

SFP Vi00850MM-H

850 nm Multi-Mode SX Small Format Pluggable Hardened Fiber Transceiver

Features

- Compliant with SFP MSA and SFF-8472 standard for Digital Diagnostic Monitoring Interface
- Compliant with IEEE802.3z Gigabit Ethernet standard
- Industry standard small form pluggable (SFP) package
- Duplex LC connector
- Conforms to MultiSource Agreement for SFP
- Distances of 550m using 50/125um fiber and 300m using 62.5/125 cable
- Single power supply 3.3V
- TTL signal detect indicator
- Hot pluggable
- Class 1 laser product complies with EN 60825-1
- Harden wide operating temperature range of -40°C to +75°C

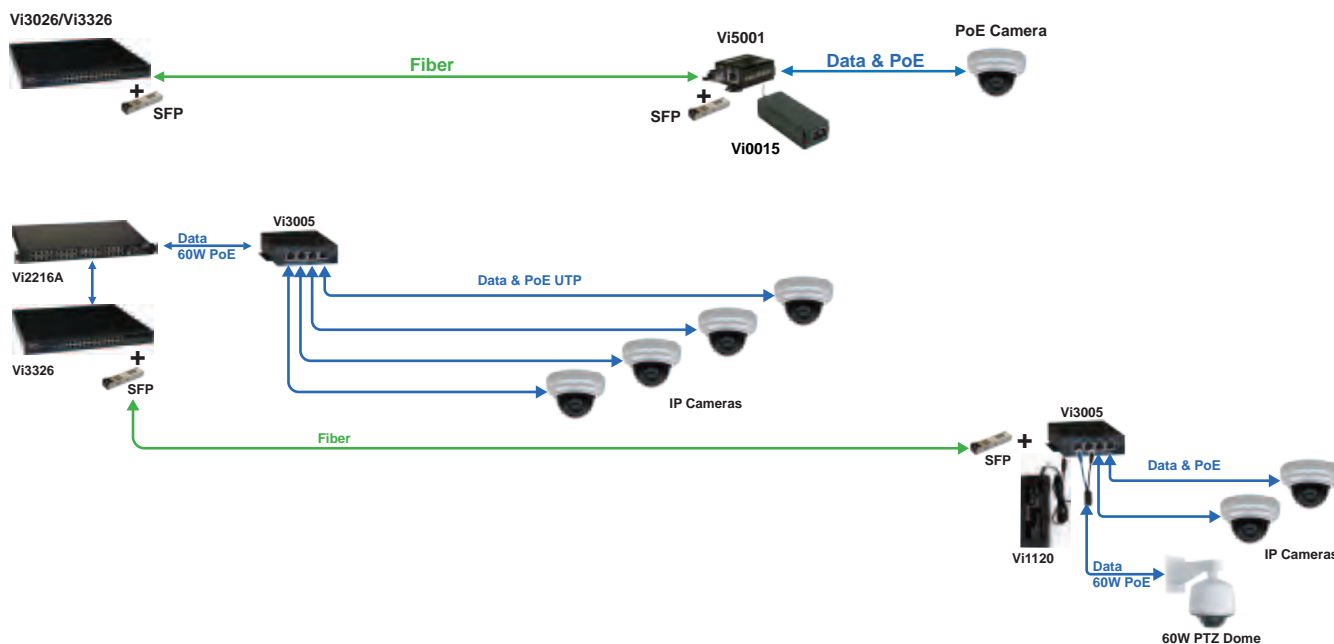


Applications

- Switch-to-Switch interconnect
- High speed wide bandwidth up and downlink

The Vi00850MM-H is an 850 nanometer SFP transmitting on multimode fiber. Compatible with the MultiSource Agreement (MSA), the Vi00850MM-H is designed to work with any device conforming to the MSA standards. It operates on 50/125um fiber cables up to 550 meters (1815 feet). The Vi00850MM-H is also compatible with 62.5/125 um fiber for distance of up to 300 meters (990 feet). The Vi00850MM-H is the perfect solution for interfacing with existing fiber cable installations for single/multiple camera transmission or short haul backbones.

Application Diagram



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DSVi00850MM-H_0915

Technical Specifications

Electrical

Supply Voltage	3.1V to 3.5V
Current	300mA
Signal Detect	TTL
Compatible with	RoHS, SONET/SDH, Fast Ethernet standard
Fiber Type	Multi-mode
Transmission Distance	550m using 50/125 um fiber 300m using 62.5/125 um fiber
Transmission Speed	1.25 Gbps
Wavelength	850nm

Environmental

Temperature	Operating: -40°C to +75°C Storage: -40°C to +85°C
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Mechanical

Dimensions	0.41 x 2.2 x 0.53 in (10.5 x 57 x 13.7mm)
Weight	0.035 lbs (15g)
Material	Metal Alloy

Vigatron Related Models

Model No.	Description
Vi3010	10-port Managed PoE Network Switch
Vi3026	26-port Managed PoE Network Switch
Vi3326	26-port Managed Network Switch
Vi3005	5-port PoE Harden Network Switch
Vi3305	5-port, 4-port Extended UTP Harden Network Switch
Vi3405	5-port, 4-port Extended Coax Harden Network Switch
Vi5001	Ethernet to Fiber - PoE Converter

Vi00850mm-H complies with MSA standards for SFP and is compatible with all types of network switches and products complying to the MSA standard.

Ordering Information

Part No.	Description
Vi00850MM-H	850MM NM Multi-mode small format pluggable hardened fiber transceiver

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.5	4.5	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Standard	Tc	0	+70	°C
	Extended		-40	+85	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current	Icc			300	mA
Data Rate			1.25		Gbps

Diagnostics Specification

Parameter	Range	Unit	Accuracy	Calibration
Temperature	-40 to +85	°C	±3°C	Internal / External
Voltage	3.0 to 3.6	V	±3%	Internal / External
Bias Current	0 to 100	mA	±10%	Internal / External
TX Power	-9.5 to -3	dBm	±3dB	Internal / External
RX Power	-22 to -3	dBm	±3dB	Internal / External



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Notes

Transmitter Section

The transmitter section consists of a 850 nm VCSEL in an eye safe optical subassembly (OSA) which mates to the fiber cable. The laser OSA is driven by a LD driver IC which converts differential input LVPECL logic signals into an analog laser driving current.

TX_DISABLE

The TX_DISABLE signal is high (TTL logic "1") to turn off the laser output. The laser will turn on when TX_DISABLE is low (TTL logic "0").

Receiver Section

The receiver utilizes a MSM detector integrated with a trans-impedance preamplifier in an OSA. This OSA is connected to a circuit providing post-amplification quantization, and optical signal detection.

Receive Loss (RX_LOS)

The RX_LOS is high (logic "1") when there is no incoming light from the companion transceiver. This signal is normally used by the system for the diagnostic purpose. The signal is operated in TTL level.

