



MaxiiPower™ VI2216LT

User's Manual

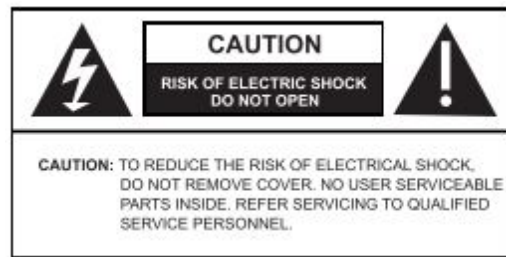
High Power PoE Midspan UTP


Version 1.0 Updated 12/17/2013


Vi2216LT Series Ethernet Midspan Installation Manual

Important Safety Warning

- Read and keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install in accordance with the manufacturer's instructions.
- This installation should be made by a qualified service person and should conform to all local codes.
- DO NOT bundle UTP or UTP signals in the same conduit as high-voltage wiring.
- To reduce the risk of fire or electrical shock, do not expose these products to rain, moisture, dripping, or splashing.
- No objects filled with liquids, such as vases, shall be placed on Vigitron equipment.
- DO NOT install the unit in a place where the operating ambient temperature exceeds 75°C.
- Make sure that the external power supply output voltage is in the recommended range.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including DVRs) that produce heat.
- Protect the power cord from being walked on or pinched particularly at power source, 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 when a power supply cord or plug is damaged, liquid has been spilled, objects have fallen inside the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The main plug is used as the disconnected device and shall remain readily operable.



 **WARNING!** - To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.

 **WARNING!** - This apparatus is a Class I product. This product must be connected to a mains socket outlet thru an AC to DC Power supply.

 **WARNING!** - The mains plug is used as the disconnect device and shall remain readily operable.

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System Requirements

1.1 Overview

The MaxiiPower™ Model Vi2216LT is a 16-port High Power PoE Midspan.

It meets IEEE 802.3af, IEEE 802.3at standards, and High PoE application. The MaxiiPower™ Vi2216LT can deliver 18W on all 16 ports simultaneously or up to 37W per port up to a total of 300W. The PoE functions can be set up with a Windows GUI, or use the default plug-and-play option. The Midspan GUI is an easy and powerful tool that runs on the host PC. It provides configuration power supervision, monitoring, and diagnostics of all ports through a USB cable.

The MaxiiPower™ Midspan is in 1U high and can be easily installed in 19" racks. They are ideal for a wide range of CCTV or IT applications that require high power, such as IP cameras, wireless access points, or VoIP to be connected to a central LAN switching fabric with ease.

1.2 Drawings

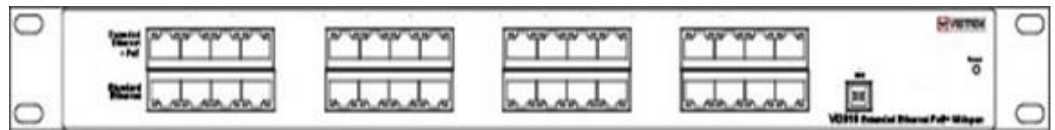


Figure 1: Vi2216LT Front View

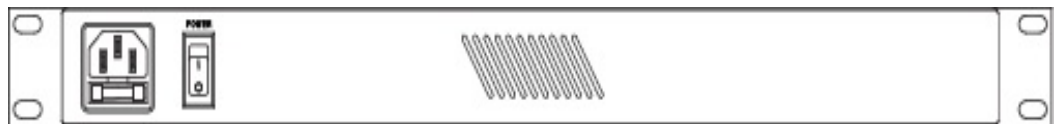


Figure 2: Vi2216LT Rear View

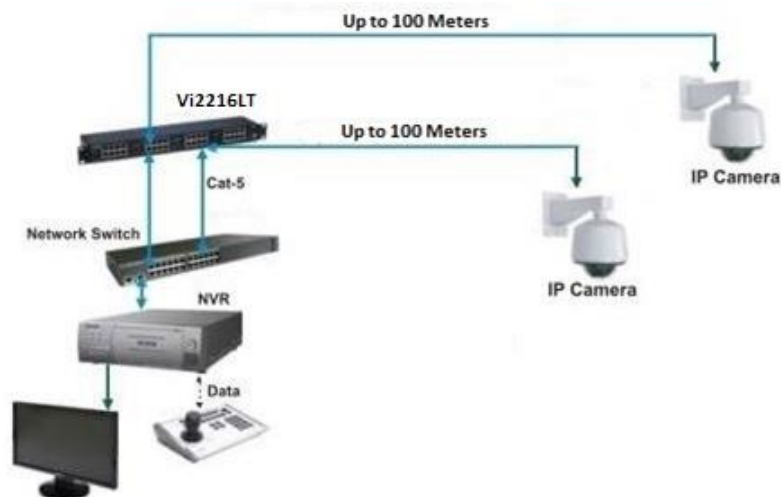


Figure 3: Vi2216LT Application Drawing

IP Camera-end Installation

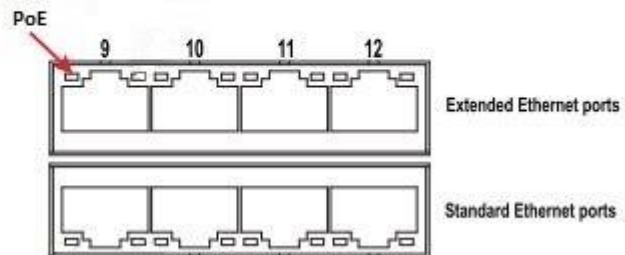
Connect the cables from the camera or other powered device to the upper connectors. When using the Vi2216LT, the cable must be a Cat5/6 with a maximum length of 100 m.

Models Vi2300A and Vi2301A Ethernet extenders are compatible with the Vi2216LT. Models Vi2400A and Vi2401 Ethernet extenders over Coax cable can also be used.

Ethernet Switch/NVR-end Installation

Connect the RJ-45 cables from the Ethernet switch to the Standard Ethernet ports (lower row) of Midspan.

Status LEDs



LED Name	Color	Status	Function
PoE	Green	Off	No power provided
		On	Delivering power
		Flashing	Fault condition

Vi2216LT

Hardware Specifications

1.3 Electrical

Ethernet Interface	Standard 10/100/1000Base-T
UTP	Category-5 (or higher)
Output Power	57 VDC, 300W max. Aggregated 16 ports at 802.3af (15.4 W), plus an additional 53.6W All ports are capable of delivering 37W up to a total of 300W
AC Input	110 -240 V AC, 50-60 Hz, 6.5 A max.
Output Status LED	Green LED
Connectors	Ethernet Input Interface: Shielded RJ-45 Ethernet Output Interface: Shielded RJ-45 AC Power: IEC380-8 inlet
Setup Port	USB with Windows GUI

1.4 Environmental

Humidity	0 to 90%, non-condensing
Temperature	Operating: -10°C to +50°C Storage: -30°C to +70°C

1.5 Mechanical

Dimensions	1.75x17x12 in, 4.3x43x30.5 cm (HxWxL)
Weight	8 Lbs., 3.6 Kg
Material	Sheet metal and extruded Aluminum
Operation	0°C to +50°C
Storage	-30°C to +70°C

1.6 Regulatory Certifications

CE, RoHS, WEEE

1.7 Included Accessories

Mounting brackets for front, rear, or wall installations
Rubber feet for desk applications
Molded IEC 7 ft. (200 cm) power cord
USB setup cable

***Specifications subject to change without notice.**

1.8 Hardware Setup

Please follow the following steps to install the Midspan:

- Connect an AC power cable to the Midspan.
- Connect the USB cable in order to connect the Midspan to the Host PC (optional).
- Connect the PoE powered device (PD) to one of the Midspans ports using a Cat5/6.
- The Midspans are set to “Auto” mode by the factory. In this mode, the Midspan works as a plug-and-play device. It automatically detects the PD and provides requested PoE power.
- To use the GUI (Graphical User Interface), a computer can connect to the Midspan through a USB cable. **The GUI must be started after the computer is connected to the Midspan.**

1.9 LED Diagnostics

Each port is equipped with an LED that provides port status as the following:

- **Off:** The port is off and no power is provided.
- **On:** PoE power is on and is powering a valid PD.
- **Slow Blinking:** The port does not have enough power for the load.
- **Fast Blinking:** It warns that the connected PD is shorted or over current.

1.10 GUI System Requirements

Recommended Operating system: Windows XP, Vista, Windows 7 and Windows 8. Microsoft .NET Framework 4 is required to be installed on the host computer.

Port Communication: USB port

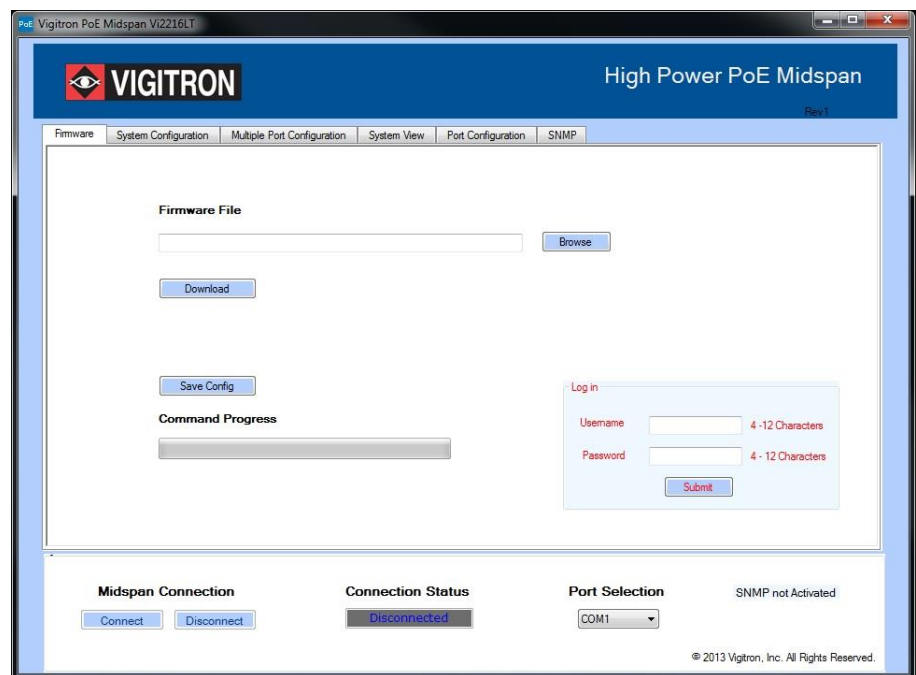
GUI (Graphical User Interface)

Installation Procedure

Important Note:

By running the GUI software, you are accepting all terms and conditions of using this software as noted in Appendix A.

The following section will guide you on how to use the High Power PoE Midspan GUI and connect the host computer to the Midspan through a USB cable.



Your computer may not update the USB port driver automatically. You may need to update the driver manually as follows:

- A. **Window XP:** Go to System property->Hardware->Device manager->USB Serial converter and update driver.
- B. **Window Vista, Window 7, and Windows 8:** Go to System property->Device manager->USB Serial converter and update driver.

A USB cable is provided to connect the computer to the Midspan. After connecting the Midspan to the host computer and the USB driver is installed, run the GUI executable file (xxxxx.exe) on the PC.

The Midspan GUI requires Microsoft .NET Framework 4 installed on the host computer. If you are running the GUI for the first time on a host computer with Windows XP, you may need to visit the Microsoft website to download and install Microsoft .NET Framework 4.

Username and Password

When the GUI is first installed, a username and password must be entered before clicking the “Submit” button. The login information is chosen by the user and must be between 4 to 12 characters long.

To change the username and password, you must login first. The “Submit” button will now read “Change Username and Password”. At this point, you can enter in a new user name and password, and then click “Change Username and Password” to update the login information.

The screenshot displays the VigitrON High Power PoE Midspan GUI. The title bar indicates the device is a 'PoE VigitrON PoE Midspan Vi2216LT'. The main header features the VigitrON logo and the text 'High Power PoE Midspan'. Below the header is a navigation menu with tabs: 'Firmware', 'System Configuration', 'Multiple Port Configuration', 'System View', 'Port Configuration', and 'SNMP'. The 'Firmware' tab is currently selected. The main content area includes a 'Firmware File' section with a text input field, a 'Browse' button, and a 'Download' button. Below this is a 'Save Config' button and a 'Command Progress' section with a progress bar. On the right side, there is a 'Log in' section with a 'Login Successful' message, 'Username' and 'Password' input fields (both with a '4 - 12 Characters' requirement), and a 'Change Username and Password' button. At the bottom of the GUI, there are three sections: 'Midspan Connection' with 'Connect' and 'Disconnect' buttons, 'Connection Status' showing 'Disconnected', and 'Port Selection' with a dropdown menu set to 'COM1'. A status indicator 'SNMP not Activated' is also present. The footer contains the copyright notice '© 2013 VigitrON, Inc. All Rights Reserved.'

Connecting the Vi2216LT to a Computer

Under “Port Selection”, click the down arrow in the drop down box. The GUI will display all the available COM ports present on the PC. The example below shows three ports available: COM1, COM3, and COM50.



If you are not sure which COM port to select, you can go to the “Device Manager” window of your computer. Click the “Ports” icon and a list of ports will be displayed along with a brief description. The following example shows COM50 as being a USB serial port. The Midspan is connected to this port. Now you can go back and select the appropriate USB port to use to connect to the Midspan.



Click the “Connect” button. This should connect your PC to the Midspan and the “Status” at the bottom of the window should display “Connected”.



Common issues that prevent a successful connection are: not having the USB driver installed, incorrect port selection, or not powering up the Midspan.

Firmware Window

Warning: Upgrading firmware is not part of the normal operating procedure. It should only be performed at the recommendation of the manufacturer by skilled personnel. Improper upgrading will affect equipment performance and may result in rendering the equipment inoperative.

Figure 4: Firmware Window

Firmware File:

A new unit has all the necessary programming and does not need this step. To change the firmware of the Midspan, you will need a file that contains the new firmware. The location of the file containing the new firmware is displayed in this box.

Browse:

The file browse dialog box will be opened to select the firmware file to be used.

Download:

The image file that was selected using the “Load” command will be downloaded to the Midspan and replaced the current firmware.

Save Config:

This button saves the current running configuration to the internal memory of the Midspan. Saving the configuration will prevent the loss of the individual port and power settings selected by the user. The Midspan can be switched off and on without losing the configuration.

Command Progress:

This bar will display the progress of commands.

System Configuration Window

The “System Configuration” window provides access to global configurations settings and status view of major parameters.

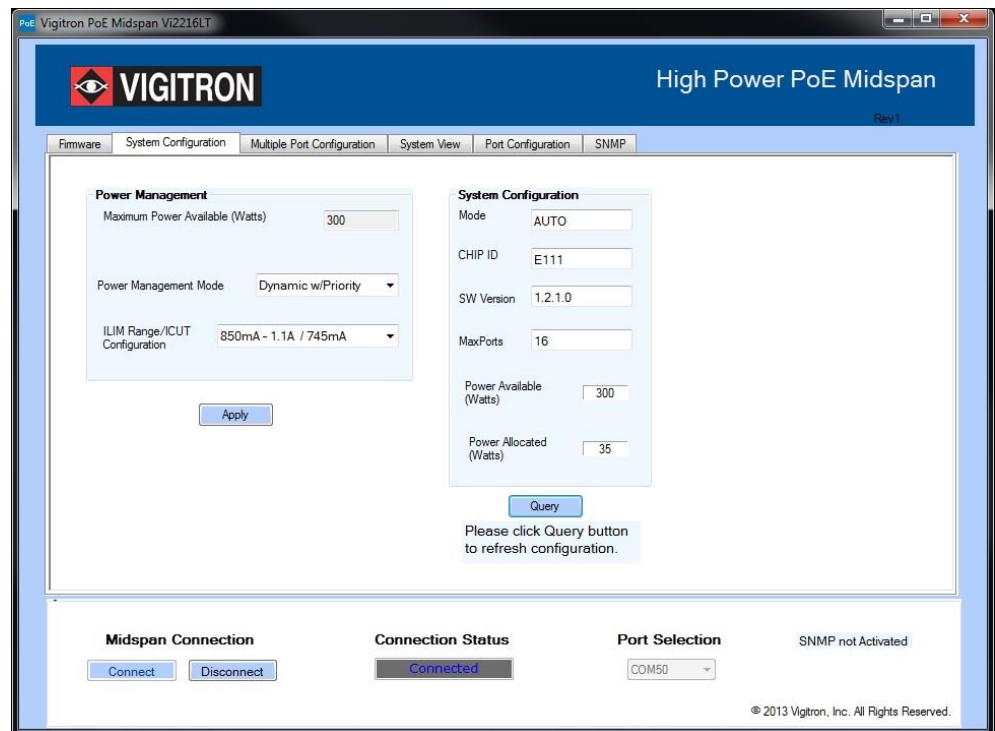


Figure 5: System Configuration Window

1.11.1 Power Management

These settings will help you match the power requirements of your system to the power output of the Midspan.

Power Management can be used in the following modes:

- **None:** Indicates power management will not be performed by the firmware. User needs to power up the ports manually.
- **Static /w Priority:** Power is budgeted statically based on selected violation type, located under the “Multiple Port Configuration” or “Port Configuration” tabs.
 - If violation type is “**Class Based**”, then the maximum permissible power for that class is budgeted.
 - If violation type is “**User Defined**”, then the configured user-defined limit is budgeted.
 - If violation type is “**None**”, then the budgeted power is based on port mode.

For **Normal Mode** the power budgeted is 16.2W:

- For “High Power Mode” (802.3at-Class 4), the power budgeted is based on ILIM/ICUT selected value.
 - For ILIM/ICUT – 504/465 mA, the power budgeted is 22.5W.
 - For ILIM/ICUT – 563/545 mA, the power budgeted is 26.5W.
 - For ILIM/ICUT – 850/625 mA, the power budgeted is 31.6W.
 - For ILIM/ICUT – 850/725 mA, the power budgeted is 37.0W.
- These limits will help to provide the necessary power for your system, and prevents run away shorting and potential damage from occurring.
- **Static /wo Priority:** Same as above, except the port priority of the port is ignored.
- **Static /wo Priority:** Power is budgeted statically based on selected violation type.
 - If violation type is “**Class Based**”, then the maximum permissible power for that class is budgeted.
 - If violation type is “**User Defined**”, then the configured user-defined limit is budgeted.
 - If violation type is “**None**”, then the budgeted power is based on port mode.

For **Normal Mode** the power budgeted is 16.2W:

- For “High Power Mode”, the power budgeted is based on ILIM/ICUT selected value.
 - For ILIM/ICUT – 504/465 mA, the power budgeted is 22.5W.
 - For ILIM/ICUT – 563/545 mA, the power budgeted is 26.5W.
 - For ILIM/ICUT – 850/625 mA, the power budgeted is 31.6W.
 - For ILIM/ICUT – 850/725 mA, the power budgeted is 37.0W.
- **Dynamic /w Priority:** The power is budgeted based on the load and priority of the port.
- **Dynamic /wo Priority:** The power is budgeted based on the load.

1.11.2 ILIM/ICUT Configuration	Set the “Current Limit and Current Cut Limit” (ILIM/ICUT).
1.11.3 System Configuration	This section displays the status information about the Midspan.
1.11.4 Chip ID	This shows the current PSE control chip revision.
1.11.5 SW Version	This shows the current running firmware version.
1.11.6 Max Ports	This shows the maximum number of Midspan ports detected by the software.
1.11.7 Power Available	This shows the total available power for the Midspan.
1.11.8 Power Allocated	This shows the total power allocated by the system. Power allocated varies based on the power management mode selected.
1.12.1 Commands	
1.12.2 Query	Click the “Query” button to update the status fields.
1.12.3 Apply	Click the “Apply” button to configure the system with the inputted values.

Multiple Port Configuration Window

The “Multiple Port Configuration” window enables a way to apply the same configuration to multiple ports in a single screen. This is the fastest way to configure multiple ports with identical characteristics.

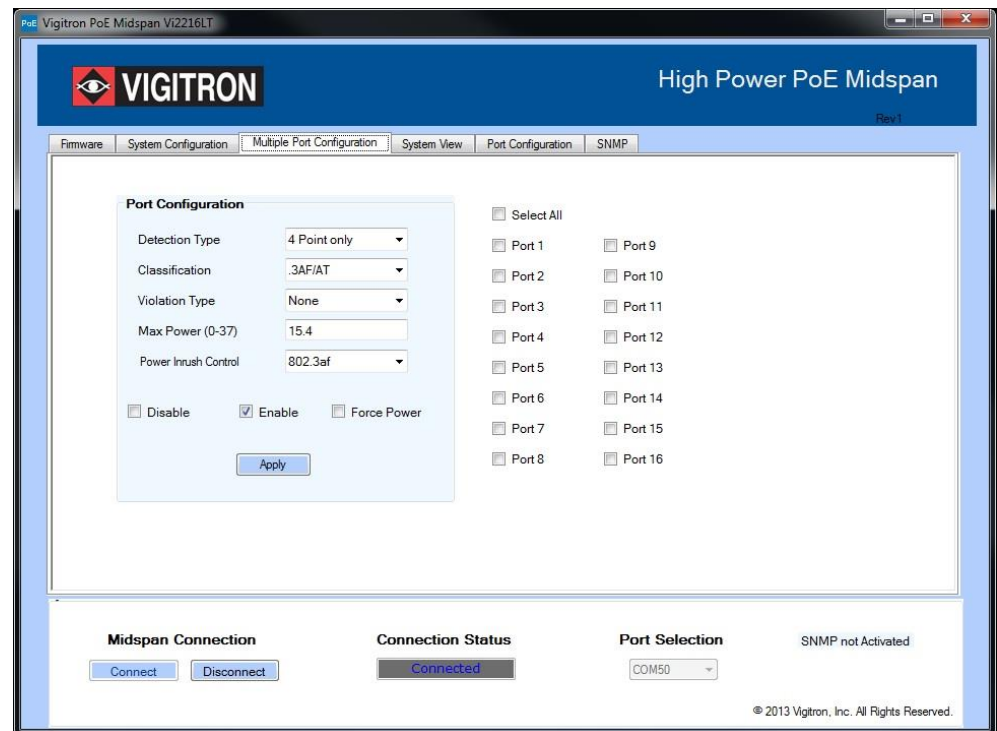


Figure 6: Multiple Port Configuration Window

1.13.1 Detection Type

Different PoE devices may respond to differences in detection pulses. If your device does not turn on, try changing this setting.

Choose the detection type to be used for selected ports, matching it to the camera requirements. Most cameras will work in the default position.

- “None” for bypassing detection.
- “2-point” for 2-point detection.
- “4-point” for 4-point detection.
- “4-point+legacy” for 4-point followed by legacy.
- “2-point+legacy” for 2-point followed by legacy.
- “Legacy” for legacy detection only.

This option will be considered the next time a “detection” is performed on a port. This will not affect ports currently in a power delivering state. To apply a change of the detection type, disable, and then enable the port.

1.13.2 Classification	<p>Choose the classification type for selected ports:</p> <ul style="list-style-type: none"> • “Bypass” for ignoring classification. • “.3AF/AT” for IEEE 802.3af/at classification signature
1.13.3 Violation Type	<p>Choose the violation type for selected ports during delivering state:</p> <ul style="list-style-type: none"> • “None” for bypassing violation checking. • “Class Based” for limiting power based on the classification results. If classification is bypassed, then “Class-0” will be used in Normal Mode and “ILIM/ICUT” values in high power mode. • “User Defined” for limiting power based on user defined value.
1.13.4 Max Power	<p>Choose the user defined power value. This value is used if the “Violation Type” is “User Defined”.</p>
1.13.5 Power Inrush Control	<p>Choose the “Power Inrush Control” mode of selected port:</p> <ul style="list-style-type: none"> • “Normal” for IEEE 802.3af mode. • “High Inrush” for legacy devices, which require more than 15.4W. For the port to deliver more than 15.4W appropriately, the ILIM/ICUT value needs to be selected and classification needs to be bypassed. • “Pre 802.3at” for devices supporting 802.3at. Use this mode to deliver more than 15.4W. Appropriate ILIM/ICUT value should be selected.
1.13.6 Disable	<p>Check this box to disable selected ports. Check boxes “Disable”, “Enable” and “Force Power” are mutually exclusive.</p>
1.13.7 Enable	<p>Checking this box will enable selected ports.</p>
1.13.8 Force Power	<p>Check this box to force the selected port to “Power On”. This will bypass detection, classification, and power management steps, and no violation will be honored.</p>
1.13.9 Select All	<p>Check “Select All” to select all ports. Otherwise, each port number must be individually selected.</p>
1.13.10 Apply	<p>This button must be clicked to load the user selected configuration onto the selected ports.</p>

System View Window

The “System View” window enables viewing the status of all ports on a single screen.

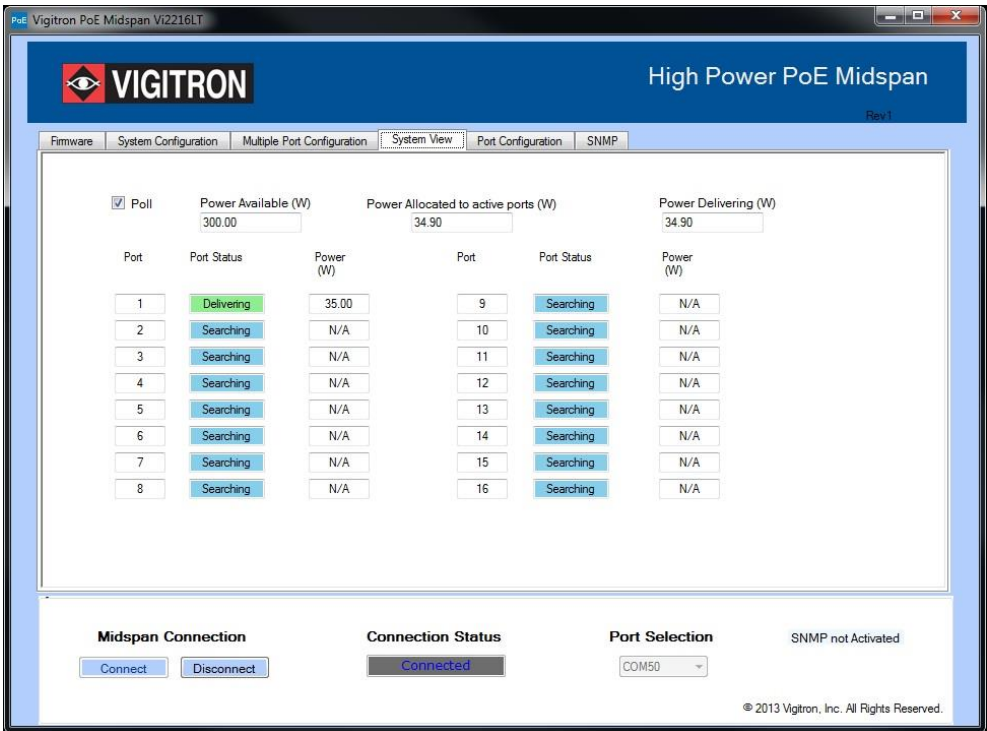


Figure 7: System View Window

1.14.1 Poll	If the poll box is checked, it will enable continuous refreshing of the parameters.
1.14.2 Power Available	This box shows the Midspan total available power.
1.14.3 Power Allocated to Active Ports	The total power allocated by the ports currently delivering power is displayed in this box. The allocated power varies based on the selected Power Management Mode.
1.14.4 Power Delivering	Shows the total power delivered on all active ports.
1.14.5 Port	This displays the port numbers.
1.14.6 Port Status	<p>This shows the port status. The status is color coded as following for easy identification:</p> <ul style="list-style-type: none"> • Green = Delivering • Blue = Searching • Gray = Disabled • Yellow = Requesting Power • Orange = Test mode • Red = Fault
1.14.7 Port Power	The power currently being delivered by the port is displayed. If the port is not in "Delivering" mode, it will show "N/A".

Port Configuration Window

The “Port Configuration” window enables the ability to configure a single port and view its status.



Figure 8: Port Configuration

1.15.1 Port Configuration

1.15.2 Port

Selects the port number to be changed or status viewed.

1.15.3 Detection Type

Selects the PD detection type to be used:

- “None” for bypassing detection.
- “2-point” for 2-point detection.
- “4-point” for 4-point detection.
- “4-point+legacy” for 4-point followed by legacy.
- “2-point+legacy” for 2-point followed by legacy.
- “Legacy” for legacy detection only.

The “Legacy” option will be considered the next time a “detection” is performed on a port. This will not affect ports currently in a power delivering state. To apply a change of the detection type, disable, and then enable the port.

1.15.4 Classification	<p>Selects the PD classification type to be used:</p> <ul style="list-style-type: none"> • “Bypass” for ignoring classification. • “.3AF/AT” for IEEE 802.3af/at classification signature.
1.15.5 Power Inrush	<p>Selects the “Power Inrush” mode of the port:</p> <ul style="list-style-type: none"> • “Normal” for IEEE 802.3af mode. • “High Inrush” for legacy devices, which require more than 15.4W. For the port to deliver more than 15.4W appropriately, the ILIM/ICUT value needs to be selected and classification needs to be bypassed. • “Pre 802.3at” for devices supporting 802.3at. For the port to deliver more than 15.4W appropriately, the ILIM/ICUT value to be selected.
1.15.6 Port Priority	<p>Port Priority is used in situations where the total power requested by all connected devices may exceed the total power available from the Midspan. By entering a value between 0 to 3, the user can give a higher priority to deliver power to some ports. Less critical ports can be set with a lower priority. Ports with the priority set to 3 have the highest priority and 0 is the lowest.</p>
1.15.7 Violation Type	<p>Selects the violation type to be used by the port during delivering state:</p> <ul style="list-style-type: none"> • “None” for bypassing violation checking. • “Class Based” for limiting power based on the classification results. If classification is bypassed, then “Class-0” will be used in Normal Mode and “ILIM/ICUT” values in High power mode. • “User Defined” for limiting power based on user defined value.
1.15.8 Max Power	<p>Enter the user defined power value. This value can only be changed or used if the “Violation Type” is set to “User Defined”.</p>
1.15.9 Disable	<p>This button disables the port. Buttons “Disable”, “Enable”, and “Force Power” are mutually exclusive.</p>
1.15.10 Enable	<p>This button enables the port. Buttons “Disable”, “Enable”, and “Force Power” are mutually exclusive.</p>
1.15.11 Force Power	<p>This button forces the port to output power. This will bypass detection, classification, and power management checks. No violation will be honored. Buttons “Disable”, “Enable”, and “Force Power” are mutually exclusive.</p>
1.15.12 Apply	<p>Applies the user selected configuration onto the selected port.</p>

1.16.1 Port Status	Check to enable polling of port. Uncheck to disable polling.
1.16.2 Status	<p>This shows the port status. The status is color coded for easy identification.</p> <ul style="list-style-type: none"> • “Green” for delivering. • “Blue” for searching. • “Gray” for disabled. • “Yellow” for Requesting Power. • “Orange” for Test mode. • “Red” for Fault.
1.16.3 Class/Error Value	This shows the class being detected in case of normal operation. It also shows the error value in case of a fault condition.
1.16.4 Remote PD Type	This shows the type of PD (powered device) detected by the Midspan. If there is no PD detected, the Midspan will not automatically apply power.
1.16.5 Voltage	This shows the output voltage of the port.
1.16.6 Current	This shows the DC current being delivered.
1.16.7 Power	This shows the power being delivered.
1.16.8 Temperature	This shows the junction temperature of the controller chip of that specific port.
1.17.1 Statistics	
1.17.2 Overload Counter	This shows how many times the port has been in overload status.
1.17.3 Short Counter	This shows how many times the port has been shorted.
1.17.4 Power Denied Counter	This shows how many times the port has denied power to loads.
1.17.5 Invalid Detection Counter	This shows how many times the port has detected an invalid load.
1.17.6 Reset Statistics	This will reset all port statistics.

**1.18.1 Power
Allocated**

This section will display the power allocated to each port. Ports that are not set to “User Defined” will be displayed in red text and will be set to the maximum watts.

The screenshot shows a web interface for port configuration. It includes tabs for Firmware, System Configuration, Multiple Port Configuration, System View, and Port Configuration. The Port Configuration section is active, showing settings for Port 1. The Violation Type is set to User Defined, which is circled in red. The Power Allocated section displays a table of power values for 16 ports. Ports 1-8 are set to 15.4, and ports 9-16 are set to 37. A red warning message states: "Ports not set to 'User Defined' will be displayed in red text and by default will be set to the maximum wattage." The Total Power Allocated is 570.4 Watts, and the Remaining Power is -270.4 Watts. Buttons for Enable, Disable, Force Power, Apply, Reset Statistics, and Refresh are visible.

Port	Power Allocated
Port 1	15.4
Port 2	37
Port 3	37
Port 4	37
Port 5	37
Port 6	37
Port 7	37
Port 8	37
Port 9	37
Port 10	37
Port 11	37
Port 12	37
Port 13	37
Port 14	37
Port 15	37
Port 16	37

Total Power Allocated: 570.4 Watts
Remaining Power: -270.4 Watts

1.18.2 Port 1 – Port 16

The power allocated to each individual port is displayed in these boxes.

**1.18.3 Total Power
Allocated**

The power for each port is added then displayed.

**1.18.4 Remaining
Power**

This box will display the total power available (300) minus the total power allocated to all ports.

1.18.5 Refresh Button

Clicking this button will update all the port power allocated information.

SNMP Window (Simple Network Management Protocol)

This GUI can monitor and send SNMP messages for a Vi2216LT Midspan. The Midspan must remain connected to the host computer. While the SNMP is running, the GUI will remain on the SNMP tab. To use other features of the GUI, you must first stop the SNMP.

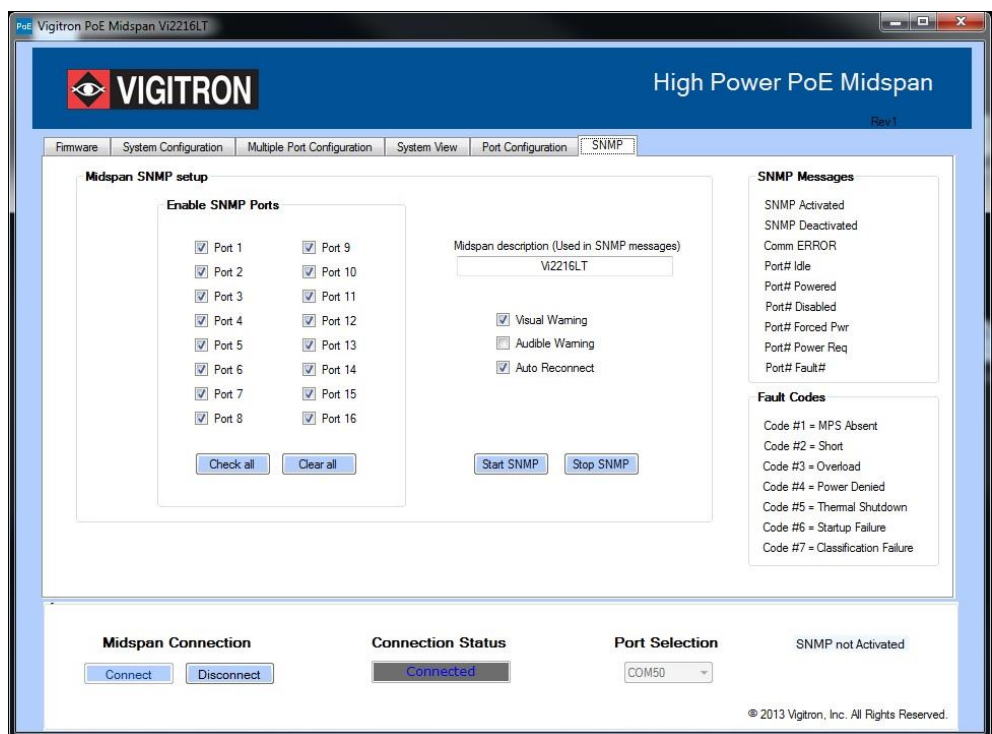


Figure 9: SNMP

1.19.1 How to Receive SNMP Messages

An SNMP trap program is needed to receive and view the SNMP messages sent by the Midspan GUI. Many of these programs can be downloaded from the internet for free. The trap program can be running on the same computer as the Midspan GUI or on a separate computer as long as it is connected to the same network. All of the Midspan SNMP messages are sent UDP to port 162.

1.19.2 Enable SNMP Ports

SNMP messages will be enabled on each port by checking the corresponding box. All 16 boxes are checked by default.

1.19.3 Check All Button	Check All Button: By clicking the “Check All” button, every port will be enabled.
1.19.4 Clear All Button	Clear All Button: Clicking this button will disable all ports.
1.19.5 Midspan Description	Midspan Description: This box is used to customize the SNMP messages sent. If multiple devices are being monitored by a SNMP trap program, a Midspan description will differentiate the Midspan SNMP messages from other devices. The description can be a maximum of 38 characters long.
1.19.6 Visual Warning	Visual Warning: When this box is checked, and the GUI is minimized, there will be a visual warning on the host computer after the SNMP message has been sent. The number of messages sent since the GUI has been minimized will also be displayed. Expanding the GUI will close the visual warning. By default, this box is checked.
1.19.7 Audible Warning	Audible Warning: If this box is checked, and the GUI is minimized, there will be an audible warning after an SNMP message has been sent. The host computer must have speakers to play the warning. Expanding the GUI will silence the warning. By default, this box is unchecked.
1.19.8 Auto Reconnect	Auto Reconnect: If the “Auto Reconnect” feature is enabled and communication between the GUI and computer is lost, the GUI will attempt to re-establish the connection every 15 seconds. This feature is enabled by default.
1.19.9 SNMP Message Descriptions	<p>SNMP Activated: This message is sent when the “Start SNMP” button is pushed. It will be followed with the status of every SNMP enabled port.</p> <p>SNMP Deactivated: This message is sent when the “Stop SNMP” button is pushed.</p> <p>Comm Error: If the Midspan connection to the host computer is interrupted, a “Comm Error” and “SNMP Deactivated” message will be sent to the trap. After a connection is re-established, a “SNMP Activated” message will be sent, followed by the status of all enabled ports.</p> <p>Port# Idle: A “Port Idle” message sent to a trap means the port is not connected to a valid load.</p> <p>Port# Powered: This message is sent when the port is powering a device.</p> <p>Port# Disabled: This message is sent when the port is turned off in the GUI and will not supply power.</p> <p>Port# Forced Pwr: This message is sent when the port is configured in the GUI to send power, regardless of any connected device.</p> <p>Port# Power Req: This message is sent when the port is connected to a valid device but either has not powered up yet or powering the device will exceed the allocated power.</p>

Port# Fault#: If there is a problem with a port, a fault code will be sent. Below is a list of all possible codes along with a brief description.

**1.19.10 Fault Code
Description**

Code#1 = MPS Absent (Maintaining Power Signature): This fault code is sent when there is a valid device connected to the port, but it is not drawing the minimum current required to keep the port powered. This value is about 8mA.

Code#2 = Short: This code is sent when the port senses a shorted connection and is automatically powered down to prevent an unsafe situation.

Code#3 = Overload: An "Overload" fault code is sent when the power used by a connected device exceeds typical operation.

Code#4 = Power Denied: The port did not power up due to power availability or port priority.

Code#5 = Thermal Shutdown: The port automatically shuts down to prevent damage from excessive heat.

Code#6 = Startup Failure: An error occurred in the startup procedure.

Code#7 = Classification Failure: An error occurred in determining the classification.

Powering a 60W device using a Vi0015 (Optional)

The Vi2216LT can provide up to 37W on multiple ports. As long as the 300W total power budget is not exceeded, it is possible to supply up to 74W to a device.

This can be accomplished using the Vi0015 cable, which combines the power of two ports while maintaining the standard wiring configuration.



The Vi0015 has two color coded cables. They are black and blue. The black cable carries only power. The blue cable carries power and data. To connect the Midspan to the switch, use the port that is connected to the blue cable to connect the partner port to the switch.

Using the Vi0015 cable with the Vi2216LT, up to 5 cameras (devices) that require 60W can be powered.

Remember when using either any of our Midspans or combination Midspan/Extenders with a PoE switch, it is recommended you turn off any PoE from the switch.

Appendix A

1.20 Software Acceptance Terms and Conditions

ACKNOWLEDGMENT

BY INSTALLING THE SOFTWARE, YOU ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTAND THE FOREGOING AND THAT YOU AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. YOU ALSO AGREE THAT THIS AGREEMENT IS THE COMPLETE AND EXCLUSIVE STATEMENT OF AGREEMENT BETWEEN THE PARTIES AND SUPERSEDES ALL PROPOSED OR PRIOR AGREEMENTS, ORAL OR WRITTEN, AND ANY OTHER COMMUNICATIONS BETWEEN THE PARTIES RELATING TO THE LICENSE DESCRIBED HEREIN.

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LIMITATION OF LIABILITY

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ARBITRATION

Any disagreement between the parties relating to any interpretation, construction, performance or breach of this Agreement shall be settled by arbitration to be held in San Diego County, California, in accordance with the laws of the State of California in accordance with the rules, then in effect of the American Arbitration Association. The arbitrator may grant injunctions or other relief in such dispute or controversy. The decision of the arbitrator shall be final, conclusive, and binding on the parties to the arbitration. Judgment may be entered on the arbitrator's decision in any court having jurisdiction. The party bring arbitration agrees to incur the total costs and expenses of such arbitration and shall pay their counsel fees and expenses.

MISCELLANEOUS

This Agreement constitutes the entire agreement between Vigitron and you, concerning the subject matter hereof, and it may only be modified by a written amendment signed by an authorized executive of Vigitron.

- Except to the extent applicable law, if any, provides otherwise, this Agreement will be governed by the laws of the state of California, U.S.A., excluding its conflict of law provisions. It is further agreed that if one or more provision of this agreement are held to be illegal or unenforceable under applicable California law, such illegal or unenforceable portion(s) shall be limited or excluded from this Agreement to the minimum extent required that this Agreement shall otherwise remain in full force and effect and enforceable in accordance with its terms.
- This Agreement will not be governed by the United Nations Convention on Contracts for the International Sale of Goods.
- If any part of this Agreement is held invalid or unenforceable, that part will be construed to reflect the parties' original intent, and the remaining portions will remain in full force and effect.
- A waiver by either party of any term or condition of this Agreement or any breach thereof, in any one instance, will not waive such term or condition or any subsequent breach thereof.
- Except as required by law, the controlling language of this Agreement is English.
- You may assign your rights under this Agreement to any party that consents to, and agrees to be bound by, its terms. Vigitron may assign its rights under this Agreement without condition.
- This Agreement will be binding upon and will inure to the benefit of the parties, their successors and permitted assigns.

Warranty

Vigitron, Inc. warrants that all Vigitron products ("Product"), if used in accordance with these instructions, will be free of defects in material and workmanship for lifetime defined as the duration period of time until product end of life is announcement.

After which, Vigitron will continue to provide warranty services for a period of 3 years. Period covering valid warranty will be determined by proof of purchase in the form of an invoice from an authorized Vigitron dealer.

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