ALPHA BRIDGE
LAYER 2-Lite Switch
(AS200/12/XTS)

Verified Service characteristics, Versatile IPv6 solution, Complete Security Mechanism

Carrier-Grade, High Reliability, Layer-3 Routing Functions.

Advanced Hardware Architecture and Industry-leading Port Density.

Supports Max. 8 GE TX Ports and 4 10G SFP+ Uplink Ports.

Product Characteristics
Carrier-class Ethernet Switches

・The AS200/12/XTS supports carrier Ethernet ring network protection protocol. The protection switching time is less than 50ms. It also supports simple and effective redundancy protection mechanism such as STP/RSTP/MSTP protocol and dual uplink standby link protection and LACP link aggregation. These functions meet the requirement of carrier grade high reliability.

・The solution has perfect Ethernet OAM, which can real time monitor the network operating state and rapidly detect and locate the malfunction.

・The solution supports strong ACL function. The solution supports L2~L7 data access and control based on the physical port, VLAN IDs, source MAC/IP addresses and protocol port, which provides flexible ways of policy control.

Product Overview

Alpha Bridge AS200/12/XTS is a new-generation smart switch developed for enterprise networks. Based on the new high-performance hardware and the BDROS platform, AS200/12/XTS supports ACL, selective QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier-level QoS, industry-level 10G Ethernet ring, etc.

Product Characteristics

・The AS200/12/XTS supports ISSU (In-Service Software Upgrade), guaranteeing the user data non-stop forwarding when the system is upgrading.

・The AS200/12/XTS supports various L2 multicast function, including IGMP-Snooping, user fast-leave mechanism and cross VLAN multicast replication function. AS200/12/XTSswitch supports VST stacking function.

Industrial Ethernet Ring With Zero Delay and Zero Packet Loss

■The AS200/12/XTS supports industrial Ethernet ring network protection protocol. The protection switching time is less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades. It can achieve zero packet loss.

Carrier QoS Policies

・The AS200/12/XTS supports complex traffic classification based on VLAN, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. It also supports priority remark. These functions provide an effective way for users to optimize their businesses.

・The AS200/12/XTS provides flexible bandwidth control policies and support a port base or flow-based Committed Access Rate (CAR) and guarantees Layer 3 line-speed forwarding.
・Every port supports 8 priority queues.

・The AS200/12/XTS also supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

Comprehensive Security Mechanisms

・The AS200/12/XTS adopts advanced hardware architecture design, realizing the hierarchical scheduling and protection of the packet. It provides multiple security measures to defend against DOS or TCP attacks; and supports command line authority control based on user levels.

・Comprehensive Security Certification: The AS200/12/XTS complies with IEEE 802.1x, Radius, TACACS+.

・The AS200/12/XTS supports the suppression of broadcast, multicast and unknown unicast packet, ensuring the equipment can operate normally in harsh network conditions.

・The AS200/12/XTS has the perfect loop detection mechanism.

・The AS200/12/XTS supports the port isolation in a same VLAN and DHCP-Snooping，IP+MAC+ port binding.

Convenient Management and Maintenance

・The AS200/12/XTS supports multiple management styles such as Console, Telnet, SSH.

・The AS200/12/XTS supports WEB based management. The management is simpler and more effective.

・The AS200/12/XTS supports upload and download of TFTP files.

・The AS200/12/XTS supports ISSU (In-Service Software Upgrade).

・The AS200/12/XTS supports SNMP. By cooperating with Baud's smart "NMS", functions including the equipment auto-discovery, the topology management, the equipment configuration management, the performance data analysis, and the fault management can be realized. In this way, the network management is simplified and the user gets a new product experience.

・This series is compatible with mainstream third-party optical modules.

Comprehensive IPv6 Solutions

・The AS200/12/XTS comprehensively supports IPv6 Neighbor Discovery, ICMPv6、Path MTU Discovery.

・The AS200/12/XTS supports IPv6 based Ping, Traceroute, Telnet, SSH, ACL, meeting the need of IPv6 network equipment management and service control.

Free Licensing Policy

Alpha Bridge always insists on "One-time investment" free license policy, the standard features and advanced features will be never divided to different version. For any new firmware version, Alpha Bridge will share to customers without extra charge. Compared with other manufacturers, Alpha Bridge free license policy can better protect users' short-term and long-term investment.

IPv&IPv6 Dual-stack ability

AS200/12/XTS switch comes with IPv4/IPv6 dual-stack platform which provides hardware-based IPv4/IPv6 wire-speed forwarding and IPv4/IPv6 static routing protocol. With these IPv6 features, the AS200/12/XTS& AS212XP can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

8*100/1000M Base-T
4*10G SFP+

Product Specifications

Item		AS200/12/XTS
Switching capacity		128Gbps
Forwarding rate		72Mpps
Port		8-Port Gigabit RJ45 + 4-Port 10G/GE SFP+
Dimension mm （W×D×H）		280×180×44
Power consumption	No-load	10W
	Full-load	15W
Cooling		Fanless
Indicator		Power, system, link/active
Power supply		AC：100V-240V，50/60Hz DC: 36~72V
Environment		Operating temperature/humidity: 0℃-50℃，10%-90% non-condensing Storage temperature/ humidity: -40℃-70℃；5%-95% non-condensing
Lightning protection		±8KV
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 802.3ae 10Gb/s Ethernet 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	Static configuration and dynamic MAC learning(16K)
	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

Product Features

VLAN	QoS	Reliability
4K VLAN IDs, 4094 active VLAN, 64 SVI GVRP 1:1 and N:1 VLAN Mapping QinQ and selective QinQ Private VLAN Voice-VLAN	Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP CAR traffic control 802.1P/DSCP priority mapping and remark Multiple queuing algorithms such as SP, WRR or SP+WRR Tail-Drop, WRED Traffic supervision and traffic shaping 8 queues per port	Static and LACP link aggregation, 64 groups, ups to 8 ports in one group EAPS, ERPS ISSU

Spanning Tree	Security	Accessories
802.1d STP, 802.1w RSTP, 802.1s MSTP BPDU protection, root protection and ring protection L2PT for BPDU	L2~L4 ingress/egress ACL (895 IPv4 FP, 384 IPv6 FP) Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks Broadcast/multicast/unknown-unicast storm-control Port isolation Port Security, MAC address limitation, IP+MAC+port binding DHCP Snooping, DHCP Option 82 DAI (Dynamic ARP Inspection) IPSG (IP Source Guard) IEEE 802.1x certification MAC-based authentication AAA Radius, TACACS+ Multiple user privileges	Power cord, rackmount kits, console cable
		Certification
		CE, ROHS

IP	DHCP	Multicast
Static routing, RIP, OSPF, VRRP	DHCP server, client, relay, snooping	IGMP v1/v2/v3(1024 groups) IGMP Snooping IGMP Fast Leave Multicast group policy and multicast number limit Multicast filtering MVR Support for transparent passing of multicast traffic without IGMP snooping in certain port and VLAN

IPv6	Environment	Management
ICMPv6, DHCPv6, ACLv6, IPv6 Telnet, IPv6 QoS IPv6 Neighbor Discovery Path MTU Discovery MLD Snooping	Operating temperature/humidity: 0°C to 50°C, 10%-90% non-condensing Storage temperature/humidity: (-20°C to 70°C), 5%-95% non-condensing	CLI: Console, Telnet, SSHv1/2 Web-GUI: HTTP, HTTPS/SSL Reset button SNMP v1/v2c/v3, RMON, SNMP alarm/inform/traps Upload and download of FTP/TFTP files Debugging Syslog for alarm/notification/command/debug NTP SPAN, RSPAN (1:1 and N:1 mirror) LLDP, LLDP-MED ZTP （Zero Touch Provisioning） Optical DDM Ethernet cable diagnosis

Ordering Information

Item	Description
AS200/12/XTS	8-Port Gigabit RJ45 + 4-Port 10G SFP+ L2 Managed Switch (built-in single AC-220V power supply; fanless, 1U, standard 19-inch rack-mounted installation)