

FIBERROAD

Web Smart Ethernet Switches

FR-7S3204 • FR-7S3204P • FR-7S3204BT

Industrial Lite-Managed 4-port 10/100/1000Base-TX (Non-PoE/PoE+/PoE++)
+ 2-port 1000Base-SFP Ethernet Switch with Redundant DC Power Inputs

Product Data Sheet



FR-7S3204 • FR-7S3204P • FR-7S3204BT

Main Features



- Compact all-aluminium housing with fanless design
- Wide operating temperature range from -40°C to 75°C for stable performance in harsh environments
- DIP switch configuration for RSTP / VLAN / Speed settings
- Supports IEEE 802.3af/at/bt PoE standards with protection for non-PoE devices
- Supports 9K jumbo frames for compatibility with extended network protocols
- Supports IEEE 802.3az Energy-Efficient Ethernet (EEE)
- Integrated surge protection for improved reliability in outdoor installations
- LED status indicators for quick system and port status monitoring
- Power input polarity protection design
- DIN-rail or wall-mount installation
- User-friendly WebGUI management interface

Overview

Fiberroad Web Smart Ethernet Switches are designed for industrial networking applications requiring reliable and cost-effective connectivity, making it suitable for small industrial networks. The switch supports efficient Ethernet data exchange, traffic aggregation, and long-distance fiber transmission, providing stable bandwidth and dependable fiber-optic network performance.

Featuring an industrial-grade design, the FR-7S3204 series offers fanless operation, low power consumption, high reliability, and simplified maintenance. Built with mature switching technology and open networking standards, it ensures stable operation in industrial environments.

The switch withstands harsh conditions including electromagnetic interference, vibration, and salt-fog environments, and operates within a wide temperature range of -40°C to 75°C with IP40 protection. Supporting standard 19-inch rack-mount installation, the FR-7S3204 series is well suited for deployment in demanding environments such as factories, transportation systems, and outdoor installations.

| Ethernet | | |
|-----------------------|---|---------------|
| 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 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 | 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 | Max 480W@dual 52VDC inputs | |
| Power Consumption | 3 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 | |
| Protection | Overload Current Protection, Reverse Polarity Protection | |

| Software Features | |
|---------------------------|--|
| Redundancy Protocol | Support STP/RSTP |
| Multicast Support | Support IGMP Snooping V1 |
| VLAN | Support IEEE 802.1Q 4K VLAN, Port Isolation, Trunk Group Setting |
| QOS | Support Port, 1Q, ACL, DSCP, CVLAN, SVLAN, DA, SA, Port Priority, Queue Weight |
| Diagnostic Maintenance | Support port mirroring, Port Statistics, Cable Diagnostic |
| Management Function | WEB, SNMPv1, EEE, Green Ethernet |
| Security | Broadcast/Multicast Storm Protection, MAC filtering, MAC Constraint |
| PoE Management(PoE Model) | PoE Mode, State and Power Monitoring |
| Advance Functions | Bandwidth Control(Ingress and Egress Rate), Jumbo Frame, Firmware Online Upgrade, Configuration Backup |

| 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 |

| 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. |

| 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.

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



