Vi2601 Ethernet and PoE Extender over Coax Installation Manual

MaxiiPower™

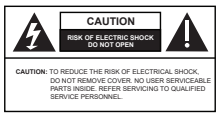
The MaxiiCopper Model Vi2601 is a revolutionary transmission device that extends full-duplex High-Speed Ethernet and High power PoE over Coax cable infrastructures. It extends 10/100BaseT signals and PoE up to 3,000 feet (914 m). It employs MaxiiCopper™ innovative and unique Ethernet and PoE extension technology that is designed to take full advantage of high-bandwidth networking cables and maintain a full-duplex 10 or 100 Mb/s Ethernet connection up to the maximum range with minimum transmission error and latency.

The Vi2601 is installed at the control room and can provide up to 30W power to Vi2400A or Vi2401A at the camera side.

The Vi2601 includes unique features that assure high performance required to support the largest Megapixel cameras. It is equipped with LEDs to provide link status and configured data rate. No IP setting or configurations are required and it is completely transparent to the corporate IP network and higher layer protocols. The Coax cable needs to be point to point without any branches. Multiple segments can be joined together using Coax couplers.

Important Safety Warning

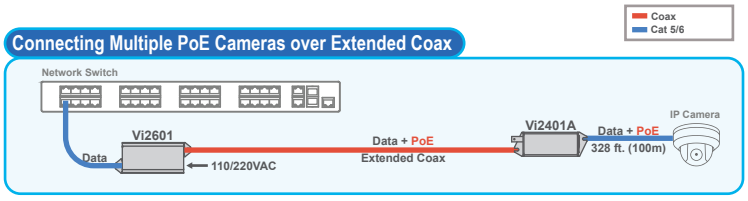
- Read and keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install in accordance with the manufacturer's instructions.
- This installation should be made by a qualified service person and should conform 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 Vigitron 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 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.



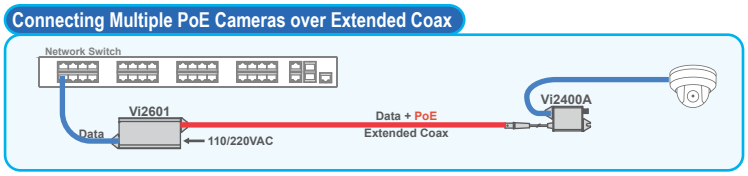
WARNING! - To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.

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.

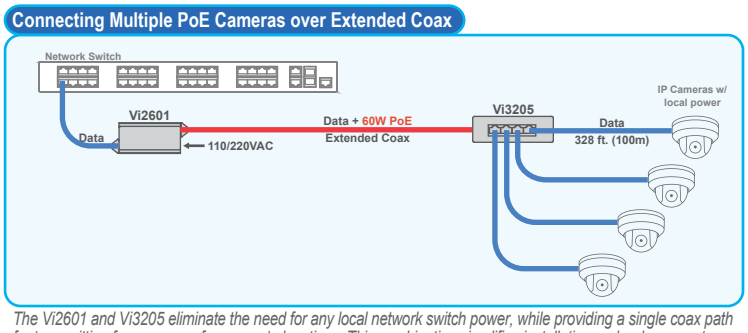
WARNING! - The mains plug is used as the disconnect device and shall remain readily operable.



The Vi2601 and Vi2401A provide a reliable power source for the long distance and higher power requirements of PTZ domes and IP cameras with power surges due to accessory features such as day/night, LED operations, and auto focus with heater/blower functions.



The Vi2601 and Vi2400A provide a reliable power source for long distance high power installations. The Vi2400A's compact size fits in many environmental enclosures such as J-box, 4 square, and back boxes of many IP cameras.



The Vi2601 and Vi3205 eliminate the need for any local network switch power, while providing a single coax path for transmitting four cameras from remote locations. This combination simplifies installation and reduces costs.

IP Camera-end Installation

- Install a remote extender, Vi2401A or Vi2400A, at the camera side. The remote extender can be powered in 2 ways.

1- Using Local Power Supply:

Connect a 12 VDC power supply to the power connector of the Vi2401A or Vi2400A. A power adapter connector is provided to simplify connection to Vi2401A.

2- Using PoE:

If no local power supply is plugged in, the remote unit will use PoE power provided by the Vi2601 at the head-end.

- Connect the IP camera RJ45 connector to the "10/100BaseT Ethernet" port of Vi2401A or Vi2400A using a standard Cat5/6 cable of maximum length of 328 feet (100m).
- Connect the long Coax cable to the "Extended Ethernet" BNC connector of Vi2401A or Vi2400A.

The link LED on the 10/100 connector should be "ON" to indicate proper connection between the camera and Vi2401A or Vi2400A.

Ethernet Switch/NVR-end Installation

- Connect the RJ45 connector of the Ethernet switch to the 10/100BaseT Ethernet port of Vi2601 using a standard Cat5/6 cable of maximum 328 feet (100 m) in length.
- Connect the long Coax cable to the "Extended Ethernet" BNC connector of Vi2601.
- Connect the AC power cord of the Vi2601 to the mains.

The link LED on the 10/100 Ethernet connector should be "ON" to indicate proper connection between the switch and Vi2601.

When Vi2601 and the remote unit make a connection, the Vi2601 will provide power to the remote unit and the camera. When the Link LED is on and is in a steady state it will indicate confirmed connection between extenders.

Technical Specifications*

Electrical

Ethernet Interface	Standard 10/100BaseT
Coax	RG59 (or higher quality)
Ethernet Rate	10/100Mbps, Auto-select Full speed / Full duplex at max. rated distance
Power Output	56VDC, 30W
AC Input Power	100-240VAC, 50-60Hz, 0.5A max.
PoE Standard	IEEE 802.3af PoE, IEEE 802.3at PoE
Status LEDs	PoE: Green
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
Connectors	Ethernet Input Interface: Shielded RJ45 Extended Output Interface: Female BNC Main Power: IEC 320-C14 Inlet

Regulatory

Safety	CE
FCC	Part 15, Subpart B, Class B 2010
Emission Standards:	EN 55022:206+A1:2007 EN61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-3:2008 EN55024:1998+A1:2001+A2:2003
Environmental	RoHS, WEEE

Mechanical

Dimensions	1.78x2.54x4.95 in., 4.52x6.45x12.57 cm (HxWxL)
Weight	0.71 lb, 321 g
Material	Extruded Aluminum

Environmental

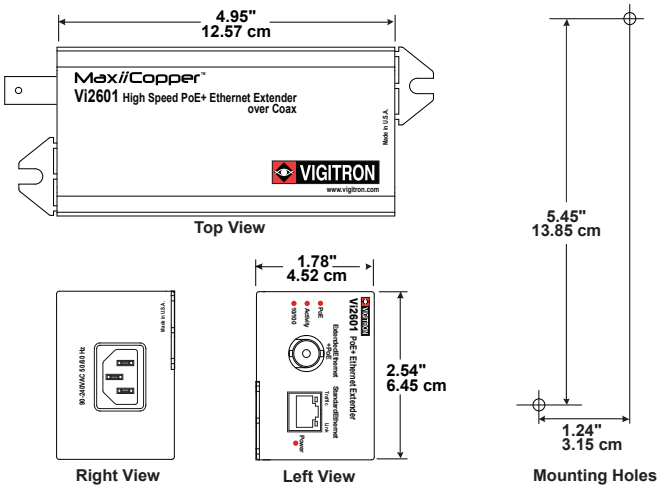
Humidity	0 to 90%, Non-condensing
Temperature	Operating: -10°C to +50°C Storage: -40°C to +80°C

Included Accessories

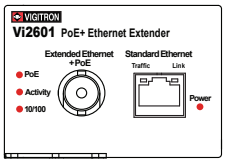
Molded IEC 7 ft. (200 cm) power cord

*Specifications subject to change without notice.

Drawings



Status LEDs



LED Name	Color	Status	Function
Power	RED	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	Connection is OK, 100BaseT Mode
Traffic (Standard Side)	GREEN	OFF	No connection
		FLASHING	Connection is OK with Traffic
Link (Standard Side)	YELLOW	OFF	No connection
		ON	Connection is OK
PoE	GREEN	OFF	PoE Power is Off
		ON	PoE Power is On

Data and PoE Distance**

Data Rate	Data+ 802.3at PoE Class 2 (6.5W)	Data + 802.3at PoE Class 3 (12.95W)	Data + 802.3at PoE Class 4 (25.5W)
10BaseT	3,000 ft./914 m	1,500 ft./457 m	500 ft./152 m
100BaseT	3,000 ft./914 m	1,500 ft./457 m	500 ft./152 m

**Distance figures are based on RG59 coax cables using in house testing mirroring typical installations. Factors such as cabling, connections, use of power and environmental conditions may affect actual distances and should be taken into consideration.

Ordering Information

Part No.	Description
Vi2601	Single Port Extended Coax PoE Midspan

Limited Lifetime 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.

Warranty will only be provided for as long as the original end user purchaser owns the product. Warranty is not transferrable. At Vigitron'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 Vigitron, 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 Vigitron, Inc. or an approved agent will void this warranty. Vigitron, 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 Vigitron, Inc. under this warranty is limited to the original purchase price of the Product only.

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