

# 10GE Security Routing Switch

# **AS3600 Series**



- Core network and Enterprise zone
- 24 × 10GE SFP+
- 2 × 40GE QSFP (2Q)
- 480 (0Q) / 640 (2Q) Gbpsbackplane capacity
- 360 (0Q) / 480 (2Q) Mpps
   throughput
- 3 × hot-swapped fans
- 1+1 power redundancy
- Full loaded ≤ 120W
- CLI, Console, Telnet, Web,SNMP v1/2/3

AS3600 Series are full 10GE multi-service security routing Ethernet switches featuring advanced hardware design with hot-swapped power redundancy. It can support up to 24 × 10GE SFP+ ports and 2 × 40G QSFP ports. Advanced non-blocking array exchange and a large packet cache allow for smooth operation even in extreme circumstances.

AS3600 series offers robust switching and routing capabilities and seamless cooperation with other ACT routing and switching products. Offering high performance and high security, AS3600 is suitable for the IP MAN convergence layer, large-scale enterprise zones, and the core of the network layer.



### Highlights ———

- High-performance security routing switching with IPv4/IPv6 support
- 480 (0Q) / 640 (2Q) Gbps backplane capacity
- Throughput up to 360 (0Q) / 480 (2Q) Mpps
- Supports up to 24 × 10GE SFP+ uplinks and 2 × 40GE QSFP (2Q)
- 3 × hot-swapped fans
- 1+1 redundancy dual power supply
- Advanced routing and switching features
- Lower power consumption to save on maintenance and service costs

## Specifications —

<b>AS3624S-0Q-AC2</b> 480 Gbps 480 Gbps 360 Mpps	AS3624S-2Q-AC2 640 Gbps 512 Gbps 480 Mpps	
512 MB DDR2 SDRAM Memory and 16 MB Flash Memory 1+1 hot-swap redundant power AC: Input 100~240V, 50~60Hz DC: Input -36V~-72V		
Full load ≤ 120W 437 mm × 360 mm × 44 mm	Full load ≤ 130W	
≤8 kg  Working temperature: 0 ~ 55°C  Storage temperature: -20 ~ 70°C  Relative humidity: 10 ~ 90% (non-confident temperature)  Electromagnetic compatibility	≤8.5 kg ondensing)	
	480 Gbps 480 Gbps 360 Mpps  512 MB DDR2 SDRAM Memory and 1+1 hot-swap redundant power AC: Input 100~240V, 50~60Hz DC: Input -36V~-72V Full load ≤ 120W 437 mm × 360 mm × 44 mm  ≤8 kg  Working temperature: 0 ~ 55°C Storage temperature: -20 ~ 70°C	

### Features —

Item		ACT AS3600 Series
L2 Features	MAC	128K MAC address
		MAC Black Hole
	Port MAC limit	
		Source MAC filtration



VLAN 4K VLAN entries

Port-based/MAC-based/IP subnet-based VLAN
Port-based QinQ and selective QinQ (StackVLAN)

1:1 and N:1 VLAN

**VLAN Swap and VLAN Remark** 

PVLAN to realize port isolation and saving public-VLAN resources

GVRP

**Spanning Tree** IEEE 802.1D Spanning Tree Protocol (STP)

**Protocol** IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)

IEEE 802.1s Multiple Spanning Tree Protocol instances (MSTP)

Remote loop detection

BPDU protection Root protection RRPP ring topology RRPP instance

Port Bi-directional bandwidth control

Anti-ARP-spoofing

Static link aggregation and LACP (Link Aggregation Control Protocol)

Port mirroring and traffic mirroring

Security User Security

Features Anti-ARP-flooding

IP Source Guard created IP + VLAN + MAC + port binding

Port Isolation

MAC address binds to port and port MAC address filtration

IEEE 802.1x and AAA/RADIUS authentication

**Device** Anti-DOS attack (such as ARP, Synflood, Smurf, ICMP attack), ARP

**Security** detection, worm and Msblaster worm attack

SSHv2 Secure Shell

SNMP v3 encrypted management Security IP login through Telnet

Hierarchical management and password protection of users

**Network** User-based MAC and ARP traffic examination

Security Restrict ARP traffic of each user and force-out users with abnormal ARP

traffic

Dynamic ARP table-based binding IP + VLAN + MAC + port binding

 ${\tt L2}$  to  ${\tt L7}$  ACL flow filtration mechanism on the 80 bytes of the head of user

defined packet

Port-based broadcast/multicast suppression and auto-shutdown risk port

URPF to prevent IP address counterfeiting and attack
DHCP Option82 and PPPoE+ upload user's physical location

Plaintext authentication of OSPF, RIPv2 and BGPv4 packets and MD5

cryptograph authentication

IP Routing IPv4 ARP Proxy

**DHCP Relay** 



**DHCP Server** 

Static route

RIPv1/v2

OSPFv2

BGP4

**ECMP** 

Strategy route

Route policy

IPv6 MLD snooping

IPv6 telnet

DHCPv6 snooping

IPv6 ACL

IPv6 web management

OSPFv2/v3

RIPv1/v2

PIM-DM/PIM-SM/PIM-SSM

IGMP/IGMP-proxy

BGP4

MLD/MLD-proxy

LDP/MPLS

DHCPv6 relay/server/client

ISIS-4

Static route

VRRP

mail-alarm

syslog

PPPoE+

**URPF** 

SNTP

ping/ping6

Service ACL Standard and extended ACL

Features Time Range ACL

Rate-limit on sending and receiving packet on port

Packet redirection

Port-based flow-control

Two-speed three-color CAR

Packet filter providing filtering based on source/destination MAC address, source/destination IP address, port, protocol, VLAN, VLAN range, MAC

address range, or invalid frame

Packet filtration of L2 ~ L7 even deep to 80 bytes of IP packet head

QoS Rate-limit to packet sending/receiving speed of port or self-defined flow and

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provide general flow monitor and two-speed tri-color monitor of self-

defined flow



Priority remark to port or self-defined flow and provides 802.1P, DSCP

priority and remark

CAR (Committed Access Rate), traffic shaping and flow statistics Packet mirror and redirection of interface and self-defined flow

Super gueue scheduler based on port and self-defined flow. Each port/flow

supports 8 priority queues and scheduler of SP, WRR and SP+WRR.

Congestion avoid mechanism, including Tail-Drop and WRED

Multicast IGMPv1/v2/v3

IGMPv1/v2/v3 snooping

**IGMP** filter

MVR and cross VLAN multicast copy

IGMP fast leave IGMP proxy

PIM-SM/PIM-DM/PIM-SSM

PIM-SMv6, PIM-DMv6, PIM-SSMv6

MLDv2/MLDv2 Snooping

**MSDP** 

**Reliability** Loop EAPS and GERP (recover-time <50ms)

**Protection** Loopback-detection

LinkFlexLink (recover-time <50ms)</th>ProtectionRSTP/MSTP (recover-time <1s)</th>

LACP (recover-time <10ms)

BFD

**Device** VRRP host backup

**Protection** Double fault-tolerant backup of host program and configuration file

1+1 power hot backup

Maintenance Network Telnet-based statistics

Maintenance RFC3176 sFlow

LLDP

802.3ah Ethernet OAM RFC 3164 BSD syslog Protocol

Ping and Traceroute

**Device** Command-line interface (CLI), Console, Telnet and WEB configuration

Management System configuration with SNMPv1/v2/v3

RMON (Remote Monitoring)1/2/3/9 groups of MIB

NTP (Network Time Protocol)

**GN.Link II Server** 

NGBNView network management WEB-based network management

Ping and traceroute



### Ordering Information -

Item Description

AS3624S-0Q-AC2 AS3600 series 10G full fiber routing switch with 24 × 10G

optical ports, Dual AC PS

AS3600 series 10G full fiber routing switch with 24 × 10G AS3624S-2Q-AC2

optical ports, 2 × 40G ports, Dual AC PS

### **Contact Information-**

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