

FIBERROAD

UNMANAGED INDUSTRIAL ETHERNET SWITCH

Product Data Sheet



FR-6N3005

FR-6N3005 is a 5x10/100/1000Mbps Ethernet switch, which is designed for the small business network application. 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. FR-6N3005 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/laptop via 10/100/1000Base-T twisted-pair RJ45 ports on FR-6N3005.

Main Features

- Support up to 5 ports x 10/100/1000Base-T
- Full/Half-duplex self-adaptation
- MDI/MDIX automatic recognition
- Jumbo Frame:9K, 20G backplane bandwidth
- Support IEEE802.3AZ high-efficiency energy-saving technology
- 4KV anti-static protection, easy to deal with outdoor environment applications
- Working temperature -20 to 70°C
- Wide-range DC9~56V power input
- Support power input polarity protection, no worries about the reverse connection
- Aluminium shell, fanless design
- Plug and play, no software configuration needed



It offers and realizes Ethernet data exchange, convergence and long distance optical transmission with efficient bandwidth and reliable fiber optic network solutions for users. The industrial switch complies with various characteristics such as no fan, low power consumption, high reliability and stability, and easy to maintain.

Industrial Ethernet Switch adopt 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 redundant dual power supply (AC/DC), which can offer redundant mechanisms for critical applications that need always-on connections. It can also operate either at standard operating temperature range -20 to 70°C. Industrial switches support standard 19" rack mounts with IP40 protection and are perfect choices for harsh environments.

Product Specifications

| Ethernet Interface | |
|---------------------------------|--|
| Ports | 5x10/100/1000Base-TX Ports(RJ45 connector) |
| 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 IEEE802.3az for Energy Efficient Ethernet IEEE802.1q for VLAN IEEE802.1x for Port Based Network Access Control |
| Packet Buffer Size | 1M |
| Maximum Packet Length | 10K |
| MAC Address Table | 4K |
| Transmission Mode | Store and Forward (full/half duplex mode) |
| Exchange Property | Delay time: < 7 μ s Backplane bandwidth: 12Gbps |
| Physical Characteristics | |
| Housing | Aluminium case |
| IP Rating | IP40 |
| Dimensions | 120mm x 90mm x35mm (L x W x H) |
| Installation Mode | DIN Rail/Wall Mount |
| Weight | 320g |
| Working Environment | |
| Operating Temperature | -20°C to + 70°C (-4 to 158 °F) |
| Operating Humidity | 5%~90% (non-condensing) |
| Storage Temperature | -40°C~85°C (-40 to 185 °F) |
| LED Indicator | |
| Power | Connect-always |
| RJ45 | Link/Act: connect-always; data exchange-twinkle |
| Fiber | Link/Act: connect-always; data exchange-twinkle |
| Power Information | |
| Redundant Power Input | DC 9-56V |
| Connector | 5 PIN Phoenix Terminal |
| Overload Protection | Yes |
| Power Reverse | Support |
| Power Consumption | Full Load<3W |

Product Specifications

| Warranty | |
|--------------------------|--|
| MTBF | 360,000 Hours |
| Defects Liability Period | 5 years warranty, lifetime technical support |

| 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 |

Accessories(Sold Separately)

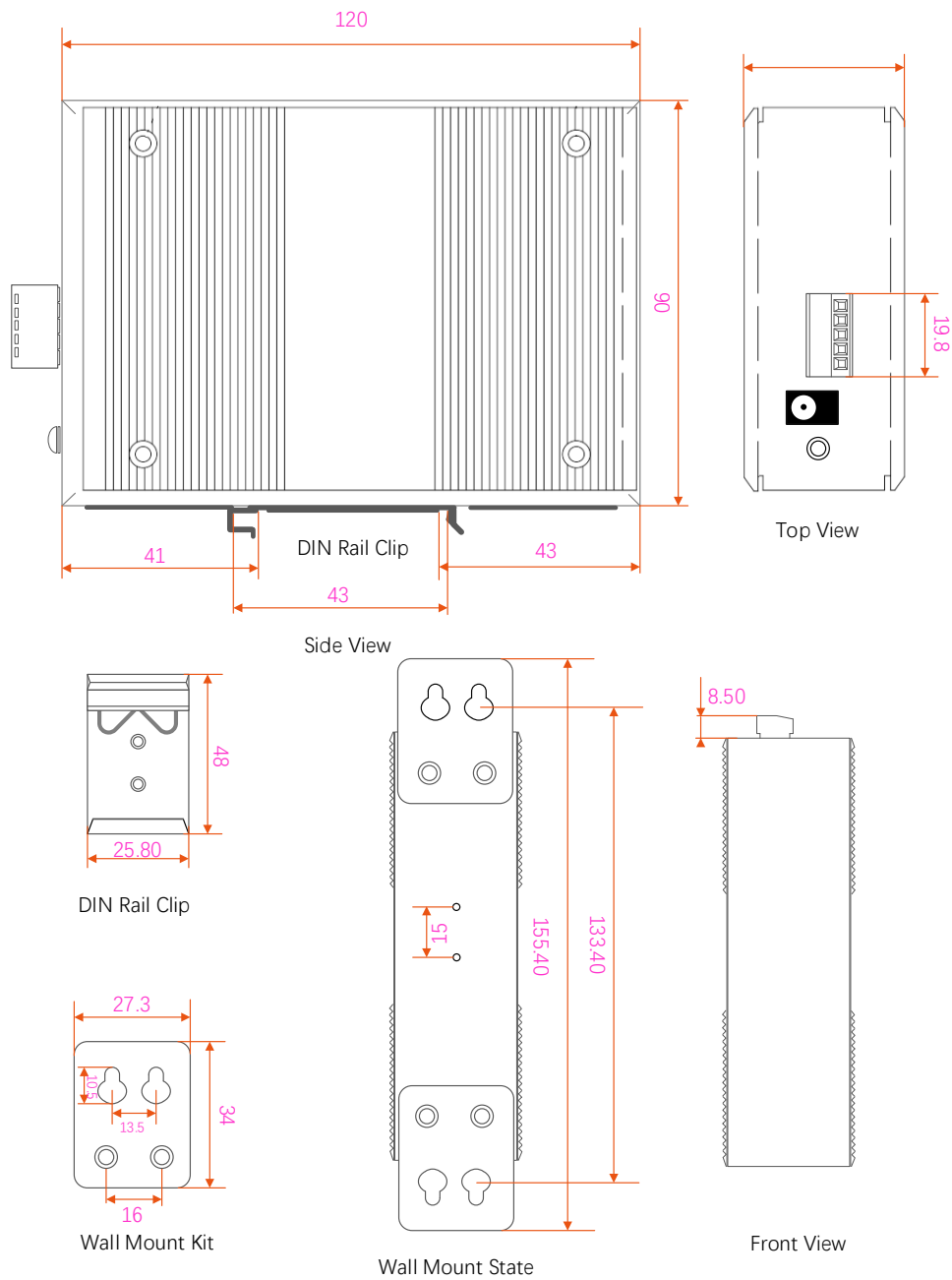
| Power Supply | |
|---------------------|---|
| FR-I-40-24 | DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature |
| FR-I-60-24 | DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature |
| FR-45-24 | 45W/2A DIN-Rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature |
| FR-75-24 | 75W/3.2A DIN-Rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°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 |

| 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



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-6N3005 | — | 5 | — | LC | DC9-56V | -20 to +70°C |
| FR-6N3008 | — | 8 | — | LC | DC9-56V | -20 to +70°C |
| FR-6N3104 | — | 4 | 1 | 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 Smart Industrial Ethernet series products, Visit <https://www.fiberroad.com> or contact your local account representative.