

# A28EP Ethernet Switch

Fast Ethernet PoE Switch



#### **Product Overview**

A28EP switch provides high bandwidth L2 access PoE (Power over Ethernet) solutions complied with IEEE802.3af, IEEE802.3at and RFC3621.

As a Power Source Equipment, A28EP is deployed at the Ethernet access layer in small/medium enterprise, residential area, campus, etc. Orion A28EP can offer power supply for PD devices such as wireless Access Point, IP phone and surveillance camera.

With 24 Fast Ethernet downlinks interfaces (up to 30 Watts per port) and 4 Gigabit Combo uplinks, A28EP guarantees demands of higher bandwidth coming with 802.11n Wifi, HD camera, etc. A28EP switch satisfy for residential or SME (Small, Medium Enterprise) services in terms of management (IEEE802.3ah OAM, IEEE802.1ag CFM, SNMP, Web management, etc.), multiple QoS profiles, bandwidth management, OoS. multiple network resiliency solutions, etc.

#### **Product Description**

The Orion Networks© A28EP PoE Access Switch supports a number of key features:

- Power over Ethernet Complied with IEEE802.3af/at and RFC3621,
   PSE ports on PoE switches can offer power up to 30W per port for
   remote devices, while advanced PoE features like auto/manual
   electricity management, overheating protection, priority
   configuration (critical/high/low) and port maximum power
   configuration are also supported. Support Time-sharing power
   supply based on RTC chip.
- **Higher bandwidth** Fast Ethernet level downlink interface and two gigabit combo uplink ports guarantee bandwidth requirement to ensure backup, protection, WiFi 802.11n, HD camera, etc.
- Sophisticated Network Networks are secured with port-isolation within individual VLAN, selective Q-in-Q function, MAC table threshold
- **Security Assurance** per port, broadcast/multicast/DLF storm control, and unique port loopback detection, STP, RSTP & MSTP and DHCP Client/Relay/Snooping/Option82/Option61.
- Carrier Ethernet QoS IEEE802.1p based QoS is supported in terms of 4 queues per port, SP/WRR/SP+WRR, bandwidth control, IGMP snooping, and multicast VLAN registration (MVR) to save bandwidth and optimize corresponding services.



#### Features

| Switching mode     | Store and forward mode 12Mbit switching buffer Supports jumbo frame  |
|--------------------|--|
| Packet Forwarding  | MTU: 9,216 bytes (default)<br>DLF Control  |
| MAC Address Table  | MAC address auto learning/add/remove/searching/statistic/aging MAC address aging time configuration (10-1000000 seconds) Up to 16K MAC addresses MAC address configure limit 1-255   |
| VLAN               | IEEE 802.1Q VLAN: 4K active VLANs<br>682 Flexible QinQ<br>Support ingress/egress direction VLAN swapping   |
| Link Aggregation   | Up to 6 link aggregation groups and 8 ports per group<br>Load balancing based on IP and MAC address<br>Supports static LACP  |
| Digital Diagnostic | Supports SFP digital diagnostic  |
| STP                | STP, RSTP & MSTP<br>Supports 64 instances, 256 STG   |
| OAM                | IEEE802.3ah OAM including discovery, link performance, remote loopback, fault detection & performance stats per OAM standards OAM Active/Passive mode Supports OAM MIB Variable Get function and OAM Event function Supports extended OAM  |
| QoS                | Supports port/CoS/DSCP mapping Supports SP, WRR and SP+WRR scheduling Up to 8 queues per port Supports global queue scheduling Flow-based statistics/mirroring/rate-limiting/redirecting/VLAN-swapping Supports flow-based Cos, flow-based DSCP and IP priority change Rewriting of 802.1p CoS/DSCP per EVC WRR weight range:0-255 |
| ACL                | Supports MAC ACL Mask;<br>Supports MAC/IP based ACL andLL2~L4 based ACL MAP<br>Supports user customized ACL 22-63 bytes;   |
| Routing            | Supports static routing and default gateway  |
|                    |  |



#### Features

| Bandwidth Profile | 64Kbps to 100,000Kbps per FE ports and 64Kbps to 1,000,000Kbps per GE 32Kbps granularity Max burst size 1047KB Ingress and Egress per port/vlan                       |
|-------------------|---|
| Transparent Relay | BPDU, DOT1X, LACP,CDP, VTP, UDLD, PPVST and PAGP  |
| Flow Control      | IEEE 802.3x in full duplex mode<br>Back pressure in half duplex mode<br>Support port-based configurations   |
| Multicast         | 3840 multicast addresses Static multicast group IGMP Snooping V1/V2/V3 Multicast filtering & unknown multicast discard Supports MVR                                   |
| Storm Control     | Broadcast, Multicast, DLF storm control<br>Supports port-based and global-based storm control configuration<br>Control mode: Global, bps and bust                     |
| Statistics        | Support port, port dynamic statistics   |
| LLDP              | Supports discovery remote based on link layer Supports getting remote basic information   |
| POE               | Support IEEE 802.3af, IEEE 802.3at and RFC 3621 Support 30W for maximum 4 POE ports Supports power supply time arrangement  |
| Security          | Supports RADIUS, TACACS+ Supports port security IP Source Guard Supports MAC address and port bonding Supports dynamic ARP Inspection Supports PPPoE agent and DOT1x. |



## Specifications

| Performance        | Switching fabric: 12,8Gbps   |
|--------------------|--|
| Capacity           | 64MB DDR2<br>8MB flash   |
| Physical interface | Management port: 1 console (RJ45) Client interfaces: 24x10/100 Base-TX RJ45 port Network interfaces: 4x COMBO (4 x 100/1000Base-X SFP; 4 x 10/100/1000Base-T RJ45)   |
| Power Specs        | AC: 100~240V<br>Full load: ≤ 440.0W, up to 370W PoE power supply   |
| Usage Conditions   | Operating temp: $-5\sim50^{\circ}\mathrm{C}$ (23 $\sim122^{\circ}\mathrm{F}$ );<br>Storage temp: $-25\sim60^{\circ}\mathrm{C}$ (-13 $\sim140^{\circ}\mathrm{F}$ );<br>Humidity: 10 $\sim90\%$ non condensing |
| Dimensions         | 440(L) x 320(W) x 43,6(H) mm   |
| Weight             | ≤ 4.8Kg  |

## Compliances

| Standards & Protocols | IIEEE 802.1Q VLAN, IEEE 802.3ad Link Aggregation, IEEE 802.1ad QinQ, IEEE 802.1D Spanning, Tree Protocol, IEEE 802.1s MSTP, IEEE 802.3af/at Power over Ethernet, IEEE 802.1x Security,   |
|-----------------------|--|
|                       | IEEE 802.1p CoS Prioritization, IEEE 802.3x Flow Control, IEEE 802.3ah OAM, IEEE 802.1ag Connectivity, Fault Management, ITU Y.1731 Services OAM, Static Routing, IGMPv1/v2/v3 Multicast, RMON I and II Standards, SNMPv1/v2/v3, MEF9 & 14 |

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