FIBERROAD

AI PoE Series

COMMERCIAL GRADE GIGABIT POE SWITCH

Product Data Sheet

Ver. 2.0

FR-5N3208P/5N3010P is a new generation Power over Ethernet switch with 8-Port 10/100/1000Base-TX and 2 Gigabit uplink ports that provide stable and reliable Ethernet transmission offered by Fiberroad, with high-quality design and reliability. It can supply power to PD terminal equipment such as wireless AP, webcam, VoIP, and visual intelligent building intercom through network cable and meet the network environment that needs a high-density PoE power supply. It is suitable for hotels, campuses, factory dormitories and small and medium-sized enterprises.

Main Features

- ❖ 8x10/100/1000Base-TX RJ45 ports, 2xGigabit SFP/ RJ45
- ❖ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure
- ❖ IEEE802.3af/at PoE standard, without damaging non-PoE devices.
- ❖ Support 9K bytes giant frame, compatible with various extension protocol
- ❖ Support IEEE802.3az Energy Efficient Ethernet technology
- ❖ Electric 4kV surge protection
- ❖ Fanless and noiseless design, IP30 rated protection
- ❖ Plug and play, no configuration, simple and convenient
- ❖ Providing a long term and stable PoE power output
- ❖ The user-friendly panel can show the device status through the LED indicator of PWR, Link, PoE
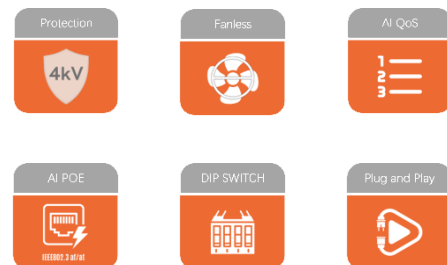
AI PoE Switch used on all devices which are compatible with the PoE standards but don't support passive low voltage devices. It is also important not to let the power requirements of your devices exceed the total PoE budget of the switch when planning your installation. All models support Artificial intelligence features via dip switch and include, AI VLAN, AI QoS, AI PoE and AI Extend. Let's explore these in a little more detail.

AI PoE: The AI PoE feature allows the switch to check the ports for activity periodically. If a port is not passing traffic for a certain amount of time, the switch will reset power on that specific port.

AI QoS: When AI QoS is enabled on the 4 and 8 port models, all ports will prioritise Video and VoIP traffic flows over others.

AI VLAN: AI VLAN is essentially port isolation on each of the PoE ports. All PoE ports are only able to communicate with the uplinks when this option is enabled.

AI Extend: AI extend is a common PoE switch feature designed to extend PoE distance up to 250m. The downside is that port speeds will be limited to only 10Mbps.

Product Specifications

Ethernet Interface

Model	FR-5A3010P	FR-5A3208P
RJ45 Port	8x10/100/1000Base-TX + 2x10/100/1000Base-Tx	8x10/100/1000Base-TX
Optical Fiber Port		2x1000Base-X(SFP)
SFP Slot Port		Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Twisted Pair Transmission		10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
Port Mode(Tx)		Auto-Negotiation Full/Half Duplex Mode Auto MDI/MDI-X Connection
Standards		IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseSX/LX/LHX/ZX IEEE 802.3x for flow control IEEE 802.1p for Class of Service IEEE802.3az Energy Efficient Ethernet
Packet Buffer Size		2Mbits
Maximum Packet Length		Up to 9K
MAC Address Table		4K
Transmission Mode		Store and Forward (Full Wire Speed)
Exchange Property		Delay time: < 7µs Backplane bandwidth: 20Gbps

PoE & Power Supply

PoE Port	Port 1 to 8 IEEE802.3af/at @PoE
Power Supply Pin	Default: 1/2(+), 3/6(-),Optional:4/5, 7/8(-)
Max Power Per Port	30W; IEEE802.3af/at
Total PWR / Input Voltage	125W(DC52V) @ 15.4W 240W(DC52V) @ 30W
Power Consumption	Standby＜4W
Power Inputs	1
Power Supply	External power adapter with AC100 – 240V 50-60Hz input 52VDC 5A output@30W per port 52VDC 2A output@15.4W per port
Protection	Overload Current Protection

LED Indicator

Power	Connect-always
RJ45	LINK/ACT: Connect-always; Data exchange-twinkle
Optical Fiber	LINK/ACT: Connect-always; Data exchange-twinkle

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	220*108*28 mm (L*W*H) 8.7*4.25*1.10 in (L*W*H)
Installation Mode	Desktop
Weight	500g(1.10lb)

Working Environment

Operating Temperature	0℃~50℃ (32to 122 ℉)
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-20℃~70℃ (-4 to 158 ℉)
MTBF	100,819 Hours
MTBF Standard	Telcordia SR-332 GB 25℃
Cooling	Fanless, Passive Cooling
Noise Level	0 dBA

Certification & Warranty

Lightning Protection	Surge Protection: 4kV 8/20us
Certification	CE mark, commercial；CE/LVD EN60950; FCC Part 15 Class B; RoHS
Warranty	3 years, lifetime technical support

DIP Switch	Name	Status	Description
#1	AI Extend	OFF	Disable
		ON	Enable
#2	AI VLAN	OFF	Disable
		ON	Enable
#3	AI QoS	OFF	Disable
		ON	Enable
#4	AI PoE	OFF	Disable
		ON	Enable

Dimensions Unit: mm

Front View

Back View

6.85

21.81

28

Top View

220

Side View

28

108
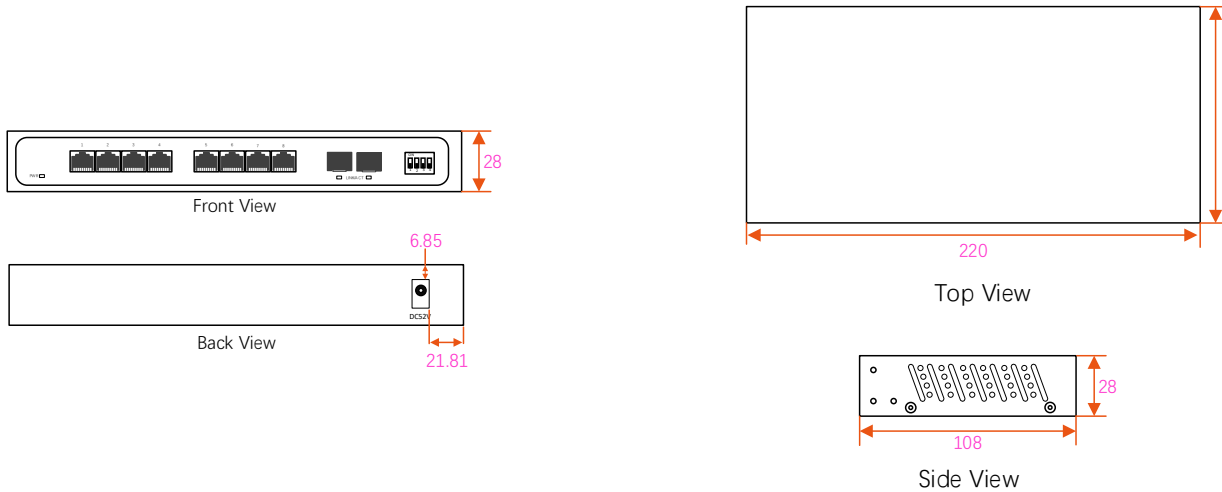
Package Contents	
Device	1x Ethernet Switch
Power Adapter	AC100 – 240V 50-60Hz input 52VDC output (with region-specific plug)
Documentation	1 x Quick installation guide 1 x Warranty card

Accessories(Sold Separately)

SFP Optical Transceiver	
FRSX-1L311C-I	1.25Gb/s 1310nm 10km SFP, wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L341C-I	1.25Gb/s 1310nm 40km SFP，wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L5X1C-I	1.25Gb/s 1550nm 80/100km SFP，wide operation temperature range of -40℃-85℃（-40℉ - 185℉）
FRSX-1L3523/5323C-I	1.25Gb/s 1310nm/1550nm 20km BiDi SFP，wide operation temperature range of -40℃-85℃（-40℉ - 185℉）

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Ourdoor Application , 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

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(X), RJ45	1000Base-X Port	Optical Port Connector Option	PoE Standard	Input Voltage	Operating Temp.
FR-5A3010P	10	—	LC	IEEE802.3af/at	220VAC(120W) External Power Adapter	0 to +55℃
FR-5A3208P	8	2	LC	IEEE802.3af/at	220VAC(120W) External Power Adapter	0 to +55℃
FR-5A3216P	16	2	LC	IEEE802.3af/at	220VAC(350W) Internal Power Adapter	0 to +55℃
FR-5A3224P	24	2	LC	IEEE802.3af/at	220VAC(350W) Internal Power Adapter	0 to +55℃

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

For more information

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