NS3503-8P-2X

8-Port Gigabit Managed switch, 4x PoE 802.3at, 4x PoE 802.3bt with 2-port 10G SPF

High-power PoE for demanding IP devices

The IFS NS3503-8P-2X delivers high-power PoE++ connectivity to support today's power-intensive IP devices. With support for IEEE 802.3bt PoE++ (up to 95 W per port) and a total PoE budget of 240 W, the switch can directly power PTZ cameras, multi-sensor cameras, intercoms, controllers, and other network devices—reducing the need for external power supplies and simplifying installation.

High-performance networking with 10G uplink connectivity

Equipped with dual 10G SFP+ uplink ports, the NS3503-8P-2X ensures high-bandwidth aggregation and reliable connectivity to NVRs, servers, or centralized core switches. This eliminates network bottlenecks in high-traffic environments and provides a scalable backbone for video-intensive and data-rich applications.

Designed for professional, reliable installations

The compact, fanless design enables silent operation and flexible deployment in control rooms, technical cabinets, or office environments. Advanced Layer 2+ switching and static Layer 3 routing, combined with multicast support and intelligent PoE monitoring, help deliver stable operation, faster commissioning, and reduced maintenance effort.

Versatile platform for security and beyond

Optimized for video surveillance, access control, and intrusion systems, the NS3503-8P-2X also supports a wide range of IP-based building applications, including IP intercoms, building automation, digital signage, and AV-over-IP systems. This versatility allows installers and end users to consolidate multiple systems onto a single, professional-grade network platform.



Details

- 4x 10/100/1000BASE-T ports with 95W 802.3bt PoE++ injector function (Ports 1 to 4)
- 4x 10/100/1000BASE-T ports with 32W 802.3at PoE+ injector function (Ports 5 to 8)
- 2x 10GBASE-SR/LR SFP+ slots, compatible with 100/1G/2.5G BASE-X SFP transceivers (Ports XG1 to XG2)
- Total PoE power budget of 240 watts
- Layer 2 features and Layer 3 IP routing features
- Intellingent PoE features and PD Alive check
- Fanless mode

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Technical specifications

General

Storm control	Broadcast, Multicast, Unicast
DHCP snooping	Yes
Reset button	<5 sec: System reboot, >5 sec: Factory default

Category

Category	Commercial
Management	Managed
Managed	Yes (Layer 3 - Limited)
PoE	Yes

Physical ports

No. of ports	8
Port type	10/100/1000BASE-T
Speed	Gigabit
PoE/PoE+	4 ports PoE++ (95W) + 4 ports PoE+ (32W)
SFP ports	Two 10GBASE-SR/LR SFP+ interfaces (Port XG1 to Port XG2). Backward compatible with 100/1G/2.5GBASE-SX/LX/BX SFP transceivers
Console	1 x RJ45-to-RS232 serial port (115200, 8, N, 1)
Max. number of 95W 802.3bt Type 4 PDs	2
Max. number of 60W 802.3bt Type 3 PDs	4
Max. number of 30W 802.3at Type 2 PDs	8

Switch Performance

Switch fabric	56 Gbps/non-blocking
Throughput (Mpps)	41.66 Mpps@64 bytes
Mac table	16 K
Jumbo frame support	12 K

Electrical

PoE power budget	240W max. | 120W in Fanless mode
Redundant power	No
Power supply type	100 to 240 VAC
Power consumption	Max. 10.7 watts/36.5BTU (Power on without any connection) Max. 269 watts/917.87BTU (Fully loaded)
ESD Protection	Contact Discharge 6KV DC, Air Discharge 8KV DC

Physical

Physical dimensions	280 x 230 x 44 mm (1U height)
Net weight	1885 g
Colour	Black
Material	Metal
Mounting type	Desk-based, Rack mount
Stackable	No

Environmental

Operating temperature	0 to +50°C
Storage temperature	-10 to +60°C
Relative humidity	5 to 95% non-condensing
Environment	Indoor

Regulatory

Compliancy	CE, RoHS, UKCA, WEEE
Standards	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3ae 10Gb/s Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3ad Port Trunk with LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN Tagging IEEE 802.1ab LLDP IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus IEEE 802.3az for Energy-Efficient Ethernet RFC 768 UDP RFC 783 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3 RFC 2710 MLD v1 RFC 3810 MLD v2 ITU-T G.8032 ERPS Ring

Switch performance

Switch architecture	Store-and-Forward
Shared data buffer	12 Mbits
Flow control	IEEE 802.3x pause frame for full duplex, Back pressure for half duplex

PoE management functions

PoE management	System PoE admin mode, Fanless mode, Consumption mode/Allocation mode, Temperature threshold
Enhanced PoE mode	Standard/Force
Active PoE device live detection	Yes
PoE power recycling	Yes, daily or predefined schedule
PoE schedule	4 schedule profiles
PoE extended mode	Yes, max. up to 250 meters

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Layer 2 functions

Port mirroring	TX/RX/Both, Many-to-1 monitor, Up to 4 sessions
VLAN	802.1Q tagged VLAN, 802.1ad Q-in-Q tunneling (VLAN stacking), Protocol VLAN, Private VLAN (Protected port), GVRP, Management VLAN, Up to 256 VLAN groups, out of 4094 VLAN IDs
Link aggregation	IEEE 802.3ad LACP and static trunk, Supports 8 groups with 8 ports per trunk
Spanning tree protocol	IEEE 802.1D Spanning Tree Protocol (STP), IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), STP BPDU Guard, BPDU Filtering and BPDU Forwarding
IGMP snooping	IPv4 IGMP snooping v2/v3, IGMP querier, Up to 256 multicast groups
MLD snooping	IPv6 MLD snooping v2, v3, up to 256 multicast groups
Access Control List	IPv4/IPv6 IP-based ACL/MAC-based ACL, IPv4/IPv6 IP-based ACE/MAC-based ACE
QoS	8 mapping IDs to 8 level priority queues: Port number | 802.1p priority | DSCP/IP precedence of IPv4/IPv6 packets. Traffic classification based, strict priority and WRR. Ingress/Egress Rate Limit per port bandwidth control.
Ring	Supports ERPS, and complies with ITU-T G.8032. Recovery time < 450ms

Layer 3 functions

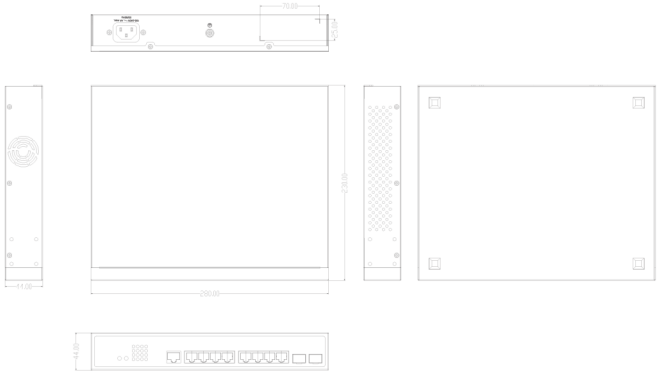
IP interfaces	Max. 64 VLAN interfaces
Routing table	Max. 32 routing entries
Routing protocols	IPv4/IPv6 hardware static routing

Security functions

Access Control List	IPv4/IPv6 IP-based ACL/MAC-based ACL, IPv4/IPv6 IP-based ACE/MAC-based ACE, Max. 256 ACL entries
Port security	Built-in RADIUS client to co-operate with RADIUS server, RADIUS/TACACS+ user access authentication
MAC security	IP-MAC port binding, MAC filter, Static MAC address, max. 256 static MAC entries
Enhanced security	DHCP Snooping and DHCP Option82, STP BPDU guard, BPDU filtering and BPDU forwarding, DoS attack prevention, ARP inspection, IP source guard

Management functions

Basic management interfaces	RS232 Console, Web browser, Telnet, SNMP v1/v2c
Secure management interfaces	SSHv2, TLSv1.2, TLSv1.3, SNMP v3
System management	Firmware upgrade by HTTP/TFTP protocol through Ethernet network, Configuration upload/download through HTTP/TFTP, LLDP protocol, SNTP
Event management	Remote/Local Syslog, System log, SMTP Email notification
SNMP MIBs	RFC 1213 MIB-II, RFC 1215 Generic Traps, RFC 1493 Bridge MIB, RFC 2674 Bridge MIB Extensions, RFC 2737 Entity MIB (Version 2), RFC 2819 RMON (1, 2, 3, 9), RFC 2863 Interface Group MIB, RFC 3635 Ethernet-like MIB, RFC 3621 Power Ethernet MIB, LLDP MIB



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