UTC Fire & Security
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Product Data Sheet

NS2503-8P/2C

8-Port Fast Ethernet Layer 2 Managed Switch

Overview

For fast and efficient connectivity from the network edge to a backbone switch or server, the IFS 8-port Fast Ethernet Managed Switch Series features eight 10/100Mbps Fast Ethernet ports with 2 Gigabit TP/SFP combo ports. The 2 Gigabit TP/SFP combo ports can support either 10/100/1000Mbps (RJ45) or (1000Base-SX/BX/LX/LHX/ZX)) through an SFP (Small Form-factor Pluggable) GBIC interface. This series is also available with PoE and PoE+ capabilities.
This switch series is designed with a high performance switch architecture that is capable of providing a non-blocking switch fabric and wire-speed throughput as high as 5.6 Gbps.

Robust Layer 2 Features

For efficient switch management, the IFS 8-port Fast Ethernet Managed Switch Series is easily programmable via a simple, yet powerful Web Interface, the switch can manage Port Speed Configuration, Port Link Aggregation, IEEE 802.1Q VLAN and Q-in-Q VLAN, Port Mirroring, Spanning Tree and ACL security. The switch 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

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Standard Features

- Auto-MDI/MDI-X detection
- High performance Store and Forward architecture and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Broadcast/multicast/unicast storm control
- 5.6 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)
- Auto-detects PoE powered devices (PD)
- Provides full-power PoE on each port - no port sharing
- 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 (8)
- GigE Combo Uplink Ports: RJ-45 (Ports 9 and 10) 10/100/1000Mbps; SFP/Mini-GBIC Slots (Shared with Ports 9 and 10) 1000Base-SX/BX/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: 5.6Gbps (non-blocking)
- Switch Throughput: 4.16Mpps @ 64Bytes
- MAC Address Table: 8K entries
- Share Data Buffer: 2 Mbytes
- 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 and v2c and v3c
- 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.
- 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, up to 255 VLANs groups, out of 4041 VLAN IDs Port-based VLAN. Q-in-Q tunneling GVRP for VLAN management, up to 128 dynamic VLAN entries Private VLAN Edge (PVE) protected port) with two protected port groups
- LInk Aggregation: Static Port Trunk IEEE 802.3ad LACP (Link Aggregation Protocol) Supports 13 groups of 8-port trunk, IEEE 802.3ad LACP
- Quality of Service (QoS): 4 priority queue - Traffic classification based on: Port priority, 802.1p priority, DSCP/TOS field in IP Packet
- Multicasting/IGMP: IGMP Snooping (v1/v2). IGMP Query. Up to 256 multicast groups
- Access Control List: IP-based Layer 3/Layer 4 ACL. Up to 220 ACL rule entries
- 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: 150 Watts
- Max. number of Class 2 PD: 8
- Max. number of Class 3 PD: 8
- Max. number of Class 4 PD: 5
- 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 (8): 10/100 LNK/ACT - Green; PoE in Use - Amber
- 10/100/1000Base-T/SFP Ports: 100 LNK/ACT - Amber; 1000 LNK/ACT - 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
- Full Load Power Consumption: 200 Watts
- Dimensions (W x D x H): 13 x 6 x 1.7 in. - (330 x 153 x 44mm)
- Weight: 2.6 lbs., 1.2kg

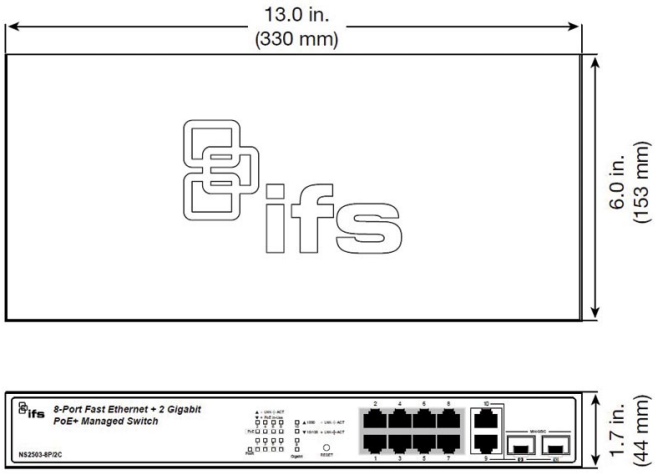
Environmental

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

Standards Compliance

- Regulatory Standards: FCC Part 15 Class A; CE; UL
- IEEE/RFC Standards (1): IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3z 1000Base- SX/BX/LX/LHX/ZX, IEEE 802.3ab 1000Base-T, IEEE 802.3x Flow Control and Back pressure, IEEE 802.3ad Port trunk with LACP
- IEEE/RFC Standards (2): IEEE 802.1d Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree Protocol; IEEE 802.1p Class of service IEEE 802.1Q VLAN Tagging, IEEE 802.1x Port Authentication Network Control
- IEEE/RFC Standards (3): IEEE 802.3af and 802.3at Power over Ethernet, RFC 768 UDP, RFC 793 TFTP, RFC 791 IP, RFC 792 ICMP, RFC 2068 HTTP, RFC 1112 IGMP version 1, RFC 2236 IGMP version 2

Diagram



Ordering Information

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