

FIBERROAD

Web Smart Industrial Ethernet Switch

Product Data Sheet



Web Smart Semi-industrial Ethernet Switch

Introducing the formidable FR-6S3204, a revolutionary Web Smart Industrial Ethernet Switch meticulously crafted by Fiberroad to cater to the ever-evolving demands of industrial networking applications. With its cutting-edge features and unparalleled performance, this marvel is undoubtedly the epitome of excellence in the field. Aptly dubbed as the LITE model, it boasts an exceptional design tailored specifically for small-scale industrial networking requirements while remaining impressively cost-effective. Embracing industry-leading technical standards, this incomparable switch guarantees a seamless and uninterrupted Ethernet transmission that exudes unrivaled quality. No challenge is too great for this remarkable creation; it stands tall as a beacon of reliability and stability in an era where connectivity reigns supreme. So buckle up and prepare yourself for an exhilarating journey into the world of smart industrial networking with FR-6S3204 – your game-changer in every sense!

Main Features

- 4x10/100/1000Base-T RJ45 ports, 2x100/1000Base-X SFP ports
- DIP Switch supports RSTP/VLAN/SPEED.
- Support 9K bytes giant frame, compatible with various extension protocol
- Support IEEE802.3az energy-efficient Ethernet technology
- Electric 4KV surge protection, easy to use in an outdoor environment
- Complete status indicator, working state at a glance
- Power input polarity protection design
- Aluminum case, no fan design
- Installation method: DIN Rail /Wall mounting
- Easy-to-use WebGUI management



Product Specifications

Ethernet Interface	
Ports	4x10/100/1000Base-T RJ45 ports, 2x100/1000Base-X SFP ports
Ports Mode(Tx)	Auto Negotiation Speed 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 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging
Packet Buffer Size	1M
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: 12Gbps
Forwarding rate	8.92Mpps
IGMP Group	256
VLAN ID Range	VID 1 to 4094

Transmission Distance	
SFP Port	Depends on optical module
RJ45 Port Transmission Distance	100m (using standard CAT5/CAT5e cable)

Power Information	
Supply Current	1.0A/48VDC
Working Voltage	9-56VDC
Overload Protection	Yes
Power Reverse	Support
Power Consumption	Full load<10W

DIP Switch	
#1	RSTP Enable/Disable (Default: Enable)
#2	VLAN Enable/Disable (Default: Disabled)
#3	SFP port fixed speed, ON as 100M (Default: 100/1000M Adaptive)

- Notes: 1. RSTP switches to the ON position, which indicates RSTP is in disabled status.
2. VLAN switches to the ON position, which indicates VLAN is in enabled status. All LAN ports are only able to communicate with the SFP uplinks when this option is enabled.
3. To take effect the DIP Switch function while the ethernet switch is in operation, there is need to reboot the Ethernet switch after tuning the DIP switch.

Product Specifications

Ethernet Software Features	
Redundant Network	IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
Multicast Support	Support IGMP Snooping V1
VLAN	Support IEEE 802.1Q 4K VLAN
QOS	Support Port, 1Q, ACL, DSCP, CVLAN, SVLAN, DA, SA
Diagnostic Maintenance	Support port mirroring, Ping
Management Function	WEB, SNMPv1
Security	Broadcast/Multicast Storm Protection, MAC filtering

Physical Characteristics	
Housing	Aluminum case
IP Rating	IP40
Dimensions	120mm x 90mm x 35mm (L x W x H)
Installation	DIN Rail/Wall Mount
Weight	350g

Environmental	
Operating Temperature	-20 to 70°C
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-40°C~85°C
MTBF	500,000 hours
Heat Dissipation	34 BTU/h 853 BTU/h
Cooling	Passive Cooling, Fanless Design
Noise Level	0 dBA
Electrostatic Discharge	Contact discharge: ±8kV Discharge in air: ±15kV
Surge Protection	Power Supply(Common mode): ±4kV/DM ±2kV RJ45 Port: ±2kV

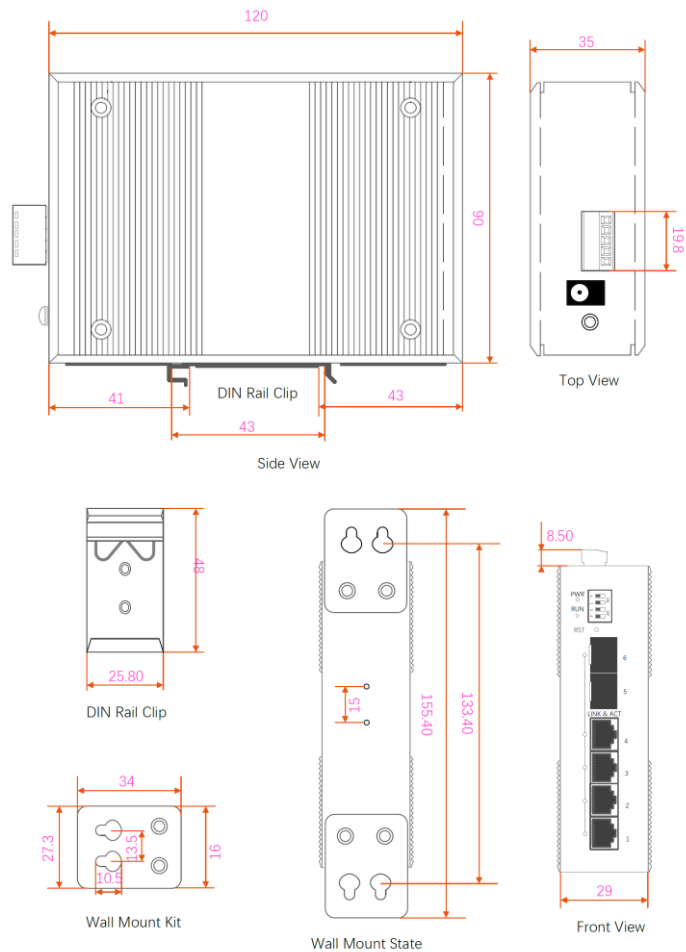
LED	State	Description
PWR	ON	Power is being supplied
	OFF	Power is not being Supplied.
RUN	Blinking	The system is running well
Link/ACT (1-6)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.

Product Specifications

Regulatory & Warranty	
Safety	IEC/EN 62368-1
EMI	EN55032 Class A, CISPR 32 FCC Part 15B Class A
EMS	EN61000-4-2 (ESD) EN61000-4-3 (RS) EN61000-4-4 (EFT) EN61000-4-5 (Surge) EN61000-4-6 (CS) EN61000-4-8 (PFMF)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS
Warranty	5 Years, Details See: www.fiberroad.com

Package Contents	
Device	1x Industrial Ethernet Switch
Installation Kit	2 x Caps, plastic, for SFP Slots Or 2 x Caps, plastic, for SC fiber port Or 2 x Caps, plastic, for ST fiber port 2x Wall-Mount Kits 1x DIN Rail Buckle
Documentation	1 x Quick installation guide 1 x Warranty card 1x Product notice

Dimensions Unit: mm



Accessories(Sold Separately)

Power Supply	
FR-I-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
FR-I-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

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

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Outdoor 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	10/100Base-T(X), RJ45	10/100/1000Base-T(X), RJ45	100/1000Base-X Port	Optical Port Connector Option	Input Voltage	Operating Temp.
FR-6S3204	—	4	2	LC	DC9-56V	-20 to +70°C
FR-6S3208	—	8	2	LC	DC9-56V	-20 to +70°C

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

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