

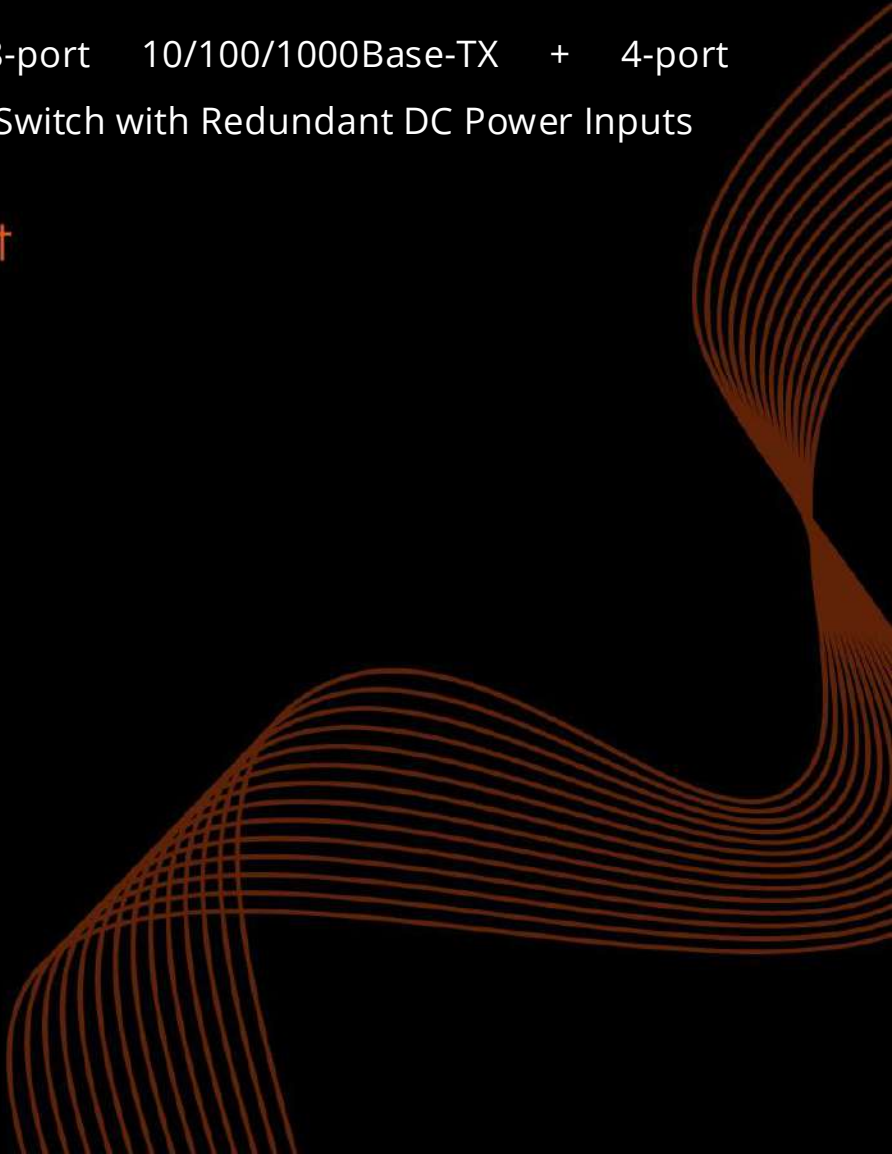


L3 Managed Ethernet Switches

FR-7T4408

Industrial L3 Managed 8-port 10/100/1000Base-TX + 4-port
1000M/10GBase-SFP Ethernet Switch with Redundant DC Power Inputs

Product Data Sheet



FR-7T4408



Main Features

- Layer 3 Model support OSPFv2, RIPv2, Static Route
- Support both IPv4/IPv6 applications
- LLDP, LLDP-MED protocol suitable for IIoT Applications
- TACACS+, SNMPv3, IEEE 802.1X, HTTPS and SSH to enhance network security
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning
- Support Voice VLAN and Surveillance VLAN
- Link Aggregation, STP/RSTP/MSTP/ERPS for network redundancy
- ROMON for proactive and efficient network monitoring
- Fanless, IP40 Rating, -40 ° C ~ 75°C operation temperature design to ensure that the equipment adapts to a variety of harsh environments
- Redundant dual DC/AC power supplies are optional, anti-reverse connection, overcurrent protection

Overview

FR-7T4408 is a multi-port, Layer 3 Industrial Managed Ethernet Switch, independently developed by Fiberroad for industrial ethernet applications. This product is equipped with 8*Gigabit Ethernet ports ,2*1.25G/10G and 2x1.25G/2.5G/10G SFP/SFP+ Ports, supports Layer 3 routing functionality to facilitate the deployment of applications across networks, and adopts industry-leading technical standards and can provide stable and reliable Ethernet transmission with high-quality design and reliability.

Industrial Ethernet Switch adopts mature technology and open network standards, adapt to low temperature and high temperature, substantial anti-electromagnetic interference, anti-salt fog, anti-vibration and anti-shake, and is equipped with a redundant dual power supply (AC/DC), which can offer redundant mechanisms for critical applications that need always-on connections. It can also operate at a standard operating temperature range of -40 to 75°C. Industrial Ethernet switches support standard 19" rack mounts with IP40 protection. They are perfect for harsh environments, such as industrial networking and intelligent transportation systems (ITS). They are also suitable for military and utility market applications where environmental conditions exceed commercial product specifications.

Ethernet Interface	
Model	FR-7T4408
Ports	2×1G/2.5G/10 Gigabit SFP (Port 9 and Port 11) 2×1G/10 Gigabit SFP+ (Port 10 and Port 12) 8×10/100/1000M Base-TX
Port Mode(Tx)	Auto-Negotiation 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 802.3bz for 2.5G Ethernet IEEE 802.3ae for 10 Gigabit Ethernet IEEE 802.3x for flow control IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1X for authentication IEEE 802.3ad for Port Trunk with LACP
Packet Buffer Size	12Mbits
Maximum Packet Length	Up to 10K
MAC Address Table	16K
Transmission Mode	Store and Forward (full/half duplex mode)
Exchange Property	Delay time: < 7μs Backplane bandwidth: 128Gbps
IGMP Group	4096
Max. No. of VLAN	256
VLAN ID Range	VID 1 to 4094

Power Supply	
Power Consumption	16 Watts Max
Power Inputs	2
Input Voltage	9-56VDC, Redundant dual inputs
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

Management Interface	CLI(Console/Telnet(RFC854)), WebUI(HTTPS), SNMPv3
Management	ARP, Flow Control, DDM, DHCP Server/Client, IPv4/IPv6, LLDP, LLDP-MED, UDLD, Port Mirror, RMON, SNMPv1/v2c/v3, Syslog, Telnet,
File Management	Firmware Upgrade/Backup, Dual Images, Configuration Download/Backup, Multiple Configuration, TFTP(RFC783), HTTP, UART
Management Access	Management VLAN, Management ACL(256)
Filter	802.1Q, GMRP, GVRP, IGMP Snooping v1/v2/v3, IGMP Querier V2/V3 QinQ VLAN
Redundant Network	Link Aggregation, STP/RSTP/MSTP/ERPSv2, Auto Edge Port, BPDU Filtering, Self Loop Detection
VLAN	Support IEEE 802.1Q 4K VLAN, QINQ, Double VLAN, Voice LAN, Surveillance VLAN(Auto/Manual), Multicast VLAN Registration(MVR)
Time Management	Local, SNTP, NTP
Unicast Routing	OSPFv2, RIPv1/v2, Static Route
QOS	Support Queue Scheduling(WRR, WFQ, Strict Priority , Hybrid(WRR+SP or WFQ+SP); Priority Queue(8 queues/port); Class of Service(Port-based, 802.1p, IP TOS Precedence, IP DSCP), Trusted QoS, Rate Limitation
ACL Type	L2/L3/L4, MAC-based, IPv4-based, IPv6-based
Diagnostic Maintenance	Support port mirroring, Syslog, Ping
Security	Broadcast Storm Control, HTTPS/SSLv2v3,TLSv1 RADIUS, TACACS+,AAA SSHv1/v2,Support DHCP Snooping, Option 43/82, 802.1X security access, Support user hierarchical management, ACL access control list, Support DOS, port-based MAC filtering/binding, MAC whitelist
MIB	Ethernet-like MIB, MIB-II, MIB-I, Bridge MIB, Bridge MIB extensions, RMON MIB(1,2,3 & 9 groups, RFC2737 Entity, RFC2863 Interface Group, SNMP-Community-MIB

Physical Characteristics

Housing	Aluminum case
IP Rating	IP40
Dimensions	138mm x 108mm x 49mm (L x W x H)
Installation	DIN Rail/Wall Mount
Weight	680g

Environmental

Operating Temperature	-40°C~75°C (-40 to 167 °F)
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-40°C~85°C (-40 to 185 °F)
MTBF	1,043,909 hours @ Telcordia SR-332 Standard
Heat Dissipation	34 BTU/h
Cooling	Passive Cooling, Fanless Design
Noise Level	0 dBA

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.
RJ45 Port Speed	ON	1000M is running
	OFF	No 1000M is running
ALM	ON	Has alarm information
	OFF	No alarm information

Certification Standard

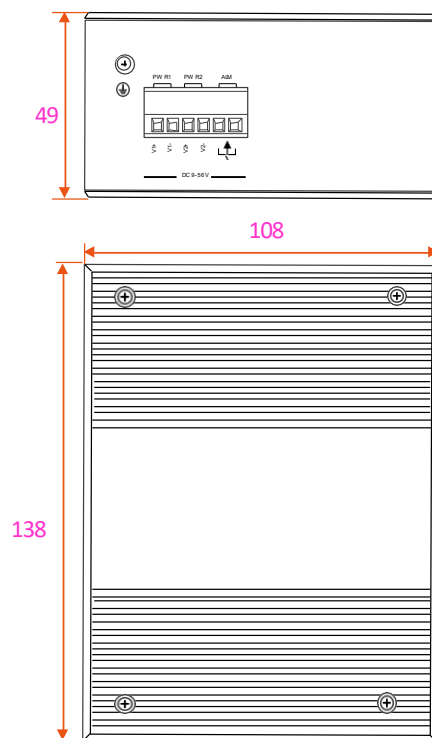
EMC/EMI/EMS	FCC Part15 Class A
	CE-EMC/LVD
	RoHS
	EN61000-4-2 (ESD):LEVEL 4
	IEC 6100-4-2 (EFT):LEVEL 4
	IEC 6100-4-2 (Surge): LEVEL 4
Shock	IEC 6100-4-2 (CS) : LEVEL 3
	IEC 61000-4-2(PFMP) : LEVEL 5
Vibration	EN61000-4-3 (RS):LEVEL 4
Freefall	IEC60068-2-27
Safety	IEC60068-2-6
	IEC60068-2-31
	EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1, UL 508

Package Contents

Device	1x Industrial Ethernet Switch
Cable	1xDB9 female to RJ45
Installation Kit	1x DIN-Rail Clip 2x Wall-Mount Kits
Documentation	1 x Quick Start Guide 1 x Warranty card 1x Product notice

Dimensions

Unit: mm



Ordering Information

Available Model	Description	Input Voltage	Operating Temp.
FR-7T4408	Industrial L3 Managed 8-port 10/100/1000Base-TX + 4-port 1000M/10GBase-SFP Ethernet Switch with Redundant DC Power Inputs	Dual DC9-56V	-40 to +75°C

Optional Accessories (to be purchased 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	
(S)=SFP Option	Please select your SFP on our SFP Modules page for details.
Armored Fiber Patch Cable / LAN Cable	
FRPCA-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 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.