Navijin

DATASHEET

NETWORK INFRASTRUCTURE / L3 MANAGED SWITCH

SG3801-16S8C4T

4x 10G SFP+ and 16x 1G SFP and 8x 1G Combo

PRODUCT PAGE

SG3801-16S8C4T



Overview

4x 10G SFP+ and 16x 1G SFP and 8x 1G Combo L3 Managed Switch

Key Features

- Support IEEE 802.1Q VLAN, QoS, ACL, SSL
- Support Spanning Tree, Multicast IPV6, SNMP
- Support 802.1X certification. Support ERPS ring network
- Support RSTP/MSTP spanning tree
- Supports Port Security, Port Monitoring, and Port Isolation
- Support Quaternary binding, ARP/IP/DoS protection

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Hardware Specification

Power Supply

- AC 100~240V 50/60Hz

Interfaces

- 4x 10Gbps SFP+ ports
- 16x 1Gbps SFP ports
- 8x 1Gbps Combo ports
- 1x Console port

Network Protocol

- IEEE 802.3 Ethernet MAC Protocol
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- IEEE 802.3z 1000BASE-X Gigabit Ethernet (Optical Fiber)
- IEEE 802.3ae 10G Ethernet
- IEEE 802.3x Flow Control
- IEEE 802.3az Energy-Efficient Ethernet
- IEEE 802.3ad Standard Method for Performing Link Aggregation
- IEEE 802.1ab LLDP/LLDP-MED (Link Layer Discovery Protocol)
- IEEE 802.1d Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.1Q VLAN Bridge Operation
- IEEE 802.1P (VLAN LABEL)
- IEEE 802.1X Client/Server Access Control and Authentication Protocol
- IEEE 802.3i

Network Medium

- 10BASE-T: UTP Category 3, 4, 5(≤100m)
- 100BASE-TX: UTP Category 5, 5e(≤100m)
- 1000BASE-T: UTP Category 5e, 6(≤100m)
- 1000BASE-SX: 62.5um MMF (min: 2m~275m) or 50um MMF (min: 2m~550m)
- 1000BASE-LX: 62.5um/50um MMF (min: 2m~550m) or 9um SMF (min: 2m~5000m)
- 10GBASE-SR: OM1/OM2/OM3 or above MMF (operating range: 2m ~ 300m)
- 10GBASE-LR: IEC's B1.1 and B1.3 SMF (min: 2m ~ 10000m)

LED Indicator

- SFP fiber port indicators, Power input indicator, System running indicator

Dimensions

- 430mm x 290mm x 46mm

Working Environment

- Working Temperature: 0~45°C / Working Humidity: 10%~90%, non-condensing
- Storage Temperature: -40~70°C / Storage Temperature: 5%~95%, non-condensing

Performance

Switching Capacity	128Gbps
Packet Forwaring Rate	95.232Mpps
Packet Buffer Memory	12Mbit
MAC Address	16K
Jumbo Frame	12KBytes
VLANs	VLAN Range 1-4094, with a maximum active VLAN of 4K

Software Function

L3 Switching Features

- Static Routing - IPv4/IPv6
- Address Resolution Protocol (ARP)- Dynamic ARP

L2 Switching Features

- 16K MAC Address Table
- 12K Jumbo Frame
- Flow Control
- 802.3x (Full-duplex)
- Back-Pressure (Half-duplex)
- Spanning Tree
- IEEE 802.1D (STP)
- IEEE 802.1w (RSTP)
- IEEE 802.1s (MSTP)/16 instances
- Auto Edge Port
- BPDU Filtering
- ERPS
- Link Aggregation
- IEEE 802.3ad LACP
- Static Trunk
- Max 8 Group
- Max 8 Ports/Group
- Traffic Load Balancing

VLAN

- Surveillance VLAN
- Voice VLAN
- 16 OUI Mode (Auto/Manual)
- QinQ (IEEE 802.1ad) - Basic
- GARP VLAN Registration Protocol (GVRP)
- 4094 Static VLAN/Port-based
- IEEE 802.1Q Tagged-based
- 8 groups Protocol-based
- 256 MAC-based

Multicast

- Common
- 256 Multicast Groups
- Immediate Leave
- Static/Forbidden Router Port
- Static/Forbidden Forward Port
- 128 profiles Filtering
- Throttling
- IGMP Snooping
- IGMP v1/v2
- IGMP v3 Basic (BISS)
- IGMP v2/v3 Querier
- MLD Snooping - MLD v1/v2
- Multicast VLAN Registration (MVR) - IPv4

Quality of Service (QoS)

- Trusted QoS/Priority 8 Queue
- Queue Scheduling
- WRR
- WFQ
- Strict Pripority
- Hybrid(WRR+SP or WFQ+SP)
- Class of Service
- Port-based
- 802.1p
- IP TOS Precedence
- IP DSCP
- Rate Limit
- Port-based (Ingress/Egress)

Access Control List (ACL)

- ACL Type-L2/L3/L4
- 512 MAC-based
- 512 IPv4-based
- 512 IPv6-based
- Access Rules - 1024

Security

- AAA Authentication
- 8 TACACS+
- 8 RADIUS
- Authentication Manager
- IEEE 802.1X
- MAC Auth
- Web Auth
- Guest VLAN
- Port-based
- Host-based
- Account Manager
- Local Authenticatoin
- 8 Multiple User Account
- Multi-Level Securiy (Manager/Operator)
- Password Recovery Procedures
- Management Access
- Management VLAN
- 256Management ACL
- SSL / SSLv2 / SSLv3
- TLSv1
- WebUI
- HTTPS
- CLI - SSH v1/v2
- Port Security - 256 Dynamic Lock
- Storm Control
- Broadcast
- Unknown Multicast
- Unknown Unicast
- Spanning Tree
- BPDU Guard
- Protected Port (Port Isolation)
- Black Hole MAC
- CPU Defence Engine
- DoS Prevention
- DHCP Snooping (with Option 82)
- Dynamic ARP Inspection
- 256 IP Source Guard
- IP/MAC/Port Binding (IMPB)
- Dynamic VLAN Assignment

IPv6

- IPv6 Host
- Auto Configuration
- Static IPv6 Address and Prefix Length
- Static IPv6 Default Gateway
- IPv6 Neighbor Discovery (ND)
- IPv6 Duplicate Address Detection
- ICMPv6
- IPv6 Application
- HTTP/HTTPS
- TELNET
- SSH
- SNMP
- TFTP
- Syslog
- PING
- DHCPv6

Management

- CLI
- 3 sessions Console
- 3 sessions Telnet (RFC854)
- WebUI
- HTTPS
- SNMP(v1,v2c,v3)
- File Management
- Firmware Upgrade/Backup
- Dual Images
- Configuration Download/Backup
- Multiple Configurations
- Upload/Download
- TFTP (RFC783)
- HTTP
- UART
- Time Management
- Local
- SNTP
- Port Management
- Friendly Port Name (Port Description)
- Error Disabled Recovery
- Line Management
- Console
- Telnet (RFC854)
- SSH v1/v2
- DHCP - Client
- DNS - Client
- Software Reset Button
- IEEE (802.3az)
- 32 entries / type RMON Management

Discovery

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)

Diagnostics

- UDLD
- Mirroring - 4 sessions port-based (Many to One)
- Syslog (RFC3164)
- Local RAM
- Local Flash
- 8 Remote Server
- System Diagnostics
- CPU Utilization
- Memory Utilization
- Port Utilization
- Technical Support Log
- Port Diagnostics
- Cable Test
- Fiber Module Status
- Network Diagnostics
- Ping Test
- Traceroute

MIB

- RFC1213 MIBII (System & Interface groups)
- RFC2819 RMON I (1,2,3 & 9 groups)
- RFC1215 Generic Traps
- RFC1493 Bridge
- RFC2674 Bridge MIB Extensions
- RFC2737 Entity
- RFC3635 Ethernet-Like
- RFC2863 Interface Group
- SNMP-Community-MIB
- SNMPv3-MIB