FIBERROAD®

L2+ Managed Ethernet Switches

FR-5M3208 • FR-5M3208P • FR-5M3208BT

L2+ Managed 8-port 10/100/1000Base-TX (Non-PoE/PoE+/PoE++) + 2-port 100/1000Base-SFP Ethernet Switch with AC Power Input, 1U Rack-mount

Product Data Sheet

FR-5M3208 • FR-5M3208P • FR-5M3208BT

Main Features

- 8x10/100/1000BASE-T Gigabit Ethernet RJ45
- 2x100/1000BASE-X SFP ports for SFP Type auto detection
- Optionally support IEEE 802.3 af/at/bt Power Over Ethernet Standard
- Full gigabit L2+ management, easy to manage the network by CLI/WebGUI/NMS.
- Prevents packet loss with back pressure(half-duplex) and IEEE 802.3x pause frame flow control(full deplex)
- Build up a redundant industrial network with STP/RSTP/MSTP/ERPSv2
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning
- Traffic Classification Based on IEEE 802.1p, CoS, WRR, and Strict Mode
- SNMPv1/v2c/v3 for different levels of network management

Overview

The Layer 2 Managed Ethernet Switch delivers advanced networking control with **full Gigabit L2+ management**, enabling efficient traffic handling, VLAN segmentation, QoS prioritization, and robust security features. Designed for scalability, it offers flexible management via **CLI, WebGUI, or NMS (Network Management System)**, simplifying configuration and monitoring for IT administrators. Available with an **optional IEEE 802.3af/at/bt PoE** support, this switch powers high-demand devices such as IP cameras, wireless access points, and VoIP phones while maintaining reliable performance. Its rugged industrial design ensures stable operation in demanding environments, making it ideal for enterprise networks, smart buildings, and industrial automation. With advanced features like port mirroring, STP/RSTP, and IGMP snooping, this switch provides a high-performance, future-proof networking solution.

Hardware Specifications			
Product	FR-5M3208	FR-5M3208P	FR-5M3208BT
Copper Ports	8x10/100/1000BASE-T RJ45 Auto-MDI/MDI-X (Port 1-8)		
Fiber Ports	2x100/1000BASE-X SFP Slots (Port 9 and Port 10)		
Console	1x RJ45-to-RS232 Serial Port(115200)		
RAM	128Mbyte		
FLASH	32MByte		
Reset Button	＜5 sec: System Reboot; ＞10 sec: Factory Default		
Surge Protection	±6kV DC, ±4kV RJ45	±6kV DC, ±6kV RJ45	
Enclosure	IP30 Metal		
Installation	19inch Rack Mount or Desktop		
Dimension	208mmx140mmx45mm		
Switching			
Switch Architecture	Store-and-Forward		
Switch Fabric	36Gbps/non-blocking		
Forwarding Rate	11.9Mpps(64-byte packet size)		
Packet Buffer Size	4 Mbits		
Maximum Packet Length	10K bytes		
MAC Address Table	8K entries, automatic source address learning and aging		
Flow Control	IEEE 802.3x pause frame for full duplex, Back pressure for half duplex		
Power Supply & Power over Ethernet			
Power Input	1		
Input Voltage	AC 100-240V, 50/60Hz 0.15A		
Power Consumption	12 Watts Max (without PoE Load)		
PoE Ports	\	Port 1 to 8 IEEE802.3 af/at	Port 1 to 8 IEEE802.3 af/at/bt
PoE Power Supply Type	\	End-span	End-span
Power Supply Pin	\	1/2(+), 3/6(-)	1/2(+), 3/6(-) or 4/5(+), 7/8(-)
Max Power Per Port	\	30W	90W
PoE Power Budget	\	120W	120W (Default); 400W (Optional)
Environmental			
Operating Temperature	0 ℃ to 50 ℃		
Storage Temperature	-20℃ to 70℃		
MTBF	147,595 hours (Non-PoE Models) 126,424 hours (PoE Models) @MIL-HDBK-217F GB		
Heat Dissipation	41 BTU/h (non-PoE mode) 758 BTU/h (with 240W PoE load)		
Cooling	Passive Cooling, Fanless Design		
Noise Level	0 dBA		

Software Features	
Port Configuration	Port(Admin Status) disable/enable Copper Port: Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Fiber Port: 100M/1000M speed selection Flow Control disable/enable Power saving(EEE) disable/enable Each port description
Port Status	Display each ports' speed duplex mode, link status, flow control status, auto negotiation status, Fiber Port Information, Port Traffic
Port Mirroring	Source Ingress/ Egress Port/ Both, Many-to-1 monitor
VLAN	Up to 4K VLAN groups, out of 4094 VLAN IDs IEEE 802.1Q tag-based VLAN IEEE 802.1AD Q-in-Q tunneling(Double VLAN) GVRP(Generic VLAN Registration Protocol)
Link Aggregation	IEEE 802.3ad LACP/Static trunk Supports 6 trunk groups with 4 ports per trunk
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol
Multicast	Dynamic/Static Multicast groups IGMP Snooping v1,2,3 Port-based IGMP Snooping Fast Leave GMP Querier
Rate Limitation	Per Port Rate Limitation Ingress: 16-1000000 kbps/Egress: 16-1000000 kbps
Ring	ITU-T G.8032 ERPS, Recovery time＜10ms
QoS	Traffic classification based, strict priority and WRR 8-level priority for switching -Port number -802.1p priority -802.1Q VLAN tag -DSCP/TOS field in IP Packet
ACL	IP-based ACL/MAC-based ACL ACL based on: -MAC Address -IP Address -Ethertype -Protocol Type -VLAN ID -DSCP -802.1p Priority
Security	Port Security Static MAC address IEEE 802.1x port-based network access control RADIUS authentication DHCP Snooping, DHCP option 82
PoE Management Functions	
PoE System Management	PoE Port status monitoring Total PoE power budget control PoE usage threshold and temperature threshold PoE port Priority PoE mode(PoE/PoE+/PoE++) PD reboot(Zero Traffic Duration)
PoE Schedule	Absolute/Periodic Mode

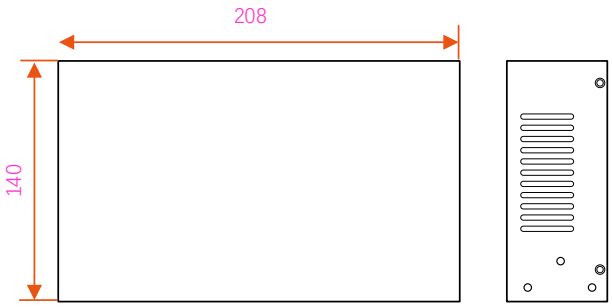
Software Features	
Layer 3 Functions	
IP Interfaces	Max. 8 VLAN interfaces
Routing Table	Max.32 routing entries
Routing	IPv4 software static routing
Management	
Basic Management Interface	Console; Telnet; Web browser; SNMPv1/v2c
Secure Management Interface	SSHv2, TLSv1.2, SNMPv3
System Management	Firmware Upgrade by HTTP protocol through Ethernet network Configuration upload/download through HTTP Remote syslog, System log LLDP protocol, SNTP PREVIEW NMS Alarm(Relay, Led, Temperature, Trap, Power)

LED	State	Description
PWR	ON	Power is being supplied
	OFF	Power is not being Supplied.
RUN	Blinking	The system is running well
	OFF	The system is running unwell
FAIL(Only For PoE)	ON	PoE Status is abnormal
	OFF	PoE Status is normal
MAX(Only For PoE)	ON	Total PoE Power out of maximum power budget
	OFF	Total PoE Power under maximum power budget
R.O.	ON	Ring Owner
	OFF	Not Ring Owner
RING	ON	Ring is enabled
	OFF	Ring is disabled
Link/ACT (1-10)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.
RJ45 Port Speed	ON	1000M is running
	OFF	No 1000M is running
ALM	ON	Has alarm information
	OFF	No alarm information

Package Contents	
Device	1x Ethernet Switch
Cable	1xDB9 female to RJ45 10-pin AC Power Cable (Regional Power Plug)
Installation Kit	2x Rack-Mount Kits
Documentation	1 x Quick start guide 1 x Warranty card

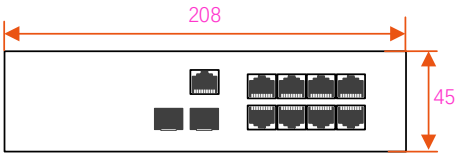
Regulatory & Warranty	
ISO	Manufactured in ISO-9001 facility
Safety	IEC62368-1:2020+A11:2020
EMI	FCC Part 15B Class A, IEC 61000-3-2
EMS	IEC61000-4-2 ESD: Contact:±8kV, Air:±15kV IEC61000-4-5 Surge: Power: ±6kV; RJ45:±4kV/±6kV(PoE)
Environmental	RoHS 2011/65/EU Annex II(EU)
Warranty	1 Year, Details See: https://fiberroad.com/warranty

Dimensions **Unit: mm**

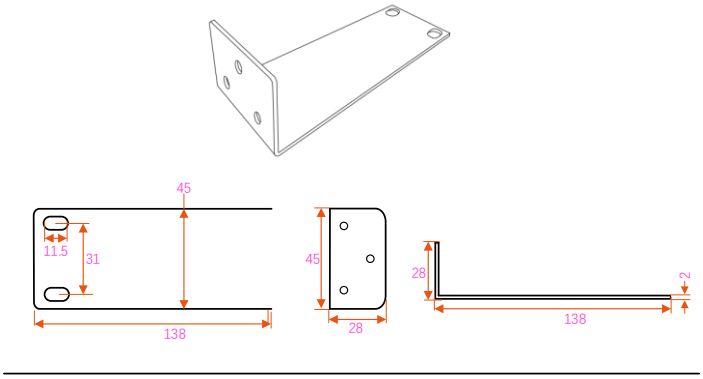


Top View

Side View



Front View



Rack Mount Fixed Part

Ordering Information

Note: Rack Mount Fixed Part are sold Separately

Available Model	Description	Input Voltage	Operating Temp.
FR-5M3208	L2+ Managed 8-port 10/100/1000Base-TX + 2-port 100/1000Base-SFP Ethernet Switch with AC Power Input, 1U Rack-mount	AC100-240V	0 to +50℃
FR-5M3208P	L2+ Managed 8-port 10/100/1000Base-TX (PoE+) + 2-port 100/1000Base-SFP Ethernet Switch with AC Power Input, 1U Rack-mount	AC100-240V	0 to +50℃
FR-5M3208BT	L2+ Managed 8-port 10/100/1000Base-TX (PoE++) + 2-port 100/1000Base-SFP Ethernet Switch with AC Power Input, 1U Rack-mount	AC100-240V	0 to +50℃

Optional Accessories (to be purchased separately)

SFP Optical Transceiver	
(S)=SFP Option	Please select your SFP on our SFP Modules page for details.

Shipping

Model No.	FR-5M3208P/FR-5M3208BT
Classification Codes	HS Code: 851762
	HTS: 8517.62.00
NDAA Compliant	Yes
Individual Gross Weight	0.86kg
Individual Package Dimension	201x171x73mm
Package Quantity	20 Units
Package Gross Weight	17.2kg
Package Dimension	422x385x375mm

Precautions

To prevent equipment damage or personal injury caused by improper operation, please observe the following precautions:

- Turn off the power before installation. Wear an anti-static wrist strap and ensure proper skin contact to prevent electrostatic discharge (ESD) damage.
- Ensure the power supply voltage matches the voltage specified on the switch.
- Before powering on the switch, verify that the power circuit is not overloaded to avoid abnormal operation or equipment damage.
- Do not open the chassis while the switch is operating. To avoid the risk of electric shock, do not disassemble the device.
- Disconnect the power before cleaning. Do not use a wet cloth or liquid cleaners.
- When installing in a rack, mount equipment from bottom to top to prevent overloading.
- Do not place heavy objects on the switch.