



Industrial PoE Media Converter

Product Data Sheet



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The FR-IPM2003MI Series is an advanced industrial PoE-to-Fiber transceiver. It features IEEE 802.3at/bt power input and uniquely provides a 60W USB-C PD output to charge modern devices. It offers one 10/100/1000BASE-T RJ45 port and one 100/1000BASE-X SFP port, effectively bridging copper and fiber networks for long-distance data extension.

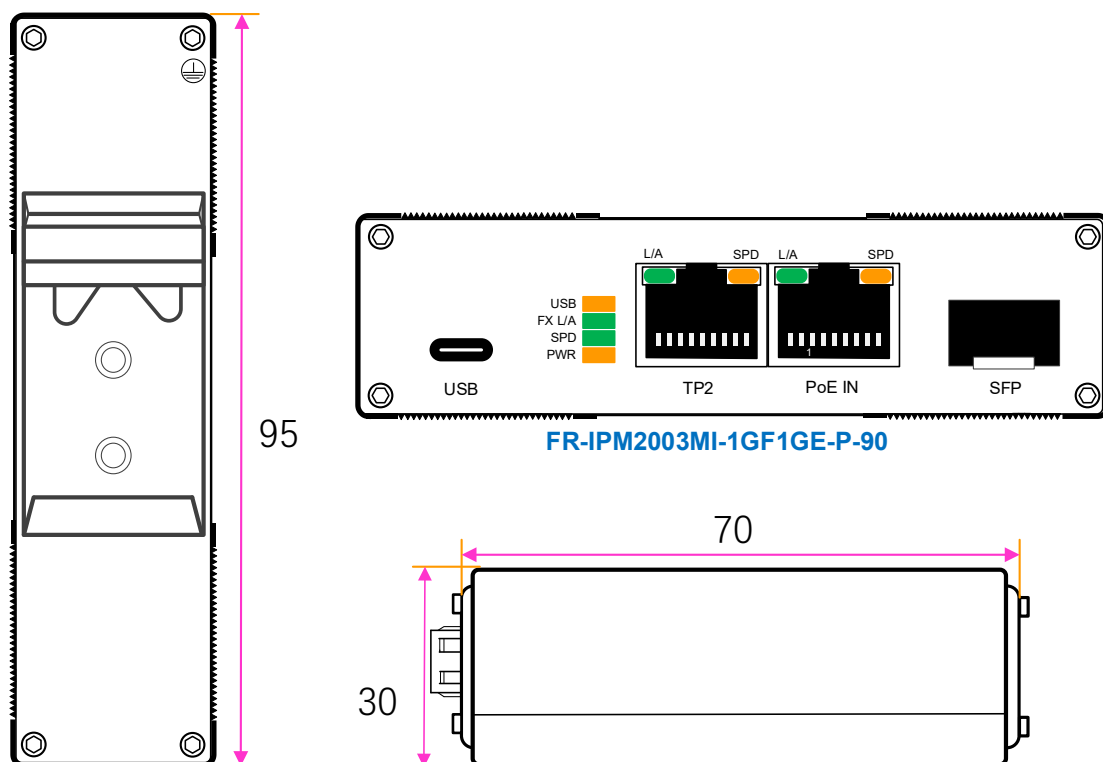


Hardware Specifications		
Product		FR-IPM2003MI-1GF1GE-P-90
Copper Ports		2x10/100/1000BASE-T RJ45 Auto-MDI/MDI-X (TP1 and PoE IN), Auto-Negotiation
Fiber Ports		1x100/1000BASE-X SFP Slots
Enclosure		IP40 aluminum case
Installation		DIN-Rail and Wall-mount
Dimension		95mm x 70mm x 30mm (L x W x H)
Weight		250g(Bare weight)
Network Cable		10/100/1000BASE-T: 2-pair UTP Cat. 3, 4, 5, 5e, 6 (maximum 100 meters) EIA/ TIA-568 100-ohm STP (maximum 100 meters) 100BASE-FX/1000BASE-SX/LX Multi-mode: 50/125um or 62.5/125um optical fiber Single-mode: 9/125um optical fiber
Power Supply and PoE		
Power Input	PD Port/DC Terminal	PoE Input(TP2), IEEE802.3 at/bt
	Input Voltage	PoE Input: DC48-57V
Power Output	Connector	USB-C
	Output Voltage	5-20V, 3A Max (60W)
Power Consumption		5 Watts Max (without PoE load)
PoE Ports		/
PoE Power Supply Type		/
Power Supply Pin		/
Max Power Per Port		/
Total Power Budget		60W Maximum (Depending on power input)

Product Specifications

Environmental	
Operating Temperature	-30°C to +70°C (-22 to 158 °F)
Storage Temperature	-40°C to +85°C (-40 to 185 °F)
Operating Humidity	5%~90% (non-condensing)
Cooling	Passive Cooling
MTBF	>500,000 hours @MIL-HDBK-217F GF 25°C
LED Indicators	
PWR	ON: Power is being supplied ,OFF: Power is not being supplied
RJ45 Port Green LEDs(L/A)	ON: Port connection is active, Blinking: Data transmitted, OFF: Port connection is not active
RJ45 Port Amber LEDs(SPD)	ON: Port is operating at 1000 Mb/s, OFF: Port is operating at 10/100 Mb/s
USB	ON: Connected PD load
FX L/A	ON: Opti fiber cable is connected well, but no data transmission. Blinking: Receiving data
FX SPD	ON: FX 1000M running, OFF: FX 100M running
Regulatory & Warranty	
Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet
ISO	Manufactured in ISO-9001facility
Safety	IEC62368-1:2020+A11:2020
EMI	FCC Part 15B Class A, IEC 61000-3-2
EMS	IEC61000-4-2 ESD: Contact:±8kV, Air:±15kV IEC61000-4-5 Surge: Power: ±6kV; RJ45:±4kV/±6kV(PoE)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS 2011/65/EU Annex II(EU)
Warranty	3 Years, Details See: https://fiberroad.com/warranty
Package Contents	
Device	1 x Industrial Media Converter
Installation Kit	1 x DIN-Rail Clip 2 x Wall-Mount Kits
Documentation	1 x Quick installation guide 1 x Warranty card 1 x Product notice

Dimensions Unit: mm



Precautions

To avoid damage to the equipment and personal injury caused by improper use, please observe the following precautions:

- ❖ Keep the power off during installation, wear an anti-static wrist, and ensure that the anti-static wrist is in good contact with the skin to avoid potential safety hazards.
- ❖ The switch can work normally under the correct power supply. Please confirm that the power supply voltage matches the voltage indicated by the switch.
- ❖ Before powering on the switch, please make sure that the power circuit is not overloaded, so as not to affect the normal operation of the switch and even cause unnecessary damage.
- ❖ To avoid the risk of electric shock, do not open the case while the switch is working, even if it is not charged, do not open it yourself.
- ❖ Before cleaning the switch, pull out the power plug of the switch. Do not wipe with a wet cloth. Do not use liquid to clean it.
- ❖ The equipment installed in the rack is generally from bottom to top to avoid overload installation.
- ❖ Avoid placing other heavy objects on the surface of the switch to avoid accidents.

Order Information

Model Number	10/100/1000Base-T RJ45	100/1000BASE-X SFP	PoE Input	Power Output	Operating Temp.
FR-IPM2003MI-1GF1GE-P-90	2	1	802.3 at/bt	1x5-24VDC	-30 to +70°C

The information in this document is subject to change without notice. Fiberroad Technology Co., Limited has made all effects to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty. Contact us for the most up-to-date product information.

For more information

For more information about Fiberroad Smart Industrial Ethernet series products, Visit <https://www.fiberroad.com> or contact your local account representative.