

Vi50001

Single Port PoE Powered 1G Ethernet Fiber Media Converter

Features

- Enables transmitting 1000Mbps Ethernet over fiber cables
- 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 network standards
- Complies with the Multi-Standards Agreement for SFP interface
- Extended temperature operation up to -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

Vigtron's Vi50001 is a media convertor that enables Ethernet signals to be transmitted over different types of fiber optic cables. UTP connections with fiber to meet long distance transmission requirement 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 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 Wave Division Multiplexing
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, IEEE 802.3z
Regulatory	CE, WEEE, RoHS
Jumbo Frame	Up to 9,600 bytes

Environmental

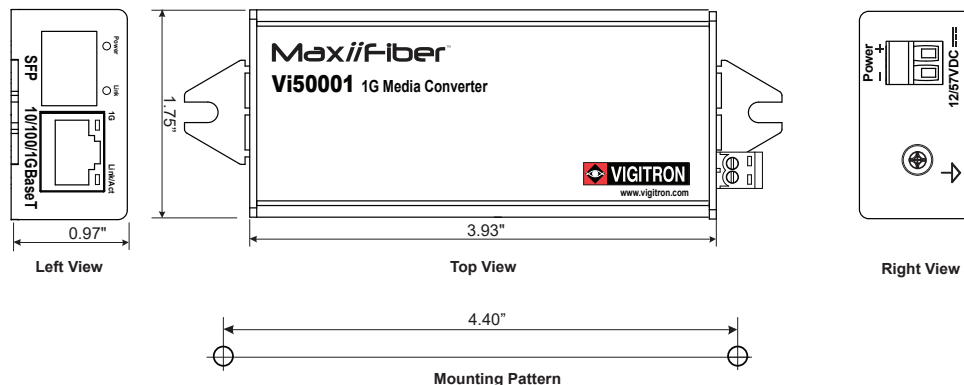
Humidity	0% to 95%, non-condensing
Temperature	Operating: -40°C to +80°C Storage: -40°C to +85°C

Mechanical

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

*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

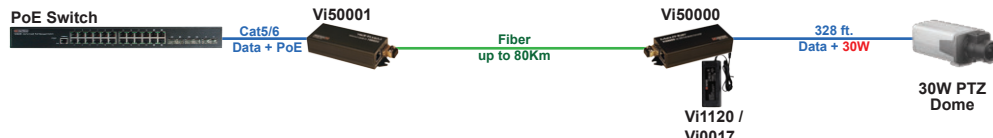
PART No.	Description
Vi50000	Single Port 1G Media Converter
Vi50001	Single Port PoE Powered 1G Media Converter
Vi0012	12VDC @ 1 Amp for non-PoE Applications
Vi0017	40W @ 48VDC Power Supply for 802.3at PoE Applications
Vi1120	120W @ 56VDC Power Supply for 60W PoE Applications
Vi00850MM-H	850nm MM SFP (multi-mode), Hardened
Vi01310SM-H	1310nm SM SFP (single-mode), Hardened

Status LEDs

LED Name	Color	Status	Function
Power	Green	OFF	Power is off
		ON	Power is on
PoE (Vi50000 Only)	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	No link
		ON	Link flashes with activity



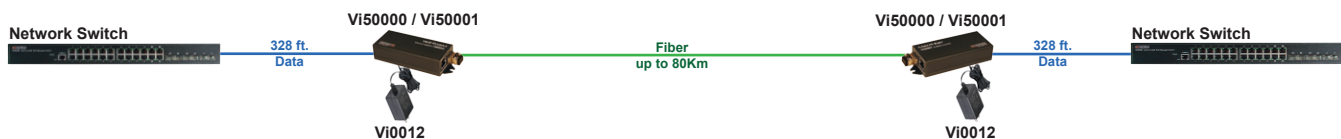
Application Diagrams



The Vi50000 is used with the Vi50001 for long distance high bandwidth applications. The Vi50001 provides up to 30W PoE power to meet the highest PTZ dome power requirements.



By using the SFPs, the Vi50000 will be compatible with most installed fiber types and can be directly connected to SFP modules installed in network switches.



With 1000Mbps (1G) bandwidth, the Vi50000 / Vi50001 is the perfect solution for connecting network switches over long distances.