

# L3 Managed Industrial Switch

## FNS420-48TF4-TGB-SFP-A

Din-Rail

Terminal Block

## Introduction

FNS420-48TF4-TGB-SFP-A is a high performance 10G SFP+ L3 core switch. It provides Static routing and dynamic routing with advanced hardware processing capacity. Supports up to 4 Port 10G SFP+and 8 Gigabit electrical ports, and retains the expansion ability to further support 10GE when realizing gigabit convergence or access. It supports IPv4/IPv6 hardware double stack and line speed forwarding, so that customers can easily cope with the coming IPv6 era, which provides high capacity exchange capacity. FNS420-TGB-A has the operating temperature of -40℃ ~ 75℃, has the super firmness to adapt to all kinds of harsh environment, can also be very convenient to install in the machine room cabinet. The rack-mounted characteristics and wide temperature operation make the switch a plug and play industrial-grade device, providing a reliable and convenient solution for users to network their Ethernet devices.

### Industrial-grade Design

- Metal casing,
- Wide range operating temperature (-40ºC~75ºC)

### Stability & Reliability

- Support QoS (IEEE 802.1p/1Q) and TOS/DiffServ to increase network stability

### Standard & Convenience

- Support STP/RSTP/ERPS, SNMPv1/v2/v3 to ensure network security
- Support DIN rail
- Support POE (Optional)

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High Performance

- Data control: support 802.3x full duplex flow control, support network storm suppression
- Redundant network: support STP/RSTP/MSTP, support ERPS (self-healing time <20ms)
- Support IPv6, static routing, Dynamic routing (RIP,OSPF)
- Support RIPng, OSPFv3, DHCP Server, DHCP replay, Qos
- Multicast management: Support IGMP Snooping V1/V2/V3
- VLAN: support IEEE 802.1q VLAN, effectively isolated broadcast domain
- Link aggregation: support link static/dynamic aggregation, provide perfect bandwidth utilization
- QoS: Support COS\DSCP, 4 queues, support WRR\SP scheduling mode
- Security management: support ACL access control list, support 802.1x, support user classification management
- Management function: support Web, SNMP management mode
- Monitoring maintenance: support port mirroring, interface status monitoring, log management
- Support PTP（1588v2）

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## Production Specification

| Standard | |
|---|---|
| Model | FNS420-TGB-A |
| Item | Content |
| **Ethernet Standard** | IEEE 802.3ad, Link aggregation protocol;<br>IEEE 802.3,10BASE-T Ethernet;<br>IEEE 802.3u, Fast Ethernet standard;<br>IEEE 802.3ab, Gigabit Ethernet standard;<br>IEEE 802.3z, Gigabit Ethernet fiber standard;<br>IEEE 802.3ae, 10G Ethernet standard;<br>IEEE 802.3x, full duplex Ethernet Data link layer flow control;<br>IEEE 802.3az, IEEE Efficient and Energy Efficient Ethernet Standard |
| **Industry Standard** | EMI：FCC Part 15 Subpart B Class A，EN 55022 Class A<br>EMC:<br>IEC(EN)61000-4-2(ESD): ±6kV Contact discharge, ±8kV Air discharge<br>IEC(EN)61000-4-3(RS) : 10V/m(80 ~ 1000MHz)<br>IEC(EN)61000-4-4(EFT): ethernet port: ±2kV CM//±1kV DM.<br>IEC(EN)61000-4-5(Surge): ethernet port: ±2kV CM//±1kV DM.<br>IEC(EN)61000-4-6(Radio frequency conduction) : 3V(10kHz ~ 150kHz),10V(150kHz ~ 80MHz)<br>IEC(EN)61000-4-16(Common mode conduction): 30V cont. 300V,1s<br>IEC (EN)61000-4-8<br>Shock：IEC 60068-2-27<br>Freefall：IEC 60068-2-32<br>Vibration：IEC 60068-2-6 |

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## Switching Characteristics

| Model | FNS420-TGB-A |
|---|---|
| **Item** | Content |
| **Buffer Memory** | 64Mbit |
| **Transmission Method** | Store-and-forward |
| **Backplane Bandwidth** | 598G |
| **Switching Latency** | <10μs |
| **MAC Address** | 32K |
| **Item** | Content |
| **Input Voltage** | 12 to 52V DC ， POE：48 to 57V DC |
| **Access Terminal** | Phoenix terminal block |
| **Characteristics** | Support dual power supply redundancy<br>Support built-in over-current protection<br>Support reverse connection protection with 4.0 A |
| **Operating Environment** | |
| **Item** | Content |
| **Operating Temperature** | -40 ºC ~75ºC |
| **Storage Temperature** | -40 ºC ~85ºC |
| **Relative Humidity** | 5~95% (Non-condensing)) |
| **Interfaces** | |
| **Item** | Content |
| **SFP Slot** | Number：4-Port 10G SFP+<br>Type：1000BaseFX port (SFP slot),10GBaseFX port (SFP+ slot) |
| **Ethernet Port** | Number：8-Port gigabit RJ45<br>Type：RJ45, 10/100/1000M automatic detection, full/half duplex MDI/MDI-X adaptive |
| **Optical Fiber** | Support single-mode/multi-mode fiber<br>Multi-mode fiber: 550M<br>Single-mode optical fiber: 20/40/60/80/100KM |

## POE Standard（Optional）

| Item | Content |
|---|---|
| **PoE Standard** | IEEE802.3af/ IEEE802.3at |
| **PoE Port** | 1-8 port support PoE |
| **Output Power** | Single port maximum power 15.4 W (IEEE 802.3 af)<br>30 W (IEEE 802.3 at) |

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| Other | |
|---|---|
| Model | FNS420-TGB-A |
| **Item** | **Content** |
| **Shell** | metal casing |
| **Characteristic** | Support the Console, Telnet, SSH, WEB management<br>Support SNMP v1 / v2c/v3 |
| **Dimension** | 175.6 x 135 x45.5mm |
| **Weight** | <1Kg |
| **Installation Method** | DIN rail |
| **Heat-dissipating Method** | Natural cooling, no fan |
| **Redundant Technology** | Support STP/RSTP/MSTP<br>Support ERPS |
| **Multicast Technology** | MLD Snooping v1/v2,Multicast VLAN Registration (MVR)<br>IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out |
| **Switching Function** | Support the port speed limit<br>Support port truck<br>Support port flow control<br>port VLAN, IEEE 802.1 Q VLAN<br>Support broadcast storm suppression<br>Support IPv6 management |
| **Port Mirroring** | Bidirectional data mirroring based on port |
| **QoS** | SP（Strict Priorty）<br>WFQ (Weighted Fair Queuing)<br>WRR (Weighted Round Robin)<br>Random Early Detect (RED)<br>WeightedRandomEarlyDetection (WRED)<br>Head Of Line<br>Best-Effort Service<br>First come first served<br>802.1p<br>Cos/Tos，QOS<br>Differentiated Service |
| **ACL** | Port-based Issuing ACL,ACL based on port and VLAN<br>L2 to L4 packet filtering, matching first 80bytes message.<br>Provide ACL based on MAC, Destination MAC address, IP Source,<br>Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range,and VLAN, etc. |

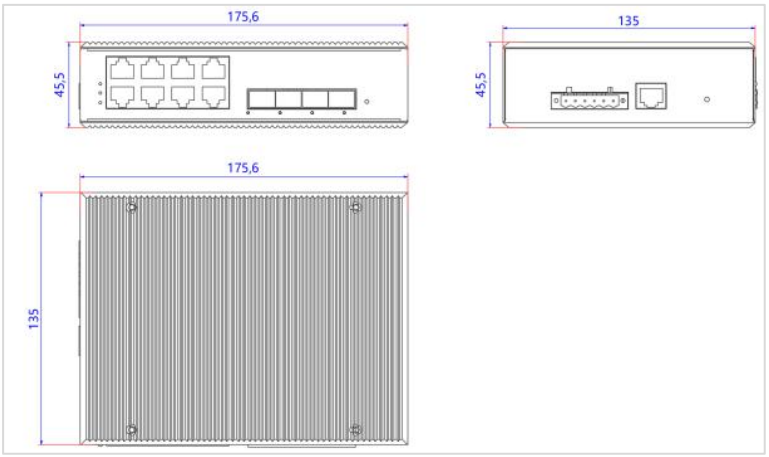
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| | |
|---|---|
| **Security** | Support IP ACL，MAC ACL，Vlan ACL,support ACL based on L3 L4<br>IP+MAC Port binding<br>Support IP Source Guard, RP Detection<br>Support IEEE 802.1x port verification, support Radius |
| **DHCP** | DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay |
| **IP routing** | Supports port-based input/output bandwidth management.<br>Supports static routes. IPV6<br>Supports the virtual route redundancy protocol VRRP.<br>Dynamic routes such as RIP, RIPng, OSPF, and OSPFv3 are supported. |
| **System maintenance** | Supports configuration file uploading and downloading. Upload the upgrade package.<br>Supports factory restore on WEB, Supports the system log function.<br>Support Ping 、tracert、cable detection and other diagnostic functions.<br>Supports WEB management (HTTP and HTTPS).<br>Supports CLI management. Supports Telnet remote management.<br>Supports SSH 2.0. Supports SNMP network management.<br>Support RMON; Supports NTP clients. |
| **LED** | Power: Red,Fiber: Link 2(Green),Ethernet: Yellow Port indicator: POE port, SFP port (Link/ACT) |

## Dimension (mm): 175.6 x 135 x45.5mm



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## Order Information

| Model | Description |
| --- | --- |
| **FNS420-48TF4-TGB-SFP-A** | L3 Managed Industrial Switch: 8-Port gigabit RJ45 +4-Port 10G SFP,,DC12-52V power supply, wide temperature (-40 ° C -75 ° C)， DC 24V/1A power adapter， |