



Vigtron's MaxiiNet™ Vi3405 fixed managed five port extended Coax PoE switch brings new performance standards to the growing need for high speed transmission of high speed Ethernet. It eliminates the need for local power for the cameras connected to its 4 ports at extended distances. The Vi3405 provides a 100Base-T and an SFP socket for fiber optic uplink.

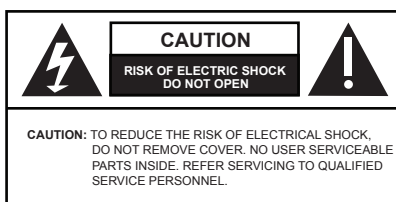
The Vi3405 is powered locally by the Vi1120 to supply 802.3at to each port, providing up to 37W (802.3at) to each port. The Vi3405 can operate over Coax cables at extended distances up to 1,800 feet (548m) when combined with the Vi2401A or Vi2400A.

With an operating temperature range of -30°C to 75°C, the Vi3405 is the perfect solution for data and power transmission for warehouses, parking lots, campuses, casinos, and many more. The Vi3405 is MegaPixel Certified (MPC™), type tested to network packet performance standards, and major manufacturer compatibility tested to assure you error free, quality operations. Fixed managed L2 functions include 802.1p Qos, support of 2k MAC addressing, learning, aging, and a non-blocking switch fabric.

Installation cost savings, proven performance, and major camera manufacturer compatibility all go into making Vigtron's MaxiiNet™ Vi3405 an ideal solution for standard distance data and power transmission.

## 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 Coax 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 Vigtron equipment.
- DO NOT install the unit in a place where the operating ambient temperature exceeds 75°C or is below - 40°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 disconnect device and shall remain readily operable.

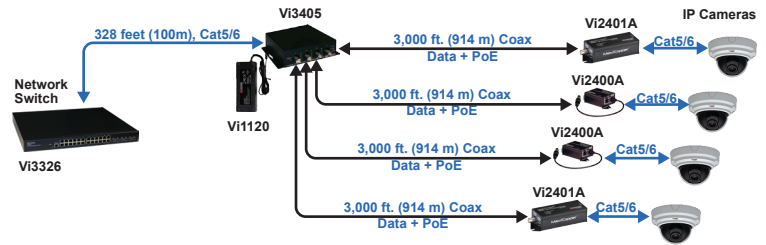


**⚠ WARNING!** - To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.

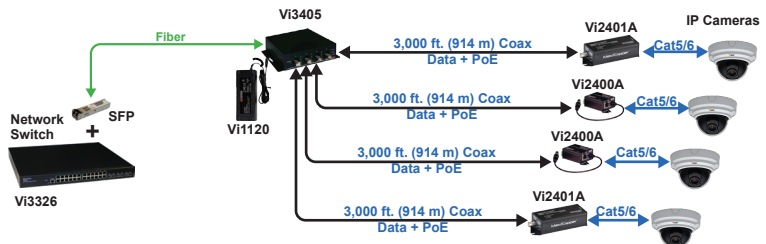
**⚠ WARNING!** - This apparatus is a Class I product. This product must be connected to a mains socket outlet thru an AC to DC Power supply.

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

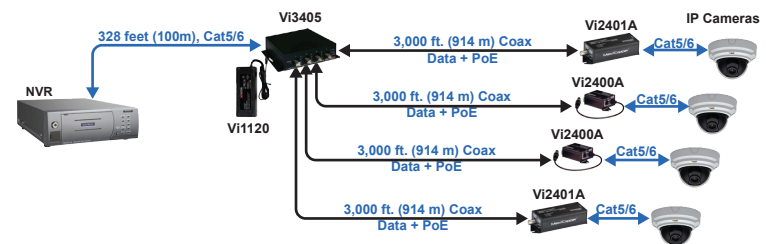
## Application Drawings



Vi3405 provides a simple method to convert existing analog systems to IP Video.



Up/down links can use either the 10/100Base-T port or Fiber port for distances up to 80Km.



For smaller systems direct connection from Vi3405 to NVR or Computer running VMS can eliminate the need for an extra network switch when converting from analog to IP video.

## Ethernet Switch/NVR-end Installation

### Uplink Connections:

There are 2 ways to connect the Vi3405 Uplink to another network switch or NVR, either fiber optics or Standard UTP Ethernet. Only one of these ports can be active at the time.

#### a) Standard Ethernet RJ45 connector

- Connect the Uplink RJ45 connector of the Vi3405 to a standard Cat5/6 cable of maximum 328 feet (100m). Connect the other end of the cable to the Ethernet port of the other network switch.

#### b) Fiber optics

-If you want to use fiber optics first you need to insert a suitable SFP that matches your fiber optic cable into the Uplink SFP socket of the Vi3405. Then connect the fiber optics cable to the SFP. Connect the other end of SFP to the optical connector of the other network switch.

### Power Supply:

-Connect a power supply to the power input of Vi3405. If there is no need for providing PoE on 4 ports a 12VDC power supply such as Vi0012 will be sufficient. If PoE is required at the ports you need to select a 48-57VDC power supply such as Vi1120 that can provide maximum PoE capacity on all 4 ports.

### Extended Ethernet Ports:

- Connect a standard Cat5, or better, UTP cable of maximum 3,000 feet (914m) to one of the Ethernet ports. The ports will automatically configure as 10 or 100BaseT depending on the distance.

## IP Camera-end Installation

- Use an Ethernet and PoE "Extender" such as Vi2401A or Vi2400A at the camera side.
- Connect one end of the long Coax cable to the BNC connector of Extended port of "Extender".

## IP Camera-end Installation (continued)

- Connect the IP camera's RJ45 connector to the 10/100BaseT Ethernet port of "Extender" using a standard Cat5/6 patch cable of maximum 328 feet (100 m) in length.
- If you want to use local power connect an external 12VDC power supply such as Vi0012 to the power connector of the "Extender". An optional power adapter connector is provided to simplify connection. If no local power supply is connected the "Extender" will use POE.

After the whole link from the Vi3405, "Extender" and the IP camera is complete, the link LED on the 10/100 connector should be "ON" to indicate proper connection between the camera and "Extender".

## Technical Specifications\*

### Electrical

Ethernet Interface	Standard 10/100BaseT
Uplink	UTP: 100 Ohm +/- 20%, up to 328 ft. (100m) Fiber Optics: will depend on the type SFP and Optical cable
Power Source	External Power Supply: 57VDC @ up to 120W
Status LEDs	Power Ethernet: Traffic, Link PoE Active
Connectors	Fiber: MSA compliant SFP socket Ethernet Interface: 1 x RJ45 Ethernet Extended Interface: 4 X BNC Power: Circular power connector
RFC	2544 TCP/IP Packet Transmission
RFC	768 UDP, 2068 HTTP, 793 TCP 791 IP, 1783 TFTP, 894 IP over Ethernet
PoE Compatibility	IEEE 802.3af, IEEE 802.3at
Data Interfaces & Compliances	RFC 768 UDP, RFC 2068 HTTP RFC 793 TCP, RFC 791 IP RFC 1783 TFTP, RFC 894 IP over Ethernet RFC 2544 TCP/IP Packet Transmission IEEE802.3af, 8IEEE02.3at
IEEE Compliances	802.3ab, 802.3z, 802.3af, 802.3at, 802.1p, 802.1Q, 802.1D, 802.1s, 802.3u, 802.3x, 802.3w
Service Compliance	IPv4 Type of Service (TOS) & Differentiated Services (Diff-Serv) IPv6 Traffic Class

### Regulatory

Safety	CE
Environmental	RoHS, WEEE

### Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -30°C to +75°C Storage: -40°C to +85°C

### Mechanical

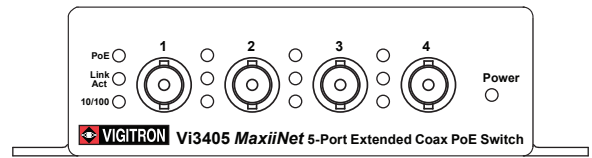
Dimensions	1.2x3.75x5.1 in., 3.0x9.5x13 cm (HxWxL)
Weight	0.76 lb (344 g)
Housing	Aluminum

### Optional Accessories

- Vi1120: 57VDC, 120W Power Supply
- Vi0017: 48VDC, 40W Power Supply
- Vi0012: 12VDC, 12W Power Supply for non-PoE Applications

\*Specifications subject to change without notice.

## Status LEDs



LED Name	Color	Status	Function
Power	GREEN	OFF	Power is OFF
		ON	Power is ON
Traffic (Extended Side)	YELLOW	OFF	No Traffic
		FLASHING	Traffic
10/100 BaseT (Extended Side)	GREEN	ON	Connection is OK, 10BaseT Mode
		ORANGE	ON
Link/Act (Standard Side)	YELLOW	OFF	No connection
		FLASHING	Connection is OK with Traffic

## Ordering Information

### Part No. Description

<b>Vi3405</b>	<b>4-Port PoE Layer 2 Network Switch</b>
<b>Vi2400A</b>	<b>1-Port Mini Coax Ethernet Extender</b>
<b>Vi2401A</b>	<b>1-Port Coax Ethernet Extender</b>
<b>Vi1120</b>	<b>120W 57V Power Supply</b>
<b>Vi0017</b>	<b>40W 48V DC Power Supply</b>
<b>Vi0012</b>	<b>12W 12V DC Power Supply for non-PoE Applications</b>

## Limited Lifetime Warranty

Vigtron, Inc. warrants that all Vigtron 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 Vigtron 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 Vigtron dealer.

Warranty will only be provided for as long as the original end user purchaser owns the product. Warranty is not transferrable. At Vigtron's option, defective product will be repaired, replaced or substituted with a product of equal value. This warranty does not apply if, in the judgment of Vigtron, Inc., the Product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained not conforming to Product manual instructions, has been modified, or serial number removed or defaced. Repair by anyone other than Vigtron, Inc. or an approved agent will void this warranty. Vigtron, Inc. shall not under any circumstances be liable to any person for any incidental, indirect or consequential damages, including damages resulting from use or malfunction of the product, loss of profits or revenues or costs of replacement goods. The maximum liability of Vigtron, Inc. under this warranty is limited to the original purchase price of the Product only.

Prior to returning any defective Product, the end customer or the reseller from whom the end customer originally purchased the Product must obtain a Return Materials Authorization (RMA) number from Vigtron, Inc. All defective Products should be returned to Vigtron, Inc. with shipping charges prepaid. No collect shipments will be accepted.



## Drawings

