

Vi50001

Single Port PoE Powered 1G Fiber Media Converter

Features

- Enables transmitting 1000Mbps Ethernet over fiber cables
- Auto bandwidth control 100/1000Mbps
- Uses Small Format Pluggable (SFP) to interface to a variety of fiber cables
- Powered by 12VDC or PoE
- Can interface directly to network switches
- Distances of up to 80Km can be achieved depending on the type of fiber cable and SFPs
- Transmits Jumbo Frames up to 9600 bytes for handling the largest Megapixel cameras
- Complies with all networking standards
- Operates at extended temperature ranging -40°C to +80°C
- Auto bandwidth control 100/1000Mbps



Applications

- Conversion of existing analog cameras over fiber system to IP devices
- Building-to-building communications
- Long distance connection of Megapixel cameras
- Provide safe connection for outdoor applications with high possibility of lightening
- Perimeter applications such as building, fence, and parking lots with the ability to use fiber as main transmission line

Vigitron's Vi50001 is a media convertor that enables Ethernet signals to be transmitted over different types of fiber optic cables. It meets long distance transmission requirements and those where fiber is already installed. The use of SFP fiber modules results in compatibility with all major single and multimode fiber optics cables to achieve desired transmission distances depending on the type of cables and SFPs. The Vi50001 can be powered by a local DC power supply or a PoE sources.

The Vi50001 is an ideal solution for converting existing analog fiber infrastructures to IP systems. It provides a unique, reliable, and cost effective solution to combine a variety of transmission methods to meet any application requirement. Auto bandwidth sensing provides an efficient way to connect cameras to network switches and NVRs.

Technical Specification*

Electrical

| | |
|---------------------|---|
| Ethernet | 100/1000Mbps for RJ45 1000Mbps for SFP fiber |
| Fiber Compatibility | Multimode Fiber Optical Cable: 50/125um Multimode Fiber Optical Cable: 62.5/125um Single Mode Fiber Optical Cable: 9/125um |
| Distance | Depends on cable and SFP type |
| Fiber Connection | LC based on SFP type 1000Mbps |
| Connectors | Ethernet: RJ-45 Fiber: SFP socket compliant to MSA standards Power: Detachable Terminal block |
| Status LED | Power Ethernet: Link/Traffic, 100Mbps/1000Mbps Fiber |
| PoE Compatibility | 802.3af/802.3at |
| Power Supply | 12VDC @ 250 mA |
| Data Interface | 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 |
| Standards | IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3af, IEEE 802.3at |
| Regulatory | CE, WEEE, RoHS |
| Jumbo Frame | Up to 9,600 bytes |

Environmental

| | |
|-------------|--|
| Humidity | 0% to 95%, non-condensing |
| Temperature | Operating: -40°C to +80°C Storage: -40°C to +85°C |

Mechanical

| | |
|------------------|--|
| Dimensions | 0.97x1.75x3.93 in., 2.5x4.45x10 cm (HxWxL) |
| Weight | 0.22 lbs (102g) |
| Housing Material | Extruded Aluminum |

** Specifications subject to change without notice.
SFP port fixed at 1000Mbps
There is no standard method for reading SFP bandwidth. Different SFPs may not sense the differences between 100Mbps and 1000Mbps. We suggest using the SFP designed for the primary ports bandwidth.

Ordering Information

Part No. Description

| | |
|----------------|--|
| Vi50001 | Single Port PoE Powered 1G Media Converter |
|----------------|--|

Related Products

Part No. Description

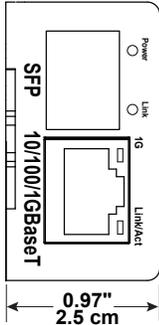
| | |
|---------------------|--|
| Vi50000A | Single Port 60W PoE 1G Media Converter |
| Vi0012 | 12VDC @ 1 Amp for non-PoE Applications |
| Vi00850MM-HA | 850nm Multi-Mode, Hardened, SFP |
| Vi01310SM-HA | 1310nm Single-Mode, Hardened, SFP |

Status LEDs

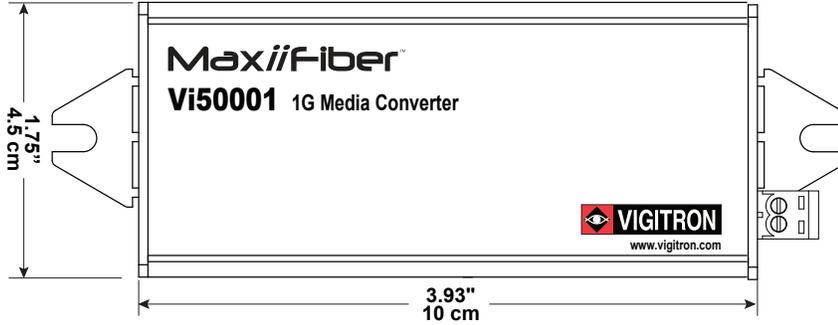
| LED Name | Color | Status | Function |
|---------------|--------|---------------|---------------------------------------|
| Power | Green | OFF | Power is off |
| | | ON | Power is on |
| PoE | Green | OFF | No PoE |
| | | ON | PoE |
| Fiber Port | Yellow | OFF | Fiber link is off |
| | | ON / FLASHING | Fiber activity |
| Ethernet Port | Green | OFF | 10/100Mbps connect when linked |
| | | ON | 1000Mbps connection |
| Ethernet Port | Orange | OFF ON | No link Link flashes with activity |



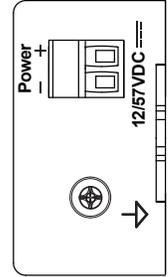
Mechanical Drawings



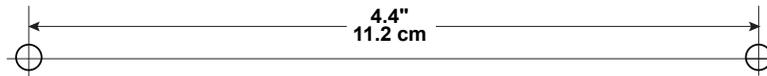
Left View



Top View



Right View

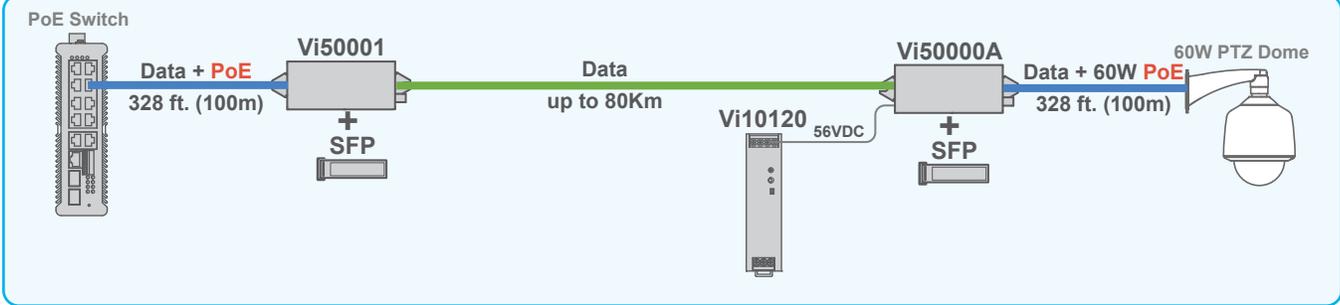


Mounting Pattern

Application Drawings

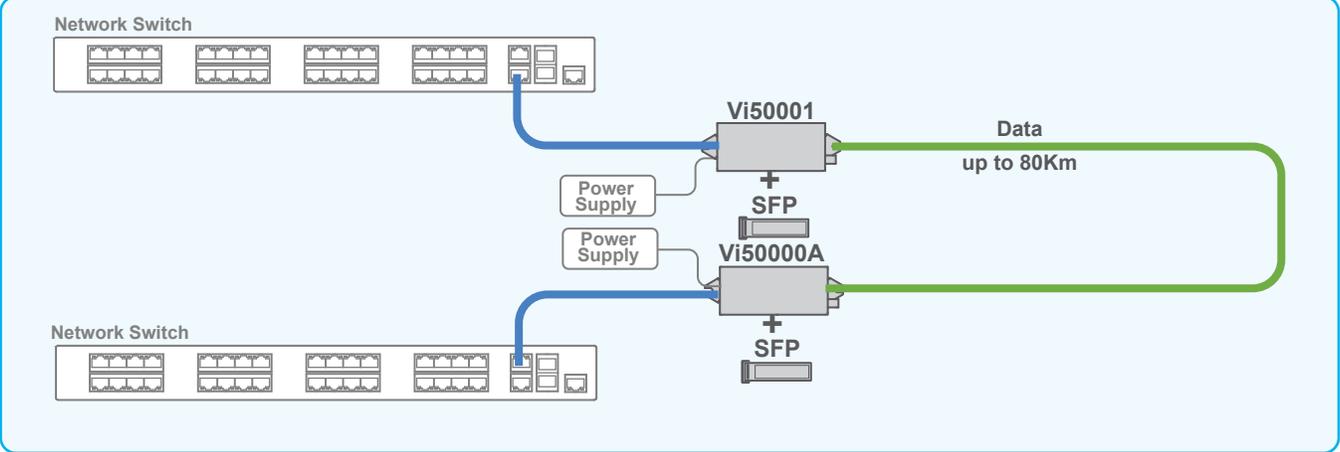


Connecting High Power PoE Cameras over Fiber cables



The Vi50000A is used with the Vi50001 for long distance high bandwidth applications. The Vi50000A provides up to 60W PoE power to meet the highest PTZ dome power requirements.

Connecting Network Switches at long Distances



With 1000Mbps (1G) bandwidth, the Vi50000A can be used with the Vi50001 as a perfect solution for connecting network switches over long distances.