# ATS – 3900 – 24ET6X

## 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

**Anda Telecom Pvt. Ltd.**
**Registered office : E-38, Sec 06, Noida, Gautambudha Nagar, Uttar Pradesh - 201301, INDIA**
**Phone : +91 120 4109590, +91 98716 50366**
**E-mail : Info@andatelecom.com URL : www.andatelecom.com**

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.

## 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.

## Smart POE+

ANDA Telecom switches support the IEEE 802.3af/at PoE standard with a power budget of up to 740W. They also feature non-stop PoE power supply, ensuring that PoE+ power remains active even during switch reloads. Additionally, these switches offer both manual and dynamic PoE power allocation and are designed to withstand up to 6KV of surge protection for PoE ports and power supplies.

## TECHNICAL SPECIFICATIONS: -

| ITEM | ATS-3900-24ET6X |
|---|---|
| Interface | 24* 1G/2.5G ports, 6*10G SFP ports |
| Console | 1 RJ45 port |
| Backplane | 240 Gbps |
| Forwarding rate | 180Mpps |
| Total output BTU (1000BTU/H=293W) | 163.82 |
| Power supply (hot swap) | AC: 100V-240V, 50/60Hz |
| Noise@25°C(dBA) | 45 |
| Fan Number | 0 |
| MTBF(H) | >200,000 |
| Forwarding mode | Store-forward |
| MAC | 32K |
| Buffer size (Mb) | 2MB |
| Jumbo frame | 9K |
| Routing Table | IPV4-8K<br>IPV6-4K |
| ARP Tabel | IPV4-12K |

**Anda Telecom Pvt. Ltd.**
**Registered office : E-38, Sec 06, Noida, Gautambudha Nagar, Uttar Pradesh - 201301, INDIA**
**Phone : +91 120 4109590, +91 98716 50366**
**E-mail : Info@andatelecom.com URL : www.andatelecom.com**

| | |
|---|---|
| | IPV6-2K |
| Total SVI | 1K |

## FEATURES: -

| | |
|---|---|
| ▪ Multicast | ▪ IGMP v1/v2c/v3<br>▪ IGMP Snooping<br>▪ IGMP Fast Leave<br>▪ Multicast group policy and<br>▪ Multicast number limit<br>▪ Multicast filtering<br>▪ MVR<br>▪ IGMP snooping in certain port and VLAN<br>▪ Support for transparent passing of multicast traffic without IGMP<br>▪ snooping in certain port and VLAN<br>▪ PIM-DM/SM/SSM |
| ▪ Qos | ▪ Traffic classification of port/ L2~4 protocol eaders/VLAN/<br>▪ CoS/DSCP<br>▪ CAR traffic control<br>▪ 802.1P/DSCP priority mapping and remark<br>▪ Multiple queuing algorithms such as SP, WRR or SP+WRR<br>▪ Tail-Drop, WRED<br>▪ Traffic supervision and traffic shaping<br>▪ 8 queues per port |
| ▪ IPV4 | ▪ Static routing, RIP v1/v2, OSPF,<br>▪ BGP<br>▪ Policy Based Routing(PBR)<br>▪ ECMP<br>▪ BFD for static routing, RIP,<br>▪ OSPF, BGP |
| ▪ IPV6 | ▪ ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet<br>▪ IPv6 neighbor discovery, Path MTU discovery<br>▪ MLD V1/V2, MLD snooping · IPv6 Static Routing, RIPng, OSPFv3, BGP4+ ·<br>▪ Manual tunnel, ISATAP tunnel, 6 to 4 tunnels |
| ▪ Reliability | ▪ Power 1+1 backup<br>▪ 802.3ad Static/LACP link aggregation,<br>▪ EAPS<br>▪ G.8032 ERPS<br>▪ ISSU<br>▪ GR for OSPF and BGP<br>▪ BFD for OSPF and BGP |

| | |
|---|---|
| | ▪ BVSS virtual stacking system |
| ▪ Management | ▪ CLI: Console, Telnet, SSHv1/2<br>▪ Web-GUI: HTTP, HTTPS/SSL<br>▪ SNMP v1/v2c/v3, RMON,<br>▪ SNMP alarm/inform/traps<br>▪ Upload and download of<br>▪ FTP/TFTP/SFTP files<br>▪ Debugging<br>▪ Syslog for alarm/notification/command/debug<br>▪ Web-GUI: HTTP, HTTPS/SSL<br>▪ NTP<br>▪ SPAN, RSPAN (1:1 and N:1 mirror)<br>▪ LLDP, LLDP-MED<br>▪ sFLOW<br>▪ ZTP(Zero Touch Provisioning)<br>▪ Optical DDM<br>▪ Ethernet cable diagnosis<br>▪ · 802.3ah, 802.1ag |
| ▪ Security | ▪ DDoS attack prevention, TCP-<br>▪ SYN/UDP/ARP Flood attack<br>▪ prevention<br>▪ · IEEE 802.1x authentication,<br>▪ multiple-user authentication,<br>▪ guest vlan<br>▪ · L2~L4 ACL<br>▪ · Anti-DOS/IP spoofing/TCP/ping/<br>▪ SYN/ICMP flood attacks<br>▪ · Broadcast/multicast/unknown-unicast<br>▪ storm-control<br>▪ .<br>▪ Port isolation<br>▪ · Port Security, MAC address limitation,<br>▪ IP+MAC+port binding<br>▪ .<br>▪ DHCP Snooping, DHCP Option 82<br>▪ · DAI(Dynamic ARP Inspection)<br>▪ · IPSG(IP Source Guard)<br>▪ · IEEE 802.1x certification<br>▪ MAC-based authentication<br>▪ AAA<br>▪ Radius, TACACS+<br>▪ Multiple user privileges |

| | |
|---|---|
| | |
| ▪ DHCP | ▪ DHCP server, client, relay,<br>▪ snooping |
| ▪ Environment | ▪ · Operating temperature/humidity:<br>▪ 0℃ -50℃ ,10%-90% non-condensing<br>▪ · Storage temperature/humidity:<br>▪ -20℃ -70℃ , 5%-95% non-condensing |
| ▪ Certifications | ▪ ISO, IEC, CE, ROHS, TEC, TL-9000 |

## ORDERING INFORMATION: -


**Anda Telecom Pvt. Ltd.**
**Registered office : E-38, Sec 06,**
**Noida, Gautambudha Nagar,**
**Uttar Pradesh - 201301, INDIA**

**https://andatelecom.com/**

**+91 120 4109590, +91 9871650366**

**info@telecom.com**