FIBERROAD®

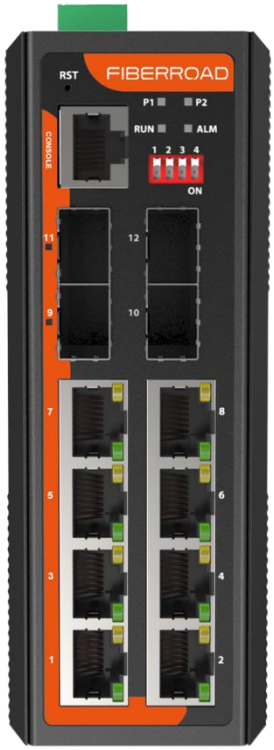
L2+ Managed Ethernet Switches

FR-7M3408P-24V

Industrial L2+ Managed 8-port 10/100/1000Base-TX (PoE+) + 4-port 100/1000Base-SFP Ethernet Switch with Redundant 24VDC Power Inputs

Product Data Sheet

FR-7M3408P-24V



Main Features

- 8x10/100/1000BASE-T Gigabit Ethernet RJ45
- 4x100/1000BASE-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.
- 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
- Wide operating temperature range -40 to 75℃ (-40 to 167℉)
- All-aluminum Case, Compact and Fanless Design

Overview

Fiberroad Low Voltage PoE Switches are designed to deliver both power and data over a single Ethernet cable, simplifying network deployment and eliminating the need for separate power supplies for devices such as IP cameras, VoIP phones, and wireless access points. This reduces installation complexity and streamlines network infrastructure.

With 24VDC power input support, these switches provide stable and efficient operation for low-voltage PoE applications. By utilizing existing Ethernet cabling, they enable cost-effective deployment and flexible network expansion.

Suitable for industrial and embedded applications, Fiberroad Low Voltage PoE Switches provide a practical solution where stable power delivery, simplified installation, and reliable network performance are required.

Hardware Specifications	
Product	FR-7M3408P-24V
Standards	IEEE 802.1p, IEEE 802.1Q, IEEE 802.3z, IEEE802.3ad, and IEEE 802.1x standards
Copper Ports	8x10/100/1000BASE-T RJ45 Auto-MDI/MDI-X (Port 1-8)
Fiber Ports	4x100/1000BASE-X SFP Slots (Port 9-12)
Console	1x RJ45-to-RS232 Serial Port(115200)
Connector	1 removable 6-contact terminal blocks Pin 1/2 for Power 1, Pin 3/4 for Power 2, Pin 5/6 for fault alarm
Alarm	One relay output for power failure, Alarm relay current carry ability: 1A@24V DC
RAM	128Mbyte
FLASH	32MByte
Reset Button	＜5 sec: System Reboot; ＞10 sec: Factory Default
Surge Protection	±6kV DC, ±6kV RJ45
Enclosure	IP40 aluminum case
Installation	DIN-Rail and Wall-mount
Dimension	138 x 108 x 49mm
Weight	700g(Bare weight), 800g(With package)
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
PoE & Power Supply	
PoE Ports	Port 1 to 8 IEEE802.3 af/at
PoE Power Supply Type	End-span
Power Supply Pin	1/2(+), 3/6(-)
Max Power Per Port	30W
Total PWR /Input Voltage	120W (24VDC)
Power Consumption	12 Watts Max (without PoE load)
Environmental	
Operating Temperature	-40℃~75℃ (-40 to 167 ℉)
Storage Temperature	-40℃~85℃ (-40 to 185 ℉)
Operating Humidity	5%~95% (non-condensing)
MTBF	907,476 hours @ Telcordia SR-332 Standard
Heat Dissipation	34 BTU/h (non-PoE mode), 853 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

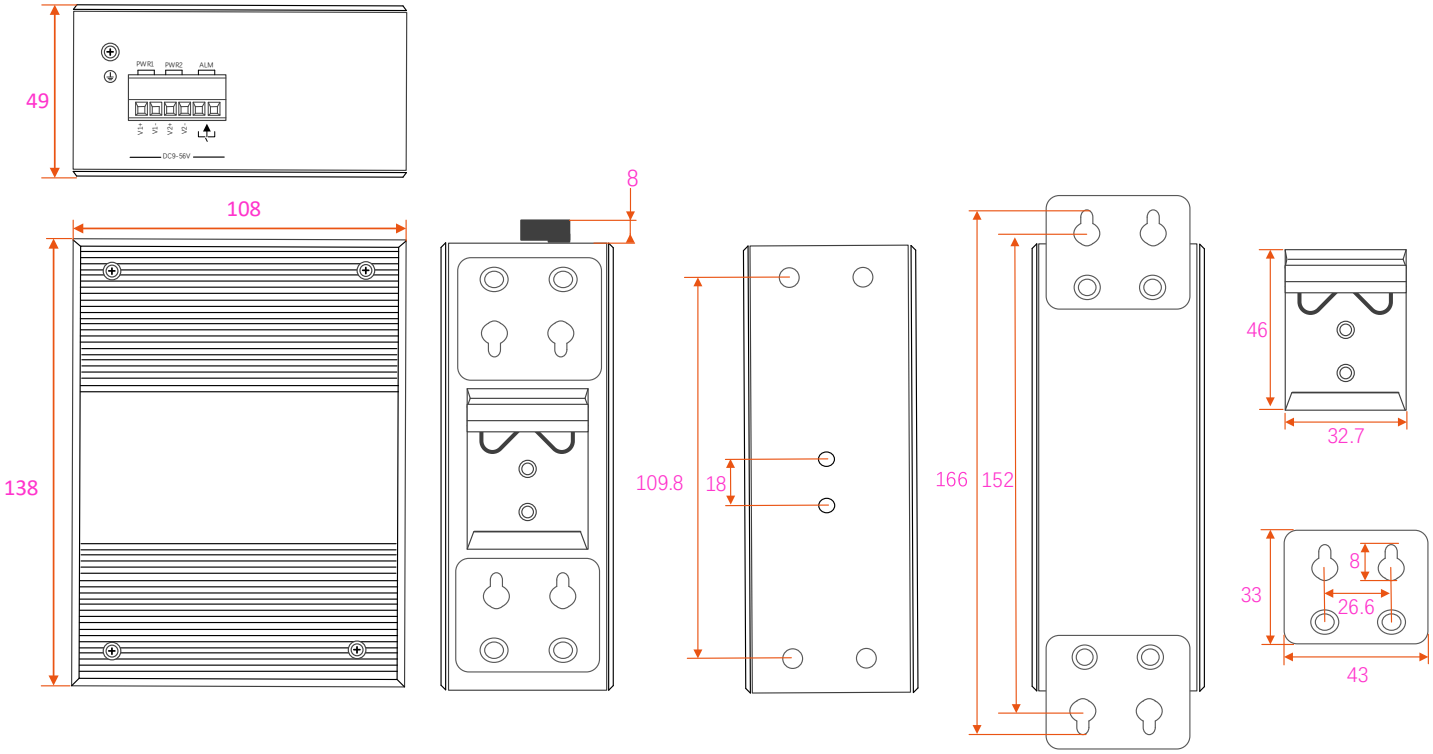
Software Features	
Layer 3 Functions	
IP Interfaces	Max. 8 VLAN interfaces
Routing Table	Max.32 routing entries
Routing	IPv4 software static routing
Management	
Basic Management Interface	Console; Telnet; Web browser; SNMPv1/v2c
Secure Management Interface	SSHv2, TLSv1.2, SNMPv3
System Management	Firmware 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 (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied.
RUN	Blinking	The system is running well
Link/ACT (1-12)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active
ALM	ON	Has alarm information
	OFF	No alarm information

Regulatory & Warranty	
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	5 Years, Details See: https://fiberroad.com/warranty

Package Contents	
Device	1x Industrial Ethernet Switch
Cable	1x DB9 female to RJ45
Installation Kit	1 x DIN-Rail Clip
Documentation	1 x Quick installation guide 1 x Warranty card

Dimensions Unit: mm



Ordering Information

Available Model	Description	Input Voltage	Operating Temp.
FR-7M3408P-24V	Industrial L2+ Managed 8-port 10/100/1000Base-TX (PoE+) + 4-port 100/1000Base-SFP Ethernet Switch with Redundant 24VDC Power Inputs	Dual DC24V	-40 to +75℃

Optional Accessories (to be purchased separately)

Power Supply	
FR-I-60-24	DIN-rail 24 VDC power supply with 60W/0.6A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-120-48	DIN-rail 48-58V VDC power supply with 120W/1.2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-240W-48	DIN-rail 48-55V VDC power supply with 240W/2A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-480W-48	DIN-rail 48-55V VDC power supply with 480W/4A, , 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
SFP Optical Transceiver	
(S)=SFP Option	Please select your SFP on our SFP Modules page for details.

Optional Accessories (to be purchased separately)

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

Shipping

Model No.	FR-7M3408P-24V
Classification Codes	HS Code: 851762
	HTS: 8517.62.00
NDAA Compliant	Yes
Individual Gross Weight	0.8kg
Individual Package Dimension	201x171x73mm
Package Quantity	20 Units
Package Gross Weight	17.6kg
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.