

# Vi50000U 1G Fiber Media Converter w/60W PoE Installation

MaxiiFiber™



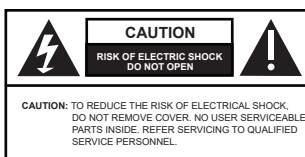
Vigatron's Vi50000U is a fiber media converter that enables Ethernet signals to be transmitted over different types of fiber optic cables. UTP connections with fiber to meet long distance transmission requirement and those where fiber is already installed. The use of SFP fiber modules results in compatibility with all major single and multimode fiber optic cables to achieve desired transmission distances depending on the type of cables and SFPs. The Vi50000U can be powered from a local 12VDC or 52-57 VDC power supply.

When the Vi50000U is connected to a 52-57VDC power supply it can provides up to 60W PoE to power PTZ domes with heaters and blowers, eliminating the need for high cost local power supplies. It is compatible with devices requiring both 802.3bt and UPoE, PoE sources It's auto bandwidth sensing provides an efficient way to connect cameras to network switches and NVRs.

The Vi50000U 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.

## 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.
- 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 Vigatron equipment.
- DO NOT install the unit in a place where the operating ambient temperature exceeds 70° 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 plugs 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 a power supply cord or plug is damaged, liquid has been spilled, or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The power plug is used as the disconnect device and shall remain readily operable.

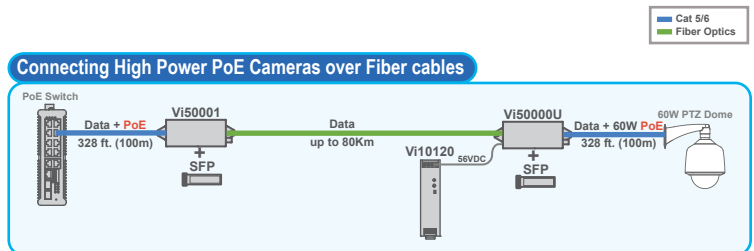


**WARNING!** - To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.

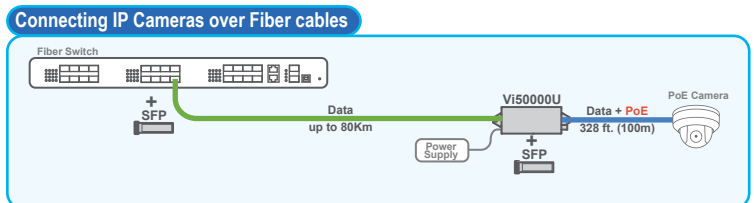
**WARNING!** - This apparatus is a Class I product. This product must be connected to a mains socket outlet thru an AC to DC Power supply.

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

## Application Drawing



The Vi50000U is used with the Vi50001 for long distance high bandwidth applications. The Vi50000U provides up to 65W PoE power to meet the highest PTZ dome power requirements.



By using the SFPs, the Vi50000U will be compatible with most installed fiber types and can be directly connected to SFP modules installed in network switches.

## IP Camera-end Installation

- Insert a suitable 1000Mbps SFP into the SFP socket of the Vi50000U. The SFP type needs to match the specification of the fiber optics cable.
- Connect the fiber connector of the optical wire to the SFP.
- If the IP Camera is non-PoE use an approved 12VDC or 48-57VDC power adapter to power the Vi50000U.
- If the IP Camera is PoE enabled use the Vi0017 or another approved 52-57VDC power adapter to power the Vi50000U.
- Connect the IP camera RJ45 connector to the "10/100BaseT Ethernet" port of Vi50000U using a standard Cat5/6 cable of maximum 100m in length.

The link LED on the 10/100 connector should be "ON" to indicate proper connection between the camera and Vi50000U.

## Ethernet Switch/NVR-end Installation

- Connect an approved 12VDC power supply to the power connector of Vi50001. It can also use PoE if provided from a PoE switch.
- Connect the RJ45 connector of the Ethernet switch to the 100/1000BaseT Ethernet port of Vi50001 using a standard Cat5/6 cable of maximum 328 feet (100 m) in length.
- Insert a suitable 1000Mbps SFP into the SFP socket of the Vi50001. The SFP needs to match the specification of the fiber optics cable.
- Connect one end of the long fiber optic cable to a SFP module.

The Ethernet link, Fiber link, activity LEDs should be "ON" and "Blink" to indicate the status of each port.

Note: As no standards exist between SFP and network switches the switch port bandwidth setting may have to be fixed at 1000Mbps (1G).

## Technical Specifications\*

### 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	Based on cable and SFP
Fiber Connection	LC based on SFP 1000Mbps
Connectors	Fiber: SFP sockets compliant to MSA standards Ethernet: RJ45 Power: 2.5mm Round Barrel Connector
Status LED	Power: Green LED Ethernet: Link/Traffic, 100/1000Mbps Fiber
PoE Output Power	IEEE 802.3af, at, bt up to 60W PoE
Power Supply	12VDC @ 3W with no PoE output 52-57VDC @ up to 32W with PoE output using Vi0017 or similar power supply 52-57VDC up to 60W with PoE output using Vi1120 or similar power supply
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

### Regulatory

Safety	CE
Environmental	RoHS, WEEE

### Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: 30°C to +65°C Storage: -40°C to +85°C

### Mechanical

Dimensions	0.97x1.75x3.93 in., 2.46x4.45x10 cm (HxWxL)
Weight	0.235 lbs (107g)
Housing Material	Extruded Aluminum

### Optional Accessories\*\*

Vi5000R, Rackmount Adapter to Holds Up to (4) Vi50004s  
Vi5000B, Blank Panel for Vi5000R

\*Specifications subject to change without notice.

\*\*There is no standard method for reading SFP bdata rate. Different SFPs may not sense the differences between 100Mbps and 1000Mbps. We suggest using the SFP designed for the primary ports data rate.

## 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
Traffic (Standard Side)	GREEN	OFF	No connection
		FLASHING	Connection is OK with Traffic
Link (Standard Side)	YELLOW	OFF	No connection
		ON	Connection is OK

## Ordering Information

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Part No.	Description
<b>Vi50000U</b>	4-Port 1G Ethernet Fiber Media Converter

### Related Products

Part No.	Description
<b>Vi50001</b>	1-Port 1G Ethernet Fiber Media Converter
<b>Vi50004</b>	4-Port 1G Ethernet Fiber Media Converter

## Limited Lifetime Warranty

Vigtron, Inc. warrants that all Vigtron 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 Vigtron 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 Vigtron dealer.

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

