

# Vi2301A

## Single Port Ethernet Extender over UTP

### Features

- Extended Pass Through PoE (EPTP™) compatible with 802.3af, at, bt up to 74W
- Extends Ethernet beyond 328 feet (100 m) limitation up to 3,000 feet (914 m) over UTP cables
- Requires no switch setting or network programming
- Mega-Pixel Certified (MPC™) High data rate, ideal for high bandwidth requirements of Mega-pixel cameras, multiple IP cameras systems, and cameras requiring Jumbo Frame transmission
- Symmetric Bandwidth (SBW™) provides consistent upload and download with Virtual Zero Packet Loss (VZPL™)
- Type tested to RFC-2544 TCP/IP network bandwidth packet transmission standards
- Supports one-pair or four-pair UTP wires with built-in transceiver cable connectivity tester
- Type tested for -40°C to +75°C temperature range under conforming to NEMA-TS2 testing standards
- Complies to major IEEE standards and RFC network protocols for UDP, TCP/IP, HTTP/HTTPS



### Applications

- Extending Ethernet distances beyond Ethernet 100 m limit
- Retrofit UTP analog CCTV installations into Digital systems
- Providing high power PoE to PTZ cameras at long distances
- CCTV System for Casinos, Airports, School Campuses

Vigtron's MaxiiCopper™ Vi2301A UTP Ethernet extender brings new performance standards to the growing need for high speed transmission of full bandwidth Ethernet and high-power PoE power over extended distances. Its unique Symmetric Bandwidth (SBW™) assures full bandwidth transmission is maintained over the entire operational distance for both uploads and downloads with Virtual Zero Packet Loss (VZPL™). Bandwidth assurance provides the ability to transmit multiple cameras on single camera runs with no information loss. It can use 1 pair or 4 pairs of UTP and requires no switch setting or network programming.

Extended Pass Through PoE (EPTP™) eliminates the need for additional remote site power while allowing a single PoE source, such as a PoE network switch, to provide power to both transceivers and the camera. The Vi2301A can pass through PoE power, up to 74W, UPoE compliant. Type tested under NEMA-TS2 environmental standards for extended temperature operation between -40°C to +75°C. The Vi2301A is the perfect solution for extended distance data and power transmission for warehouses, parking lots, campuses, casinos, and many more. MaxiiCopper's Vi2301A is low power and can easily fit inside most cameras housing and junction boxes. Best of all, it is MegaPixel Certified (MPC™), type tested to network packet performance standards, and major camera brand compatibility tested to assure you error free and reliable operations. The Vi2300A series is available in single, four, eight and sixteen port configurations to meet every application requirement.

Installation cost savings, proven performance, and major camera brand compatibility all go into making Vigtron's MaxiiCopper™ Vi2301A the best choice for extended distance data and power transmission.

Installation cost savings, proven performance, and major camera brand compatibility all go into making Vigtron's MaxiiCopper™ Vi2301AU the best choice for extended distance data and power transmission.



# Technical Specification\*

## Electrical

Ethernet Interface	Standard 10/100BaseT
Data Rate	Auto select 10/100Mb/s Full speed / full duplex at maximum rated distance
UTP	100 Ohm +/- 20%, Cat5, 5e, 6, 6a 10BaseT: up to 3,000 ft. (914 m) 100BaseT: up to 2,100 ft. (640 m)
Power Consumption	12VDC, 24VAC, POE af/at @150 mA maximum 1.5W with external power supply, 2W using PoE
Status LEDs	Power On Standard Ethernet: Traffic, Link Extended Ethernet: Traffic, 10/100BaseT
Connectors	Ethernet Interface: RJ-45 Connector Extended Ethernet Interface: RJ-45 Connector Power: 2.5mm Round Barrel Connector
RFC	2544 TCP/IP Packet Transmission 768 UDP, 2068 HTTP, 793 TCP 791 IP, 1783 TFTP, 894 IP over Ethernet
PoE Compatibility	IEEE 802.3af/at/bt Compliant
Jumbo Frame	Up to 9,600 bytes

## Regulatory

FCC	Part 15, Subpart B, Class B 2010
Emissions	EN 5502:2006+A1:2007 EN 61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-3:2008 EN 55024:1998+A1:2001+A2:2003
Safety	CE
Environmental	RoHS

## Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -40°C to +75°C per NEMA-TS2 testing Storage: -40°C to +85°C

## Mechanical

Dimensions	1.15x1.6x3.73 in., 3.0x4.0x9.5 cm (HxWxL)
Weight	0.212 lb, 96 g
Material	Extruded Aluminum

\* Specifications subject to change without notice.

## Ordering Information

### Part No. Description

<b>Vi2301A</b>	Single port UTP Ethernet Extender
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## Related Products

### Part No. Description

<b>Vi2300A</b>	Single port Mini UTP Ethernet Extender
<b>Vi2300WP</b>	Single port IP67 UTP Ethernet Extender
<b>Vi2301AU</b>	Single port UTP Ethernet Extender
<b>Vi2304A</b>	4-port UTP Ethernet Extender
<b>Vi2308A</b>	8-port UTP Ethernet Extender
<b>Vi2316A</b>	16-port UTP Ethernet Extender
<b>Vi2508</b>	8-port Extended UTP Midspan
<b>Vi2516</b>	16-port Extended UTP Midspan
<b>Vi2701RX</b>	Single port Extended UTP Midspan
<b>Vi0012</b>	12 VDC Wall-mount Power Supply

## Data and PoE Distance <sup>1</sup>

Data Rate	4-Pair <sup>2</sup> (Data + PoE class 2)	1-Pair (Data only)
10BaseT	n/a	3,000 ft. (914 m)
100BaseT	2,100 ft. (636 m)	1,000 ft. (303 m)

1. Distance figures are obtained using in house testing mirroring installations. Factors such as cabling, connections, use of power and environmental conditions may affect actual distances and should be taken into consideration.
2. Specifications reflect operating using Pass Through PoE (PTP™) providing power for both transceivers and camera from a single source. Distances may increase if transceivers are locally powered.

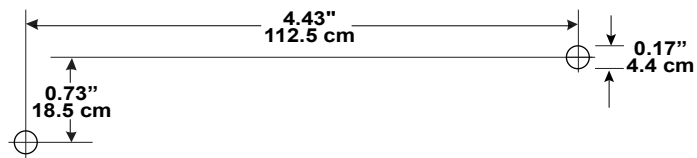
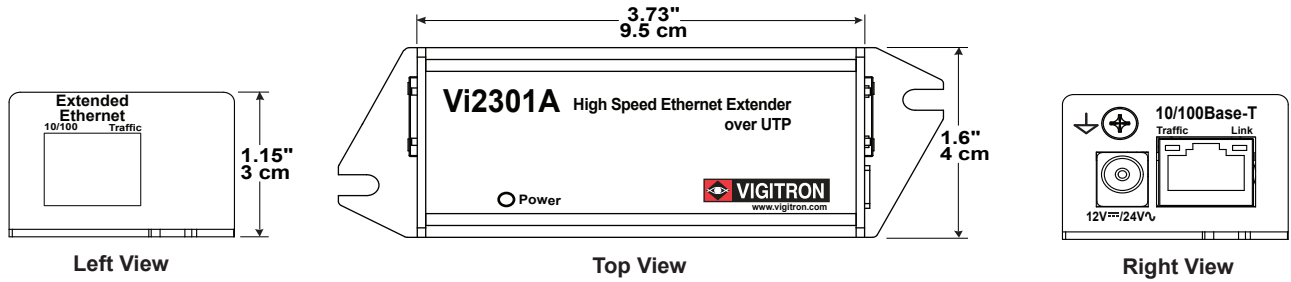


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# Mechanical Drawings



Mounting Pattern

# Application Drawings

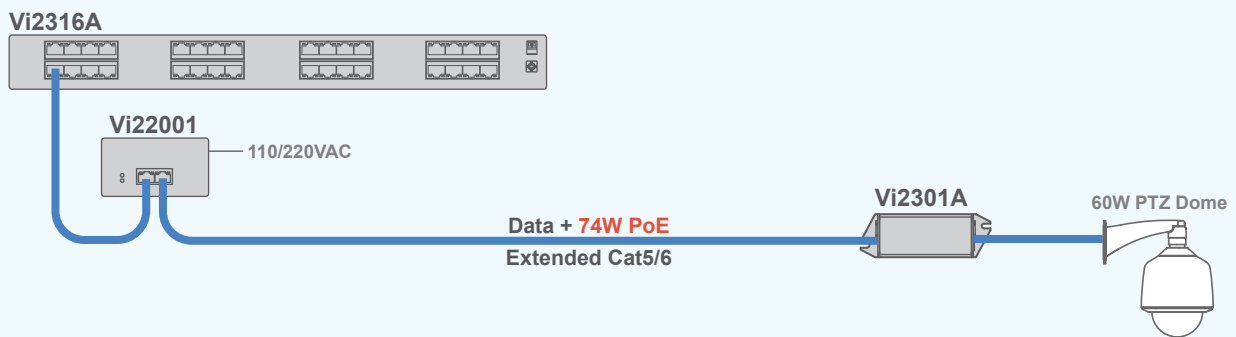
Cat 5/6

## Extending Ethernet and 90W PoE from a PoE Switch



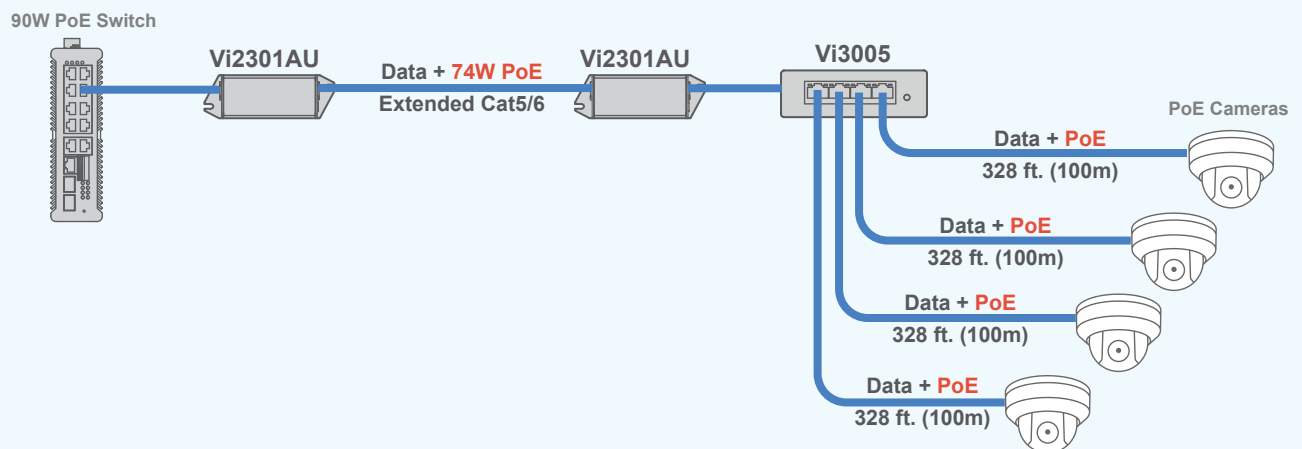
The Vi2301A extends Ethernet and 90W PoE from a PoE switch.

## Extending Ethernet and 90W PoE from a Switch & PoE Midspan



The Vi2301A extends Ethernet and 90W PoE from a PoE Midspan.

## Connecting Multiple PoE Cameras at Extended Distances



The Vi2301As and Vi3005 can be used to connect multiple PoE cameras at extended distances.