12G inputs on evVIP–SDI

3.4.2. Output Options

evVIP–FK–1OUT	License key to enable single output which support resolution up to 3480x2160
evVIP–FK–2OUT	License key to enable Two outputs which support resolution up to 3480x2160
evVIP–FK–3OUT	License key to enable Three 1080p outputs or 1 UHD and 1 1080P
evVIP–FK–4OUT	License key to enable Four outputs at 1080P or Two UHD output
evVIP–FK–5OUT	License key to enable Five outputs at 1080P. If using UHD outputs two UHD outputs is max per card.
evVIP–FK–6OUT	License key to enable Six outputs at 1080P. If using UHD outputs two UHD outputs is max per card.
evVIP–FK–7OUT	License key to enable seven outputs at 1080P. If using UHD outputs two UHD output is max per card.
evVIP–FK–8OUT	License key to enable eight outputs at 1080P. If using UHD outputs two UHD output is max per card.

3.4.3. Basic Monitoring Options

evMV–FK–8MON	License key to enable basic video and audio monitoring for 8 inputs
evMV–FK–16MON	License key to enable basic video and audio monitoring for 16 inputs
evMV–FK–24MON	License key to enable basic video and audio monitoring for 24 inputs
evMV–FK–32MON	License key to enable basic video and audio monitoring for 32 inputs

3.4.4. Advanced Monitoring Options

evMV–FK–VIP–8MON–ADV

Feature Key to enable 8 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 8 inputs license.

evMV–FK–VIP–16MON–ADV

Feature Key to enable 16 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 16 inputs license.

evMV–FK–VIP–24MON–ADV

Feature Key to enable 24 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 24 inputs license.

evMV–FK–VIP–32MON–ADV

Feature Key to enable 32 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 32 inputs license.

3.5. EVVIP–APP–JPEG–XS–SDI

Base software for JPEG–XS–SDI standalone multiviewer.

3.5.1. Input Options

evVIP–FK–JPEG–XS–8IP License key to enable 8 JPEG–XS inputs on evVIP–APP–JPEG–XS–SDI

evVIP–FK–JPEG–XS–16IP License key to enable 16 JPEG–XS inputs on evVIP–APP–JPEG–XS–SDI

3.5.2. Output Options:

evVIP–FK–1OUT License key to enable single output which support resolution up to 3480x2160

evVIP–FK–2OUT License key to enable Two outputs which support resolution up to 3480x2160

evVIP–FK–3OUT License key to enable Three 1080p outputs or 1 UHD and 1 1080P

evVIP–FK–4OUT License key to enable Four outputs at 1080P or Two UHD output

3.5.3. Basic Monitoring Options:

evMV–FK–8MON License key to enable basic video and audio monitoring for 8 inputs

evMV–FK–16MON License key to enable basic video and audio monitoring for 16 inputs

3.5.4. Advanced Monitoring Options

evMV–FK–VIP–8MON–ADV

Feature Key to enable 8 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 8 inputs license.

evMV–FK–VIP–16MON–ADV

Feature Key to enable 16 inputs advance audio, video, ancillary data monitoring on ev670–X30–HW-V2 and ev670–X30–HW-V2 for evVIP–APP–100G–ST2110 and evVIP–APP–100G–ST2022–6 app with 16 inputs license.

+PLURA

+PLURA license option enables plura timer protocol for connection of Plura Tri Color programmable timers.

3.6. EVIPG–12G

IPG app support 16x 12G encap and decap.

3.7. EVIPG–3G

IPG app support 32x 3G encap and decap.

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4. GETTING STARTED

4.1. FRONT PLATE

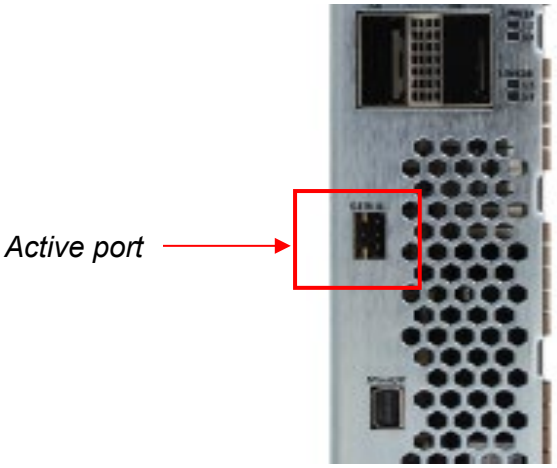


Figure 4-1: ev670–X30–HW-V2 Front Plate

4.2. HARDWARE INSTALLATION

NOTE: QSFP's must be ordered separately

To successfully install the ev670–X30–HW-V2 the user will require the following:

1. ev6-FR, ev3-FR or ev1-FR frame with frame controller installed.
   (NOTE: Front RJ45 connection can also be used as control interface.)
2. On EMX6 frame controller connected on "B" network port on EMX frame to the user's control network.
3. Three empty slots in the frame (keep left slot empty when installing the card)
4. Evertz Serial Ribbon Cable

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 the chassis 3 adjacent vacant slots. Unpack the Ev670–X30–HW-V2 and separate the rear panel from the main card (Note: Some application do not require rear plate and may not have shipped witht the card. It is optional ordering option for some apps.). Insert the rear panel into the back of the chassis and secure using the screws provided. Once rear panel is secured, slide in module along the slot runners and mate into the rear panel. Take care to make sure card ejectors are partially open when sliding in module and closed tight when secured.

4.3. SETTING UP INITIAL NETWORK CONFIGURATION

The ev670–X30–HW-V2 module requires a first time initialization to set up proper network parameters.

Procedure

1. Connect the Evertz serial upgrade cable (ribbon cable) to the 2x3 header at the front edge of the Ev670–X30–HW-V2.
2. Start a terminal program and configure the port settings.

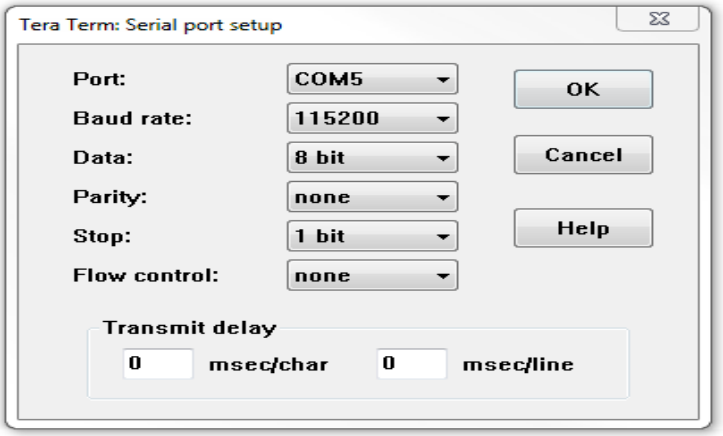


Figure 4-2: COM Port - Serial Port Settings

3. Boot up module, a login prompt will appear, enter:

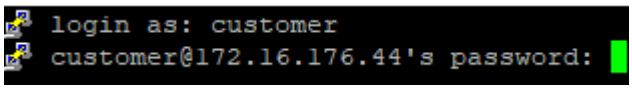


Figure 4-3: Serial Port - Login Prompt

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

4. Once logged in, we will be configuring the network settings.
5. In the Network Setup menu, we will be configuring the two redundant control networks.

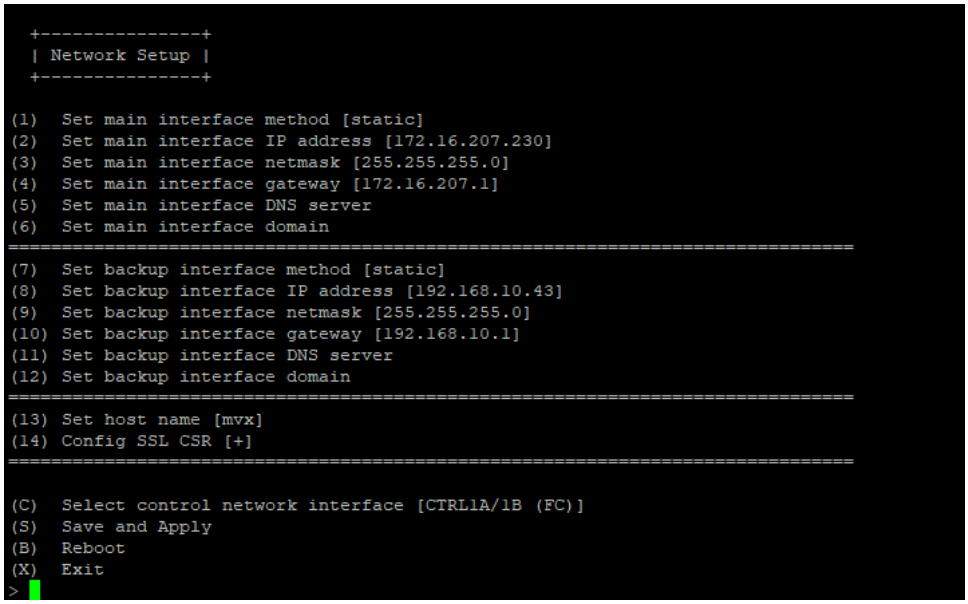
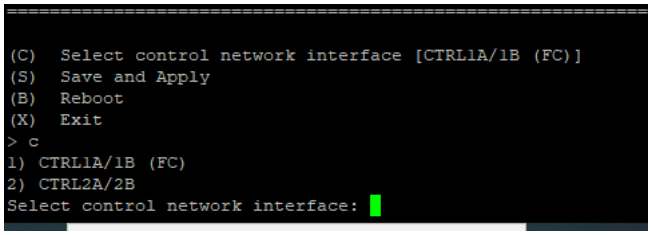


Figure 4-4: Serial Port - Network Setup Menu

- Select control network interface
- The VIP has the ability to select from two different control network interfaces. User can specify to either utilize the frame network (10/100mbps) connections (default) or to utilize the on-board RJ45 connection on the card (10/100/1000mbps). Please note both networks cannot be active at the same time.



User can select:

- CTRL 1A/1B (FC) to pass network traffic through main + redundant frame controllers/connections on 1B of ev6 frame. This will allow the entire frame to share a single 10/100mbps network connection on the frame.
- CTRL 2A/2B to utilize separate 10/100/1000mbps network interfaces through the front panel RJ45 . This will allow individual control of the card without frame controller.
  - Set all network configurations for each redundant control network.
  - Select <S> to Save and Apply

6. Once all network settings are completed and exited back to main menu
   - Select <**X**> to Exit.
   - Pull module out and push back in to reboot module.

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5. WEB INTERFACE (FOR EVVIP-APP-100G-ST2110)

The web interface allows for users to change settings and monitor the status of the ev670–X30–HW-V2 through a web GUI. This section will explain in detail the functions available through the Web Interface.

To default login to the evMV-VIP100G, type "***root***" for username and "***evertz***" for password respectively.

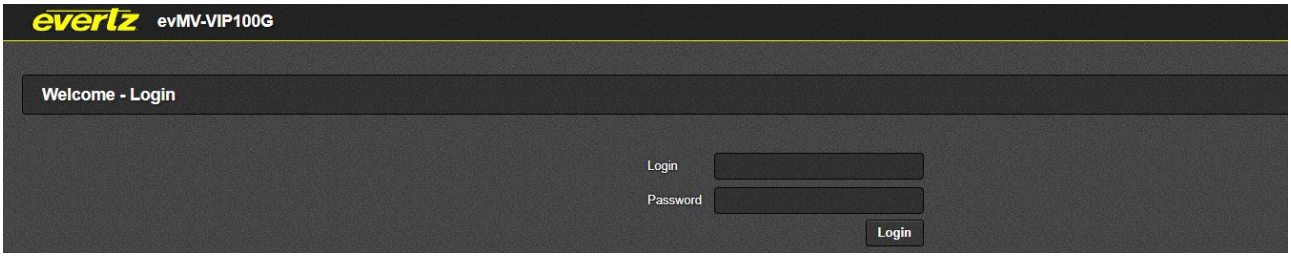


Figure 5-1: WebEASY® - Login In Menu

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

- **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

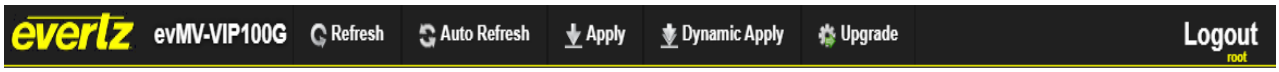


Figure 5-2: WebEASY® - Top Navigation Bar

- **Navigation Menu:** Displays a menu of all tabs the user is able to monitor/configure, below are the list of all tabs for the ev670–X30–HW-V2.

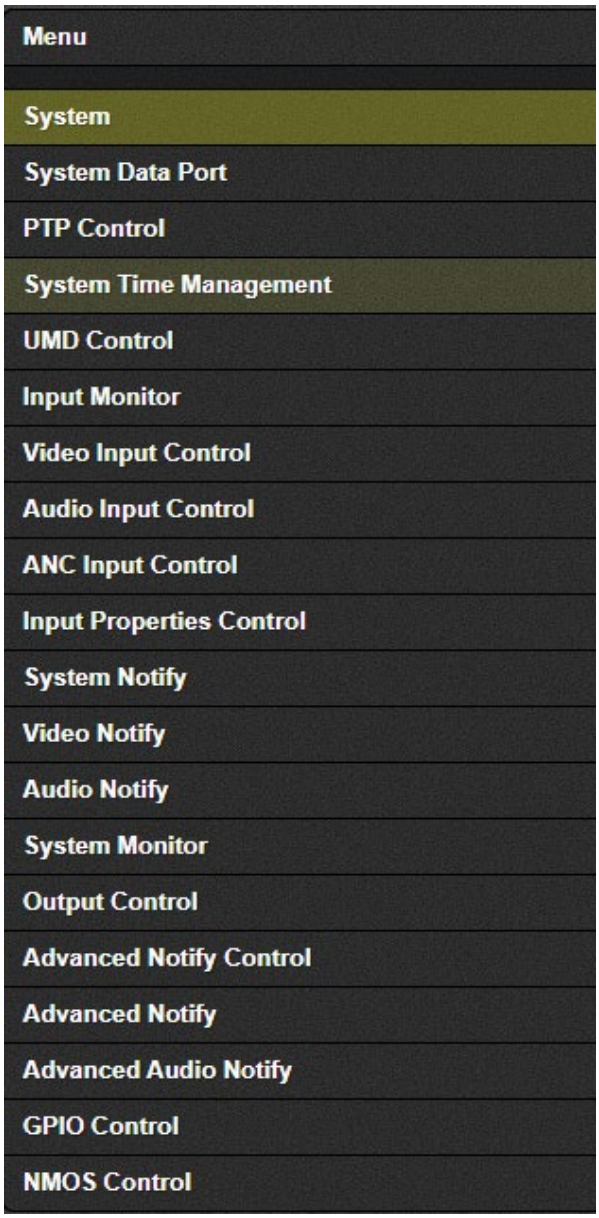


Figure 5-3: WebEASY® - Navigation Menu

5.1. SYSTEM

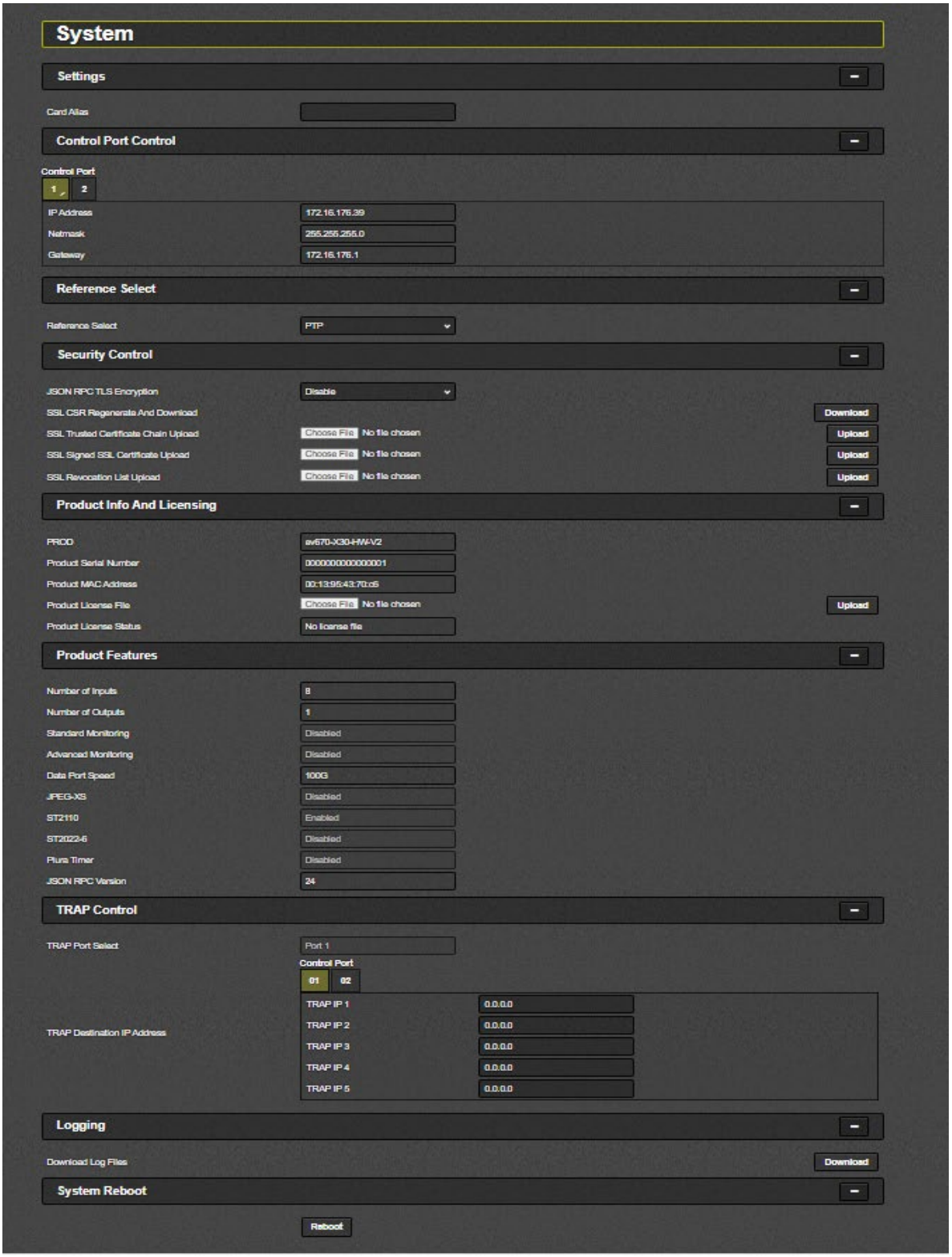


Figure 5-4 : WebEASY® - System Tab

5.1.1. Settings

Card Alias: Field allow setting Alias name for the hardware.

5.1.2. Control Port Control

IP Address: This control allows the user to assign an IP address to the control port.

Netmask: This control allows the user to define the Netmask/Subnet for the control port.

Gateway: This control allows the user to define the Gateway address for the control port.

5.1.3. Reference Select

Reference Select: This control allows the user to select the synchronization reference to be used, options are:

- **Free Run:** Enable Free Run mode on video.
- **Genlock:** where the video output of one source is used to synchronize other sources together.
- **PTP:** Used to synchronize clocks throughout a computer network.

5.1.4. Security Control

Json Rpc TLS Encryption: This control allows the user to enable/disable the TLS encryption for magnum communication option on the evMV-VIP100G.

SSL CSR RegenerateAnd Download: Allows the user to regenerate a new TLS private key and download a new certificate signing request (CSR).

*Note: every time csr is downloaded a new random private key is generated as a security feature.

SSL Trusted Certificate Chain Upload: Allows the user to upload a trusted TLS root certificate or intermediate certificate chain. Must be in PEM format.

SSL Signed SSL Certificate Upload: Allows user to upload a signed TLS certificate to the card.

SSL Revocation List Upload: Allows user to manually upload a TLS revocation list to revoke any compromised issued TLS certificates from the device.

5.1.5. Product Info and Licensing

PROD: Displays the product Name

Product Serial Number: This field displays the serial number of the ev670-X30-HW-V2 unit. Evertz requires this serial number when requesting a product license.

Product Mac Address: This field displays the MAC address of the Product. Evertz requires this MAC address when requesting a product license.

Product License File: Selecting the upload button will launch a file explorer prompt to provide the location of the license file on local disk.

Product License Status: This field displays the current license status of the product.

5.1.6. Product Features

More information on currently available product features in section 2.7.

Number of Inputs: This field displays the number of input ports enabled on the product.

Number of Outputs: This field displays the number of output ports enabled on the product.

Standard Monitoring: This field displays if the current license has standard monitoring options available.

Advanced Monitoring: This field displays if the current license has advanced monitoring options available.

ST2110: This field displays if ST2110 has been enabled or disabled on card.

ST2022-6: This field displays if ST2022-6 has been enabled or disabled on card.

Plura Timer: This field displays if Plura timer has been enabled or disabled on card.

JSON RPC Version: This field displays JSON RPC version.

5.1.7. TRAP Control

Trap Port Select: Select port for TRAP control data to be transmitted over.

Trap Destination IP Adress: Select destination IP address for trap data.

5.1.8. Logging

Download Log Files: Pressing the download button will begin to download the log files to local disk.

5.1.9. System Reboot

Selecting the **reboot** button will reboot the card.

5.2. SYSTEM DATA PORT

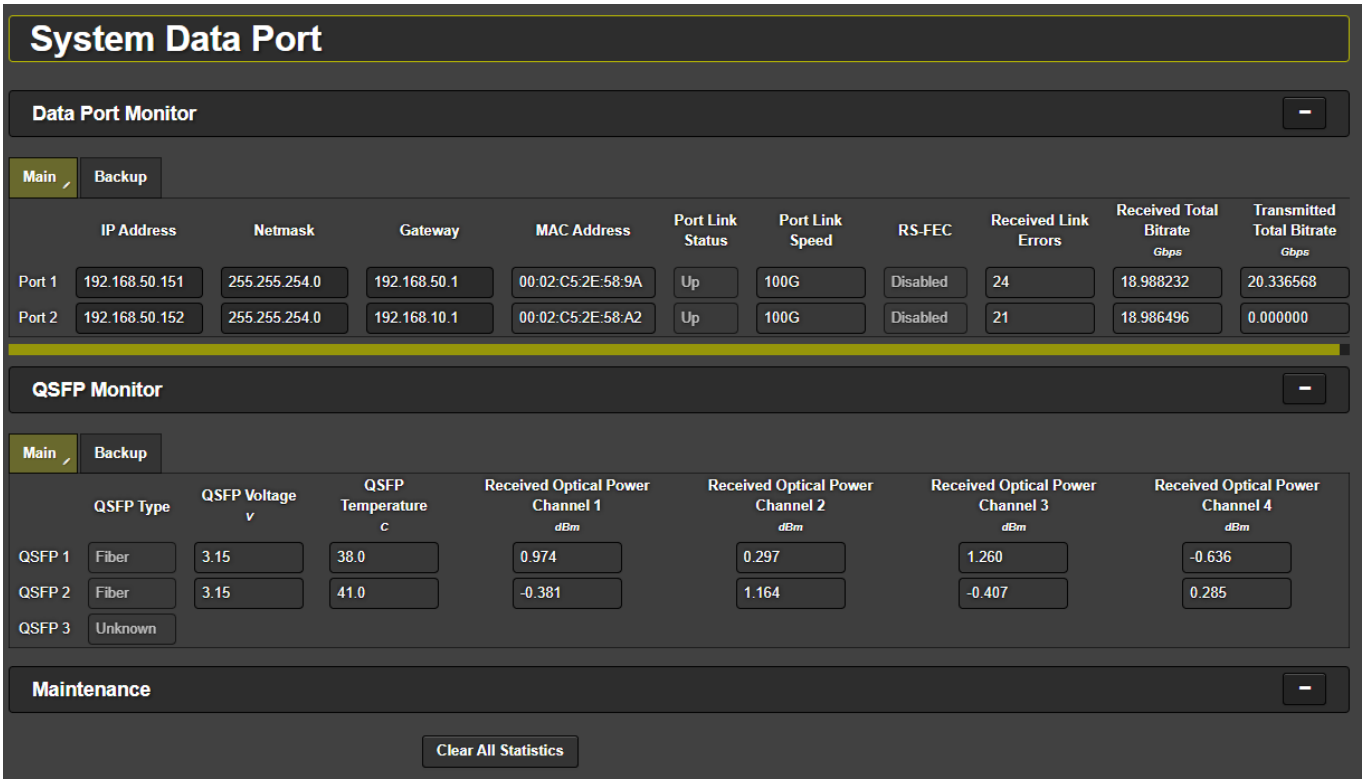


Figure 5-5: WebEASY® - System Data Port Tab

5.2.1. Data Port Monitor

For Main and Backup Ports

IP Address: This field allows the user to enter a valid IP Address for Port 1 (for Main & Backup).

Netmask: This field allows the user to enter a valid Netmask for Port 1 (for Main & Backup).

Gateway: This field allows the user to enter a valid Gateway for Port 1 (for Main & Backup).

MAC Address: This field displays the MAC address of the port.

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

Port Link Speed: This field displays the link speed of the port.

RS-FEC: This field display if RS-FEC mode is enabled in firmware

Received Link Errors: This field displays the total number of physical link errors detected on QSFP port.

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

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

5.2.2. QSFP Monitor

For Main and Backup Ports and for 2 QSFPs

QSFP Type: This field displays the type of the QSFP cable types.

QSFP Voltage: This field displays the voltage of the QSFP port.

QSFP Temperature: This field displays the temperature of the QSFP port.

Received Optical Power Ch1-4: These fields display the optical power (in dBm) for each channel.

5.2.3. Maintenance

Clear AI Statistics: This button is used to set values of Reeceived Link Errors on both main and backup ports to 0.

5.3. PTP CONTROL

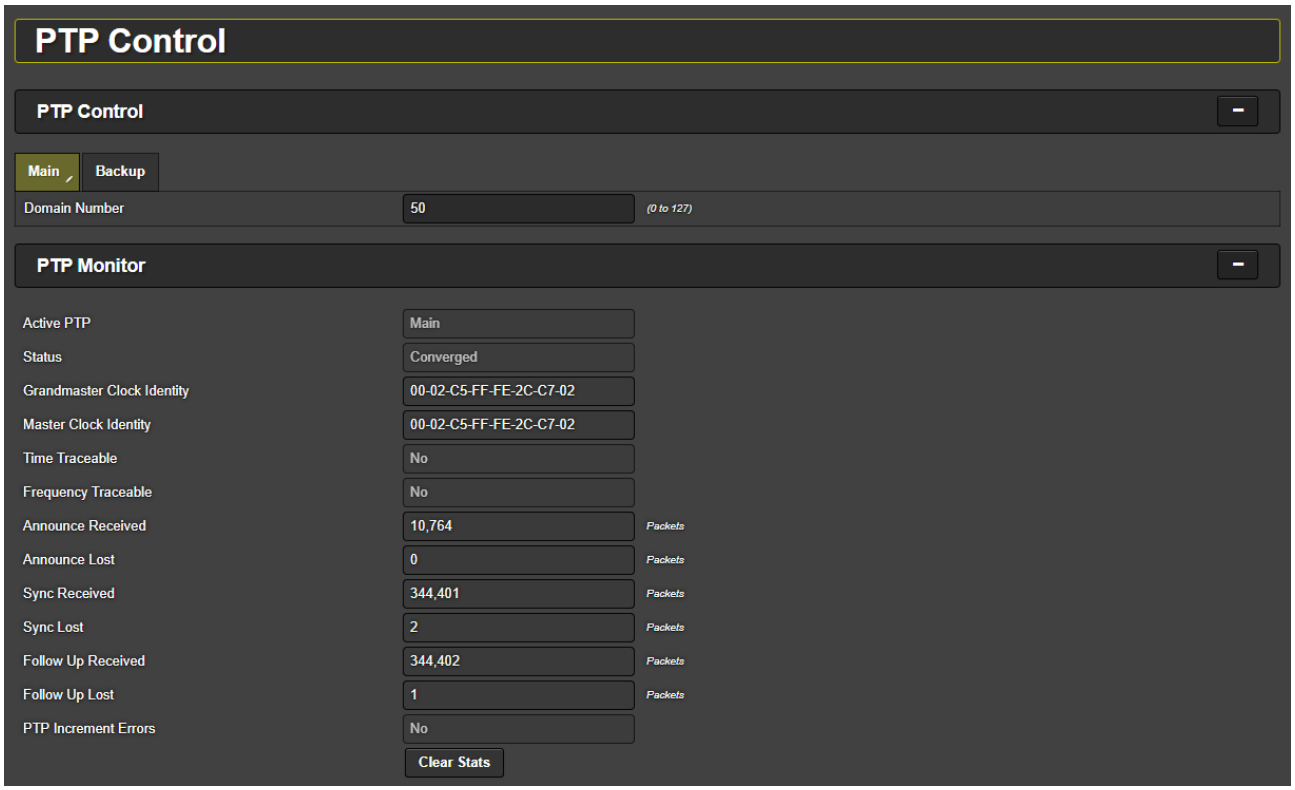


Figure 5-6: WebEASY® - PTP Control Tab

5.3.1. PTP Control

Domain Number: This control sets the PTP domain number.

5.3.2. PTP Monitor

Active PTP: This field allows user to set PTP level.

Status: This field displays the PTP status.

Grandmaster and Master Clock Identity: This field allow user to view the synced masterclock MAC Address. .

Time and FrequencyTraceable: This field allow user to check time and frequency can be tracable or not.

Announce Received: This field displays the announce received counter.

Announce Lost: This field displays the announce lost counter.

Sync Received: This field displays the sync received counter.

Sync Lost: : This field displays the sync lost counter.

Follow UP Received: This field displays the follow up received counter.

Follow UP Lost: This field displays the follow up lost counter.

PTP increment Errors: This field allow user to check ptp increment error.

Clear Stats: This button is used to bring the values of fields to 0.

5.4. SYSTEM TIME MANAGEMENT

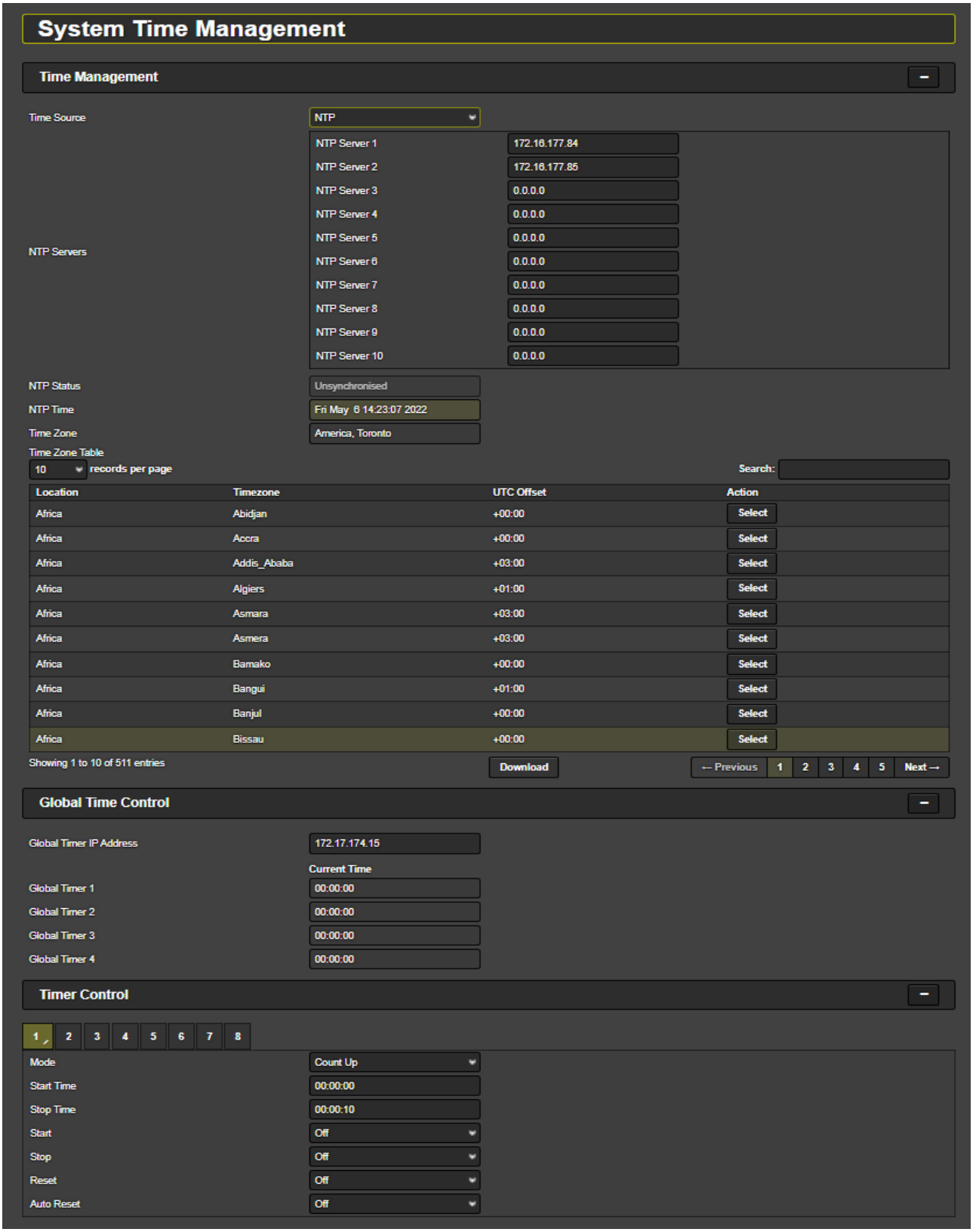


Figure 5-7: WebEASY® - System Time Management Tab

5.4.1. Time Management

Time Source: This control allows the user to select between System or NTP for the time source. When System is selected, the card will run timing based on the local clock. If “NTP” is selected, then the card’s time is synchronized with an NTP server.

NTP Server IP Address: This parameter allows the user to set the IP addresses for the servers.

NTP Status: This field displays the connection status with the NTP server.

NTP Time: This field displays the time value in the NTP Server.

Time Zone: This field displays the country/region the system is set to.

Time Zone Table: This list (adjustable records per page) allows the user to select the time zone based on the continent, City and UTC Offset value.

Select button can be used to make Time Zone selection.

5.4.2. Global Time Control

Global Timer IP Address: This parameter allows the user to set the IP address for the Global Timer from optional timer card.

Global Timers 1-4: This field displays received time data for each timer in hh:mm:ss format.

5.4.3. Timer Control

Mode: This field allows user to select timer options like Count Up and Count Down.

Start Time: This is an adjustable field where user can set start time for the counter.

Stop Time: This is an adjustable field where user can set stop time for the counter.

Start: This field allows user to start counter.

Stop: This field allows user to stop counter.

Reset: This field allows user to reset counter.

Auto Reset: This field allows user to enable auto reset of timer.

5.5. UMD CONTROL

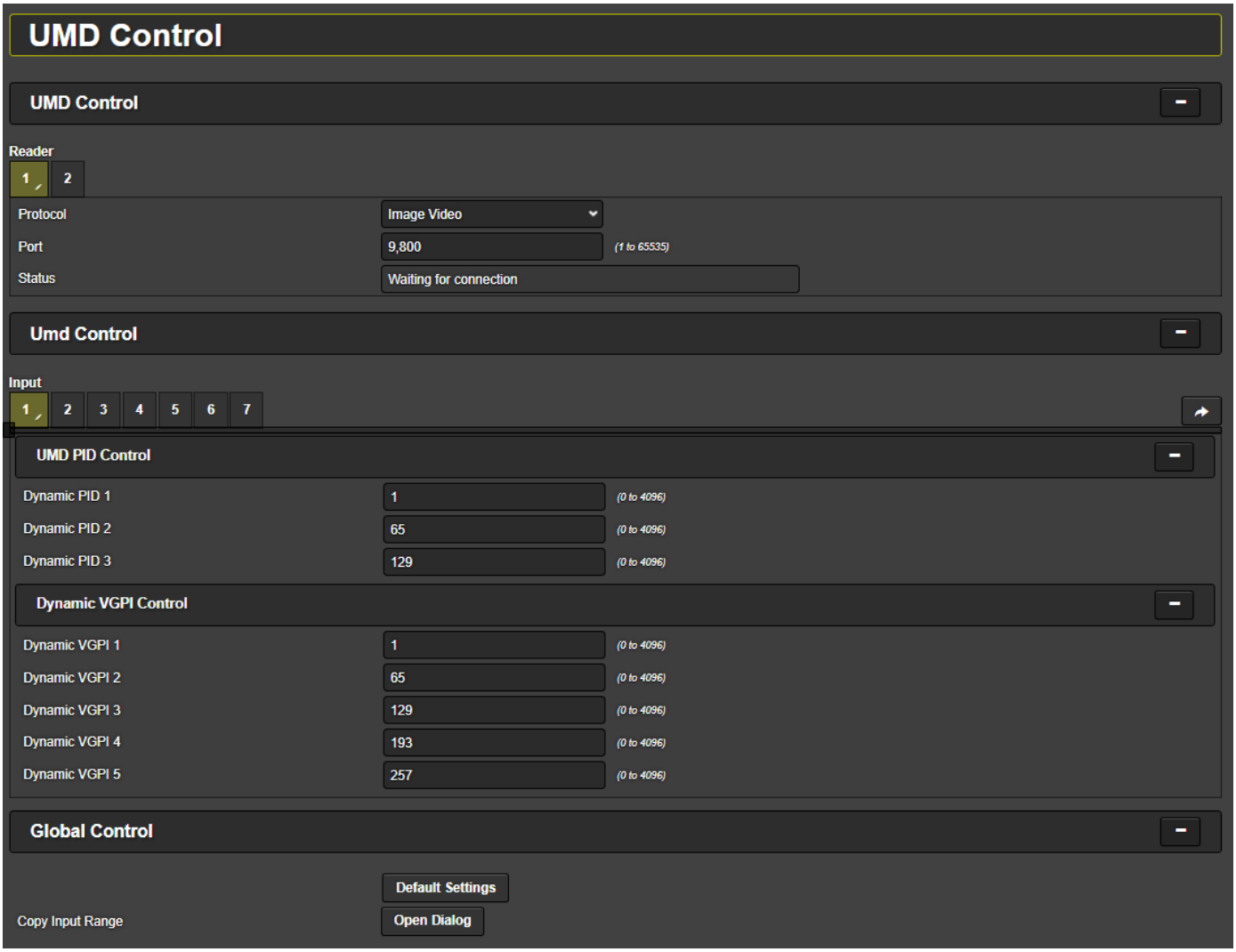


Figure 5-8: WebEASY® - UMD Control Tab

5.5.1. UMD Control (1)

For Readers 1 and 2

Protocol: This control is used to select the UMD protocol to use. Options include:

- Image Video
- TSL 3.1
- TSL 4.0
- TSL 5.0

Port (1 to 65535): This control is used to configure the port for the UMD protocol.

Status: This field displays the status of the connection for each reader. If protocol uses TCP connection, then status will show if the connection is active or not. If protocol uses UDP connection, then status shows the time when last packet was received.

5.5.2. UMD Control (2)

For Inputs 1- 64

UMD PID Control 1-3 (0 to 4095): These controls allow the user to set up 3 Dynamic PIDs for each input.

Default value sequence:

Every Dynamic PID 1 is same as the input number 1-64 for input 1 -64

Every Dynamic PID 2 is value of Dynamic PID 65 – 128 for input 1 -64

Every Dynamic PID 3 is value of Dynamic PID 129 – 192 for input 1-64

Below is default setting for input 1 & 11

Input	Dynamic PID	Value
1	Dynamic PID 1	1
	Dynamic PID 2	65
	Dynamic PID 3	129
11	Dynamic PID 1	11
	Dynamic PID 2	75
	Dynamic PID 3	139

Dynamic VGPI 1-5 (0 to 4095): These controls allow the user to set up 5 Dynamic VGPIs for each input.

Default value sequence:

Every Dynamic VGPI 1 is same as the input number 1-64 for input 1-64

Every Dynamic VGPI 2 is value of Dynamic VGPI 65 – 128 for input 1-64

Every Dynamic VGPI 3 is value of Dynamic VGPI 129 – 192 for input 1-64

Every Dynamic VGPI 4 is value of Dynamic VGPI 193 – 256 for input 1-64

Every Dynamic VGPI 5 is value of Dynamic VGPI 257 – 320 for input 1-64

Below is default setting for input 1 & 11

Input	Dynamic VGPI	Value
1	Dynamic VGPI 1	1
	Dynamic VGPI 2	65
	Dynamic VGPI 3	129
	Dynamic VGPI 4	193
	Dynamic VGPI 5	257
11	Dynamic VGPI 1	11
	Dynamic VGPI 2	75
	Dynamic VGPI 3	139
	Dynamic VGPI 4	203
	Dynamic VGPI 5	267

5.5.3. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Confirm to change UMD control settings to default values.
- **Cancel:** Cancel the selection (no changes will be made to the values).

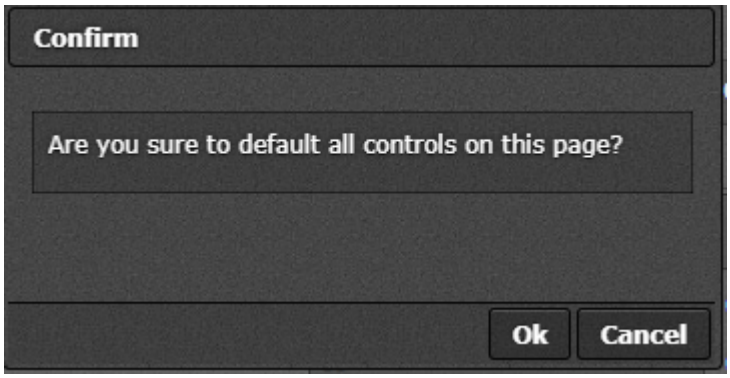


Figure 5-9: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

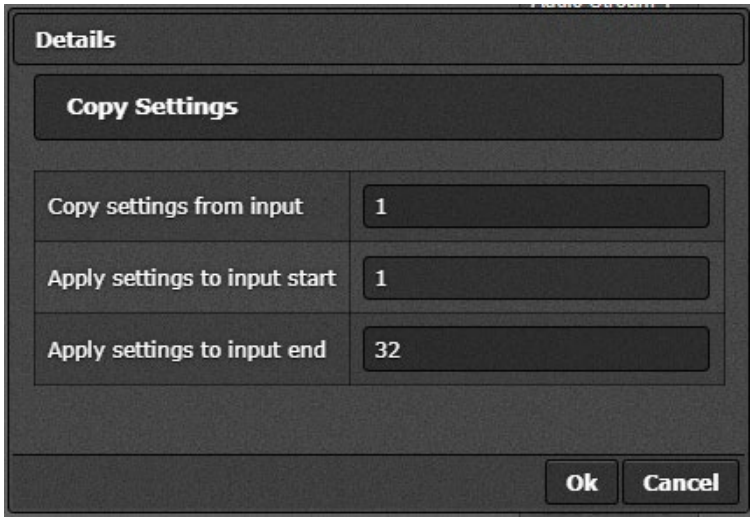


Figure 5-10: WebEASY® - Open Dialog

5.6. INPUT MONITOR

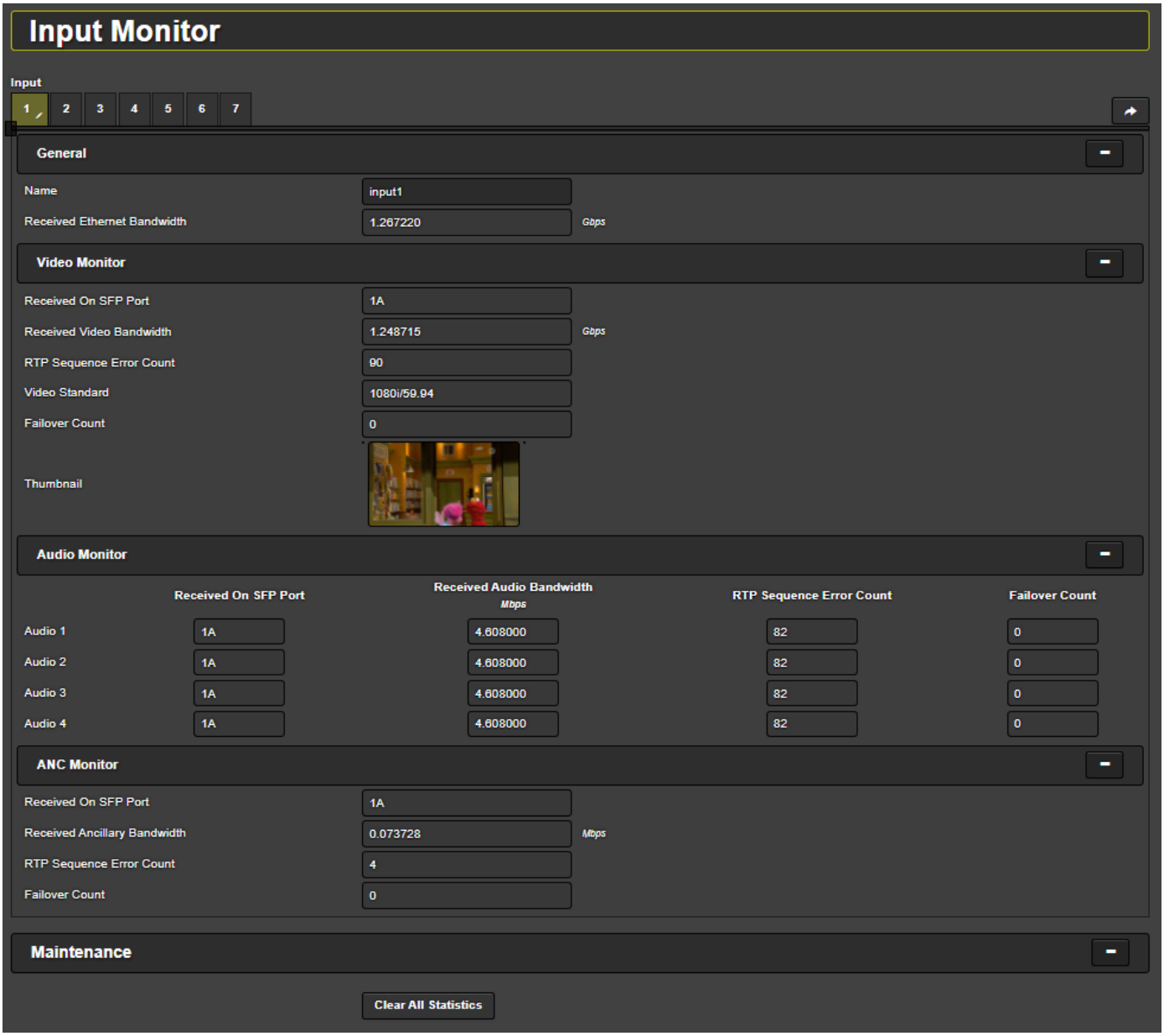


Figure 5-11: WebEASY® - Input Monitor Tab

5.6.1. General

For Inputs 1-64

Name: This field allows the user to enter an Input Name.

Received Ethernet Bandwidth: This field displays the total bandwidth received (in Gbps) for the input.

5.6.2. Video Monitor

For Inputs 1-64

Received On SFP Port: This field displays the QSFP port number for data received.

Received Video Bandwidth: This field displays the video data bandwidth received (in Gbps).

RTP Sequence Error Count: This field displays the packet drop or packet out-of-sequence for video data.

Video Standard: This field displays the video standard.

Failover Count: This field displays number of failover (main to backup streams) detected on the input since bootup.

Thumbnail: This field displays a thumbnail of the input.

5.6.3. Audio Monitor

For Inputs 1-64 and Audio 1-4

Received Audio Bandwidth: This field displays the audio bandwidth received (in Mbps)

Received Audio Bandwidth: This field displays bandwidth received for a particular audio channel.

RTP Sequence Error Count: This field displays the packet drop or packet out-of-sequence for video data.
Failover Count: This field displays number of failover detected on a particular audio channel.

5.6.4. ANC Monitor (order is reversed with Audio Monitor)

For Inputs 1-64

Received On SFP Port: This field displays the QSFP port on which ANC is received for that particular input.

Received Ancillary Bandwidth: This field displays the ancillary bandwidth received (in Mbps)

RTP Sequence Error Count: This field displays the packet drop or packet out-of-sequence for Ancillary data.

Failover Count: This field displays the number of failovers detected on ANC.

5.6.5. Maintenance

Clear All Statistics: This button clears all statistics for inputs 1- 64 for all fields in the Input Monitor Tab.

5.7. VIDEO INPUT CONTROL

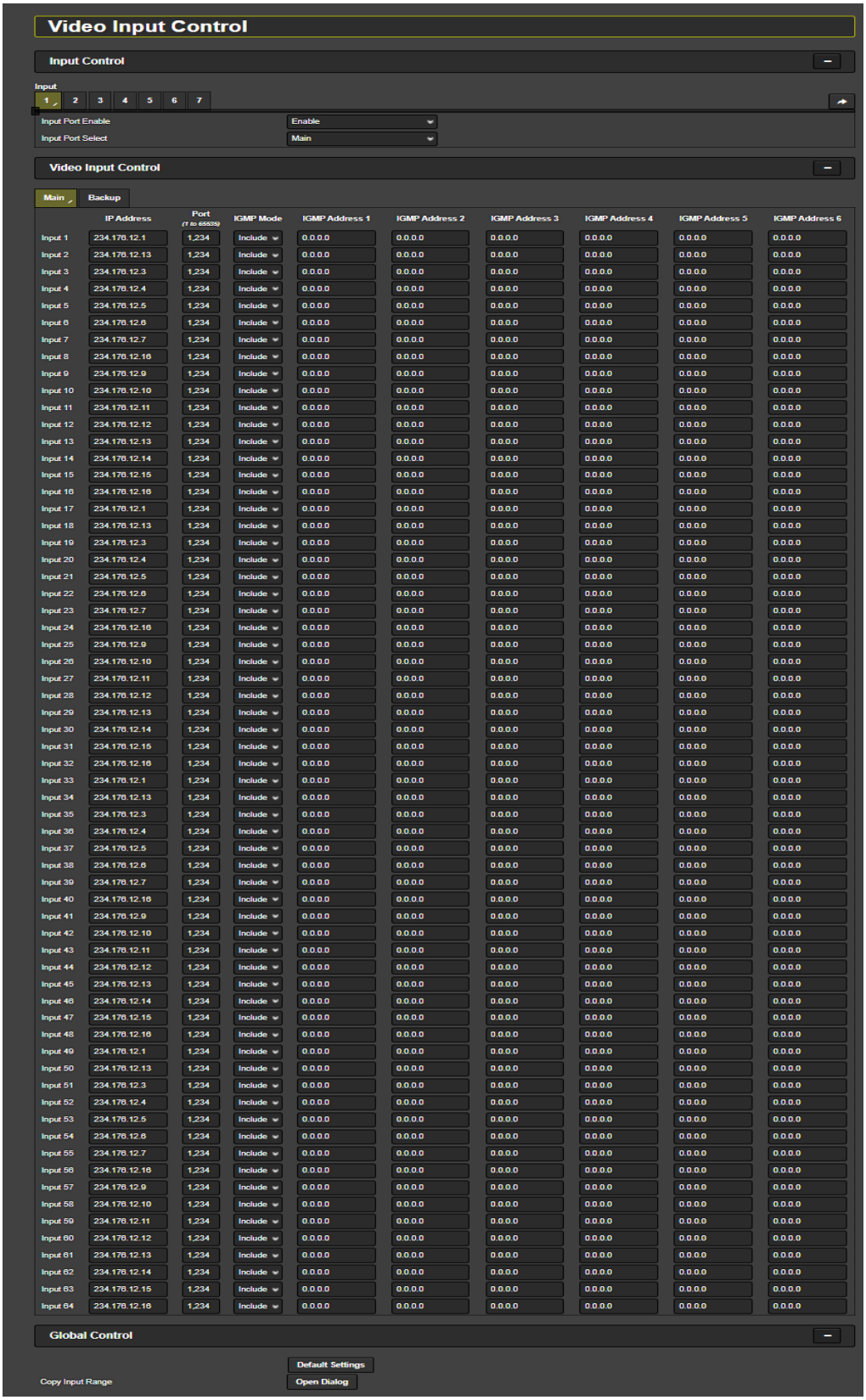


Figure 5-12: WebEASY® - Video Input Control Tab

5.7.1. Input Control

For Inputs 1-64

Input Port Enable: This control allows the user to enable or disable the selected input port.

Input Port Select: This control allows the user to select between Main, Backup or Auto for the selected input port.

5.7.2. Video Input Control

For Inputs 1-64 and for Main or Backup

IP Address: This field allows the user to set a multicast address for input video stream.

Port (1 to 65535): This field is used to configure the port for a video input.

IGMP Mode: This control gives the user the choice to Include or Exclude IGMP mode for a video input.

IGMP Address 1-6: These fields allow the user to set IGMP SSM addresses.

5.7.3. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Confirm to change alarm settings to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

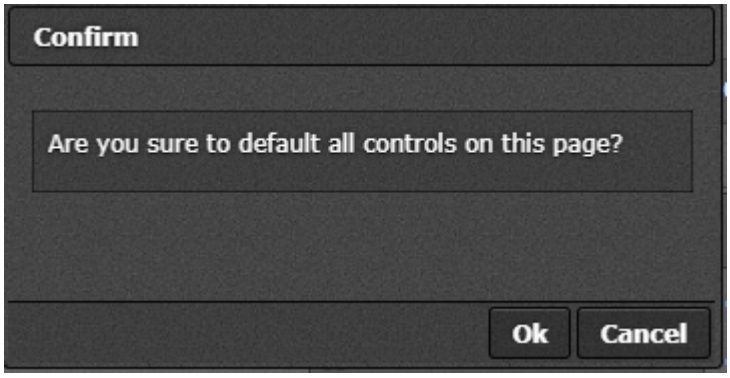


Figure 5-13: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

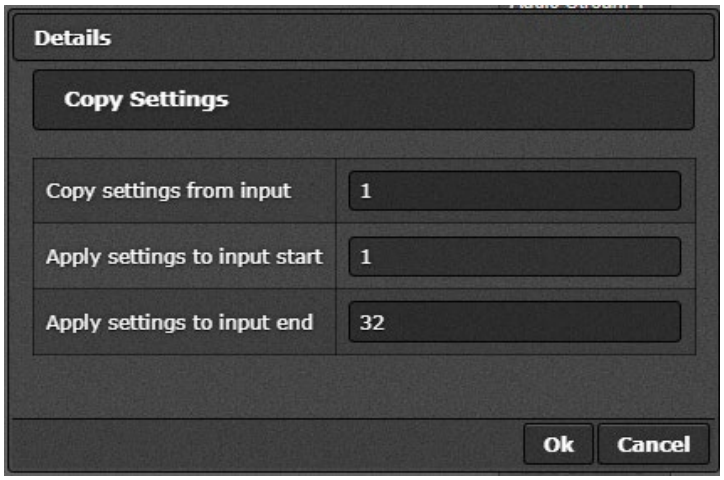


Figure 5-14: WebEASY® - Open Dialog

5.8. AUDIO INPUT CONTROL

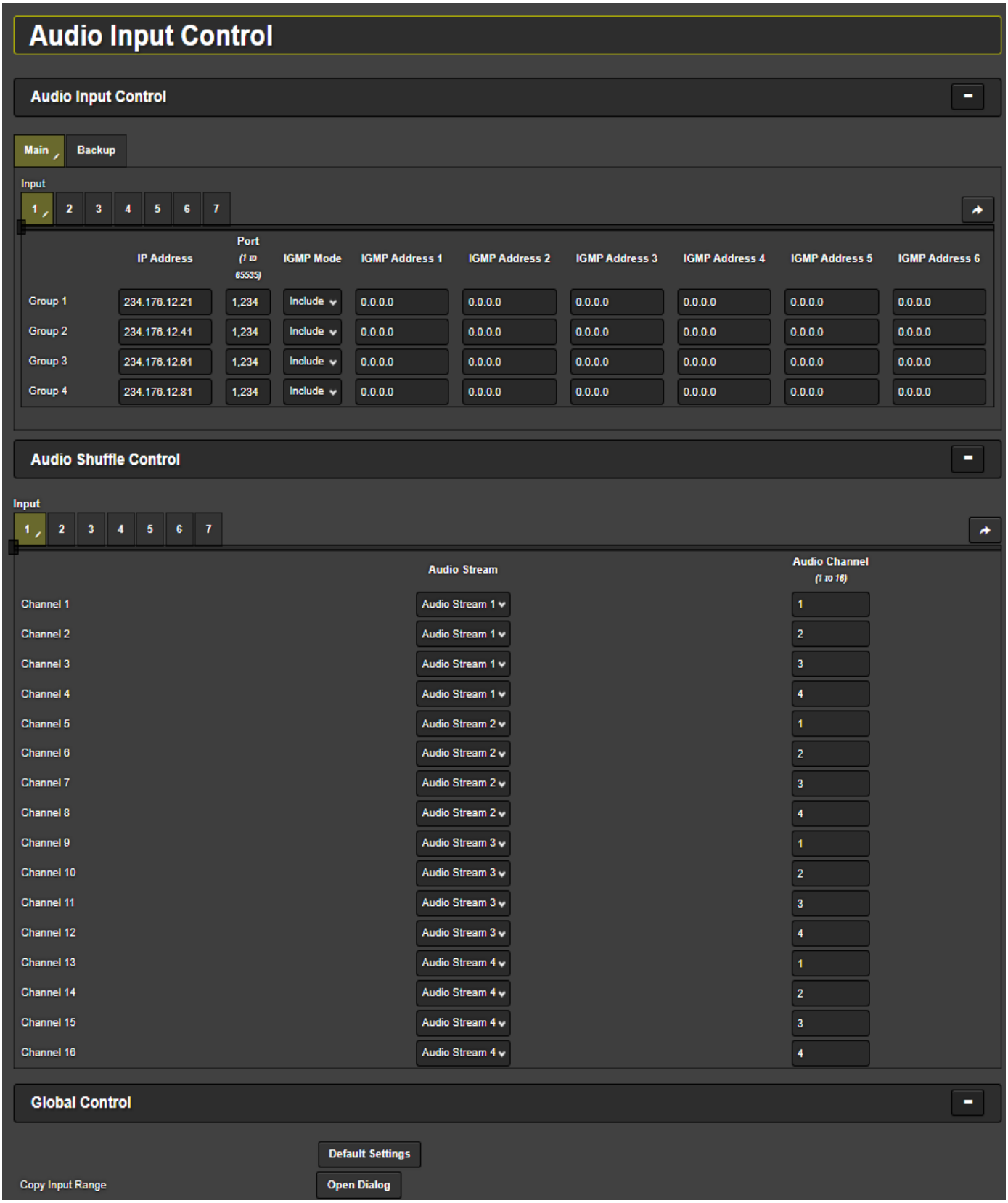


Figure 5-15: WebEASY® - Audio Input Control Tab

5.8.1. Audio Input Control

NOTE: hold and drag the black scroll bar to the right to view specific input or enter input number by clicking on the  icon located on the right side of the bar)

For Main or Backup, and for Group 1-4, and for Inputs 1--64

IP Address: This field allows the user to set an input multicast address for an audio input.

Port (1 to 65535): This field is used to configure the port for an audio input.

IGMP Mode: This control gives the user the choice to Include or Exclude IGMP mode for an audio input.

IGMP Address 1-6: These fields allow the user to set SSM IGMP IP addresses.

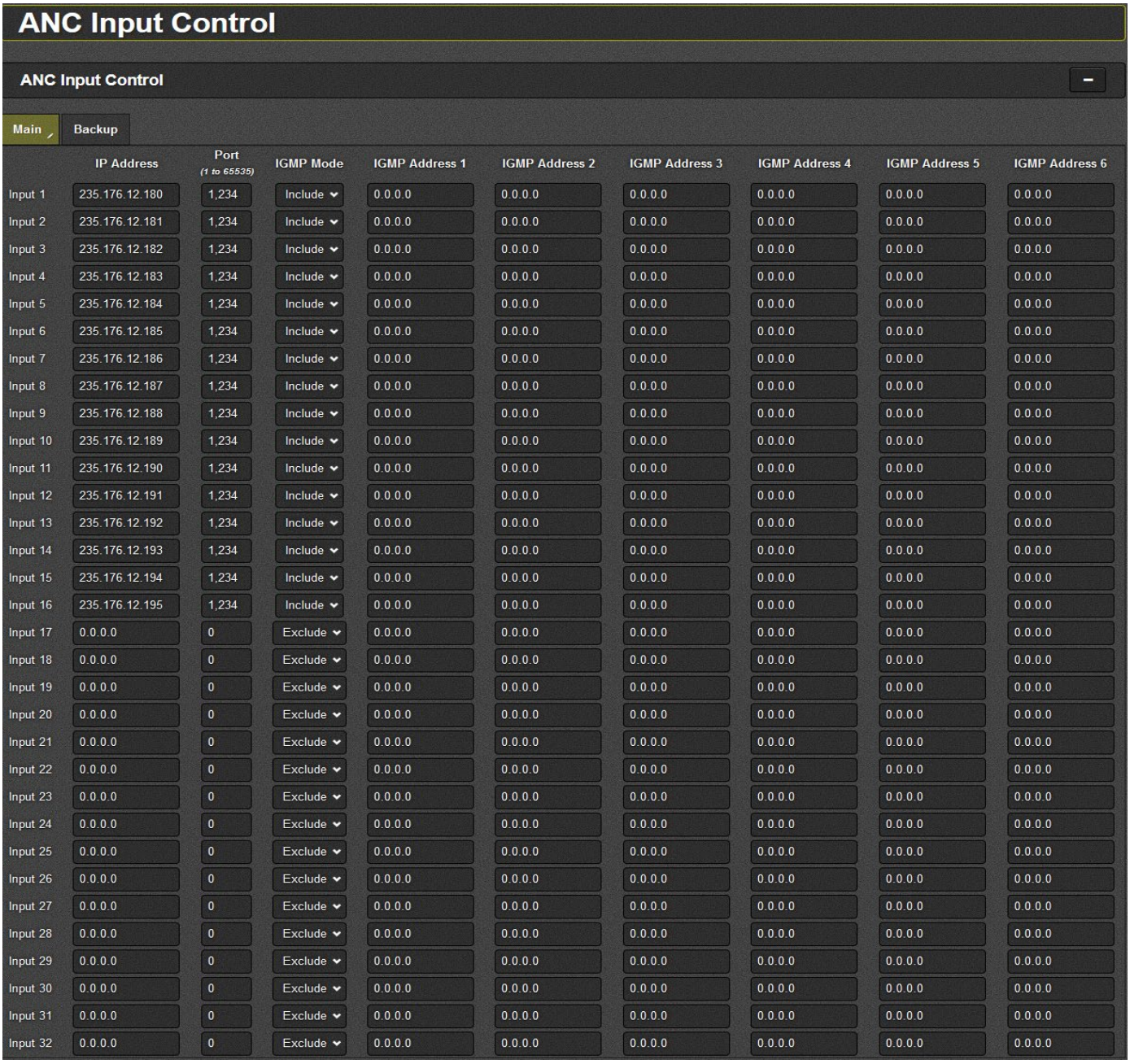
5.8.2. Audio Shuffle Control

For Inputs 1-64 and Channels 1-16

Audio Stream: This control allows the user to select which audio stream is assigned to each channel (Audio Streams 1-4) or to mute that channel (mute).

Audio Channel (1 to 16): This field allows the user to remap audio channels.

5.9. ANC INPUT CONTROL



	IP Address	Port (1 to 65535)	IGMP Mode	IGMP Address 1	IGMP Address 2	IGMP Address 3	IGMP Address 4	IGMP Address 5	IGMP Address 6
Input 1	235.176.12.180	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 2	235.176.12.181	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 3	235.176.12.182	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 4	235.176.12.183	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 5	235.176.12.184	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 6	235.176.12.185	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 7	235.176.12.186	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 8	235.176.12.187	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 9	235.176.12.188	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 10	235.176.12.189	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 11	235.176.12.190	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 12	235.176.12.191	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 13	235.176.12.192	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 14	235.176.12.193	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 15	235.176.12.194	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 16	235.176.12.195	1,234	Include	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 17	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 18	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 19	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 20	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 21	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 22	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 23	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 24	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 25	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 26	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 27	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 28	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 29	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 30	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 31	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Input 32	0.0.0.0	0	Exclude	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0

Figure 5-16: WebEASY® - ANC Input Control Tab

For Main or Backup ANC Inputs 1- 64

IP Address: This field allows the user to set a muticast address for an ANC input.

Port (1 to 65535): This field is used to configure the port for an ANC input.

IGMP Mode: This control gives the user the choice to Include or Exclude IGMP for an ANC input.

IGMP Address 1-6: These fields allow the user to set SSM IGMP addresses.

5.10. INPUT PROPERTIES CONTROL

NOTE: Some control might be hidden. To enable the feature additional montionoring license is required.

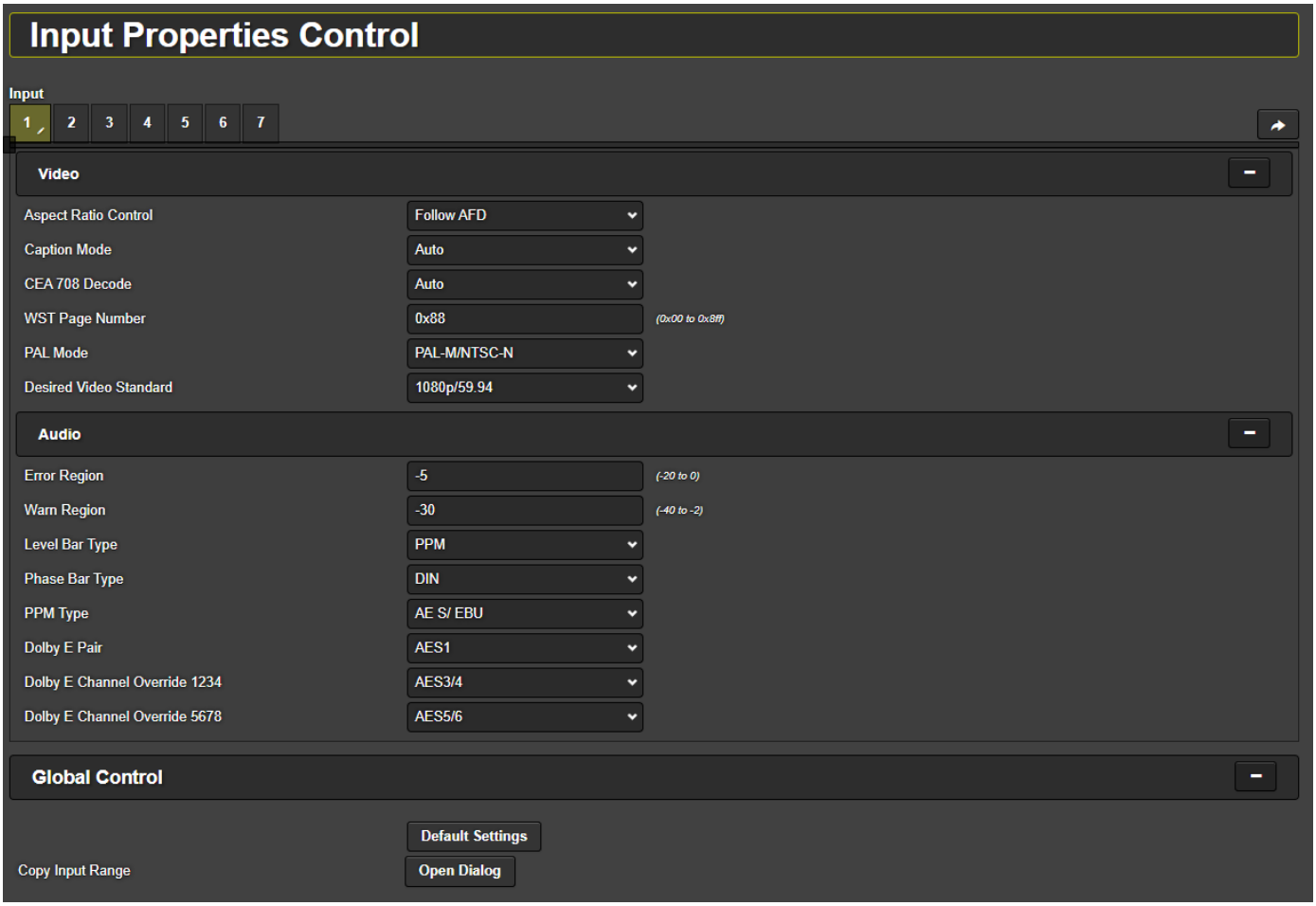


Figure 5-17: WebEASY® - Input Properties Control Tab

5.10.1. Video

For Inputs 1-64

Aspect Ratio Control: This control allows the user to enable input windows to scale their source to correct aspect ratio based on the following standards:

- Disable (no aspect ratio)
- Follow Input
- Follow WSS ITV
- Follow WSS ITUP
- Follow Video Index
- Follow AFD

Caption Mode:

- Auto (selects the first available captioning service)
- WST
- CEA-708
- Off

CEA 708 Decode:

- Auto (selects the first available captioning service)
- CC1-4
- Service 1-16

WST Page Number: Enter WST page number (range 0x00 to 0x8ff).

Desired Video Standard: This controls allows the user to choose a video standard that they expect for a particular video input. If the standard is different, video standard mismatch fault will be triggered.

- 525i/59.94
- 625i/50
- 720p/59.94
- 720p/60
- 720p/50
- 1080i/59.94
- 1080i/60
- 1080i/50
- 1080p/59.94
- 1080p/60
- 1080p/50
- 1080p/30
- 1080p/29.97
- 1080p/25

5.10.2. Audio

Error Region (-20 to 0): This control allows user to select error region for audio bars. Error region is red coloured area of audio bars.
Warn Region (-40 to -2): This control allows user to select warn region for audio bars. Warn region is yellow coloured area of audio bars.

Level Bar Type:

- PPM+ VU
- PPM

Phase Bar Type: Allows the user to select between Stereo or DIN

PPM Type:

- AES/ EBU
- BBC
- Nordic

Dolby E Pair:

- Disable
- AES1-8

Dolby E Channel Override 1234:

- Disable
- AES1/2
- AES3/4
- AES5/6
- AES7/8

Dolby E Channel Override 5678:

- Disable
- AES1/2
- AES3/4
- AES5/6
- AES7/8

5.10.3. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Confirm to change input properties to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

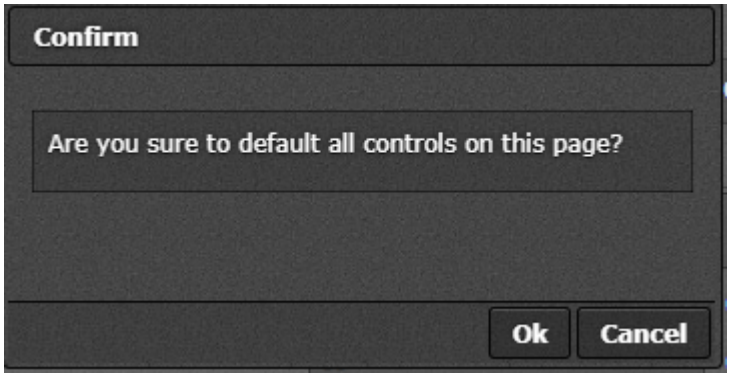


Figure 5-18: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

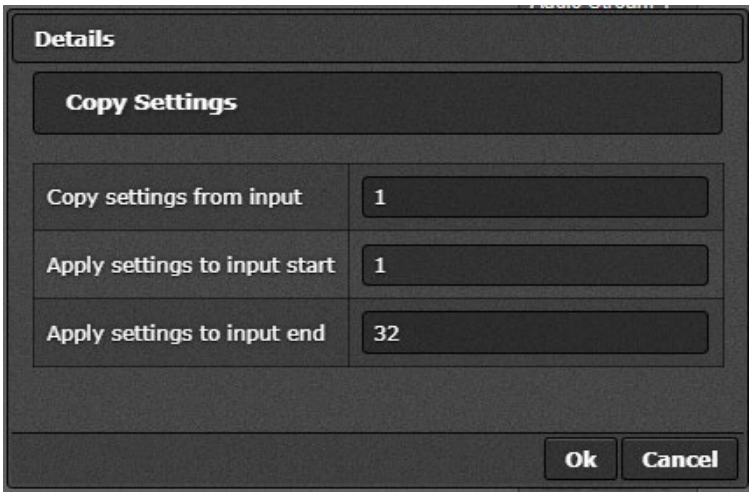


Figure 5-19: WebEASY® - Open Dialog

5.11. SYSTEM NOTIFY

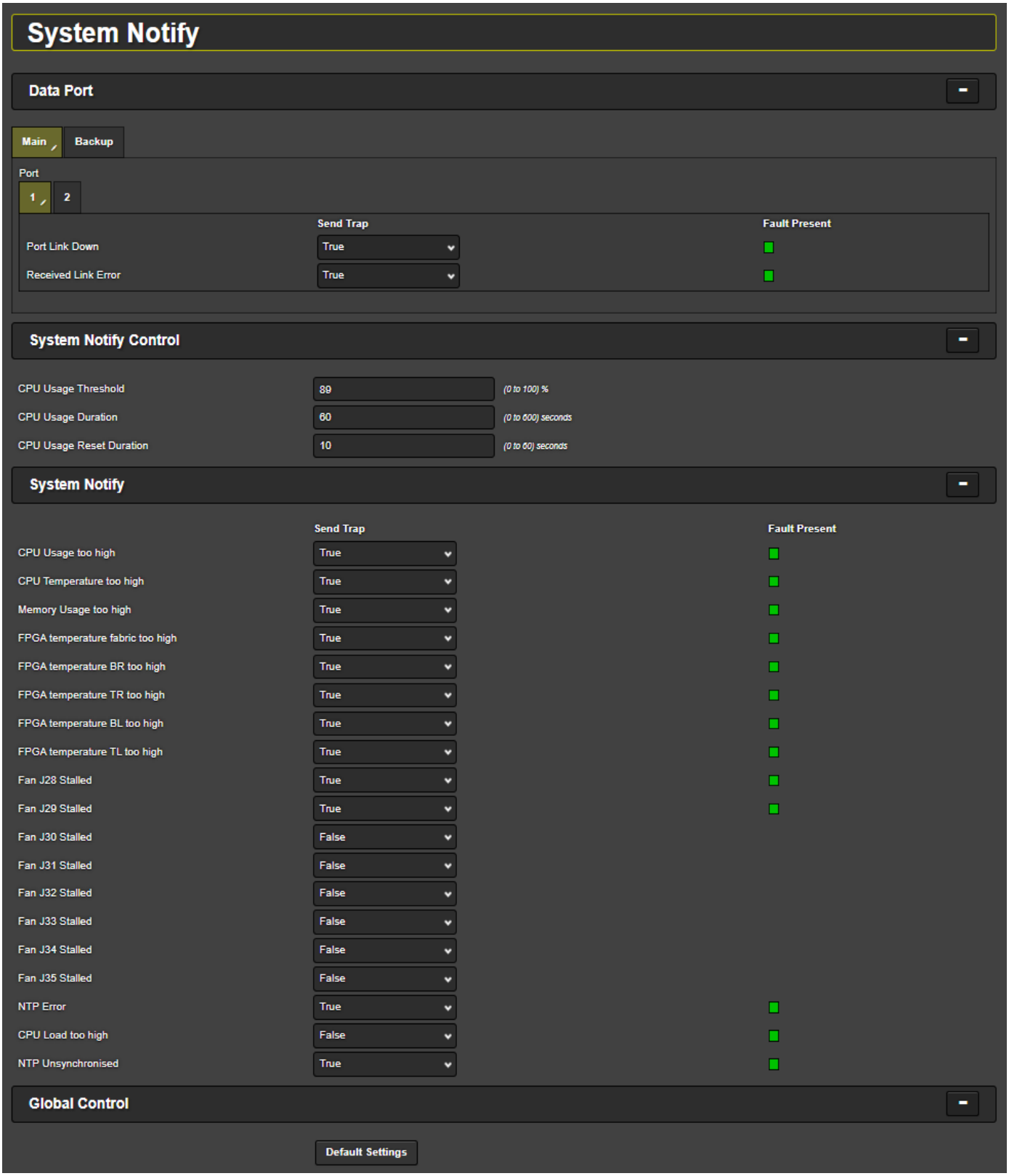


Figure 5-20: WebEASY® - System Notify Tab

5.11.1. Data Port

For Main and Backup Ports

Port Link Down: This control is used to send a trap, when set to True, if the port link is down. System Fault Present indicates the state of error condition. Green indicates no fault while red indicates a fault.

Received Link Error: This control is used to send a trap, when set to True, if CPU temperature is too High. System Fault Present indicates the state of error condition. Green indicates no fault while red indicates a fault.

5.11.2. System Notify Control

CPU Usage Threshold(0 to 100%): Set the maximum CPU usage threshold before sending a fault notification.

CPU Usage Duration(0 to 600)Seconds: Set duration for CPU usage to exceed threshold before a fault notification is sent.

CPU Usage Reset Duration(0 to 60)Seconds: Sets duration for CPU usage to fall below usage threshold before usage duration timer is reset.

5.11.3. System Notify

Send Trap: System Notify allows for fault monitoring and traps to be set to True or False

- CPU Usage too high
- CPU Temprature too high
- Memory Usage too high
- FPGA temperature fabric too high
- FPGA temperature BR too high
- FPGA temperature TR too high
- FPGA temperature BL too high
- FPGA temperature TL too high
- Fan (J28 to J35) Stalled
- NTP Error
- CPU Load too high
- NTP Unsynchronised

5.11.4. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Confirm to change alarm settings to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

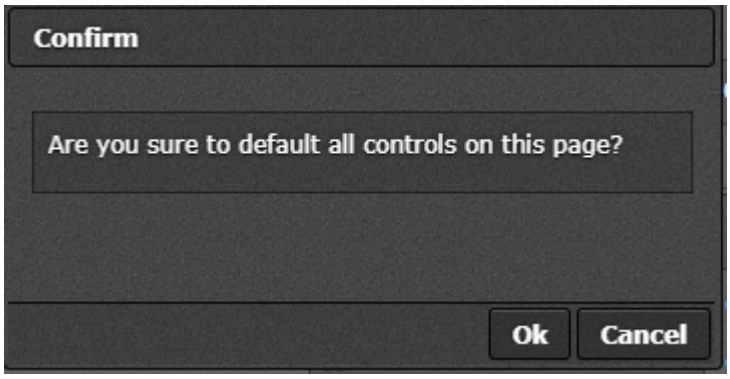


Figure 5-21: WebEASY® - Default Settings

5.12. VIDEO NOTIFY

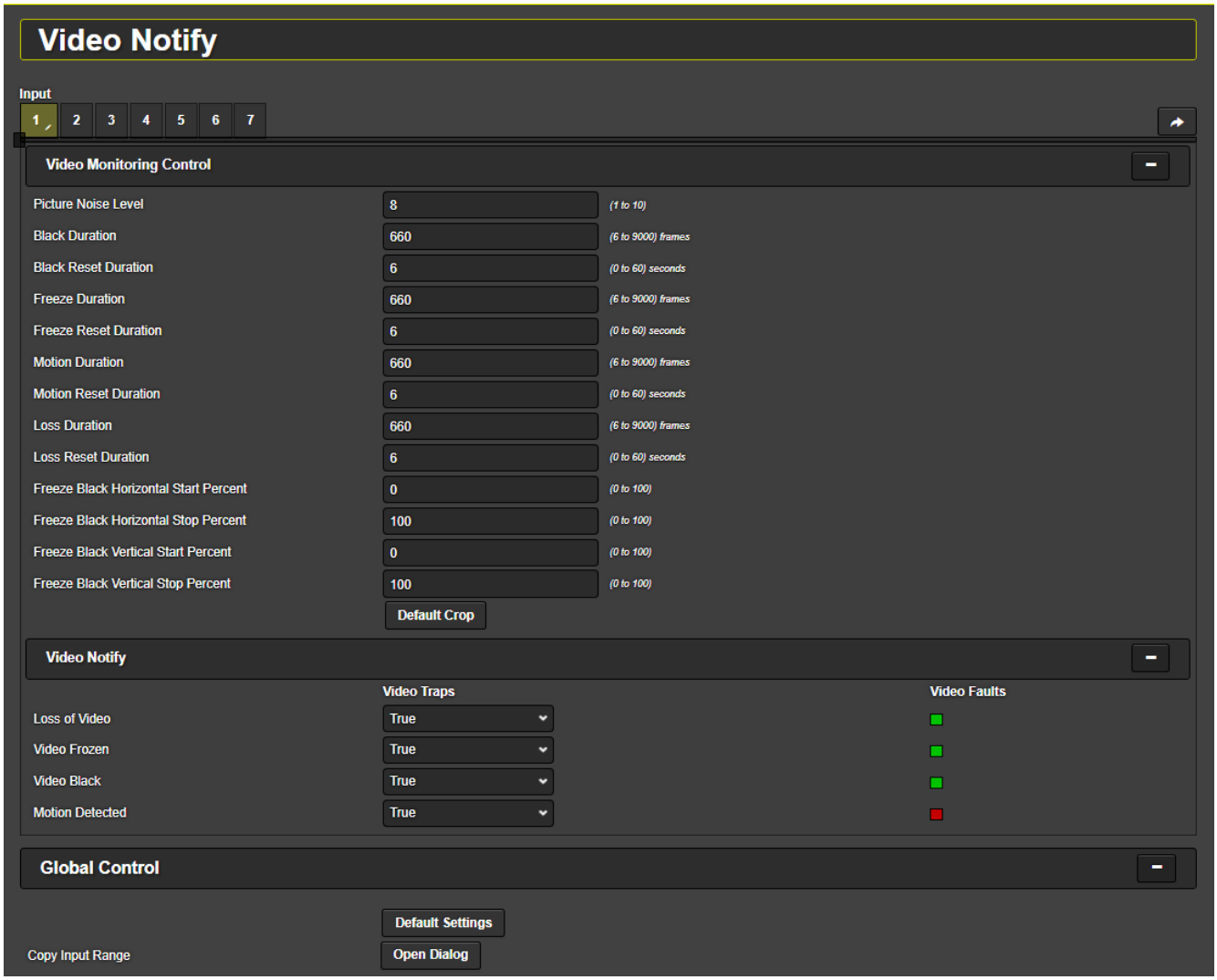


Figure 5-22: WebEASY® - Video Notify Tab

NOTE: Some control might be hidden. To enable the feature additional montionoring license is required.

5.12.1. Video Monitoring Control:

For upto 64 input streams, video configuration thresholds used for setting traps and fault monitoring in the Video Notify section.

Picture Noise Level (1 to 10): This control sets the amount for noise level acceptable on the incoming video before triggering a fault. This value should be set to the correct ambient noise level.

Black Duration (6 to 9000 frames): This control is used to set the number of black frames to signal a fault.

Black Reset Duration (0 to 60 seconds): This control sets the amount of time after the non-black video becomes present for the fault to go away.

Freeze Duration (6 to 9000 frames): This control sets the number of frames for a freeze motion fault to appear.

Freeze Reset Duration (0 to 60 seconds): This control sets the amount of time after the freeze motion becomes present for the fault to go away.

Motion Duration (6 to 9000 frames): This control is used to set the number of black frames to signal a fault.

Motion Reset Duration (0 to 60 seconds): This control sets the amount of time after the video becomes frozen for the fault to go away.

Loss Duration (0 to 3600 frames): This control sets the number of frames for a video loss duration fault to appear.

Loss Reset Duration (0 to 60 seconds): This control sets the amount of time after video becomes present for the fault to go away.

Freeze Black Horizontal Start Percent (0 to 100): This control is used to set the number of black horizontal start for freeze motion fault to appear.

Freeze Black Horizontal Stop Percent (0 to 100): This control is used to set the number of black horizontal stop for freeze motion fault to appear.

Freeze Black Vertical Start Percent (0 to 100): This control is used to set the number of black vertical start for freeze motion fault to appear.

Freeze Black Vertical Stop Percent (0 to 100): This control is used to set the number of black horizontal stop for freeze motion fault to appear.

Default Crop: This button is used to reset freeze black start/stop to default values.

5.12.2. Video Notify

Video Notify allows for fault monitoring and allow traps enable/disable on video faults, previously configured in the sections above on the 64 input streams.

Video Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Video Faults: This field displays green signal when there is no fault on the audio and red for a fault indication.

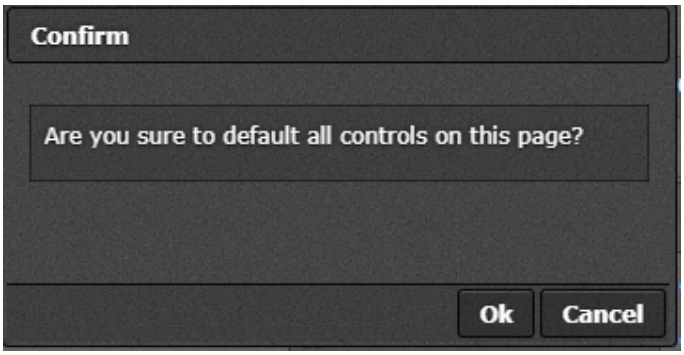


Figure 5-23: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

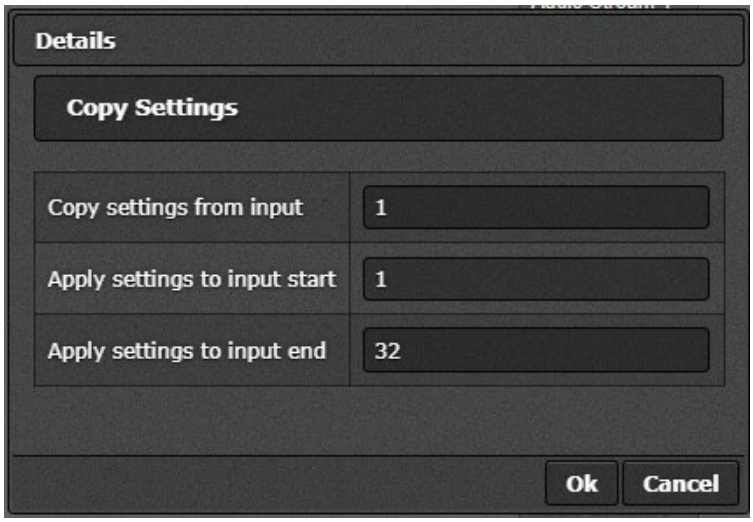


Figure 5-24: WebEASY® - Open Dialog

5.13. AUDIO NOTIFY

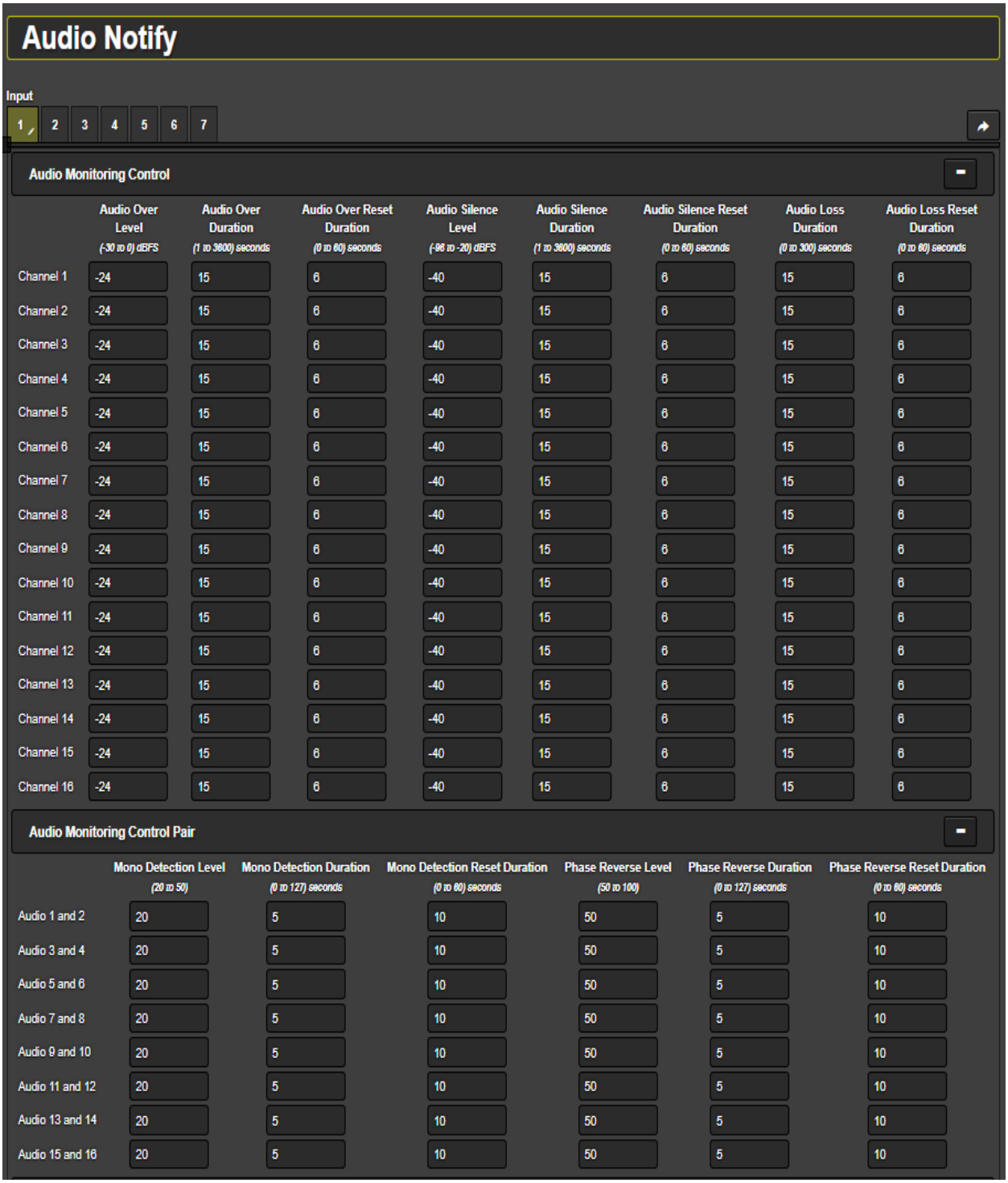


Figure 5-25: WebEASY® - Audio Notify Tab (1 of 2)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

5.13.1. Audio Monitoring Control

For Inputs 1-64

Audio Over Level (-30 to 0 dBFS): The control sets the threshold limit for the audio Over level (relative loudness).

Audio Over Duration (1 to 3600 seconds): This control sets the duration for the audio over level to trigger a fault condition.

Audio Over Reset Duration (0 to 60 seconds): This control sets the amount of time after audio level is below threshold for the fault to go away.

Audio Silence Level (-96 to -20 dBFS): This control sets the threshold limit for the audio silence level.

Audio Silence Duration (1 to 300 seconds): This control sets the duration for the audio silence level to trigger a fault.

Audio Silence Reset Duration (0 to 60 seconds): This control sets the amount of time after audio silence level is above threshold for the fault to go away.

Audio Loss Duration (0 to 60 seconds): This control sets the audio loss duration to trigger a fault.

Audio Loss Reset Duration (0 to 60 seconds): This control sets the amount of time after the return from an audio loss for a fault to go away.

5.13.2. Audio Monitoring Control –pair

For Inputs 1-64 audio pair 1 and2 … Audio 15 and 16

Mono Detection Level (20 to50): This control sets Mono detection level for audio recorder for each individual track recorded.

Mono Detection Duration(0 to127 seconds): This control sets Mono detection duration for audio recorder for each individual track recorded.

Mono Detection Reset Duration (0 to 60 seconds): This control sets Mono detection reset duration for audio recorder for each individual track recorded.

Phase Reverse Level (50 to100): This control shows phase reverse level when the input pins were reversed.

Phase Reverse Duration (0to127)seconds: This control shows phase reverse duration when the input pins were reversed.

Phase Reverse Reset Duration(0 to 60 seconds): This control shows phase reverse reset duration level when the input pins were reversed.

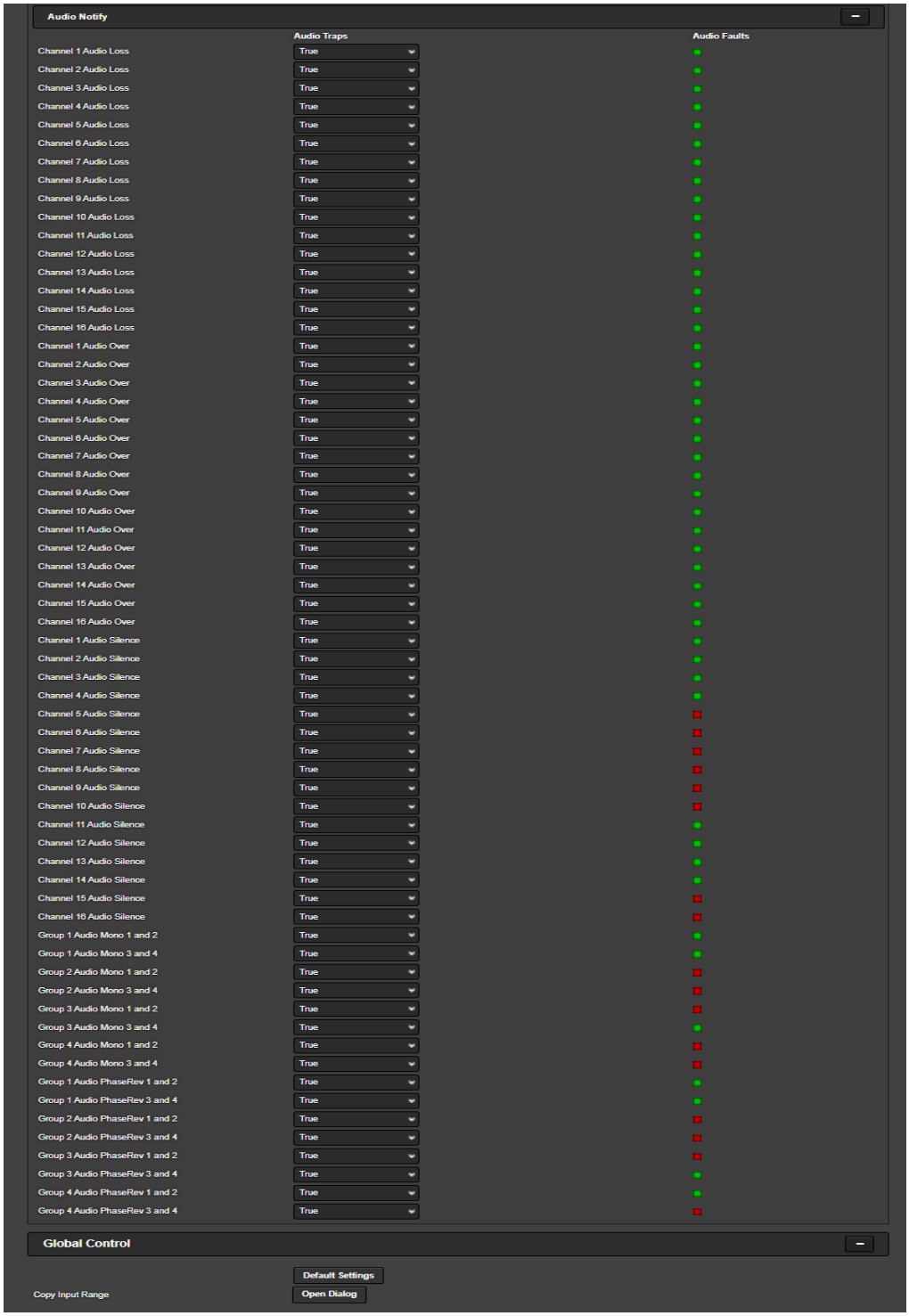


Figure 5-26: WebEASY® - Audio Notify Tab (2 of 2)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

5.13.3. Audio Notify

Audio Notify allows for fault monitoring and traps enable/disable for audio faults, previously configured in the sections above on the 64 input streams.

Audio Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.
Audio Faults: This field will display green when there is no fault on the audio and red for a fault indication.

5.13.4. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Confirm to change alarm settings to default values.
- **Cancel:** Cancel the selection (no changes will be made to the values).

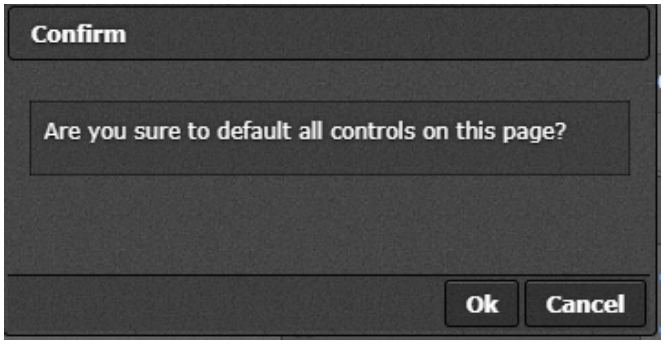


Figure 5-27: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

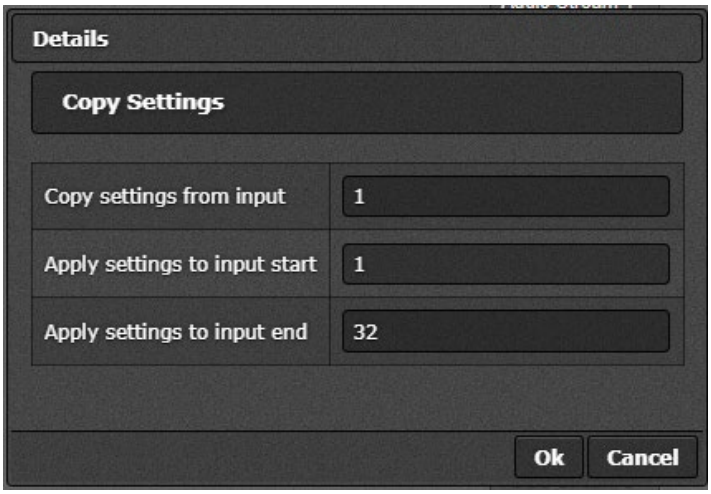


Figure 5-28: WebEASY® - Open Dialog

5.14. SYSTEM MONITOR

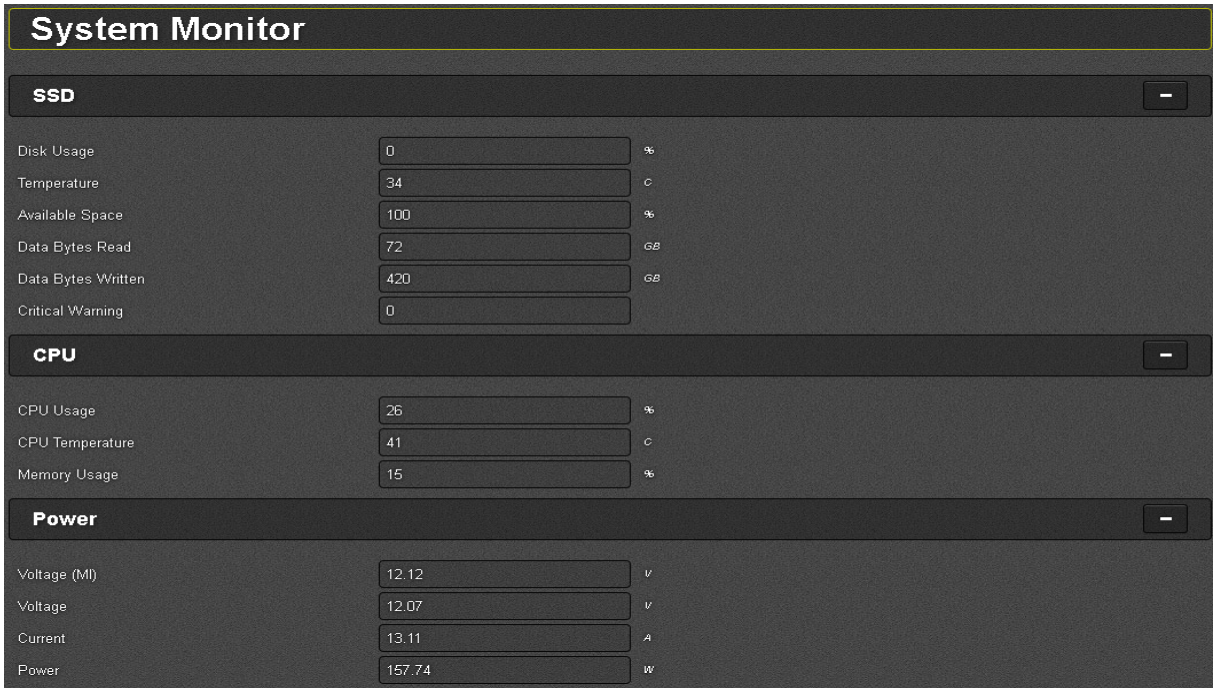


Figure 5-27: WebEASY® - System Monitor Tab (1 of 2)

5.14.1. SSD

Disk Usage: This parameter displays the disk usage (in percentage).

Temperature: This parameter displays the temperature (in centigrade).

Available Space: This parameter displays the available disk space (in percentage).

Data Bytes Read: This parameter displays the number of data read (in GB).

Data Bytes Written: This parameter displays the number of data written (in GB).

Critical Warning: This parameter displays the number of occurrences a critical warning has occurred.

5.14.2. CPU

CPU Usage: This parameter displays the disk usage (in percentage).

CPU Temperature: This parameter displays the temperature (in centigrade).

Memory Usage: This parameter displays the memory usage (in percentage).

CPU Load: This parameter displays the CPU load value (in percentage)

5.14.3. Power

Voltage (MI): This parameter displays the voltage prior to power circuit on Ev670–X30–HW-V2 (in Volts).

Voltage: This parameter displays the voltage after power circuit on Ev670–X30–HW-V2 (in Volts).

Current: This parameter displays the current (in Amps).

Power: This parameter displays the power (in Watts).

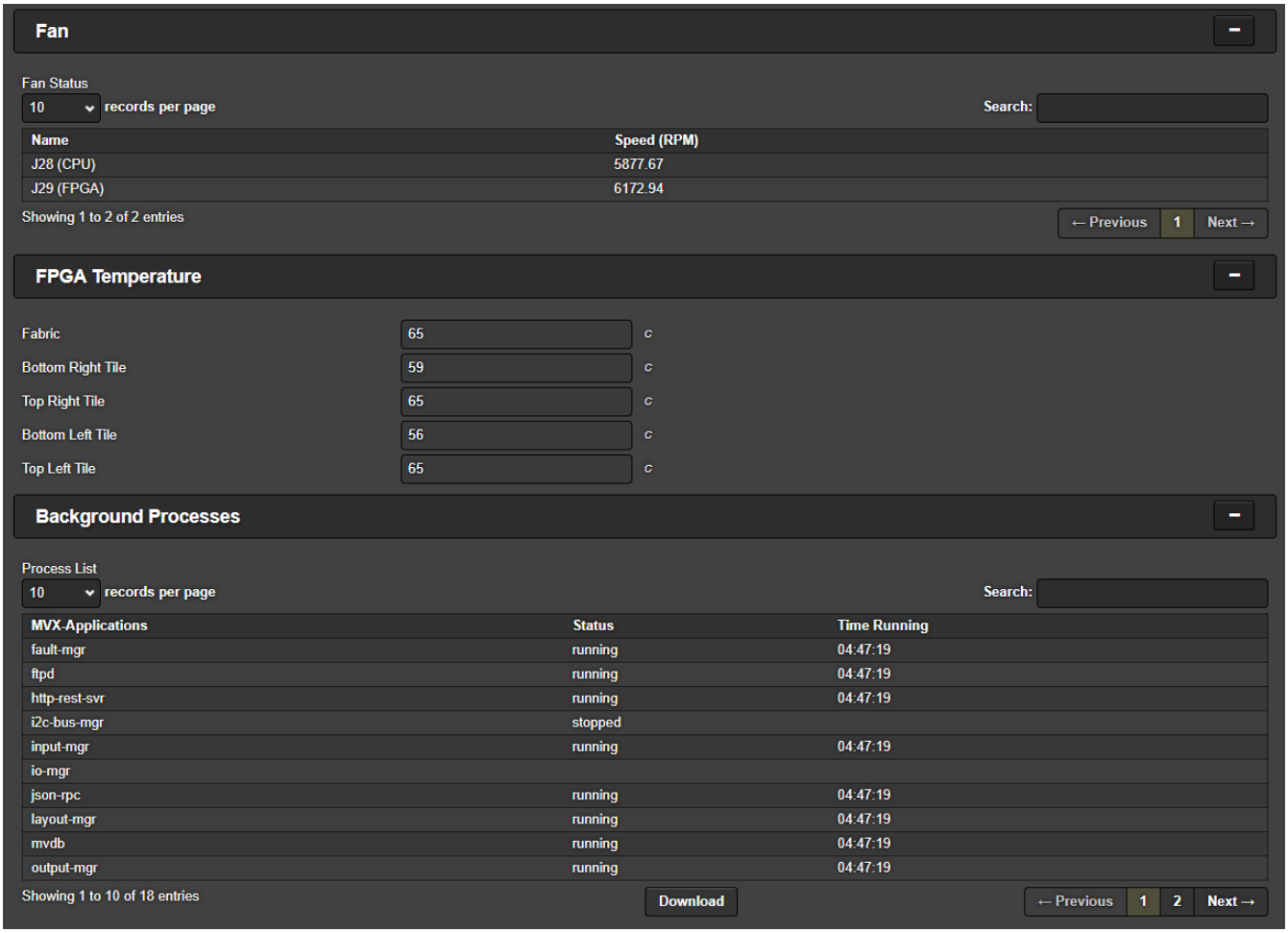


Figure 5-28: WebEASY® - System Monitor Tab (2 of 2)

5.14.4. Fan

J28-29: These parameters display the revolutions per minute for each of the fans.

5.14.5. FPGA Temperature

Fabric: This parameter displays the temperature on the FPGA Fabric.

Bottom Right Tile: This parameter displays the temperature on the bottom right tile.

Top Right Tile: This parameter displays the temperature on the top right tile.

Bottom Left Tile: This parameter displays the temperature on the bottom left tile.

Top Left Tile: This parameter displays the temperature on the top left tile.

5.14.6. Background Process

This list (adjustable records per page) displays to the background processnames, status, and Time Running. The user can download this list as a CSV file, and can also search for a specific process using the search bar on the right hand side.

5.15. OUTPUT CONTROL

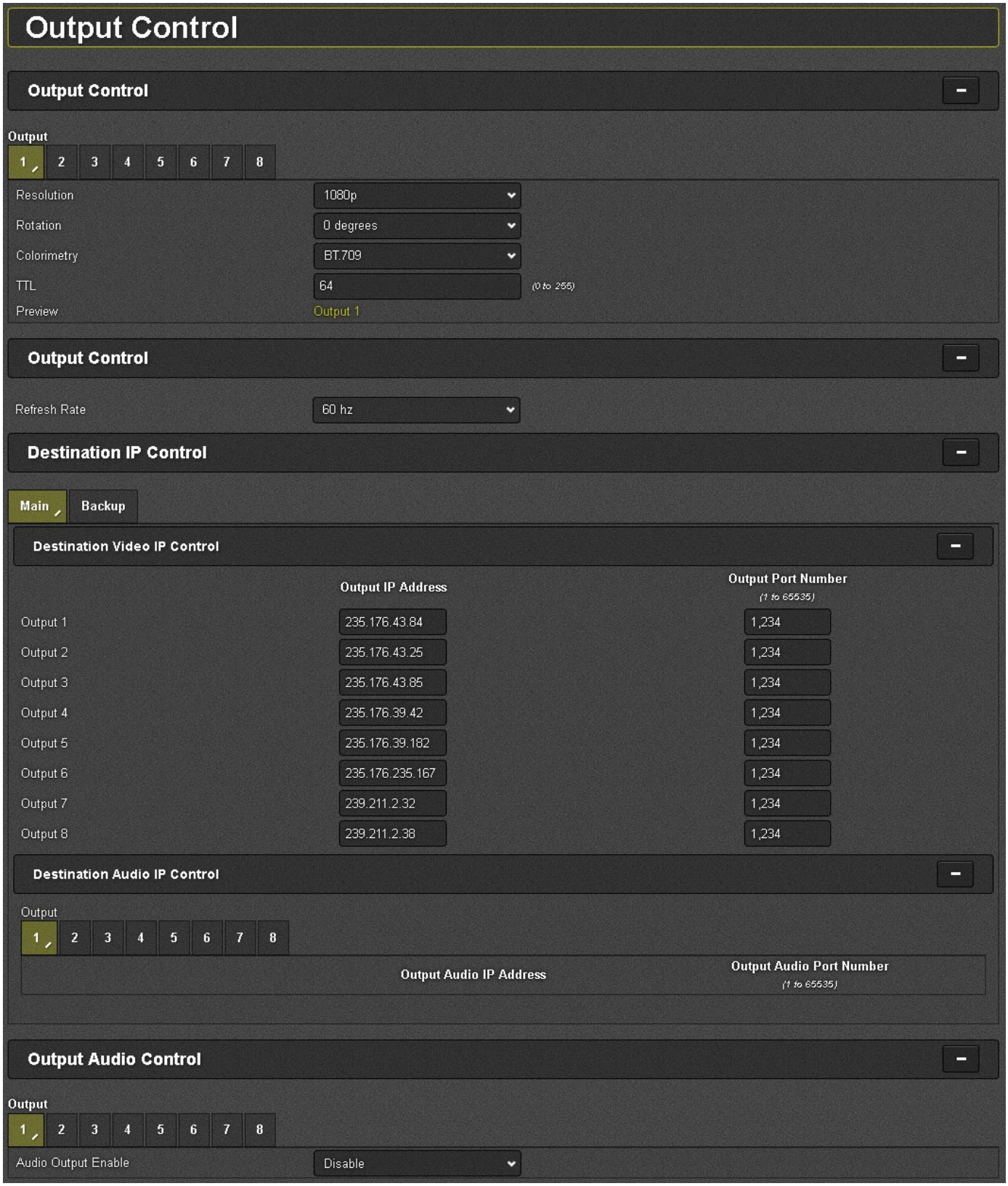


Figure 5-29: WebEASY® - Output Control Tab

5.15.1. Output Control

For Output 1-8

Output Resolution: This control allows the user to select the required output resolution:

- 720p
- 1080i
- 1080p
- 2160p (maximum 2 displays)

Rotation: This control allows the video output to be rotated.

- 0
- 90
- 270

Colorimetry: This control llows user to select Colorimetry.

- BT.709
- BT.2020
- BT.2100 HLG
- BT.2100 PQ

TTL: This control allows user to set amount of time for output stream between(0 to 255)

Preview: Displays capture of a particular output of card.

5.15.2. Output Control

Refresh Rate: This control allows user to select Refresh rate.

- 50 Hz
- 59.94 Hz
- 60 Hz

5.15.3. Destination IP Control

For Output 1-8

5.15.4. Destination Video IP Control

Output IP Address: This field allows the user to set an output multicast address for each multiviewer output licensed.
Output Port Number (0 to 65535): This field is used to configure the port for each output licensed.

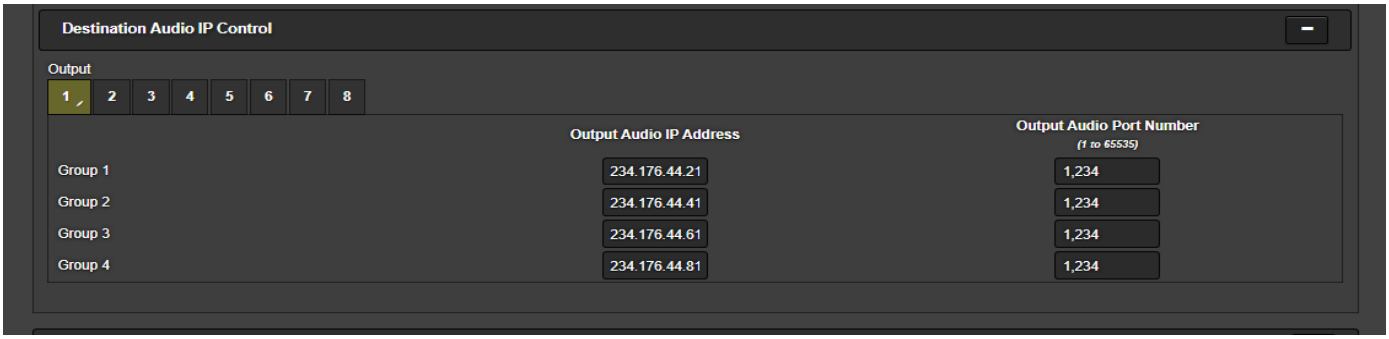


Figure 5-30: WebEASY® - Output Control Tab

5.15.5. Output Audio Control

Audio Output Enable: This control is used to enable/disable audio output.

5.16. ADVANCED NOTIFY CONTROL

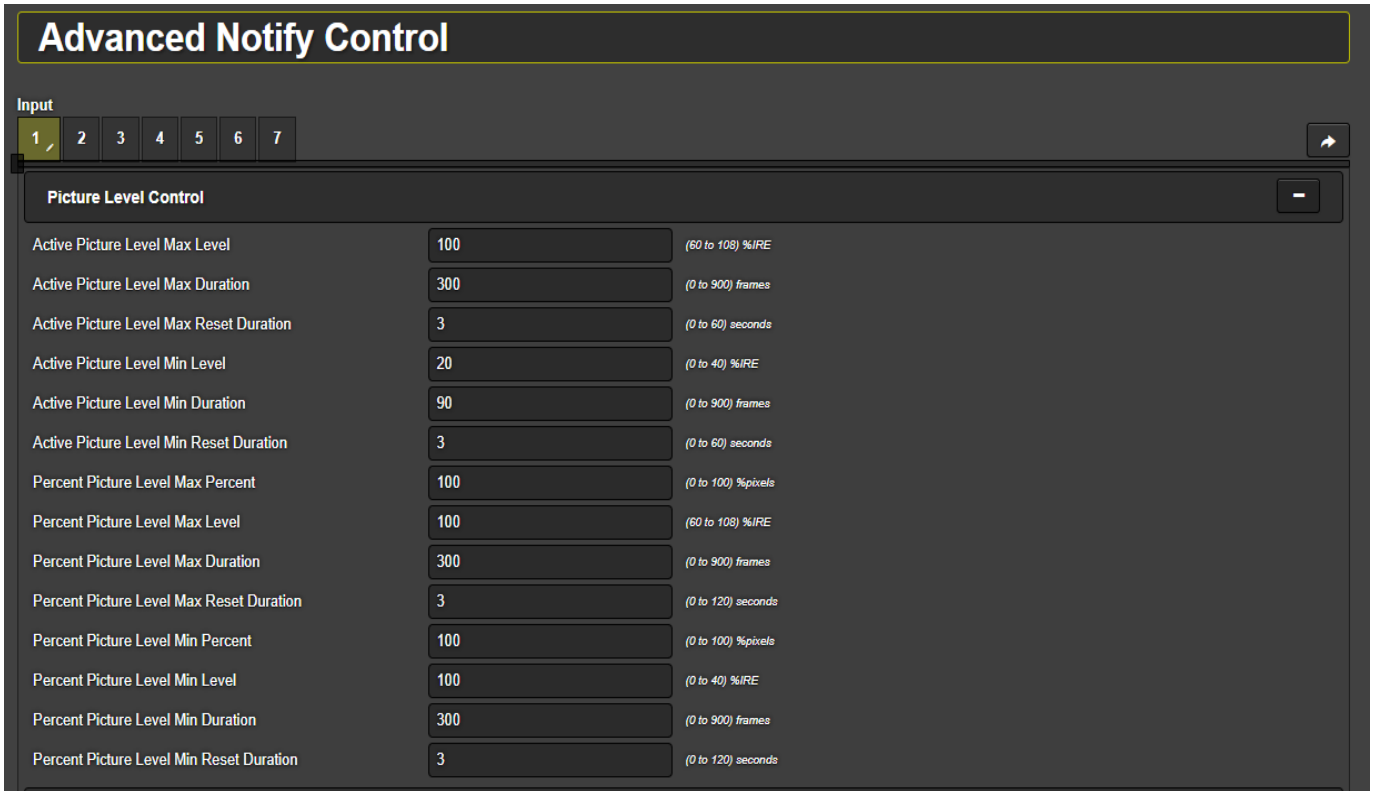


Figure 5-31: WebEASY® - Advanced Notify Control (Part 1 of 6)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

5.16.1. Picture Level Control

For the 64 input streams

Active Picture Level Max Level (60 to 108 %IRE): This control sets the upper threshold for maximum active picture level for a fault condition.

Active Picture Level Max Duration (0 to 900 frames): This control sets the number of frames for above the set threshold for max APL level for a fault to trigger.

Active Picture Level Reset Duration (0 to 60 seconds): This control sets the amount of time for the APL level to be below the upper threshold limit for the fault to go away.

Active Picture Level Min Level (0 to 40 %IRE): This control sets the lower threshold for a minimum active picture level for a fault condition.

Active Picture Level Min Duration (0 to 900 frames): This control sets the number of frames for below the set threshold for minimum APL level for a fault condition.

Active Picture Level Min Reset Duration (0 to 60 seconds): This control sets the amount of time for the APL level to be above the lower threshold limit for the fault to go away.

Percent Picture Level Max Percent (0 to 100%): Defines the percentage of the total picture used to calculate the max luminance based on the IRE threshold**.**

Percent Picture Level Max Level (60 to 108 %IRE): Defines the upper IRE threshold for percent picture level Max fault.

Percent Picture Level Max Duration (0 to 900 frames): This control sets the number of frames for above the set threshold for the Percent Picture level for a fault to trigger.

Percent Picture Level Max Reset Duration (0 to 120 seconds): This control sets the amount of time for the Percent Picture level to be below the upper threshold limit for the fault to go away.

Percent Picture Level Min Percent (0 to 100%): Defines the percentage of the total picture that calculates the min luminance based on the IRE threshold.

Percent Picture Level Min Level (0 to 40 %IRE): Defines the lower IRE threshold for percent picture level Min fault.

Percent Picture Level Min Duration (0 to 900 frames): This control sets the number of frames for below the set threshold for the Percent Picture level for a fault to trigger.

Percent Picture Level Min Reset Duration (0 to 120 seconds): This control sets the amount of time for the Percent Picture level to be above the lower threshold limit for the fault to go away.

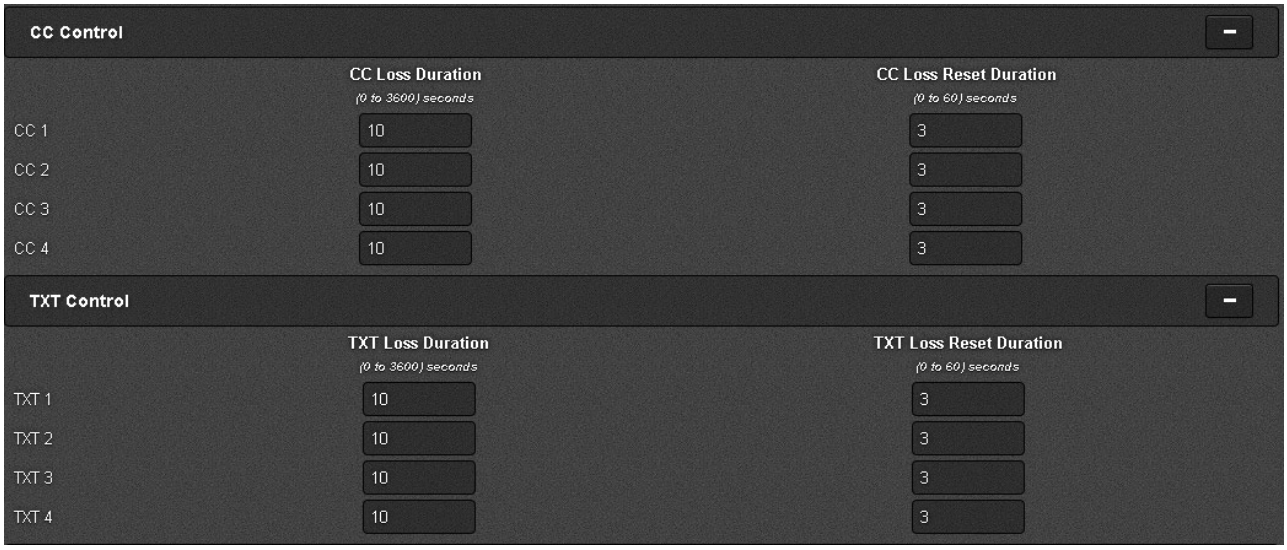


Figure 5-302: WebEASY® - Advanced Notify Control Tab (Part 2 of 6)

5.16.2. CC Control

For the 64 input streams on CC1 to CC 4

CC Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the CC before triggering a fault condition.

CC Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of CC for the fault to go away.

5.16.3. TXT Control

For the 64 input streams on TXT 1 to TXT 4

TXT Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the TXT before triggering a fault condition.

TXT Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of TXT for the fault to go away.

5.16.4. Nielsen Control

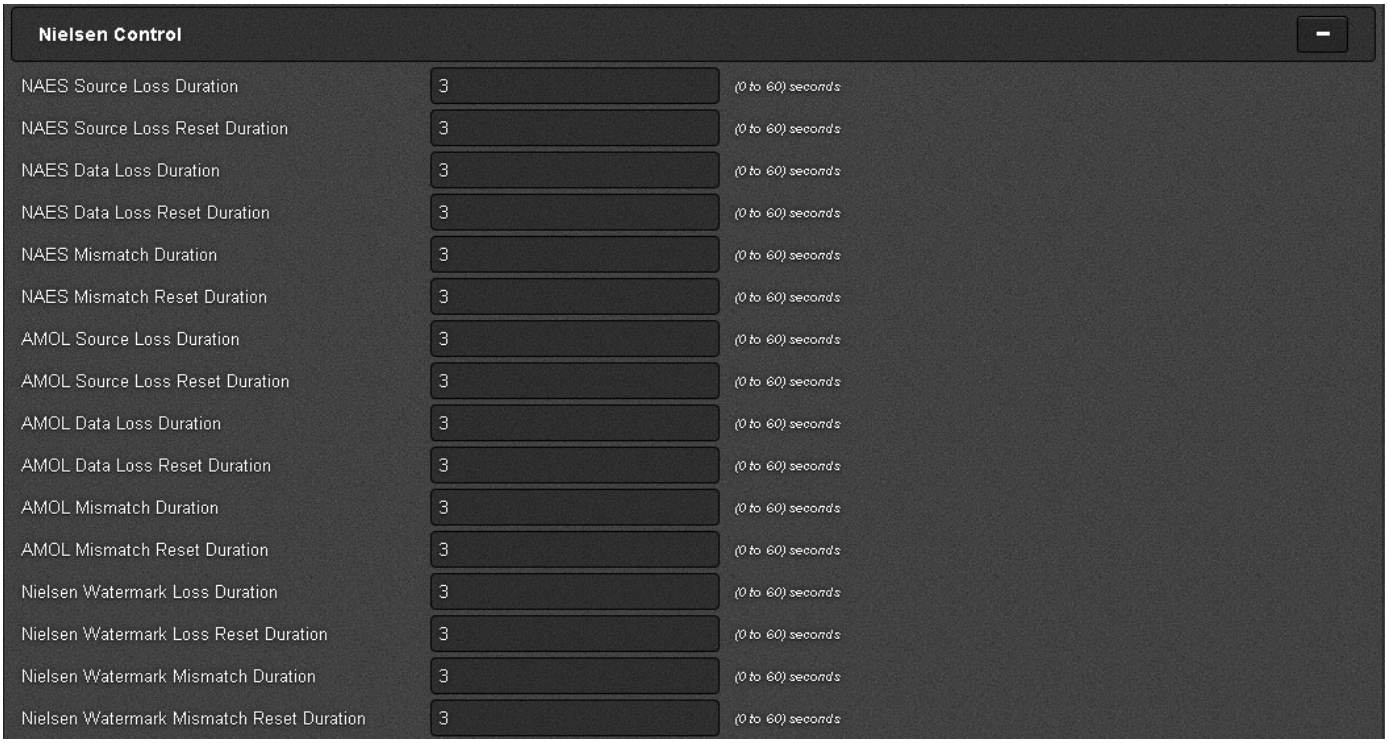


Figure 5-33: WebEASY® - Advanced Control Notify Tab (Part 3 of 6)

For the 64 input streams

NAES Source Loss Duration: This control is used to set the amount of time for the loss of the NAES source before triggering a fault condition.

NAES Source Loss Reset Duration: This control is used to set the amount of time after the return of the NAES Source Loss for the fault to go away.

NAES Data Loss Duration: This control is used to set the amount of time for the loss of the NAES Data Loss before triggering a fault condition.

NAES Data Loss Reset Duration: This control is used to set the amount of time after the return of the NAES Data for the fault to go away.

NAES Mismatch Duration: This control is used to the amount of time for the NAES Mismatch before triggering a fault condition.

NAES Mismatch Reset Duration: This control is used to set the amount of time after the return of correct NAES for the fault to go away.

AMOL Source Loss Duration: This control is used to set the amount of time for the loss of the AMOL Source before triggering a fault condition.

AMOL Source Loss Reset Duration: This control is used to set the amount of time after the return of the AMOL source for the fault to go away.

AMOL Data Loss Duration: This control is used to set the amount of time for the loss of the AMOL Data before triggering a fault condition.

AMOL Data Loss Reset Duration: This control is used to set the amount of time after the return of the AMOL Data for the fault to go away.

AMOL Mismatch Duration: This control is used to set the amount of time for an AMOL mismatch before triggering a fault condition.

AMOL Mismatch Reset Duration: This control is used to set the amount of time after the return of the correct AMOL for the fault to go away.

Nielsen Watermark Loss Duration: This control is used to set the amount of time for the loss of the Nielsen watermark before triggering a fault condition.

Nielsen Watermark Loss Reset Duration: This control is used to set the amount of time after the return of the Nielsen watermark for the fault to go away.

Nielsen Watermark Mismatch Duration: This control is used to set the amount of time for a Nielsen watermark mismatch before triggering a fault condition.

Nielsen Watermark Mismatch Reset Duration: This control is used to set the amount of time after the return of the correct Nielsen watermark for the fault to go away.

5.16.5. EIA 708 Control

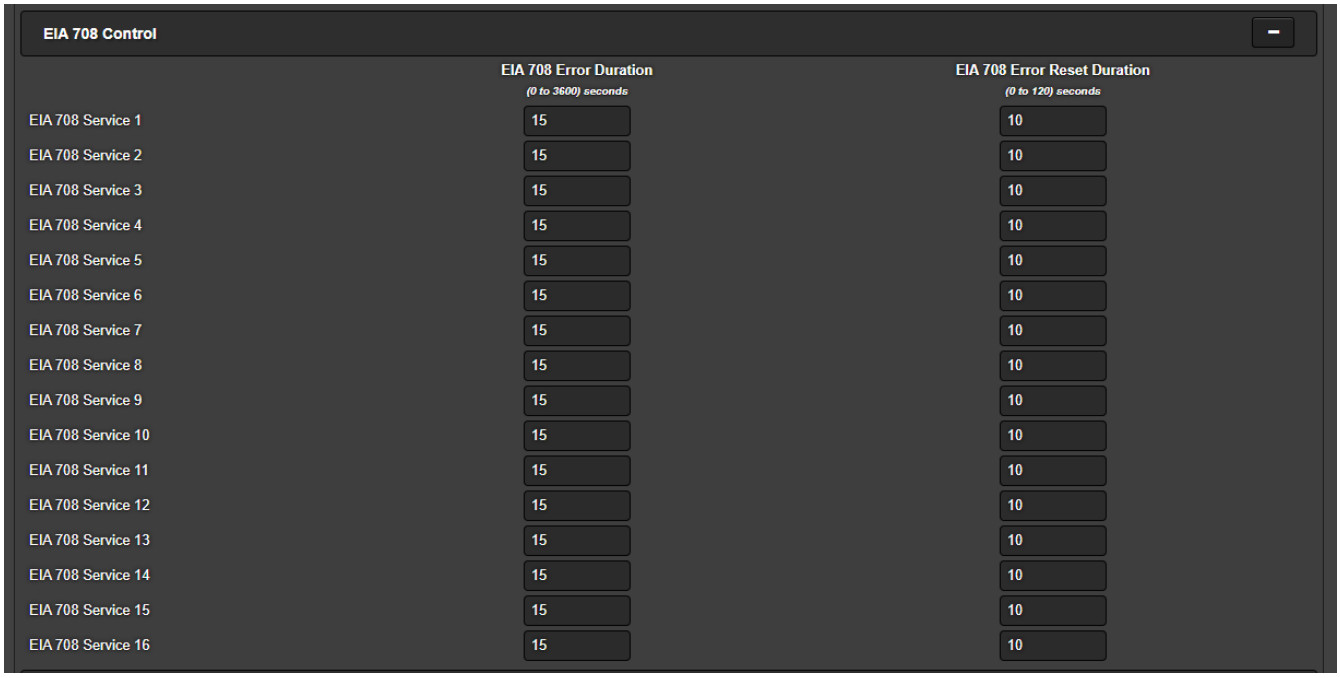


Figure 5-34: WebEASY® - Advanced Control Notify Tab (Part 4 of 6)

For the 64 input streams and EIA Service 1 to EIA Service 16

EIA 708 Error Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Services before triggering a fault condition.

EIA 708 Error Reset Duration (0 to 120 seconds): This control is used to set the amount of time after the return of the Service for the fault to go away.

5.16.6. ANC Control

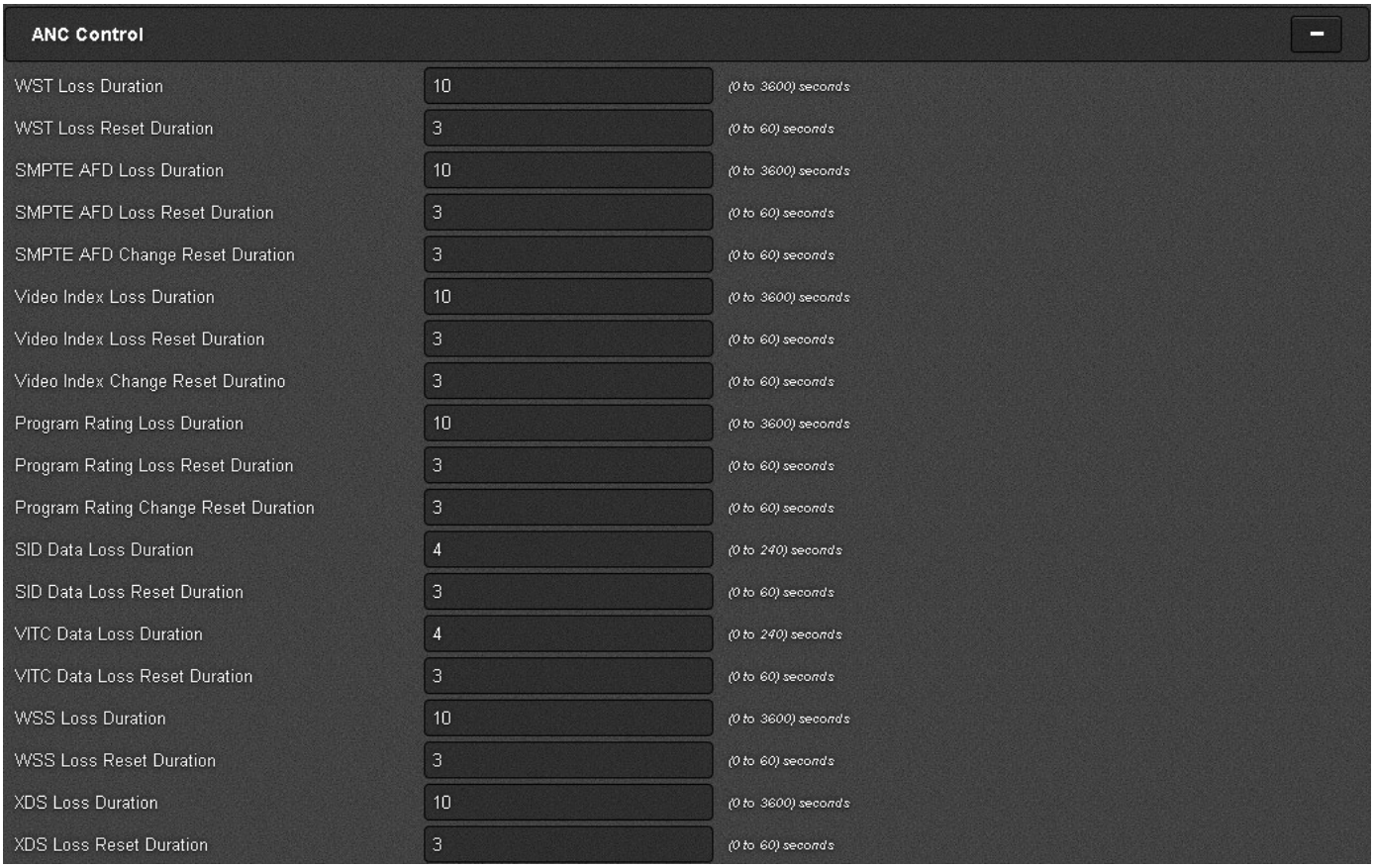


Figure 5-35 : WebEASY® - Advanced Control Notify Tab (Part 5 of 6)

For the 64 input streams

WST Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Teletext before triggering a fault condition.

WST Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the Teletext for the fault to go away.

SMPTE AFD Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the SMPTE AFD before triggering a fault condition.

SMPTE AFD Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the SMPTE AFD for the fault to go away.

SMPTE AFD Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time after a change in the SMPTE AFD for the fault to go away.

Video Index Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the video index before triggering a fault condition.

Video Index Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the video index for the fault to go away.

Video Index Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time after a change in the video index for the fault to go away.

Program Rating Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Services before triggering a fault condition.

Program Rating Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time for the loss of the program rating before triggering a fault condition.

Program Rating Change Reset Duration (0 to 60 seconds): This control is used to set the amount for the program rating changed fault to go away.

SID Data Loss Duration (0 to 240 seconds): This control is used to set the amount of time for the loss of the SID Data before triggering a fault condition.

SID Data Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the SID Data for the fault to go away.

VITC Data Loss Duration (0 to 240 seconds): This control is used to set the amount of time for the loss of the VITC Data before triggering a fault condition.

VITC Data Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the VITC Data for the fault to go away.

WSS Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the WSS before triggering a fault condition.

WSS Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the WSS for the fault to go away.

XDS Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the XDS before triggering a fault condition.

XDS Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the XDS for the fault to go away.

5.16.7. Video Control

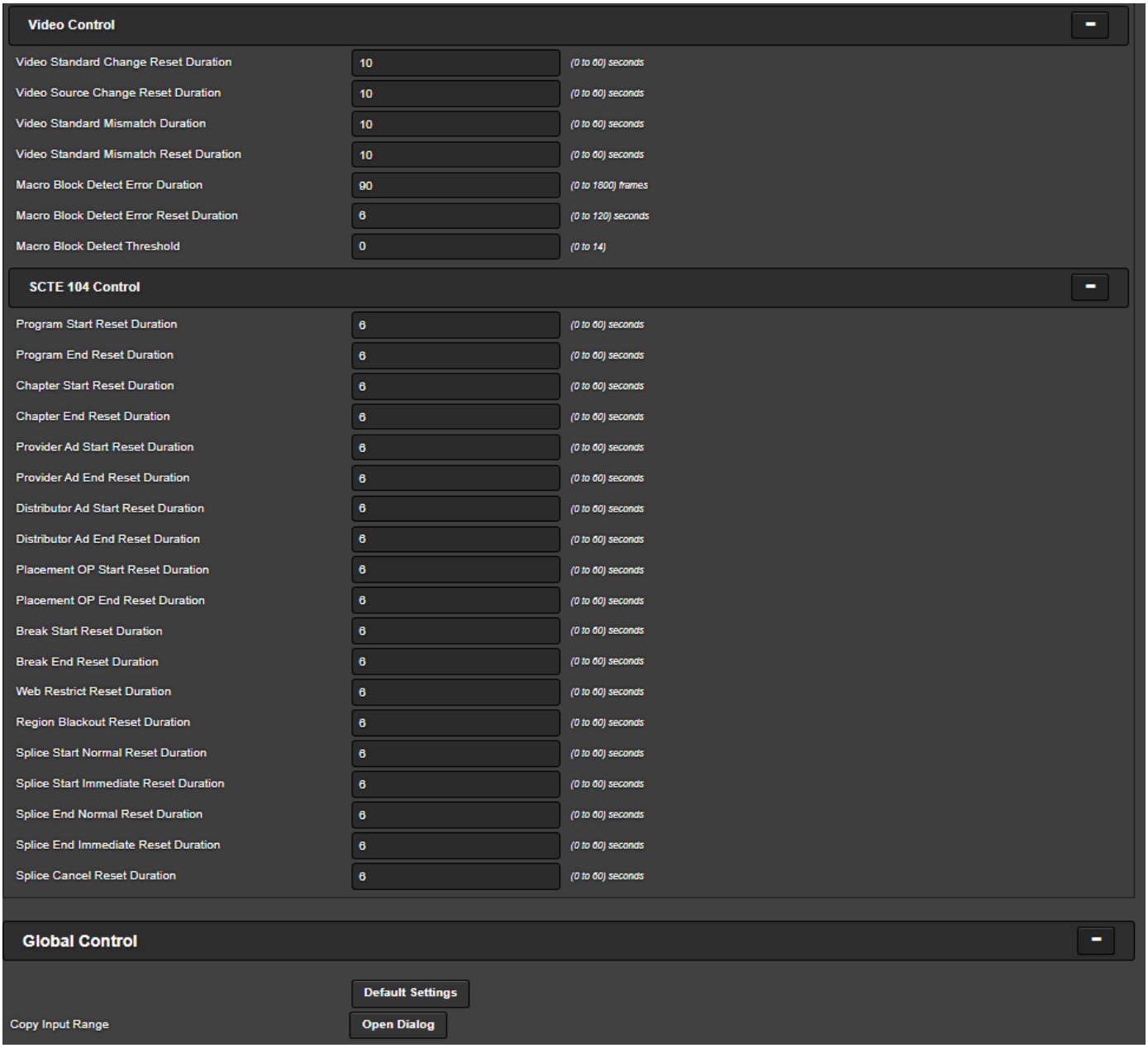


Figure 5-36: WebEASY® - Advanced Control Notify Tab (Part 6 of 6)

For the 64 input streams

Video Standard Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for video standard changed fault to go away after the fault has been triggered.

Video Source Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for the video source changed fault to go away after the fault has been triggered.

Video Type Mismatch Duration (0 to 60 seconds): This control is used to set the amount of time required for mismatch in the video type fault to trigger once there is mismatch in type of video. This can be found in Input properties control tab under desired resolution.

Video Type Mismatch Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for video type mismatch fault to go awat once the fault has been triggered.

Macro Block Detect Error Duration (0 to 1800 frames): This control is used to set the number of frames for an error in the macro block detection before triggering a fault condition.

Macro Block Detect Error Reset Duration (0 to 120 seconds): This control is used to set the amount of time required after the Macro Block is not detecting fault has been triggered.

Macro Block Detect Thresh (0 to 14): This control is used to set the threshold for the Macro Block detection.

5.16.8. SCTE104 Control

Program Start Reset Duration (0 to 60 seconds): This control is used to reset program start duration.

Program End Reset Duration (0 to 60 seconds): This control is used to reset program end duration.

Chapter Start Reset Duration (0 to 60 seconds): This control is used to reset chapter start duration.

Chapter End Reset Duration (0 to 60 seconds): This control is used to reset chapter end duration.

Provider Ad Start Reset Duration (0 to 60 seconds): This control is used to reset provider Ad start duration.

Provider Ad End Reset Duration (0 to 60 seconds): This control is used to reset provider Ad end duration.

Distributor Ad Start Reset Duration (0 to 60 seconds): This control is used to reset distributer Ad start duration.

Distributor Ad End Reset Duration (0 to 60 seconds): This control is used to reset distributer Ad end duration.

Placement OP Start Reset Duration (0 to 60 seconds): This control is used to reset placement OP start duration.

Placement OP End Reset Duration (0 to 60 seconds): This control is used to reset placement OP end duration.

Break Start Reset Duration (0 to 60 seconds): This control is used to reset break start duration.

Break End Reset Duration (0 to 60 seconds): This control is used to reset break end duration.

Web Restrict Reset Duration (0 to 60 seconds): This control is used to reset web restrict duration.

Region Blackout Reset Duration (0 to 60 seconds): This control is used to reset region blakout duration.

Splice Start Normal Reset Duration (0 to 60 seconds): This control is used to reset splice start duration.

Splice Start Immediate Reset Duration (0 to 60 seconds): This control is used to immediate reset splice start duration.

Splice End Normal Reset Duration (0 to 60 seconds): : This control is used to reset splice end duration

Splice End Immediate Reset Duration (0 to 60 seconds): This control is used to immediate reset splice end duration.

Splice Cancel Reset Duration (0 to 60 seconds): This control is used reset splice cancle duration.

5.16.9. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Changes settings of the advanced control notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

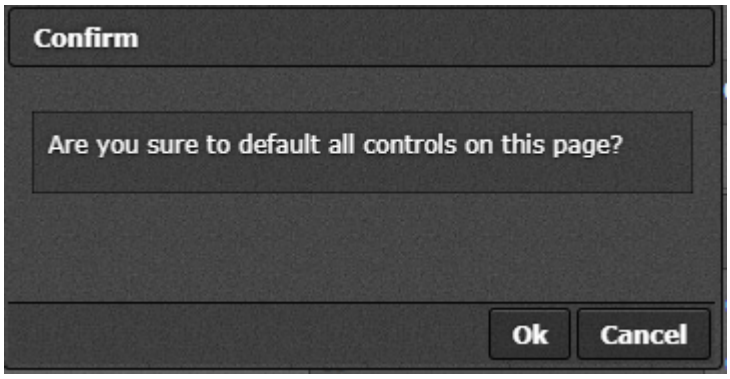


Figure 5-37: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

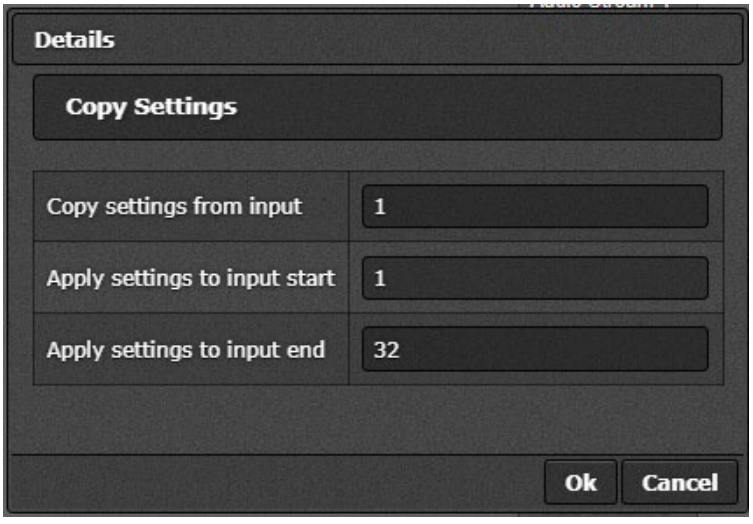


Figure 5-38 : WebEASY® - Open Dialog

5.17. ADVANCED NOTIFY

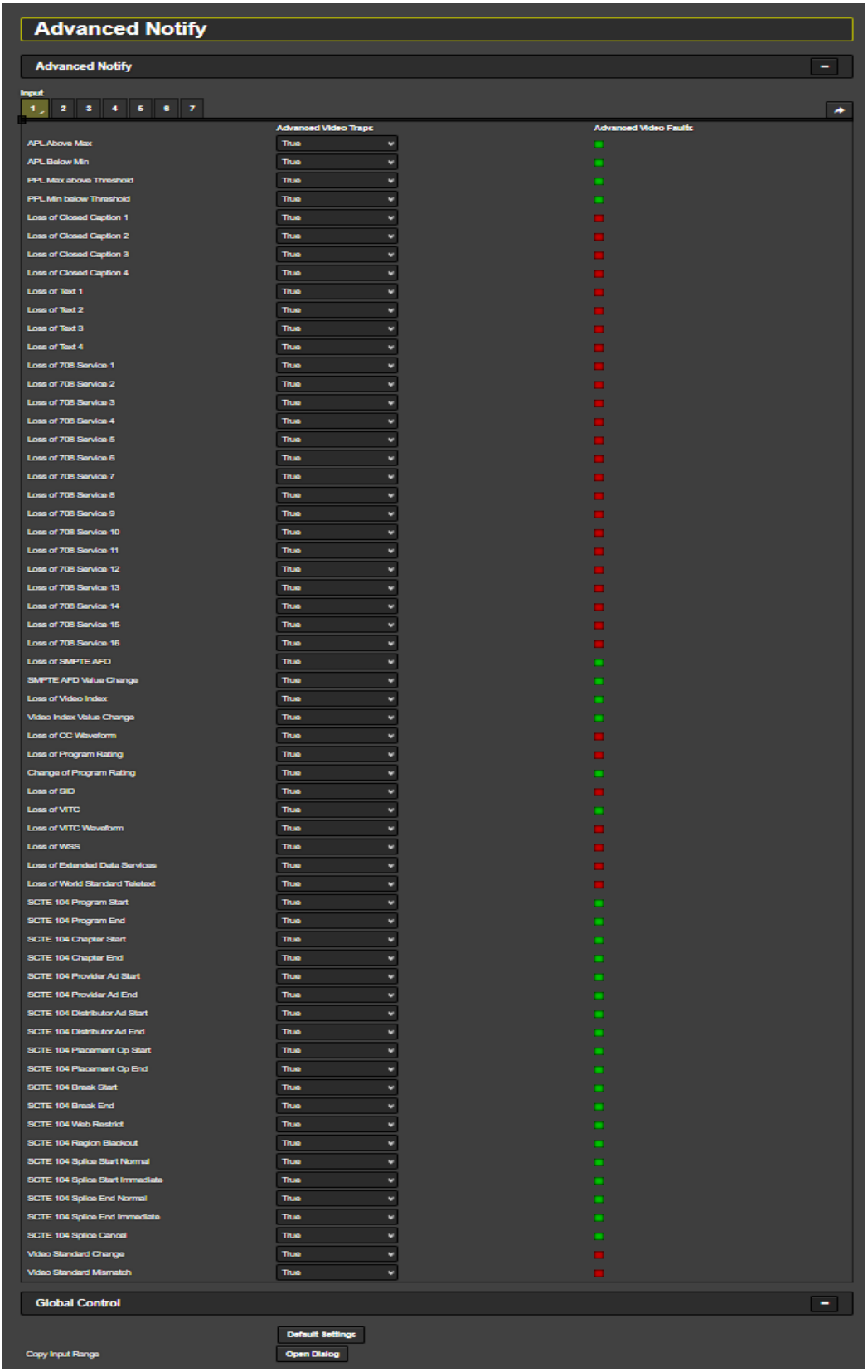


Figure 5-39: WebEASY® - Advanced Notify

5.17.1. Advanced Notify

Advanced Notify allows for fault monitoring and traps to be send on video faults, previously configured in the Advanced Notify Control tab, on the 64 input streams.

Advanced Video Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Advanced Video Faults: This monitor will display green when there is no fault on the video and red for a fault indication.

5.17.2. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Changes settings of the advanced notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

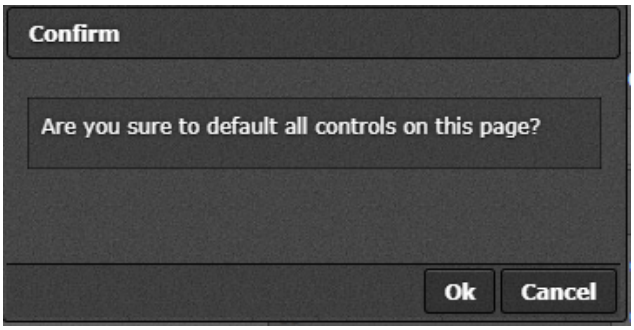


Figure 5-40 : WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

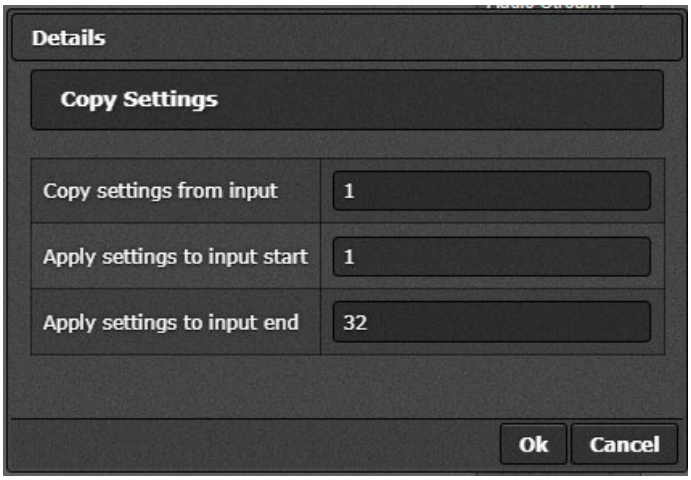


Figure 5-41 : WebEASY® - Open Dialog

5.18. ADVANCED AUDIO NOTIFY

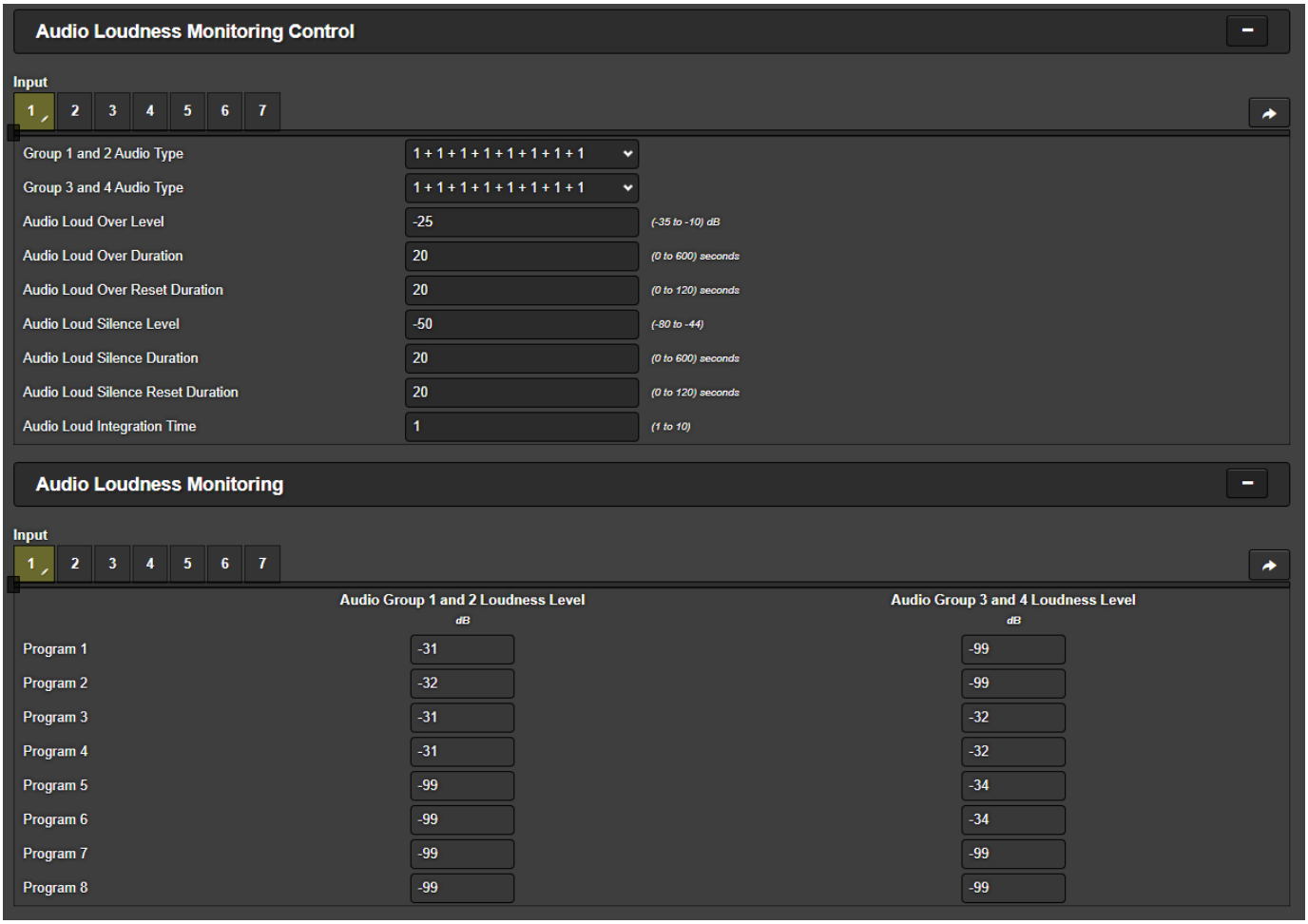


Figure 5-42 : WebEASY® - Advanced Loudness Notify Tab (Part 1 of 2)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

5.18.1. Audio Loudness Monitoring Control

For the 32 input streams

Group 1 and 2 Audio Type: This control is used to set Group 1 and 2 audio type to any of the following:

- 5.1+2
- 4+4
- 4+2+1+1
- 2+2+2+2(P1 P3 P4 P2)
- 2+2+1+1+1+1
- 1+1+1+1+1+1+1+1
- 4+2
- 2+2+2
- 2+1+1+1+1
- 4
- 5.1+1+1
- 4+2+2
- 4+1+1+1+1
- 2+2+2+1+1
- 2+1+1+1+1+1+1
- 5.1
- 4+1+1
- 2+2+1+1
- 1+1+1+1+1+1
- 2+2

Group 3 and 4 Audio Type: This control is used to set Group 3 and 4 audio type to any of the following:

- 5.1+2
- 4+4
- 4+2+1+1
- 2+2+2+2(P1 P3 P4 P2)
- 2+2+1+1+1+1
- 1+1+1+1+1+1+1+1
- 4+2
- 2+2+2
- 2+1+1+1+1
- 4
- 5.1+1+1
- 4+2+2
- 4+1+1+1+1
- 2+2+2+1+1
- 2+1+1+1+1+1+1
- 5.1
- 4+1+1
- 2+2+1+1
- 1+1+1+1+1+1
- 2+2

Audio Loud Over Level (-35 to -10) dB: This control is used to set audio loud over level within the given range.

Audio Loud Over Duration (0 to 600 seconds): This control is used to set the time required after which audio loud over duration fault will get triggered.

Audio Loud Over Reset Duration (0 to 120 seconds): This control is used to set the time required after which audio loud over duration trigger will get reset.

Audio Loud Silence Level (-80 to -44): This control is used to set audio silence level within the given range.

Audio Loud Silence Duration (0 to 600 seconds): This control is used to set the time required after which audio silence duration fault will get triggered.

Audio Loud Silence Reset Duration (0 to 120 seconds): This control is used to set the time required after which audio silence duration trigger will get reset.

Audio Loud Integration Time (1 to 10): This control is used to set audio loud integration time.

5.18.2. Audio Loudness Monitoring

For the 32 input streams

Audio Group 1 and 2 Loudness Level (dB): This control displays the dB level/value of audio loudness of a particular program (1-8) in group 1 and 2.

Audio Group 3 and 4 Loudness Level (dB): This control displays the dB level/value of audio loudness of a particular program (1-8) in group 3 and 4.

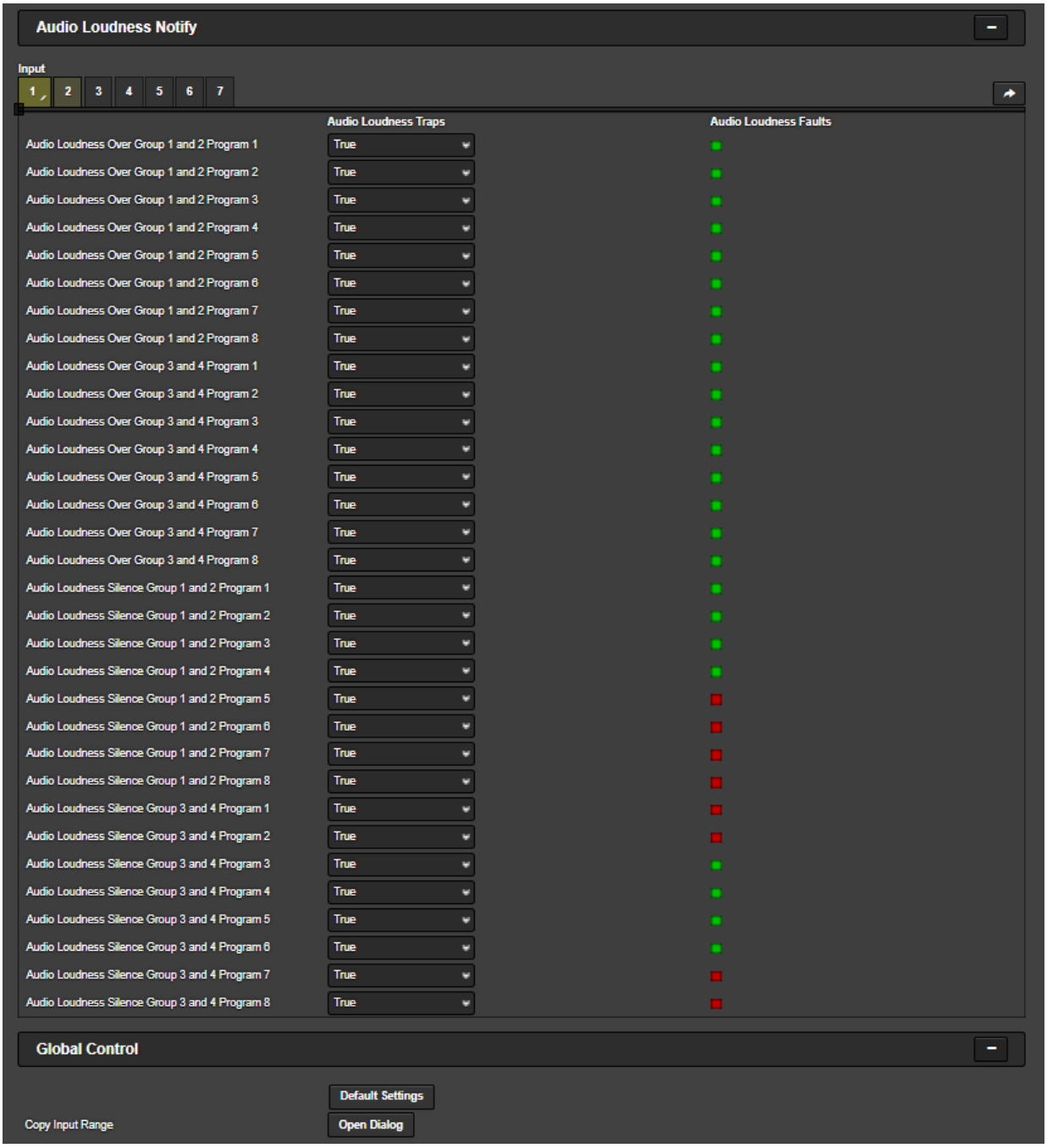


Figure 5-43: WebEASY® - Advanced Loudness Notify Tab (Part 2 of 2)

5.18.3. Audio Loudness Notify

For the 32 input streams

Audio Loudness Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Audio Loudness Faults: This monitor will display green when there is no fault on the audio and red for a fault indication.

5.18.4. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

- **OK**: Changes settings of the advanced loudness notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

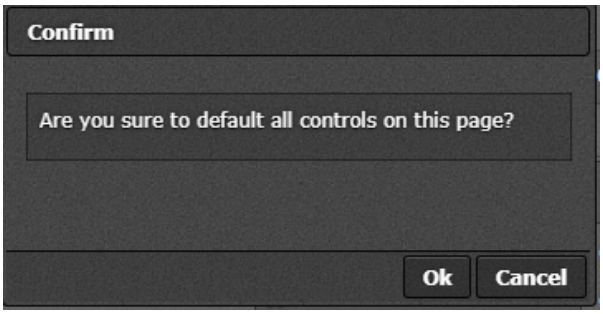


Figure 5-44: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

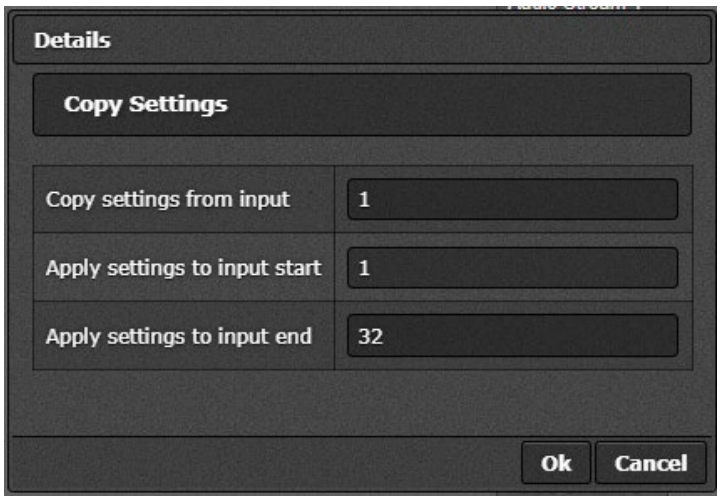


Figure 5-31: WebEASY® - Open Dialog

5.19. GPIO CONTROL

The ST-2100 MVX will interface to 7700PTX via TCP/IP Image Video Protocol to send a VGPI command to the PTX Card, which will convert this into a Physical GPO contact closure. Multiple GPO's can be used on a single ST-2110 MVX.

Figure 5-46: GPIO Control

1. First you must configure the PTX to take an image video PID and convert it into a specific GPO. This can be found in the PTX manual.
2. Then point the ST-2110 MVX to the PTX card via webpage. Ensure to reboot the MVX after this info is entered.
3. Once this is done, the rest of configuration will be done in Magnum/MV designer.
4. The VGPO will be triggered by an alarm state. It can be any alarm the MVX is licensed to monitor. Video Freeze, Black, Audio Low, High, Loss of CC, virtually any alarm. The configuration is actually held in the design tool similar how you would configure a fault alarm. There will be a GPO object that will be linked to a video . It will not be shown on screen.

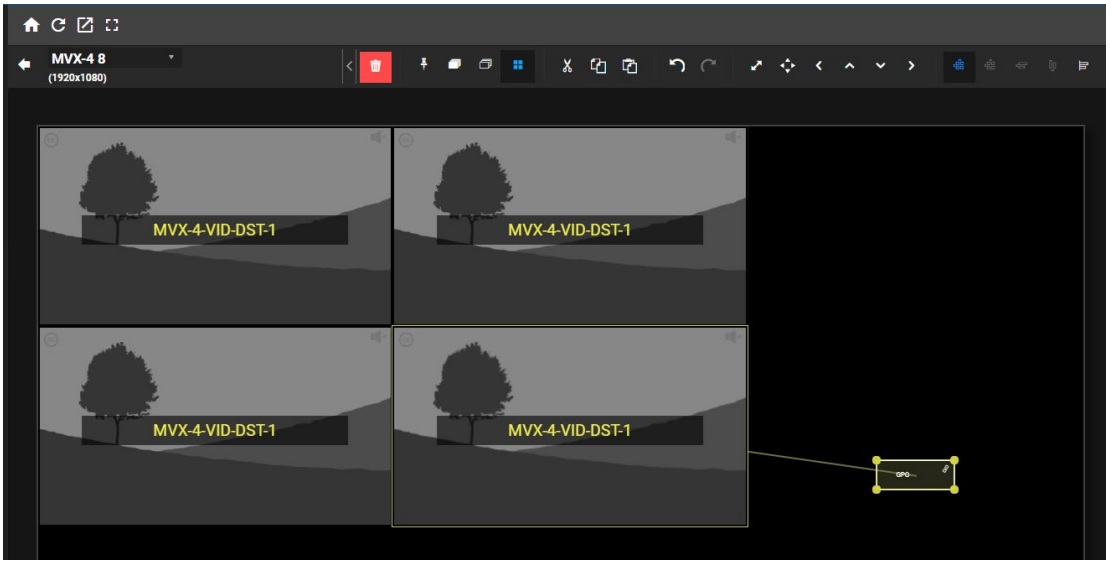


Figure 5-32: Canvas of eVIP-SDI

5) Inside Window Properties, you will configure the alarm that is required to trigger GPO and the GPO number that will correspond to a configured GPO on PTX Card(s). Below you can see configured Video loss to trigger VGPO 5. There is also AND/OR logic, default is OR but if you want to configure a GPO if Video is lost and audio is lost there is logic to do this. Most customers use single fault to VGPO mapping.

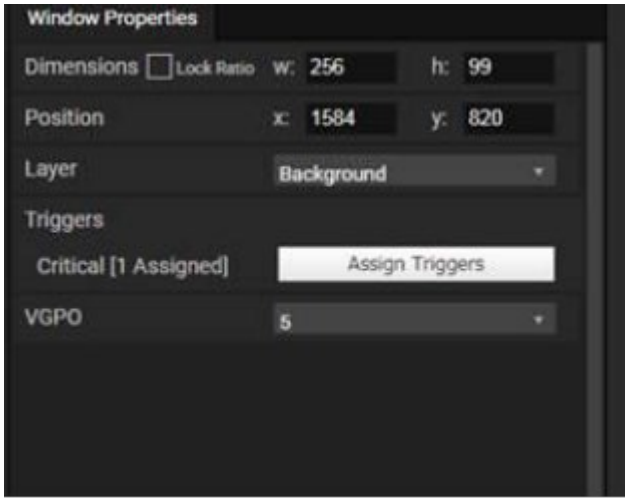


Figure 5-33: Properties of GPIO Widget

5.19.1. GPIO Control

VGPO IP Adress: This control allows the user to set the IP address.

Port Number (1 to 65535): This control allows user to select port between 1 to 65535.

Status: This control shows status of GPIO .

5.20. NMOS CONTROL

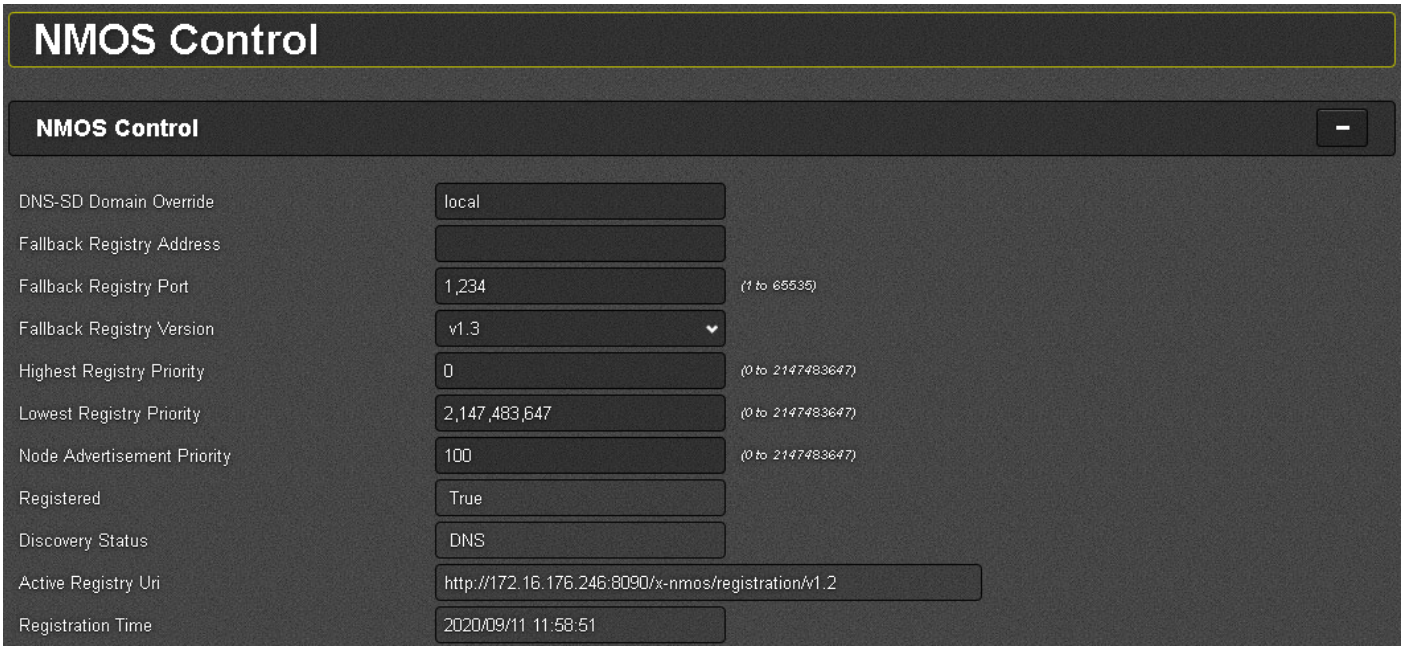


Figure 5-49: NMOS Control

5.20.1. Nmos Control

DNS-SD Domain Override: This control allows user to override the DNS registry domain with one specified

Fallback Registry Address: This control allows the user to specify the IP/DNS name of a specific NMOS registry specified. Used if not using DNS-SD or MDNS for NMOS discovery.

Fallback Registry Port (1 to 65535): This control allows user to set fallback registary port.

Fallback Registry Version: This control allows user to set fallback registary version.

Highest Registry Priority (0 to 2147483647): This control allows user to set highest registary priority.

Lowest Registry Priority (0 to 2147483647): This control allows user to set lowest registary priority.

Node Advertisement Priority (0 to 2147483647): This control allows user to set node advertisement priority.

Registered: Shows if evVIP is registered to a registry and its status

Discovery Status: This field shows discovery status and protocol used. .

Active Registry Uri: This field shows active registry Uri .

Registration Time: This field shows the time last registration occurred. .

6. WEB INTERFACE (EVVIP-APP-SDI)

The web interface allows for users to change settings and monitor the status of the ev670–X30–HW-V2 through a web GUI. This section will explain in detail the functions available through the Web Interface.

To default login to the evVIP-SDI, type "***root***" for username and "***evertz***" for password respectively.

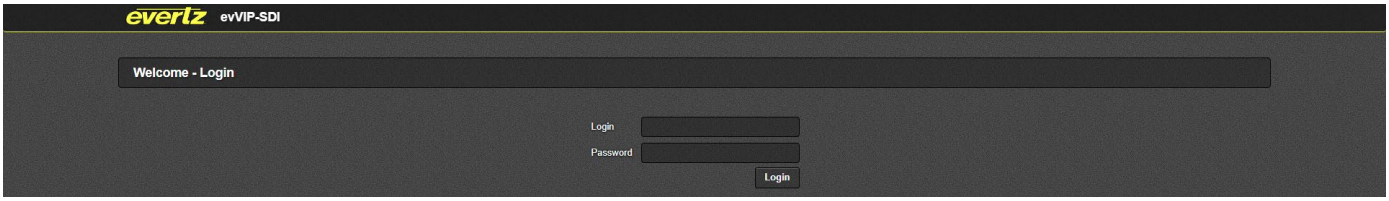


Figure 6-1: WebEASY® - Login In Menu

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

- **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

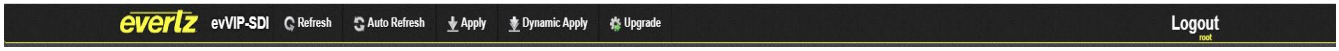


Figure 6-2: WebEASY® - Top Navigation Bar

- **Navigation Menu:** Displays a menu of all tabs the user is able to monitor/configure, below are the list of all tabs for the evVIP-SDI.

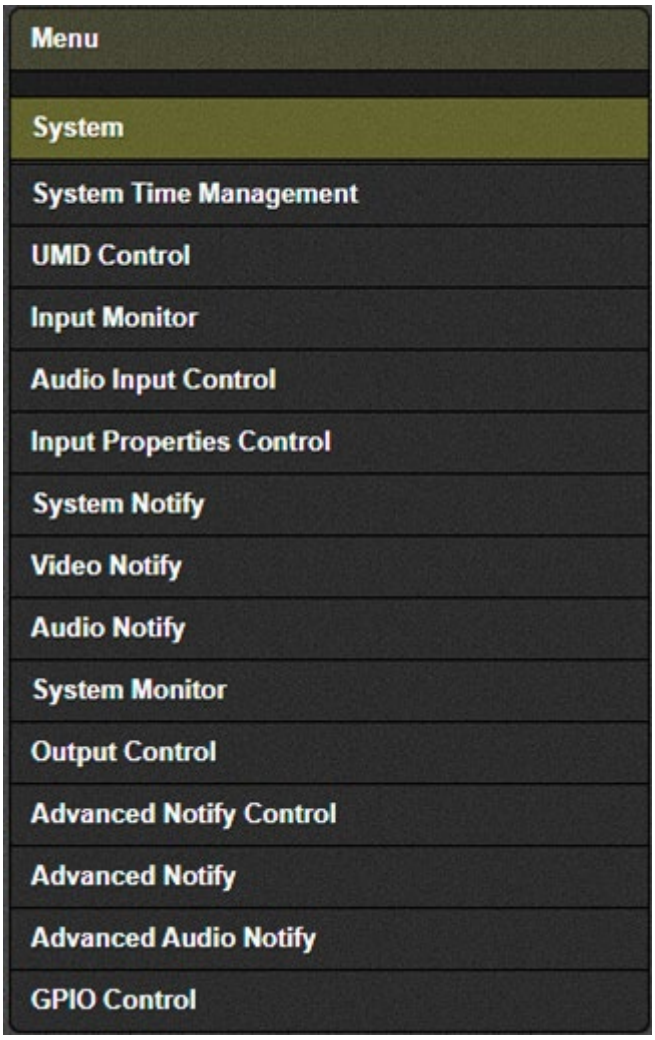


Figure 6-3: WebEASY® - Navigation Menu

6.1. SYSTEM

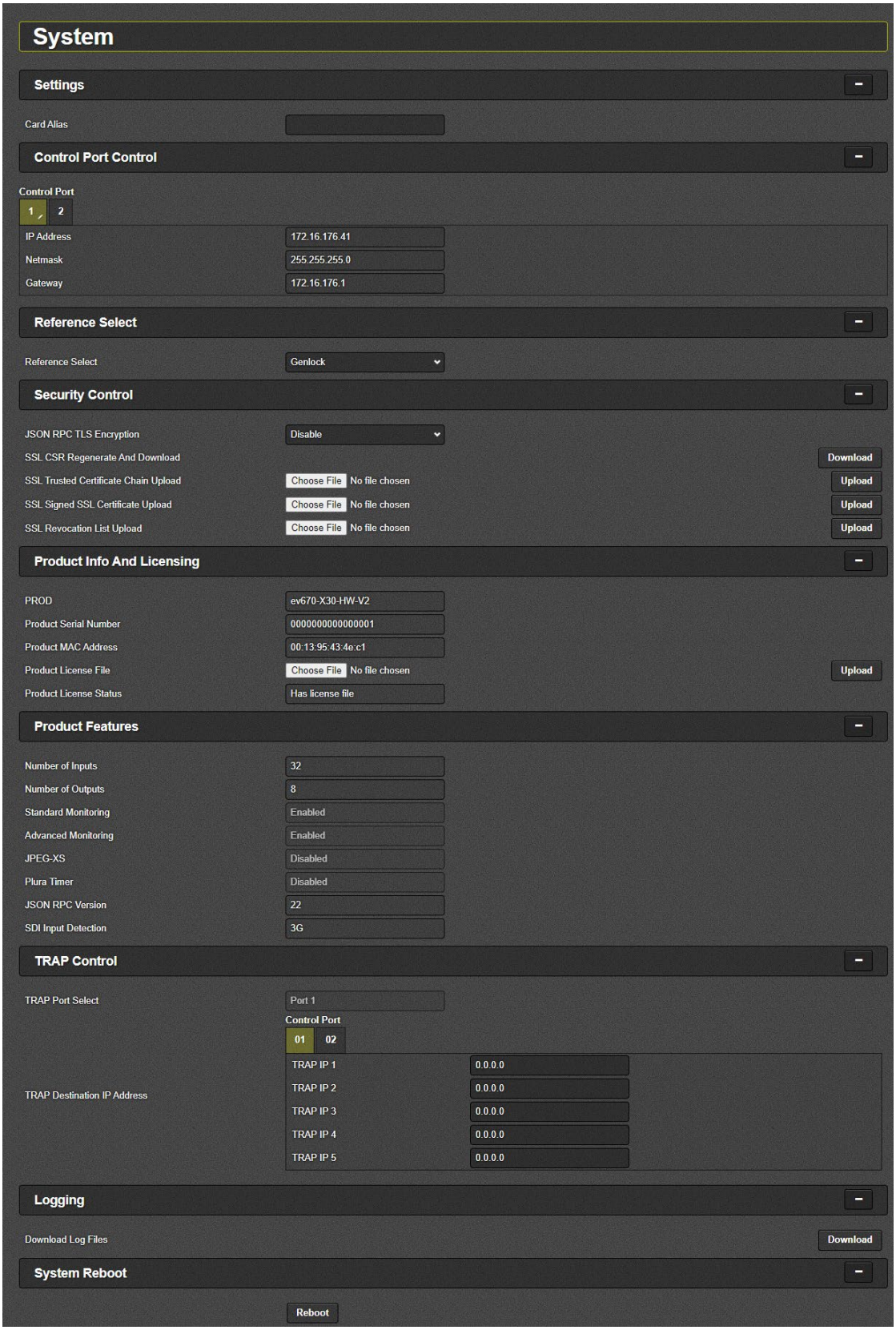


Figure 6-4: WebEASY® - System Tab

6.1.1. Settings

Card Alias: Field allows setting Alias name for the hardware.

6.1.2. Control Port Control (Configuration for Main and Backup control ports.)

IP Address: This control allows the user to assign an IP address to the control port.

Netmask: This control allows the user to define the Netmask/Subnet for the control port.

Gateway: This control allows the user to define the Gateway address for the control port.

6.1.3. Reference Select

Reference Select: This control allows the user to select the synchronization reference to be used, options are:

- **Free Run:** Enable Free Run mode on video.
- **Genlock:** where the video output of one source is used to synchronize other sources together.

6.1.4. Security Control

Json RPC TLS Encryption: This control allows the user to enable/disable the TLS encryption for magnum communication option on the evVIP-SDI.

6.1.5. Product Info and Licensing

PROD: Displays the product Name

Product Serial Number: This field displays the serial number of the ev670-X30-HW-V2 unit. Evertz requires this serial number when requesting a product license.

Product Mac Address: This field displays the MAC address of the Product. Evertz requires this MAC address when requesting a product license.

Product License File: Selecting the upload button will launch a file explorer prompt to provide the location of the license file on local disk.

Product License Status: This field displays the current license status of the product.

6.1.6. Product Features

More information on currently available product features in section 2.7.

Number of Inputs: This field displays the number of input ports enabled on the product.

Number of Outputs: This field displays the number of output ports enabled on the product.

Standard Monitoring: This field displays if the current license has standard monitoring options available.

Advanced Monitoring: This field displays if the current license has advanced monitoring options available.

JPEG-XS: This field displays if JPEG-XS over SDI has been enabled on the card.

Plura Timer: This field displays if plura timer has been enabled or disabled on the card.

JSON RPC Version: This field displays JSON RPC version.

SDI Input Detection: This field displays the current SDI input license being using.

6.1.7. TRAP Control

Trap Port Select: Select port for TRAP control data to be transmitted over.

Trap Destination IP Adress: Select destination IP address for trap data.

6.1.8. Logging

Download Log Files: Pressing the download button will begin to download the log files to local disk.

6.1.9. System Reboot

Selecting the **reboot** button will reboot the card.

6.2. SYSTEM TIME MANAGEMENT

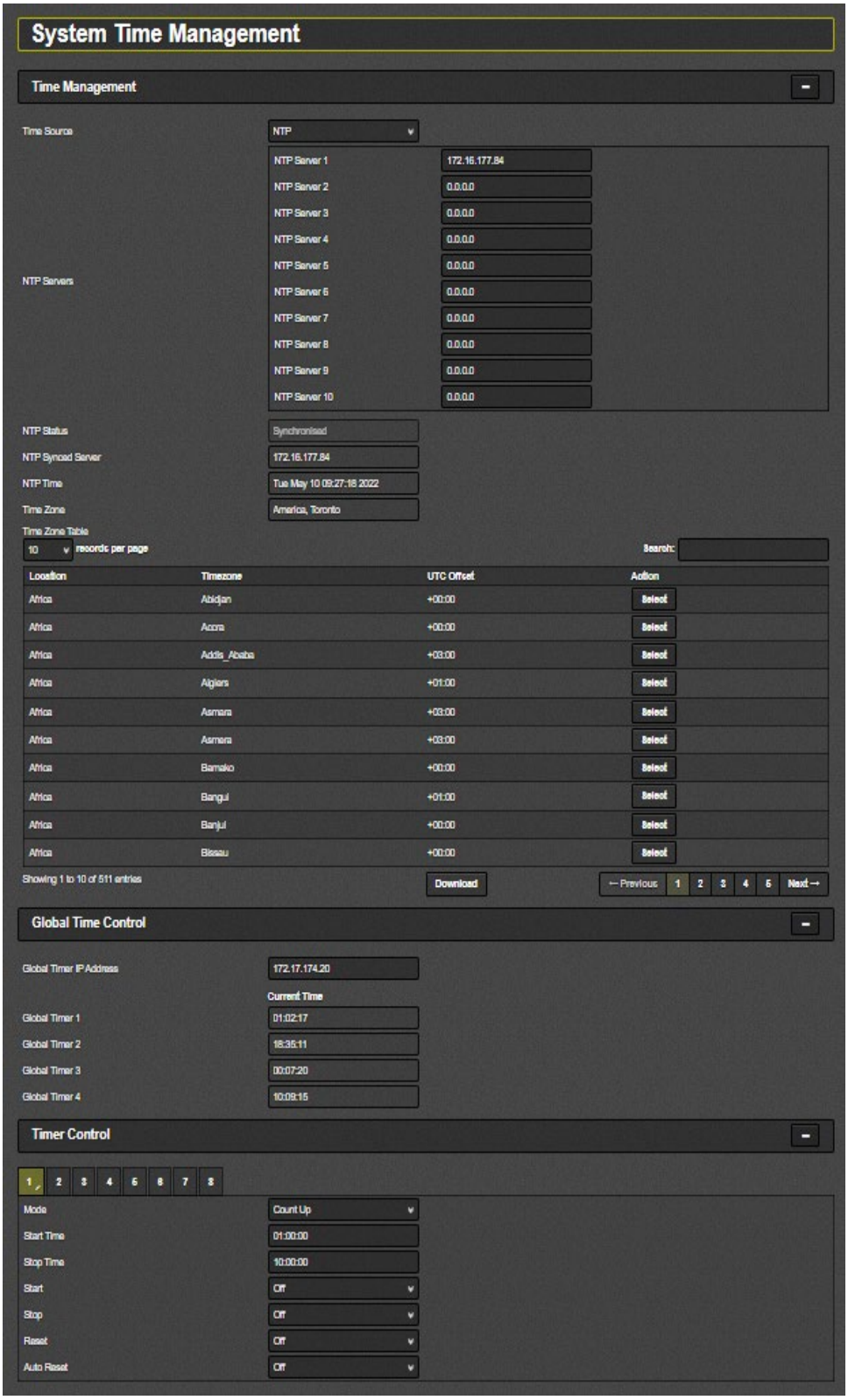


Figure 6-5: WebEASY® - System Time Management Tab

6.2.1. Time Management

Time Source: This control allows the user to select between System or NTP for the time source. When System is selected, the card will run timing based on the local clock. If “NTP” is selected, then the card’s time is synchronized with an NTP server.

NTP Server IP Address: This parameter allows the user to set the IP addresses for the NTP Servers.

NTP Status: This field displays the connection status with the NTP server.

NTP Synced Server: This field displays IP address of the NTP server to which card is connected.

NTP Time: This field displays the time value in the NTP Server.

Time Zone: This field displays the country/region the system is set to.

Time Zone Table: This list (adjustable records per page) allows the user to select the time zone based on the continent, City and UTC Offset value.

6.2.2. Global Time Control

Global Timer IP Address: This parameter allows the user to set the IP address for the Global Timer from 7800TM2-XIO-3G card.

Global Timers 1-4: This field displays received time data for each timer in hh:mm:ss format.

6.2.3. Timer Control

Mode: This field allows user to select timer options like Count Up and Count Down.

Start Time: This is an adjustable field where user can set start time for the counter.

Stop Time: This is an adjustable field where user can set stop time for the counter.

Start: This field allows user to start counter.

Stop: This field allows user to stop counter.

Reset: This field allows user to reset counter.

Auto Reset: This field allows user to enable auto reset of timer.

6.3. UMD CONTROL

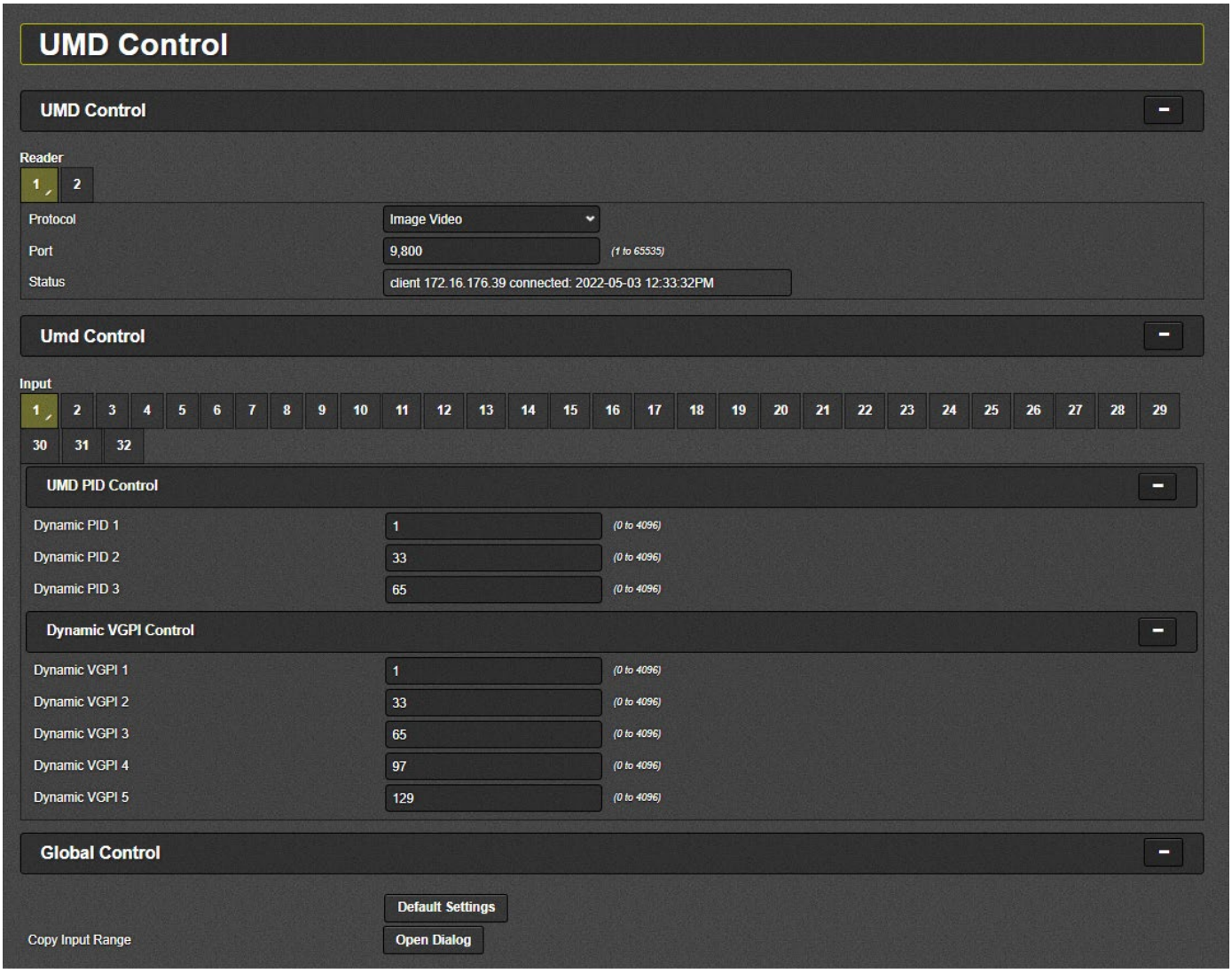


Figure 6-6: WebEASY® - UMD Control Tab

6.3.1. UMD Control (1)

For Readers 1 and 2

Protocol: This control is used to select the UMD protocol to use. Options include:

- Image Video
- TSL 3.1
- TSL 4.0
- TSL 5.0

Port (1 to 65535): This control is used to configure the port for the UMD protocol.

Status: This field displays the status of the connection for each reader. If protocol uses TCP connection, then status will show if the connection is active or not. If protocol uses UDP connection, then status shows the time when last packet was received.

6.3.2. UMD Control (2)

For Inputs 1- 32

UMD PID Control 1-3 (0 to 4095): These controls allow the user to set up 3 Dynamic PIDs for each input.

Default value sequence:

Every Dynamic PID 1 is same as the input number 1-32 for input 1-32

Every Dynamic PID 2 is value of Dynamic PID 33-64 for input 1-32

Every Dynamic PID 3 is value of Dynamic PID 65-96 for input 1-32

Below is default settings for input 1 and 11

Input	Dynamic PID	Value
1	Dynamic PID 1	1
	Dynamic PID 2	33
	Dynamic PID 3	65
11	Dynamic PID 1	11
	Dynamic PID 2	43
	Dynamic PID 3	75

Dynamic VGPI 1-5 (0 to 4095): These controls allow the user to set up 5 Dynamic VGPIs for each input.

Default value sequence:

Every Dynamic VGPI 1 is same as the input number 1-32 for input 1-32

Every Dynamic VGPI 2 is value of Dynamic VGPI 33 - 64 for input 1-32

Every Dynamic VGPI 3 is value of Dynamic VGPI 65 – 96 for input 1-32

Every Dynamic VGPI 4 is value of Dynamic VGPI 97-128 for input 1-32

Every Dynamic VGPI 5 is value of Dynamic VGPI 129-160 for input 1-32

Below is default settings for input 1 and 11

Input	Dynamic VGPI	Value
1	Dynamic VGPI 1	1
	Dynamic VGPI 2	33
	Dynamic VGPI 3	65
	Dynamic VGPI 4	97
	Dynamic VGPI 5	129
11	Dynamic VGPI 1	11
	Dynamic VGPI 2	43
	Dynamic VGPI 3	75
	Dynamic VGPI 4	107
	Dynamic VGPI 5	139

6.3.3. Global Control added global control

Default Settings: Set alarm settings to factory default for the input page user is currently on.

- **OK**: Confirm change settings of the UMD Control page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

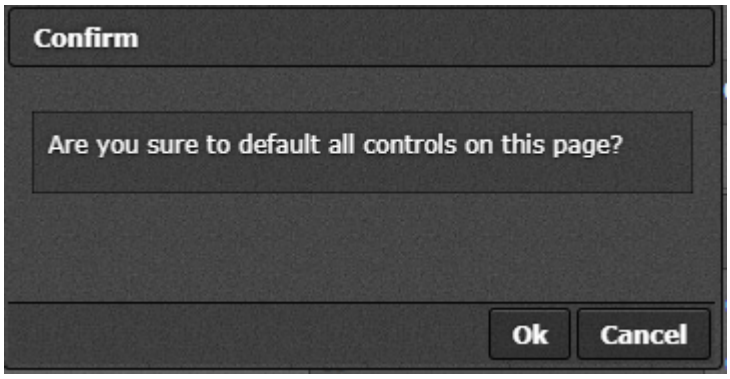


Figure 6-7: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

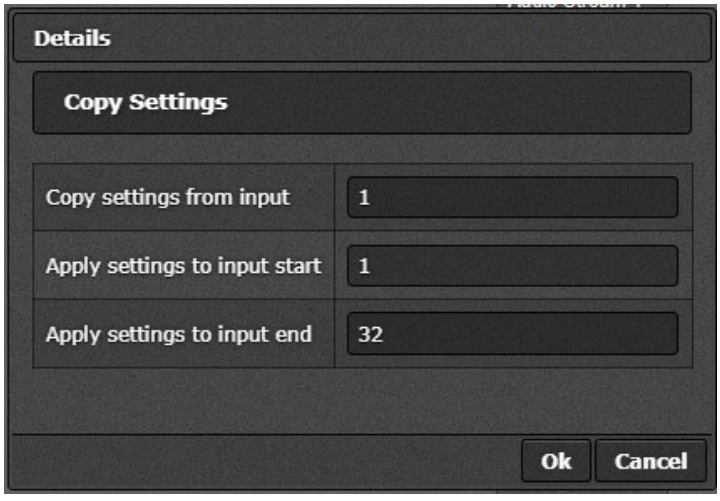


Figure 5-10: WebEASY® - Open Dialog

6.4. INPUT MONITOR

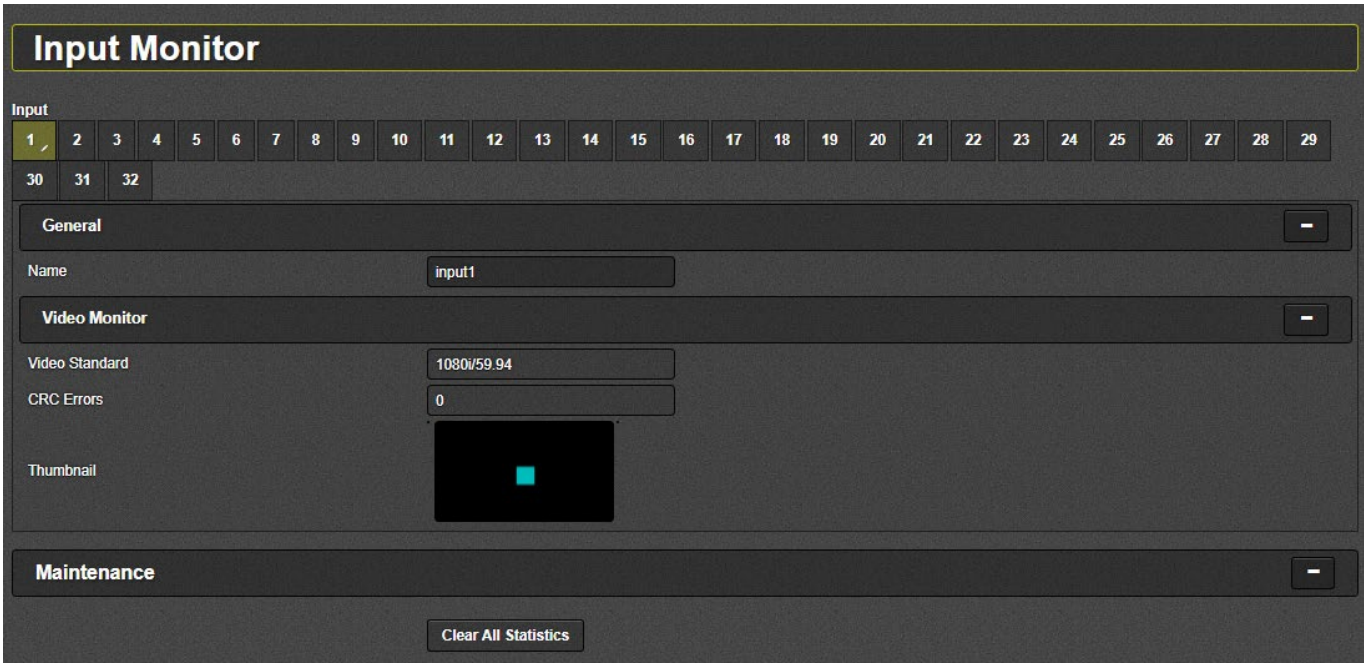


Figure 5-11: WebEASY® - Input Monitor Tab

6.4.1. General

For Inputs 1-32

Name: This field allows the user to enter an Input Name.

Removed Received Ethernet Bandwidth

6.4.2. Video Monitor

For Inputs 1-32

Removed Received On SFP Port

Removed Received Video Bandwidth:

Removed RTP Sequence Error Count

Removed Failover Count, removed ANC monitor and Audio Monitor

Video Standard: This field displays the video standard.

CRC Errors: This field displays number of CRC errors detected.

Thumbnail: This field displays a thumbnail of the input.

6.4.3. Maintenance

Clear All Statistics: This button clears all statistics for inputs 1- 32 for all fields in the Input Monitor Tab.

6.5. INPUT PROPERTIES CONTROL

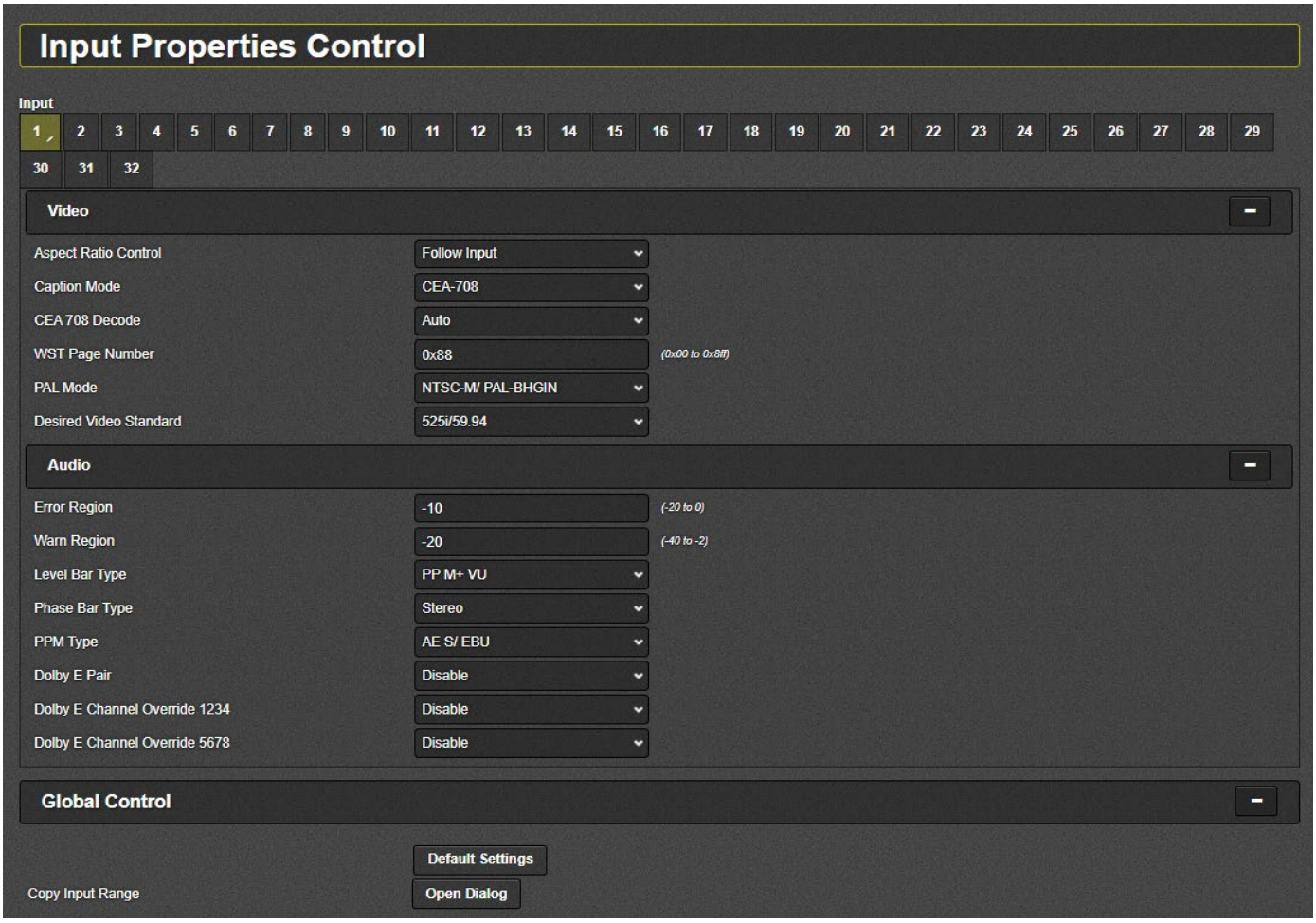


Figure 5-15: WebEASY® - Input Properties Control Tab

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.5.1. Video

For Inputs 1-32

Aspect Ratio Control: This control allows the user to enable input windows to scale their source to correct aspect ratio based on the following standards:

- Disable (no aspect ratio)
- Follow Input
- Follow WSS ITV
- Follow WSS ITUP
- Follow Video Index
- Follow AFD

Caption Mode:

- Auto (selects the first available captioning service)
- WST
- CEA-708
- Off

CEA 708 Decode:

- Auto (selects the first available captioning service)
- CC1-4
- Service 1-16

WST Page Number: Enter WST page number (range 0x00 to 0x8ff).

Desired Video Standard: This controls allows the user to choose a video standard that they expect for a particular video input. If the standard is different, video standard mismatch fault will be triggered.

- 525i/59.94
- 625i/50
- 720p/59.94
- 720p/60
- 720p/50
- 1080i/59.94
- 1080i/60
- 1080i/50
- 1080p/59.94
- 1080p/60
- 1080p/50
- 1080p/30
- 1080p/29.97
- 1080p/25

6.5.2. Audio

Error Region (-20 to 0): This control allows user to select error region for audio bars. Error region is red coloured area of audio bars.
Warn Region (-40 to -2): This control allows user to select warn region for audio bars. Warn region is yellow coloured area of audio bars.

Level Bar Type:

- PPM+ VU
- PPM

Phase Bar Type: Allows the user to select between Stereo or DIN

PPM Type:

- AES/ EBU
- BBC
- Nordic

Dolby E Pair:

- Disable
- AES1-8

Dolby E Channel Override 1234:

- Disable
- AES1/2
- AES3/4
- AES5/6
- AES7/8

Dolby E Channel Override 5678:

- Disable
- AES1/2
- AES3/4
- AES5/6
- AES7/8

6.5.3. Global Control

Default Settings: Set alarm settings to factory default for all inputs.

Copy Input Range: Open Dialog button allows to copy setting for that specific input to all other inputs of the card.

6.6. SYSTEM NOTIFY

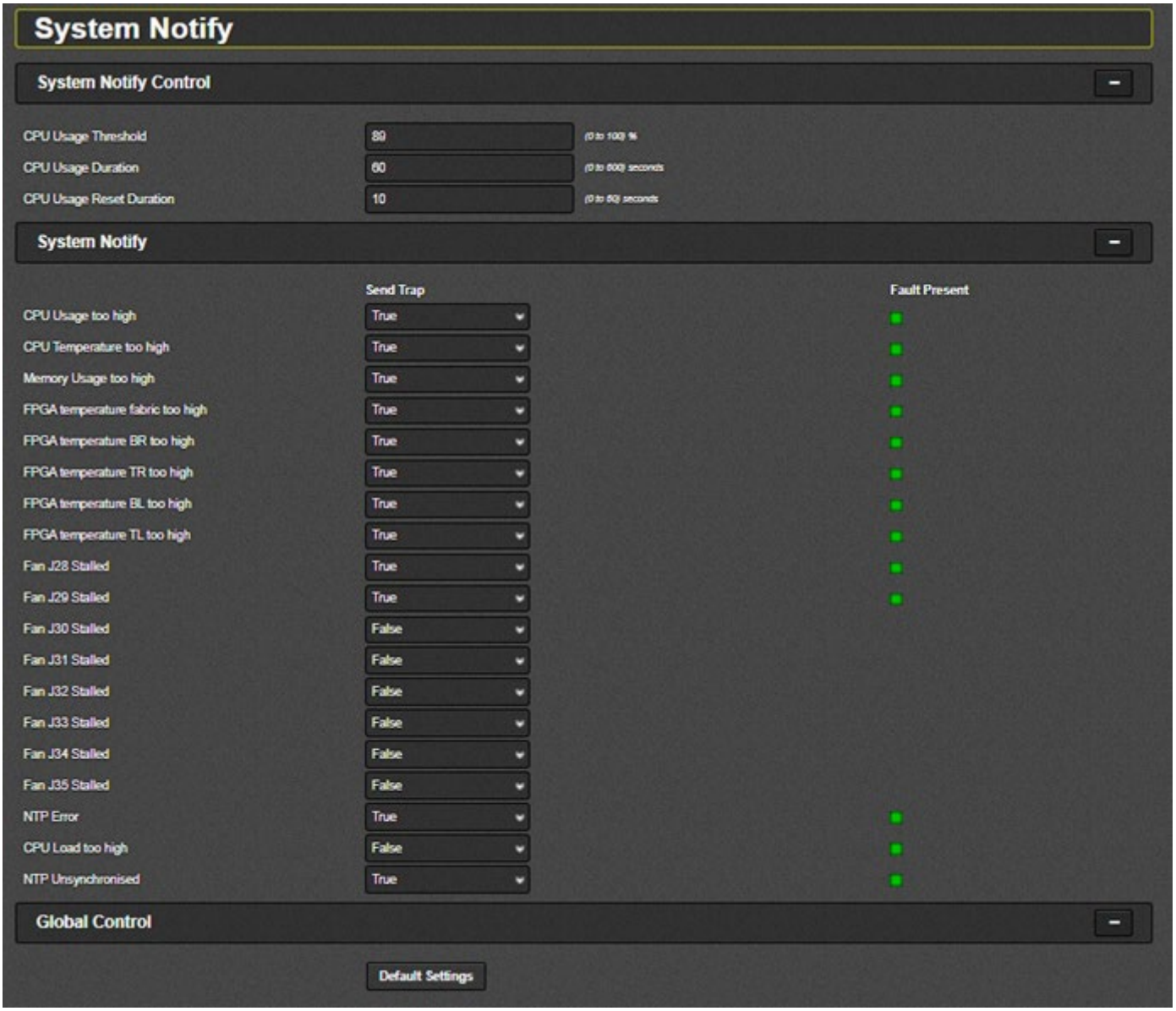


Figure 5-16: WebEASY® - System Notify Tab

6.6.1. System Notify Control

CPU Usage Threshold(0 to 100%): Set the maximum CPU usage threshold before sending a fault notification.

CPU Usage duration(0 to 600)Seconds: Set duration for CPU usage to exceed threshold before a fault notification is sent.

CPU Usage Reset Duration(0 to 60)Seconds: Sets duration for CPU usage to fall below usage threshold before usage duration timer is reset.

6.6.2. System Notify

Send Trap: System Notify allows for fault monitoring and traps to be set to True or False

- CPU Usage too high
- CPU Temperature too high
- Memory Usage too high
- FPGA temperature fabric too high
- FPGA temperature BR too high
- FPGA temperature TR too high
- FPGA temperature BL too high
- FPGA temperature TL too high
- Fan (J28 to J35) Stalled
- NTP Error
- CPU Load too high
- NTP Unsynchronised

6.6.3. Global Control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the System Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

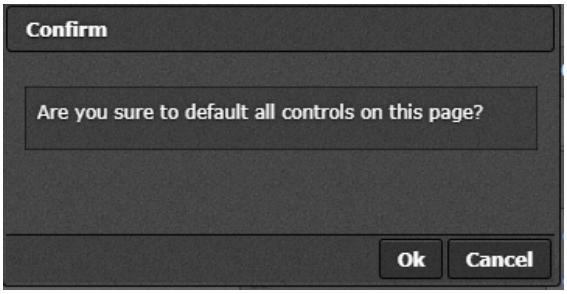


Figure 5-17: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

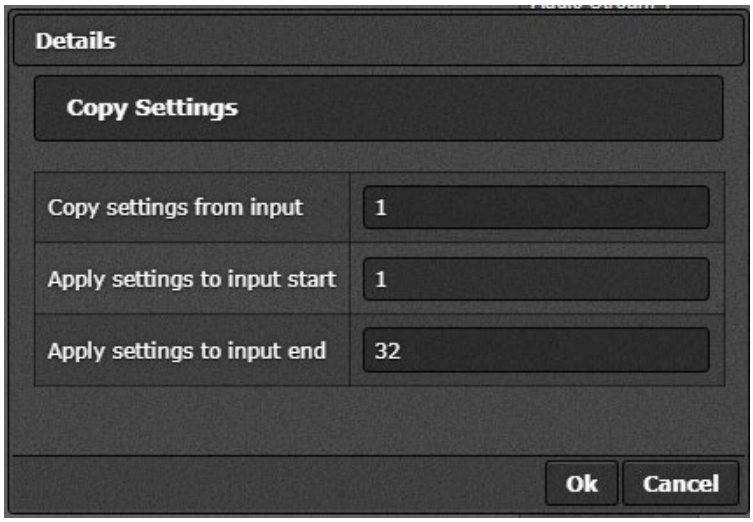


Figure 5-18: WebEASY® - Open Dialog

6.7. VIDEO NOTIFY

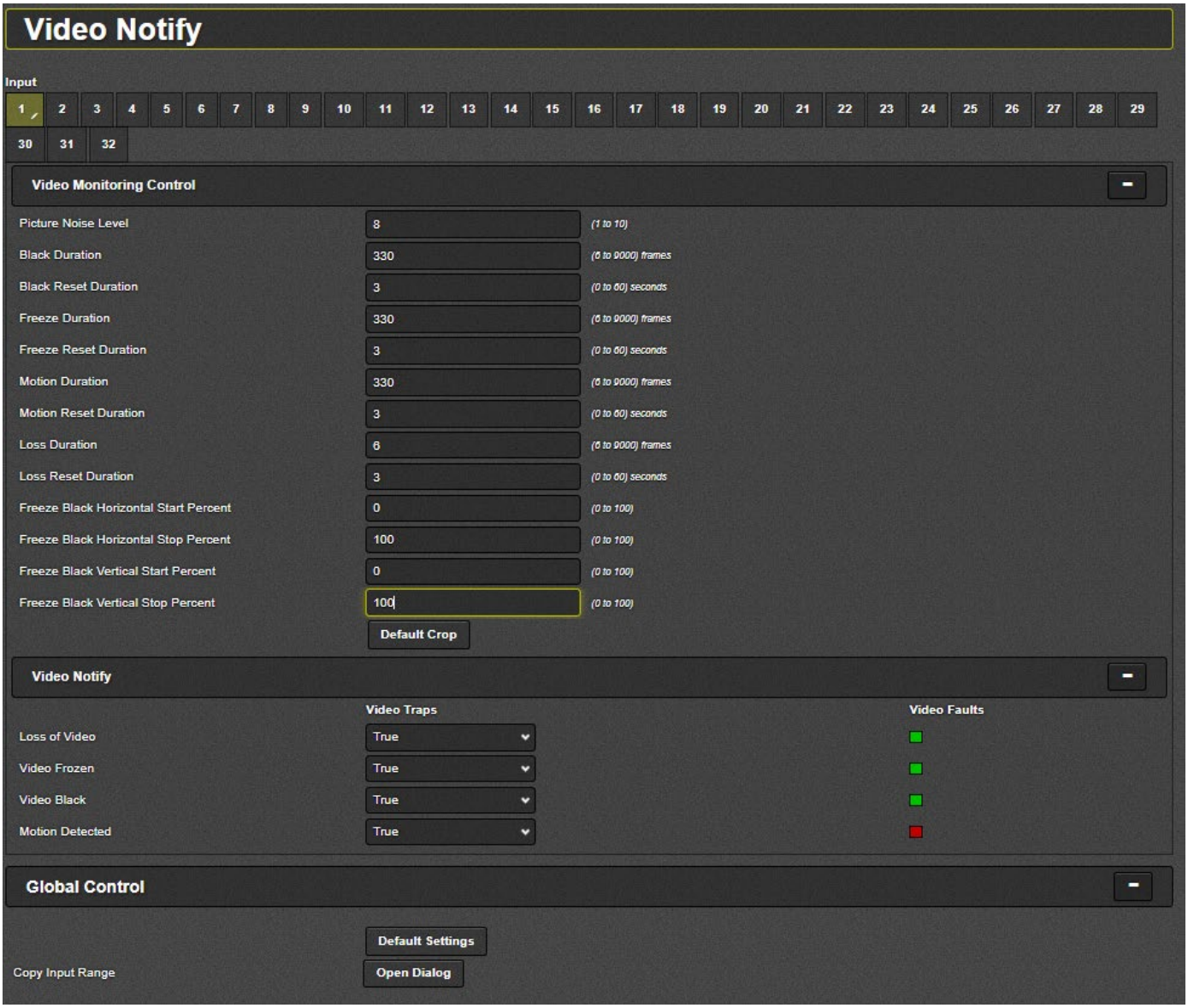


Figure 5-19: WebEASY® - Video Notify Tab

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.7.1. Video Monitoring Control:

For upto 32 input streams, video configuration thresholds used for setting traps and fault monitoring in the Video Notify section.

Picture Noise Level (1 to 10): This control sets the amount for noise level acceptable on the incoming video before triggering a fault. This value should be set to the correct ambient noise level.

Black Duration (6 to 9000 frames): This control is used to set the number of black frames to signal a fault.

Black Reset Duration (0 to 60 seconds): This control sets the amount of time after the non-black video becomes present for the fault to go away.

Freeze Duration (6 to 9000 frames): This control sets the number of frames for a freeze motion fault to appear.

Freeze Reset Duration (0 to 60 seconds): This control sets the amount of time after the freeze motion becomes present for the fault to go away.

Motion Duration (6 to 9000 frames): This control is used to set the number of black frames to signal a fault.

Motion Reset Duration (0 to 60 seconds): This control sets the amount of time after the video becomes frozen for the fault to go away.

Loss Duration (0 to 3600 frames): This control sets the number of frames for a video loss duration fault to appear.

Loss Reset Duration (0 to 60 seconds): This control sets the amount of time after video becomes present for the fault to go away.

Freeze Black Horizontal Start Percent (0 to 100): This control is used to set the number of black horizontal start for freeze motion fault to appear.

Freeze Black Horizontal Stop Percent (0 to 100): This control is used to set the number of black horizontal stop for freeze motion fault to appear.

Freeze Black Vertical Start Percent (0 to 100): This control is used to set the number of black vertical start for freeze motion fault to appear.

Freeze Black Vertical Stop Percent (0 to 100): This control is used to set the number of black horizontal stop for freeze motion fault to appear.

Default Crop: This button is used to reset freeze black start/stop to default values.\

6.7.2. Video Notify

Video Notify allows for fault monitoring and allow traps enable/disable on video faults, previously configured in the sections above on the 32 input streams.

Video Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Video Faults: This field displays green signal when there is no fault on the audio and red for a fault indication.

6.7.3. Global Control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the Video Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

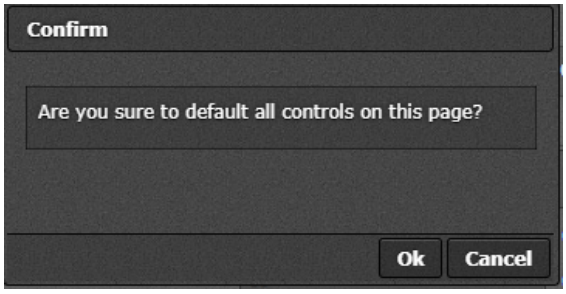


Figure 5-20: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

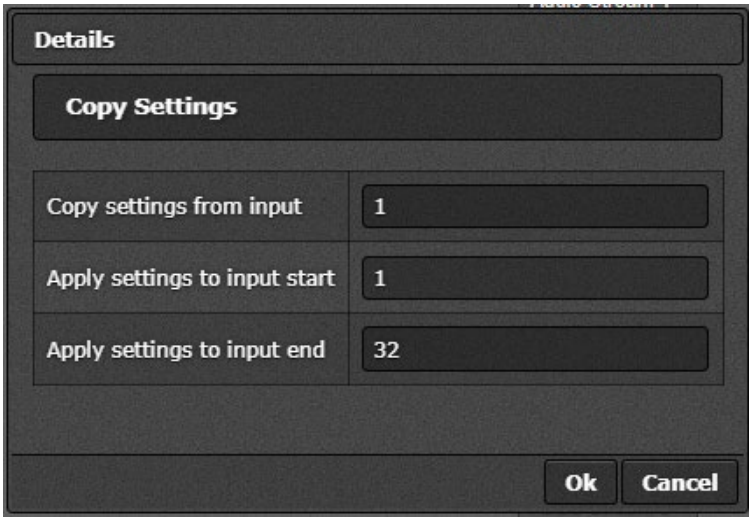


Figure 5-21: WebEASY® - Open Dialog

6.8. AUDIO NOTIFY

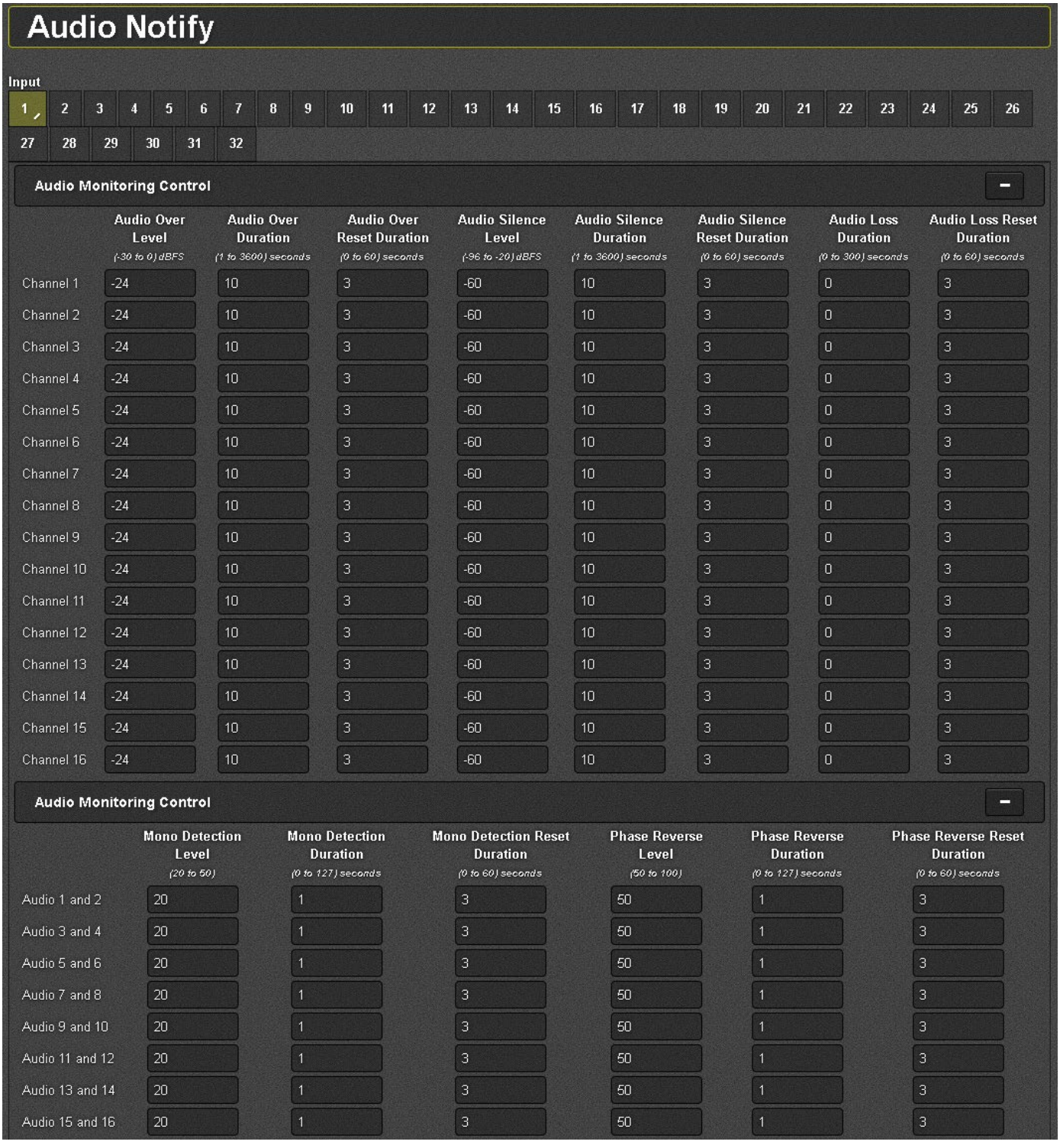


Figure 5-22: WebEASY® - Audio Notify Tab (1)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.8.1. Audio Monitoring Control (1)

For Inputs 1- 32

Audio Over Level (-30 to 0 dBFS): The control sets the threshold limit for the audio Over level (relative loudness).

Audio Over Duration (1 to 3600 seconds): This control sets the duration for the audio over level to trigger a fault condition.

Audio Over Reset Duration (0 to 60 seconds): This control sets the amount of time after audio level is below threshold for the fault to go away.

Audio Silence Level (-96 to -20 dBFS): This control sets the threshold limit for the audio silence level.

Audio Silence Duration (1 to 300 seconds): This control sets the duration for the audio silence level to trigger a fault.

Audio Silence Reset Duration (0 to 60 seconds): This control sets the amount of time after audio silence level is above threshold for the fault to go away.

Audio Loss Duration (0 to 60 seconds): This control sets the audio loss duration to trigger a fault.

Audio Loss Reset Duration (0 to 60 seconds): This control sets the amount of time after the return from an audio loss for a fault to go away.

6.8.2. Audio Monitoring Control (2) pair

For Inputs 1-32 audio pair 1 and2 … Audio 15 and 16

Mono Detection Level (20 to50): This control sets Mono detection level for audio recorder for each individual track recorded.

Mono Detection Duration (0 to127 seconds): This control sets Mono detection duration for audio recorder for each individual track recorded.

Mono Detection Reset Duration (0 to 60 seconds): This control sets Mono detection reset duration for audio recorder for each individual track recorded.

Phase Reverse Level (50 to100): This control shows phase reverse level when the input pins were reversed.

Phase Reverse Duration (0to127)seconds: This control shows phase reverse duration when the input pins were reversed.

Phase Reverse Reset Duration (0 to 60 seconds): This control shows phase reverse reset duration level when the input pins were reversed.

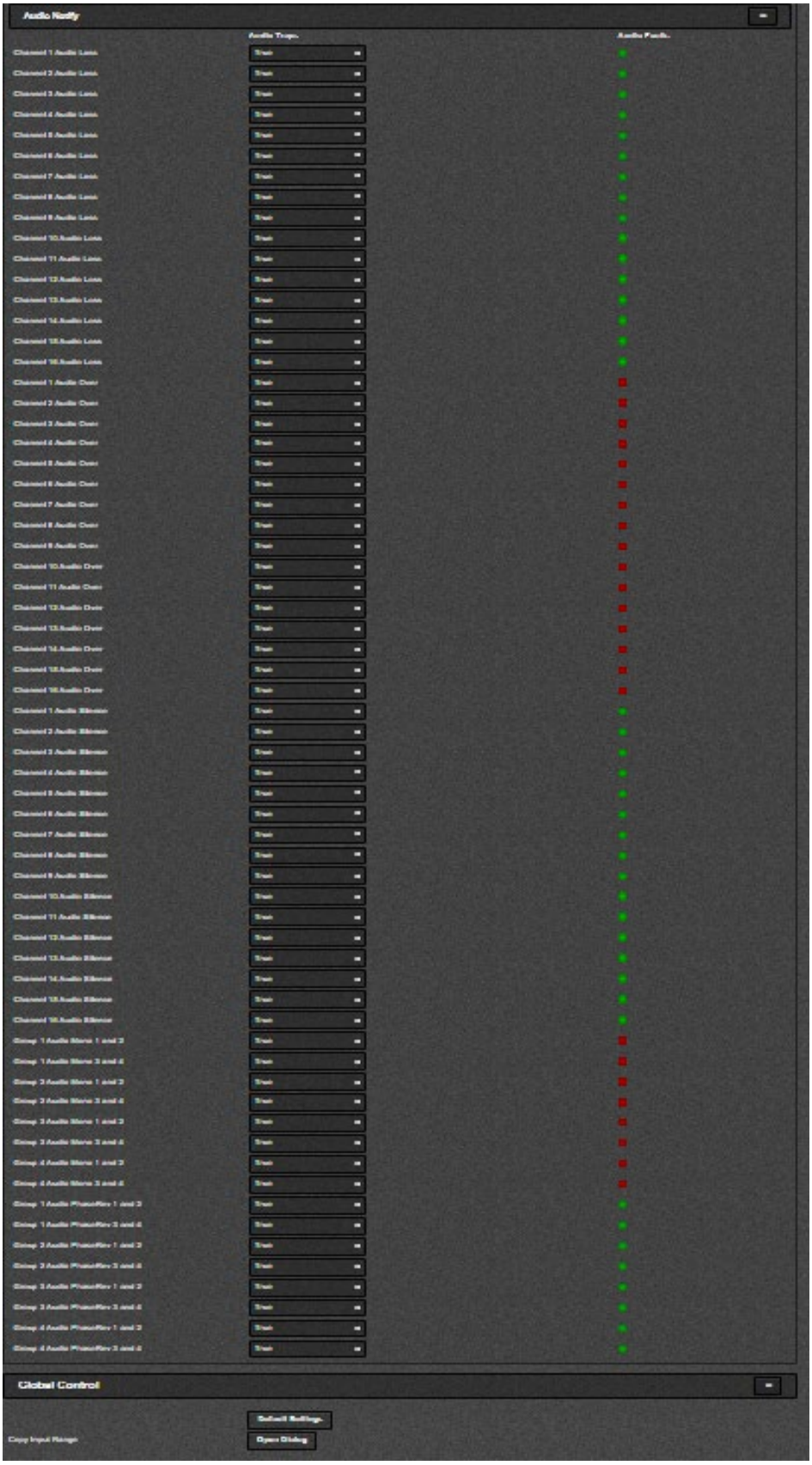


Figure 5-23: WebEASY® - Audio Notify Tab (2)

6.8.3. Audio Notify

Audio Notify allows for fault monitoring and traps enable/disable for audio faults, previously configured in the sections above on the 32-input streams.

Audio Traps: When Enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Audio Faults: This field will display green when there is no fault on the audio and red for a fault indication.

6.8.4. Global Control added global control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the Audio Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

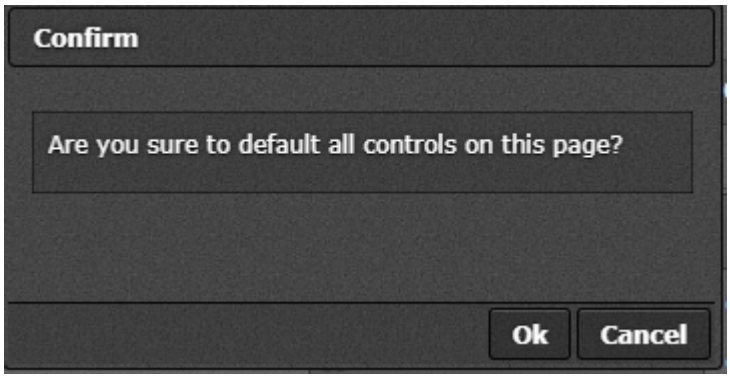


Figure 5-24: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

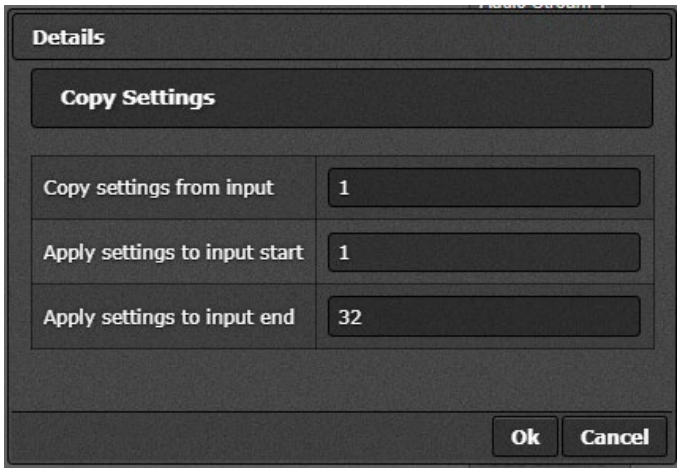


Figure 5-25: WebEASY® - Open Dialog

6.9. SYSTEM MONITOR

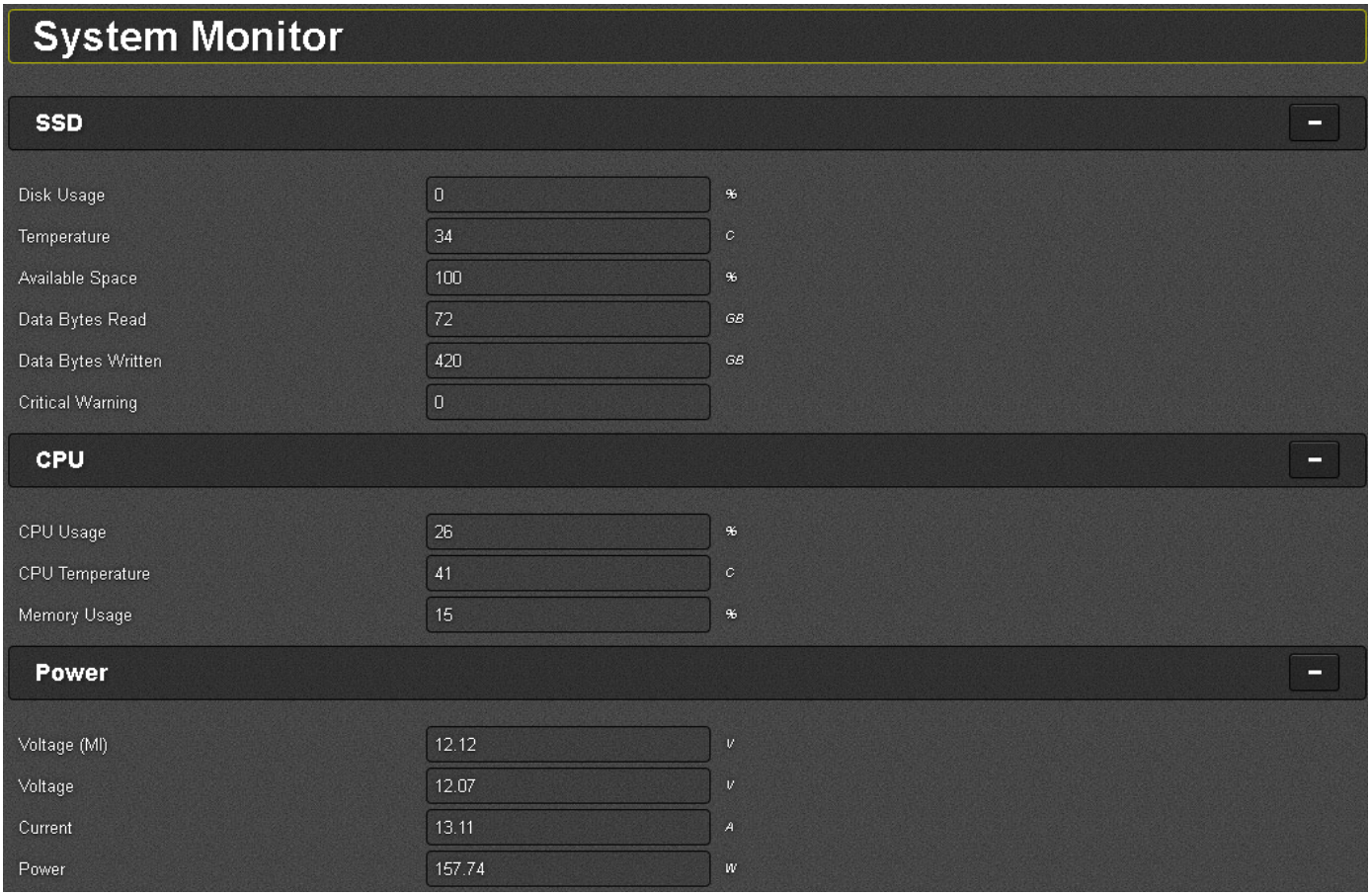


Figure 5-26: WebEASY® - System Monitor Tab (1)

6.9.1. SSD

Disk Usage: This parameter displays the disk usage (in percentage).

Temperature: This parameter displays the temperature (in centigrade).

Available Space: This parameter displays the available disk space (in percentage).

Data Bytes Read: This parameter displays the number of data read (in GB).

Data Bytes Written: This parameter displays the number of data written (in GB).

Critical Warning: This parameter displays the number of occurrences a critical warning has occurred.

6.9.2. CPU

CPU Usage: This parameter displays the disk usage (in percentage).

CPU Temperature: This parameter displays the temperature (in centigrade).

Memory Usage: This parameter displays the memory usage (in percentage).

CPU Load: This parameter displays the CPU load value (in percentage).

6.9.3. Power

Voltage (MI): This parameter displays the voltage prior to power circuit on ev670–X30–HW-V2 (in Volts).

Voltage: This parameter displays the voltage after power circuit on ev670–X30–HW-V2 (in Volts).

Current: This parameter displays the current (in Amps).

Power: This parameter displays the power (in Watts).

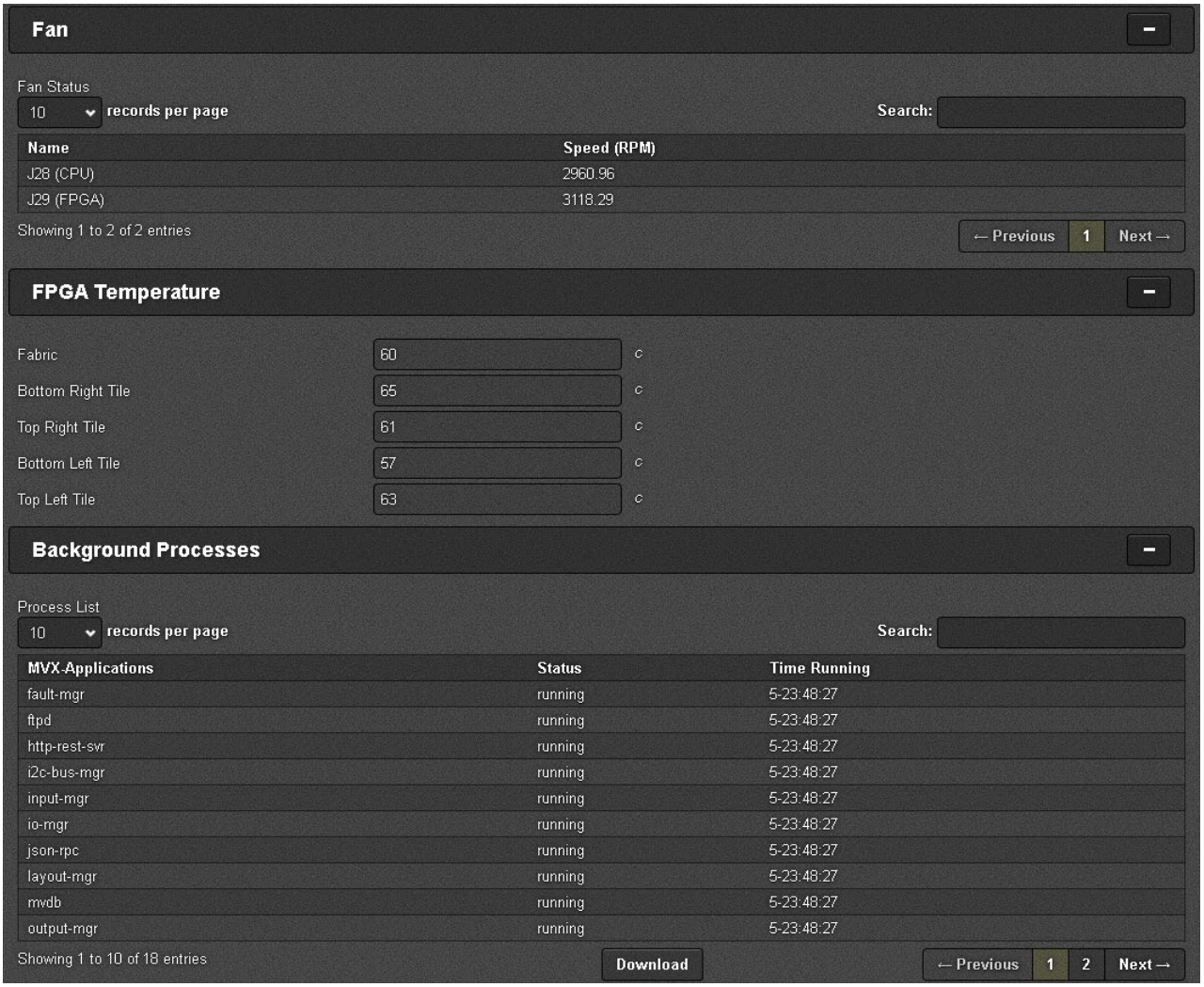


Figure 5-27: WebEASY® - System Monitor Tab (2)

6.9.4. Fan

J28-29: These parameters display the revolutions per minute for each of the fans.

6.9.5. FPGA Temperature

Fabric: This parameter displays the temperature on the FPGA Fabric.

Bottom Right Tile: This parameter displays the temperature on the bottom right tile.

Top Right Tile: This parameter displays the temperature on the top right tile.

Bottom Left Tile: This parameter displays the temperature on the bottom left tile.

Top Left Tile: This parameter displays the temperature on the top left tile.

6.9.6. Background Process

This list (adjustable records per page) displays to the background process names, status, and Time Running. The user can download this list as a CSV file, and can also search for a specific process using the search bar on the right hand side.

6.10. OUTPUT CONTROL

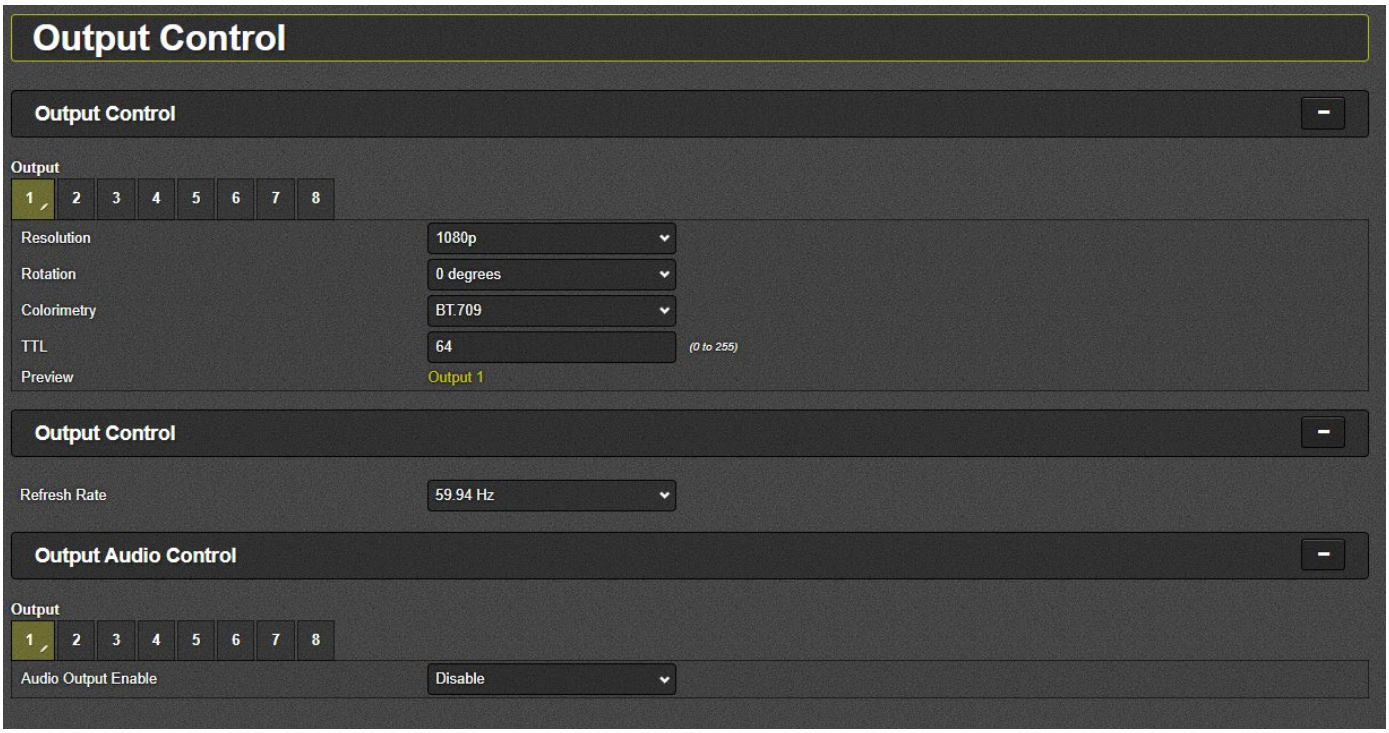


Figure 5-28: WebEASY® - Output Control Tab

6.10.1. Output Control

For Output 1-8.

Output Resolution: This control allows the user to select the required output resolution:

- 720p
- 1080i
- 1080p
- 2160p (maximum 2 displays)

Rotation: This control allows the video output to be rotated.

- 0
- 90
- 270

Colorimetry: This control allows user to select Colorimetry.

- BT.709
- BT.2020
- BT.2100 HLG
- BT.2100 PQ

TTL: This control allows user to set the value for Time To Live limit (0 to 255)

Preview: Displays capture of a particular output of card.

6.10.2. Output Control

Refresh Rate: This control allows user to select Refresh rate.

- 50 Hz
- 59.94 Hz
- 60 Hz

6.10.3. Output Audio Control

Audio Output Enable: This control is used to enable/disable audio output.

6.11. ADVANCED NOTIFY CONTROL

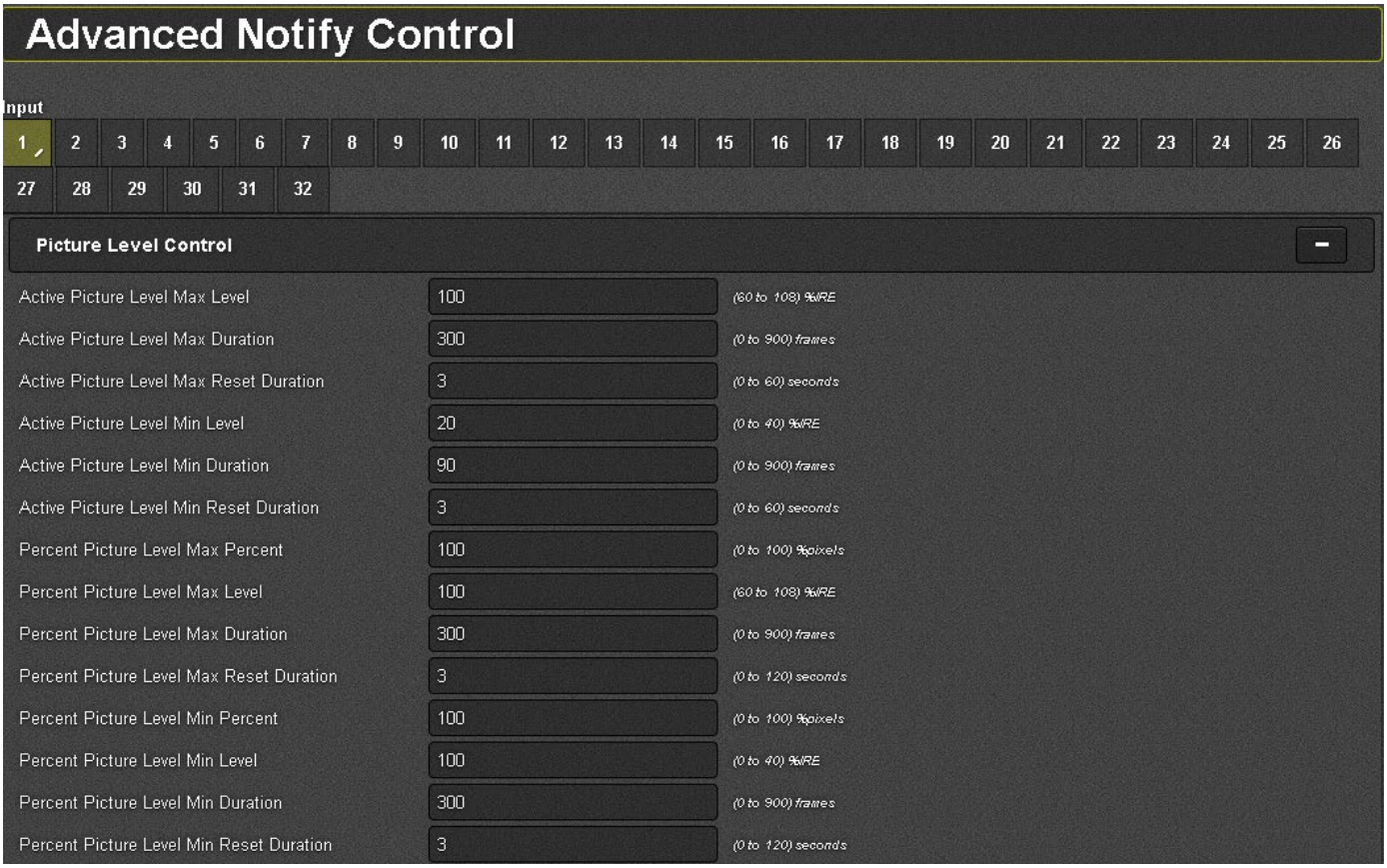


Figure 5-29: WebEASY® - Advanced Notify Control (Part 1)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.11.1. Picture Level Control

For the 32 input streams

Active Picture Level Max Level (60 to 108 %IRE): This control sets the upper threshold for maximum active picture level for a fault condition.

Active Picture Level Max Duration (0 to 900 frames): This control sets the number of frames for above the set threshold for max APL level for a fault to trigger.

Active Picture Level Reset Duration (0 to 60 seconds): This control sets the amount of time for the APL level to be below the upper threshold limit for the fault to go away.

Active Picture Level Min Level (0 to 40 %IRE): This control sets the lower threshold for a minimum active picture level for a fault condition.

Active Picture Level Min Duration (0 to 900 frames): This control sets the number of frames for below the set threshold for minimum APL level for a fault condition.

Active Picture Level Min Reset Duration (0 to 60 seconds): This control sets the amount of time for the APL level to be above the lower threshold limit for the fault to go away.

Percent Picture Level Max Percent (0 to 100 %pixels): Defines the percentage of the total picture used to calculate the max luminance based on the IRE threshold**.**

Percent Picture Level Max Level (60 to 108 %IRE): Defines the upper IRE threshold for percent picture level Max fault.

Percent Picture Level Max Duration (0 to 900 frames): This control sets the number of frames for above the set threshold for the Percent Picture level for a fault to trigger.

Percent Picture Level Max Reset Duration (0 to 120 seconds): This control sets the amount of time for the Percent Picture level to be below the upper threshold limit for the fault to go away.

Percent Picture Level Min Percent (0 to 100 %pixels): Defines the percentage of the total picture that calculates the min luminance based on the IRE threshold.

Percent Picture Level Min Level (0 to 40 %IRE): Defines the lower IRE threshold for percent picture level Min fault.

Percent Picture Level Min Duration (0 to 900 frames): This control sets the number of frames for below the set threshold for the Percent Picture level for a fault to trigger.

Percent Picture Level Min Reset Duration (0 to 120 seconds): This control sets the amount of time for the Percent Picture level to be above the lower threshold limit for the fault to go away.

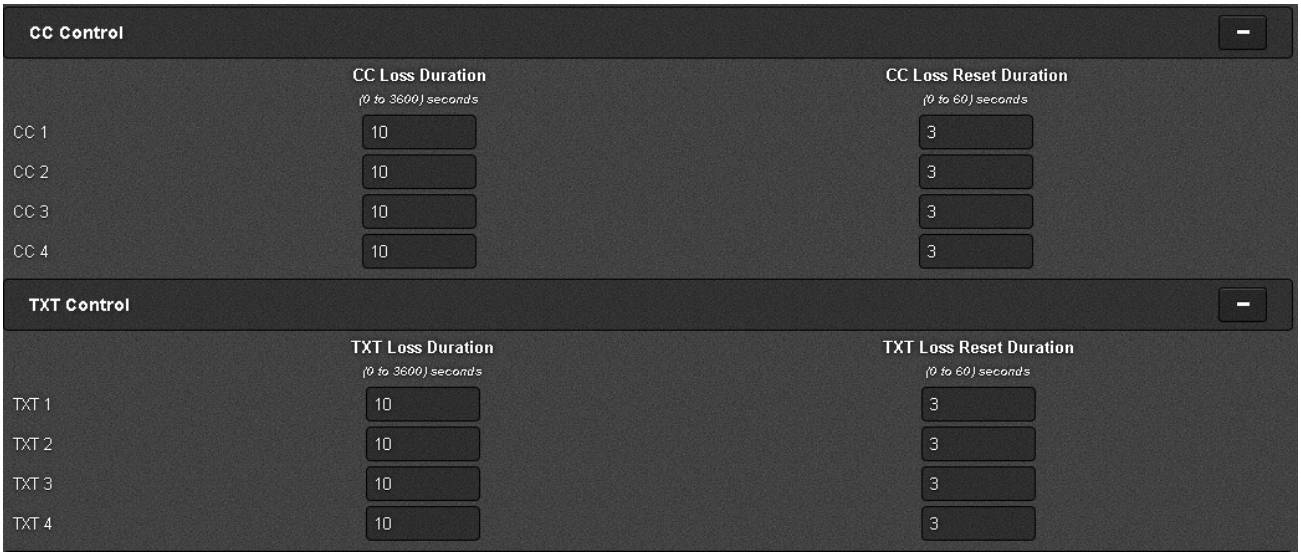


Figure 5-30: WebEASY® - Advanced Notify Control Tab (Part 2)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.11.2. CC Control

For the 64 input streams on CC1 to CC 4

CC Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the CC before triggering a fault condition.

CC Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of CC for the fault to go away.

6.11.3. TXT Control

For the 64 input streams on TXT 1 to TXT 4

TXT Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the TXT before triggering a fault condition.

TXT Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of TXT for the fault to go away.

6.11.4. Nielsen Control

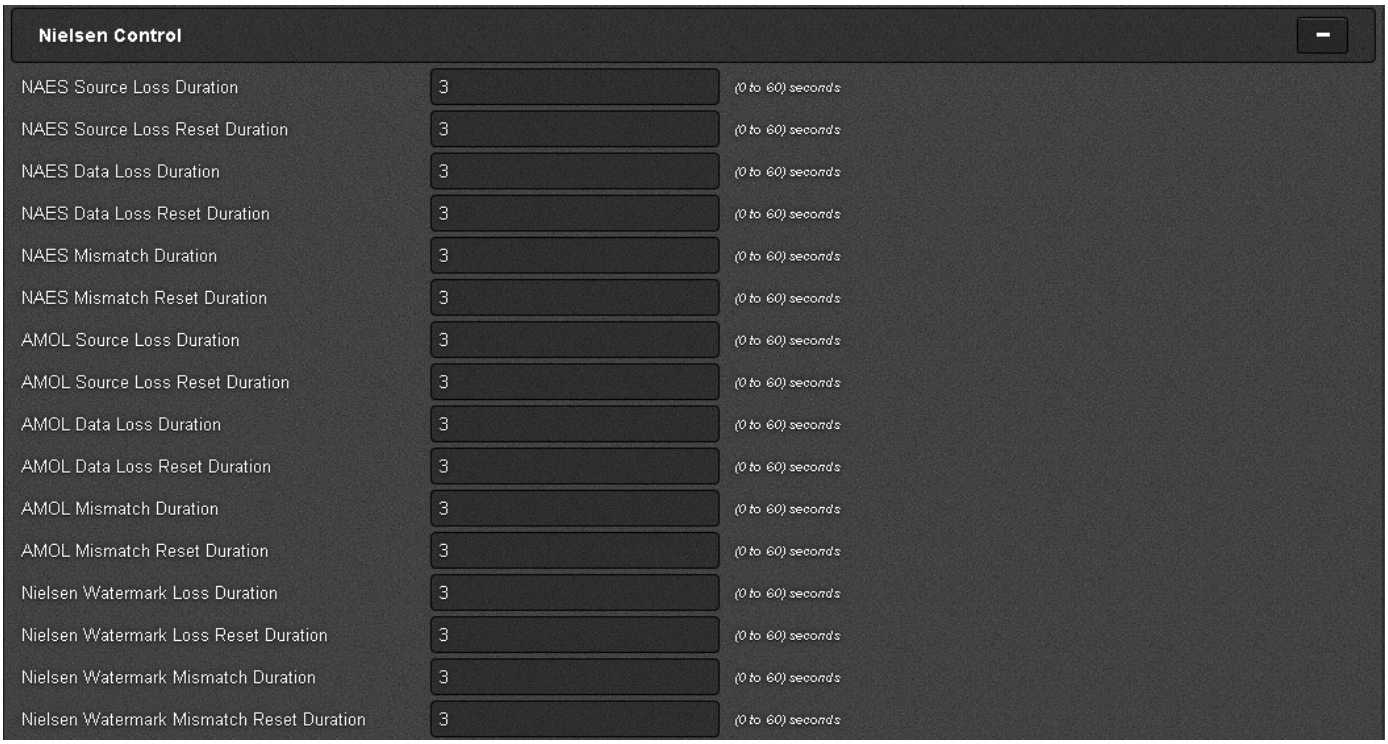


Figure 5-31: WebEASY® - Advanced Control Notify Tab (Part 3)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

For the 64 input streams

NAES Source Loss Duration: This control is used to set the amount of time for the loss of the NAES source before triggering a fault condition.

NAES Source Loss Reset Duration: This control is used to set the amount of time after the return of the NAES Source Loss for the fault to go away.

NAES Data Loss Duration: This control is used to set the amount of time for the loss of the NAES Data Loss before triggering a fault condition.

NAES Data Loss Reset Duration: This control is used to set the amount of time after the return of the NAES Data for the fault to go away.

NAES Mismatch Duration: This control is used to the amount of time for the NAES Mismatch before triggering a fault condition.

NAES Mismatch Reset Duration: This control is used to set the amount of time after the return of correct NAES for the fault to go away.

AMOL Source Loss Duration: This control is used to set the amount of time for the loss of the AMOL Source before triggering a fault condition.

AMOL Source Loss Reset Duration: This control is used to set the amount of time after the return of the AMOL source for the fault to go away.

AMOL Data Loss Duration: This control is used to set the amount of time for the loss of the AMOL Data before triggering a fault condition.

AMOL Data Loss Reset Duration: This control is used to set the amount of time after the return of the AMOL Data for the fault to go away.

AMOL Mismatch Duration: This control is used to set the amount of time for an AMOL mismatch before triggering a fault condition.

AMOL Mismatch Reset Duration: This control is used to set the amount of time after the return of the correct AMOL for the fault to go away.

Nielsen Watermark Loss Duration: This control is used to set the amount of time for the loss of the Nielsen watermark before triggering a fault condition.

Nielsen Watermark Loss Reset Duration: This control is used to set the amount of time after the return of the Nielsen watermark for the fault to go away.

Nielsen Watermark Mismatch Duration: This control is used to set the amount of time for a Nielsen watermark mismatch before triggering a fault condition.

Nielsen Watermark Mismatch Reset Duration: This control is used to set the amount of time after the return of the correct Nielsen watermark for the fault to go away.

6.11.5. EIA 708 Control

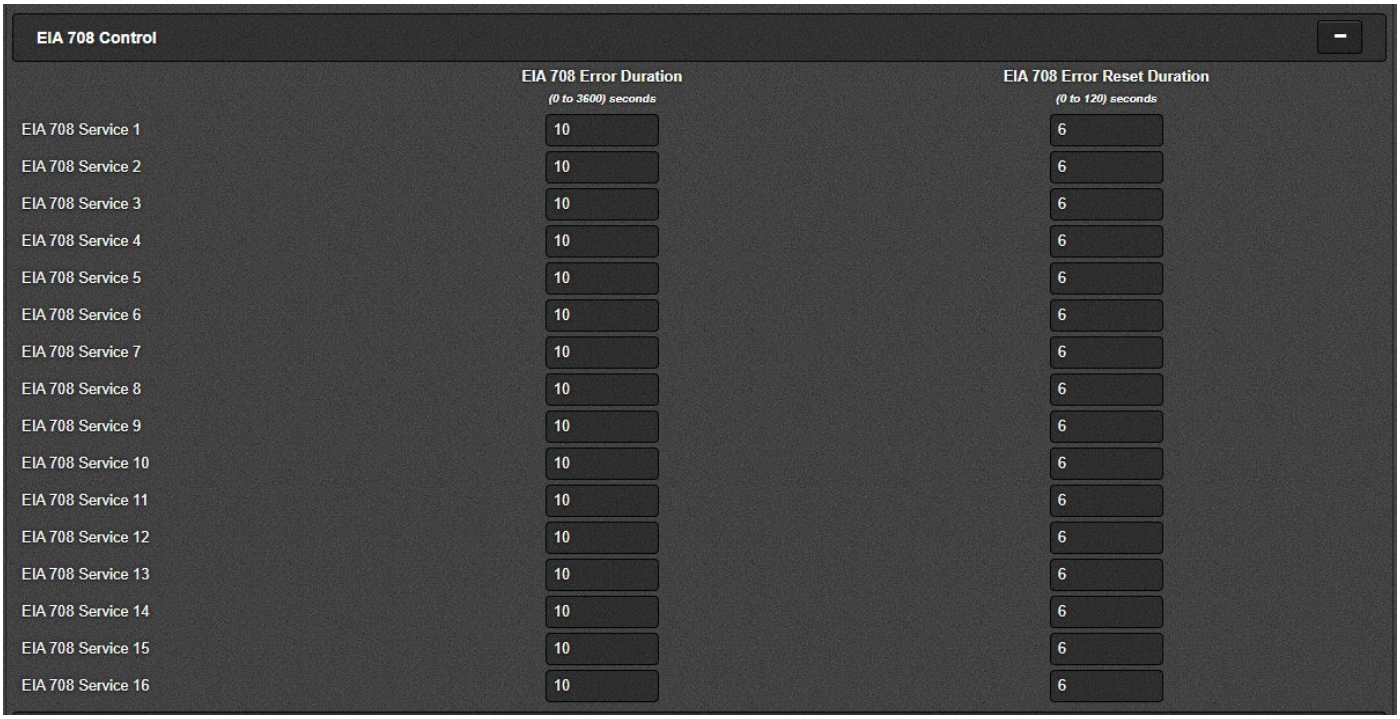


Figure 5-32: WebEASY® - Advanced Control Notify Tab (Part 4)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

For the 32 input streams and EIA Service 1 to EIA Service 16

EIA 708 Error Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Services before triggering a fault condition.

EIA 708 Error Reset Duration (0 to 120 seconds): This control is used to set the amount of time after the return of the Service for the fault to go away.

6.11.6. ANC Control

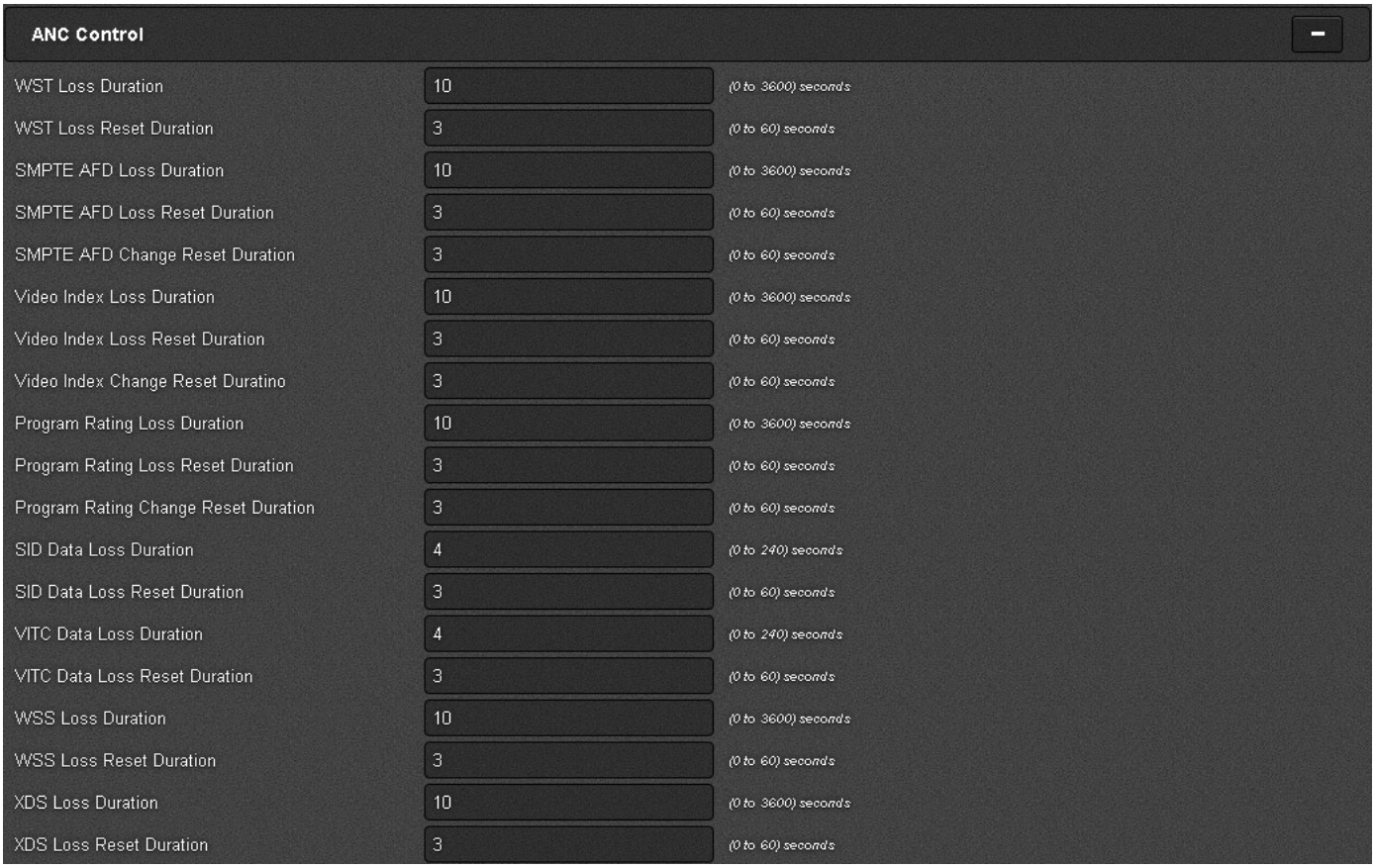


Figure 5-33: WebEASY® - Advanced Control Notify Tab (Part 5)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

For the 64 input streams

WST Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Teletext before triggering a fault condition.

WST Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the Teletext for the fault to go away.

SMPTE AFD Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the SMPTE AFD before triggering a fault condition.

SMPTE AFD Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the SMPTE AFD for the fault to go away.

SMPTE AFD Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time after a change in the SMPTE AFD for the fault to go away.

Video Index Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the video index before triggering a fault condition.

Video Index Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the video index for the fault to go away.

Video Index Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time after a change in the video index for the fault to go away.

Program Rating Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the Services before triggering a fault condition.

Program Rating Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time for the loss of the program rating before triggering a fault condition.

Program Rating Change Reset Duration (0 to 60 seconds): This control is used to set the amount for the program rating changed fault to go away.

SID Data Loss Duration (0 to 240 seconds): This control is used to set the amount of time for the loss of the SID Data before triggering a fault condition.

SID Data Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the SID Data for the fault to go away.

VITC Data Loss Duration (0 to 240 seconds): This control is used to set the amount of time for the loss of the VITC Data before triggering a fault condition.

VITC Data Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the VITC Data for the fault to go away.

WSS Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the WSS before triggering a fault condition.

WSS Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the WSS for the fault to go away.

XDS Loss Duration (0 to 3600 seconds): This control is used to set the amount of time for the loss of the XDS before triggering a fault condition.

XDS Loss Reset Duration (0 to 60 seconds): This control is used to set the amount of time after the return of the XDS for the fault to go away.

6.11.7. Video Control

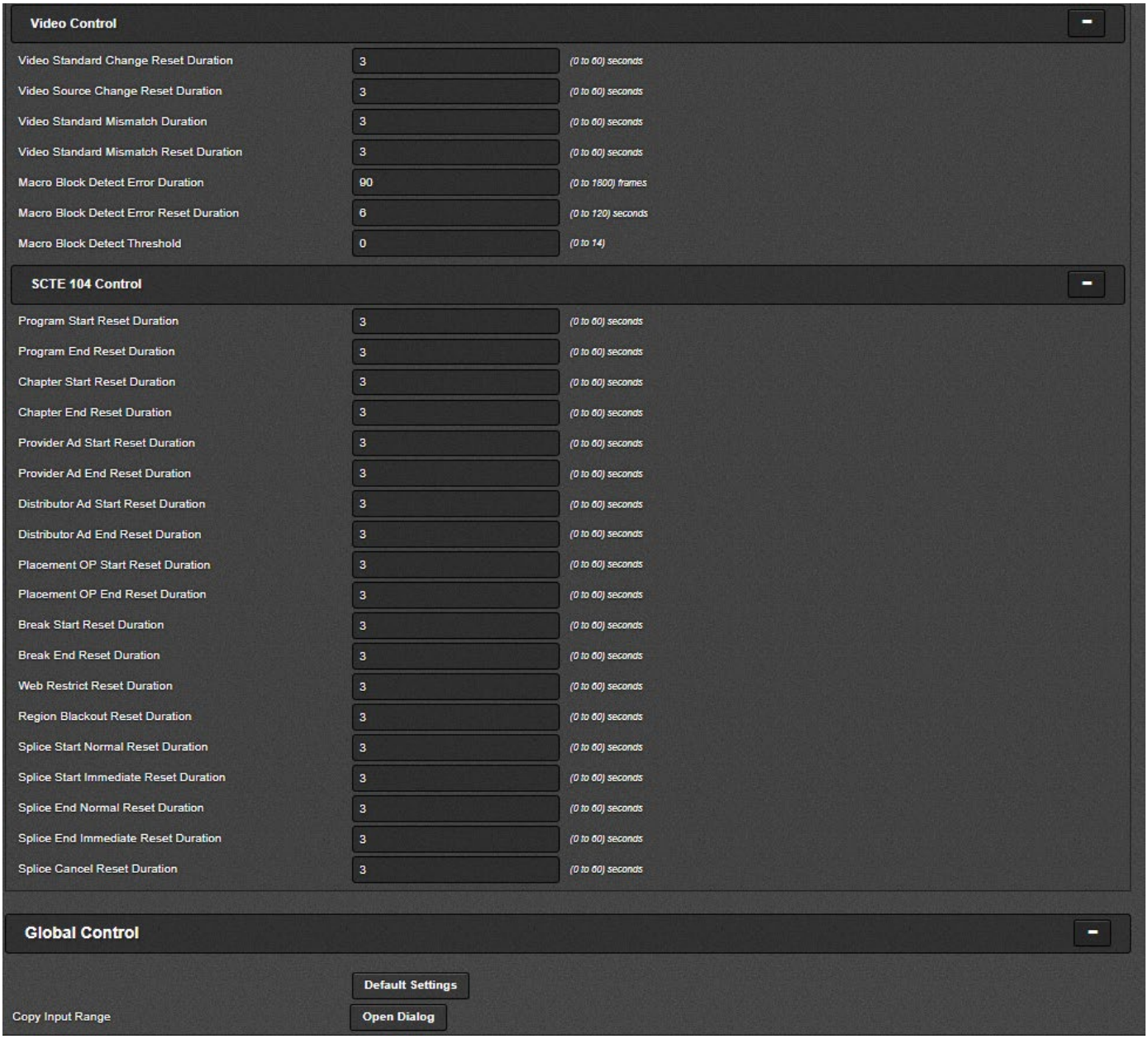


Figure 5-34: WebEASY® - Advanced Control Notify Tab (Part 6)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

For the 32 input streams

Video Standard Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for video standard changed fault to go away after the fault has been triggered.

Video Source Change Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for the video source changed fault to go away after the fault has been triggered.

Video Type Mismatch Duration (0 to 60 seconds): This control is used to set the amount of time required for mismatch in the video type fault to trigger once there is mismatch in type of video.

Video Type Mismatch Reset Duration (0 to 60 seconds): This control is used to set the amount of time required for video type mismatch fault to go await once the fault has been triggered.

Macro Block Detect Error Duration (0 to 1800 frames): This control is used to set the number of frames for an error in the macro block detection before triggering a fault condition.

Macro Block Detect Error Reset Duration (0 to 120 seconds): This control is used to set the amount of time required after the Macro Block is not detecting fault has been triggered.

Macro Block Detect Thresh (0 to 14): This control is used to set the threshold for the Macro Block detection.

SCTE104 Control

Program Start Reset Duration (0 to 60 seconds): This control is used to reset program start duration.

Program End Reset Duration (0 to 60 seconds): This control is used to reset program end duration.

Chapter Start Reset Duration (0 to 60 seconds): This control is used to reset chapter start duration.

Chapter End Reset Duration (0 to 60 seconds): This control is used to reset chapter end duration.

Provider Ad Start Reset Duration (0 to 60 seconds): This control is used to reset provider Ad start duration.

Provider Ad End Reset Duration (0 to 60 seconds): This control is used to reset provider Ad end duration.

Distributor Ad Start Reset Duration (0 to 60 seconds): This control is used to reset distributer Ad start duration.

Distributor Ad End Reset Duration (0 to 60 seconds): This control is used to reset distributer Ad end duration.

Placement OP Start Reset Duration (0 to 60 seconds): This control is used to reset placement OP start duration.

Placement OP End Reset Duration (0 to 60 seconds): This control is used to reset placement OP end duration.

Break Start Reset Duration (0 to 60 seconds): This control is used to reset break start duration.

Break End Reset Duration (0 to 60 seconds): This control is used to reset break end duration.

Web Restrict Reset Duration (0 to 60 seconds): This control is used to reset web restrict duration.

Region Blackout Reset Duration (0 to 60 seconds): This control is used to reset region blackout duration.

Splice Start Normal Reset Duration (0 to 60 seconds): This control is used to reset splice start duration.

Splice Start Immediate Reset Duration (0 to 60 seconds): This control is used to immediate reset splice start duration.

Splice End Normal Reset Duration (0 to 60 seconds): : This control is used to reset splice end duration

Splice End Immediate Reset Duration (0 to 60 seconds): This control is used to immediate reset splice end duration.

Splice Cancel Reset Duration (0 to 60 seconds): This control is used reset splice cancel duration.

6.11.8. Global Control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the Advanced Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

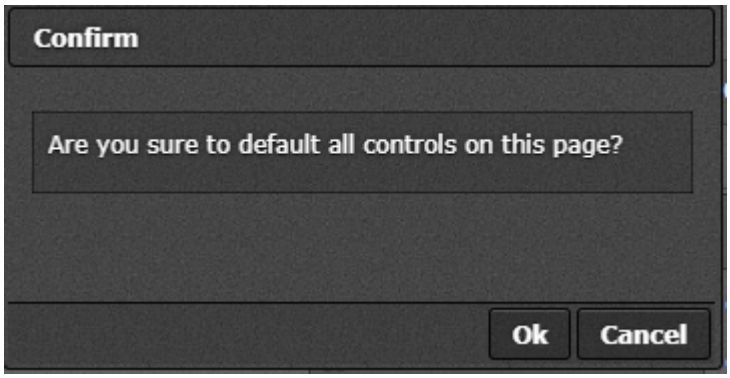


Figure 5-35: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

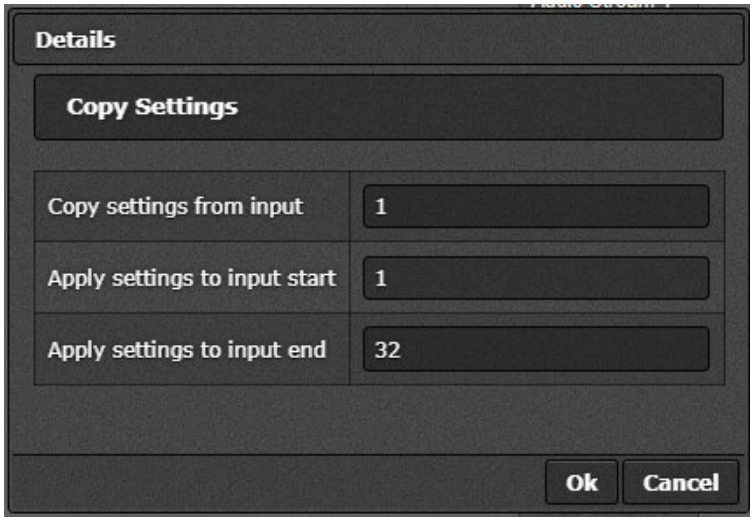


Figure 5-36: WebEASY® - Open Dialog

6.12. ADVANCED NOTIFY

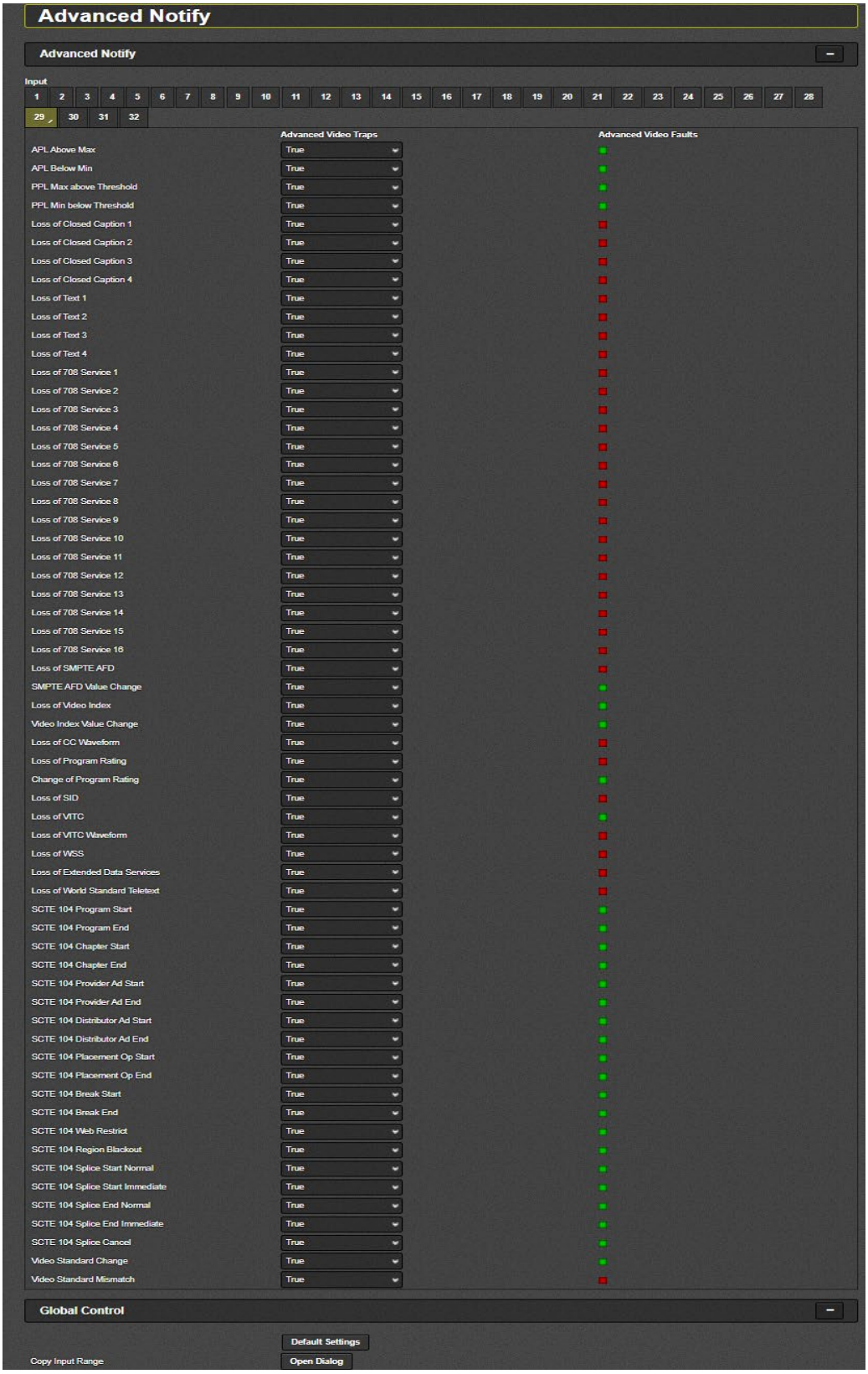


Figure 5-37: WebEASY® - Advanced Notify

6.12.1. Advanced Notify

Advanced Notify allows for fault monitoring and traps to be send on video faults, previously configured in the Advanced Notify Control tab, on the 64 input streams.

Advanced Video Traps: When enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Advanced Video Faults: This monitor will display green when there is no fault on the video and red for a fault indication.

6.12.2. Global Control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the Advanced Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

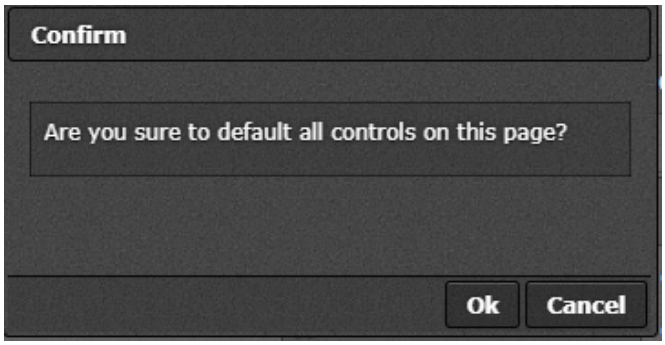


Figure 5-38: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

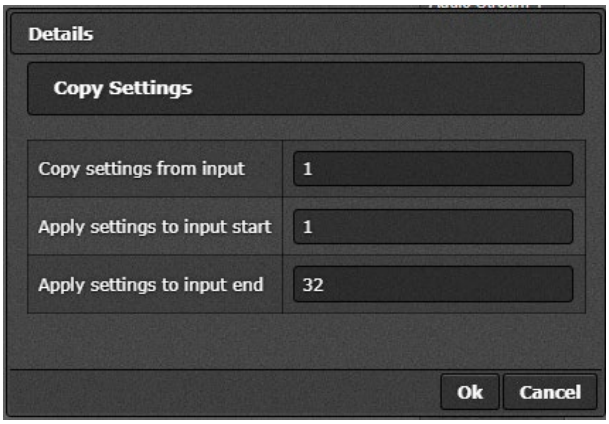


Figure 5-39: WebEASY® - Open Dialog

6.13. ADVANCED AUDIO NOTIFY

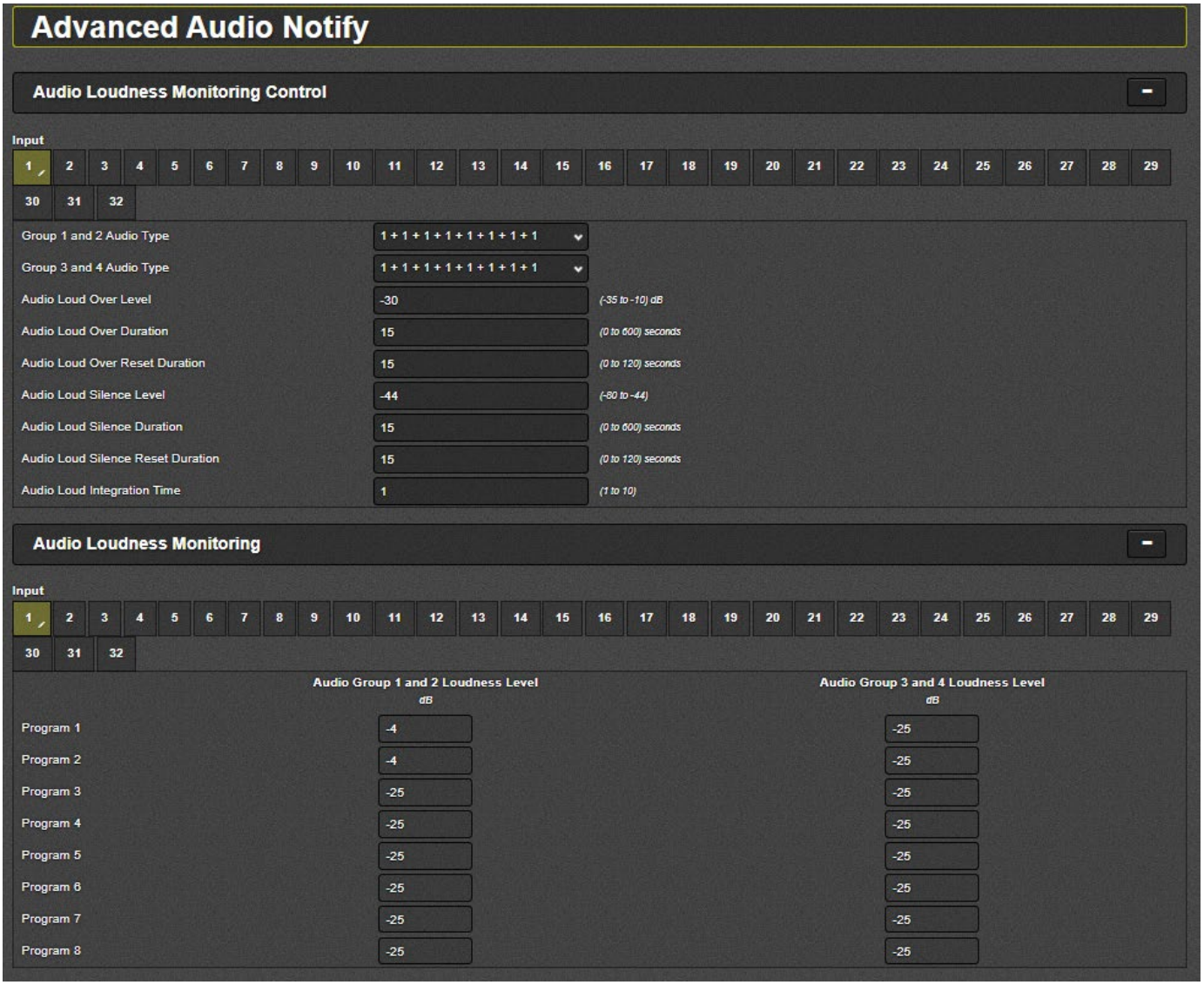


Figure 5-40: WebEASY® - Advanced Notify Tab (Part 1)

NOTE: Some controls might be hidden. To enable these features, additional montionoring license is required.

6.13.1. Audio Loudness Monitoring Control

For the 32 input streams

Group 1 and 2 Audio Type: This control is used to set Group 1 and 2 audio type to any of the following:

- 5.1+2
- 4+4
- 4+2+1+1
- 2+2+2+2(P1 P3 P4 P2)
- 2+2+1+1+1+1
- 1+1+1+1+1+1+1+1
- 4+2
- 2+2+2
- 2+1+1+1+1
- 4
- 5.1+1+1
- 4+2+2
- 4+1+1+1+1
- 2+2+2+1+1
- 2+1+1+1+1+1+1
- 5.1
- 4+1+1
- 2+2+1+1
- 1+1+1+1+1+1
- 2+2

Group 3 and 4 Audio Type: This control is used to set Group 3 and 4 audio type to any of the following:

- 5.1+2
- 4+4
- 4+2+1+1
- 2+2+2+2(P1 P3 P4 P2)
- 2+2+1+1+1+1
- 1+1+1+1+1+1+1+1
- 4+2
- 2+2+2
- 2+1+1+1+1
- 4
- 5.1+1+1
- 4+2+2
- 4+1+1+1+1
- 2+2+2+1+1
- 2+1+1+1+1+1+1
- 5.1
- 4+1+1
- 2+2+1+1
- 1+1+1+1+1+1
- 2+2

Audio Loud Over Level (-35 to -10) dB: This control is used to set audio loud over level within the given range.

Audio Loud Over Duration (0 to 600 seconds): This control is used to set the time required after which audio loud over duration fault will get triggered.

Audio Loud Over Reset Duration (0 to 120 seconds): This control is used to set the time required after which audio loud over duration trigger will get reset.

Audio Loud Silence Level (-80 to -44): This control is used to set audio silence level within the given range.

Audio Loud Silence Duration (0 to 600 seconds): This control is used to set the time required after which audio silence duration fault will get triggered.

Audio Loud Silence Reset Duration (0 to 120 seconds): This control is used to set the time required after which audio silence duration trigger will get reset.

Audio Loud Integration Time (1 to 10): This control is used to set audio loud integration time.

6.13.2. Audio Loudness Monitoring

For the 32 input streams

Audio Group 1 and 2 Loudness Level (dB): This control displays the dB level/value of audio loudness of a particular program (1-8) in group 1 and 2.

Audio Group 3 and 4 Loudness Level (dB): This control displays the dB level/value of audio loudness of a particular program (1-8) in group 3 and 4.

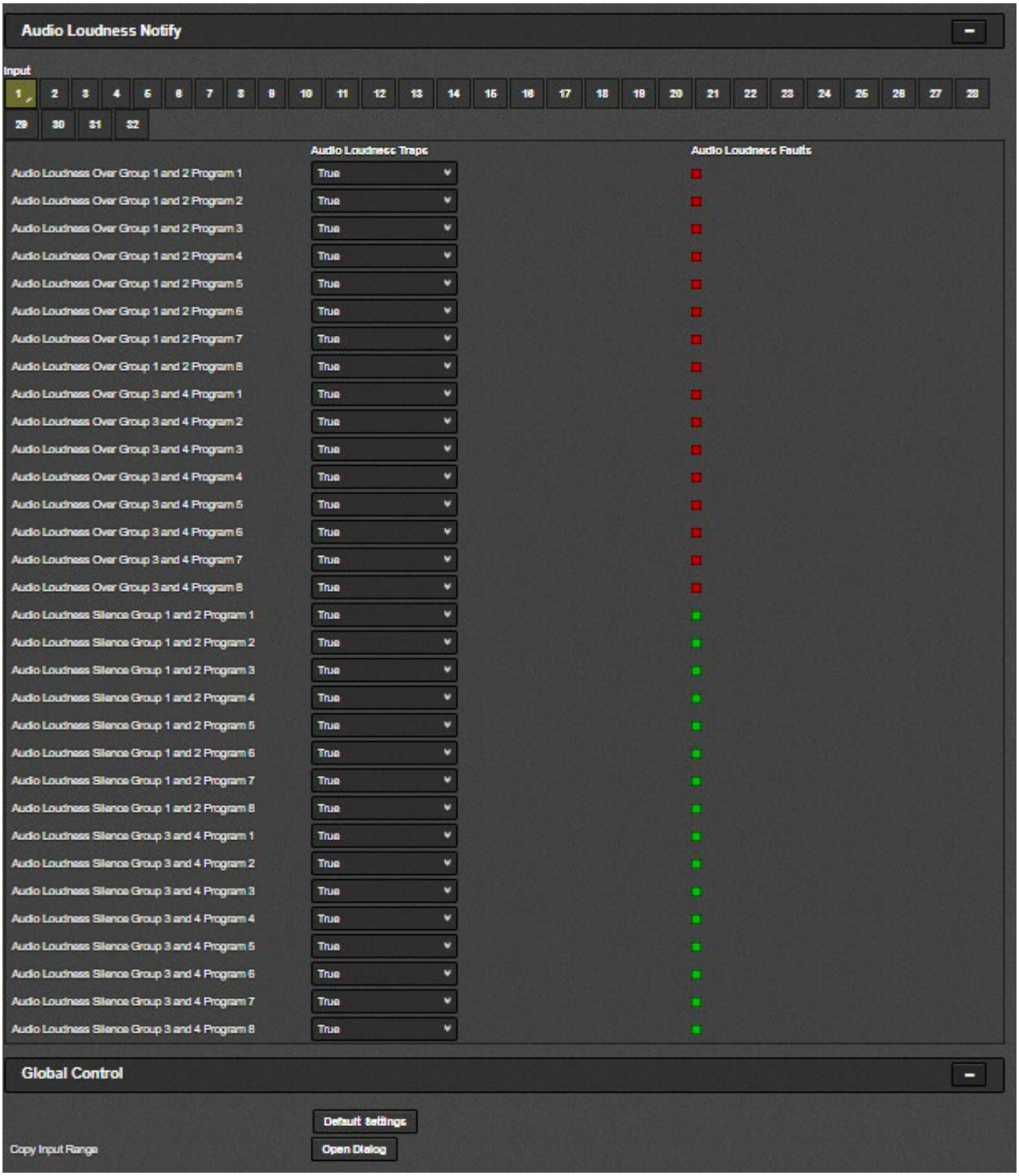


Figure 5-41: WebEASY® - Advanced Notify Tab (Part 2)

6.13.3. Audio Loudness Notify

For the 32 input streams

Audio Loudness Traps: When enabled, a fault condition will send out a trap message to the trap addresses configured in the Trap Control section of the System tab.

Audio Loudness Faults: This monitor will display green when there is no fault on the audio and red for a fault indication.

6.13.4. Global Control

Default Settings: Set alarm settings to factory default for currently selected input.

- **OK**: Confirm change settings of the Advanced Notify page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

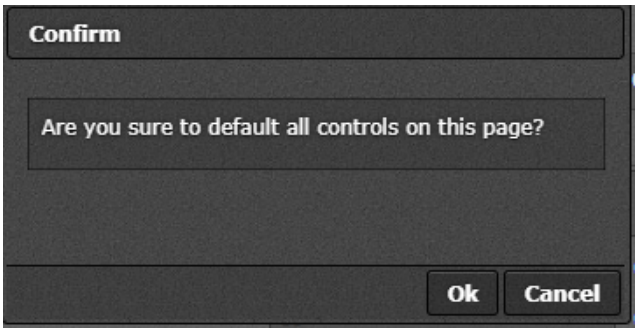


Figure 5-42: WebEASY® - Default Settings

Open Dialog: This setting is used to copy the current input settings on all inputs of the card.

- **Copy Settings From Input:** Select the input from which to copy settings.
- **Apply Settings To Input Start:** Sets the first input for range to apply settings to.
- **Apply Settings To Input End:** Sets the last input for range to apply settings to.
- **OK:** Change settings of that page to default values.
- **Cancel:** Cancels the selection (no changes will be made to the values).

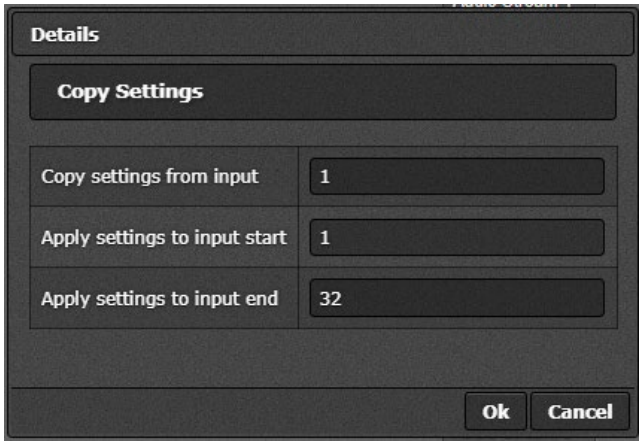


Figure 5-43: WebEASY® - Open Dialog

6.14. GPIO CONTROL

The eVIP-SDI will interface to 7700PTX via TCP/IP Image Video Protocol to send a VGPI command to the PTX Card, which will convert this into a Physical GPO contact closure. Multiple GPO's can be used on a single eVIP-SDI.

Figure 5-44: GPIO Control

1) First you must configure the PTX to take an image video PID and convert it into a specific GPO. This can be found in the PTX manual.
2) Then point the eVIP-SDI to the PTX card via webpage. Ensure to reboot the MVX after this info is entered.
3) Once this is done, the rest of configuration will be done in Magnum/MV designer.
4) The VGPO will be triggered by an alarm state. It can be any alarm the MVX is licensed to monitor. Video Freeze, Black, Audio Low, High, Loss of CC, virtually any alarm. The configuration is actually held in the design tool similar how you would configure a fault alarm. There will be a GPO object that will be linked to a video . It will not be shown on screen.

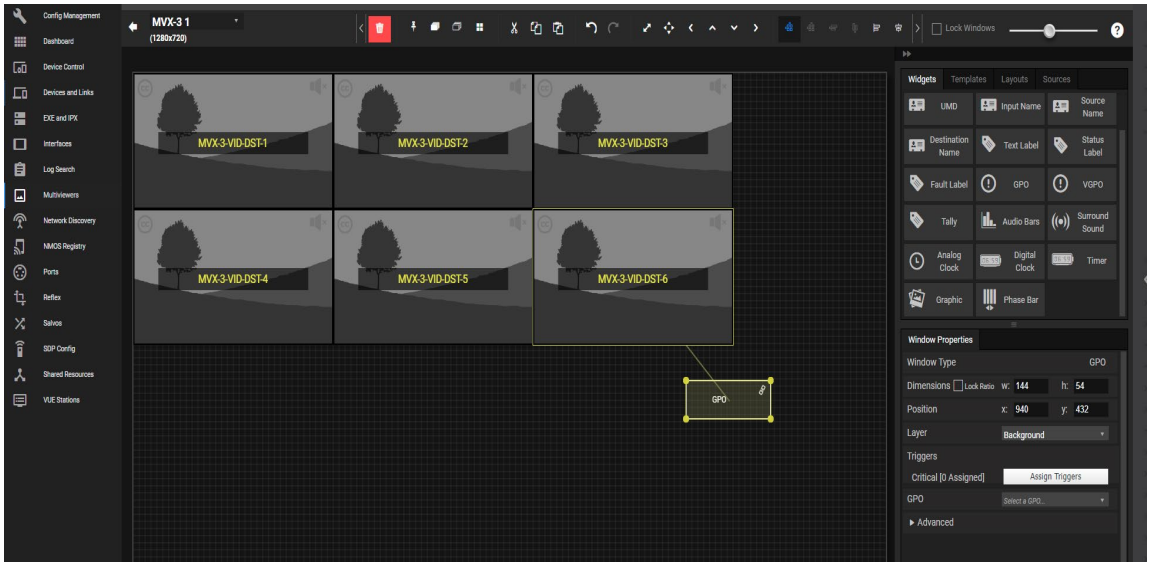


Figure 5-45: Canvas of eVIP-SDI

5) Inside Window Properties, you will configure the alarm that is required to trigger GPO and the GPO number that will correspond to a configured GPO on PTX Card(s). Below you can see configured Video loss to trigger VGPO 5. There is also AND/OR logic, default is OR but if you want to configure a GPO if Video is lost and audio is lost there is logic to do this. Most customers use single fault to VGPO mapping.

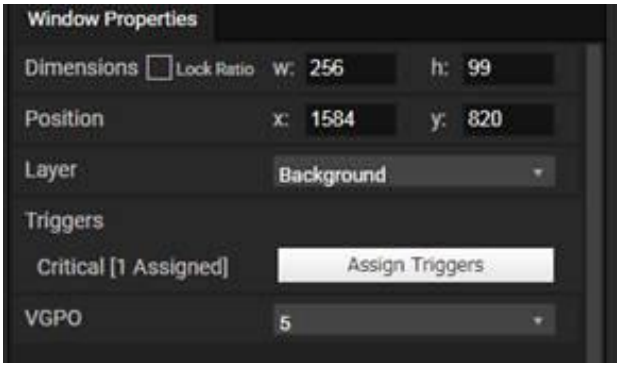


Figure 5-46: Properties of GPIO Widget

You can create multiple VGPO's this way on separate video inputs

6.14.1. GPIO Control

VGPO IP Adress: This control allows the user to set the IP address.

Port Number(1 to 65535): This control allows user to select port between 1 to 65535.

Status: This control shows status of GPIO.

7. FIRMWARE UPGRADE

7.1. FIRMWARE UPGRADE USING WINSCP AND PUTTY SSH

1. Download WinSCP from http://winscp.net/eng/index.php and PuTTY software from http://www.chiark.greenend.org.uk/~sgtatham/putty/
2. Install it on the PC from where the user can ping the unit. Run WinSCP, Host name = IP address of ev670–X30–HW-V2, User name = "**mvx**" and Password = "mvx", protocol can be **SCP or SFTP**.

NOTE: If the ev670–X30–HW-V2 is running default configuration the User Name = "mvx" and password = "mvx".

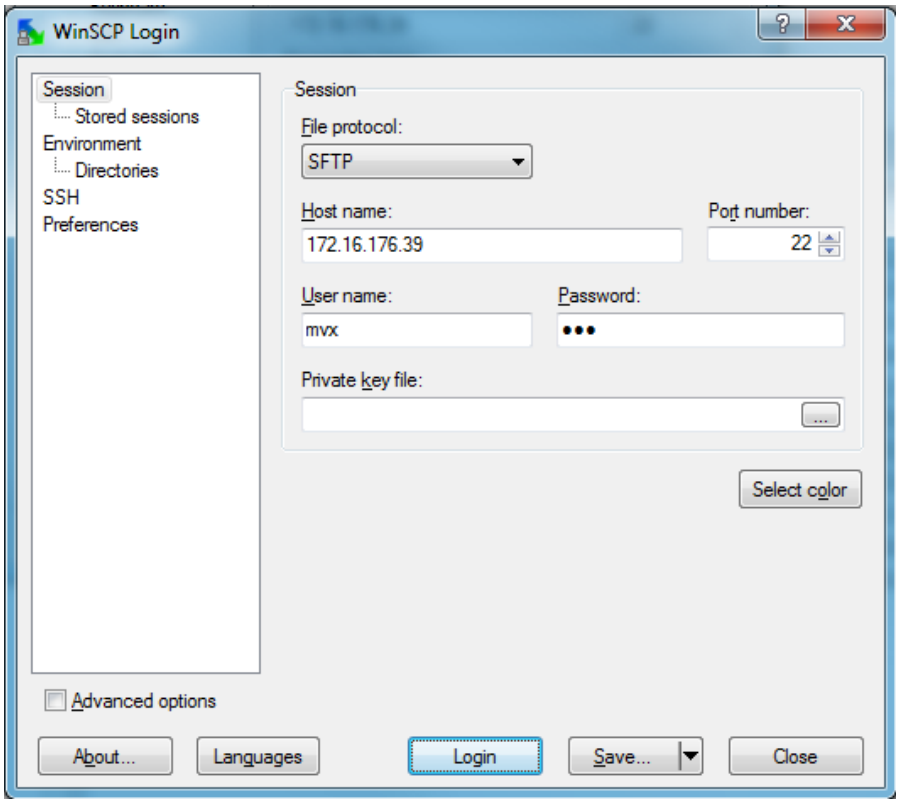


Figure 7-1: WinSCP Login

3. Copy the .efp file to the ev670–X30–HW-V2 default directory (udata/home/mvx).
4. Run the PuTTY program. Enter the IP address of the unit in the **Host Name** field.

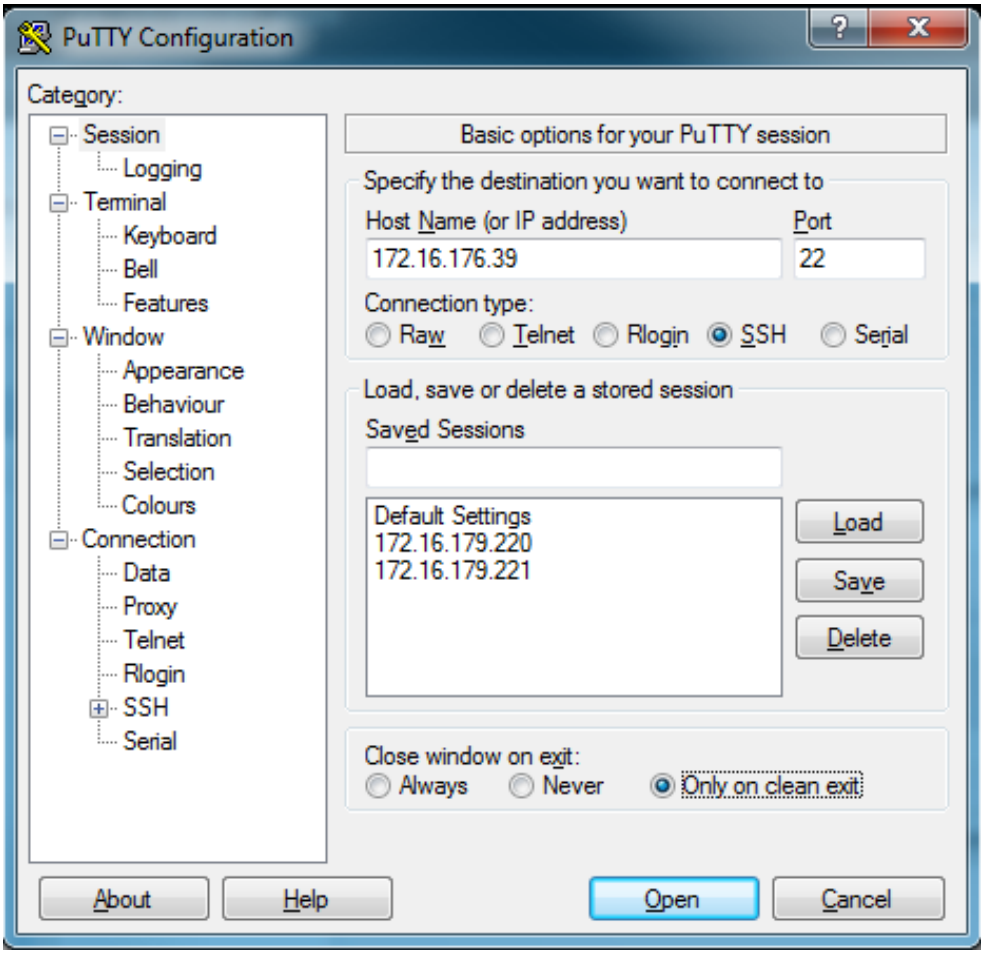


Figure 7-2: PuTTY Configuration - Screen 1

5. Login is “**mvx**” and password is “**mvx**”.
6. Type the following command: “**sudo efpinstall <firmware file name>**”

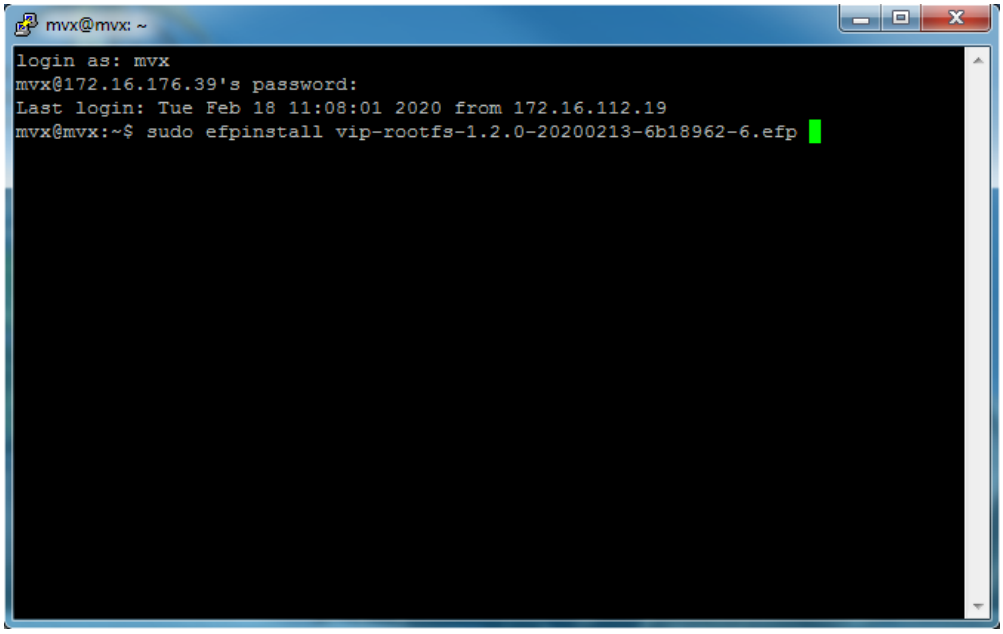


Figure 7-3: PuTTY Configuration - Screen 2

7. When the following page appears (Figure 7-4), reboot the device.

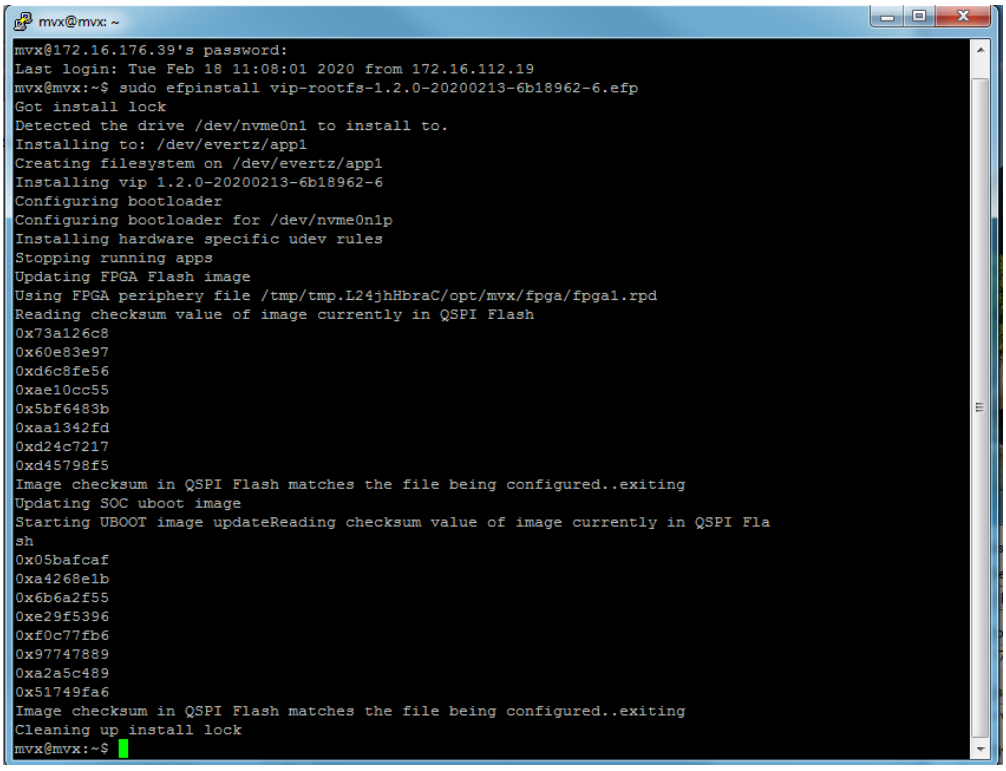


Figure 7-4: PuTTY Configuration - Screen 3

7.2. FIRMWARE UPGRADE USING WINSCP AND

1. Download WinSCP from http://winscp.net/eng/index.php and PuTTY software from http://www.chiark.greenend.org.uk/~sgtatham/putty/
2. Install it on the PC from where the user can ping the unit. Run WinSCP, Host name = IP address of ev670–X30–HW-V2, User name = "**mvx**" and Password = "mvx", protocol can be **SCP or SFTP**.
3. Save the the vip-rootfs-<version>.efp file to local disk.
4. Open a web browser and connect to IP address of ev670–X30–HW-V2
5. Log into the web interface for the card using 'administrator' / 'administrator'.
6. Select 'upgrade' from the top navigation bar.

Figure 7-5: WebEASY© – Top Navigation Bar

7. Use 'browse' to open file explorer and select the vip-rootfs-<version>.efp file.
8. After file is selected, use 'upgrade' to load .efp file and upgrade card.

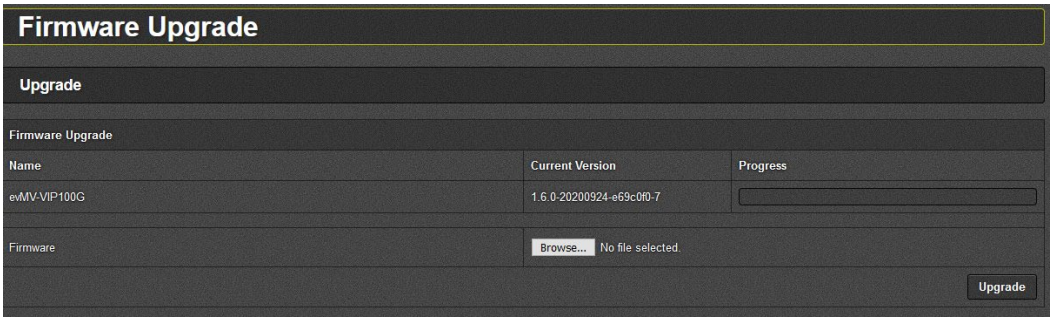


Figure 7-6: Figure 7-7: WebEASY© – Firmware upgrade

9. Once update progress has completed, card will reboot. After card has rebooted new firmware image can be used.