FIBERROAD®

Industrial PoE Switch

Product Data Sheet

Industrial PoE Switch

The FR-IPS2005S Series is a compact industrial Ethernet switch designed for flexible and remote deployment. It features three 10/100/1000Base-T RJ45 ports with PoE+/DC output to power connected devices. For simplified installation, the switch receives its power via a dedicated PoE-in port from an upstream PSE switch or injector, eliminating the need for a local power source. A built-in 100/1000Base-X SFP slot provides an optional fiber optic uplink for extending network connectivity over long distances.

Hardware Specifications

Product	FR-IPS2005S-1GF3PG-P-60	FR-IPS2005SI-1GF3GE-P-60
Copper Ports	4x10/100/1000BASE-T RJ45 Auto-MDI/MDI-X (TP1-3 and PoE IN), Auto-Negotiation	
Fiber Ports	1x100/1000BASE-X SFP Slot	
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)	

Switching

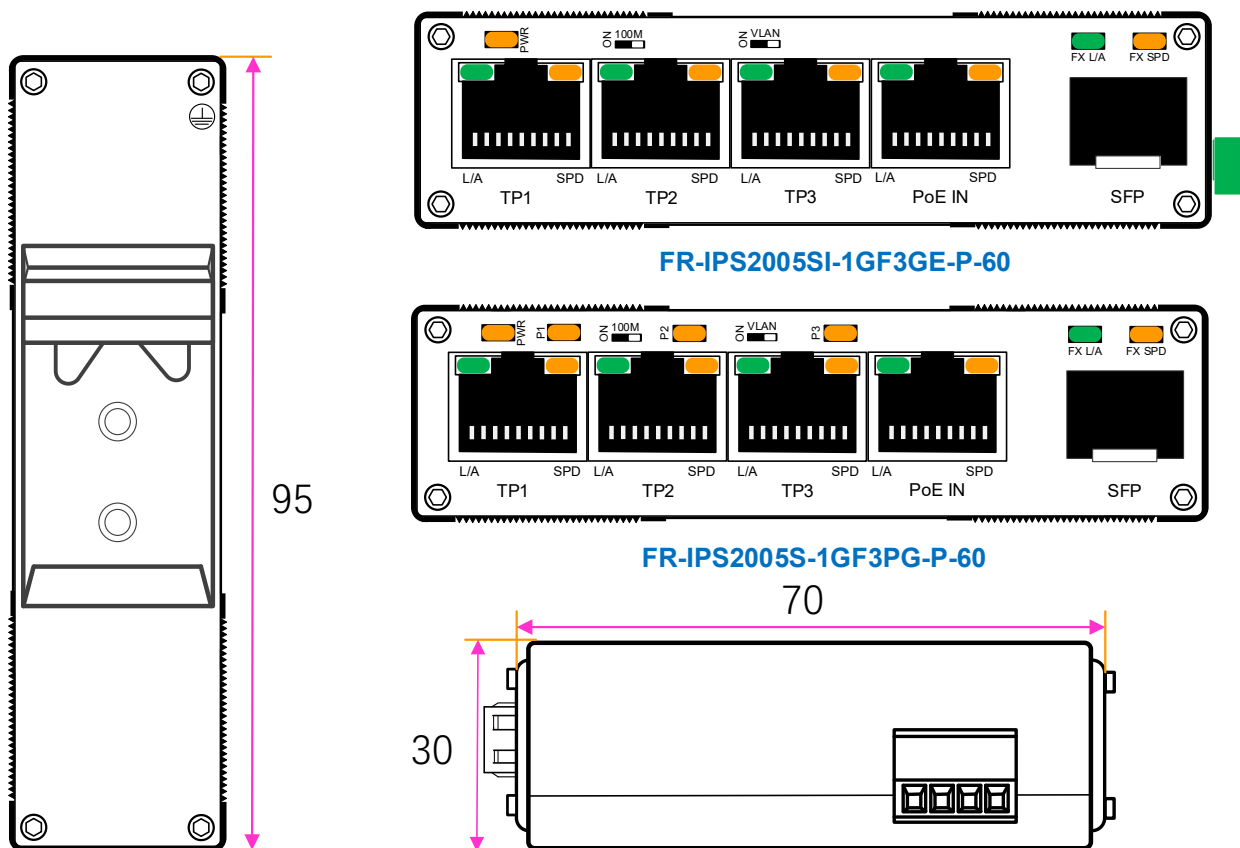|		
Switch Architecture	Store-and-Forward	
Switch Fabric	10Gbps/non-blocking	
Forwarding Rate	7.44 Mpps(64-byte packet size)	
Packet Buffer Size	512 Kbits	
MAX. Packet Length	9K bytes	
MAC AddressTable	2K entries, automatic source address learning and aging	

Power Supply and PoE

Power Input	PD Port	PoE Input(TP4), IEEE802.3 bt 90W	
	Input Voltage	DC48-57V	
DC Power Output	Connector	/	1 removable 4-contact terminal blocks Pin 1/2 for Power 1, Pin 3/4 for Power 2
	Output Voltage	/	5-24VDC (Shared 60W power)
Power Consumption		6 Watts Max (without PoE load)	
PoE Ports		Port 1 to 4 IEEE802.3 af/at	/
PoE Power Supply Type		End-span	/
Power Supply Pin		1/2(+), 3/6(-)	/
Max Power Per Port		30W	/
Total Power Budget		65W Maximum (Depending on power input)	

Environmental

Operating Temperature	-30℃ to +70℃ (-22 to 158 ℉)
Storage Temperature	-40℃ to +85℃ (-40 to 185 ℉)
Operating Humidity	5%~90% (non-condensing)
Cooling	Passive Cooling
MTBF	＞500,000 hours @MIL-HDBK-217F GF 25℃

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
P1 – P3(Model Dependent)	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

DIP Switch

100M	ON: FX 100M, OFF: 100/1000M
VLAN	ON: VLAN enabled, OFF: VLAN disabled

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 Ethernet Switch
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

FR-IPS2005SI-1GF3GE-P-60

FR-IPS2005S-1GF3PG-P-60

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 Output	PoE Input	Power Output	Operating Temp.
FR-IPS2005S-1GF3PG-P-60	4	1	Port 1-3 802.3 af/at	Port 4 802.3 at/bt	/	-30 to +70℃
FR-IPS2005SI-1GF3GE-P-60	4	1	/	Port 4 802.3 at/bt	2xDC5-24V	-30 to +70℃

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,
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