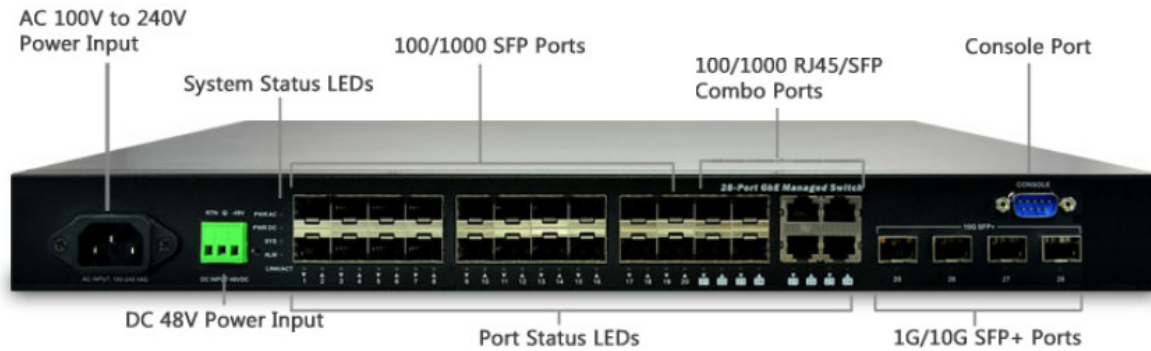


# STSGF-8328-C4X4

## Managed 10G/GbE Fiber Switch



## Overview

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STSGF-8328-C4X4 Managed 10G/GbE Fiber Switch is a next-generation L2+ Fiber Switch offering full suite of L2 features and additional 10GbE uplink connections, including advanced L3 features such as Static Route that delivers the better cost performance and lower total cost of ownership in Enterprise networks or backbone via fiber or copper connections.

STSGF-8328-C4X4 delivers 20 GbE SFP ports, 4 Combo GbE RJ45/SFP ports, 4 GbE/10G SFP+ ports and DB9 Console port with built-in AC and DC dual power supply. STSGF-8328-C4X4 provides front access to all data and management ports, and a compact form factor that facilitates desktop, wall-mount, or rack-mount installations.

STSGF-8328-C4X4 is ideal to deliver management simplicity, better user experience, and lowest total cost of ownership. The free Device Embedded Management System (DEMS) is designed to be extremely easy-to-use/manage/install IP Phone, IP Cam, or Wifi-AP for Enterprise Applications.

# Key Features

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- L2+ Managed features provide easier manageability, robust security and QoS.
- Built in Device Embedded Management System (DEMS)
- AC/DC Dual Power Supply
- DHCP Server
- IPv4/IPv6 L3 static route
- IEEE 802.3az EEE Energy Efficient Ethernet standard for green Ethernet

## Benefits

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- Feature-rich Ethernet Switch for Enterprise-class

The switch delivers advanced functionality in L2+ managed switch including Layer 3 static route, DHCP server, IPv6 support, LLDP, etc. It also has comprehensive security features such as IP source guard, Access Control List guard your network from unauthorized access.

It helps users to build on the market-leading price/performance with L2+ Managed GbE fiber switch, and provide secure, reliable and ease of use for enterprise and SMB deployments.

- Easy to Install, Configure and Troubleshoot by Device Embedded Management System (DEMS)

The DEMS provides embedded functions to facilitate devices management at anytime and anywhere. Its user-friendly interface helps users to manage devices intuitively.

It supports various IP device types (e.g. IP-phone, IP-camera, WiFi-AP) for end users to enhance manageability and save time/cost during installation/maintenance stages.

- Lower Total Cost of Ownership (TCO) with Energy-efficient Design

It is designed to help customers to reduce power consumption and lower the TCO by Energy Efficient Ethernet (IEEE 802.3az) features. It can be used for customers to build a green Ethernet networking environment.

- AC/DC Dual Power Supply

Power failover when power supplies are connected to different circuits. Reduce network operating risk.

# Specifications

## Port Configuration

Total Ports	SFP (100M/1G)	Uplinks (100M/1G/10G)	Console
28	20	4 SFP+ 4 RJ45/SFP Combo	DB9

## Hardware Performance

Forwarding Capacity	Switching Capacity	Mac Table	Jumbo Frames
95.232 Mpps	128 Gbps	32 K	10056 Bytes

## Environmental Range

Operating Temperature		Storage Temperature		Altitude	
Fahrenheit	Centigrade	Fahrenheit	Centigrade	Feet	Meters
32 to 140	0 to 60	-40 to 185	-40 to 85	< 10000	< 3000

## Dimension, Weights, Humidity

Dimension (WxHxD)		Weight		Operating Humidity
Millimeter	Inches	Kilograms	Pounds	
442 x 44 x 211	17.4 x 1.73 x 8.31	3.1	6.8	10% to 90% non-condensing

## Voltage and Frequency

Input Voltage and Frequency	
AC Voltage	100-240 VAC
AC Frequency	50-60 Hz
DC Voltage	24-72 VDC

## Certification

Electromagnetic Emissions (EMC)
CE, FCC Part 15 Class A

# Software Features

Layer 2 Switching	
Spanning Tree Protocol (STP)	<ul style="list-style-type: none"> <li>• Standard Spanning Tree 802.1d</li> <li>• Rapid Spanning Tree (RSTP) 802.1w</li> <li>• Multiple Spanning Tree (MSTP) 802.1s</li> </ul>
Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad <ul style="list-style-type: none"> <li>• Up to 26 groups</li> <li>• Up to 4 ports per group</li> </ul>
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs) <ul style="list-style-type: none"> <li>• Port-based VLAN</li> <li>• 802.1Q tag-based VLAN</li> <li>• MAC-based VLAN</li> <li>• Management VLAN</li> <li>• Private VLAN Edge (PVE)</li> <li>• Q-in-Q (double tag) VLAN</li> <li>• Voice VLAN</li> <li>• GARP VLAN Registration Protocol (GVRP)</li> </ul>
DHCP Relay	<ul style="list-style-type: none"> <li>• Relay of DHCP traffic to DHCP server in different VLAN.</li> <li>• Works with DHCP Option 82</li> </ul>
IGMP v1/v2/v3 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters. Supports 1024 multicast groups
IGMP Querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
IGMP Proxy	IGMP snooping with proxy reporting or report suppression actively filters IGMP packets in order to reduce load on the multicast router
MLD v1/v2 Snooping	Delivers IPv6 multicast packets only to the required receivers
DEMS Device Embedded Management System (DEMS)	
Graphical Monitoring	<ul style="list-style-type: none"> <li>• Topology view: Support intuitive way to configure and manage switches and devices with visual relations</li> <li>• Floor view: It's easy to drag and drop PoE devices and help you to build smart workforces</li> <li>• Map view: Enhance efficiency to drag and drop devices and monitor surroundings on google map</li> </ul>
Find my Switch	Search your real switches quickly and manage directly.
Traffic Monitoring	Display visual chart of network traffic of all devices and monitor every port at any time from switches
Trouble Shooting	<ul style="list-style-type: none"> <li>• Network diagnostic between master switch and devices</li> <li>• Support protection mechanism, such as rate-limiting to protect your devices from brute-force downloading</li> </ul>

Layer 3 Switching	
IPv4 Static Routing	IPv4 Unicast: Static routing
IPv6 Static Routing	IPv6 Unicast: Static routing
Security	
Secure Shell (SSH)	SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
IEEE 802.1X	<ul style="list-style-type: none"> <li>• IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions</li> <li>• Supports IGMP-RADIUS based 802.1X</li> <li>• Dynamic VLAN assignment</li> </ul>
Layer 2 Isolation Private VLAN Edge	PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN. Supports multiple uplinks
Port Security	Locks MAC addresses to ports, and limits the number of learned MAC address
IP Source Guard	Prevents illegal IP address from accessing to specific port in the switch
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
DHCP Snooping	A feature acts as a firewall between untrusted hosts and trusted DHCP servers
ACLs	Supports up to 512 entries. Drop or rate limitation based on: <ul style="list-style-type: none"> <li>• Source and destination MAC, VLAN ID or IP address, protocol, port,</li> <li>• Differentiated services code point (DSCP) / IP precedence</li> <li>• TCP/ UDP source and destination ports</li> <li>• 802.1p priority</li> <li>• Ethernet type</li> <li>• Internet Control Message Protocol (ICMP) packets</li> <li>• TCP flag</li> </ul>
Quality of Service	
Hardware Queue	Supports 8 hardware queues
Scheduling	<ul style="list-style-type: none"> <li>• Strict priority and weighted round-robin (WRR)</li> <li>• Queue assignment based on DSCP and class of service</li> </ul>
Classification	<ul style="list-style-type: none"> <li>• Port based</li> <li>• 802.1p VLAN priority based</li> <li>• IPv4/IPv6 precedence / DSCP based</li> <li>• Differentiated Services (DiffServ)</li> <li>• Classification and re-marking ACLs</li> </ul>
Rate Limiting	<ul style="list-style-type: none"> <li>• Ingress policer</li> <li>• Egress shaping and rate control</li> <li>• Per port</li> </ul>

Management	
DHCP Server	Support DHCP server to assign IP to DHCP clients
Zero Touch Upgrade	Upgrade single switch automatically when you get notification
Remote Monitoring (RMON)	Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
UPnP	The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play
s-Flow	The industry standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats
IEEE 802.1ab (LLDP)	<ul style="list-style-type: none"> <li>Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network</li> <li>Support LLDP-MED extensions</li> </ul>
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
CLI	For users to configure/manage switches in command line modes
Dual Image	Independent primary and secondary images for backup while upgrading
SNMP	SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)
Firmware Upgrade	<ul style="list-style-type: none"> <li>Web browser upgrade (HTTP/ HTTPs) and TFTP</li> <li>Upgrade through console port as well</li> </ul>
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	<ul style="list-style-type: none"> <li>HTTP/HTTPs; SSH</li> <li>DHCP Client/ DHCPv6 Client</li> <li>Cable Diagnostics</li> <li>Ping</li> <li>Syslog</li> <li>Telnet Client</li> <li>IPv6 Management</li> </ul>