FIBERROAD

FR-5M3208P

COMMERCIAL SMART POE SWITCH

Product Data Sheet

Ver. 2.0

Smart PoE Switch

FR-5M3208P 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 . 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/PoE+/PoE++ power supply. It is suitable for hotels, campuses, factory dormitories and small and medium-sized enterprises.

Main Features

- IEEE 802.3af/at/bt PoE Standard, without damaging not-PoE devices.
- Advanced PoE management functions : PoE output setting, Smart PoE, PoE scheduling and PoE Budget Management.
- Priority system for PoE Port, it will supply power to the high priority level port first when the power budget is insufficient.
- Full gigabit L2+ management, easy to manage the PoE network by CLI/Cloud/WebGUI/NMS.
- Build up a redundant PoE network with STP/RSTP/MSTP/ERPSv2.
- RADIUS, IEEE 802.1X, SNMPv3, HTTPs and SSH to enhance network security.
- Bandwidth management prevents unpredictable network status with "Lock Port" to restrict access to authorized MAC addresses.
- QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ, SP, WRR&SP+WRR
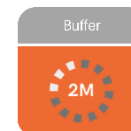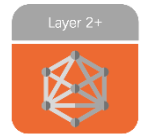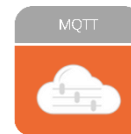
Fiberroad Smart PoE Switch has L2+ full network management, support IPv4/IPv6 management, static route full line rate forwarding, security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP/ERPSv2 to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

Ethernet Interface

	FR-5M3208P
Ports	2×Uplink Gigabit SFP 8×10/100/1000M Base-TX RJ45
Port Mode(Tx)	Auto Negotiation Speed Full/Half Duplex Mode Auto MDI/MDI-X Connection
SFP Port Transmission	Multi-mode: 850nm/0-500M, Single-mode:1310nm/0-40km, 1550nm/up to 120km
RJ45 Port Transmission	100m（using standard CAT5/CAT5e cable）
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 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1X for authentication IEEE 802.3ad for Port Trunk with LACP
Packet Buffer Size	2Mbits
Maximum Packet Length	Up to 9K
MAC Address Table	4K
Transmission Mode	Store and Forward (full/half duplex mode)
Exchange Property	Delay time: < 7µs Backplane bandwidth: 20Gbps; Packet Forwarding Rate:14.88Mpps
IGMP Group	4096
Max. No. of VLAN	256
VLAN ID Range	VID 1 to 4094

PoE & Power Supply

PoE Ports	Port 1 to 8 IEEE802.3af/at/bt @PoE
Power Supply Pin	Default: 1/2(+), 3/6(-), 4/5(+), 7/8(-)
Max Power Per Port	90W; IEEE802.3af/at/bt
Total PWR /Input Voltage	400W(AC100-240V)
Power Consumption	＜18W(220/50 Hz, no PD connected)
Power Inputs	1
Power Supply	Internal power adapter with AC100 – 240V 50-60Hz input
Protection	Overload Current Protection

Product Specifications

Ethernet Software Features

Redundancy Protocols	Support STP/RSTP/MSTP/ERPSv2, Link Aggregation
Multicast Support	Support IGMP Snooping V1/V2/V3, support GMRP, GVMP,802.1Q
VLAN	Support IEEE 802.1Q 4K VLAN, support QINQ, Double VLAN,
Time Management	SNTP
QOS	Flow-based redirection Flow-based rate limiting Flow-based packet filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS, Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc
POE Management	Total power limit of PoE power supply PoE output power allocation, on/off with at/af/bt PoE output priority configuration PoE working status Scheduling of PoE operation
Diagnostic Maintenance	Support port mirroring, Syslog, Ping
Management Function	Support CLI、WEB、SNMPv1/v2/v3, Telnet server for management, EEE, LLDP, DHCP Server/Client(IPv4/IPv6), Cloud/MQTT
Alarm Management	Support 1 way relay alarm output, RMON, TRAP
Security	Broadcast Storm Protection, HTTPS/SSLv3, AAA & RADIUS, SSH2.0 Support DHCP Snooping, Option 82, 802.1X security access, Support user hierarchical management, ACL access control list, Support DDOS, port-based MAC filtering / binding, MAC black holes, IP source protection, Port isolation, ARP message speed limit
Advance Layer 2+ Features	IPv4/IPv6 Management Static Route

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	205mm*140mm*45mm
Installation Mode	1RU Chassis Rack-Mount Installation
Weight	1200g

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℃

Certification & Warranty	
Lightning Protection	Lightning protection: 4kV 8/20us
Certification	CE mark, commercial, CE/LVD EN60950, FCC Part 15 Class , RoHS
Warranty	3 years, life time technical support

Package Contents	
Device	1x Smart PoE Switch
Cable	1xDB9 female to RJ45 10-pin Console Cable AC Power Cable (Region Power Plug)
Installation Kit	2x Rack-Mount Fixed Part
Documentation	1 x Quick installation guide 1 x Warranty card

Dimensions   Unit: mm

205

140

Top View

Side View

205

45

Front View
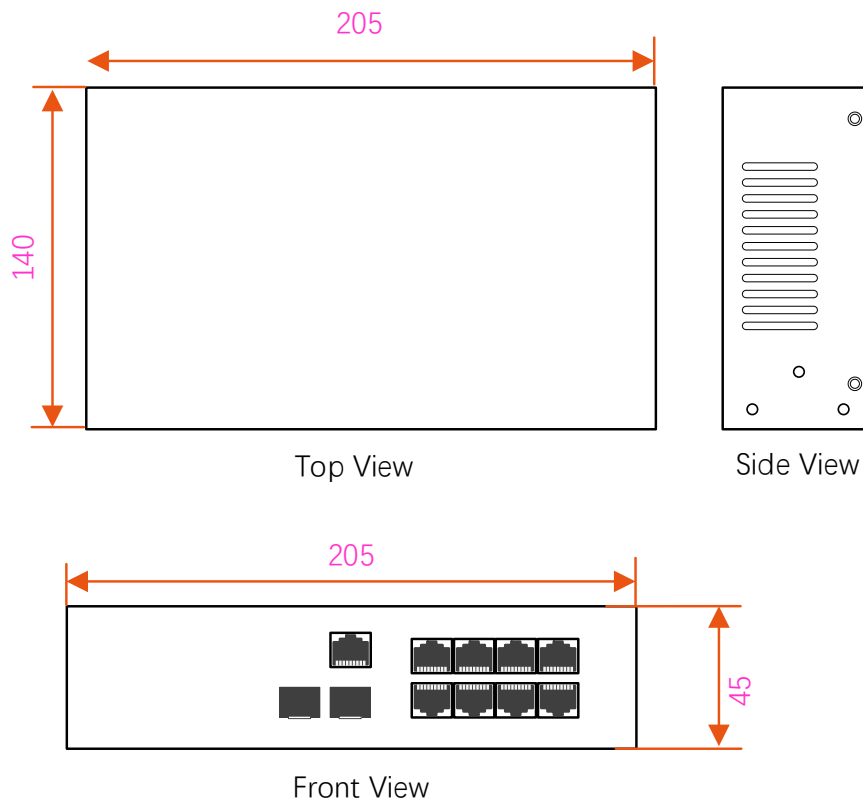
Accessories(Sold Separately)

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

FR-5M3208P	2* Gigabit SFP + 8* 10/100/1000M Base-TX RJ45
FR-5M3416P	4* Gigabit COMBO+16* 10/100/1000M Base-TX RJ45
FR-5M3424P	4* Gigabit COMBO+24* 10/100/1000M Base-TX RJ45

The information in this document is subject to change without notice. Fiberroad Technology., Ltd 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

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