Vigitron/Siklu

Vigitron Quick Facts

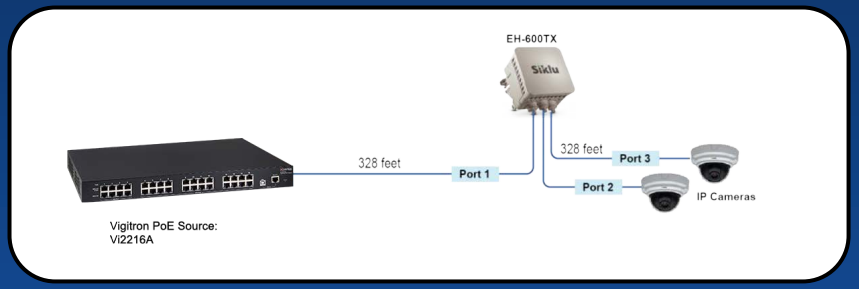
Vigitron is a 27-year-old company headquartered in San Diego, California. Our analog products have been sold for 21 years with hundreds of thousands of channels installed. Our IP/PoE products group is 12 years old with several hundred thousand installed channels

- Vigitron is an American company.
- Vigitron products are designed in the United States.
- Vigitron has a long a stable history.
- Products are developed in conjunction with major security manufacturers doing a process called interoperational testing
- Vigitron products are well received and present in many existing applications.
- Longest industry warranty

Vigitron/Siklu

Integration

Siklu – Front end and PoE power solutions

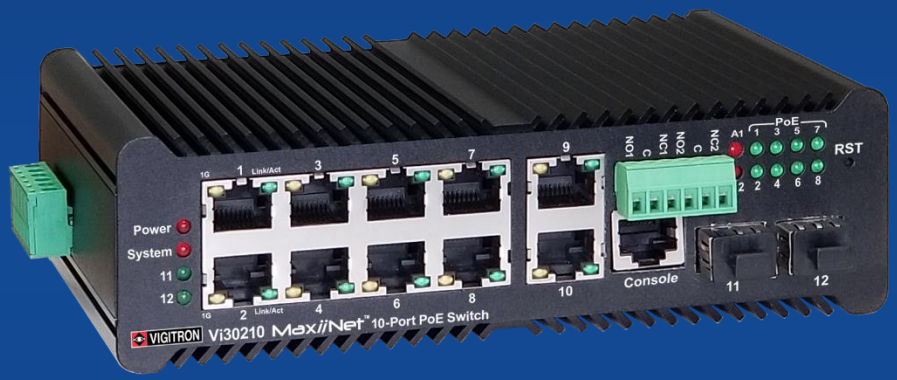


Vigitron offer several PoE solutions providing 15.4W to 90W and the ability to extended distances from Siklu Transmitters to connected device for distance greater than 328 Feet

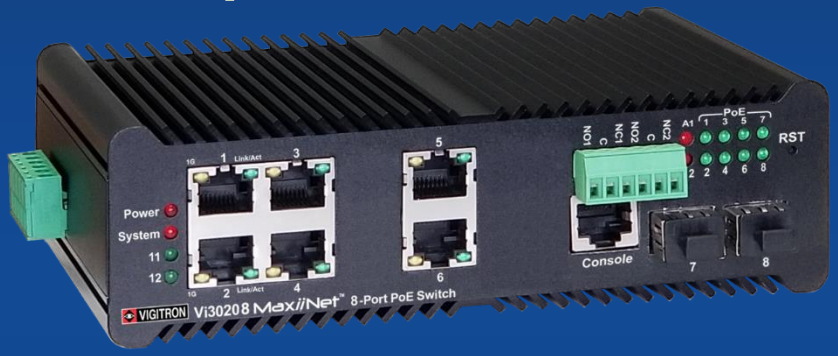
VIGITRON

Industrial Network Switches

Advantages and Operation



Vi30210



Vi30208

90W – 2.5Gbps Network switch solutions

VIGITRON

PoE Compliant DC Power Solutions

Vi10120
120W @ 56VDC

Vi10240
240W @ 56VDC

These DC DIN Rail mounted power supplies can operate under a wide temperature harden range of -25C to +70C. They can be configured for redundant and additive power

Vi10480
480W @ 56VDC

Vigitron's range of harden power supplies combined with Vigitron's series of INS switches is the perfect solution for today's multi-sensor and high PoE PTZs. The Vi10480 can power all ports up to 90 watts

VIGITRON

What is an Industrial Network Switch (INS)

Key Points

- Layer 2+ Management
- High DC power input- 480 Watts
- High individual Port PoE- 90Watts compliant to 802.3bt
- 1000Mbps (1G) managed ports
- Industrial Standard Ring Protocol G.8032 V1/V2
- Copper and Fiber uplinks
- Clear front panel LED status indicator
- Redundant – back up power
- Two form C alarm contact outputs
- High operating temperature –40C to 70C
- Compact design – unique heat disbursement heat design
- DIN Rail and wall mount
- 6Kv individual port surge protection – use to add Vi2001
- Individual port thermal protection with user programmable limits
- Programmable Packet settings to 9600bytes at 100Mbps
- Unique 4+2+2 design with 8 independent port settings (Vi30208)*

Key Feature – PoE Power- higher input power- higher port power provides for a wider applications

- High DC power input- 480 Watts
- High individual Port PoE- 90Watts compliant to 802.3bt

Each copper port is capable of being programmed to handle up to 90W compliant to 802.3bt.

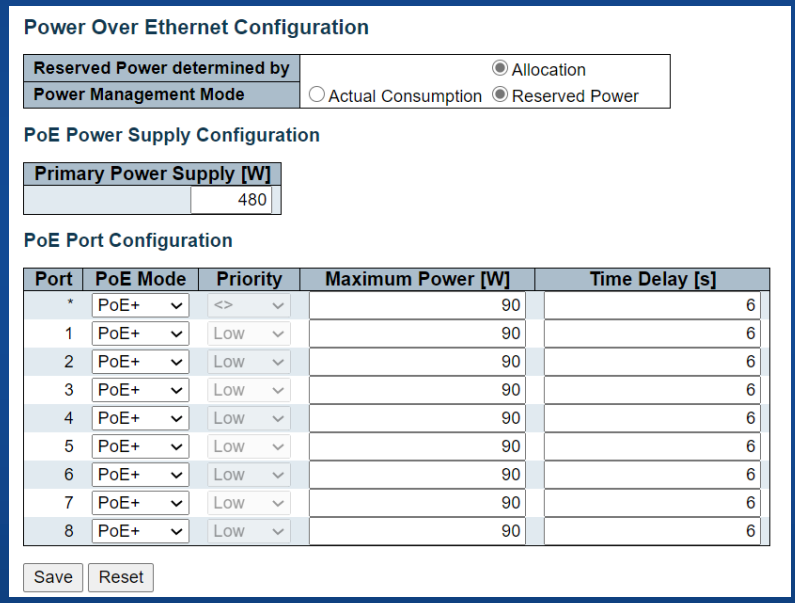
The ability to use a DC source up to 480W is greater than many competitive products and provides for

Up to 5 ports can be programmed for 90W

Up to 6 ports can be programmed for 72W to handle PTZ cameras requiring 60 Watts or PTZ requiring extended distance.

All 8 ports can be programed for up to 90W for PTZ cameras requiring PoE power ranging from 47W-54W which is typical for many “60W cameras” Advantage 74W Source

Time delay partners with high PoE as they may have high surges and delay programming helps to prevent damage during start up



Key features – all ports are 1000Mbps (1G) – flexible connections including 1G cameras and network uplinks

- **1000Mbps (1G) managed ports and Jumbo Frame programming at 100Mbps**

A growing number of camera manufacturers have cameras, especially multisensor cameras that require 1000Mbps ports. Other 1G ports can be used for uplinks

Port Configuration

Refresh

Port	Description	Link	Speed		Adv Duplex		Adv speed			Flow Control			Maximum Frame Size	Excessive Collision Mode	Frame Length Check
			Current	Configured	Fdx	Hdx	10M	100M	1G	Enable	Curr Rx	Curr Tx			
*				<>	☑	☑	☑	☑	☑	☐			9600	<>	☐
1		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
2		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
3		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
4		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
5		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
6		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
7		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
8	Camera	100fdx		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
9	Laptop	Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
10	Router	1Gfdx		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
11		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600		☐
12		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600		☐

Save Reset

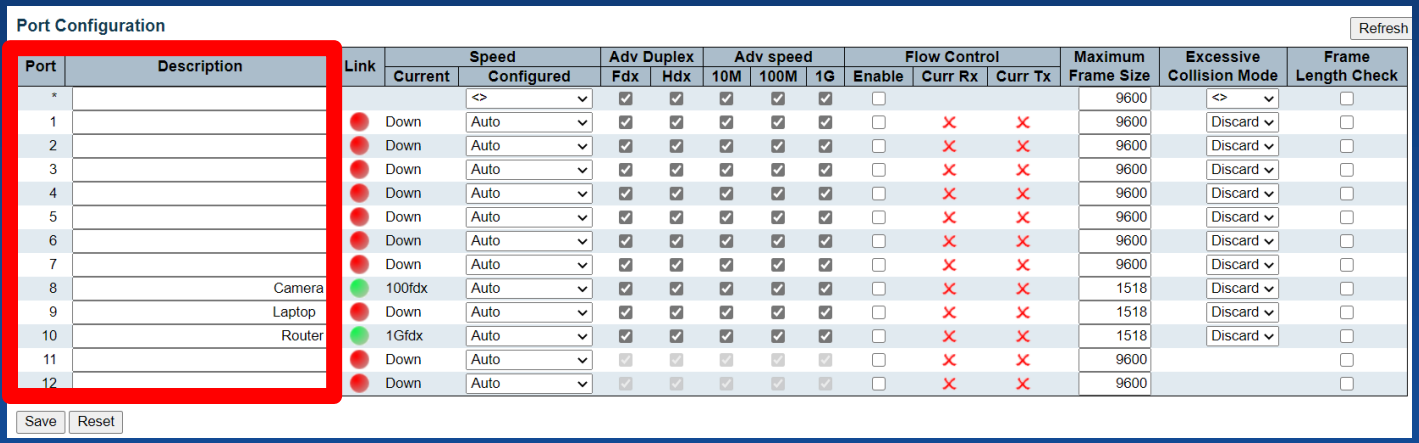
Unlike other switches each port can be programmed to accept packet sizes greater than 1536 bytes. Other switches will automatically drop them making the switch the first blocking point.

Frame Length Check

The V3210 contains an additional packet check packet sizes with a size less then than 1536 bytes are drop. This can be important for uplinks that are TCP and contain packet headers

VIGITRON

Key Feature – Port Naming Convention



Port Configuration

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			Current	Configured	Fdx	Hdx	10M	100M	1G	Enable	Curr Rx	Curr Tx	Frame Size	Collision Mode	Length Check
*				<>	☑	☑	☑	☑	☑	☐			9600	<>	☐
1		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
2		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
3		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
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6		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
7		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600	Discard	☐
8	Camera	100fdx		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
9	Laptop	Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
10	Router	1Gfdx		Auto	☑	☑	☑	☑	☑	☐	✗	✗	1518	Discard	☐
11		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600		☐
12		Down		Auto	☑	☑	☑	☑	☑	☐	✗	✗	9600		☐

Save Reset

Naming Convention is an important feature in allow you to specifically locate devices for both programming and messaging.

Unique Feature (Vi30208) : Copper and Fiber combo ports are programmed differently allowing operations to take advantage of the differences between the two cables and easily note the status

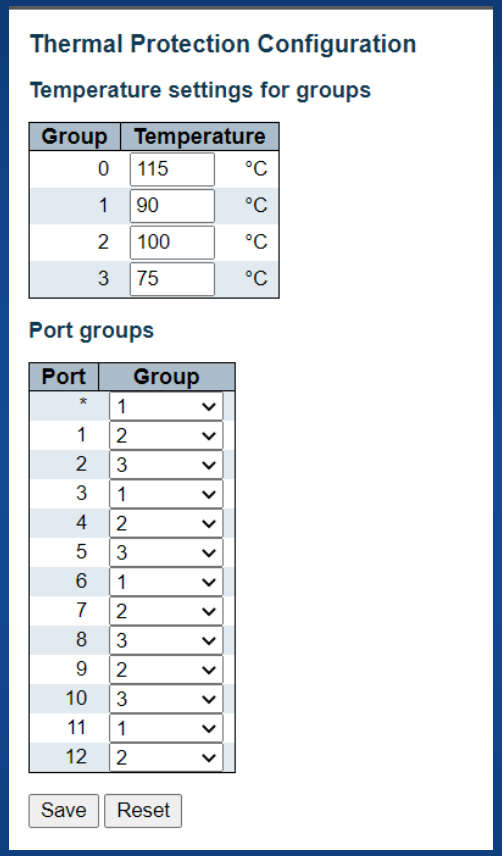
VIGITRON

Key Feature – Port Temperature Programming

Each port can be programmed into 4 groups with a temperature limit to 115 degrees C which is 239 degrees F.

High temperature can be an indication of a short or that safe environmental operating conditions have been exceeded.

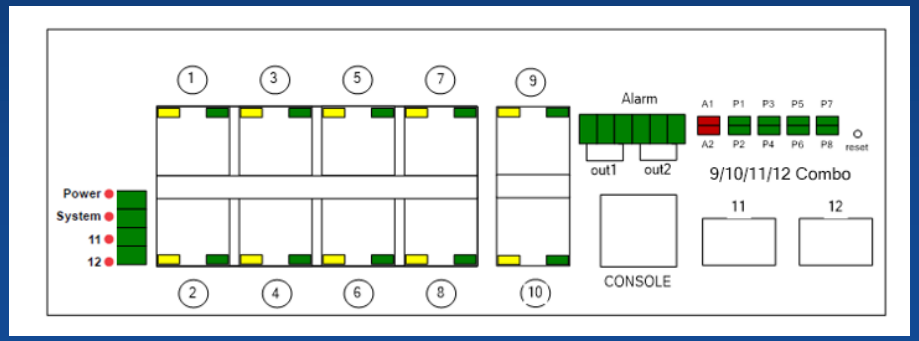
Ports can be set as groups and assigned their own individual limits allowing for devices installed in different environmental conditions to respond to different temperature limits.

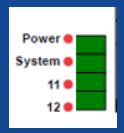


Key Features- Front Panel LED status indicators

- **Clear front panel LED status indicator- The Vi30210 has many easy to read status LED to easily determine problems**

INS switches are usually found in areas with challenged accessibility. The Vi30210 LEDs easily help to identify problems.

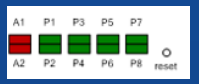




Vi30210 unique LED Unique Features

A system LED alerts for microprocessor and internal system communication problems

Port 11/12 LED notes specific problems and status for fiber ports noting link and traffic conditions

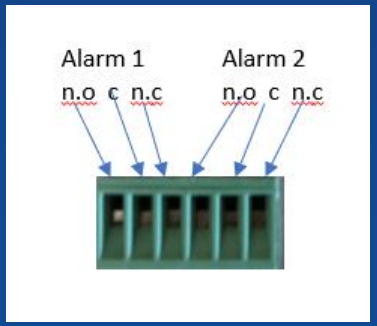


Alarm 1& 2 can be individually programmed for different alerts and conditions noting the specific problem assigned to that alarm

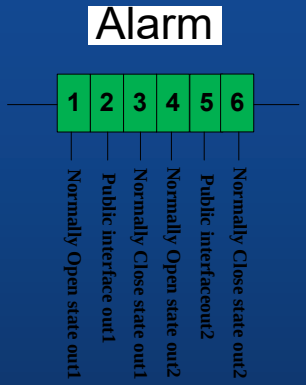
Key Feature- Two form C alarm contact outputs

- Two form C alarm contact outputs

As access to the Vi30210 maybe limited due to its install position the Vi30210 has two separate alarm contact outputs which can be individually programmed to operator defined alarm conditions

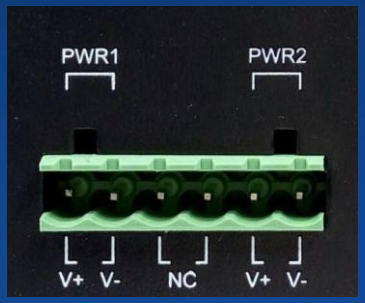


The alarm outputs are Form C, the most common type of contact allowing for either Normally opened or Normally closed contacts

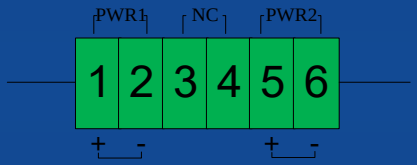


Key Feature – Redundant Power

Vi30210 provides for redundant power supply inputs. Separate sources can be used in the event Power 1 fails Power 2 can will take over



POWER INPUT



Vi10120

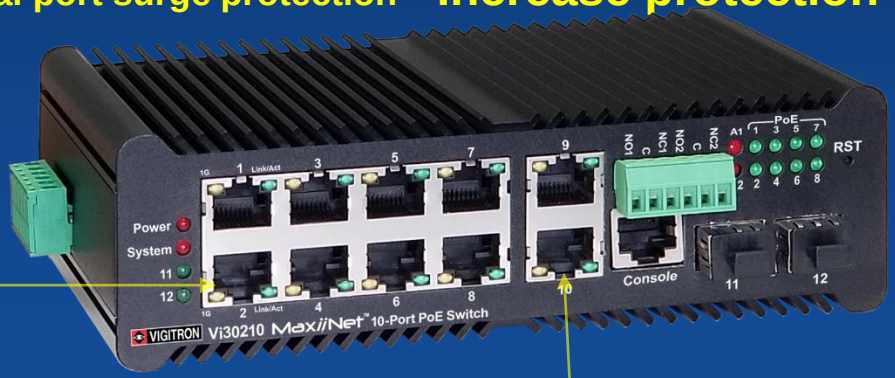
Vi10240

Vi10480

Don’t overlook Vigitron’s hardened high temperature power supply – designed for PoE applications

Key Feature 6Kv individual port surge protection

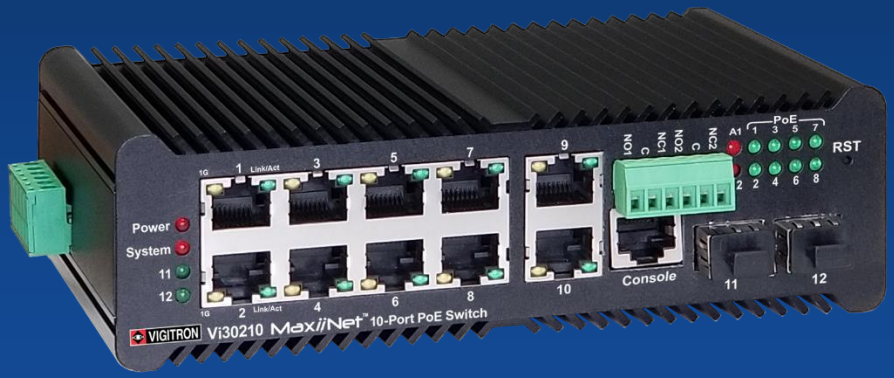
- 6Kv individual port surge protection – Increase protection by using the Vi2001



6Kv standard port surge protection

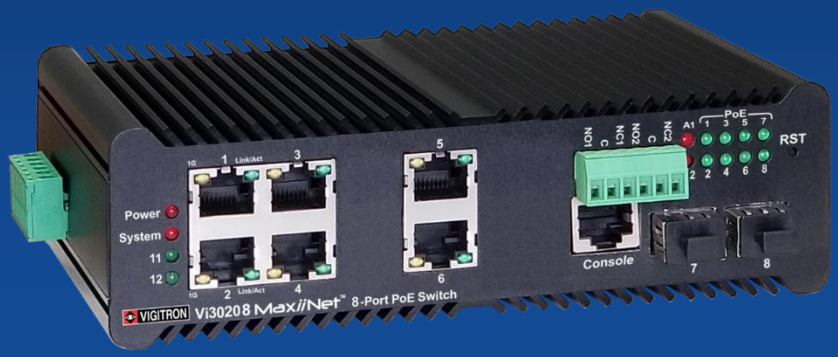
Using the Vi2001 will add 15Kv for free space contact for additional protection

Key Feature- High Temperature – Compact Design



The Vi30210 has a wide operating temperature of -30 degrees C to + 70 degrees C in a space saving Vigitron designed chassis for cool reliable operation.

Vi30208 4+2+2 Unique Industrial Network Switch



What is a 4+2+2 Switch

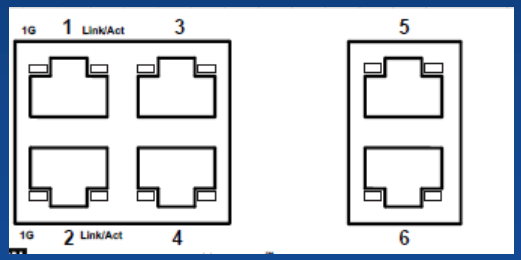
Most switch have combination Fiber and Copper forms restricting their use to one or the other. The Vi30208 allows for the complete separate programming for copper ports 5 and 6 and fiber ports 7 and 8,

The additional copper ports can also be provide PoE.

What is the advantage of the Vi30208's 4+2+2 ability

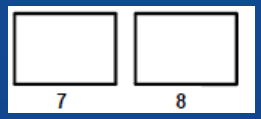
The Vi30208 can be an 6 port PoE switch

4 main PoE ports



Two copper PoE ports which can be used for device connections or uplinks

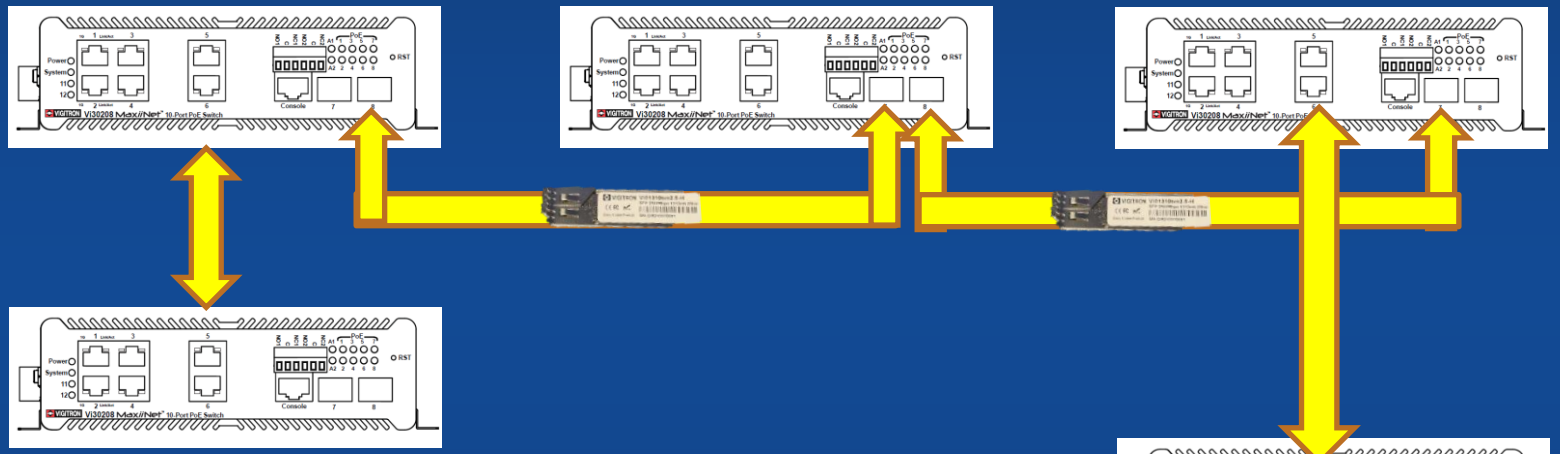
Copper



Fiber

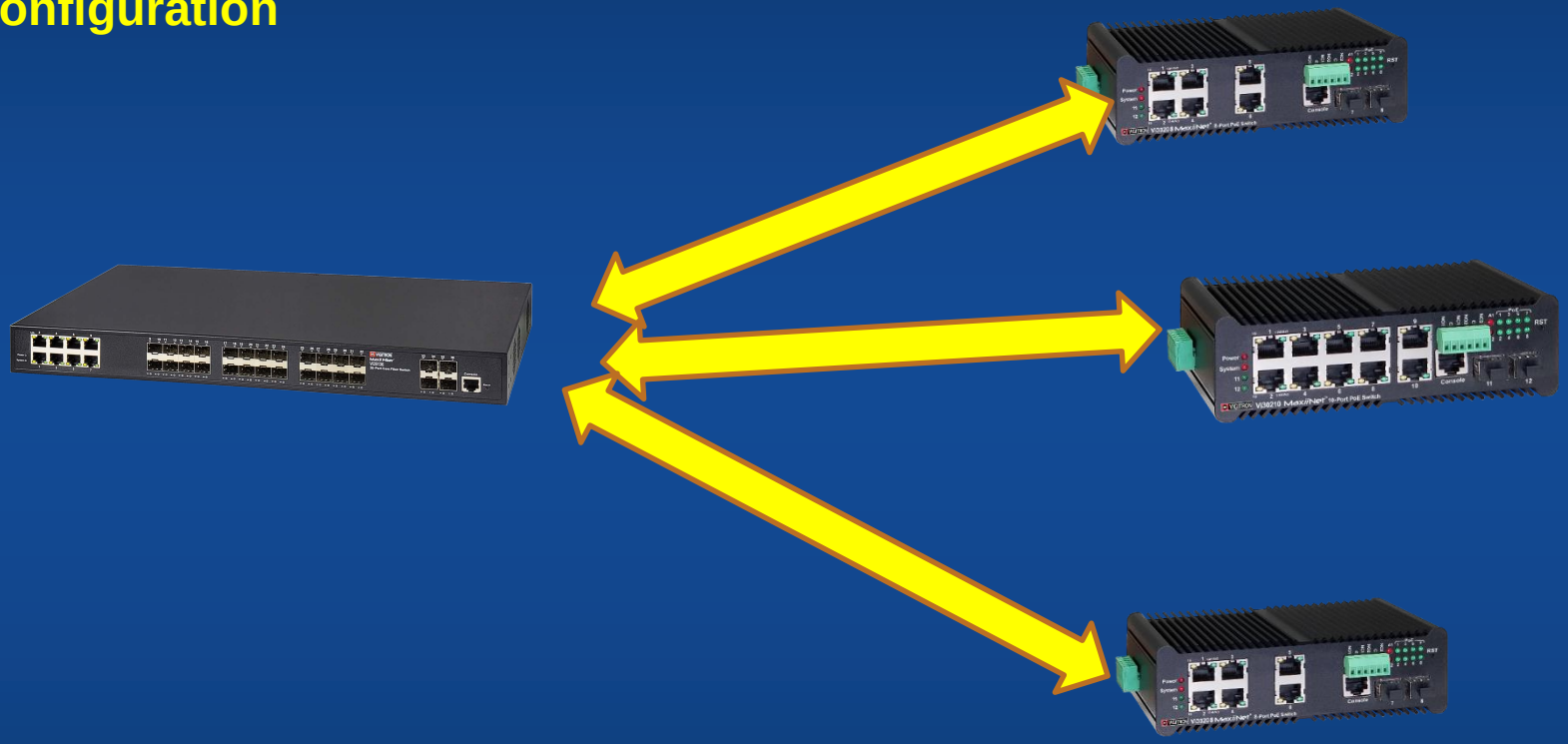
The Vi30208 can be L2+ network switch with 2 fiber to copper media independent ports

The Vi30208 can be either be IDF-MDF or drop and insert configuration



Vi01310sm2.5-H (2.5Gbps) SFP

The Vi30208 can be either be IDF-MDF or drop and insert configuration



Vi35136 – The Key to the Backbone

10G, High Packet Transmission, High PoE Solution

VIGITRON

EtherHaul 10G Solutions

Notes: PoE power on ETH1 and Traffic Fiber on EHT2
Can connect 2 power sources via power, or PoE via ETH1

EtherHaul 10G Solutions

Transmitter point

Base Station

VIGITRON

EtherHaul 10G Solutions – Transmitter Solutions

Solution 1

Transmitter point

Data + PoE link

6 ports up to 90W each

PoE Compliant DC Power

Vi10480
480W @
57VDC

EtherHaul 10G Solutions – Transmitter Solutions

Solution 2

Vi10480
480W @
57VDC

PoE Compliant DC Power

6 ports up to 90W each

Data + PoE link

Transmitter point

Separate DC
power back up

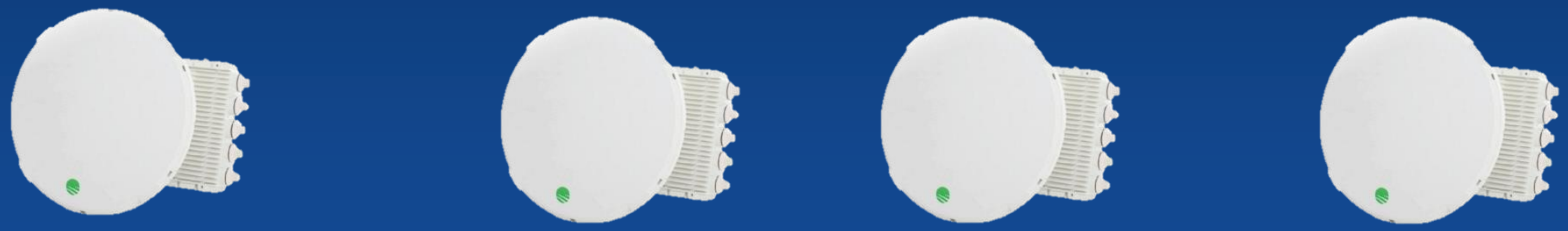
Vi10120
120 W @
57VDC

Secondary DC power source can be located up to 800 feet away depending on cable

EtherHaul 10G Solutions – Base Station Solutions

Solution 1

Wireless link to Transmitter Site



Up to 4 10G links

High bandwidth link to server

8 ports 15.4W to 90W

EtherHaul 10G Solutions – Base Station Solutions

Solution 2

Wireless link to Transmitter Site

Up to 4 10G links

Wireless link to Transmitter Site

Up to 4 10G links

10G Link between switches

1G Copper and Fiber Ports

Vi1310G10sm-10G SFP

1G Copper and Fiber Ports

VIGITRON

EtherHaul 2.5G Solutions – Transmitter Solutions

Solution 1

Transmitter point

2.5G Fiber/1G UTP Data + PoE link

2 ports up to 90W each

PoE Compliant DC Power

Vi10480
480W @
57VDC

EtherHaul 2.5G Solutions – Transmitter Solutions

Solution 2

Transmitter point

PoE up to 90W-1G UTP link

2 ports up to 30W each

Vi22001 90W 802.3bt 90W
Single Channel PSE

EtherHaul 2.5G Solutions – Base Solutions

Solution 1

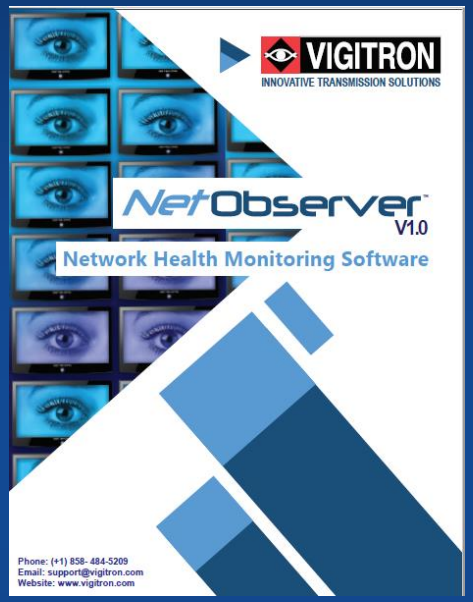
90W UTP 1G port

2.5Gfiber port

PoE Compliant DC Power

5 ports up to 90W each

Vigitron's NetObserver™ and INS Switches – The perfect partnership



NetObserver's comprehensive Health Monitoring software reads a comprehensive list of status from the INS switches.

Status checking and health monitoring can easily provide important information in determining the nature of problems avoiding costly service calls or the need to hire equipment to reach units mounted on poles or sides of buildings.

Messages from INS switches can be divided into two categories. While both are valuable in determining specific operating and health conditions some may be of greater interest to IT directors and other to security directors

The Vigitron Advantage

Does the manufacturer provide a complete network solution or only a few part?

Using a single source reduces the potential for wasting time and finger pointing between different manufacturers.

- MANAGED POE SWITCHES
- MANAGED FIBER SWITCHES
- HARDENED POE SWITCHES
- UTP ETHERNET EXTENDERS
- COAX ETHERNET EXTENDERS
- POE MIDSPANS
- POE SPLITTERS
- DROP & INSERTS
- FIBER OPTICS MEDIA CONVERTERS
- REPEATERS
- IP67 NETWORKING PRODUCTS
- ACCESSORIES
- ANALOG VIDEO TRANSMISSION

Over 250 PoE/IP Products covering every aspect of networking requirements

What are the Benefits of Vigitron's Design Center?

Design Services: **Saves Dealers time and money, and reduces the potential for costly after sales service calls by developing networking with Vigitron's engineering staff**

Vigitron's certification and IP camera interoperable testing provide the bases for our Design Services staffed by real system engineers. By providing only basic system component information our system design team will provide the most cost effective and reliable infrastructure solution meeting specific installation requirements. Installers and distributor's staff can access the Design Center directly on the website at: http://www.vigitron.com/IP_CCTV_Design_Assistance.aspx or by emailing any question to support@vigitron.com.

Vigitron's Design Services are free and without obligation.

VIGITRON

The Vigitron Advantage

During the Sale ----The installation

Unexpected things can occur at the installation site.

- **Is a real person technical support readily available?**
- **Will the manufacturer be able to work with you to determine the problem**
- **If a replacement model or an additional product is needed, will the manufacturer work with you to get the part to your site as quickly as possible?**

The Vigitron Advantage

+ 3 Years

Warranty---After the Sale

- A warranty is an expression of a manufacturer's confidence in their products.
- The shorter the warranty the less the confidence in long term performance.
- If you offer a service contract, will the manufacturer provide support for the complete term?
- What is the product or total products overall failure rate?
- A Lifetime Warranty only protects you while a product is in production. It may indicate that the manufacturer is buying an OEM product.

Be Aware of the exceptions in a manufacturer's warranty - exceptions to certain products

- The manufacturer that protects you after "product end of life" provides time and protection. It can assure you the same or upgraded product replacement for much longer time

Technical Support

Vigitron provides the industry's longest warranty; Production life time plus 3 years- offering full warranty protection for 3 years after product end of life- at no additional cost to customers

+ 3 Years

Why and How: Vigitron is the Manufacturer

+ 3 Years

+ 3 Years

+ 3 Years

VIGITRON

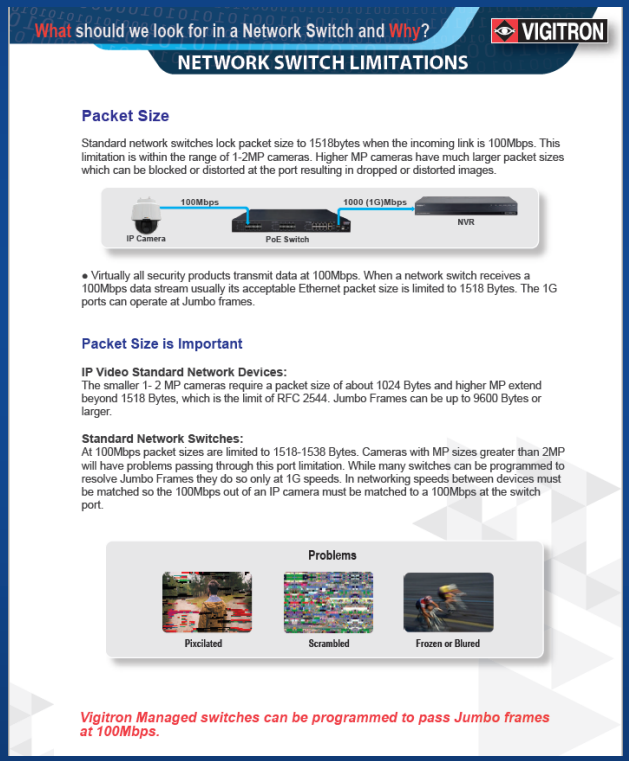
VIGITRON

EVERY PART OF THE SYSTEM MATTERS

Networks are interactive

Often, we blame the connected devices rather than the transmission system leading to returning perfectly working products to the manufacturer and the a back and forth that doesn't find or solve the actual problem

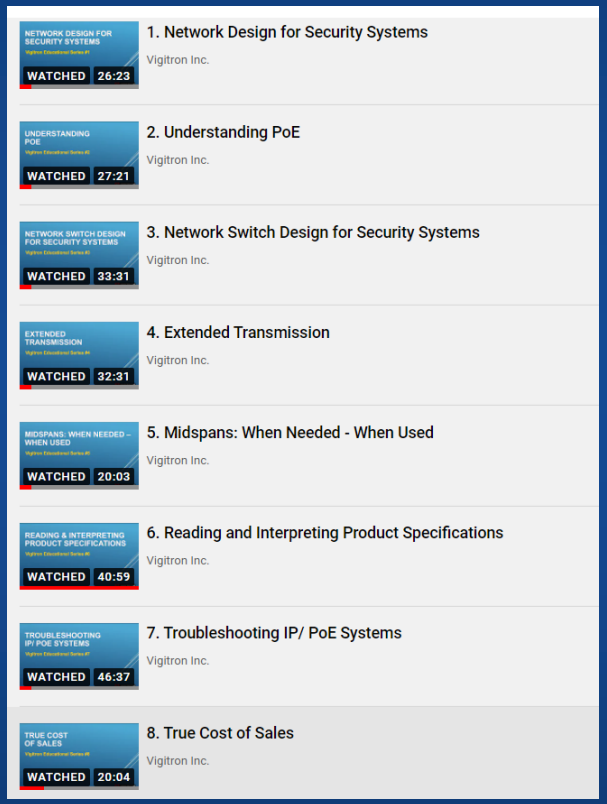
Documentation
Education



Vigitron Educational Materials

Application Booklets

Seminar Videos (YouTube)



What Questions Do I Ask to Design an Infrastructure?

Background: Each design is individualized. There is no cookie cutter approach to designing an infrastructure. Each design will require knowing the following information.

Cameras: What is the manufacturer and model number

Number of cameras routed to a single network switch (IDF- Intermediate Distribution Frame) If different cameras are going to the same location you need to know the manufacturer and model numbers for all the cameras routed to a single location

Cable: Type of cable:

- Coax
- UTP/ Cat5e or 6
- Single pair/ 18/2, 20/2, 22/2, 24/2
- Fiber/ single mode (9/1.25), multimode (62.5/1.25 or 50/1.25)

Cable length: Longest cable distance to a single point.

PoE source: Manufacturer and Model number

Never Design a System without studying all the component specifications…….Important.

Thank You!

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