

ALPHA BRIDGE LAYER 2 Switches (AS200/16/I)



Supports Max. 16-port Gigabit RJ45 + 8-port Gigabit SFP Lite.



Advanced Hardware Architecture and Industry-leading Port Density.



Carrier-Grade, High Reliability.



Verified Service characteristics, Complete Security Mechanism.

Product Overview

AS200/16/I, based on a new generation of high-performance hardware and ROS platform of alpha bridge technologies independent intellectual property rights, supports a comprehensive set of features including ACL, QinQ, QoS, and Static Routing. AS200/16/I features standard DIN-rail housing and provides wide-voltage dual power input. With high-reliability industrial Ethernet ring network technology, the hardware-based algorithm ensures self-healing times of less than 5 milliseconds for each node and ring network self-healing times of less than 50 milliseconds (typical value).

AS200/16/I series features reliable industrial-grade designs, including electromagnetic compatibility, anti-vibration and anti-shock capabilities, aluminum alloy housing, and IP40 protection. It is widely applicable in industries such as energy, transportation, industrial manufacturing, environmental protection, and defense.

Product Characteristics

- IP40 protection, industrial fanless thermal conduction.
- Supports industrial Ethernet rings with STP/RSTP/MSTP.
- Industrial Ethernet ring network supports self-healing node intervals of less than 5 milliseconds, with ring self-healing times of less than 50 milliseconds (typical value)
- Supports forming a self-healing ring network between any two ports, and supports multiple independent self-healing rings.
- Provides a data packet loss protection mechanism for quickly recovering from failures.
- Delivers tiered bandwidth services in Ethernet services through rate limiting and traffic shaping within Layer 2 QoS features.
- Supports SNMP network management platforms.
- Mean Time Between Failures (MTBF) exceeds 800,000 hours.

Product Specifications

Item	AS200/16/1
Switching Capacity	56Gbps
Forwarding Rate	36Mpps
Dimensions	186.6x122.7x86mm
Power input	Dual industrial-grade DC DC12 ~ 55V redundant input
Operating Environment	Temperature: -40~75°C Humidity: 5%~95% non-condensing
Storage Environment	Temperature: -40~85°C Humidity: 5%~95% non-condensing
Standards	IEEE 802.1 Working Group IEEE 802.3 Working Group IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3z Gigabit 1000BASE-SX/LX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1ad Q-in-Q IEEE 802.1X port authentication network control IEEE 802.1ab LLDP and LLDP-MED IEEE 802.3ah OAM IEEE 802.3az EEE (Energy Efficient Ethernet) RFC 768 UDP RFC 793 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3 RFC 2710 MLD v1 RFC 2328 OSPF v2 RFC 1058 RIP v1 RFC 2453 RIP v2
MAC switching	8K MAC entries Static configuration and dynamic MAC learning MAC browsing and removal Configurable aging time of the MAC address Limited number of learnable MAC addresses MAC filtration Black-hole MAC list
Jumbo frame	9K
VLAN	4K VLAN IDs, 4094 active VLAN, 64 SVI GVRP 1:1 and N:1 VLAN Mapping QinQ and selective QinQ Private VLAN Voice-VLAN
STP	802.1d STP, 802.1w RSTP, 802.1s MSTP BPDU protection, root protection and ring protection L2PT for BPDU

Multicast	<p>IGMP v1/v2/v3</p> <p>IGMP Snooping</p> <p>IGMP Fast Leave</p> <p>Multicast group policy and multicast number limit</p> <p>Multicast filtering</p> <p>MVR</p> <p>snooping in certain port and VLAN</p>
IPv4	<p>Static routing, RIP, OSPF</p>
IPv6	<p>ICMPv6, DHCPv6, ACLv6, IPv6 Telnet, IPv6 QoS</p> <p>IPv6 Neighbor Discovery</p> <p>Path MTU Discovery</p> <p>MLD Snooping</p>
DHCP	<p>DHCP server, client, relay, snooping</p>
ACL	<p>L2-4 ACL</p> <p>IPv4, IPv6 ACL</p> <p>VLAN ACL</p>
QoS	<p>Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP</p> <p>CAR traffic control</p> <p>802.1P/DSCP priority mapping and remark</p> <p>Multiple queuing algorithms such as SP, WRR or SP+WRR</p> <p>Tail-Drop, WRED</p> <p>Traffic supervision and traffic shaping</p> <p>8 queues per port</p>
Security	<p>L2~L4 ingress/egress ACL</p> <p>Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks</p> <p>Broadcast/multicast/unknown-unicast storm-control</p> <p>Port isolation</p> <p>Port Security, MAC address limitation, IP+MAC+port binding</p> <p>DHCP Snooping, DHCP Option 82</p> <p>DAI (Dynamic ARP Inspection)</p> <p>IPSG (IP Source Guard)</p> <p>IEEE 802.1x certification</p> <p>MAC-based authentication</p> <p>AAA</p> <p>Radius, TACACS+</p> <p>Multiple user privileges</p>
STP	<p>802.1d STP, 802.1w RSTP, 802.1s MSTP</p> <p>BPDU protection, root protection and ring protection</p> <p>L2PT for BPDU</p>
Multicast	<p>IGMP v1/v2/v3</p> <p>IGMP Snooping</p> <p>IGMP Fast Leave</p> <p>Multicast group policy and multicast number limit</p> <p>Multicast filtering</p> <p>MVR</p> <p>snooping in certain port and VLAN</p>
IPv4	<p>Static routing, RIP, OSPF</p>
IPv6	<p>ICMPv6, DHCPv6, ACLv6, IPv6 Telnet, IPv6 QoS</p> <p>IPv6 Neighbor Discovery</p> <p>Path MTU Discovery</p> <p>MLD Snooping</p>
DHCP	<p>DHCP server, client, relay, snooping</p>
ACL	<p>L2-4 ACL</p> <p>IPv4, IPv6 ACL</p> <p>VLAN ACL</p>
QoS	<p>Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP</p> <p>CAR traffic control</p>

	<p>802.1P/DSCP priority mapping and remark</p> <p>Multiple queuing algorithms such as SP, WRR or SP+WRR</p> <p>Tail-Drop, WRED</p> <p>Traffic supervision and traffic shaping</p> <p>8 queues per port</p>
Security	<p>L2~L4 ingress/egress ACL</p> <p>Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks</p> <p>Broadcast/multicast/unknown-unicast storm-control</p> <p>Port isolation</p> <p>Port Security, MAC address limitation, IP+MAC+port binding</p> <p>DHCP Snooping, DHCP Option 82</p> <p>DAI (Dynamic ARP Inspection)</p> <p>IPSG (IP Source Guard)</p> <p>IEEE 802.1x certification</p> <p>MAC-based authentication</p> <p>AAA</p> <p>Radius, TACACS+</p> <p>Multiple user privileges</p>

Ordering Information

Item	Description
AS200/16/I	16-port Gigabit RJ45 + 8-port Gigabit SFP Lite-L3 Managed Industrial Switch; dual industrial-grade DC12~55V redundant power inputs; operating temperature: -40~75°C; lightning protection level of 6KV; IP40; DIN-rail installation.