

# S6800 Series

## Layer3 10G/25G TOR Switch

### Overview

The S6800 series switch is a high-density data center TOR switch, The whole switch adopts an advanced hardware structure design and a hot-swap power supply redundancy design. It can support a maximum of 10/25G optic ports and 40G/100G uplink port provides full-port L2/L3 wire-speed forwarding capability, supports IPV6, and has rich business features and powerful functions such as ACL policy, flexible Q-IN-Q, and network security protection. At the same time, the product has the highest 10 Gigabit port density and maximum switching capacity of the same grade equipment in the industry, and supports wire-speed forwarding of all ports. At the same time, the 10G port supports flexible access of GE and 10GE, and automatically recognizes the type of optical module installed, so as to maximize the protection of user investment and ensure the flexibility of use.

The S6800 series support elastic stacking function, which virtualizes multiple devices into one logical entity, which can not only meet the expansion of ports and switching capacity, but also realize the unified management, upgrade, and maintenance of multiple devices. In response to the requirements of large data traffic and non-blocking transmission in the data center, the product can provide a strong cache capacity, and support an advanced cache scheduling mechanism to ensure the maximum effective use of the device cache capacity. It is designed to meet the high-density and high-bandwidth network application requirements of next-generation enterprise networks, data centers and metropolitan area networks. It can be applied to network operators or campus Ethernet aggregation layer or access layer, and can also be used as data center access layer, small and medium-sized enterprise core layer, and provides rich server access solutions for data centers.

# Model Select



## S6865-56YC

- 48\*25G SFP28 optical port,
- 8\*100G QSP28 optical ports
- 1+1 hot-swap redundant power supply
- 5x hot-swap fan slot



## S6862-54XC

- 48\* 10G SFP+ port
- 2\*40G QSFP ports
- 4\*100G QSP28 ports
- 1+1 hot-swap redundant power supply
- 5x hot-swappable fan slot



## S5863-24X2C

- 24 x 10G SFP+
- 2 x 40G QSFP/100G QSFP28
- 880Gbps Switching capacity
- 1+1 redundant RPS power
- 2x hot-swappable fan unit(2fan/unit)

# Features

## Carrier-level high availability

S6800 series switch not only supports the traditional STP/RSTP/MSTP spanning tree protocol, but also supports the G.8032 international standard ERPS protocol issued by ITU-T. This standard can realize 50ms fast loop recovery under Ethernet ring network. One switch can connect to multiple aggregation switches through multiple links, significantly improving the reliability of access devices.

## Perfect security mechanism

Adopt hardware-based packet-by-packet forwarding mechanism, which can effectively detect and filter characteristic packets

Support ACL security filtering mechanism, which can provide security control functions based on user MAC, IP, L4port and port level

Supports automatic protection against ARP attacks based on MAC addresses and automatic user blocking functions

Supports automatic protection against DHCP attacks based on MAC addresses and user blocking functions

Support various device protection functions such as anti-DDoS, CPU overcurrent protection, CPU queue flow control and VRRP

Support DHCP snooping/IP source Guard/802.1X and other security features to effectively ensure the availability of users, devices and networks

Support link protection functions such as BFD, FlexLink, dynamic link aggregation and Ethernet ring network

Support remote loop detection function

Supports multiple Ethernet link detection mechanisms such as CFM and EFM

Support remote user authentication based on Tacacs+, Radius, and Local local user authentication, which can realize user hierarchical management and effectively ensure the security of device management users

## IPv4/IPv6 Dual-Stack Multi-Layer Switching

Support line-rate IPv4/IPv6 dual-stack multi-layer switching

Support IPv4 router protocol static routing

Support RIP, OSPFv3, BGP4+, and ECMP

Supports IPv6 addressing

## VxLAN for Layer2 Virtualized Deployment

S6800 series can work with the industry's mainstream virtualization platforms and acts a hardware gateway on an VxLAN overlay network. Virtual extensible LANs (VxLAN), a common network virtualization overlay protocol that expands the layer 2 network address space from 4,000 to 16 million.

## Centralized management

Support CLI command line management based on serial port, Telnet and SSHv2

Support RFC1213 SNMP (Simple Network Management Protocol)

Support WEB-based configuration operation management

# Specification

Model	S6865-56YC	S6862-54XC	S5863-24X2C
Routing Layer	Layer3	Layer3	Layer3
Chipset SoC	Centec CTC8180	CTC8096	CTC7132
LAN port	48 * 25G SFP32	48* 10G SFP+	24* 10G SFP+
Uplink port	8* 100GE QSFP28	2* 40GE QSFP 4* 100GE QSFP28	2* 100G QSFP28
Mgmt port	1* Console/1* MGMT	1* Console/1* MGMT	1* Console/1* MGMT
USB port	1* USB 2.0	1* USB 2.0	1* USB 2.0
<b>Performance</b>			
Switch fabric speed	2.4 Tbps	1.92T	880Gbps
Forwarding rate	2976 Mpps	1428Mpps	654Mbps
MAC address table	160K	64K	128K
ARP table	32k	32k	32k
ACL table	2K	6K	2K
Routing Table (IPv4)	384K	64k	64k
Packet buffer	36MB	9MB	4.5MB
Flash	1G	1G	8G
Memory	2G	2G	1G
<b>Physical</b>			
Size	437*390*44(mm)	437*390*44(mm)	440*320*44 mm
Power consumption	≤180W	≤180W	≤125W
Power supply	2* Hot-swap CRPS (FRU)	2* Hot-swap CRPS (FRU)	2* Hot-swap CRPS (FRU)
Cooling system	5* Hot-swap FAN (FRU)	5* Hot-swap FAN (FRU)	2* Hot-swap slot (2fan/slot)
Airflow	Front to rear	Front to rear	Front to rear
<b>Ethernet</b>			
Ethernet interface operating modes	●	●	●
Ethernet interface operating rates	●	●	●
Jumbo Frame	●	●	●
Port enable/disable	●	●	●
Flow-control TX/RX	●	●	●
Port based storm-control	●	●	●

Unicast/multicast/broadcast storm-control	•	•	•
Port-isolate	•	•	•
Cut-through	•	•	•
<b>VLAN</b>			
802.1QVLANs	•	•	•
Port-based VLAN	•	•	•
Protocol-based VLAN	•	•	•
IP subnet based VLAN	•	•	•
Voice VLAN	•	•	•
Mac VLAN	•	•	•
Super VLAN	•	•	•
GVRP	•	•	•
VLAN Swap	•	•	•
802.1ad Vlan Stacking (QinQ)	•	•	•
Flexible QinQ	•	•	•
<b>MAC Address</b>			
Automatic learning and aging of MAC addresses	•	•	•
Hardware Learning	•	•	•
Static and dynamic MAC address entries	•	•	•
Blackhole MAC	•	•	•
<b>Link Aggregation</b>			
Static-LAG & LACP	•	•	•
LAG load balance (SIP/DIP/SMAC/DMAC)	•	•	•
<b>Spanning-Tree</b>			
IEEE 802.1D STP/802.1w RSTP/802.1s MSTP	•	•	•
IEEE 802.3ad LACP	•	•	•
Virtual Cable Testing	•	•	•
DDM	•	•	•
LLDP / LLDP-MED	•	•	•
VRRP	•	•	•

Root Guard	•	•	•
Loop guard	•	•	•
ERPS (ITU-T G.8032)	•	•	•
ERRP	•	•	•
Smart Link (Flexlink)	•	•	•
Loopback-detection	•	•	•
<b>Layer2 Multicast</b>			
IGMPv1/v2/v3 Snooping	•	•	•
Fast leave	•	•	•
Static IGMP snooping group	•	•	•
MVR	•	•	•
<b>ARP</b>			
Static and dynamic ARP entries	•	•	•
Aging of ARP entries	•	•	•
Gratuitous ARP	•	•	•
basic/Local ARP-Proxy	•	•	•
<b>IPv4 Routing</b>			
IPv4 Static Routes	•	•	•
uRPF check	•	•	•
RIPv1/v2	•	•	•
OSPFv2	•	•	•
IS-IS	•	•	•
BGP	•	•	•
ICMP redirect	•	•	•
ICMP unreachable	•	•	•
ECMP	•	•	•
IGMPv1/v2/v3	•	•	•
IGMP-Proxy	•	•	•
IGMP SSM Mapping	•	•	•
PIM-SM	•	•	•
PIM-SSM	•	•	•
PIM-DM	•	•	•
<b>IPv6 Routing</b>			
IPv6 Static Routes	•	•	•
RIPng	•	•	•

BGP4+	•	•	•
OSPFv3	•	•	•
IS-IS	•	•	•
MLD v1/v2	•	•	•
MLD v1/v2 Snooping	•	•	•
BFD for OSPFv2	•	•	•
ICMPv6	•	•	•
NDP	•	•	•
PMTU	•	•	•
<b>Virtualization</b>			
IPv6 VxLAN tunnel	•	•	•
Static Distributed VxLAN	•	•	•
Centralized Gateway VxLAN	•	•	•
IPRAN	•	•	•
<b>QoS</b>			
802.1p Priority Queues per Port	•	•	•
SP (Strict Priority) scheduling	•	•	•
WRR (Weighted Round Robin) scheduling	•	•	•
SP + WRR mixed scheduling	•	•	•
Port based traffic shaping	•	•	•
Queue based traffic shaping	•	•	•
Port/VLAN/Flow/Aggregated flow base traffic policing	•	•	•
Packet counts and bytes statistics	•	•	•
Flow redirection	•	•	•
Flow mirror	•	•	•
IPv4-v6 QoS(QCEs)	•	•	•
<b>System Security</b>			
SSHv1/v2	•	•	•
RADIUS	•	•	•
TACACS+	•	•	•
Authentication	•	•	•
Accounting	•	•	•
Port based dot1x	•	•	•

MAC based dot1x	•	•	•
MAC/IP ACL	•	•	•
Basic Mode ACL	•	•	•
Port/VLAN/L4-Port ACL	•	•	•
Time Range	•	•	•
ARP Inspection	•	•	•
IP Source Guard	•	•	•
Limitation on MAC address learning on interface	•	•	•
Limitation on MAC address learning on VLAN	•	•	•
Rate limit	•	•	•
CPU Traffic Limit	•	•	•
Anti- DDOS attack	•	•	•
CLI/WEB/SNMP/Telnet/SSH filtering	•	•	•
<b>Network Management</b>			
GUI (Web)	•	•	•
Telnet / SSH	•	•	•
CLI (Vty Level)			
SNMP v1/v2c/v3	•	•	•
TFTP/FTP	•	•	•
Configuration backup and restore	•	•	•
DNS Client	•	•	•
DHCP Client/Relay/Server	•	•	•
DHCP Snooping	•	•	•
DHCP option 60/82	•	•	•
SNTP / NTP	•	•	•
RFC3176 sFlow	•	•	•
Port Mirroring per IP/TCP/UDP	•	•	•
RSPAN	•	•	•
RMON	•	•	•
Stacking (VST)	N/A	N/A	N/A
IEEE 802.3ah EFM	•	•	•
IEEE 802.1ag CFM	•	•	•
IEEE 802.1ag Y.1731	•	•	•



Public and private MIB	●	●	●
Public and private Trap	●	●	●
<b>Maintenance</b>			
per-module Debug features	●	●	●
ICMP Debug	●	●	●
CPU usage display and alarm	●	●	●
Memory usage display and alarm	●	●	●
Device temperature, PSU, FAN, status display and alarm	●	●	●
User operation logs	●	●	●
Management of logs, alarms, and debugging information	●	●	●
Detailed Diagnostic-information collection	●	●	●
Manual /Schedule reboot	●	●	●
Reboot Information logging	●	●	●
Ping	●	●	●
IPv6 Ping	●	●	●
Traceroute	●	●	●
Port/Flow/Remote mirror	●	●	●
Multi-destination mirror (m:n)	●	●	●
To CPU/From CPU packets statistics	●	●	●
Port loopback	●	●	●
hardware loopback (internal/external)	●	●	●
Time configuration	●	●	●
Timezone	●	●	●

# ALTI-LINK

ALTI-LINK COMMUNICATION CO., LIMITED

Room 310, Building 4, Dongjiu Innovation Technology Park,

No#76 Bulan Road, 518057, Shenzhen, P.R.China

Tel: +86 755 26937291

Website: [www.alti-link.com](http://www.alti-link.com)

Email: [inquiry@alti-link.com](mailto:inquiry@alti-link.com)

*Copyright ©2014~2024 Alti-link All Rights Reserved.Specifications are subject to change without notice.*