

L3 Managed Industrial Switch

FNS420-416TF4-TGB-SFP-A

Din-Rail

Terminal Block

Introduction

FNS420-416TF4-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 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; 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
Input Voltage	12 to 52V DC ， POE：48 to 57V DC
Access Terminal	Phoenix terminal block
Characteristics	Support dual power supply redundancy Support built-in over-current protection 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+ Type：1000BaseFX port (SFP slot),10GBaseFX port (SFP+ slot)
Ethernet Port	Number：16-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
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) 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	166 x 137 x68.5mm
Weight	<1Kg
Installation Method	DIN rail
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 Priorty） WFQ (Weighted Fair Queuing) WRR (Weighted Round Robin) Random Early Detect (RED) WeightedRandomEarlyDetection (WRED) Head Of Line Best-Effort Service First come first served 802.1p Cos/Tos，QOS Differentiated Service
ACL	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.

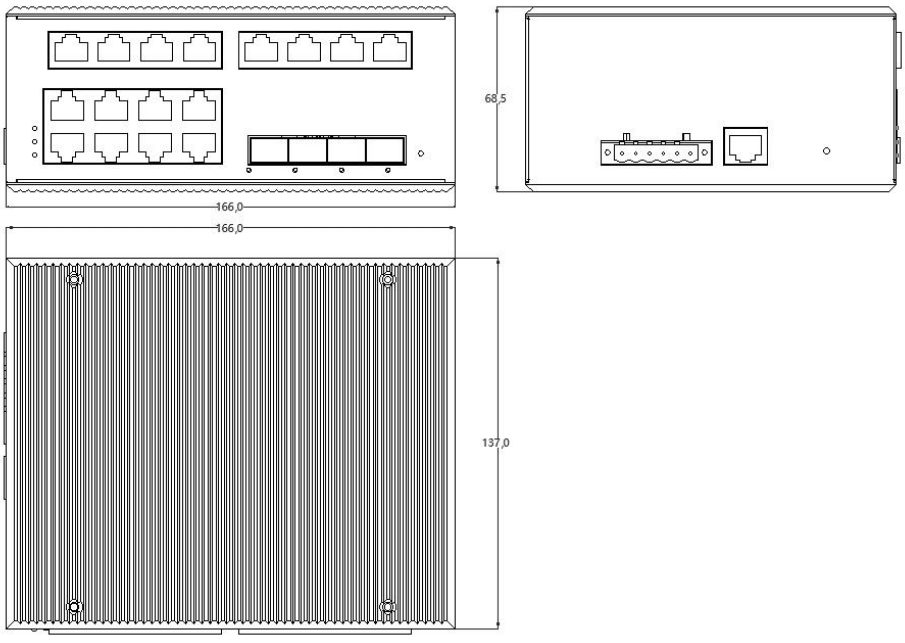
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Security	Support IP ACL，MAC ACL，Vlan ACL,support ACL based on L3 L4 IP+MAC Port binding Support IP Source Guard, RP Detection Support IEEE 802.1x port verification, support Radius
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
IP routing	Supports port-based input/output bandwidth management. Supports static routes. IPV6 Supports the virtual route redundancy protocol VRRP. Dynamic routes such as RIP, RIPng, OSPF, and OSPFv3 are supported.
System maintenance	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. 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): 166 x 137 x68.5mm



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Order Information

Model	Description
FNS420-416TF4-TGB-SFP-A	L3 Managed Industrial Switch: 16-Port gigabit RJ45 +4-Port 10G SFP, DC36-72V power supply, wide temperature (-40 ° C -75 ° C), DC 24V/1A power adapter,