



Emergency Alert System Module



Stock #	Model Name	Description
6778	NXG-EAS	NXG Emergency Alert System for IP (1 Zone)

We recommend that you write the following information in the spaces provided below.

Purchase Location Name:	
Purchase Location Telephone Number:	
NXG-EAS Module Serial Number:	

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This guide makes use of hyperlinks for the Table of Contents, some cross-reference linking between sections, and external hyperlinking to web addresses. This has been done to assist the reader in finding the information they are seeking in a much quicker way. In addition to hyperlinking, the Table of Contents also makes use of the bookmarking feature present in the Adobe Reader application.

Product and Documentation Updates

Download the latest User Manual (PDF) by visiting our website. Navigate to the product page by entering the full Model Name or Stock Number in the search field. Upon reaching the product page, the "User Manual" download link will be located beneath the product image. **Firmware Updates** are available under "Tech Support" in the "Resources" section of the website. General instructions for the FTP site, as well as updating your firmware, are provided on this page.

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Section 1 – General & Safety Instructions



The STOP sign symbol is intended to alert you to the presence of REQUIRED operating and maintenance (servicing) instructions that if not followed, may result in product failure or destruction.



The YIELD sign symbol is intended to alert you to the presence of RECOMMENDED operating and maintenance (servicing) instructions.



The LIGHTNING flash symbol is intended to alert you to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT.

NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

NOTE TO CATV SYSTEM INSTALLER

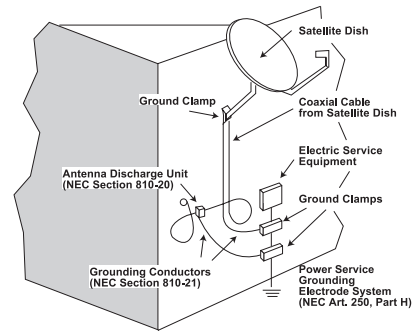
This reminder is provided to call the CATV System Installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



You should always follow these Instructions to help ensure Against injury to yourself and damage to your equipment.

- Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature per Section 2.3.
- Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
- Read all safety and operating instructions before you operate the unit.
- Retain all safety and operating instructions for future reference.
- Heed all warnings on the unit and in the safety and operating instructions.
- Follow all installation, operating, and use instructions.
- Unplug the unit from the AC power outlet before cleaning. Use only a damp cloth for cleaning the exterior of the unit.
- Do not use accessories or attachments not recommended by Blonder Tongue, as they may cause hazards, and will void the warranty.
- Do not operate the unit in high-humidity areas, or expose it to water or moisture.
- Do not place the unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious personal injury and damage to the unit. Install the unit only in a mounting rack designed for 19” rack-mounted equipment.
- Do not block or cover slots and openings in the unit. These are provided for ventilation and protection from overheating. Never place the unit near or over a radiator or heat register. Do not place the unit in an enclosure such as a cabinet without proper ventilation. Do not mount equipment in the rack space directly above or below the unit.
- Operate the unit using only the type of power source indicated on the marking label. Unplug the unit power cord by gripping the plug, not the cord.
- The unit is equipped with a three-wire ground-type plug. This plug will fit only into a ground-type power outlet. If you are unable to insert the plug into the outlet, contact an electrician to replace the outlet. Do not defeat the safety purpose of the ground-type plug.
- Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

- Be sure that the outdoor components of the antenna system are grounded in accordance with local, federal, and National Electrical Code (NEC) requirements. Pay special attention to NEC Sections 810 and 820. See the example shown in the following diagram:



- We strongly recommend using an outlet that contains surge suppression or ground fault protection. For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the lines between the unit and the antenna. This will prevent damage caused by lightning or power line surges.
- Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing the antenna, take extreme care to avoid touching such power lines or circuits, as contact with them can be fatal.
- Do not overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.
- Never insert objects of any kind into the unit through openings, as the objects may touch dangerous voltage points or short out parts. This could cause fire or electrical shock.
- Do not attempt to service the unit yourself, as opening or removing covers may expose you to dangerous voltage and will void the warranty. Refer all servicing to authorized service personnel.
- Unplug the unit from the wall outlet and refer servicing to authorized service personnel whenever the following occurs:
 - The power supply cord or plug is damaged;
 - Liquid has been spilled, or objects have fallen into the unit;
 - The unit has been exposed to rain or water;
 - The unit has been dropped or the chassis has been damaged;
 - The unit exhibits a distinct change in performance.
- When replacement parts are required, ensure that the service technician uses replacement parts specified by Blonder Tongue. Unauthorized substitutions may damage the unit or cause electrical shock or fire, and will void the warranty.
- Upon completion of any service or repair to the unit, ask the service technician to perform safety checks to ensure that the unit is in proper operating condition.

Section 2 – Product Summary

2.1 Revision History & Reason

This is the first release of this manual.

2.2 Product Application & Features

Application:

The **NXG-EAS (EAS Module for IP)** is part of the Blonder Tongue NeXgen Gateway (NXG) platform that supports full content video delivery from a service provider to enterprise property locations via Ethernet.

The **NXG-EAS** module is a scalable and cost-effective solution allowing video service providers to deliver next generation video content and SCTE compliant Emergency Alert System messaging to hospitality locations.

Each **NXG-EAS** module handles one EAS zone permitting up to 512 SPTS in a single NXG system to service multiple properties with targeted messages by using multiple EAS and IP or QAM output modules. The IP transport streams are then routed to the NXG backplane for further IP or RF distribution.

NXG-IP Features:

- SCTE-18 compliant
- One module required for each EAS zone
- Supports Standard Geographical Classification (SGC) codes to utilize SCTE-18 for Canadian EAS IP applications
- EAS start/end test capability
- Supports up to 512 programs for EAS broadcast

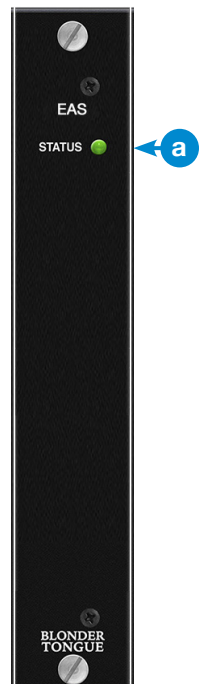
Description:

a STATUS LED:

LED is Off = Indicates the module is not correctly connected or receiving power.

LED is Green = Indicates the module is running without errors.

LED is Red = Indicates that one or more errors have been detected.



2.3 Module Specification

Input/Output

Input	
IP Addressing:	IP streams via NXG mainframe back plane Multicast or Unicast
Output	
IP:	EAS IP streams via NXG mainframe back plane

Alarms/Monitoring

Front Panel Indicator:	1x Status LED
-------------------------------	---------------

General

Dimensions: (W x D x H)	1.15" x 15.5" x 7.0" (29 mm x 394 mm x 178 mm)
Power:	Via NXG Mainframe back plane
Power Consumption:	20 W
Weight:	2.0 lbs (0.9 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating Humidity:	0 to 95% RH @ 35 °C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

2.4 Module Installation

For general module installation instructions, please refer to the NXG Base Platform User Manual.

Section 3 – Status

The “**Status**” tab (Figure 3) displays the general health and module information at a glance. The information is provided as a quick way to monitor the module or assist with troubleshooting issues that may arise.

Status	Streams	System	Time	Notification											Log	Firmwar																									
Modules: CableCARD (1) CableCARD (2) IP MPTS In (3) IP SPTS I/O (4) Slot 5 EPG (6) EAS Proc (7) Slot 8 P:I IP (9) P:I QAM (10) Slot 11 32 QAM Out (12)																																									
<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; padding-bottom: 5px;"> Status TS Select EAS Config System </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #0070C0; color: white;"> <th colspan="2">Module Status</th> </tr> </thead> <tbody> <tr> <td>Module Status</td> <td style="text-align: right;">Ok</td> </tr> <tr> <td>Module Temperature</td> <td style="text-align: right;">110.9 °F</td> </tr> <tr> <td>Module Uptime</td> <td style="text-align: right;">5 days, 20:15:03</td> </tr> <tr> <td>Model Number</td> <td style="text-align: right;">NXG-EAS</td> </tr> <tr style="background-color: #0070C0; color: white;"> <th colspan="2">Detected Issues</th> </tr> <tr> <td colspan="2" style="text-align: center;">No issues detected</td> </tr> <tr style="background-color: #0070C0; color: white;"> <th colspan="2">Module Information</th> </tr> <tr> <td>Serial Number</td> <td></td> </tr> <tr> <td>Software Version</td> <td style="text-align: right;">1.0.0.0</td> </tr> <tr> <td>Backplane Firmware Version</td> <td style="text-align: right;">1.3</td> </tr> <tr> <td>Slot Location</td> <td style="text-align: right;">7</td> </tr> <tr> <td>Model Number</td> <td style="text-align: right;">NXG-EAS</td> </tr> </tbody> </table>																Module Status		Module Status	Ok	Module Temperature	110.9 °F	Module Uptime	5 days, 20:15:03	Model Number	NXG-EAS	Detected Issues		No issues detected		Module Information		Serial Number		Software Version	1.0.0.0	Backplane Firmware Version	1.3	Slot Location	7	Model Number	NXG-EAS
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Figure 3 - “Module” Tab - Full View

3.1 Module Status

In the section entitled “**Module Status**” (Figure 3.1), the following parameters about the module health are displayed:

Module Status	
1	Module Status Ok
2	Module Temperature 110.9 °F
3	Module Uptime 5 days, 20:15:03
4	Model Number NXG-EAS

Figure 3.1 - “Status” Tab - Module Status

- 1 Status:** Indicates the current status of the module. Status Levels and colors shown below:
 - Ok** - No issues at the current time
 - Error** - One or more errors have occurred. A short summary of the error message is shown under “Detected Issues”. Check system log for more information on error(s).
- 2 Temperature:** Indicates the temperature of the module.
- 3 Module Uptime:** Indicates the length of time that the module has been running since the last reboot.
- 4 Model Number:** Indicates the model number of the module installed.

3.2 Detected Issues

In the section entitled “**Detected Issues**”, the following module-specific information is indicated:

Detected Issues
No issues detected

Figure 3.2a - “Status” Tab - No Detected Issues

If any issues arise, the problem will be shown here and the color will correlate to the urgency of the issue. When there are no issues, the text will say “No issues detected” and remain black text color. When there is an Error, then the text will change to **red** and indicate what is causing the error (see Figure 3.2b)

3.2 Detected Issues (continued)

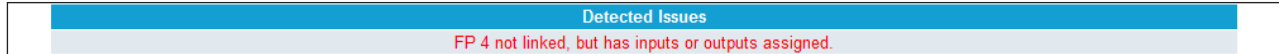


Figure 3.2b - “Status” Tab - Detected Issue

3.3 Module Information

In the section entitled “**Module Information**”, the following module-specific information is shown below:

Module Information		
1	Serial Number	
2	Software Version	1.0.0.0
3	Backplane Firmware Version	1.3
4	Slot Location	7
5	Model Number	NXG-EAS

Figure 3.3 - “Status” Tab - Module Information

- 1 **Serial Number:** Indicates the serial number of the module installed.
- 2 **Software Version:** Indicates the software version of the module. To update software, please see Section 8.
- 3 **Backplane Firmware Version:** Indicates the backplane firmware version for this module. Backplane version is only needed for tech support and software debugging.
- 4 **Slot Location:** Indicates the slot location on the platform chassis where the module is currently installed into.
- 5 **Model Number:** Indicates the model number of the module installed.

Section 4 – Transport Stream

The “**TS Selection**” Tab allows a user to choose which available input programs to set up for EAS.

NOTE: Clicking the small arrow (collapsed; expanded) beside each program will show or hide further choices or read-only data.

4.1 Configuration Settings and Parameters

The “**Available Inputs**” column shows a list of all programs available on the NXG platform available for EAS. The following read-only information is shown:

- Module (Number):** Displays programs sourced from all input modules within the NXG platform.
- Source Stream:** Displays the Source Stream Name and bandwidth (Mb/s). An empty checkbox () can be checked () to select one or more programs to be added to the Output Transports column.

When the line is expanded, the following data () for each program is shown:

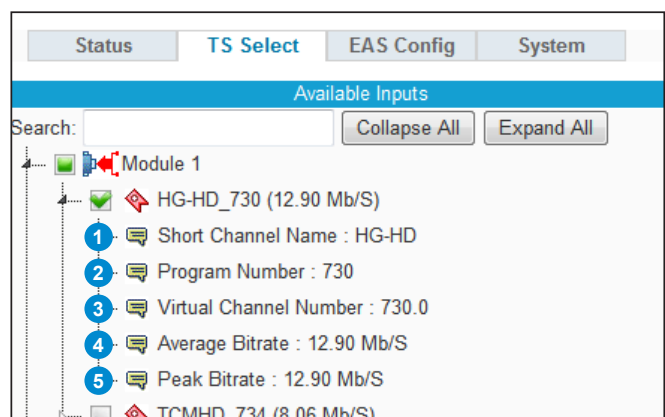


Figure 4.1a - Parameters - Available Inputs

- 1 **Short Channel Name:** 7-letter name for the channel.
- 2 **Program Number:** Configures the MPEG Program used in all PSI tables for this stream. Range is 1 - 65,535.

4.1 Configuration Settings and Parameters (continued)

- 3 **Virtual Channel Number:** Channel number assigned to a program within the Virtual Channel Table (VCT).
- 4 **Average Bitrate:** The bitrate is calculated over a period of time to give you the average bitrate of that program.
- 5 **Peak Bitrate:** The peak bitrate consistently shows the maximum bitrate of that program.

The “**Selection Control**” column provides controls to “**Add**” and “**Remove**” programs from the EAS Stream or Output Streams as well as the following read-only information:

Available Resources

- 6 **TS (Transport Stream):** Displays the available transport streams left. As each program is added, the “**TS**” column number ticks downward.
- 7 **BW (Bandwidth):** Displays the combined bandwidth of the added programs bitrate in MB/s.

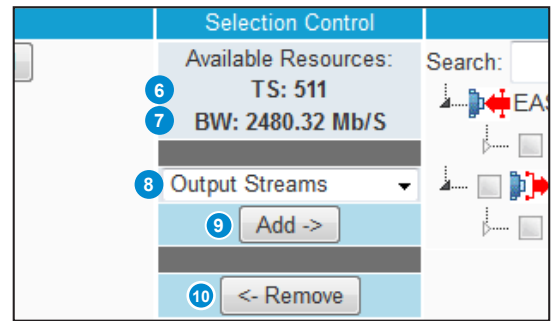


Figure 4.1b - Parameters - Selection Control



NOTE: If there is any bandwidth available and a program has not yet been selected for inclusion, an empty checkbox () will show up beside the programs, under “Available Inputs”, which can fit within the available bandwidth.

- 8 **Output Selection:** The user can click the selection drop-down menu and choose between Output Streams and EAS Stream.
- 9 **Add ->** When one or more programs are selected from the “Available Inputs” column, pressing the Add button will immediately add the program(s) to the Output Transports column, indicating the program has been added to the EAS Stream or Output Streams. The output programs are then automatically available to the other modules for distribution.
- 10 **<- Remove** When one or more programs are selected from the “Output Transports” column, pressing the Remove button will immediately remove the program(s) from the Output Transports column, indicating the program has been removed from the EAS Stream or Output Streams

The “**Output Transports**” column shows a list of all programs have been added to the EAS Stream or Output Streams. The following read-only information is shown:

- Pro Idiom Encryption:** Only programs which are being encrypted will show up in this column.
- Stream Name:** Displays the Source Stream Name and bandwidth (Mb/s). An empty checkbox () can be checked () to select one or more programs to be removed from the Output Transports column.

When the line is expanded, the following data () for each program is shown:

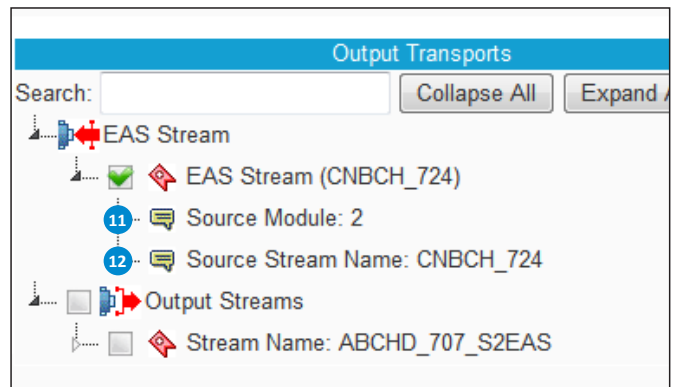


Figure 4.1b - Parameters - Output Transports

- 11 **Source Module:** Displays the module number that this channel is being sourced from. Numbered modules correlate with what is currently installed and running in the NXG platform chassis.
- 12 **Source Stream Name:** The named assigned by the VCT to the program.

Section 5 – EAS Configuration

The “EAS Config” Tab allows a user to set up the EAS Trigger IP to be in the same subnet as the Monroe IP address and allowing a way of testing the EAS setting after it is set up.

Figure 5.1 - “EAS Config” Tab - Full View

5.1 EAS Trigger Configuration

In the section entitled “EAS Trigger Configuration” (Figure 5.1), the user can setup the following EAS trigger parameters:

Figure 5.1 - “EAS Config” Tab - EAS Trigger Configuration

- 1 **Out-of-Band Multicast IP:** Out-of-Band or Unicast IP Address from the EAS device (Trilithic, Monroe, etc).
- 2 **Out-of-Band Unicast/Multicast Port:** Out-of-Band or Unicast Port from the EAS device.
- 3 **Multicast IGMP Version:** the selection of IGMP version between IGMPv2 and IGMPv3.
- 4 **IGMPv3 Multicast Src IP 1 & 2:** Source IPs for the EAS TS (when multicast and IGMPv3 is enabled).
- 5 **State Code (0..99):** the codes used for this setting are in FIPS format.
- 6 **County Subdivision Code (0..9):** the codes used for this setting are in FIPS format.
- 7 **County Code (0..999):** the codes used for this setting are in FIPS format.

5.2 Testing the EAS Settings

After configuring the EAS settings, the user is able to test the EAS stream to ensure it works properly (ex: 172.16.70.88 and port 5050). In order to test the EAS, the EAS stream **MUST** be present.

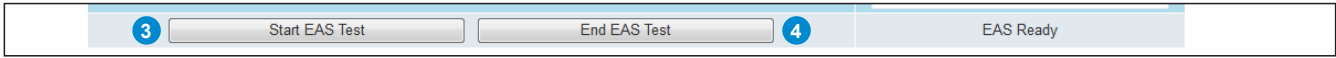


Figure 5.2 - "EAS Config" Tab - Testing the Settings

- 1 Allows the user to Start the EAS Testing.
- 2 Allows the user to End the EAS Testing.



NOTE: This function will only test the EAS stream, not the EAS trigger.

5.3 Module Ethernet Configuration

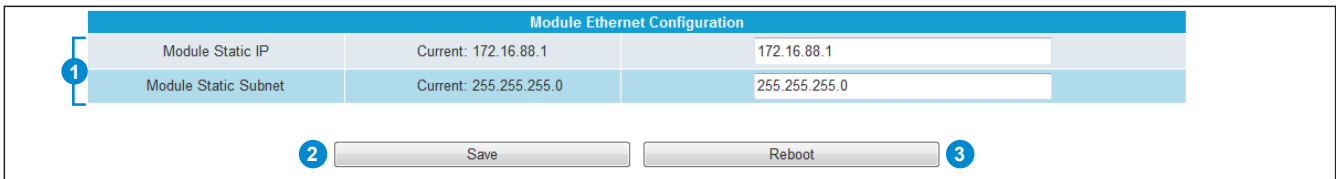


Figure 5.3 - "Module Ethernet Configuration" Tab

- 1 **Module Static IP & Subnet:** Set IP address and subnet to be on the same subnet as the EAS Device (Trilithic, Monroe, etc).
- 2 Save configuration settings.
- 3 Reboot the module.

Section 6 – System

The “System” Tab allows the user to manage the module configuration through the following controls:

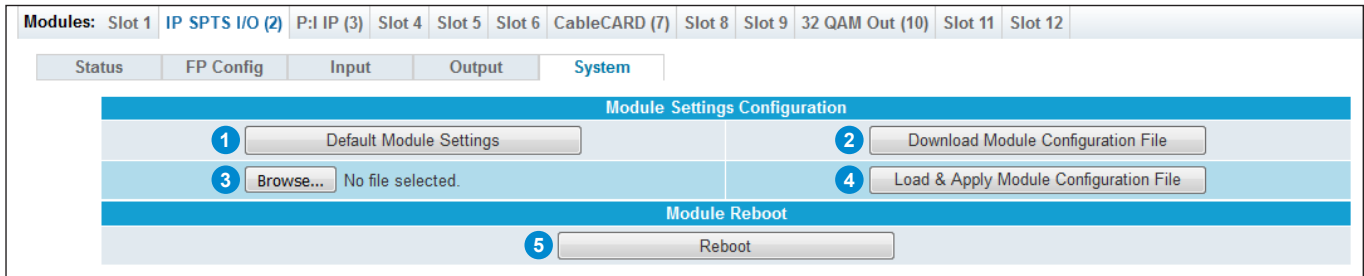


Figure 6 - “System” Tab

6.1 Module Settings Configuration

The “Module Settings Configuration” section allows the user to back-up and re-load the configuration settings.

- 1 Resets the module back to the Factory defaults. It is always recommended to save the existing configuration file before resetting to the default values .
- 2 Downloads the current module configuration file.
- 3 No file selected. Browse and select a Configuration File.
- 4 After choosing file, click this to load and apply the configuration file.

6.2 Module Reboot

The “Module Reboot” section allows the user to reboot the module from this screen.

- 5 Click this button to reboot the module.

Section 7 – Firmware Updates

The “Firmware Update” tab (Figures 7a, 7b, 7c, and 7d) is part of the Master Controller Module interface, and is used for all installed modules. It is located on the right side of the main menu allowing the user to review currently installed firmware versions and provides a quick and easy way to apply any new updates.

Module	Firmware Version	Update Control	Status
Master Controller (NXG-CNTRL)	1.0.2.0_20181022	<input type="button" value="Update"/>	<input type="text"/>
24 Prog CableCARD In (NXG-CCQD-24)	1.0.0.0_20181106	<input type="button" value="Update"/>	<input type="text"/>
24 Prog CableCARD In (NXG-CCQD-24)	1.0.0.0_20181106	<input type="button" value="Update"/>	<input type="text"/>
IP MPTS In (NXG-IP-MPTS)	1.0.1.0	<input type="button" value="Update"/>	<input type="text"/>
IP SPTS In/Out (NXG-IP)	1.0.3.0	<input type="button" value="Update"/>	<input type="text"/>

Figure 7a - “Firmware Update” Tab

- 1 Check “Firmware Version” to ensure you have the latest firmware. To determine if a new firmware update has been released, please go to our website at: (www.blondertongue.com/page/resources/tech-support/firmware-updates/)
Click the “Download Firmware Updates” link and then scroll down to the “NeXgen Gateway” folder to view the NXG module folders.

Note: There is a check of the file name versus module ID to eliminate a user inadvertently updating any modules with incorrect files. Multiple module updates can be performed simultaneously after uploading the files.

- 2 Under the “Firmware Update Files” section, the user can use and to select and send the module update file(s) into the NXG Platform. See a view of the file when uploaded to the platform as shown below on Figure 7b.

Figure 7b - File when uploaded

- 3 Update the Firmware version by clicking the button. The update status and progress will show under the “Status” columns. Below are the firmware updates as they appear while in-progress (Figure 7c) and upon completion (Figure 7d). After the update is complete, the user **MUST** reboot the module to finish applying the updates.

Note: After clicking the “Update” button, please allow a few seconds for the file to load.

Figure 7c - Update In Progress

- 4 Once the update progress is complete, the user **MUST** click the button (as shown on Figure 7d) in order to apply and finalize the update.

Figure 7d - Completed Update



When firmware updates are complete, the user can remove the loaded file by clicking the button shown on Figure 7b next to the “Upload File” button under “Firmware Update Files”.

Section 8 – Troubleshooting

For technical support please contact us at 1-800-523-6049 between the hours of 8am and 5pm EST.

Please refer to the operation manuals of each module for additional information.

Appendix A – Application Notes: Digital Alert Systems R189 and VIAVI EASYCAP

Step 1: Setting up an Emergency Alert System with the NeXgen EAS Module

The EAS module (NeXgen) can be set up to work with your EAS unit in one of two modes: **Unicast** and **Multicast**.

Unicast Mode:

- 1 Setup EAS module IP address to be in a same subnet as Monroe SCTE 18 trigger. For this example it is **172.16.70.88**
 - This is the path for the EAS trigger message to get to the EAS Module.
- 2 Setup the EAS unit's IP address to be in the same subnet at NeXgen EAS module. For this example a Monroe R189 unit is setup at **172.16.70.188**
- 3 Setup the EAS unit such that it can unicast to at **172.16.70.88**

For testing purposes, the user should ping both **.188** and **.88** address from a PC that is connected to **172.16.70.0/24**. See the Diagram below:

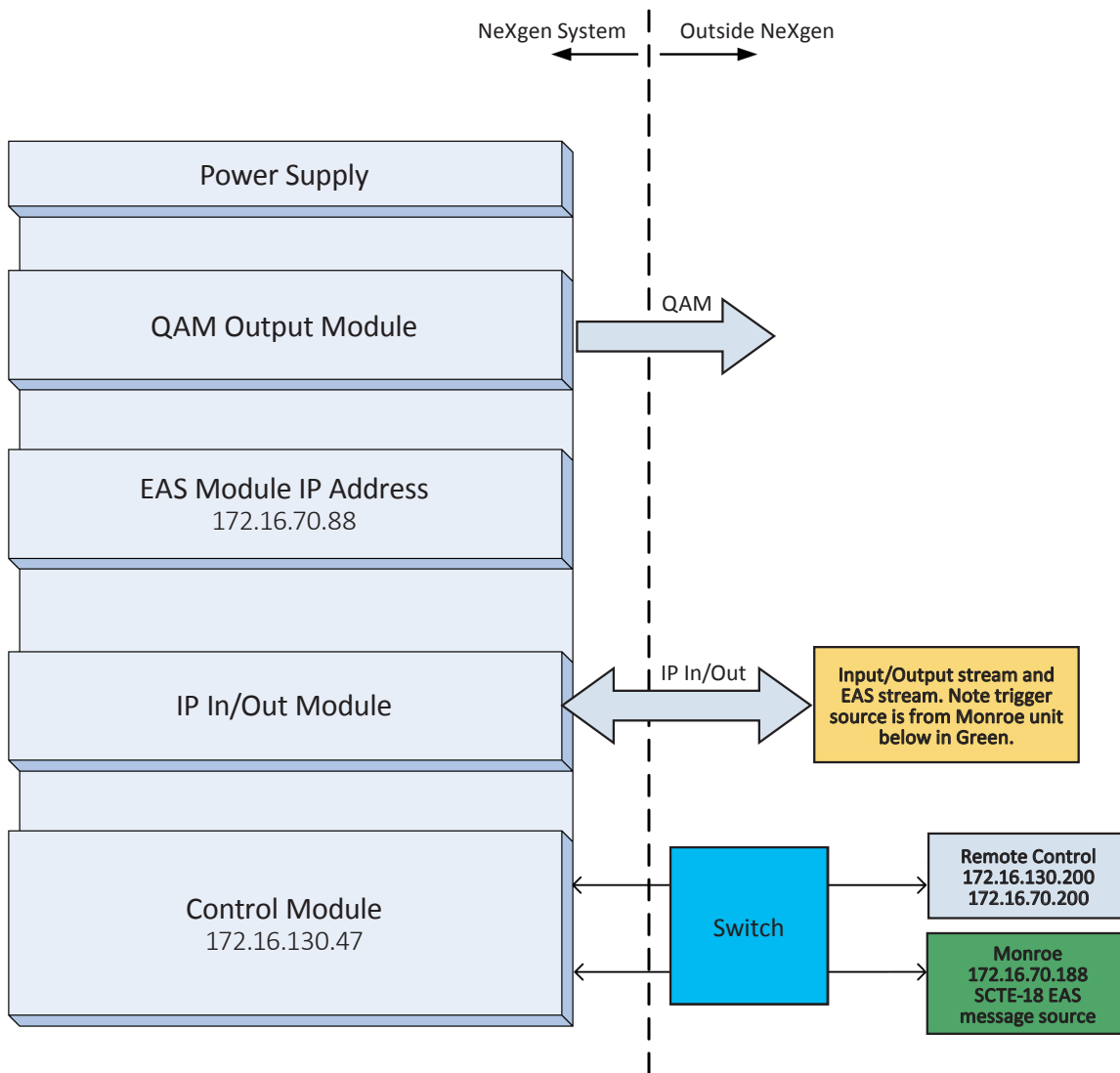


Figure A - Nexgen Setup Diagram

Note: The EAS module can be used in USA and Canada. The Canadian operations are all related to how to setup the Monroe unit correctly for their correct region. The key feature is to translate the Standard Geographical Classification (SGC) codes into existing Federal Information Processing Standards FIPS code used in the United States. Refer to "Quick Start Guide One-Net Canada" for detail setting up a Monroe unit for the Canadian market.

Appendix A – Application Notes: Digital Alert Systems R189 and VIAVI EASyCAP

Step 2: Configuring the EAS

Begin configuration by selecting and adding programs to the TS Select tab (See Section 4). Once the programs have been added, click on the EAS Config tab.

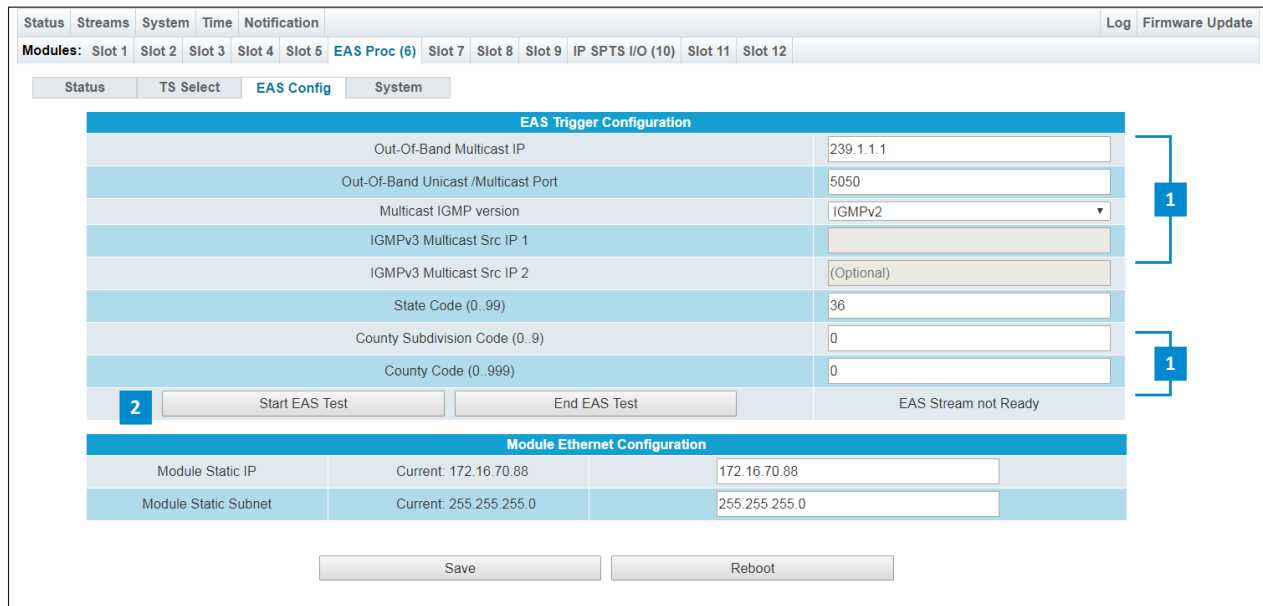
- 1 Set up the EAS trigger IP parameters to be in the same subnet as the Monroe IP address.
- 2 Use the EAS Test controls (see Section 5) to ensure it is working properly. (ex: **172.16.70.88** and port **5050**)

Reminder: This function will only test the EAS stream, not the EAS trigger. The EAS stream **MUST** be present.

The “**Out-of-Band Unicast Port**”, “**state_code**”, “**county_subdivision**” and “**county_code**” are all set on the Monroe unit. The EAS Module values **MUST** match the EAS system values in order to get the EAS message.

Here is an example of a real time message from a Monroe unit that contains two different State Codes below, “**35**” (New Mexico) and “**36**” (New York) in this example. Because the EAS module is set to receive the “**36**” State Code, it will ignore the State-Code “**35**”:

location_code_count: 2	county_subdivision[1]: 0	descriptors.offset[0]: 0
state_code[0]: 35	reserved6[1]: 3	descriptors.length[0]: 0
county_subdivision[0]: 0	county_code[1]: 0	descriptors.base[0]:
reserved6[0]: 3	exception_count: 0	CRC_32: 0x3584a9cf
county_code[0]: 0	reserved11: 63	=== Library Internal Variables ===
state_code[1]: 36	descriptors_length: 0	



Multicast Mode:

Set the EAS unit IP address multicast (in this example it is **239.1.1.1** with correct port)

Set the EAS multicast address group to same multicast address (**239.1.1.1**)

Appendix A – Application Notes: Digital Alert Systems R189 and VIAVI EASyCAP

Step 2: Configuring the EAS (continued)

Please refer to the following GUI screen from Monroe. The example for New Mexico (035000) and New York (036000) are the values generated by Monroe unit which must match with the EAS GUI (previous page): **9 State_Code**, **County_subdivision**, and **county_Code**.



Example shown on a Monroe R189 unit interface

Appendix B – Application Notes: Digital Alert Systems (Monroe) R189 Setup Reference



The following information is for reference only. Please refer to your Monroe user manual for more specific and detailed settings.

Setting up the IP address of the Monroe unit

There are three clicks to get to the GUI screen (next page):

(Note the Monroe unit is very slow after you click the Network and there is no verification that the user actually clicked.)

- a) Setup
- b) Network
- c) Configuration (SCTE-18)

Setup:Network:Configuration:

Example: 172.16.70.188

Appendix B – Application Notes: Digital Alert Systems (Monroe) R189 Setup Reference

The screenshot displays the 'Setup' page for the Monroe R189 unit. At the top, the system name is 'Cogeco Test EAS'. The 'System' tab is active, showing various alert options, with 'Network' selected. The 'Server Network Configuration' section provides instructions on static vs. DHCP IP addressing. A green box highlights the 'Current Access NIC Host: 172.16.70.188'. Below, the 'Server Network Hostname' is set to 'dasdec'. The 'Network Type' is 'Static (Manually Configure)'. A green box highlights the 'Current IP : 172.16.70.188'. The 'Manual Config Options' section shows the IP Address (172.16.70.188) and IP Netmask (255.255.255.0). The 'IP Address of Gateway' is 172.16.70.254. The 'Second Network Interface' is currently disabled.

Example shown on Monroe R189 unit interface

Manual Configuration Options

[172.16.70.188] IP Address

[255.255.255.0] IP Netmask

[Accept Changes/Restart Network]

Setting up the IP address of the Monroe unit

Setup: Net Alerts: DVS644 (SCTE18)

There are three clicks to get to this GUI below:

Note the Monroe unit is very slow after you click the Net Alert and there is no verification that the user actually clicked.

b) Setup b) Net Alerts c) DVS644 (SCTE-18)

c) Below enter the EAS IP address and port number (example: 172.16.70.88 port 5050)

Appendix B – Application Notes: Digital Alert Systems (Monroe) R189 Setup Reference

The screenshot displays the web interface for the Monroe R189 unit. At the top, the page title is "Name: 'Cogeco Test EAS'". Below this are four tabs: "Send Alerts", "Alert Events", "System", and "Setup". The "Alert Events" tab is active, showing a list of radio buttons for various alert methods: Server, Station, Alert Agent™, Demo/Practice, Audio, Video/CG, Net Alerts, EMail, GPIO, Printer, Alert Storage, Network, Time, and Users. A status bar below the tabs shows "Back Refresh OpLog <172.16.70.201> User:Admin Tue Oct 2 08:33:22 2018 EDT Logout". On the right side, there is a logo for "ME MONROE ELECTRONICS One-Net" and text indicating "R189 Analog/Digital EAS Encoder/Decoder" with "Software Version: 3.1-0" and a file path "2018_09_18_15_04_39_dasdec_config". Below the tabs, there are several navigation links: "CAP Decode", "DVS644 (SCTE18)", "Stream Mpeg", "Net CG", and "Hub Controller". The main content area is titled "Configure DVS644(SCTE-18) Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed." It contains three checkboxes: "Alert Forwarding to DVS644/SCTE-18/CEAM devices. Enabled. Uncheck to disable.", "Encoder Originated Alerts Sent to DVS644/SCTE-18/CEAM devices. Enabled. Uncheck to disable.", and "Use Audio Delay. Disabled. Alert audio playout delay is not used to delay DVS644/SCTE 18 message send. Check to enable use of alert audio playout delay. Applies to both origination and forwarding." Below this is a section for "Configure DVS644(SCTE-18) CEAM Client Connection (client IP & program values apply to both Origination and Forwarding)". It features a dropdown menu for "Select DVS644 client" with the value "*970NE-EAS1-DCM1-HIPtv" and a note "There are 10 defined client interfaces (max is 64)". To the right are three buttons: "Add DVS644(SCTE18) Client Interface (effective immediately)", "Duplicate DVS644(SCTE18) Client Interface (effective immediately)", and "Delete this DVS644(SCTE18) interface (effective immediately)". Below these is a table for the selected client interface:

970NE-EAS1-DCM1-HIPtv Client Interface Name	
<input checked="" type="checkbox"/> ENABLE Client Interface. Enabled. Uncheck to disable client.	
172.16.70.88 Remote Host Unicast or Multicast IP Address	0 Details Video OOB ID
5050 Remote Host Port	0 Details Audio OOB ID

Example shown on Monroe R189 unit interface

Configure DVS644(SCTE-18) CEAM Client Connection:

- [*970NE-EAS1-DCM1-HIPtv] Client Interface Name
- [X] ENABLE Client Interface.
- [172.16.70.88] Remote Host Unicast or Multicast IP Address
- [5050] Remote Host Port
- [0] Multicast TTL (0..200)

Appendix C – Application Notes: VIAMI (Trilithic) EASYCAP Reference

Setting up Trilithic with NeXgen EAS Module

The following steps describe setting up NXG-EAS to work with Trilithic EASYCAP.

Setup EAS 18 message to match the NeXgen IP for EAS.

Setup EAS stream Multicast

Note: There are other related Trilithic EAS settings that are not covered within this manual.

Log into Trilithic EASYCAP and set up the SCTE-18 message.

Go to “message delivery” -> “SCTE-18” and copy the multicast address for NeXgen into the EASYCAP setup.

In this example, the SCTE-18 message is delivered on IP multicast 239.1.1.1 and port 5050.

Status		TS Select	EAS Config	System
EAS Trigger Configuration				
Out-Of-Band Multicast IP				239.1.1.1
Out-Of-Band Unicast /Multicast Port				5050
Multicast IGMP version				IGMPv2
IGMPv3 Multicast Src IP 1				
IGMPv3 Multicast Src IP 2				(Optional)
State Code (0..99)				0
County Subdivision Code (0..9)				0
County Code (0..999)				0
Start EAS Test		End EAS Test		EAS Stream not Ready
Module Ethernet Configuration				
Module Static IP	Current: 172.16.181.249	172.16.181.249		
Module Static Subnet	Current: 255.255.255.0	255.255.255.0		
Save		Reboot		

Please note that the values multicast 239.1.1.1 and port 5050 should match the NeXgen module settings.

The screenshot shows the VIAMI EASYCAP configuration interface. The main window displays the 'SCTE-18 Configuration' dialog box. The configuration includes:

- SCTE-18 Server:** BT Test, Multicast TTL: 32
- Description:** BT Test
- Transport Type:** UDP MPEG Packets
- IP Address or URL:** 239.1.1.1
- Port:** 5050
- PID:** 1FFC
- MTU:** 1500
- Language:** English
- Repeat Rate:** 5 seconds
- Repeat new messages:** 2 times
- Group:** 0
- Out-of-band Source ID:** Details: 0, Audio: 0
- In-band Channels:** Major: 0, Minor: 0
- Options:**
 - Use Force-tune Timing Adjustments
 - Send message twice
 - Use discontinuity indicator
 - Exclude Event start time
 - Exclude alert text
 - Duration based on audio
 - Disable Abort messages
- Apply changes to all servers in this group (Group 0 means the server is not in a group). Group settings include everything except Description, IP address, Port, and Locations.

The interface also shows a navigation tree on the left, a status bar at the top, and an 'About' section on the right listing installed hardware and software.

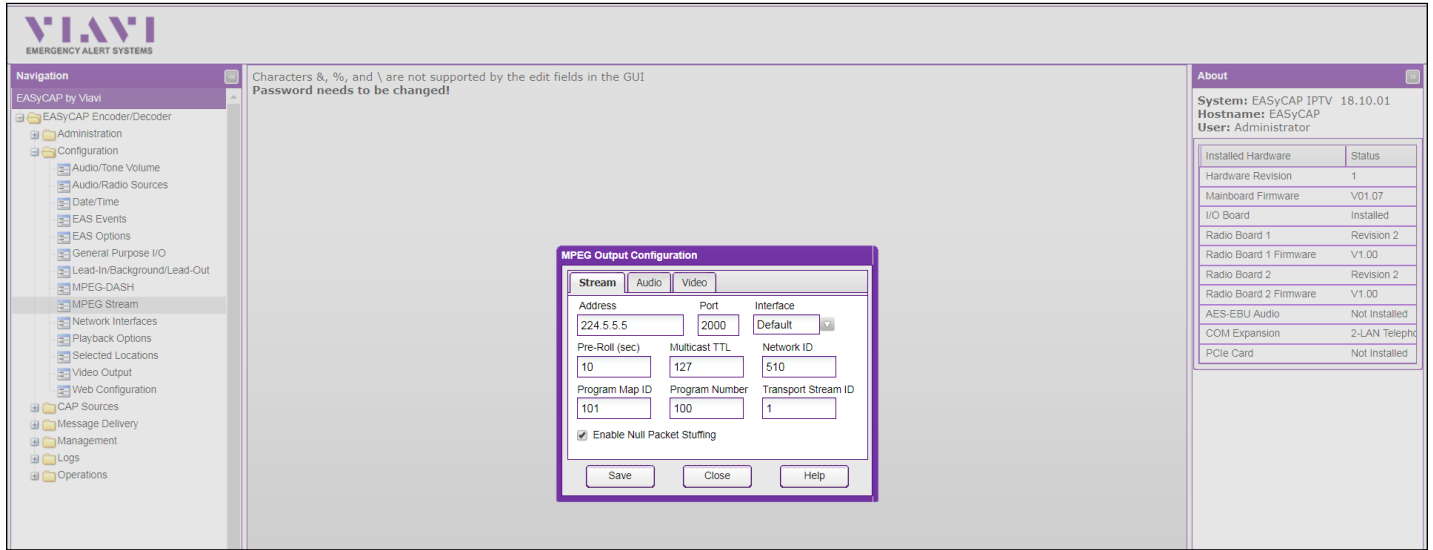
Appendix C – Application Notes: Setting up VIAVI (Trilithic) EASYCAP Reference

EAS stream multicast output settings:

In order to stream out the actual EAS stream the MPEG output Configuration needs to be setup.

Example: EAS stream will multicast at IP address 244.5.5.5, port 2000.

The NeXgen platform should be receiving the IP EAS stream through IP input module and then route it to EAS module.



Now make sure NeXgen setting matches with Trilithic EASYCAP.

Then the following GUI triggers the EAS and provide the EAS stream to the NeXgen

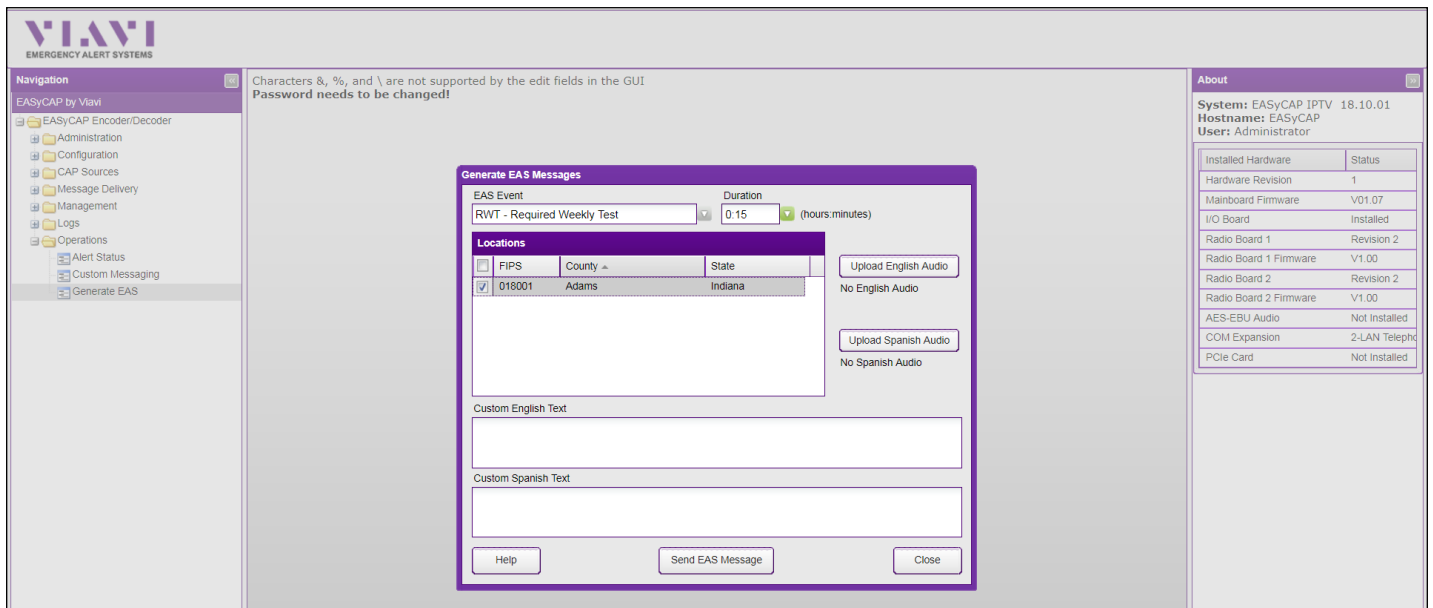
Go to "Operations" then "Generate EAS"

Choose EAS Event from the drop down menu

Choose Duration

Select the locations

Send EAS Message (screen shot below)



Extended Warranty Program

STANDARD TERMS & CONDITIONS OF THE EXTENDED WARRANTY

A. THE EXTENDED WARRANTY AGREEMENT (EWA)

If during the period following the expiration of the Blonder Tongue Manufacturers' Standard Warranty (Copy Included) the products which constitute the subject matter of the extended warranty, manifest any manufacturing or similar such defects then Blonder Tongue shall at its option repair or replace the product. It is emphasized that the extended warranty is in effect an extension of the Blonder Tongue Warranty and covers the items stipulated in Paragraph B to the exclusion of the terms in Paragraph C of this agreement. Eligibility to purchase EW is limited to 90 days following initial shipment on selected products of sufficient value.

The product/products included in this extended warranty agreement are listed in the invoice that accompanies the EWA. Term of the extension will be _____ year(s). Purchase Order is required for extended warranty coverage.

B. WHAT IS COVERED?

1. If a product has been determined to have failed, which falls within the Terms & Conditions of this EWA, Blonder Tongue Inc. may at its sole discretion repair, modify or replace its component parts that are defective at 100% coverage for parts and labor.
2. A loaner unit may be available on request; PO required.
3. Product is manufactured by Blonder Tongue.
4. Extended warranty period is up to and not to exceed 24 months and sold in increments of 12 months. Order # 9981 for 1 year and #9982 for 2 year extensions.
5. Return of repair or replaced product shipping costs for ground shipments.
6. Firmware upgrades at no charge with automatic notification.

C. WHAT IS NOT COVERED?

1. The warranty does not cover any defects caused by foreign objects /connection errors .
2. Use other than by the customer at the declared address appearing in this document.
3. Failure by the end user to comply with the manufacturers' instructions for installation, maintenance or use.
4. The use of accessories which have not been approved by Blonder Tongue.
5. The application and/or use of any incorrect or abnormal electrical supply to the product.
6. Any defect in wiring or electrical connections which does not form part of the product at the time of the original purchase.
7. Neglect, misuse, or willful abuse of the product.
8. Any repairs or attempted repairs of the product by any person other than Blonder Tongue Service Department.
9. Any modification of the product by any person other than Blonder Tongue Service Department.
10. Fire, flood, war, civil disturbance, industrial action, acts of God or any other causes beyond the reasonable control of Blonder Tongue.
11. Any defect caused by lightning strike or power surges.
12. Shipping costs to return products to Blonder Tongue for warranty service.
13. Blonder Tongue will not in any circumstances be liable for any consequential loss or damages suffered by the customer whether directly or in directly related defect in the product to the extent permissible by law.
14. Repairs may not be effected without prior authorization from Blonder Tongue Laboratories.

D. GENERAL

1. The customer shall notify Blonder Tongue Laboratories in writing within ten days of any change of his or her address.
2. Customer must provide original **purchase receipt** and **serial number** to initiate extended warranty coverage.
3. The fee paid for the warranty is not refundable under any circumstances unless cancelled within seven days of purchase.
4. The customer shall take all reasonable precautions to maintain the product is maintained in good working order.
5. The warranty contract ceases to exist if the product is replaced or a credit is given to the customer. Any monies paid for the warranty contract are forfeited and not refundable. This is only applicable when the product is out of the manufacturer's warranty.
6. The extended warranty period as stated on the Extended Warranty Agreement shall be the governing period notwithstanding any additional supplier warranty on specific components.
7. The warranty shall in no way effect the terms and conditions of the sale agreement in terms of which the customer bought the product.
8. The extended warranty is limited to the terms and conditions herein contained
9. No agreement, varying, adding to, amended, deleting, or cancelling this warranty shall be effective unless given in writing (email is acceptable) and signed by or on behalf of both parties.
10. The cost of the extended warranty is 8% of the purchase price for a 1 or 2 year extension beyond the Blonder Tongue standard warranty. e.g. A product price of \$1000 will be \$80 for the 1st year (12 mos) and additional \$80 for 2 year (24 mos) extension for a total of \$160.
11. Warranty product return postage paid to: Blonder Tongue Laboratories, Inc.

Attn: Warranty Service Dept.
1 Jake Brown Road
Old Bridge, NJ 08857

Contact Blonder Tongue at 800-523-6049 ext. 555 to order extended warranty service.

Limited Warranty

Seller will at its sole option, either repair or replace (with a new or factory reconditioned product, as Seller may determine) any product manufactured or sold (or in the case of software, licensed) by Seller which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing: (i) for a period of one (1) year from the date of original purchase for all stock hardware products (other than those specifically referenced herein below having a shorter warranty period); (ii) for a period of one (1) year from the date of original purchase, with respect to all MegaPort™, IPTV products, test equipment and fiber optics receivers, transmitters, couplers and integrated receiver/distribution amplifiers; (iii) for a period of one (1) year from the date of original purchase (or such shorter period of time as may be set forth in the license agreement specific to the particular software being licensed from Seller) with respect to all software products licensed from Seller (other than Core Product Software) that is (a) developed for a specific function or application, (b) complimentary to and does not function without the Core Product Software, and (c) listed with a specific model number and stock number in Seller's Price List ("**Non-Core Software**"); (iv) for a period of ninety (90) days from the date of original purchase, with respect to non-serialized products and accessories, such as parts, sub-assemblies, splitters and all other products sold by Seller (other than Core Product Software and Refurbished/Closeout Products) not otherwise referred to in clauses (i) through (iii) above. The warranty period for computer programs in machine-readable form included in a hardware product, which are essential for the functionality thereof as specifically stated in the published product specifications ("**Core Product Software**") will be coincident with the warranty period of the applicable hardware product within which such Core Product Software is installed.

Software patches, bug fixes, updates or workarounds do not extend the original warranty period of any Core Product Software or Non-Core Software.

Notwithstanding anything herein to the contrary,

(i) Seller's sole obligation for software that when properly installed and used does not substantially conform to the published specifications in effect when the software is first shipped by Seller, is to use commercially reasonable efforts to correct any reproducible material non-conformity (as determined by Seller in its sole discretion) by providing the customer with: (a) telephone or e-mail access to report non-conformance so that Seller can verify reproducibility, (b) a software patch or bug fix, if available or a workaround to bypass the issue if available, and (c) where applicable, replacement or damaged or defective external media, such as CD-ROM disk, on which the software was originally delivered;

(ii) Seller does not warrant that the use of any software will be uninterrupted, error-free, free of security vulnerabilities or that the software will meet the customer's particular requirements; and the customer's sole and exclusive remedy for breach of this warranty is, at Seller's option, to receive (a) suitably modified software, or part thereof, or (b) comparable replacement software or part thereof;

(iii) Seller retains all right, title and interest in and to and ownership of all software (including all Core Product Software and Non-Core Software) including any and all enhancements, modifications and updates to the same; and

(iv) in some cases, the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller's products, third party software installed in certain of Seller's products, and on certain private-label products manufactured by third-parties for resale by Seller, will be of shorter duration or otherwise more limited than the standard Seller limited warranty. In such cases, Seller's warranty with respect to such third-party proprietary sub-assembly modules, third-party software and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, certain products, that are not manufactured by Seller, but are resold by Seller, may carry the original OEM warranty for such products, if any. The limited warranty set forth above does not apply to any product sold by Seller, which at the time of sale constituted a Refurbished/Closeout Product, the limited warranty for which is provided in the following paragraph.

Seller will at its sole option, either repair or replace (with a new or factory-reconditioned product, as Seller may determine) any product sold by Seller which at the time of sale constituted a refurbished or closeout item ("**Refurbished/Closeout Product**"), which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment of that product or fails to meet such other specifications as may have been expressly agreed upon in writing between the parties, for a period of ninety (90) days from the date of original purchase. Notwithstanding the foregoing, in some cases the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller products, third party software installed in certain of Seller's products, and on certain private-label products manufactured by third-parties for resale by Seller will be of shorter duration or otherwise more limited than Seller limited warranty for Refurbished/Closeout Products. In such cases, Seller's warranty for Refurbished/Closeout Products constituting such third party proprietary sub-assembly modules, third party software, and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, notwithstanding the foregoing, (i) certain Refurbished/Closeout Products that are not manufactured (but are resold) by Seller, may carry the original OEM warranty for such products, if any, which may be longer or shorter than Seller's limited warranty for Refurbished/Closeout Products. All sales of Refurbished/Closeout Products are final.

To obtain service under this warranty, the defective product, together with a copy of the sales receipt, serial number if applicable, or other satisfactory proof of purchase and a brief description of the defect, must be shipped freight prepaid to Seller at the following address: One Jake Brown Road, Old Bridge, New Jersey 08857.

This warranty does not cover failure of performance or damage resulting from (i) use or installation other than in strict accordance with manufacturer's written instructions, (ii) disassembly or repair by someone other than the manufacturer or a manufacturer-authorized repair center, (iii) misuse, misapplication or abuse, (iv) alteration, (v) exposure to unusual physical or electrical stress, abuse or accident or forces or exposure beyond normal use within specified operational or environmental parameters set forth in applicable product specifications, (vi) lack of reasonable care or (vii) wind, ice, snow, rain, lightning, or any other weather conditions or acts of God.

OTHER THAN THE WARRANTIES SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE CONDITION, DESCRIPTION, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR AS TO ANY OTHER MATTER, AND SUCH WARRANTIES SET FORTH ABOVE SUPERSEDE ANY ORAL OR WRITTEN WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY SELLER OR BY ANY OF SELLER'S EMPLOYEES OR REPRESENTATIVES, OR IN ANY OF SELLER'S BROCHURES MANUALS, CATALOGS, LITERATURE OR OTHER MATERIALS. IN ALL CASES, BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S SOLE OBLIGATION FOR ANY BREACH OF THE WARRANTIES CONTAINED HEREIN SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT F.O.B. SHIPPING POINT, AS SELLER IN ITS SOLE DISCRETION SHALL DETERMINE. SELLER SHALL IN NO EVENT AND UNDER NO CIRCUMSTANCES BE LIABLE OR RESPONSIBLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, DIRECT OR SPECIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT LIABILITY OR OTHERWISE OR ANY OTHER LEGAL THEORY, ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, USE, INSTALLATION OR FAILURE OF ANY PRODUCT ACQUIRED BY BUYER FROM SELLER.

All claims for shortages, defects, and non-conforming goods must be made by the customer in writing within five (5) days of receipt of merchandise, which writing shall state with particularity all material facts concerning the claim then known to the customer. Upon any such claim, the customer shall hold the goods complained of intact and duly protected, for a period of up to sixty (60) days. Upon the request of Seller, the customer shall ship such allegedly non-conforming or defective goods, freight prepaid to Seller for examination by Seller's inspection department and verification of the defect. Seller, at its option, will either repair, replace or issue a credit for products determined to be defective. Seller's liability and responsibility for defective products is specifically limited to the defective item or to credit towards the original billing. All such replacements by Seller shall be made free of charge f.o.b. the delivery point called for in the original order. Products for which replacement has been made under the provisions of this clause shall become the property of Seller. Under no circumstances are products to be returned to Seller without Seller's prior written authorization. Seller reserves the right to scrap any unauthorized returns on a no-credit basis. Any actions for breach of a contract of sale between Seller and a customer must be commenced by the customer within thirteen (13) months after the cause of action has accrued. A copy of Seller's standard terms and conditions of sale, including the limited warranty, is available from Seller upon request. Copies of the limited warranties covering third-party proprietary sub-assembly modules and private-label products manufactured by third-parties may also be available from Seller on request. (Rev 1021)



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