A-GEAR World Wide Manufacturing

Product Specification

A-GEAR S6800

Large Network Backbone Switch

Proudly presented by A-GEAR Tech Co., Ltd, A-GEAR S6803/S6806/S6810 is a hi-performance and chassis-hardware L2/L3/L4 switch, aiming at large-sized networks aggregation and SMB's core network. A-GEAR S6800 series has an all-modular, high-density-port design and 2.4T switch fabric so that user's requirements can be satisfied by flexible configuration and expansible networks. The powerful switching and routing function makes A-GEAR S6803/6806/6810 an ideal choice for the core switch for large-sized networks, and with other A-GEAR switches, A-GEAR S6803/6806/6810 supply the perfect peer-to-peer solutions for users.

1. Application

- Gigabit core of small- and medium-sized networks
- Aggregation level of large-sized networks
- High performance-network switching environment.

2. Features

2.1. High-density-port Business Module

- Supply powerful high-density-port switching ability
- Support 384-port 1000-M and 32-port 10000-M.

2.2. High switching fabric and Wire-speed Processing

- 2.4T Gbps switch fabric, supply congestion-less switching for all ports
- Powerful processing ability guarantees the reliable, stable and hi-speed IP network platform

- Hardware supports multi-layer wire-speed switching, and is capable to identify and process application flow above L4. All ports have data package filtration function, and can differentiate, manage and control the application flow.
- Hardware chip supports IPv6 and benefits smoothly network upgrade in future.

2.3. Tight Security

- Support standard ACL, extended ACL and ACL based on time, making control policy flexible
- DAP (DOS defense) makes network more safe and avoids attacking form virtues, like ICMP, SYN, UDP, etc.
- Support 802.1x based on user, and supply more effective port-control ability. The function of MAC address restriction can limit the number of access host.

2.4. Powerful QoS Support

- Support 802.1p, WRR, RED, DiffServ and priority-based scheduling algorithms serve users with discrimination according to their priority level. L2/L3/L4 flow classification. Powerful QoS is the base of NGN.

2.5. High Reliability

- Redundant backup, support STP/RSTP/VRRP. Double redundant power modules work in hot standby mode to ensure business will be not interrupted.

3. Specifications

	S6803	S6806	S6810
Slot	1*MSU + 2*Access Modules	2*MSU + 4* Access Modules	2*MSU + 8* Access Modules
Backplane Capacity	768G	1.8T	2.4T
Switch Fabric	SuperEngige I 96Gbps		
	SuperEngige II 192Gbps		
	SuperEngige III 384Gbps		
Forwarding Rate	119Mpps	238 Mpps	476 Mpps
Max No. of 10000M ports	8	16	32
Max No. of 1000M ports	96	192	384
Max No. of 100M ports	96	192	384
CPU	RISC CPU (RISC 800MHz)		
Flash	16MB		

	S6803	S6806	S6810
SDRAM	128MB(up to 1GB)		
MAC Address Table Size	512K		
VLAN table Size	4K		
Jumbo frame	16383		
Spanning Tree	802.1D (STPX 802.1w (RSTPX 802.1s(MSTP)		
Routing Protocol	RIPv1/2^ OSPF BGP		
MPLS	Support		
IPv6	Support		
Multicast Protocol	IGMP^ DVMRP, PIM-SM PIM-DM		
QoS	8 dispatching queues per port, support 802.1p, ToS, application port control, DifferServ, WRR, SP, SWRR, etc.		
ACL	Standard and Extended ACL, support based IP, source/destination IP, L3 IP protocol no., TCP/UDP port, IP priority, ToS, time ranger ACL		
MAC Control	Support port/MAC binding MAC ACL		
VLAN	Port-based VLAN, 802.1Q, support GVRP, PVLAN, Super VLAN Stacking(QinQ)		
Flow Control	HOL blocking prevention, Half-duplex: Back Pressure, Full-duplex: IEEE 802.3x		
ARP	Support		
DHCP	Support Clients Relay Server		
Port Aggregation	Support 802.3ad, loading balance		
Customer Access	Support 802.1x		
AAA	Support RADIUS		
Port Mirroring	Support		
Broadcast Control	Support		
Security	Support MSU redundancy, hot swapped,VRRP		
IEEE Standard	IEEE 802.1D, IEEE 802.3, IEEE 802.3u, IEEE802.3ad, IEEE 802.3x, IEEE 802.3z, IEEE802.1Q, IEEE 802.1P, IEEE 802.1w, IEEE 802.1x		
Console Interface	CLE WEB		
Console Port	RS-232		
Telnet	Support		
SNMP	v1/v2/v3		
SysLog	Support		
RMON	1, 2, 3,9		
MIB	Support		
Humidity	10%~90% (no condensing)		

	S6803	S6806	S6810
Temperature	0°C~40°C		
Power Supply	AC 200-240VAC, 50/60 Hz DC -48V		
Power Redundancy	1+1 redundancy, support hot swapped		
Dimensions(mm) (LxWxH)	436x450x380mm	436x450x680mm	436x450x797mm
Power Consumption	700W	1000W	1000W

4. Support Protocols

Standard Protocols	802.3,10BaseT, 802.3u 100BaseTX, 100BaseFX 802.3z 1000BaseSX 802.3z 1000BaseLX 802.3ab 1000BaseT, 802.3ae 10 Gigabit Ethernet, 802.3x Flow Control, 802.3ad Link Aggregation 802.1p/q VLAN Tagging 802.1d Bridging 802.1w Rapid STP, 802.1x User authentication 802.3 Ethernet Like MIB, Ethernet Interface MIB, SNMP v1, v2c and V3 , SNMP MIB II
OSPF	RFC 2178 OSPF, RFC 1583 OSPF v2, RFC 1587 OSPF NSSA, RFC 1745 OSPF Interactions, RFC 1765 OSPF Database Overflow, RFC 1680 OSPF Traps, RFC 2154 OSPF w/Digital Signatures (Password, MD-5), RFC2328 OSPF v2, RFC 1680 OSPF v2 MIB, RFC 1997 Communities Attributes, RFC 2368 TCP MD5, RFC 2370 OSPF Opaque LSA Option
RIP	RFC 1058 RIP v1, RFC 1723 RIP v2, RFC 1812 RIP Requirements
IP Multicast	RFC 1122 DVMRP Host Requirements, RFC 1256 ICMP Router Discovery Protocol, RFC 1112 IGMP, RFC 2236 IGMP v2, RFC 2362 PIM-SM, DVMRP v3-07, RFC 2336 IGMP v2
Routing Protocols	RFC 791 IP, RFC 792 ICMP, RFC 793 TCP, RFC 783 TFTP, RFC 826 ARP, RFC 768 UDP, RFC 894 IP over Ethernet, RFC 903 RARP, RFC 1027 Proxy ARP, RFC 684 TELNET, RFC 1591 DNS (client), RFC 1812 General Routing, RFC 1541 and 1542 DHCP, RFC 2131 BOOTP/DHCP Helper, RFC 2338 VRRP
Other Protocols	RFC1354 IP Forwarding MIB, RFC 1757 RMON Groups 1,2,3,9, RFC 2068 HTTP, RFC 2030 SNTP, RFC 2138 RADIUS

5. Order Information

A-GEAR S6810	
LS6810-Chassis	A-GEAR S6810 Modular Switch chassis (10 slots, including 2 MSU slots and 8 network module slots, dual AC/DC power supply)
LS68-PWR-AC-1000	220V AC power supply for S6810
LS68-PWR-DC	-48 V DC power supply

A-GEAR S6806	
LS6806-Chassis	A-GEAR S6806 Modular Switch chassis (6 slots, including 2 MSU slots and 4 network module slots, dual AC/DC power supply)
LS68-PWR-AC-600	220V AC power supply for S6806
LS68-PWR-DC	-48 V DC power supply
A-GEAR S6803	
LS6803-Chassis	A-GEAR S6803 Modular Switch chassis (3 slots, including 1 MSU slot and 2 network module slots, dual AC/DC power supply)
LS68-PWR-AC-600	220V AC power supply for S6803
LS68-PWR-DC	-48 V DC power supply
S6800 modules MSU	
LS68-MSU-I	Main Switching Unit —SuperEngine I
LS68-MSU-II	Main Switching Unit —SuperEngine II
LS68-MSU-III	Main Switching Unit —SuperEngine III
Business modules	
LS68-48FE-TX	48-port 10/100M TX Module
LS68-24FESFP-2GE	24-port 100M SFP + 2-port 1000M SFP/TX Module
LS68-12GE-TX/SFP	12-port 1000M SFP/TX Module
LS68-24GE-SFP	20-port 1000M SFP + 4-port 1000M SFP/TX Module
LS68-24GE-TX	20-port 10/100/1000M TX + 4-port 1000M SFP/TX Module
LS68-48GE-TX	48-port 10/100/1000M TX Module
LS68-1TE-XFP	1-port 10 Gigabit XFP Module
LS68-2TE-XFP	2-port 10 Gigabit XFP Module
LS68-4TE-XFP	4-port 10 Gigabit XFP Module
LS68-12GE-TX/SFPE-MPLS	12-port 1000M SFP/TX Module, support MPLS VPN
LS68-1TE-XFP-MPLS	1-port 10 Gigabit XFP Module, support MPLS VPN
LS68-MFNP-12GE-TX/SFP	12-port 1000M SFP/TX Multi-functional business Module
2G PCMCIA CARD	2G CF card and memory card adaptor

The functions and corresponding parameters may change in light of the upgrade of software, modular, etc. The right of final interpretation belongs to A-GEAR. For more information, please contact us.