

L3 Managed Industrial POE Switch

FNS420-424TF4-TGB-24P-SFP-A



Introduction

FNS420-424TF4-TGB-24P-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 24-Port gigabit RJ45, 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 $-40^{\circ}\text{C} \sim 75^{\circ}\text{C}$, 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



Industrial-grade Design

- ▶ Metal casing,
- ▶ Wide range operating temperature ($-40^{\circ}\text{C} \sim 75^{\circ}\text{C}$)



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;
	IEEE 802.3,10BASE-T Ethernet;
	IEEE 802.3u, Fast Ethernet standard;
	IEEE 802.3ab, Gigabit Ethernet standard;
	IEEE 802.3z, Gigabit Ethernet fiber standard;
	IEEE 802.3ae, 10G Ethernet standard;
	IEEE 802.3x, full duplex Ethernet Data link layer flow control;
	IEEE 802.3az, IEEE Efficient and Energy Efficient Ethernet Standard
Industry Standard	EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMC:
	IEC(EN)61000-4-2(ESD): ±6kV Contact discharge, ±8kV Air discharge
	IEC(EN)61000-4-3(RS) : 10V/m(80 ~ 1000MHz)
	IEC(EN)61000-4-4(EFT): ethernet port: ±2kV CM//±1kV DM.
	IEC(EN)61000-4-5(Surge): ethernet port: ±2kV CM//±1kV DM.
	IEC(EN)61000-4-6(Radio frequency conduction) : 3V(10kHz ~ 150kHz),10V(150kHz ~ 80MHz)
	IEC(EN)61000-4-16(Common mode conduction): 30V cont. 300V,1s
	IEC (EN)61000-4-8
	Shock: IEC 60068-2-27
	Freefall: IEC 60068-2-32
	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
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Input Voltage AC110 ~ 240V/50 ~ 60Hz AC

Access Terminal Phoenix terminal block

Support dual power supply redundancy

Characteristics Support built-in over-current protection

Support reverse connection protection with 4.0 A

Operating Environment

Item	Content
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Operating Temperature -40 °C ~75°C

Storage Temperature -40 °C ~85°C

Relative Humidity 5~95% (Non-condensing))

Interfaces

Item	Content
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SFP Slot Number: 4-Port 10G SFP+
Type: 1000BaseFX port (SFP slot),10GBaseFX port (SFP+ slot)

Ethernet Port Number: 24-Port gigabit RJ45
Type: RJ45, 10/100/1000M automatic detection, full/half duplex MDI/MDI-X adaptive

Optical Fiber Support single-mode/multi-mode fiber
Multi-mode fiber: 550M
Single-mode optical fiber: 20/40/60/80/100KM

POE Standard (Optional)

Item	Content
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PoE Standard IEEE802.3af/ IEEE802.3at

PoE Port 1-24 port support PoE

Output Power Single port maximum power 15.4 W (IEEE 802.3 af)
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
	Support SNMP v1 / v2c/v3
Dimension	No POE:442×194×44mm
	POE:442×325×44mm
Weight	<5Kg
Installation Method	Rack-mounte
Heat-dissipating Method	Natural cooling, no fan
Redundant Technology	Support STP/RSTP/MSTP
	Support ERPS
Multicast Technology	MLD Snooping v1/v2,Multicast VLAN Registration (MVR)
	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Switching Function	Support the port speed limit
	Support port truck
	Support port flow control
	port VLAN, IEEE 802.1 Q VLAN
	Support broadcast storm suppression
	Support IPv6 management
Port Mirroring	Bidirectional data mirroring based on port
QoS	SP (Strict Priority)
	WFQ (Weighted Fair Queuing)
	WRR (Weighted Round Robin)
	Random Early Detect (RED)
	WeightedRandomEarlyDetection (WRED)
	Head Of Line
	Best-Effort Service
	First come first served
ACL	802.1p
	Cos/Tos, QOS
	Differentiated Service
	Port-based Issuing ACL,ACL based on port and VLAN
	L2 to L4 packet filtering, matching first 80bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range,and VLAN, etc.

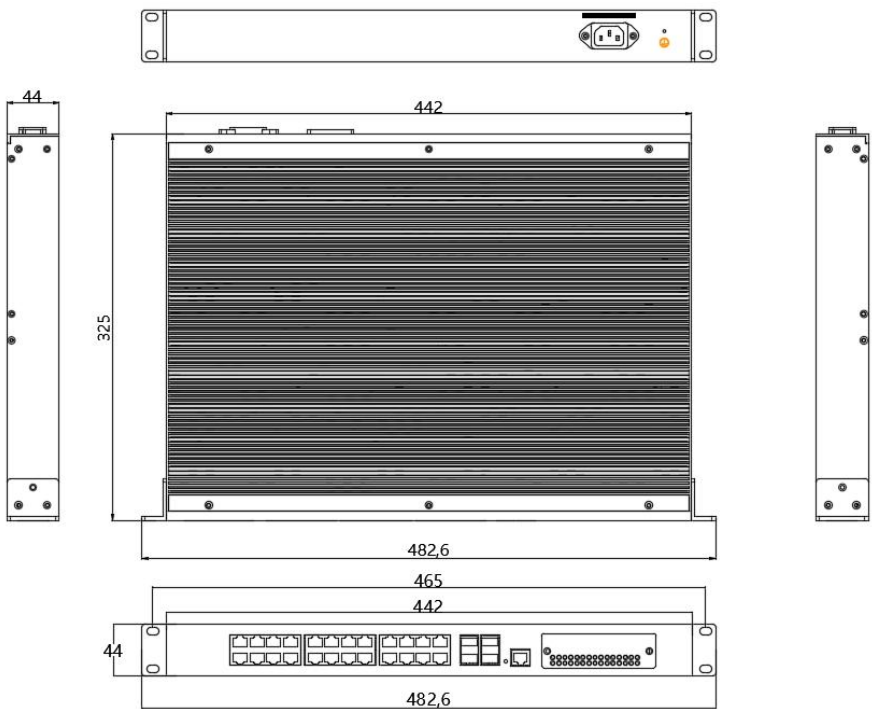
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	Support IP ACL, MAC ACL, Vlan ACL, support ACL based on L3 L4
	IP+MAC Port binding
Security	Support IP Source Guard, RP Detection
	Support IEEE 802.1x port verification, support Radius
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
	Supports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

Dimension (mm): 442×325×44mm



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Order Information

Model	Description
FNS420-424TF4-TGB-24P-SFP-A	L3 Managed Industrial POE Switch:24-Port gigabit RJ45 + 4-Port 10G SFP, AC110~240 power supply, wide temperature (-40 °C -75 °C)