

NS3550-8T-2S-V2

8-port + 2-SFP Industrial Gigabit Managed Switch

Overview

The IFS® NS3550-8T-2S-V2 is an Industrial Gigabit Managed Switch equipped with eight 10/100/1000Mbps RJ45 ports and two 100/1000Mbps SFP (fiber) uplink ports. These are fully managed Layer 2+ switches providing a robust industrial hardened design that provides for rapid operational recovery in the event of a network or power system failure.

Layer 2+ Managed Switch

The IFS Industrial Gigabit Managed Switch Series supports advanced features including IEEE 802.1Q VLAN, GVRP, port link aggregation, QoS, broadcast storm control and MAC address filtering. The series also includes IGMP snooping and querying multicasting for media operations and bandwidth utilization to fit a variety of applications. Via aggregation of supporting ports, the series allows the operation of high-speed trunk operation combining multiple ports. A maximum of four ports can be assigned for four trunk groups and support fail-over as well. Additionally, its standards-compliant implementation ensures interoperability with equipment from other vendors.

Industrial-grade Network Redundancy and Recovery

These switches not only incorporate the industry standard Rapid Spanning Tree Protocol (IEEE 802.1w RSTP), but also an advanced Industrial Fail-Safe (IFS) technology accommodating multiple redundant ring topologies and improved network recovery time of less than 20ms. The switches incorporate a redundant power supply system to further enhance network reliability and uptime. Ideal for use in implementing highly fault-tolerant ring and mesh network architectures, these switches are well suited for harsh environments such as industrial security, factory automation and intelligent transportation systems (ITS).

Robust Hardened Design

With an IP-30 rated enclosure, IFS Industrial Gigabit Managed Switches provide a high level of immunity against electromagnetic (EMI) and radio-frequency (RFI) interference typically found in industrial environments. This series of switches comply with IEC60068-2-xx standards for free-fall, shock, and vibration and operate in -40° C to 75° C temperatures found in difficult environments such as plant floors or in curbside traffic control cabinets.



Details

- 8-port 10/100/1000Base-T
- 2-ports SFP (fiber) 100/1000Base-X
- RS-232 DB9 console interface for basic switch management and setup
- High-performance Switch Architecture
- Up to 20Gbps non-blocking switch fabric
- 9K bytes Jumbo frame support
- 8K MAC address table, automatic source address learning and ageing
- IGMP (v1/v2/V3) Snooping, up to 255 multicast Groups with IGMP Querier mode support, and MLD (v1/v2) Snooping, up to 255 multicast Groups with MLD Querier mode support
- VLAN Support - up to 255 VLANs groups out of 4094 VLAN IDs, MVR (Multicast VLAN Registration), Voice VLAN, MAC-Based VLAN, Protocol-Based VLAN
- Quality of Service (QoS), 802.1p priority, 802.1Q VLAN tag, DSCP/TOS field in IP Packet
- IEEE 802.3ad LACP / Static Trunk, Supports 5 groups of 8-Port trunk support
- Advanced Security
- MAC Filtering and Source IP/MAC address port-binding
- Circuit protection prevent power interference between ports
- Robust Hardened Design
- IP30 metal enclosure, DIN Rail and Wall Mount Design
- Wide operating temperature range of -40°C ~ +75°C

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Technical specifications

General

Fast ring	Yes (ERPS)
Storm control	Broadcast, Multicast, Unicast
Security	802.1x, ACL, RADIUS, Source MAC / IP address binding, TACACS+
DHCP snooping	Yes
Fault relay output	Yes

Category

Category	Industrial
Management	Managed
Managed	Yes
PoE	No

Physical ports

No. of ports	8
Port type	Gig
Speed	Gigabit
Fiber port	2
Supported SFPs	S20/S25 series, S30/S35 series
SFP speed	100/1000

Switch performance

Switch fabric	20 Gbps
Throughput (Mpps)	14.88
Mac table	8 K
Jumbo frame support	9 K

Layer 2 Functions

Management interface	Console, Web, Telnet, SNMP 1,2,3, SSH/SSL secure access
IGMP snooping	255 Group, Snooping v1, v2, v3
IGMP query	Yes
VLAN, QoS	256, yes
Access control list	123 entries

Electrical

Redundant power	Yes
Power supply type	12 to 48 VDC
Power consumption	20 W

Physical

Physical dimensions	88 x 135 x 56 mm
Net weight	720 g
Colour	Black
Material	Metal
Mounting type	DIN-rail, Wall mount
Stackable	No

Environmental

Operating temperature	-40 to +75°C
Environment	Indoor
IP rating	IP30

Regulatory

IEC standard	IEC60068-2-27 (shock), IEC60068-2-32 (free fall), IEC60068-2-6 (vibration)
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Standards Compliance

Regulatory Standards:	FCC Part 15 Class A, CE
IEEE Standards (1):	IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX/100Base-FX; IEEE 802.3z Gigabit SXBX/LX/LHX/ZX; IEEE 802.3ab Gigabit 1000T; 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 802.1w Rapid spanning tree protocol; IEEE 802.1s Multiple spanning tree protocol; IEEE 802.1p Class of service; IEEE 802.1Q VLAN TaggingIEEE 802.1x Port Authentication Network Control; IEEE 802.1ab LLDP
RFC Standards:	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
IEC Standards:	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

