plura

Operating Instructions

PIPM-R-7

"Plura IP Module" for SFP-H & SFP-H-7 Series

SFP-317-H / SFP-317-H-7
SFP-321-H / SFP-321-H-7
SFP-324-H / SFP-324-H-7
SFP-332-H / SFP-332-H-7
SFP-347-H / SFP-347-H-7
SFP-355-H / SFP-355-H-7
SFP-365-H / SFP-365-H-7
SFP-384-H / SFP-384-H-7

1. OVERVIEW

Plura PIPM-R-7 is Plura optional IP Platform which supports 3G SMPTE ST 2110 signals across dual 10 GigE, features 2x 10 GbE SFP+ cages complying with SMPTE ST 2022-7, providing redundancy protection for critical distribution and monitoring applications “hitless switching”

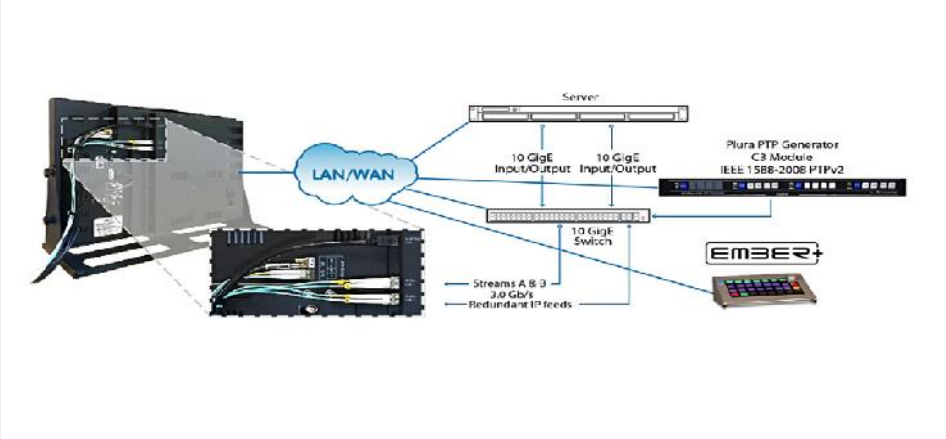
2. GENERAL FEATURES

- SMPTE ST 2110 audio, video receiver including support for ST 2022-7
- SMPTE 2110-10, 2110-20, 2110-30
- 2x 10 GigE SFP+ cages for media LAN with status light
- 1x 1 GigE RJ45 socket for control LAN with status light
- Complete control interface on any web browser from a built-in web server
- Customizable control with API
- Control supported over dedicated management Ethernet port and in-band over media ports
- NMOS Rx discovery and control according to standards IS-04 v1.3 and IS-05 v1.1
- Ember+ control (no discovery, control only)
- API control (discovery via SSDP or MDNS)
- Support for HD up to 1080 60p, YCbCr 4:2:2
- Concealment of errors due to packet loss
- Full 10-bit pixel processing pipeline
- Embedded SDI audio output (up to eight channels)

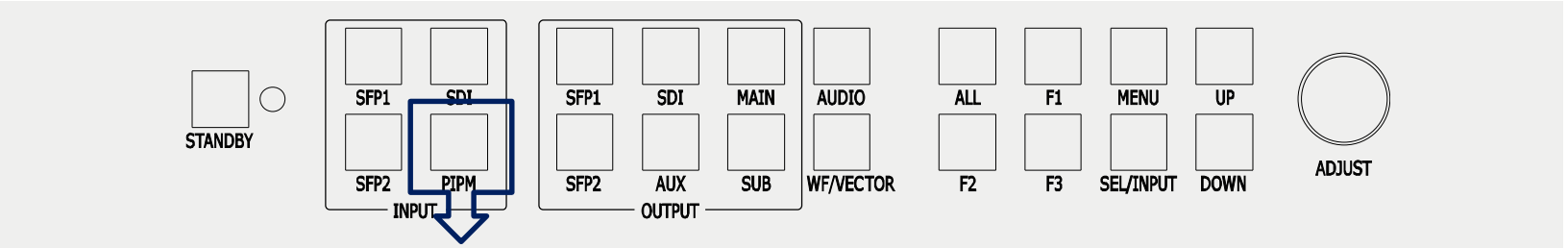
3. Workflow Diagram and I/O Connections

1) Workflow Diagram

- SFP-324-H-7



Front Keypad



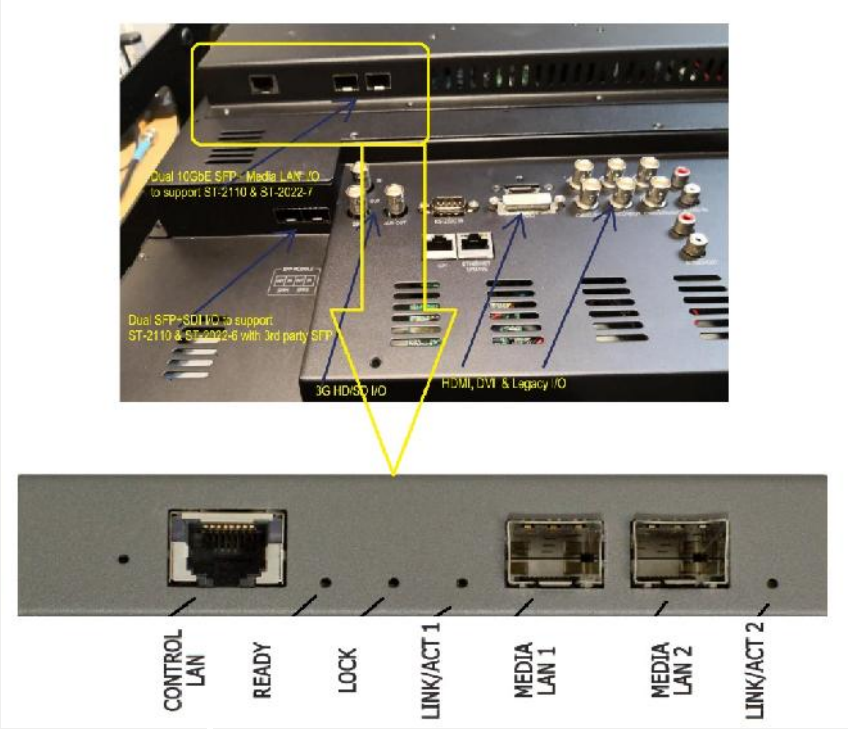
How to select and display the PIPM-R-7 IP stream when PIPM-R-7 is installed inside SFP-H or SFP-H-7 unit.
►Select PIPM as Input channel and then select Main or SUB as Output channel.

Front Keypad Operations

Key Name	Operation
STANDBY	►Power ON/OFF Button. This button is operated after being pressed about 3 seconds.
INPUT SFP1/SFP2/SDI/PIPM	►SFP Modules Input CH selected. ►Channels in the input signal, the key led light. ►Select PIPM as Input channel when PIPM-R-7 is installed
OUTPUT SFP1/SFP2/SDI/AUX/ MAIN/SUB	►SFP Modules Output CH selected.
ALL	►SFP Modules ALL Output CH selected.
FUNCTION F1/F2/F3	►Executes functions of user selected. UNDEF, Aspect, Mono/Blue only, Audio Channel, Safety area marker, Time code, Analog Caption, Audio mute, Still image, Zoom, Flip, Gamma select, PIP func & Input, Sub win full, Sub win part
SEL/INPUT	►Activates OSD menu of input source selecting. ►Changes input source by selecting. ►Executes functions (by OSD help commands) in main OSD menu. ►Activates child menu.
MENU	► Activates main OSD menu. ► Navigates higher menu in main OSD menu. ► Exits OSD menu.
Adjust	►Adjust Picture Menu(Brightness -> Contrast -> Color -> Sharpness->Phase & Tint) ►Turn Right (with „UP' button is same) ►Turn Left (with „DOWN' button is same)

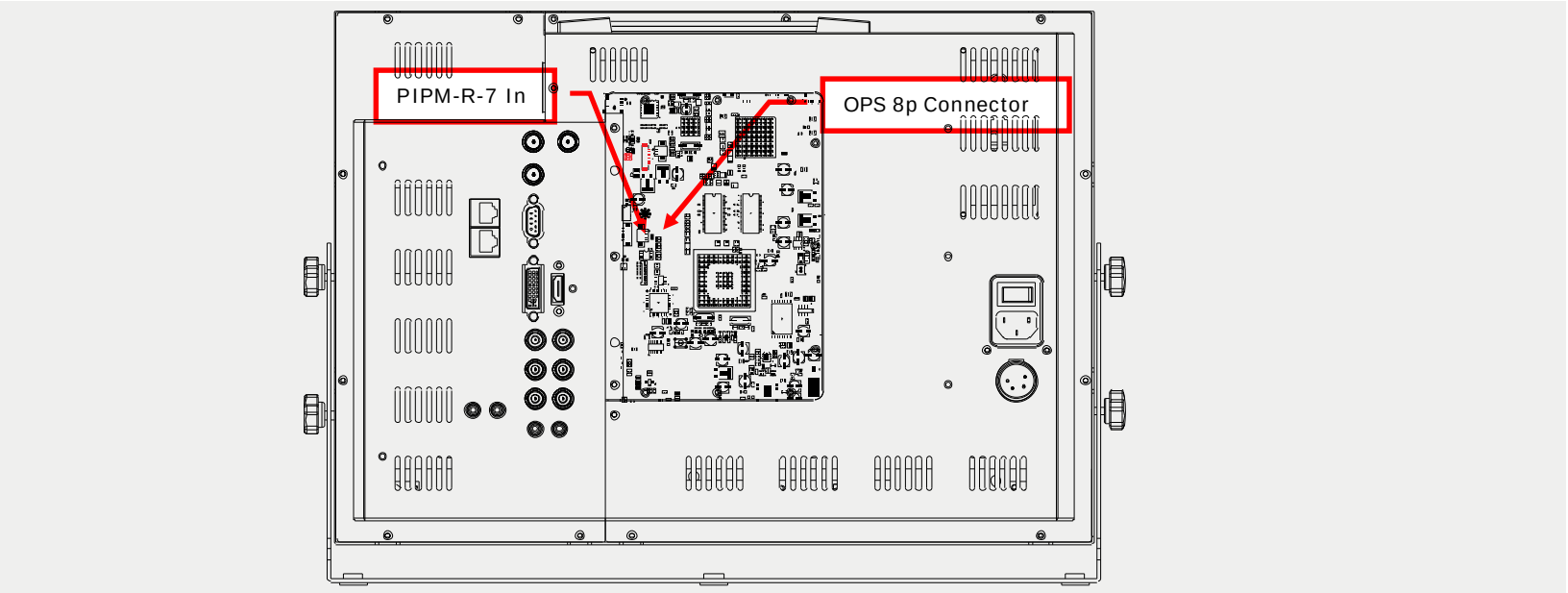
2) *I/O & Connectivity*

- I/O Details



PIPM-R-7 LED	LED Status and Behavior
CONTROL LAN	►Illuminates to indicate a link, when blinking indicates activity.
READY LED	►Illuminates GREEN when the PIPM-R-7 module has finished powering up and is ready for operation.
LOCK LED	►When OFF – No PTP is detected ►When RED – A PTP error is detected ►When YELLOW / FLASHING – Locking Phase 1 ►When YELLOW – Locking Phase 2 ►When GREEN / FLASHING – Locking Phase 3 ►When GREEN – Signal is Locked Achieving locked status may take up to 5+ minutes depending on network jitter. The PIPM-R-7 will continue to function normally during the locking period.
LINK/ACT LED 1 & 2	►When OFF – No SFP+ module present ►When RED – SFP+ present but NO link is detected ►When GREEN / FLASHING – Link is detected and there is TX or RX activity ►When GREEN – Link is detected

- Connectivity



4. INSTALLATION OVERVIEW

1) Initial Setup by Web Browser

PIPM-R-7 require a network connection for initial configuration, control and firmware updates. The PIPM-R-7 are shipped from the factory with static IP address 192.168.0.111.

Initial setup by using web browser on the host computer connected to the same network as the PIPM-R-7. We recommend Chrome and Firefox browsers for control on windows. Safari for control on macOS.

2) LAN Connections

Three LAN connections to the PIPM-R-7 are NOT necessarily required on an ongoing basis. After initial setup, you can access all control parameters through on of the Media LANs with the appropriate network configuration. See Networking option item 5.2 for more information.

3) Settings

The configuration settings are retained even when the unit is powered offree LAN connections to the PIPM-R-7 are NOT necessarily required on an ongoing basis. After initial setup, you can access all control parameters

5. WEB CONFIGURATION & INTERFACE

1) Overview

Once you have established network connectivity with the PIPM-R-7, you can further configure and control the module through its web interface.

2) Remote Control Overview

An optimized web server in the PIPM-R-7 allows remote control and parameter setting adjustments via a browser client running on a network wired computer. The network can be a closed local area network, a direct connection between a PIPM-R-7 and a computer, or even exposed through a firewall to a WAN.

Each PIPM-R-7-R10 uses a standard RJ-45 connector for the Control LAN connection, and two SFP+ cages for the 10 Gbps Ethernet Media LAN connections.

To connect to the PIPM-R-7, attach the module to your network and enter its Control Network IP address into the web browser. If authentication has been configured, you may need to enter a password.

- Networking Option using Media LAN Port

  To reduce facility cabling to the PIPM-R-7 module, it is an option to setup your network connection through an Ethernet switch via the Media LAN ports (rather than using the dedicated Control Port). This means that you will have just one or two cables to the unit, instead of two or three. To implement this approach, follow these general steps:

1. Note the IP address of the unit's Media LAN 1 or Media LAN 2 port. This should be a static IP

address.
2. Connect the controlling computer's Ethernet port that is being used to control the unit into an Ethernet switch. This requires disconnecting the Ethernet cable from the Control LAN port of the unit.
3. Connect the Media LAN port of the unit into the Ethernet switch.
4. Connect the source of the Media IP stream into the Ethernet switch.
5. Set the controlling computer's Ethernet port that is being used to control the PIPM-R-7 to DHCP.
6. From the controlling computer, point a web browser to the IP address noted in step 1. The PIPM-R-7's web user interface displays in the browser.

3) Web Browser via Ethernet

- General Screen Information

PIPM-R-7 web pages have certain areas and control in common. Vertical and horizontal scroll bars appear when information extends past the border of a panel.

The Round blue Up/Down arrow button on each panel and many status parameters opens and closes that panel or set of parameters.

- Menu Panel

On the left of each screen is a Menu panel listing all the available screens. Click any of these links to jump to that screen.

- Alarms Panel

Alarms are displayed in a panel on the left side of each screen. Clicking on the arrow opens or closes this panel to show or hide the alarms. Hovering the mouse over an alarm (red) or warning (yellow) may provide additional detail about the condition.

- Connections Panel

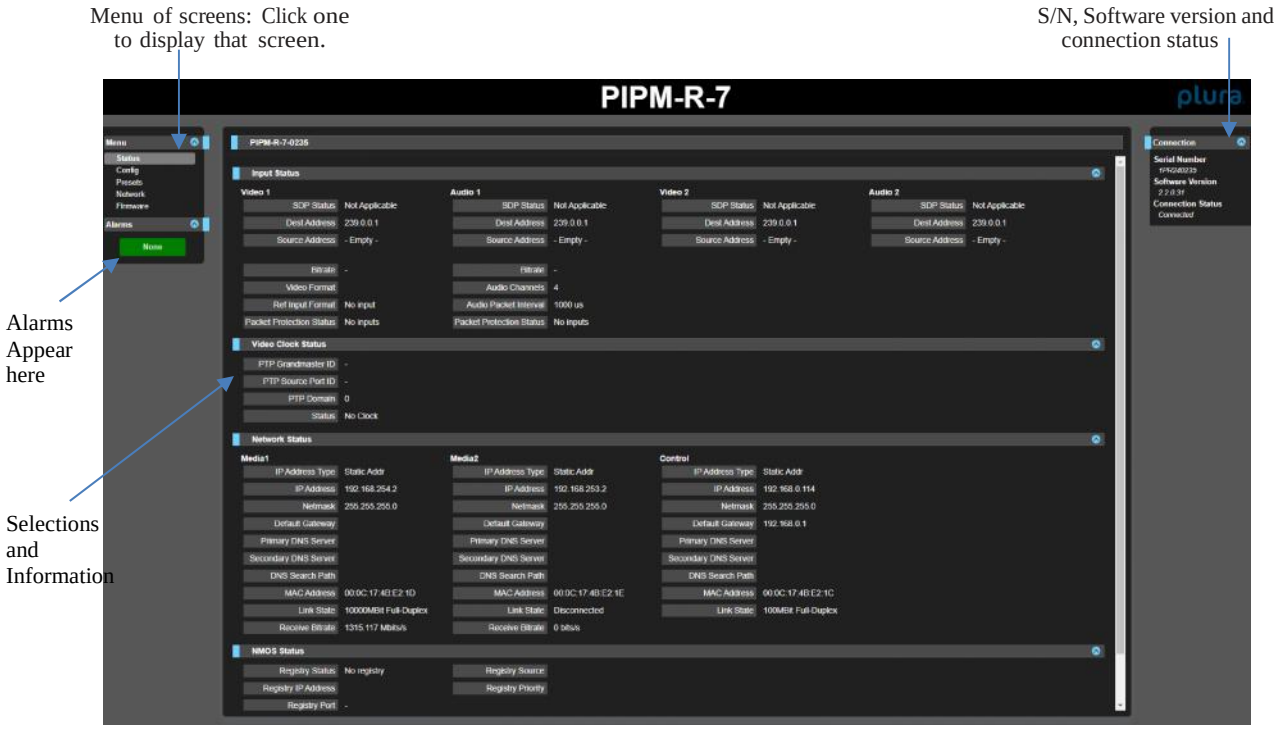
On the right side of every screen is a Connection panel listing information for the connected PIPM-R-7 module.

- Network Panel

On the right is a Network panel that lists other PIPM-R-7 modules on the network.

- Parameters and Information

The reset of the screen displays all the parameter selections and information available for the selected PIPM-R-7 module screen.



Overview of Web Browser User Interface

- Dynamic Controls

1. Hovering the mouse on a parameter name displays a brief description of its function.
2. From the Config Screen, right clicking on the parameter name resets just that parameter to its factory default.
3. For values with sliders, fine control is achieved using the arrow keys on the keyboard to move the slider the minimum amount. The numeric value can also be clicked on to enter a specific value.

4) Status Page

The PIPM-R-7 Status page reports the current status and settings for:

1. Stream Status
2. Video Clock Status
3. Network Status
4. NMOS Status
5. Firmware Status

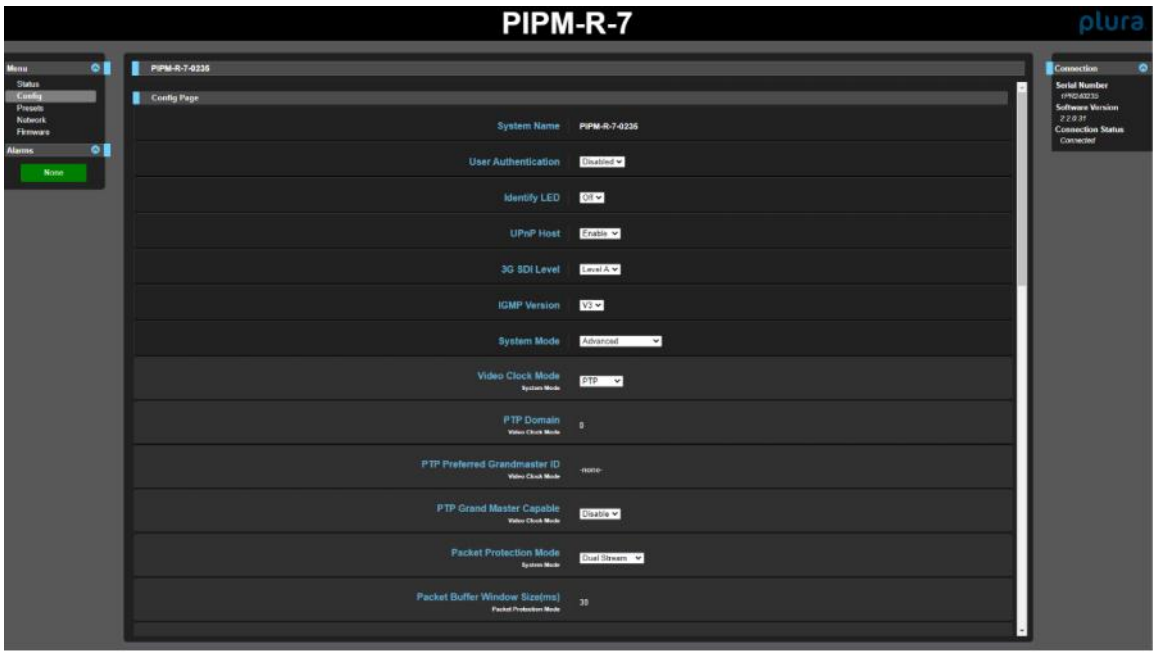
Each group of parameters can be expanded or collapsed.

Overview of Web Browser User Interface

Under the Network Status area of the Status Screen, for network switches that support LLDP, the Chassis ID and the Port ID of the first switch encountered upstream in the path from the PIPM-R-7 module to the network will be displayed in the LLDP Chassis ID and LLDP Port ID fields.
That first upstream switch, in turn, displays the LLDP information (Chassis ID and Port ID) of the downstream PIPM-R-7 Module.

5) Config Screen Section

The PIPM-R-7 Config screen, shown in three sections, has all necessary configuration parameters.



- ### System Name

Defines a name for the system and gives it a unique identifier. This name is used when displaying systems through the web interface.

- ### User Authentication

Enable or disable user password authentication for the web interface.

- ### Identify LED

Enables flashing of the Ethernet LEDs on the module.

- ### UPnP Host

Enable or disable network discovery using Universal Plug and Play.

- ### IGMP Version

Select the Internet Group Management Protocol Version. Plura supports IGMP v2 and v3.
NOTE: It is important to know which version of IGMP is in use on your network. Selecting the wrong IGMP version may cause long delays in processing multicast subscriptions. See your network engineer for more information.

- ### System Modes

There is a set of pre-built system configuration modes, or "system modes," available from the System Mode control on the Config page of the PIPM-R-7 web UI. These pre-built System Modes are designed to save you time so that you can get your unit up and running quickly.

Each System Mode is built for a specific type of use case, taking into account factors such as network conditions, protection requirements, timing, and latency considerations.
NOTE: The choice of System Mode will impact which controls are available. Multiple variations of controls are possible on the Config page.

The following tables present the core characteristics for each pre-built System Mode.

System Mode 1	PTP Low Latency
Description	PTP environment Lowest protection* Near-zero latency**
Video Clock Mode	PTP
Packet Protection Mode	Bypass
Frame Sync Mode	Bypass
Audio Sample Rate Converter	Bypass
Transmitter Requirements	Narrow transmitter only
Latency Expected	0 frames (~4 video lines)

System Mode 2	PTP Protected
Description	PTP environment Greatest protection* Maximum latency**
Video Clock Mode	PTP
Packet Protection Mode	Enabled
Frame Sync Mode	Enabled
Audio Sample Rate Converter	Bypass
Transmitter Requirements	Can accept wide transmitter
Latency Expected	Packet protection window size +2 frames

System Mode 3	Gateway
Description	Gateway environment No packet protection* Medium latency**
Video Clock Mode	Ref In
Packet Protection Mode	Bypass
Frame Sync Mode	Enabled
Audio Sample Rate Converter	Enabled
Transmitter Requirements	Can accept wide transmitter
Latency Expected	2 frames

System Mode 4	Gateway Protected
Description	Gateway environment Greatest protection* Maximum latency**
Video Clock Mode	Ref In
Packet Protection Mode	Enabled
Frame Sync Mode	Enabled
Audio Sample Rate Converter	Enabled
Transmitter Requirements	Can accept wide transmitter
Latency Expected	Packet protection window size +2 frames

System Mode 5	Asynchronous
Description	Setup/demo/troubleshooting environment No packet protection Low latency**
Video Clock Mode	Video In
Packet Protection Mode	Bypass
Frame Sync Mode	Enabled
Audio Sample Rate Converter	Enabled
Transmitter Requirements	Can accept wide transmitter
Latency Expected	2 frames

*Protection against loss or degradation of picture. Low protection does not necessarily mean picture loss or degradation will result, as this would depend on the network architecture and numerous other factors.
**The term latency is referring to latency on the network. The network in this context refers to the PIPM-R-7 module end-to-end — from video into IP Transmitter to video out of IP Receiver, including IP switches along the way.

Unlike the five pre-built System Modes just described, each of which are "safe," the Advanced Mode, described below, does not guard against a user applying contradictory settings that could provide unpredictable results.

NOTE: When working with Advanced Mode, if the configuration settings become problematic, you can always "revert" to one of the five pre-built System Modes to get the unit running again with established internally compatible settings.

System Mode 6	Advanced
Description	User Defined
Video Clock Mode	User Defined
Packet Protection Mode	User Defined
Frame Sync Mode	User Defined
Audio Sample Rate Converter	User Defined
Transmitter Requirements	Based on user selections
Latency Expected	Based on user selections

- ### Video Clock Mode

Select which clock source you want to use for the video output. The clock selection determines whether or not you need to use the Frame Sync in order to have glitch-free output.

1. PTP - PTP is recommended. Ideally, both the PIPM-R-7 and the video source would use PTP.
2. Video In - Use the input signal as the clock source. If you do not have PTP available, Lock to Input is the next recommended choice and it allows for a glitch-free video output.
3. Freerun - Selecting Free Run requires that you use Frame Sync in order to prevent output glitches.

- ### PTP Domain

NOTE: This is only applicable if PTP is selected for Video Output Clock Selection.

Select the PTP domain from values ranging from 0 to 127. This should match the PTP domain configured on the PTP Grandmaster clock on the network.

- ## PTP Preferred Grandmaster ID

NOTE: This is only applicable if PTP is selected for Video Output Clock Selection.

In most situations, this field should left blank.

If multiple PTP Grandmasters are present on the same domain on the network, the device will automatically select a PTP Grandmaster to lock to. However, if you prefer a specific PTP Grandmaster, then set this field to the ID of the preferred Grandmaster.

Example of a PTP Grandmaster ID:
- 08-00-11-FF-FE-22-04-D6

- ## PTP Grand Master Capable

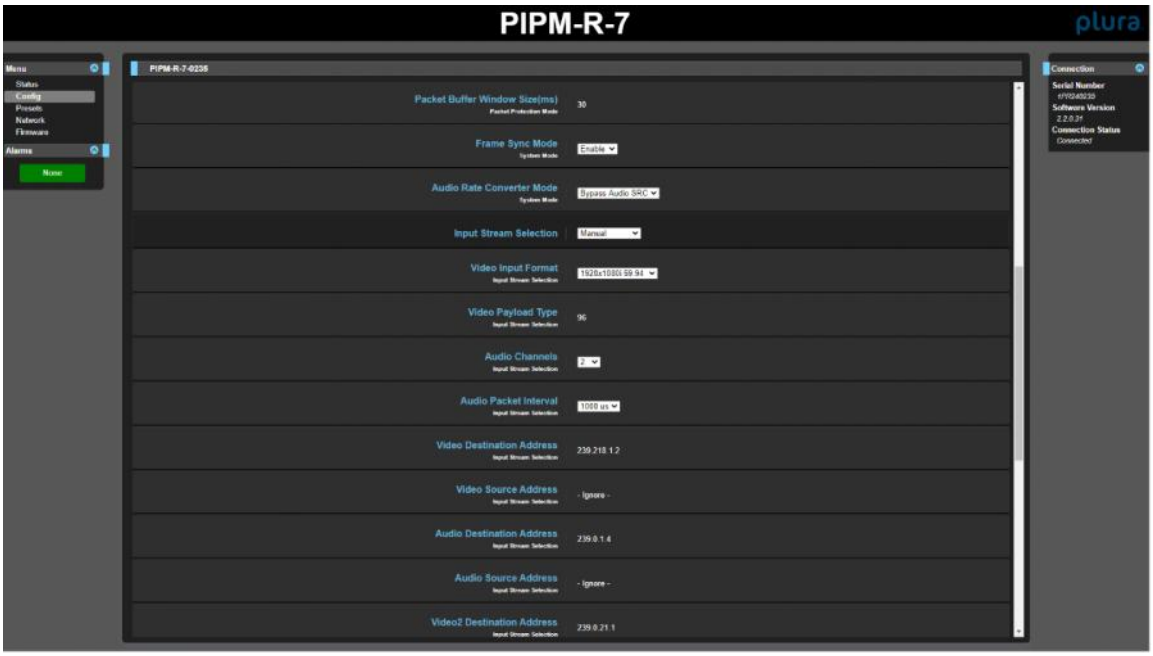
NOTE: This is only applicable if PTP is selected for Video Output Clock Selection.

For Local demonstration purposes only, the PIIPM-R-7 module can act as a grandmaster in network environments where there is not one already present, such as during basic testing, setting up a PoC or demonstration.

CAUTION: Do not enable this control unless you have first checked with your network administrator.

Disable - Disables the PTP Grand Master capability.
Enable - Enables the PTP Grand Master capability.

- ## Packet Buffer Window Size (ms)



Window size in milliseconds for packet buffering.

- ### Packet Protection Mode

With Packet Protection Mode, the PIPM-R-7 will accept signals from both Media LAN 1 and Media LAN 2, allowing for hitless media switching in the event that one of the signals is interrupted.

Single Stream - When set to Single Stream, the PIPM-R-7 will accept one signal from Media LAN 1 only. If packets are out of order, they will be rearranged into the correct order. Note that hitless protection is not part of Single Stream mode.

Dual Stream - When set to Dual Stream, hitless media protection is enabled. Two identical copies of the same stream are accepted from Media LAN 1 and Media LAN 2. Both streams are compared packet by packet. If one stream is missing a packet, it will be taken from the other stream to make sure that one good stream comes through properly.

Bypass - When set to Bypass, the PIPM-R-7 takes the media stream from Media LAN 1. The stream bypasses the entire hitless protection block.

- ### Hitless Window Size (ms)

NOTE: Applicable only if Hitless Media Support is enabled.

Set the amount of time in milliseconds that the unit will look for redundant packets to decide to accept or reject them for hitless media switching.

To determine the hitless window size, consider any delay between the signals, expected jitter, along with any other sources of potential delay between signals.

Possible values range from 1 to 50. The actual range is determined by the signal's frame rate, raster size and other factors.

- ### Frame Sync Mode

Frame Sync Mode can be enabled for synchronizing frames to the timing source you are using.

Enable - Frame Sync Mode is enabled.
Bypass - Frame Sync Mode is disabled.

- ### Audio Rate Converter Mode

In cases where there are either missing audio packets or the audio clock is not synchronous with the timing source, the audio rate converter can match the output audio rate to the local clock. Select either of the following options:

- Use Audio Src
- Bypass Audio Src

- ### Input Stream Selection

Select Manual, SDP or NMOS/Ember

Manual - When Manual is selected, you must enter configuration parameters manually into the following Input Stream Selection fields:

- Video Input Format
- Audio Channels
- Audio Packet Interval — Select the time interval between packets transmitted by the audio transmitter. The receivers support audio packet intervals of 1 millisecond or 125 microseconds.
- Video Destination Address — The IP address corresponding to where the video stream is being sent. In multicast mode, this is the multicast IP address of the ST 2110 stream. In unicast mode, this is the unicast IP address of the media port on the receiver. The Video Destination Address is almost always required on the PIPM-R-7 module. Additionally, the destination UDP port of the stream may also be specified by appending it with a colon to the destination address.
  For example: 239.0.0.1:10000

- Video Source Address — The unicast IP address of the media port on the sending device. This field should be left blank in most situations. It is useful only in setups where multiple transmitters are transmitting to the same multicast destination address and IGMPv3 is in use to subscribe to the stream from a specific source.
- Audio Destination Address — This is the audio stream equivalent of the Video Destination Address.
- Audio Source Address — This is the audio stream equivalent of the Video Source Address.
- Video 2 Destination Address
- Video 2 Source Address
- Audio 2 Destination Address
- Audio 2 Source Address

SDP - The SDP method greatly simplifies the configuration process for the Input Stream Selection fields. Selecting SDP causes the following four fields to display:

- SDP URL Video - Enter the SDP URL Video string. For example: http://172.16.0.109/txch2v.sdp
- SDP URL Audio - Enter the SDP URL Audio string. For example: http://172.16.0.109/txch2a1.sdp
- SDP URL Video 2 - Enter the SDP URL Video string. For example: http://172.16.0.109/txch2v.sdp
- SDP URL Audio 2 - Enter the SDP URL Audio string. For example: http://172.16.0.109/txch2a1.sdp

The strings entered into the SDP URL Video and SDP URL Audio fields point to SDP files that are created by the source that is transmitting the video signal.
The SDP files contain all required configuration parameters for the following Input Stream Selection fields:

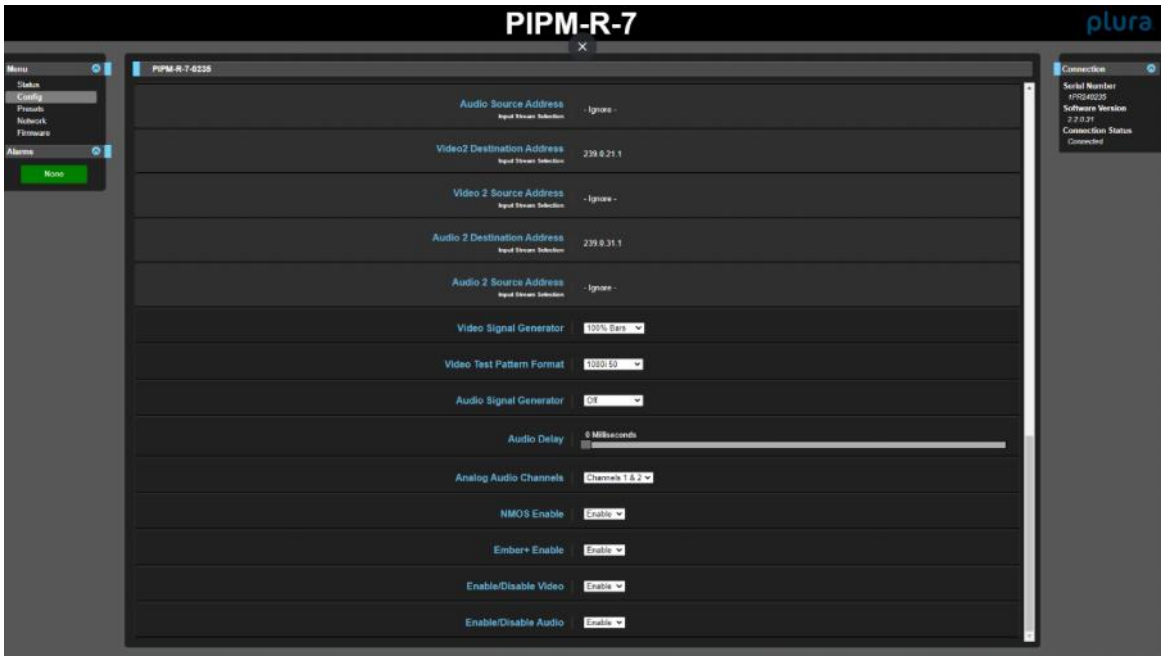
- Video Input Format
- Audio Channels
- Audio Packet Interval
- Video Destination Address
- Video Source Address
- Audio Destination Address
- Audio Source Address.
- Video 2 Destination Address

- Video 2 Source Address
- Audio 2 Destination Address
- Audio 2 Source Address

NMOS/Ember - When NMOS/Ember is selected, input stream selection occurs through network discovery and communication with facility automation.

NMOS uses the address of the unit's internal web server for communications. When the PIPM-R-7 boots up, it actively scans the network for an NMOS registry using MDNS/DNS. If it finds one, it tells the NMOS registry what it is and what its capabilities are.

If the PIPM-R-7 module does not find an NMOS registry, it continues to announce itself through MDNS so that it can be discovered. Once discovered, it registers itself with whatever has discovered the unit through MDNS.



- Video Signal Generator

You can output a test video signal to validate video signal connections. Select Off or Test Pattern.

Off - No video signal is generated.

Other choices

- 100% Bars
- 100% Bars
- 75% Bars
- Ramp
- Multi Burst

- Line Sweep
- Check Field
- Flat Field
- Multi Pattern
- Black
- White
- Linear Ramp
- Slant Ramp

Test Pattern - Color bars with a moving gray line are generated in the currently selected video format and sent to the Video Output.
NOTE: The Test Pattern is supported only in 1080p and 1080i formats.

- Video Test Pattern Format

Determines the video format output from the system's internal test signal generator. Select from the following options:

- 525i 59.94
- 625i 50
- 720p 50
- 720p 59.94
- 1080i 50
- 1080i 59.94
- 1080p 23.98
- 1080p 24
- 1080p 25
- 1080p 29.97
- 1080p 30
- 1080p 50
- 1080p 59.94
- 1080p 60
- 2160p 23.98
- 2160p 24
- 2160p 25
- 2160p 29.97
- 2160p 30
- 2160p 50

- Audio Signal Generator

You can output a test audio signal to validate audio signal connections. Select Off or 400 Hz Tone.

Off - No audio signal is generated.

400 Hz Tone - A 400 Hz tone is generated on both channels of a pair. Each channel pair is at a different volume. Channel pair 1/2 is the loudest. Channel pair 7/8 is the softest.

- **Audio Delay**

Use the Audio Delay control as needed to synchronize audio and video signals.

0 to 100 Milliseconds - Use the slider control with a mouse or the right and left arrow keys on your keyboard to adjust the audio delay setting.

- **NMOS Enable**

Enable or disable network discovery for the device.

NMOS uses the address of the PIPM-R-7 module's internal web server for communications. When the unit boots up, it actively scans the network for an NMOS registry using MDNS/DNS. If it finds one, it tells the NMOS registry what it is and what its capabilities are.

If the PIPM-R-7 module does not find an NMOS registry, it continues to announce itself through MDNS so that it can be discovered. Once discovered, it registers itself with whatever has discovered the unit through MDNS.

- **Ember+ Enable**

Enable or disable network discovery for the device.

- **Enable/Disable Video**

Enable or disable video for the device.

- **Enable/Disable Audio**

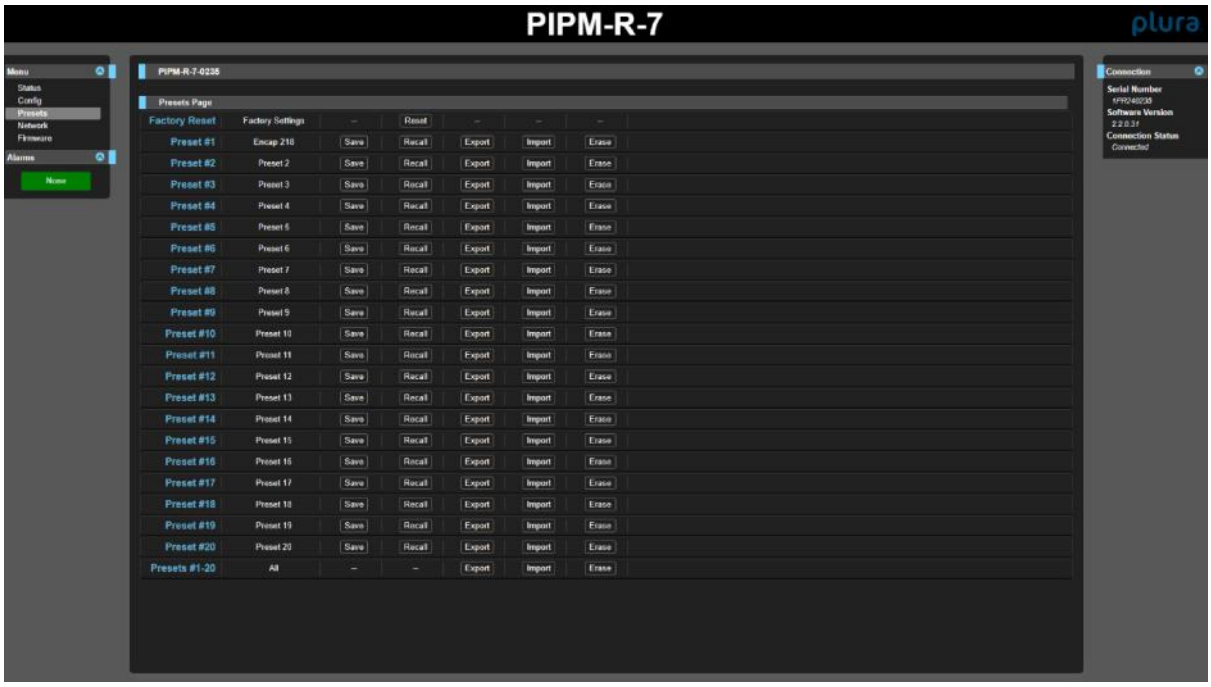
Enable or disable audio for the device.

6) Presets Screen Section

The PIPM-R-7 Config screen, shown in three sections, has all necessary configuration parameters.

The Presets screen allows you to save Preset Configurations into 20 separate memory registers and recall the presets whenever needed.

The Presets screen also includes Export and Import functions that allow exporting one or all presets to your computer as files and importing exported preset files from your computer. A displayed message indicates successful or failed saves, recalls, exports, and imports.



- Presets Screen Controls

Factory Reset - Factory Reset recalls all editable parameters to their factory default settings. Individual presets and Network settings, such as the IP Addresses, are not affected.
Recall - The Recall buttons recall the saved preset configurations.

CAUTION: When you recall a Preset Configuration, the recalled preset immediately replaces the system's existing configuration. All previous settings are lost unless you have previously stored them in another preset configuration or an exported file.

Save - The Save buttons let you save the current configuration into the preset register with the associated name and number. A preset is a set of all parameters as they were set at the time the preset was saved. Only editable parameters are saved in the presets. Non-editable parameters are not saved.

To change a preset name, click in the name's text field, type a new name, and press Enter to save the name. After entering text, you can click the mouse outside of the edit box to exit without changing the name.

CAUTION: PIIPM-R-7 stored presets may contain a web server access password.
If you share an exported preset to someone, that person can extract the password. Before loaning the unit to someone, or returning it as a rental, it is recommended that you clear the device of sensitive information.

Export - The Export buttons save the associated preset contents to a file on your computer. The file gets exported to the default download location specified in your browser options. The file

name is the same as the preset name with the suffix .presets. If you export multiple files for the same preset, a number gets appended to ensure a unique file name. The file size is small, usually less than 100 kilobytes.

Import - The Import buttons let you browse for and import a preset file on your computer into the preset register associated with the selected button. A dialog box warns you that the operation will overwrite the current preset contents with the file contents. You can only import presets from a PIPM-R-7 module.

Erase - The Erase buttons erase the data in that preset.
Export Presets 1–20 (All) - Export All lets you save the contents of all presets to a file on your computer.

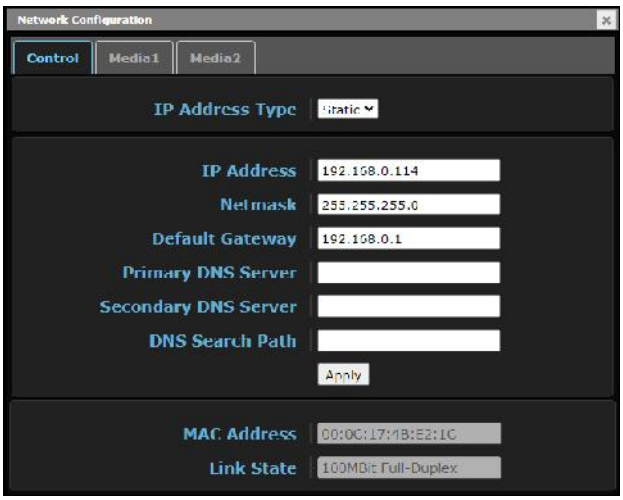
The file gets exported to the default download location specified in your browser options with the name all.presets. If you export multiple files, a number gets appended to ensure a unique file name.

Import Presets 1–20 (All) - Import All lets you browse for and import a previously exported all.presets file from your computer. A dialog box warns you that the operation will overwrite all 20 current preset contents with the contents stored in the file.

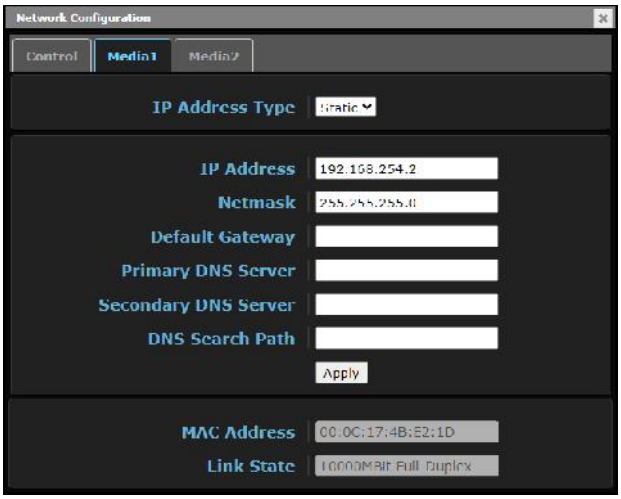
Erase Presets 1–20 (All) - Erase All erases all data from all the presets. A dialog box warns you that the operation will erase all 20 current presets.

7) Network Screen

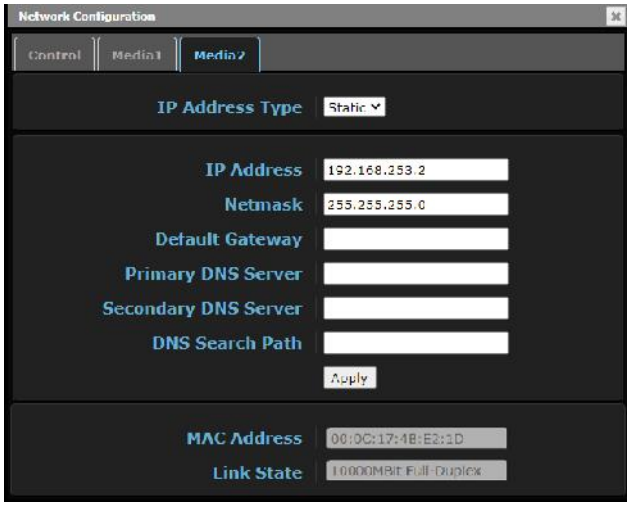
Use the Network Configuration Control Tab to configure or modify settings for the Control LAN Ethernet port.



Use the Network Configuration Media 1 Tab to configure or modify settings for the Media 1 SFP+ cage for 10 Gbps Ethernet port.



Use the Network Configuration Media 2 Tab to configure or modify settings for the Media 2 SFP+ cage for 10 Gbps Ethernet port.



The Network screen allows you to view and change your PIIPM-R-7 unit's network settings. Click Apply to activate any changes.

IP Address Type - IP Address Type determines the type of TCP/IP network configuration to be used. DHCP enables connecting to the network DHCP server, which assigns the IP Address, Netmask, and Gateway automatically. Static lets you set these parameters manually.

NOTE: If the IP Address Type is DHCP, the IP Address, Netmask, and Default Gateway are gray, indicating they are set automatically and cannot be changed unless IP Address Type is first set to Static. Changes are saved and activated upon confirmation using the Apply button.

- DHCP (default) - Selects automatic IP address assignment from the LAN DHCP server. If a DHCP server cannot be found, it fails over to the static IP address.

- Static - Assigns a static IP address manually. The factory default static IP address: 192.168.0.1.

IP Address - IP Address determines a static IP address to be used for TCP/IP networking. Consult your network administrator about how to set this value.

- If IP Address Type is set to DHCP, the IP address is set automatically by the network DHCP server and cannot be entered here.

- If IP Address Type is set to Static, enter an IP address compatible with your LAN here. Also enter a netmask and default gateway address in the following two parameters. Click Apply when you are ready to apply all three entries.

- If IP Address Type is set to DHCP and there is a DHCP failure, the IP address is set to the static IP address.

Netmask - Netmask determines the subnet mask to be used for TCP/IP networking.

- Enter a subnet mask compatible with your LAN. This is only needed for Static IP configurations. The factory default Subnet Mask is 255.255.255.0

- If IP Address Type is set to DHCP, the Subnet Mask is set by the DHCP server and cannot be changed by the user.

Default Gateway - Default Gateway determines the gateway or router used on your LAN for TCP/IP networking.
Without a properly configured default gateway (whether you have a router/ gateway or not), your PIPM-R-7 will be unable to see other PIPM-R-7 units on the network, although you may still be able to control this PIPM-R-7 via a web browser. Also, without a proper gateway defined, the discovery feature on the Network web page will not list other units on the network.

- Enter a default gateway or router address. This is only needed for Static IP configurations. The factory Default Gateway is 192.168.0.1.

- If IP Address Type is set to DHCP, the Default Gateway is set by the DHCP server and cannot be changed by the user.

MAC Address - Reports the connected PIPM-R-7 unit's Media Access Control Address.

Link State - Reports the current status of the Ethernet connection.

8) Firmware Screen Section

- ### Downloading and Installing Updated Firmware

The Update Firmware screen allows you to download and install a firmware update provided by PLURA. Once the firmware was obtained, use the Browse or Choose File button to locate the local software copy. Follow the prompts to load the new firmware into the PIPM-R-7. After the firmware has finished installing reboot the entire Plura monitor by disconnecting power for a few seconds, then reconnecting power.

Contact Us

Corporate Offices:
Plura Broadcast, Inc.
Ph: +1-602-944-1044
Sales@plurainc.com

U.S.A.

Plura Europe GmbH
Ph: +49-6725-918006-70
Sales@plurainc.com

GERMANY

Plura MEA
Ph: +971-50-715-9625
Sales@plurainc.com

U.A.E.

Plura Asia
Ph: +82-10-6688-8826
Sales@plurainc.com

S. KOREA