

# S4600-SI Series L2 Gigabits Dual Stack Intelligent Switch Datasheet



S4600-10P-SI(R1.1)



S4600-10P-P-SI(R2.0)



S4600-28P-SI(R2.0)



S4600-28P-P-SI(R2.0)



S4600-52P-SI

## ■ Product Overview

S4600-SI Series is L2 Gigabits intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (VLAN VPN, Voice VLAN, QinQ, N:1 VLAN Translation etc), Ethernet Ring Protection Protocol (G.8032), classified bandwidth control, intelligent security control, OAM(Operations, Administration and Maintenance), manageability functions and Triple-Play services which fulfill the network requirements demanded by carrier network, MAN access. S4600-SI Series switch offers green features like IEEE 802.3az (Energy Efficient Ethernet), Fan-less design feature, which can dramatically lower power consumption, achieve green energy and save the cost for the carrier and MAN users.

S4600-SI Series have 5 types including **S4600-10P-SI**, **S4600-28P-SI**, **S4600-52P-SI**, **S4600-10P-P-SI**, **S4600-28P-P-SI**. Equipped with the full GE ports and 4 SFP(2 SFP) uplink ports, the series integrates advanced management and security functions to provide performance and scalability.

## ■ Main Features

### ➤ Green Energy

- S4600-SI series comply with **IEEE 802.3az** (Energy-Efficient Ethernet) standard, dramatically lower power consumption
- With **Innovative port-LED Shut-off** function, the user can automatically set the switch port-LED UP or DOWN at a specified time period according to their needs to achieve functional, energy-saving correct results.
- Full account of low noise requirements of the environment, S4600-SI uses **Fanless Design and**

---

Smart fan strategies to real-time temperature monitoring system, and reduce the noise pollution.

## ➤ Simple and Flexible Operation and Maintenance

- Full Ethernet **OAM** technology (IEEE802.3ah/802.1ag), VCT, DDM (Digital Diagnostic Monitoring) and other features achieve rapid detection of the network failures; reduce operation and maintenance difficulty.

## ➤ Enhanced Security

- S4600-SI series provide a variety of security mechanisms like SYN Flood, Land, ICMP Flood attack prevention and other DOS class technology, BPDU Guard and Root Guard which avoid accidental topology loops and prevent illegal edge devices become root to cause unnecessary flapping.
- IEEE **802.1X** port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.
- Access Control Lists (**ACLs**) can be used to restrict access to sensitive network resources by denying packets and forward by different policies. User-defined ACL provides more flexible access control for users.
- S4600-SI series support **DHCP snooping**, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently.
- S4600-SI series support much more L2 security features such as **ARP guard**, **Anti-ARP scanning**, and other ARP and **MAC Security** technology to protect network security and reliability.

## ➤ High Reliability

- S4600-SI series support 4 Gigabit uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of network.
- **G.8032** provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. S4600-SI series support G.8032 v2 and can be deployed in a variety of complex network topologies including single ring, tangent ring, intersecting rings, double rings and other home networking.

## ➤ High adaptability VLAN Features

- S4600-SI series support 802.1Q and port based VLAN as well as MAC based VLAN, Voice VLAN and Protocol VLAN.
- Abundant QinQ technology including **Normal QinQ**, **Selective QinQ**, and **Flexible QinQ**, gives users maximum freedom to configure QinQ policy.
- **N:1 VLAN Translation** feature can translate multiple VLAN tags in the frames from access ports into

one specified VLAN Tag. It provides a strong technical support for QoS policy convergence.

## ➤ Abundant Multicast Features

- S4600-SI series also support **MVR** (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With MVR Trunk function, which could associate multicast VLAN to trunk port, S4600-SI series combines the VLAN data into the same link, saving lots of resources for users.
- S4600-SI series could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated to multicast devices.

## ■ Specifications

### ◆ PoE models of S4600 series

| Item               | S4600-28P-P-SI(R2.0)   | S4600-10P-P-SI(R2.0)  |
|--------------------|--|---|
| Ports              | 24 x 10/100/1000Base-T + 4 x<br>100/1000Base-X (SFP)   | 8 x 10/100/1000Base-T + 2 x<br>100/1000Base-X (SFP)                   |
| Performance        |  |   |
| Switching Capacity | 56Gbps   | 20Gbps  |
| Forwarding Rate    | 41.7Mpps   | 14.88Mpps   |
| MAC ADDRESS        | 16K  | 8K  |
| Jumbo Frame        | 12K  | 10K   |
| ACL Table          | 2048   | 1408  |
| Queues per port    | 8  | 8   |
| VLAN TABLE         | 4K   | 4K  |
| Physical           |  |   |
| Dimension(WxHxD)   | 440mm x 260mm x 43.6mm   | 340mm x 200mm x 43.6mm  |
| Power Input        | 100~240VAC, 50~60Hz  | 100~240VAC, 50~60Hz   |
| Power Consumption  | 390W   | 144W  |
| Cooling            | Active   | Passive   |
| Temperature        | Working 0°C~50°C, Storage -40°C~70°C   |   |
| Relative Humidity  | 10%~90%,non-condensing   |   |
| EMC Safety         | CE, RoHS   |   |
| POE                | IEEE 802.3af POE(15.4W)<br>IEEE 802.3at POE+ (30W)<br>PoE output 370w  | IEEE 802.3af POE(15.4W)<br>IEEE 802.3at POE+ (30W)<br>PoE output 124w |
| Main Features      |  |   |
| Forwarding         | Storage and Forwarding   |   |
| VLAN               | Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN<br>Normal QinQ, Selective QinQ, Flexible QinQ |   |

| Item                                 |                    | S4600-28P-P-SI(R2.0)  | S4600-10P-P-SI(R2.0) |
|--------------------------------------|--------------------|---|----------------------|
|                                      |                    | VLAN Translation, N:1 VLAN Translation  |                      |
| DHCP                                 |                    | IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay<br>Option 82, Option 37/38<br>IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server  |                      |
| Reliability                          | Spanning Tree      | 802.1D STP, 802.1W RSTP, 802.1S MSTP<br>Root Guard, BPDU Guard, BPDU Forwarding   |                      |
|                                      | LACP               | 16 groups / 8 ports   | 8 groups / 8 ports   |
|                                      | L2 Ring Protection | MRPP<br>ITU-T G.8032<br>Loopback Detection<br>Fast Link   |                      |
| Security                             |                    | IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL<br>Time Range ACL<br>ACL on VLAN interface<br>Storm Control based on packets and bytes<br>Port Security, MAC Limit based on VLAN and Port<br>Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding<br>ND Snooping<br>DAI<br>IEEE 802.1x<br>Authentication, Authorization, Accounting<br>Radius, TACACS+ |                      |
| Multicast                            |                    | IGMP v1/v2/v3 snooping, IGMP Fast leave<br>MVR<br>MLD v1/v2 snooping<br>IPv4/IPv6 DCSCM   |                      |
| QoS                                  |                    | 8 Queues Per Port<br>Bandwidth Control<br>Flow Redirect<br>Classification based on ACL, VLAN ID, COS, TOS, DSCP,<br>Policing Based on Port and VLAN<br>Single Rate single barrel double color for Policing<br>Remark DSCP, COS/802.1p, Precedence, TOS<br>SP, WRR, SWRR, DWRR for Scheduling<br>Match the IP fragmentation of message         |                      |
| Maintenance and Operation Management |                    | TFTP/FTP<br>CLI, Telnet, Console<br>Web/SSL (IPv4/IPv6)<br>SSH (IPv4/IPv6)  |                      |

| Item         | S4600-28P-P-SI(R2.0)  | S4600-10P-P-SI(R2.0) |
|--------------|---|----------------------|
|              | SNMPv1/v2c/v3<br>SNMP Trap<br>Public & Private MIB interface<br>RMON 1,2,3,9<br>Ping, Trace Route<br>Radius Authentication<br>Syslog (IPv4/IPv6)<br>SNTP/NTP (IPv4/IPv6)<br>Dual IMG, Multiple Configuration Files<br>Port Mirror, CPU Mirror, RSPAN<br>sFlow (S4600-28P/52P-SI)<br>OAM EFM<br>VCT, DDM<br>ULDP(like Cisco UDLD)<br>LLDP/LLDP MED |                      |
| Green Energy | IEEE 802.3az (Energy Efficient Ethernet)<br>Fanless (10P and 28P)<br>LED Shut-off   |                      |

◆ Non-PoE models of S4600 series

| Item               | S4600-52P-SI   | S4600-28P-SI(R2.0)                                   | S4600-10P-SI(R1.1)                                  |
|--------------------|--|--|---|
| Ports              | 48 x 10/100/1000Base-T + 4<br>x 100/1000Base-X (SFP) | 24 x 10/100/1000Base-T + 4<br>x 100/1000Base-X (SFP) | 8 x 10/100/1000Base-T + 2 x<br>100/1000Base-X (SFP) |
| Performance        |  |  |   |
| Switching Capacity | 104Gbps  | 56Gbps   | 20Gbps  |
| Forwarding Rate    | 77.4Mpps   | 41.7Mpps   | 14.88Mpps   |
| MAC ADDRESS        | 16K  | 16K  | 8K  |
| Jumbo Frame        | 12K  | 12K  | 10K   |
| ACL Table          | 2048   | 2048   | 1408  |
| Queues per port    | 8  | 8  | 8   |
| VLAN TABLE         | 4K   | 4K   | 4K  |
| Physical           |  |  |   |
| Dimension(WxHxD)   | 442mm x 220mm x 43.6mm                               | 442mm x 220mm x 43.6mm                               | 220mm x 160mm x 44.3mm                              |
| Power Input        | 100~240VAC, 50~60Hz                                  | 100~240VAC, 50~60Hz                                  | 100~240VAC, 50~60Hz                                 |
| Power Consumption  | 40W  | 20W  | 7W  |
| Cooling            | Active   | Passive  | Passive   |
| Temperature        | Working 0°C~50°C, Storage -40°C~70°C                 |  |   |
| Relative Humidity  | 5%~95%,non-condensing                                |  |   |
| EMC Safety         | CE, RoHS   |  |   |

| Item          |                    | S4600-52P-SI   | S4600-28P-SI(R2.0)  | S4600-10P-SI(R1.1) |
|---------------|--------------------|--|---------------------|--------------------|
| Main Features |                    |  |                     |                    |
| Forwarding    |                    | Storage and Forwarding   |                     |                    |
| VLAN          |                    | Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN<br>Normal QinQ, Selective QinQ, Flexible QinQ<br>VLAN Translation, N:1 VLAN Translation   |                     |                    |
| DHCP          |                    | IPv4/IPv6 DHCP Client,IPv4/IPv6 DHCP Relay<br>Option 82, Option 37/38<br>IPv4/IPv6 DHCP Snooping,IPv4/IPv6 DHCP Server   |                     |                    |
| Reliability   | Spanning Tree      | 802.1D STP, 802.1W RSTP, 802.1S MSTP<br>Root Guard, BPDU Guard, BPDU Forwarding  |                     |                    |
|               |                    | LACP   | 16 groups / 8 ports | 8 groups / 8 ports |
|               | L2 Ring Protection | MRPP<br>ITU-T G.8032<br>Loopback Detection<br>Fast Link  |                     |                    |
|               |                    |  |                     |                    |
| Security      |                    | IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL<br>Time Range ACL<br>ACL on VLAN interface<br>Storm Control based on packets and bytes<br>Port Security, MAC Limit based on VLAN and Port<br>Anti-ARP-Spoofing , Anti-ARP-Scan, ARP Binding<br>ND Snooping<br>DAI<br>IEEE 802.1x<br>Authentication, Authorization, Accounting<br>Radius, TACACS+ |                     |                    |
| Multicast     |                    | IGMP v1/v2/v3 snooping, IGMP Fast leave<br>MVR<br>MLD v1/v2 snooping<br>IPv4/IPv6 DCSCM  |                     |                    |
| QoS           |                    | 8 Queues Per Port<br>Bandwidth Control<br>Flow Redirect<br>Classification based on ACL, VLAN ID, COS, TOS, DSCP,<br>Policing Based on Port and VLAN<br>Single Rate single barrel double color for Policing<br>Remark DSCP, COS/802.1p, Precedence, TOS<br>SP, WRR, SWRR, WDRR for Scheduling   |                     |                    |

| Item                                 | S4600-52P-SI  | S4600-28P-SI(R2.0) | S4600-10P-SI(R1.1) |
|--------------------------------------|---|--------------------|--------------------|
|                                      | Match the IP fragmentation of message   |                    |                    |
| Maintenance and Operation Management | TFTP/FTP<br>CLI, Telnet, Console<br>Web/SSL (IPv4/IPv6)<br>SSH (IPv4/IPv6)<br>SNMPv1/v2c/v3<br>SNMP Trap<br>Public & Private MIB interface<br>RMON 1,2,3,9<br>Ping, Trace Route<br>Radius Authentication<br>Syslog (IPv4/IPv6)<br>SNTP/NTP (IPv4/IPv6)<br>Dual IMG, Multiple Configuration Files<br>Port Mirror, CPU Mirror, RSPAN<br>sFlow (S4600-28P/52P-SI)<br>OAM EFM<br>VCT, DDM<br>ULDP(like Cisco UDLD)<br>LLDP/LLDP MED |                    |                    |
| Green Energy                         | IEEE 802.3az (Energy Efficient Ethernet)<br>Fanless (10P and 28P)<br>LED Shut-off   |                    |                    |

## ■ Ordering information

| Product        | Description   |
|----------------|---|
| S4600-52P-SI   | L2 Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T and 4 100/1000Base-SFP ports, 100-240VAC Power Input   |
| S4600-28P-SI   | L2 Gigabit Intelligent Ethernet Switch with 24 10/100/1000Base-T and 4 100/1000Base-SFP ports, 100-240VAC Power Input   |
| S4600-10P-SI   | L2 Gigabit Intelligent Ethernet Switch with 8 10/100/1000Base-T and 2 100/1000Base-SFP ports, 100-240VAC Power Input  |
| S4600-10P-P-SI | L2 Gigabit Intelligent Ethernet PoE Switch with 8*10/100/1000Base-T and 2*100/1000Base-SFP ports, 100-240VAC Power Input. 30w POE+ Supported. PoE output 124w |

|                |  |
|----------------|--|
| S4600-28P-P-SI | L2 Gigabit Intelligent Ethernet PoE Switch with 24*10/100/1000Base-T and 4*100/1000Base-SFP ports, 100-240VAC Power Input. 30w POE+ Supported. PoE output 370w |
|----------------|--|

## ■ Contact us

For more detail information about DCN product, please contact:

URL: <http://www.DCNglobal.com>

Email: [sales@DCNglobal.com](mailto:sales@DCNglobal.com)

Address: Digital Technology Plaza, NO.9 Shangdi 9th Street, Haidian District, Beijing, China