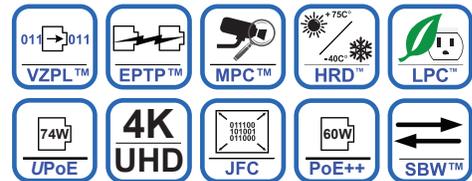# Vi2304A/Vi2308A/Vi2316A

## MaxiiCopper™ 4, 8 and 16-port High-Speed Ethernet Extenders over UTP

## Features

- Extends Ethernet beyond 328 feet (100 m) limitation up to 3,000 feet (914 m) over UTP
- Saves additional networking equipment costs and reduces installation time.
- Extended Pass Through PoE (PTP™) compatible with 802.3af/at and and PoE ++ (74W)
- UPoE Compliant to 74 watts
- MegaPixel Certified (MPC™) High data rate, ideal for high bandwidth requirements of MegaPixel cameras, multiple IP cameras systems and cameras requiring Jumbo Frames
- 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
- Data rate selectable to for maximum bandwidth utilization
- Complies to major IEEE standards and RFC protocols for UDP, TCP/IP, HTTP/HTTPS
- Available in 4, 8, and 16 channel combinations to fit any size application
- USA designed and manufactured
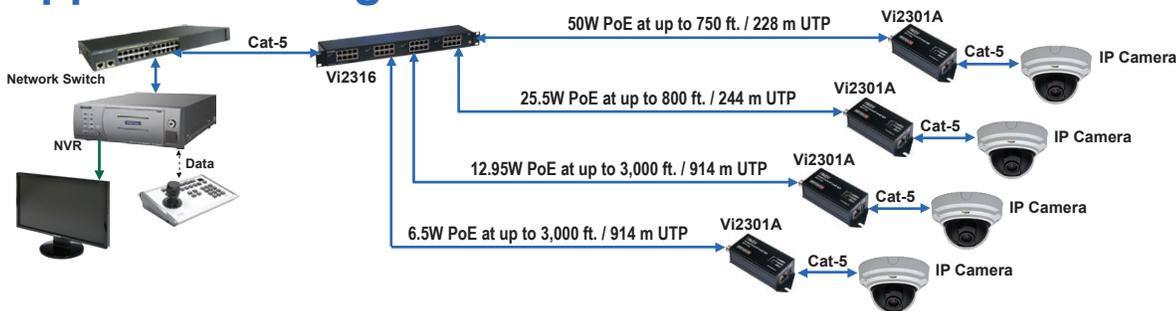- Limited Life Time Warranty

## Applications

- Extending Ethernet distances beyond Ethernet 100m limit
- Retrofit analog CCTV installations into Digital systems
- Extending Networks in industrial environment
- CCTV System for Casinos, Airports, School Campuses

Vigitron's Maxiicopper™ Vi2300A Extender Series brings new performance standards to the growing need for high speed transmission of full bandwidth Ethernet and PoE over extended distances including high power PTZ domes with heaters and blowers. 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. Combining a Vi2300A series extender with Vigitron's MaxxiCollector™ Vi2804A Extended Ethernet Switch up to 4 camera streems can be transmitted to a central location on a single cable. The Vi2308A and Vi2316A are a compact EIA 19" 1U high rack design for easy installation.

Extended Pass Through PoE (PTP™) up to 74W, compliant to UPoE, eliminates the need for additional cost for remote site power. Type tested under NEMA-TS2 environmental standards for -40°C to +75°C, these extenders are the perfect solution for remote signal and power transmission for warehouses, parking lots, campuses, casinos, and many more. Best of all, the Vi2300A series 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 product series is available in single, four, eight and sixteen channel configurations to meet every system application requirement.

Installation cost savings, proven performance, and major camera brand compatibility all go into making the Vigitron's Maxiicopper™ Vi2300A series your best choice for extended distance Ethernet and power transmission.

## Application Diagram



## The Smart Choice for Transmission Solutions

www.vigitron.com

DSVi2316A_0618

# Technical Specification

## Electrical

| | |
|---|---|
| Ethernet Interface | Standard 10/100BaseT |
| Ethernet Rate | Auto select 10/100 Mb/s |
| | Full speed / full duplex at maximum rated distance |
| UTP [2] | 100 Ohm +/- 20%, Cat5 or better |
| | 10BaseT: up to 3,000 ft. (914 m) |
| | 100BaseT: up to 2,100 ft. (640 m) |
| Power Consumption* | 12 VDC, Vi2304A @ 500 mA (max.), Vi2308A @1.2 A (max.) Vi2316A @ 2.5 A (max.) |
| Status LEDs | Power On |
| | Standard Ethernet: Traffic, Link |
| | Extended Ethernet: Traffic, 10/100BaseT |
| Connectors | Ethernet Interface: RJ-45 Connector |
| | Extended Interface: RJ-45 Connector |
| | Power: Pluggable Terminal Block |
| RFC | 2544 TCP/IP Packet Transmission |
| PoE Compatibility | IEEE 802.3af, IEEE 802.3at, 74W PoE, UPoE Compliant to 74W |
| RFC | 768 UDP, 2068 HTTP, 793 TCP |
| | 791 IP, 1783 TFTP, 894 IP over Ethernet |
| Jumbo Frame Support | Yes |

## Environmental

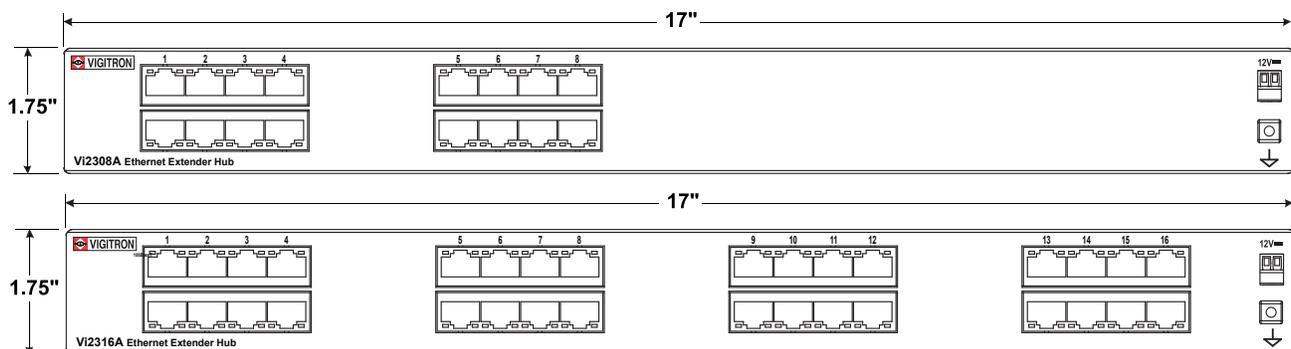| | |
|---|---|
| Humidity | 0 to 95%, non-condensing |
| Temperature | Operating: -40°C to +75°C |
| | Storage: -40°C to +85°C |

## Mechanical

| | |
|---|---|
| Dimensions | Vi2304A: 1.15x3.6x3.3 in., 4.2x9.2x8.4 cm (HxWxL) |
| | Vi2308A/Vi2316A: 1.75x3.25x17 in., 4.4x8.25x43 cm (HxWxL) |
| Weight | Vi2304A: 0.584 lb, 265 g |
| | Vi2308A: 1.8 lb (0.82 Kg), Vi2316A: 3.25 lb (1.5 Kg) |
| Material | Aluminum |

## Accessories

12 VDC wall-mount power supply (optional)

1. Specifications subject to change without notice.
2. 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.
3. 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.
4. System can be powered for 802.3af using PTP™ reference used is Class 2.

*External power supply required

## Ordering Information

| PART No. | Description |
|---|---|
| Vi2301A | Single port UTP Ethernet Extender |
| Vi2304A | 4-port  UTP Ethernet Extender |
| Vi2308A | 8-port  UTP Ethernet Extender, 19", 1U |
| Vi2316A | 16-port  UTP Ethernet Extender,19", 1U |
| Vi0014 | 12VDC, 3A Wall-mount Power Supply |

## System Configuration



Vi2301A

3,000 ft.
914 m

Vi2316A

## Data and PoE Distance [2, 4]

| Data Rate | 4-Pair [3] (data + poe class 2) | 1-Pair (data only) |
|---|---|---|
| 10BaseT | n/a | 3,000 ft. (909 m) |
| 100BaseT | 2,100 ft. (636 m) | 1,000 ft. (303 m) |



3.6"
9.2cm

1.6"
4.2cm

Vi2304A Ethernet Extender Hub



17"
1.75"
Vi2308A Ethernet Extender Hub



17"
1.75"
Vi2316A Ethernet Extender Hub