

FIBERROAD

# SMART INDUSTRIAL ETHERNET SWITCH **LITE**

Product Data Sheet



# Web Smart Industrial Ethernet Switch

Introducing the formidable FR-7S3204, 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.

## Main Features

- 4x10/100/1000Base-T RJ45 ports,
- 2x1000Base-X SFP ports
- Optionally support PoE/PoE+/PoE++ standard
- Support IEEE802.3x full duplex flow control and Backpressure half duplex flow control.
- Support IEEE802.3az energy-efficient Ethernet technology.
- Supports the WEB management mode, which is simple and efficient, and facilitates installation and commissioning by engineering and maintenance personnel
- Complete status indicator, working state at a glance.
- Supports port traffic statistics, port monitoring, cable detection, and loopback protection.
- Power input polarity protection design
- -20°C to +70°C Operating Temperature
- ±4kV DC, ±2kV RJ45 surge protection
- Dual DC9-56V power input
- Aluminum case, no fan design



# Product Specifications

Ethernet Interface		
Mode	FR-7S3204	FR-7S3204P/BT
Ports	4x10/100/1000Base-TX RJ45 ports+2x100/1000Base-X SFP ports	
Port 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	
Packet Buffer Size	2M	
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	
IGMP Group	256	
VLAN ID Range	VID 1 to 4094	

## PoE & Power Supply

Model	FR-7S3204P	FR-7S3204BT
PoE Ports	Port 1 to 4 IEEE802.3af/at @PoE+	Port 1 to 4 IEEE802.3af/at/bt @PoE++
Power Supply Pin	Default: 1/2(+), 3/6(-)	Default: 1/2(+), 3/6(-), 4/5(+), 7/8(-)
Max Power Per Port	30W	90W
Total PWR /Input Voltage	120W(DC48-56V) (Model dependent)	200W(DC52-56V) (Model dependent)
Power Consumption	6 Watts Max(without PoE load)	
Power Inputs	2	
Input Voltage	9-56VDC,Redundant dual inputs	
Operating Voltage	Non-PoE Mode: 9-56VDC 30W PoE Mode: 48-56VDC 90W PoE Mode: 52-56VDC(IEEE802.3bt model)	
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	

## 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 a need to reboot the Ethernet switch after tuning the DIP switch.

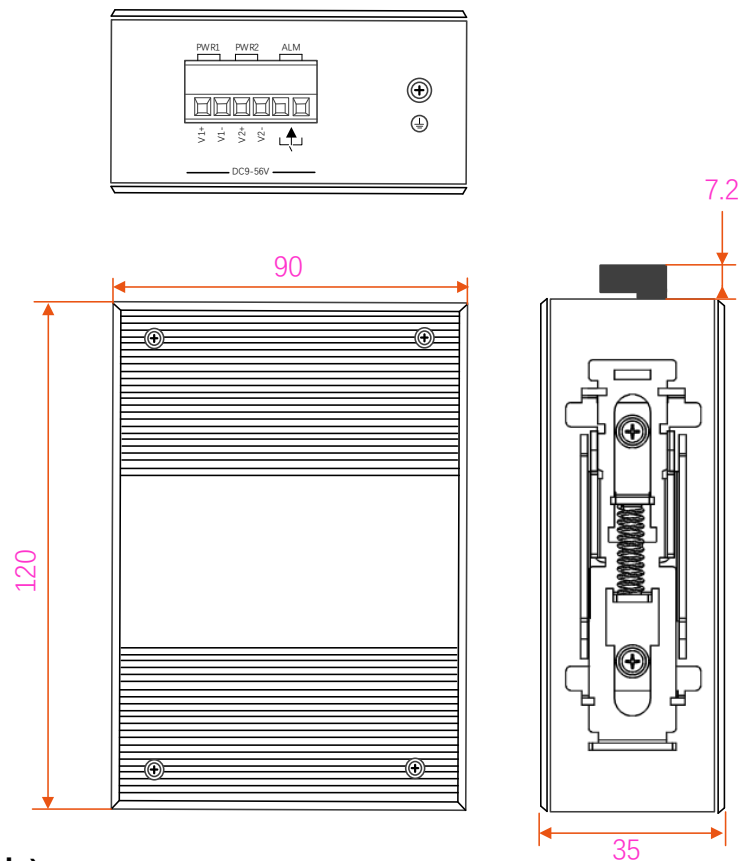
## Package Contents

Device	1x Industrial Ethernet Switch
Installation Kit	1x DIN Rail Buckle
Documentation	1 x Quick installation guide 1 x Warranty card

# Product Specifications

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	-40 to 75°C	
Operating Humidity	5%~95% (non-condensing)	
Storage Temperature	-40°C~85°C	
MTBF	907,476 hours @ Telcordia SR-332 Standard	
Heat Dissipation	34 BTU/h (Non-PoE Mode) 1262 BTU/h (with 360W PoE Load)	
Cooling	Passive Cooling, Fanless Design	
Noise Level	0 dBA	
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	
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.
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: <a href="http://www.fiberroad.com">www.fiberroad.com</a>	

**Dimensions**      Unit: mm



**Accessories(Sold 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**

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 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	100/1000Base-X Port	Optical Port Connector Option	PoE Standard	Input Voltage	Operating Temp.
FR-7S3204	4	2	LC	—	DC9-56V	-40 to +75°C
FR-7S3204P	4	2	LC	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7S3204BT	4	2	LC	IEEE802.3af/at/bt	DC9-56V	-40 to +75°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

## Shipping

Model No.	FR-7S3204	FR-7S3204P	FR-7S3204BT
Classification Codes	HS Code: 851762		
	HTS: 8517.62.00		
NDA Compliant	Yes		
Individual Gross Weight	480g	500g	
Individual Package Dimension	175x153x43mm		
Package Quantity	50 Units		
Package Gross Weight	24kg	25.6kg	
Package Dimension	540x315x430mm		

## For more information

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