Product Data Sheet

NS2503-24P/2C
24-port Fast Ethernet Layer 2 PoE Managed Switch

Overview

Designed to provide fast and efficient connectivity from the network edge to a backbone switch or server, the IFS 24-port Fast Ethernet PoE Managed Switch series features 24 10/100Mbs Ethernet ports with full power isolated PoE ports. The 2 Gigabit TP/SFP combo ports can be either 10/100/1000Mbps (RJ45) or Gigabit only (1000Base-SXBX/LX/LHX/ZX) through an SFP (Small Form-factor Pluggable) GBIC interface.
This switch series is designed with a high-performance switch architecture capable of providing a non-blocking switch fabric with wire-speed throughput as high as 8.8 Gbps.

Robust Layer 2 Features

For efficient switch management, the IFS 24-port Fast Ethernet PoE Managed Switch series is easily programmable, via a simple, yet powerful Web interface. This switch can be managed for functions such as Port Speed Configuration, Port Link Aggregation, IEEE 802.1Q VLAN and Q-in-Q VLAN, Port Mirroring, Rapid Spanning Tree and ACL security. The switch also includes advanced features such as Multicasting with IGMP snooping and query, QoS (Quality of Service), broadcast storm and bandwidth control to enhance bandwidth utilization.
These switches support standard Simple Network Management Protocol (SNMP) and include an advanced SNMP feature set to monitor the status of the switch and traffic per port. The switch can also be monitored via any standards-based SNMP management software.

Advanced Security

This switch series also offers comprehensive Layer 3 and Layer 4 Access Control List (ACL) to filter out unwanted traffic. Its protection mechanisms are comprised of RADIUS and Port-Based 802.1x user and device authentication. In addition, the switches provide MAC filter, Static MAC, IP/MAC binding and Port Security for enforcing security policies to the edge. With IFS enterprise-class switches, a network administrator can now construct a highly secure network with considerably less time and effort.

Standard Features

- Physical Ports
- 24-Port 10/100Base-TX RJ-45 with PoE
- 2-Uplink Gigabit TP/SFP combo ports
- 1 RS-232 male DB9 console port
- Auto-MDI/MDI-X detection
- High-performance Switch Architecture
- High performance Store and Forward architecture, broadcast storm control, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- 8.8 Gbps non-blocking switch fabric
- 9K bytes Jumbo frame support
- 8K MAC address table, automatic source address learning and aging
- Full Multicast Support for IP video
- Up to 256 multicast groups
- VLAN Support - up to 255 VLANs groups
- Quality of Service (QoS)
- Power over Ethernet (PoE)
- Complies with IEEE.802.3af (15.4w) and IEEE802.3at (30w) Standards
- Up to 380 Watt power budget
- Auto-detects PoE powered devices (PD)
- Provides full-power PoE on each port - no port sharing
- Circuit protection isolates and prevents power interference between ports
- PoE Management features
- Supports Cisco ether-Channel (Static Trunk)
- MAC Filtering and Source IP/MAC address port-binding

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Specifications

Physical Ports

- 10/100Base-T(x) Ports: RJ-45 (24)
- GigE Combo Uplink Ports: RJ-45 (Ports 25 and 26) 10/100/1000Mbps; SFP/Mini-GBIC Slots (Shared with Ports 25 and 26) 1000Base- SXBX/LX/LHX/ZX (Gigabit SFPs only)
- Port Configuration: Auto MDI/MDI-X
- Port Speed: Auto-negotiate

Switch Performance

- Switch Architecture: Store-and-Forward
- Switch Fabric: 8.8Gbps (non-blocking)
- Switch Throughput: 6.547Mpps @ 64Bytes
- MAC Address Table: 8K entries
- Share Data Buffer: 512Kbytes
- Maximum Frame Size: 9K Bytes
- Flow Control: Back pressure for Half-Duplex; IEEE 802.3x Pause Frame for Full-Duplex

Layer 2 Functions

- Management Interface: Console, telnet, Web browser, SSL, SNMPv1, V2 Console, telnet, Web browser, SSL, SNMP v1, v2c, and v3
- Port Configuration: Port enable/disable; Auto-negotiation; 10/100Mbps full-and-half duplex mode selection; Flow control enable/disable
- Port Status: Display each port's speed duplex mode, link status and flow control status. Auto negotiation status, trunk status
- Port Mirroring: TX/RX/Both; 1 to 1 monitoring
- Bandwidth Control: Ingress/Egress rate control: configure per 128Kbps
- VLAN: IEEE 802.1q tagged-based VLAN; Port-based VLAN; Q-in-Q tunneling; Up to 255 VLANs groups, out of 4096VLAN IDs
- Link Aggregation: Supports 13 groups of 8-port trunk, IEEE 802.3ad LACP
- Quality of Service (QoS): Traffic classification based on:Port priority - 802.1p priority - TOS/DSCP field in IP Packet
- Multicasting/IGMP: IGMP (v1/v2) Snooping; IGMP Query; Up to 256 multicast groups
- Access Control List: IP-based Layer 3/Layer 4 ACL; Up to 220 ACL rule entries (200 for NS2503-24T/2C)
- SNMP MIBs: RFC-1213 MIB-II; RFC-2863 Interface MIB; RFC-2665 EtherLike MIB; RFC-1493 Bridge MIB; RFC-2819 RMON MIB (Group 1, 2, 3,9); RFC-2737 Entity MIB; POWER-ETHERNET-MIB

Power over Ethernet

- PoE Standard: IEEE 802.3af / IEEE 802.3at
- PoE Power Supply Type: End-Span (PSE)
- PoE Power Budget: 360 Watts
- Max. number of Class 2 PD: 24
- Max. number of Class 3 PD: 24
- Max. number of Class 4 PD: 12
- PoE Power Output Per Port: 48VDC, 350mA. Max. 15.4 watts (IEEE 802.3af); 52VDC, 590mA. Max 30 watts (IEEE 802.3at)
- Power Pin Assignment: 1/2(+), 3/6(-)

LED Indicators & Switch

- Power: On/Green
- 10/100Base-TX/PoE Ports (24): 10/100 LNK/ACT - Green; PoE in Use - Amber
- 10/100/1000Base-T/SFP Ports: 100 LNK/ACT - Green; 1000 LNK/ACT - Green
- FAN(s): Alarm/Green
- Reset Button: System reboot: push and hold < 5 sec.; Factory Default: push and hold > 5 sec.

Electrical and Mechanical

- AC Power Input Voltage: 100~240VAC, 50/60Hz, Auto-sensing
- Power Consumption (System on): 110V: (32 Watts); 220V: (31 Watts)
- Power Consumption (Full PoE load): 110V: (425 Watts); 220V: (425 Watts)
- Dimensions (W x D x H): 17.32 x 11.81 x 1.75 in., (440 x 300 x 44.5mm)
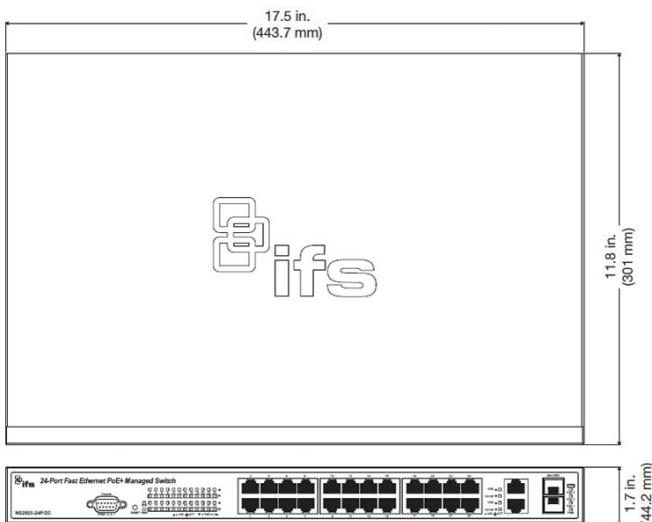- Weight: 9.48 lbs., 4.3kg 10.14 lbs., 4.6kg

Environmental

- Operating Temperature: 0 to +50°C
- Storage Temperature: -20 to +70°C
- Relative Humidity: 0% to 95% (non-condensing)

Regulatory

- Regulatory Standards: FCC Part 15 Class A; CE, UL, cUL
- IEEE Standards (1): IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base- SX/BX/LX/LHX/ZX, IEEE 802.3x Flow Control and Back pressure, IEEE 802.3ad Port trunk with LACP, IEEE 802.1d Spanning Tree Protocol
- IEEE Standards (2): IEEE 802.1s Rapid Spanning Tree Protocol, IEEE 802.1p Class of service, IEEE 802.1Q VLAN Tagging, IEEE 802.1x Port Authentication Network Control, IEEE 802.3af Power over Ethernet, IEEE 802.3at Power over Ethernet

Ordering Information

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Diagram

17.5 in. (443.7 mm)

11.8 in. (301 mm)

1.7 in. (44.2 mm)

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