Alpha Bridge – Industrial Switch
AS200/10/I8P2SBT

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Product Introduction:

The AS200/10/I8P2SBT is a Gigabit L2+ managed industrial bt PoE fiber switch independently developed by Anqixin. It has 8* 10/ 100/ 1000Base-T adaptive RJ45 and 2* 100/ 1000Base-X SFP fiber ports. Port 1-8 supports IEEE 802.3 af/at/bt PoE standard, and the single-port PoE power up to 90W. As a PoE power supply device, it can automatically detect and identify powered devices that meet standards and power them through network cables. Powering POE terminal equipment such as high-power wireless AP, network dome cameras, high-power PoE lighting, industrial sensors, and high-power network industrial control equipment through network cables to meet the network environment that requires high-density and high-power PoE power supply. It is suitable for intelligent transportation, Industrial sites such as rail transit, electric power, mining, metallurgy, and green energy construction have established economical, efficient, stable, and reliable communication networks.

The AS200/10/I8P2SBT supports multiple network redundancy protocols STP/ RSTP/ MSTP (< 50 ms). When a one- way network fails, communication can be quickly restored toensure uninterrupted communication for important applications. Following industrial product design and materials, the aluminum alloy shell enhances heat dissipation. Theprotection level is IP40. This ensures the stable operation of the equipment in harshenvironments. PoE power supply management, port flow control, VLAN division, STP,RSTP, and other functions can be configured according to application needs through Web, CLI, and SNMP network management methods.

Features:

- ### Gigabit access, SFP fiber port uplink

  - Support non-blocking wire-speed forwarding.
  - Support full- duplex based on IEEE 802 .3 x and half- duplex based on Backpressure.
  - The combination of RJ45 port and SFP fiber port allows users to flexibly build networks to meet the networking needs of various scenarios.

- ### Intelligent PoE power supply

  - PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.
  - 8* 10/ 100/ 1000Base-T RJ45 ports can support bt PoE power, meeting the demand for super high power PoE power supply in various scenarios.
  - The max output power of single- port POE is 90 W, and the backwards compatibility
  - IEEE 802 . 3 af/ at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

- ### Strong business processing ability

  - Support ERPS ring network and STP/RSTP/MSTP to eliminate layer 2 loops and realize link backup.
  - Support IEEE 802. 1Q VLAN, users can flexibly divide VLAN according to needs, support Voice VLAN and QinQ configuration.
  - Support static and dynamic aggregation to effectively increase link bandwidth, realize load balancing, link backup, and improve link reliability.
  - Support QoS, port-based, 802. 1P- based and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
  - Support ACL to filter data packets by configuring matching rule processing operations and time permissions and provide flexible security access control policies.
  - Support IGMP V1/V2/V3 multicast protocol and IGMP Snooping to meet multi-terminal high-definition video surveillance and video conference access requirements.

  ### Security

  - Support port isolation.
  - Support port broadcast storm suppression.
  - Support IP+MAC+port+VLAN quadruple flexible combination binding function.
  - Support 802.1X authentication to provide authentication functions for LAN computers and control the authorization status of controlled ports according to the authentication results.

Stable and reliable

- CE, RoHS.
- Low power consumption, metal shell, excellent heat dissipation to ensure stable operation of the switch.
- The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.

Easy O&M management

- Support CPU monitoring, memory monitoring, Ping detection, cable length detection.
- Support RMON, system log, and port traffic statistics to facilitate network optimization and transformation.
- Support HTTPS, SSLV3, SSHV1/V 2 and other encryption methods, making management more secure.
- Support LLDP to facilitate the network management system to query and judge the communication status of the link.
- Support Web network management, CLI (Console, Telnet), SNMP (V1/V2/V3), Telnet and other diversified management and maintenance methods.

TECHNICAL SPECIFICATION

Model	AS200/10/I8P2SBT
Interface Characteristics	
Fixed Port	1*RS232 console port (115200, N,8,1) 2* 100/ 1000Base-X uplink SFP ports (Data) 8* 10/ 100/ 1000Base-T bt PoE ports (Data/Power) 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal)
Ethernet Port	Port 1-8 support 10/ 100/ 1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
TwistedPair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
SFP Slot Port	The Gigabit SFP optical fiber port does not include optical modules (optional single mode/LC) multi-mode, single fiber/ dual fiber optical module.
Optical Cable/ Distance	Multi-mode: 850nm/ 0-500m Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km.
Chip Parameter	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	20Gbps
Forwarding Rate@64byte	14.88Mpps
CPU	416MHz
DRAM	1G

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FLASH	**128M**
MAC	**8K**
Model	**AS200/10/I8P2SBT**
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SFP Slot Port	**Gigabit SFP optical fiber port, default no include optical modules (optional single mode/ multi-mode, single fiber/ dual fiber optical module. LC)**
Optical Cable/ Distance	**Multi-mode: 850nm/ 0-500m** **Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km.**
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Certification & Warranty	

Lightning Protection	Protection level: IP40 Lightning protection: 6KV 8/20us IEC61000-4-3 (RS):10V/m (80~ 1000MHz) FCC Part 15/CISPR22 (EN55022): Class B IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4- 10 (Damped oscillation): 30A/m 1MHz IEC61000-4- 12/ 18 (Shockwave): CM 2.5kV, DM 1kV IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4- 16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s to3s IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (anti vibration), IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)
Certification	FCC,RoHS
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3X (Full duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port, mini particle size is 64Kbps.
Layer 3 Features	ARP protocol max 1024 entries Static routing/ default routing max 128 entries L2+ network management, IPV4/IPV6 dual stack management L3 routing and forwarding, and communication between differentnetwork segments and different VLAN
VLAN	Access, Trunk, and Hybrid port configurations Port-based VLAN (4K), IEEE802.1q, QinQ configuration Voice VLAN, Protocol-based VLAN, MAC address-based VLAN
Port Aggregation	LACP dynamic aggregation, Static aggregation Max 5 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring Network Protocol	Recovery time less than 20 ms G.8032 (ERPS), 250 Ring at most, Max 250 devices per ring.
Multicast	MLD Snooping v1/v2, Multicast VLAN, Fast log out IGMP Snooping v1/v2/v3, Max 1024 multicast groups
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based redirection, Flow-based rate limiting Flow-based packet filtering, Priority Mark/Remark 8*Output queues of each port, 802.1p/ DSCP priority mapping Queue Scheduling Algorithm (SP, WRR, SP+WRR), Diff-Serv QoS Port-based Issuing ACL, ACL based on port and VLAN
ACL	L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination

	MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
	SSH 2.0, SSL, Port isolation, ARP message speed limit
Security	User hierarchical management and password protection AAA & RADIUS & TACACS+ certification, MAC learning limit IEEE802. 1X & MAC address authentication, ARP inspection
	IP-MAC-VLAN-Port binding, Anti-DoS attack, IP source protection
Broadcast storm control, Backup for host datum, Mac black holes	
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	Web network management (https) View CPU real-time utilization statusLink Layer Discovery Protocol (LLDP) NTP clock, SNMP V1/V2/V3, System work log One clicks recovery, Ping detection, Cable status checkNMS platform cluster management (LLDP+SNMP) Console/ AUX Modem/ Telnet/ SSH2.0 and CLI configuration FTP, TFTP, Xmodem, SFTP file upload and download management
System	Category 5 and above Ethernet cables Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 orhigher, Microsoft Internet Explorer 10 or higher TCP/IP, network adapters, and network operating systems (such as Microsoft Windows, Linux, or Mac OS X) are installed on each computer in the network over Category 5 and above Ethernet cables.

Dimensions:
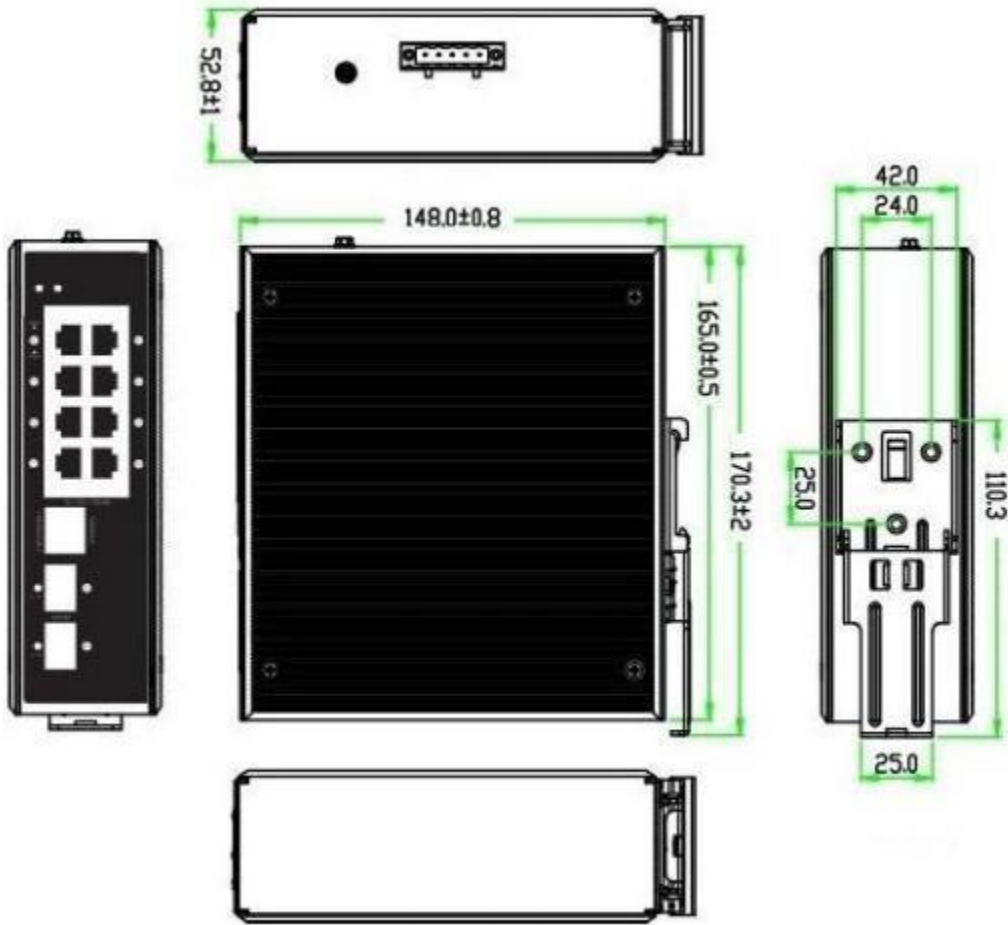
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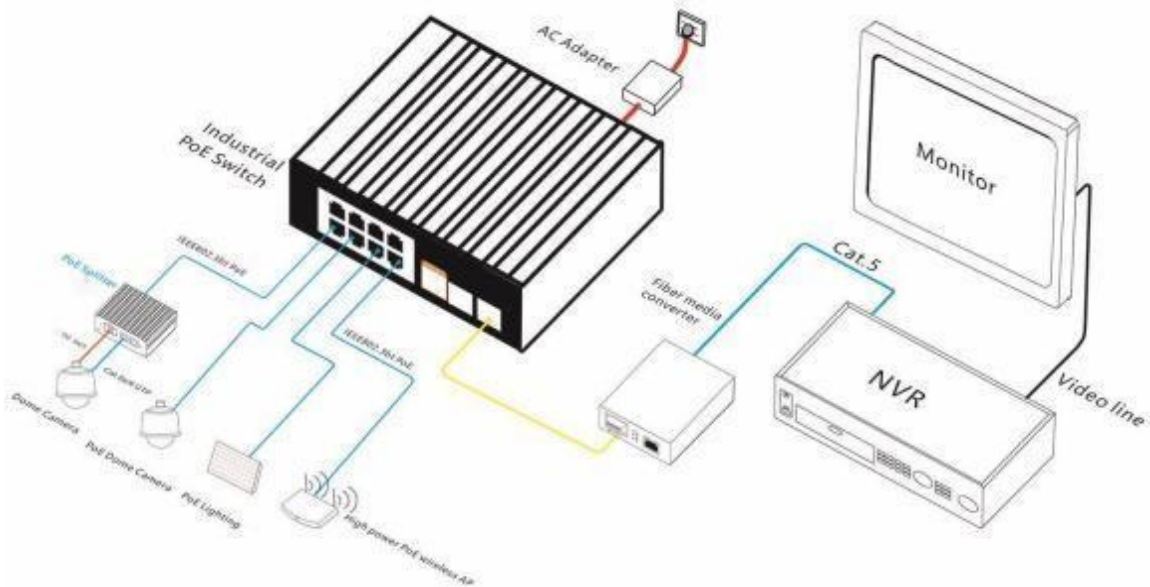
Ordering information:

Model	Description	Recommended Power Supply
AS200/10/I8P2SBT	L2+ managed industrial bt PoE switch with 8* 10/100/1000M RJ45 ports and 2* 100/1000Muplink SFP ports. Port 1-8 support IEEE 802.3 af/at/bt PoE standard. It can support dual DC power input and DIN rail mounting.	240W/480W

Note: The SFP optical module and power supply are not included by default and need to be purchased.