

Product Specification

A-GEAR S3500

High Performance Gigabit Ethernet Switch



A-GEAR™ S3500 series belong to a standard L3 congestion-less switch series, which are capable of multi-layer switching and wire-speed route forwarding. Its high-performance ASIC and modular design enable you to employ a suitable number of interfaces and to configure various networks with great flexibility, all based on their individual requirements. It supports many access authentication models that can be flexibly configured, making it especially ideal for community access networks. Due to its high performance and low cost, A-GEAR™ S3548, S3524, S3524GX, S3512GX are considered a very competitive Ethernet switching solution for community networking and workgroup networking in enterprise networks.

1. Application

- Aggregation level of enterprise networks
- Giga core of small- to Medium-sized business networks
- Connection server cluster of data centers
- A multi-layer solution with high performance but low cost, which is applied when multiple Giga ports are needed in other situations where multiple Giga ports are needed

2. Features

2.1. Excellent performance

- 192 Gbps switch fabric, (64G for S3524/S3524GX, 48G for S3512GX)
- Hardware routing, wire-speed L3 switching, packet forwarding rate: 71 Mpps
- Giga optical fiber supports up to 80 km long-distance transfer, direct connection to MAN backbone networks

2.2. Security and reliability

- Quota system for connected hosts per port
- IEEE 802.1x port-based user authentication

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- Ethernet port trunking provides more bandwidth and system redundancy
- Powerful ACL supports L2-L4 data filtering
- Web portal authentication
- Redundant power supply

2.3. Easy maintenance

- Supports device stacking through cluster technology. Central management with unified IP address saves IP addresses
- Management via CONSOLE port, Web, SNMP, etc.
- BootRom and other software upgrade through TFTP
- Support DHCP and relay, provide dynamic IP address assignment
- Support SFP standard interface, protect your investment

2.4. Powerful traffic and broadcast control

- Automatically detect and restrain broadcast storm, support IGMP datagram snooping, effectively restrict broadcast flooding
- Full- and half- duplex traffic control
- Ethernet port bit rate quota
- Advanced buffer management supports 802.1p, with 4 dispatching queues per port mapping the 8 priority queues in 802.1p
- IP multicast and QoS support
- Jumbo frame

2.5. Multiple routing polices

- Static routing
- Support RIP v1/v2, OSPF v2, and many other dynamic routing protocols
- Support PIM-SM, PIM-DM and many other multicast routing protocols

3. Specifications

	S3548	S3524	S3524GX	S3512GX
Port	44	20		
	10/100/1000M	10/100/1000M	20 GSFP Slots	8 GSFP Slots
	TX	TX	4 GSFP/TX	4 GSFP/TX
	4 GSFP/TX Combo	4 GSFP/TX Combo	Combo	Combo
Switch Fabric	192G		64G	48G
Forwarding Rate	71 Mpps		36Mpps	18Mpps
Switching Mode			Store-and-forward	
MAC Address Table Size			8 K	

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	S3548	S3524	S3524GX	S3512GX
Jumbo frame			16383	
Max. VLAN			4 K	
Functions				
Spanning Tree	IEEE 802.1D (STP), IEEE 802.1w (RSTP), IEEE 802.1s MSTP(3512GX does not support MSTP)			
VLAN	Port-based VLAN, 802.1Q tag VLAN, Super VLAN, Private VLAN, GVRP dynamic VLAN configuration, VLAN Stacking (QinQ) (3512GX does not support QinQ)			
Traffic Control	Back pressure at half-duplex, 802.3x at full-duplex, CAR support, 100M port: 1M step size; 1000M port: 8M step size			
Storm Control	Stop sending at threshold to restrict broadcast/multicast/unicast storms			
Multicast Control	IGMP snooping			
Multicast Protocol	IGMP v1/v2/v3, PIM-SM, PIM-DM			
Port Trunking	Up to 32 groups with up to 8 ports per group, dynamic LACP or static aggregation			
Port Mirroring	Supported. Can be based on flow classification			
Cluster	Cluster up to 32, manageable through single IP			
Unicast	Static, RIP v1/v2, OSPF v2, BGP v4			
Redundant Routing	VRRP			
DHCP	DHCP Server/Client/DHCP Relay			
NAT	Static or dynamic NAT			
Security	IEEE 802.1x port-based user authentication Port Security Hardware support for IP ACL, MAC ACL, VLAN ACL Hardware support for port-based user authentication by combinations and bandings of port, IP address, and MAC address Web user authentication RADIUS User privilege classification and password protection DHCP snooping, DHCP option82, IP Source Guard			
QoS	Head Of Line (HOL) blocking prevention mechanism 4 dispatching queues per port, mapping the 8 priority queues in 802.1p WRR, SP, and FIFO queuing algorithms Best Effort Service Differentiated Service Strict Priority Weighted Round Robin First Come First Serve TOS re-tagging RTS			

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	S3548	S3524	S3524GX	S3512GX
Network Management	SNMP v1/v2 RMON (Group 1, 2, 3, 9) Telnet Command Line Interface (CLI) Web Interface Support A-GEAR network management tools suite: Broad Director NTP SSH LLDP			
Dimensions (L x W x H) (mm)	442 x 374 x 44.5		442 x 316x 44	
Weight	< 5 kg			
Power Consumption	< 30 W			
Power Supply	AC 100 ~ 240 V, 47 ~ 63 Hz, DC 44 ~ 53 V			
Working environment				
Temperature	Operating: 20 ~ 50°C, non-operating: -40 ~ 70°C			
Humidity	10 ~ 90% (no condensing)			

4. Order Information

A-GEAR S3512GX	All-Giga-port Ethernet switch. 8+4 ports (1 CONSOLE port, 8 1000M SFP slots, 4 1000M SFP/TX combo ports)
A-GEAR S3512GX- 2AC	All-Giga-port Ethernet switch. 8+4 ports 1 CONSOLE port, 8 1000M SFP slots, 4 1000M SFP/TX combo ports), dual AC power supply
A-GEAR S3524	All-Giga-port Ethernet switch. 20+4 ports (1 CONSOLE port, 20 10/100/1000M Ethernet ports, 4 1000M SFP/TX combo ports)
A-GEAR S3524GX	All-Giga-port Ethernet switch. 20+4 ports (1 CONSOLE port, 20 1000M SFP slots, 4 1000M SFP/TX combo ports)
A-GEAR S3548	All-Giga-port Ethernet switch. 44+4 ports (1 CONSOLE port, 44 10/100/1000M Ethernet ports, 4 1000M SFP/TX combo ports)

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.