# **DATASHEET**





# AT-S5282 **SWITCH**



Architecture and



aried Service Data-center TOR



Supports Maximum 48 QSFP28 Uplink Ports

# **Product Overview**

ANDA TELECOM AT-S5282 Series is a new generation of full- 10GE TOR switches, oriented for high-performance computing, data center and high-end campuses. The AT-S5282 Series advanced adopts most architecture designs.

AT-S5282 Series (1U height) supports up to 1.28Tbps switching capacity and 24 10GE ports +4\*100G ports

Developed on the basis of ATS software platform ANDA TELECOM with its own independent intellectual property rights, AT-S5282 Series provides high-performance L2/L3/L4 wire speed switching capacity by integrating services such as IPv6, VPN, network security, flow analysis, virtualization, with high reliable techniques including continuous forwarding, graceful restarting and loop network protection, all which works efficiency withing the AT-S5282 Series fabric for guaranteed maximum runtime.

AT-S5282 Series supports the "GreenTouch" architecture and "Smart@CHIP". Its power consumption is lower than 200W.

# Carrier-Level AggregationLayer-3 Ethernet Switch Innovative BVSS (ANDA TELECOM Virtual Switch System):

virtualize multiple physical devices into one. The performance, reliability and management capabilities of the virtual system combine to outperform that of individual physical devices;

Improved Performance: BVSS makes full use of each link in the physical device cluster, which avoids STP blocking on links and protects the original link to the maximum;

High Reliability: Based on the advanced distribution mechanism and efficient cross- physical link aggregation function, the logic control plane, service control plane and service data plane are separated. Thus, the device can support continuous layer3 routing forwarding, avoiding service interruption as a result of a single point of failure;

Easy Management: single IPmanagement gre improving the networking efficiency and costs.



# **Product Characteristics**

### Rich Data Center Services

AT-S5282 Series supports, which can virtualize multiple physical devices into a single logical element. The virtualized system is superior to the independent physical device in performance, reliability, flexibility and management.

Doubled Performance: The virtualized system makes the best use of each link in the device and avoids blocking of STP to the links.

High-reliability: Based on the advanced distributed processing technique and the efficient function of cross-physical device link aggregation, , the AT-S5282 Series provides non-stop layer-3 routing forwarding and avoids single points of failure.

Flexibility: The virtual cluster function of the AT-S5282 allows the distance of a cluster system to expand over up to 80KM, breaking the geographic restrictions of traditional cluster techniques.

Easy Management: The whole virtual system realizes single IP unified management and simplifies the management of network device and network topology.

## Security+

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.

Perfect security authentication mechanisms: IEEE 802.1x,

AT-S5282 series supports storm/multicast/unicast limits.

ensuring normal running conditions of the equipment when deployed in harsh network conditions.

AT-S5282 series supports perfect ring detection mechanisms, ensuring long-term network performance stability.

AT-S5282 series supports port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding.

### Versatile IPv6 Solution

AT-S5282 Series supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc.;

AT-S5282 Series supports Ping, Traceroute, Telnet, SSH, ACL based on IPv6;

AT-S5282 Series supports MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3 and BGP4+, etc.; Supports IPv6 tunnel: manual tunnel, automatic tunnel, GRE tunnel, 6to4 tunnel, ISATAP; AT-S5282 Series supports IPv4 transiting to IPv6: IPv6 manual tunnel, automatic tunnel, 6 to 4 tunnel, ISATAP tunnel.

# Data Center Level High-reliability

AT-S5282 Series adopts HPS (Hitless Protection System). The key components of the AT-S5282 Series such as the power system and the fan system supports redundancy in design. All system modules support hot-swap and seamless switching without need of manual intervention.

AT-S5282 Series supports redundancy protection mechanisms such as STP/RSTP/MSTP protocol, VRRP protocol, ring network protection, dual uplink active/standby link protection and LACP link aggregation.

AT-S5282 Series supports ISSU (In-Service Software Upgrade), guaranteeing non-stop forwarding of service data while the system is upgrading.

AT-S5282 Series supports BFD and realizes fault detection and service recovery in seconds through

linking with layer-2 or layer-3 protocol.

AT-S5282 Series has perfect Ethernet OAM, 802.3ah, 802.1ag and ITU-Y.1731 which can monitor the network operating state in real time and rapidly detect and locate the malfunction. High Reliability (99.999%): The MTTR of the AT-S5282 Series is 50ms, satisfying the requirement for reliable delivery of carrier-level service.

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# **Product Specifications**

**Turning Copper into Gold** 

# **ATS-5282**



Item ATS-5282		
Interface		24*100/10GE/GESFP+Pos, 4* 100GE/40GEQSFP28ports
		4 Touge/40geQ5FPZoportS
Console Backplane		1 RJ45 console, 1 MGMT
Forwarding rate		1280Gbps 960Mpps
Dimensions (WxDxH)(mm)		440x350x44
Chassis	Weight	7.1
	(KG)(empty)	576x448x94
	Dimensions (WxDxH)(mm)	
Package	Weight(KG)no-load	
		8.3
Power		45W
consumption full-load		70W
Power supply AC: 100V-240V, (hot-swap) 50Hz±10%		2
Power status monitoring		Support
Total output BTU		238.91
(1000BTU/H=293W)		
Fan number		4
Noise@25°C (dBA)		57
MTBF(H)		>200,000
Forwarding mode		Store-forward64
Flash (MB)		1024
DRAM (MB)		32K
MAC		16K
ACL TABLE		5K
Jumbo frame		9K
Routingtable	IPv4	16K
_		12K
ARP table	IPv6	10K
	IPv4	10K
T . 100	IPv6	10K
Total SVI		1K
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# **Features**

#### **VLAN**

 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private 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

### IPv6

- ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet
- IPv6 neighbor discovery, Path MTU discovery
- · MLD snooping
- IPv6 Static Routing, RIPng, OSPFv3, BGP4+
- Manual tunnel, ISATAP tunnel, 6 to 4 tunnel

#### **MPLS**

· Multi-VRF

#### 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
- DHCP Snooping and option 82, DAI & IP source guard, PPPoE+,
- IEEE 802.1x, Radius and BDTacacs+ L2/L3/L4 ACL flow identification and filtrationAnti-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
- · BVSS 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

# **Environment**

- · Storage temperature/humidity: -20% -70% , 5%-95% non-condensing

## Certification

· CE, FCC, ROHS

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