

FIBERROAD

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet



Unmanaged Industrial Ethernet Switch

The Unmanaged Industrial Ethernet Switch is designed for small business network applications. It provides you with an easy way to make the access point to Gigabit Ethernet. This switch features a robust design making it ideal for deployment in industrial and outdoor surveillance settings, capable of withstanding the harshest environments. In addition, the switch is Plug-and-Play, allowing for effortless and swift deployment. The Industrial switch can optionally support DIN-Rail mounting or Wall mounting, thus suitable for various installation methods. LEDs provide visual monitoring of Ethernet-connected devices such as IP cameras, wireless access points, or PC/laptops via twisted-pair RJ45 ports.

Main Features

- ❖ Support up to 8 ports x 10/100Base-T or 10/100/1000Base-T
- ❖ Full/Half-duplex self-adaptation
- ❖ MDI/MDIX automatic recognition
- ❖ Optionally support IEEE 802.3af/at/bt PoE Standard, without damaging not-PoE devices.
- ❖ Jumbo Frame up to 10K, 20G backplane bandwidth
- ❖ Operating temperature -40 to 75°C
- ❖ Wide-range DC9~56V power input
- ❖ Support power input polarity protection; no worries about the reverse connection
- ❖ All-Aluminium shell, fanless design
- ❖ Free fall, shock-proof and vibration-proof for industries
- ❖ Plug and play; no software configuration.



It offers and realizes Ethernet data exchange with efficient bandwidth for users. The industrial switch complies with various characteristics such as no fan, low power consumption, high reliability and stability, and ease of maintenance.

Industrial Ethernet Switch adopts mature technology and open network standards, adapt to low temperature and high temperature, strong anti-electromagnetic interference, anti-salt fog, anti-vibration and anti-shake, equipped with a redundant dual power supply, which can offer redundant mechanisms for critical applications that need always-on connections. It can also operate either at the standard operating temperature range of -40 to 75°C.

Product Specifications

Ethernet Interface		
	FR-7N1008	FR-7N3008
Ports	8x10/100Base-TX Port(RJ45)	8x10/100/1000Base-TX Port(RJ45)
Port Mode(Tx)	Auto Negotiation Full/Half Duplex Mode Auto MDI/MDI-X Connection	
Standards	IEEE 802.3 for Ethernet IEEE 802.3u for Fast Ethernet IEEE 802.3x for flow control and back pressure	IEEE 802.3 for 10BaseT IEEE 802.3u for Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x for flow control and back pressure
Packet Buffer Size	1M	2M
Maximum Packet Length	10K	9K
MAC Address Table	4K	4K
Transmission Mode	Store and Forward (full/half duplex mode)	
Exchange Property	Delay time: < 7μs Backplane bandwidth: 2G	Delay time: < 7μs Backplane bandwidth: 20G

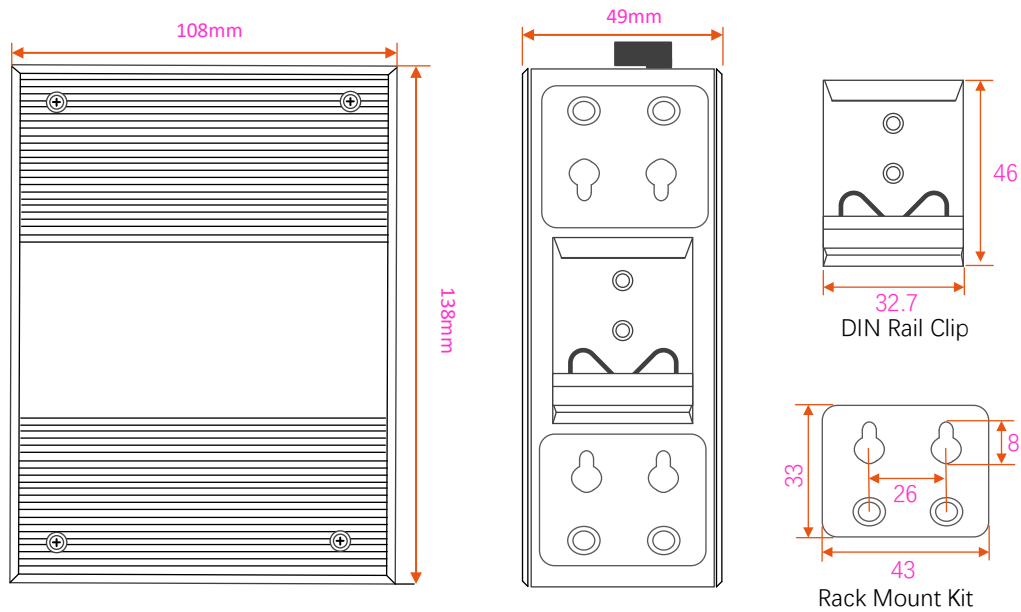
LED	State	Description
PWR (P1&P2)	ON	Power is being supplied
	OFF	Power is not being Supplied.
Link/ACT (1-8)	ON	Port connection is active
	Blinking	Data transmitted
	OFF	Port connection is not active.

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	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

Product Specifications

PoE & Power Supply		
Model	FR-7N1008P/FR-7N3008P	FR-7N1008BT/FR-7N3008BT
PoE Ports	Port 1 to 8 IEEE802.3af/at @PoE+	Port 1 to 8 IEEE802.3af/at/bt @PoE++
Power Supply Pin	Default: 1/2(+), 3/6(-)	Default: 1/2(+), 3/6(-) or 4/5(+), 7/8(-)
Max Power Per Port	30W	90W
Total PWR /Input Voltage	240W(DC48-56V) (Model dependent)	480W(DC52-56V) (Model dependent)
Power Consumption	10 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	
Warranty		
MTBF	360,000 Hours, Standard: Telcordia(Bellcore), GB	
Defects Liability Period	5 years warranty, lifetime technical support See Warranty and Repair https://fiberroad.com/en/supports/support-services/warranty-and-repair-policy/Policy	
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 IEC 6100-4-2 (CS): LEVEL 3 IEC 61000-4-2(PFMP) : LEVEL 5 EN61000-4-3 (RS):LEVEL 4	
Shock	IEC60068-2-27	
Vibration	IEC60068-2-6	
Freefall	IEC60068-2-31	
Safety	EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1, UL 508	
Package Contents		
Device	1x Industrial Ethernet Switch	
Installation Kit	1x DIN-Rail Clip 2x Wall-Mount Kits	
Documentation	1 x Quick installation guide 1 x Warranty card 1x Product notice	

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/Base-T(X), RJ45	10/100/1000Base-T(X), RJ45	PoE Standard	Input Voltage	Operating Temp.
FR-7N1008	8	—	—	DC9-56V	-40 to +75°C
FR-7N1008P	8	—	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7N1008BT	8	—	IEEE802.3af/at/bt	DC9-56V	-40 to +75°C
FR-7N3008	—	8	—	DC9-56V	-40 to +75°C
FR-7N3008P	—	8	IEEE802.3af/at	DC9-56V	-40 to +75°C
FR-7N3008BT	—	8	IEEE802.3af/at/bt	DC9-56V	-40 to +75°C

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For more information

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