ALPHA BRIDGE
LAYER 2 Switch
(AS200/28/XF)

Supports 24 100/1000M SFP Ports, 4GE SFP/TX Combo ports and 4 10G SFP+ Uplink Ports.

Advanced Hardware Architecture and Industry-leading Port Density.

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

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

Product Overview

AS200/28/XF is the next-generation aggregation 10GE switch portfolio introduced by ABTPL. It targets the IP MAN (Metropolitan Area Network), Government and Enterprise Networks, Internet cafe, and Disk-Less working environments. It is developed based on high-performance hardware and ABOS software platform with ABTPL's own independent intellectual property rights.

It supports functions such as powerful ACL, flexible Q-in-Q, 1:1 or N:1 VLAN switching, Ethernet OAM, carrier-level QoS, and industry-level 10GE Ether-ring, ensuring this switch series meets application requirements in all kinds of complicated sites. It also supports layer-3 routing protocol.

Product Characteristics
Virtual Cluster Switching

Alpha Bridge Series virtualizes multiple physical devices into one. The performance, reliability and management of the virtual system are superior to the physical ones.

High Reliability: Based on the advanced distribution mechanism and efficient cross-physical link aggregation link functions, the logical control plane, service control plane and service data plane are separated.

Alpha Bridge Series supports In-Service Software Upgrade (ISSU) to ensure the uninterrupted data forwarding during system upgrade.

It can support continuous layer-3 routing forwarding, avoiding service interruption as a result of a single point of failure. Easy Management: the OS realizes single IP management, greatly improving the networking efficiency and lowering the operating cost.

Product Characteristics

Telecom-Level Ethernet Switch

Supports the telecom-level Ethernet-ring protection protocol with a protection shift time of less than 50ms, STP/RSTP/MSTP, backup of active/standby uplinks and LACP link aggregation to cater to the requirements of high reliability of carriers.

Supports Ethernet standards 802.3u, 802.3x, 802.3ad, 802.1d, 802.1p, 802.1q, 802.1w, 802.1ad.

Supports system status LED, port dynamic LED. Provides the perfect Ethernet OAM mechanism to monitor the network running status in real-time for rapid trouble locating and detection. Supports powerful ACL functions to access and control L2-L7 data based on physical port, VLAN, MAC, IP and protocol port ID and providing flexible and various policy control methods to carriers. Supports In-Service Software Upgrade (ISSU) to ensure the uninterrupted data forwarding during system upgrade. fast-leave and trans-vlan.

Flexible & Convenient Management and Maintenance

Supports management modes such as the console port, Telnet, SSH, etc.

Supports WEB management mode, which is easy and efficient so that it makes installation and debugging convenient.

Supports TFTP-patterned file upload/download management.

Supports ISSU (In-Service Software Upgrade).

Supports SNMP and ABTPL NMS smart network management platform to realize automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management.

Perfect Security Mechanisms

Equipment-level security: The advanced hardware infrastructure design ensures packet protection, prevents DoS-/TCP-related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions. Perfect security authentication mechanisms: IEEE 802.1x, Radius and Open source TACACS+.

AS228XF series supports storm/multicast/unicast limit, ensuring the normal running of equipment in harsh network conditions. AS228XF series supports perfect ring detection mechanism, ensuring the long-term stable running of network. Supports port isolation within the same VLAN, DHCP-Snooping, and IP plus MAC plus Port binding for ensuring user data security.

Industrial Ethernet Ring with "0" Delay/Packet Loss

Supports industry-level EAPS with protection shift time less than 50ms. Their high reliability is represented by the null packet loss, which has been proved by multiple test scenarios.

Versatile IPv6 Solutions

Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, etc.

Supports Ping, Traceroute, Telnet, SSH, ACL and so like based on IPv6, meeting IPv6 network equipment management requirements and service control requirements.

Carrier-Level QoS Policies

Alpha Bridge AS200/28/XF series supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority, eventually streamlining carrier's services in a better way.

Alpha Bridge series provides flexible bandwidth control policies, supporting port/flow-based Low limit, ensuring the line speed forwarding of each port.

AS200/28/XF Series supports multiple queue schedule algorithms such as SP, WRR and "SP + WRR".

Product Specifications

Item	AS200/28/XF
Interface	24 100/1000M SFP Ports 4 GE TX Combo Ports 4 10GE/GE SFP+ Ports
Console (RJ45)	1
Backplane (Gbps)	128
Forwarding rate (Mpps with 64 bytes)	96
Chassis Dimensions (WxDxH) (mm)	440x180x44
Chassis Weight (KG) (empty)	4
Package Dimensions (WxDxH) (mm)	576x448x94
Package Dimensions Weight (KG)	5.2
Power consumption (No-load)	< 18W
Power consumption (Full-load)	38W
Power supply AC: 100-240V / DC: 36-72V	45W
PoE power budget	NA
Total output BTU (1000 BTU/H = 293W)	153.58
Fan number	2
Noise@25°C (dBA)	45
MTBF(H)	> 200,000
Forwarding mode	Store-forward
Flash (MB)	16
DRAM (MB)	256
MAC	16K
Buffer size (MB)	1.5
Interface VLAN	64
Routing table	512
Jumbo frame	9K

Product Features

VLAN	QoS	Reliability
4K Active VLAN, Q-in-Q & Selective Q-in-Q, GVRP, Private VLAN, Voice VLAN	CAR, HQoS, MAC/IP/TCP/UDP/VLAN/ COS/DSCP/TOS based QoS, 802.1P/ DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED,flow monitoring and traffic shaping	Static/LACP link Aggregation, Interface backup, EAPS and ERPS, ISSU uninterrupted system upgrade, VSS, ups to 16-units per stack, VRRP, UDLD

Spanning Tree	Security	Accessories
802.1D (STP), 802.1W (RSTP) and 802.1S (32 instances MSTP) BPDU guard , root guard and Loopback guard	Port isolation, Port security, IP+MAC+port binding, MAC sticky, IEEE 802.1x, Radius and Tacacs+, MD5, SHA-256, RSA-1024, AES256, L2/L3/L4 ACL flow identification and filtration, Anti-attack from DDoS, TCP's SYN Flood, UDP Flood. Broadcast/Multicast/unknown unicast storm-control. DAI & IP source guard.	Power cord, rackmount kits, console cable
		Certification
		CE, ROHS

IP	DHCP	Multicast
Static route, RIP, OSPF IP v4/V6 Dual stack, DHCP server /Client Relay.	DHCP server/relay/client, DHCP snooping/option82	IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter

IPv6	Environment	Management
ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet, IPv6 neighbor discovery, Path MTU discovery, MLD V1, MLD snooping, IPv6 Static Routing, RIPng, OSPFv3, Manual tunnel, ISATAP tunnel, 6 to 4 tunnel	Operating temperature/humidity: 0°C to 50°C, 10%-90% Non-condensing Storage temperature/humidity: (-20°C to 70°C), 5%-95% Non-condensing	Console, Telnet, SSH v1/2, HTTP, HTTPS, SNMP v1/v2/v3, RMON, TFTP, FTP, SFTP, Dying gasp*, NTP, ZTP(Zero Touch Provisioning),SYSLOG, SPAN, RSPAN

Model

AS200/28/XF

24 100/1000M SFP
4 GE TX Combo
4 10GE/GE SFP

Ordering Information

Item	Description
AS200/28/XF	Ethernet Layer-3 lite switch with 24 10/100/1000M SFP Ports, 4 GE TX Combo Ports & 4 10GE SFP ports, 1 Console port, 100 to 240 VAC input, 60 HZ**,** fan, 1U, standard 19-inch rack-mounted installation)