Turning Copper into Gold

AT-S3900-48P6X

Supports Maximum 48 GE Ports and 6 10GE SFP+ Uplink Ports

Advanced Hardware Architecture and Industry-leading Port Density

Carrier-Level High Reliability
Full Layer-3 Functions

Varied Service Characteristics
Versatile IPv6 Solution
Complete Security Mechanism

Product Overview

ANDA TELECOM S3900 Series is a new generation of aggregation 10G switches... It is targeted at the IP MAN (metropolitan area network), campus networks and enterprise networks. It is developed on the basis of high-performance hardware and AT ROS software platform with ANDA TELECOM own independent intellectual property rights. It supports multiple services like IPv6, VPN and network security based on L2/L3/L4 wire-speed switching service. It also supports nonstop upgrade, continuous forwarding, and graceful restarting and redundancy protection.

ANDA TELECOM S3900 Series has model:- AT-S3900-48P6X. It supports up to 48 gigabit ports and 6 10GE ports.

Innovative Virtual Cluster Switching Technique

ATVSS (ANDA TELECOM Virtual Switch System):

ATVSS makes full use of each link in the physical devices, which avoids STP blocking the link and protects the original link to the maximum extent.

Improved Performance:

virtualize multiple physical devices into one. The performance, reliability and management of the virtual system are superior to the physical ones.

High Reliability:

Based on the advanced distribution mechanism and efficient cross-physical link aggregation link function, the logic control plane, service control plane and service data plane are separated. Thus, the device can support continuous layer-3 routing forwarding, avoiding service interruption as a result of a single point of failure.

Easy Management:

ATVSS realizes single IP management, greatly improving the networking efficiency and lowering the operating cost.

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Product Characteristics

Carrier-Level QoS Policies

Supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services. Supports flexible bandwidth control policies and supports port-/flow-based flow limit, and ensuring the line speed forwarding of each port to make sure the high quality of video, audio and data services. Supports 8 priority queues by each port. Supports multiple queueschedule algorithms such as SP, WRR, and SP+WRR.

Varied Service Characteristics

Supports layer-2 and layer-3 multicast routing protocol, which enable the device can access to IPTV, HD video surveillance and HD video conference. Supports layer-3 routing protocol and super-large routing table capacity, which enables the device is available in large campus networks, enterprise networks and industry networks.

Versatile IPv6 Solution

Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc. Supports Ping, Trace route, Telnet, SSH, ACL. Supports MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3 and BGP4+, etc. Supports IPv6 tunnel: manual tunnel, automatic tunnel, GRE tunnel, 6to4, ISATAPSupports IPv4 transits to IPv6: IPv6 manual tunnel, automatic tunnel, 6 to 4 tunnel, ISATAP tunnel.

Industrial Ethernet Ring with Zero Delay and Zero Packet Loss

Supports industry-level EAPS and ERPS, and their protection recovery time is less than 50ms. Their high reliability is represented by the null packet loss, which has been proved by many years of application in the Grid, rail transportation and defense systems.

Intelligent PoE+

S3900-48P6X supports IEEE 802.3af/at PoE standard, and power mapping scales up to a maximum of 760W of PoE+ power;S3900-48P6X supports PoE non-stop power supply. The PoE+ power is maintained during a switch reload; S3900-48P6X supports manual and dynamic PoE power allocation;S3900-48P6X supports up to 6KV thunder-proof of the PoE port and power supply;

Complete Security Mechanism

Equipment-Level Security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP-related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions. Security Authentication Mechanism: IEEE 802.1x, Radius and AT Tacacs+ Enhanced ServiceSecurity Mechanism: supports the plaintext or MD5 authentication of relevant routing protocol, URPF, deep inspection of hardware packet, control packet and data packet and filtering technology.

Innovative Energy-Saving Design

Intelligent power management: The power system of S3900 series supports real-time monitoring the device and the slow-start. It is also power-saving. Intelligent fan management system: The fan system of S3900 Series supports automatic speed regulation, which efficiently slow the fan speed and mitigate the noise. Complies with the international standard IEEE 802.3a

Flexible and Convenient Management and Maintenance

Supports management modes such as the console port, Telnet, SSH, etc.
Supports the WEB management mode, which is easy and efficient so that it makes installation and debugging convenient. Supports TFTP-patterned file upload/download management.
Supports ISSU (In-Service Software Upgrade).
Supports SNMP and ANDA TELECOM NMS smart network management platform to realize automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management.

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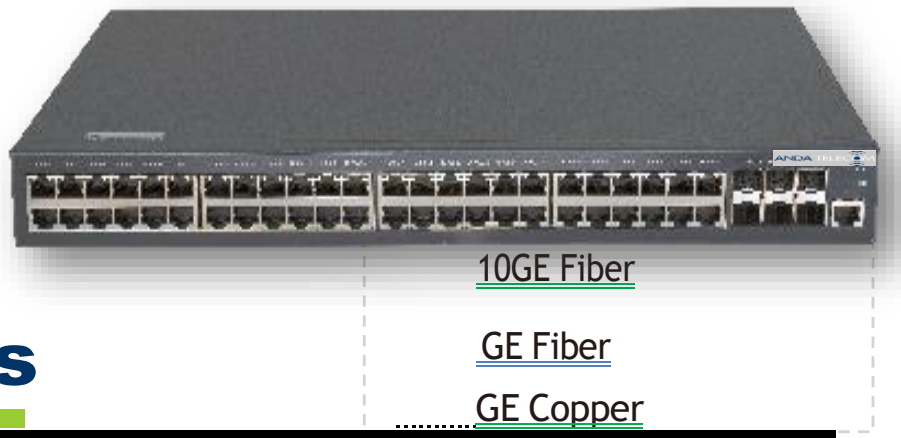
Model lists

AT-S3900-48P6X

48 GE POE ports(48P6X)
6 10GE/GE SFP+ ports



Specifications

Item		AT-S3900-48P6X
GE Interface	TX	48
	SFP	
10GE Interface		6 10GE/GE
Console		1 RJ45 Port
Backplane		216 Gbps
Forwarding rate		162 Mpps
Physical Specifications		
Chassis Dimensions (WxDxH mm)		440x350x44
Package Dimensions (WxDxH mm)		576x448x94
Power		
Power supply AC: 100V-240V (hot-swap) 50Hz±10%		≤1000W(POE)
Total output BTU (1000BTU/H=293W)		3412.96
Noise@25°C(dBA)		45
MTBF(H)		>200,000
Forwarding mode		Store-forward
Flash (MB)		16
DRAM (MB)		512
MAC		32K
Buffer size(MB)		2
Jumbo frame		9K
Routing table	IPv4	12K
	IPv6	6K
ARP table	IPv4	12K
	IPv6	2K
Total SVI		1K

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Features

VLAN

- 4K Active VLAN,
- QinQ & Selective QinQ,
- GVRP,
- Voice-VLAN

Spanning Tree

- 802.1D (STP),
- 802.1W (RSTP) and 802.1S (MSTP) BPDU guard,
- root guard and loopback guard

Multicast

- PIM-SM, PIM-DM, IGMP v1/v2/v3,
- IGMP Snooping, IGMP Fast Leave,
- MVR, IGMP filter

IPv4

- Static routing, RIP v1/v2, OSPF, BGP, PBR, ECMP
- BFD for OSPF, BGP

DHCP

- DHCP server/relay/client
- DHCP snooping/option82

MPLS

- Multi-VRF

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 tunnel

QoS

- CAR, HQoS, MAC/IP/TCP/UDP/VLAN/ COS/DSCP/TOS based QoS, 802.1P/ DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED, flow monitoring and traffic shaping

Security

- Port isolation, Port security, and "IP+ MAC+port" binding, MAC sticky, DAI & IP source guard, PPPoE+
- IEEE 802.1x, Radius and AT Tacacs+
- 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.

Reliability

- Static/LACP link aggregation, Interface backup
- ATVSS virtual-stacking
- EAPS and ERPS
- URPF, LLDP
- ISSU
- VRRP
- 1+1 power backup

Management

- Console, Telnet, SSH v1/2, HTTP, HTTPS
- SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- NTP, SPAN, RSPAN
- sFlow

Accessories

- Power cord, rack mount kits, console cable

Environment

- Operating temperature/humidity: 0°C -50°C ,10%-90% non-condensing
- Storage temperature/humidity: -20°C -70°C , 5%-95% non-condensing

Certification

- CE, FCC, ROHS

Ordering Information

Item	Description
S3900 series switch	
S3900-48P6X	Ethernet routing switch with 48 GE POE and 6 10GE ports (1 RJ45 console port, 48 GE POE TX ports, 6 10GE/GE SFP+ ports; 2 power slots with 1 hot-swap AC220V power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)

Ordering Information

Item	Description
S3900 series switch	
S3900 Series POE Power Modules	
PWR-500-AC	Hot-swap power supply of S3900 POE switch series (500W max power, 380W max POE power, AC100~240V input, the isolated cooling fan

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