

# ALPHA BRIDGE LAYER3-Lite Switch (AS200/28/XP)







Advanced Hardware Architecture and Industryleading Port Density. Carrier-Grade, High Reliability, Layer-3 Routing Functions.

Verified Service characteristics, Versatile IPv6 solution, Complete Security Mechanism.

## -

Supports Max. 24 GE TX Ports and 4 10G SFP+ Uplink Ports.

#### **Product Overview**

AS200/28/XP is the Layer 3 Managed PoE Switch that provides high-density performance, Layer 3 static and dynamic routing, RIP (Routing Information Protocol) and OSPF (Open Shortest Path First). With 128 Gbps switching capacity and 4\*1G/2.5G/10Gbps flexible and high performance uplink capability. The AS200/28/XP provides comprehensive end to end QoS as well as flexible and rich management, security settings, which can meet the high speed, secure and smart requirement for small and medium-size enterprise networks based on cost effective price. With total power consumption up to 440W (850W optional), they offer a rack-mountable, affordable, safe and reliable power solution for SMBs deploying Power over Ethernet networks, or requiring enhanced data security and network traffic management.



### **Features**

- 4\*1G/2.5G/10G SFP+ slots, 24\*10/100/1000M RJ45 PoE ports
- Complies with IEEE 802.3at, IEEE802.3af standard. Max output power consumption per port can reach 30W (PoE+)
- Smart and standard PoE chipset to detect the PD equipment's automatically, never burn the PD equipment's
- Layer 3 routing features: Supports static and dynamic routing, RIP, OSPF, BGP4, ECMP, VRRP
- Port aggregation: Supports GE ports, 2.5GE and 10GE port aggregation, static and dynamic aggregation
- VLAN: Supports access, truck, hybrid mode and VLAN classification, including the Mac based VLAN, IP based VLAN and protocol based VLAN
- QinQ: Supports port-based, VLAN-based and flow-based QinQ
- Port Mirroring: Many to one port mirroring
- Layer 2 ring network protocol: Supports STP, RSTP, MSTP, G.8032 ERPS protocol, single ring, sub ring
- Multicast: Supports IGMP snooping
- QoS: QoS class, remarking, Supports SP, WRR queue scheduling, Ingress/Engress port-based rate-limit and policy-based QoS
- Security: Support Dot1x, port authentication, mac authentication, RADIUS service; Support port-security, ip
- source guard, IP/Port/MAC binding, arp-check and ARP packet filtering for illegal users and port isolation
- Management: Supports LLDP, user management and login authentication; SNMPV1/V2C/V3; web management, HTTP1.1, HTTPS; Syslog and alarm grading; RMON (Remote Monitoring) alarm, event and history record; NTP, temperature monitoring; Ping, Tracert and optical transceiver DDM function; Supports TFTP Client, Telnet Server, SSH Server and IPv6 management; PoE management
- Firmware update, configure backup/restore through Web GUI, FTP and TFTP

| Model No.                               | AS200/28/XP  |                                   |  |  |
|---|--|-----------------------------------|--|--|
|   | Fiber ports  | Copper RJ45 ports                 |  |  |
| Interface                               | 4  | 24                                |  |  |
| Ethornot                                | 24*10/100/1000Base-T RJ45 PoE  |                                   |  |  |
| Ethernet                                | 4*1G/2.5G/10GBase-X SFP+   |                                   |  |  |
| Management port                         | 1*RJ45 Console port (115200, 8, N, 1)  |                                   |  |  |
|   | IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T |                                   |  |  |
|   | Ethernet IEEE 802.3z 1000Base-X Ethernet   |                                   |  |  |
|   | IEEE 802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol        |                                   |  |  |
|   | IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN                            |                                   |  |  |
|   | ITU-T G.8032 ERPS  |                                   |  |  |
|   | IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP                    |                                   |  |  |
|   | IEEE 802.3ad LACP IEEE 802.3af   |                                   |  |  |
|   | IEEE 802.3at   |                                   |  |  |
| LED Indicators                          |  |                                   |  |  |
| PWR (Power indicator)                   | Off: the device is<br>power off or failed  | On: the device power on is normal |  |  |
| SYS (System status indicator)           | Blinking: device<br>initialization   | On: device on normal operation    |  |  |
|   | Off: ports link down   | Off: ports link down              |  |  |
|   | On: ports link up  |                                   |  |  |
| 1-24 (Copper ports indicators)<br>Green | Blinking: data on TX/RX  |                                   |  |  |
|   | Off: PoE not working   |                                   |  |  |
| 1-24 (PoE status indicators)<br>Yellow  | On: PoE working  |                                   |  |  |
| 25-28 (Fiber ports indicators)<br>Green | Off: ports link down   |                                   |  |  |

### **Technical Specification**



|                         | On: ports link up  |
|-------------------------|--|
|                         | Blinking: data on TX/RX  |
|                         | Power Parameter  |
| Input voltage           | AC 100-240V  |
|                         | Full loading without PoE ≤25W  |
| Total power consumption | Total power consumption with PoE ≤440W (PoE power budget≤ 400W) Total power            |
|                         | consumption 850W optional (PoE power budget≤ 740W)                                     |
| Over-current protection | Support  |
|                         | Layer 2 Functions  |
|                         | Support GE port aggregation Support 2.5GE aggregation Support 10GE aggregation         |
|                         | Support static aggregation   |
| Port aggregation        | Support LACP dynamic aggregation   |
|                         | Up to 64 aggregation groups and up to 8 ports per group                                |
|                         | Support IEEE802.3x flow control Support interface counters Support port isolation      |
| Port features           | Port mirroring (One-to-One, Many-to-One) Support loop detection (Port-based; VLAN-     |
|                         | based)   |
|                         | Support broadcast storm suppression (broadcast; unknown multicast; unknown unicast)    |
|                         | Support static Mac-address management Support dynamic Mac-address Management           |
| Mac-address table       | Support filtering Mac-address  |
| management              | Support MAC limit based on port and VLAN   |
|                         | Support MAC flapping based on port and VLAN  |
|                         | Support access mode Support trunk mode   |
| VLAN                    | Support hybrid mode  |
| VLAN classification     | Mac Based VLAN IP Based VLAN   |
|                         | Protocol Based VLAN  |
| GVRP                    | Normal mode  |
|                         | Fixed mode Forbidden mode  |
| QinQ                    | Port-based QinQ  |
|                         | VLAN-based QinQ (VLAN-stacking; VLAN-mapping) Flow-based QinQ                          |
| LLDP                    | LLDP (Link Layer Discovery Protocol)   |
|                         | Support IEEE802.1D-STP Support IEEE802.1W-RSTP   |
| Ring network protocol   | Support IEEE802.1S-MSTP  |
|                         | Support G.8032 ERPS protocol, single ring, sub Ring and major ring                     |
|                         | Recovery time ≤20ms  |
|                         | L2 Multicast   |
| IGMP snooping           | Support IGMP snooping  |
| Group address           | Support group address  |
| ACL                     | Security Functions IP Standard ACL MAC extend ACL IP extend ACL                        |
| ACL                     |  |
|                         | IPv6 ACL   |
|                         | Support QoS Class, remarking Support SP, WRR queue scheduling Ingress port-based rate- |
| 0.05                    | limit<br>Egress port-based rate-limit  |
| QoS                     | Support policy-based QoS   |
|                         | Port access control  |
| 802.1x                  | Mac-address access control RADIUS  |
| 002.17                  | server   |
| Port-security           | Port-security  |
| IP source guard         | IP Port/MAC binding  |
| ARP-check               | Support ARP-check and ARP packet filtering for illegal users                           |
| Access control          | Support Telnet/SSH/HTTP/HTTPS user access control                                      |
|                         | Management & Maintenance Functions   |
| User Management         | Support password protection  |
| oser management         | Support user authorization management  |
|                         |  |



| C111.4.D   |   |  |  |
|--|---|--|--|
| SNMP   | Supporting SNMP V1/V2C/V3 version   |  |  |
| Web Management   | Web Management Support HTTP V1.1 Support HTTPS                                      |  |  |
| CLI management   | Console/Telnet command line management  |  |  |
| RMON   | Support RMON (Remote Monitoring) alarm  |  |  |
| Firmware upgrade   | Firmware upgrade  |  |  |
| Fault Detection  | Ping/Tracerout  |  |  |
|  | Support optical transceiver DDM function  |  |  |
| Cable detection  | Support copper port cable detection   |  |  |
| PoE management   | Support 802.3af/802.3at   |  |  |
|  | Support PD watchdog   |  |  |
|  | Support PoE priority management   |  |  |
|  | Support Max PoE power configuration for each port                                   |  |  |
|  | Support alarm waterline configuration   |  |  |
|  | Support reserved power configuration  |  |  |
| NTP  | Network Time Protocol   |  |  |
| Syslog/Debug   | Syslog/Debug  |  |  |
|  | Syslog send to three servers  |  |  |
| Configuration import/export  | Support FTP/TFTP remote import/export   |  |  |
| Dual partition management  | Support dual partition switching  |  |  |
|  | Application Protocol Functions  |  |  |
|  | DHCP snooping trust port  |  |  |
| DHCP Snooping  | Support remote-id/circuit-id configuration DHCP option-82                           |  |  |
| DHCP client  | Support DHCP client   |  |  |
| Telnet server  | Support telnet server   |  |  |
| Telnet client  | Support telnet client   |  |  |
| SSH server   | Support SSH server  |  |  |
| TACACS   | Support TACACS(the terminal access controller accesses the control system)          |  |  |
| sflow  | Support network traffic analysis  |  |  |
| ТЕТР   | Support TFTP Client   |  |  |
|  | Layer 3 Functions   |  |  |
| 455  |   |  |  |
| ARP  | ARP table aging DHCP server   |  |  |
| IPv4 / IPv6  |   |  |  |
| IFV4 / IFV6  | static routing  |  |  |
|  | Support ECMP (Equal-cost multi-path routing)  |  |  |
|  | Support the configuration of ECMP Max next-hop                                      |  |  |
| ECMP   | Support capacity balanced configuration   |  |  |
| Route policy   | IPv4 prefix-list  |  |  |
| VRRP   | Virtual Router Redundancy Protocol  |  |  |
|  | Routing Protocol Specification  |  |  |
| RIP  | RIPv1/v2  |  |  |
| OSPFv2   | OSPFv2  |  |  |
| BGP4   | BGP4  |  |  |
|  | BGP Support Routing Recursive ECMP  |  |  |
|  |   |  |  |
| IS-IS  | Support to view the number of neighbors and up/down state                           |  |  |
| 13-13  | Support to view the number of neighbors and up/down state<br>IS-ISv4                |  |  |
| Routing entry  |   |  |  |
|  | IS-ISv4   |  |  |
|  | IS-ISv4<br>13K  |  |  |
| Routing entry  | IS-ISv4<br>13K<br>Switching Features  |  |  |
| Routing entry<br>Switching capacity  | IS-ISv4<br>13K<br>Switching Features<br>128Gbps                                     |  |  |
| Routing entry<br>Switching capacity<br>Packet forwarding rate                              | IS-ISv4<br>13K<br>Switching Features<br>128Gbps<br>190.4Mpps                        |  |  |
| Routing entry<br>Switching capacity<br>Packet forwarding rate<br>MAC address table         | IS-ISv4<br>13K<br>Switching Features<br>128Gbps<br>190.4Mpps<br>16K                 |  |  |
| Routing entry<br>Switching capacity<br>Packet forwarding rate<br>MAC address table<br>VLAN | IS-ISv4<br>13K<br>Switching Features<br>128Gbps<br>190.4Mpps<br>16K<br>4K           |  |  |
| Routing entry Switching capacity Packet forwarding rate MAC address table VLAN Buffer      | IS-ISv4<br>13K<br>Switching Features<br>128Gbps<br>190.4Mpps<br>16K<br>4K<br>12Mbit |  |  |



| Watchdog                           | Support   |  |  |  |
|------------------------------------|---|--|--|--|
| Mechanical structure               |   |  |  |  |
| Installation method                | Desktop; Rack-mount   |  |  |  |
| Dimension(W*D*H)mm                 | 440*245*44mm  |  |  |  |
| Weight                             | 4.2kg (440W power supply); 4.8kg (850W power supply)        |  |  |  |
| Operating Environment              |   |  |  |  |
| Operating temperature              | 0°C~+50°C   |  |  |  |
| Storage/transportation temperature | -10°C~+70°C   |  |  |  |
| Relative humidity                  | Operation humidity: 10%-90%RH<br>Storage humidity: 5%-95%RH |  |  |  |
| MTBF                               | >100,000 hours  |  |  |  |

### **Model**



AS200/28/XP

24\*10/100/1000M RJ45 PoE 4\*1G/2.5G/10G SFP+

### **Ordering Information**

| Model           | Description  |
|-----------------|--|
| AS200/28/XP     | Layer 3 managed PoE switch with 4*1G/2.5G/10G SFP+ slots and 24*10/100/1000M RJ45 PoE ports, AC 100-240V 50/60Hz.      |
| AS200/28/XP-2AC | Layer 3 managed PoE switch with 4*1G/2.5G/10G SFP+ slots and 24*10/100/1000M RJ45 PoE ports, Dual AC 100-240V 50/60Hz. |

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