

ATS – 5800-48S1P4XS



PRODUCT OVERVIEW: -

ANDA TELECOM Switches is a cutting-edge 10GE aggregation switch designed by ANDA for IP MAN (metropolitan area network), government and enterprise networks, internet cafés, and diskless environments. Built on a high-performance hardware and software platform with ANDA's proprietary intellectual property rights, it offers robust features including advanced ACL, flexible QinQ, 1:1 or N:1 VLAN switching, Ethernet OAM, carrier-grade QoS, and industry-standard 10GE Ethernet ring. This ensures that the switch series is well-suited to meet the demands of diverse and complex environments. Additionally, it supports layer-3 routing protocols.

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: -

Enterprises Level Ethernet Switch

The system supports telecom-level Ethernet-ring protection with a failover time of less than 50 milliseconds, as well as STP, RSTP, MSTP, active and standby uplink backups, and LACP link aggregation to meet carrier reliability requirements. It complies with Ethernet standards including 802.3u, 802.3x, 802.3ad, 802.1d, 802.1p, 802.1q, 802.1w, and 802.1ad. Additionally, it features system status and port dynamic LEDs, a robust Ethernet OAM mechanism for real-time network monitoring and rapid troubleshooting, and advanced ACL functions for granular control over L2 to L7 data based on various parameters. It also supports In-Service Software Upgrades (ISSU) to ensure continuous data forwarding during system updates and offers comprehensive L3 multicast functionalities such as IGMP Snooping, fast-leave, and trans-VLAN multicast copying.

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.

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.

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Telecom-Level QoS Standards

The system supports priority retagging and advanced flow classification based on VLAN, MAC, source address, destination address, IP, or priority, optimizing carrier services. It offers flexible bandwidth control policies, including port- and flow-based limits, ensuring full line-speed forwarding to maintain high-quality video, audio, and data services. Each port supports 8 priority queues and multiple queue scheduling algorithms, such as Strict Priority (SP), Weighted Round-Robin (WRR), and a combination of SP+WRR.

The device supports both layer-2 and layer-3 multicast routing protocols, facilitating access to IPTV, HD video surveillance, and HD video conferencing. It also features layer-3 routing protocols and a large routing table capacity, making it suitable for use in extensive campus networks, enterprise environments, and industrial networks.

TECHNICAL SPECIFICATIONS: -

ITEM	ATS-5800-48S1P4XS
Interface	48*10/100/1000 BAST-T ports supporting PoE/PoE+ 4*1GE/10GE SFP+ ports
Console	1-RJ45 console port
Backplane	787 Gbps
Forwarding rate	586 Mpps
Total output BTU (1000BTU/H=293W)	150W
Power supply (hot swap)	2* pluggable power modules
Noise@25°C(dBA)	68
Fan Number	2* fixed fan modules
MTBF(H)	>811,680
Consumption	1600 W (full POE load)
Forwarding mode	Store-forward
MAC	64K
Jumbo frame	9216K
Routing Table	IPV4-16K IPV6-8K
ARP Table	IPV4-16K IPV6-8K
Total SVI	1K

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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 relabeling, 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 neighbor discovery, Path MTU discovery - MLD V1/V2, MLD snooping · IPv6 Static Routing, RIPng, OSPFv3, BGP4+ · - Manual tunnel, ISATAP tunnel, 6 to 4 tunnels
Reliability	- Static/LACP link aggregation, Interface backup · EAPS and ERPS - ISSU uninterrupted system upgrade 16-units per stack · VRRP · UDLD
Management	- Console, Telenet, SSH, v1/2, HTTP, HTTPS, - SNMP v1/v2/v3 RMON - TFTP, FTP, SFTP - NTP, ZTP - SPAN, RSAN - sFlow
Security	- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky, DHCP Snooping and option 82, DAI & IP source guard, - IEEE 802.1x , Radius and ATAcacs+ - 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 - MD5, SHA-256, RSA-1024, AES256, etc.
DHCP	- DHCP server/relay/client - DHCP snooping/option82

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▪ Environment	▪ Operating temperature/humidity: 0°C -50°C ,10%-90% non-condensing. Storage temperature/humidity: -20°C - 70°C, 5%-95% non-condensing
▪ Certifications	▪ ISO, IEC, CE, ROHS, TEC, TL-9000

ORDERING INFORMATION: -

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