ATS – 5800-24S8CG-X

PRODUCT OVERVIEW

ANDA Telecom switches represent a new generation of full 10GE TOR switches designed for high-performance computing, data centres, and high-end campuses. These 1U-height switches offer up to 2.8 Gbps switching capacity, with configurations including 24*1GE/10GE/25GE SFP28 port 8*40GE/100GE QSFP28 port (supporting 4*10GE/4*25GE. Built on ANDA's proprietary software platform, they deliver high-performance L2/L3/L4 wire-speed switching. Key features include integration of services such as IPv6, VPN, network security, and flow analysis, coupled with advanced reliability techniques like continuous forwarding, graceful restarting, and loop network protection, ensuring maximum uptime and efficient operation within the network fabric.

ANDA TELECOM switches virtualize multiple physical devices into a single system, delivering superior performance, reliability, and management. By optimizing software to fully utilize each link, these switches prevent STP from blocking links and maximize link protection. Their high reliability is achieved through an advanced distribution mechanism and efficient cross-physical link aggregation, which separates the logic control plane, service control plane, and service data plane. This separation ensures continuous layer-3 routing and minimizes service interruptions from single points of failure. Additionally, unified IP management enhances networking efficiency and reduces operational costs.

Product Characteristic

High Level Ethernet Switch

ANDA Telecom switches offer the ability to virtualize multiple physical devices into a single logical entity, enhancing performance, reliability, flexibility, and management compared to standalone physical devices. **Doubled Performance:** The virtualized system optimizes link usage and prevents STP from blocking links. **High Reliability:** Leveraging advanced distributed processing and efficient cross-device link aggregation, these switches ensure uninterrupted layer-3 routing and mitigate single points of failure. **Flexibility:** The virtual cluster functionality allows the cluster system to extend up to 80 km, overcoming the geographic limitations of traditional clustering methods. **Easy Management:** The entire virtual system supports unified IP management, streamlining network device and topology management.

Security

ANDA TELECOM switches provide robust equipment-level security through advanced hardware design that includes level-based packet scheduling and protection. This design effectively guards against DoS and TCP-related attacks such as SYN flood, UDP flood, broadcast storms, and large traffic attacks. It also features level-based command line protection, assigning different management permissions based on user roles. The switches support comprehensive security authentication mechanisms, including IEEE 802.1x, RADIUS, and TACACS+. They offer storm, multicast, and unicast limiting to maintain equipment performance under harsh network conditions. Additionally, a sophisticated ring detection mechanism ensures long-term network stability, while port isolation within the same VLAN, DHCP snooping, and IP-to-MAC-to-port binding enhance user data security.

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IPV6 Solution

The system supports the IPv6 protocol suite, including IPv6 neighbour discovery, ICMPv6, path MTU discovery, and DHCPv6. It also accommodates network management and troubleshooting with Ping, Traceroute, Telnet, SSH, and ACL. IPv6 features supported include MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3, and BGP4+. Additionally, it supports various IPv6 tunnelling methods such as manual, automatic, GRE, 6to4, and ISATAP tunnels. For IPv4-to-IPv6 transition, it supports IPv6 manual and automatic tunnels, 6to4, and ISATAP tunnelling.

Enterprise-Level Reliability for Data Centres

ANDA Telecom switches feature a Hitless Protection System (HPS) with key components such as the power and fan systems designed for redundancy. All system modules support hot-swapping and seamless switching without manual intervention. The series includes redundancy protection mechanisms like STP/RSTP/MSTP protocols, VRRP protocol, ring network protection, dual uplink active/standby link protection, and LACP link aggregation. Additionally, these switches support In-Service Software Upgrades (ISSU), ensuring uninterrupted data forwarding during system upgrades. They also incorporate BFD for rapid fault detection and service recovery, and offer robust Ethernet OAM capabilities with standards such as 802.3ah, 802.1ag, and ITU-Y.1731 for real-time network monitoring and rapid fault localization. With a high reliability rate of 99.999% and an MTTR of 50 milliseconds, these switches meet the stringent requirements for reliable, carrier-grade service delivery.

Product Specification

ITEM	ATS-5800-24S8CG-X
Interface	24* 1GE/10GE/25GE SFP28 port 8* 40GE/100GE QSFP28 ports (supporting 4* 10GE/4 * 25GE)
Console	1*RJ45 Console ports
Backplane	2.8 Gbps
Forwarding rate	2028.8 Mpps
Total output BTU (1000BTU/H=293W)	550W
Power supply (hot-swap)	2* pluggable power modules
Power status monitoring	73 dB
Noise@25°C(dBA)	4
Fan Number	>200,000
MTBF(H)	Store-forward
Forwarding mode	128000k
MAC	9216K
Jumbo frame	IPV4-4000k IPV6-65000k
Routing Table	IPV4-96000k

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ARP Table	1K
Total SVI	

FEATURES

VLAN	• 4K Active VLAN • QinQ & Selective QinQ • GVRP, Private VLAN • Voice VLAN
Qos	• CAR, HQoS, MAC/IP/TCP/UDP/ VLAN/COS/DSCP/TOS based • ·QoS,802.1P/DSCP priority relabelling, SP, WRR, and “SP+WRR” • Tail-Drop, WRED, flow monitoring and traffic shaping
Spanning Tree	• 802.1D (STP) • 802.1W (RSTP) and 802.1S (MSTP) • BPDU guard, root guard and loopback guard
Multicast	• IGMP v1/2/3 • IGMP Snooping • IGMP Fast Leave • IGMP Filter • MVR
IPV4	• Static routing, RIP v1/v2, OSPF, BGP, PBR, ECMP • BFD for OSPF, BGP
IPV6	• · ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet • IPv6 neighbour discovery, Path MTU discovery • MLD V1/V2, MLD snooping · IPv6 Static Routing, RIPng, OSPFv3, BGP4+ · • Manual tunnel, ISATAP tunnel, 6 to 4 tunnel
Reliability	• Static/LACP link aggregation, Interface backup · EAPS and ERPS • ISSU uninterrupted system upgrade • 16-units per stack • VRRP • UDLD • 1+1 Power Backup
Management	• Console,Telenet,SSH,v1/2,HTTP,HTTPS, SNMP v1/v2/v3 RMON • TFTP,FTP,SFTP • NTP,ZTP • SPAN, RSAN

Security	• Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky, DHCP Snooping and option 82, DAI & IP source guard, PPPoE+, • IEEE 802.1x , Radius and ATTacacs+ • L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc. • Broadcast/multicast/unknown unicast storm-control
DHCP	• DHCP server/relay/client • DHCP snooping/option82
Environment	• Operating temperature/ humidity: 0℃ -50℃ ,10%-90% non-condensing • Storage temperature/humidity: -20℃ -70℃ , 5%-95% non-condensing
Certifications	• ISO,IEC,CE,ROHS,TEC,TL-9000

ORDERING INFORMATION: -

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