Multiservice

48 x 10GE

SFP+ Switch

AS5800 Series

- **Maximizes physical link utilization**
- **Advanced hardware with packet scheduling**
- **Supports IEEE 802.1x, Radius, BDTacacs+**
- **Enhanced ring detection and protection**
- **SNMP and Pallas cloud platform**

ASCENT AS5800 Series is a full 10GE Top-of-Rack switches designed for high-performance computing, modern data centers, and advanced campus networks. Built with advanced hardware architecture and the BDROS software platform, the AS5800 Series delivers exceptional scalability, rich routing capabilities, and industry-leading reliability.

The 1U AS5800 platform supports up to 2.56 Tbps switching capacity with options for 48 × 10GE ports + 2 × 40GE ports + 4 × 100GE uplinks or a 72 × 10GE configuration, meeting diverse deployment needs from server access to aggregation. With high-performance L2/L3/L4 wire-speed forwarding, the switch integrates IPv6, VPN, security, traffic analysis, and virtualization services, enhanced by mechanisms such as continuous forwarding, graceful restart, and comprehensive loop protection—ensuring stable, non-interruptive operation of the switching fabric.

AS5800 Series incorporates the GreenTouch and Smart@CHIP energy-optimized architectures, achieving power consumption below 200W while maintaining top-tier performance. The series includes models AS5800-24X2C and AS5864HB, offering flexible deployment options for demanding data-center, carrier-grade, and enterprise-scale networks requiring high throughput and long-term operational stability.

Key Features

- Makes full use of each link in the physical device cluster
- Based on the advanced distribution mechanism and efficient cross-physical link aggregation function
- Realizes single IP management, greatly improving the networking efficiency and lowering operating costs
- Supports BVSS, which can virtualize multiple physical devices into a single logical element
- The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection
- Supports IEEE 802.1x, Radius and BDTacacs+
- Supports perfect ring detection mechanism
- Supports port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding
- Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc
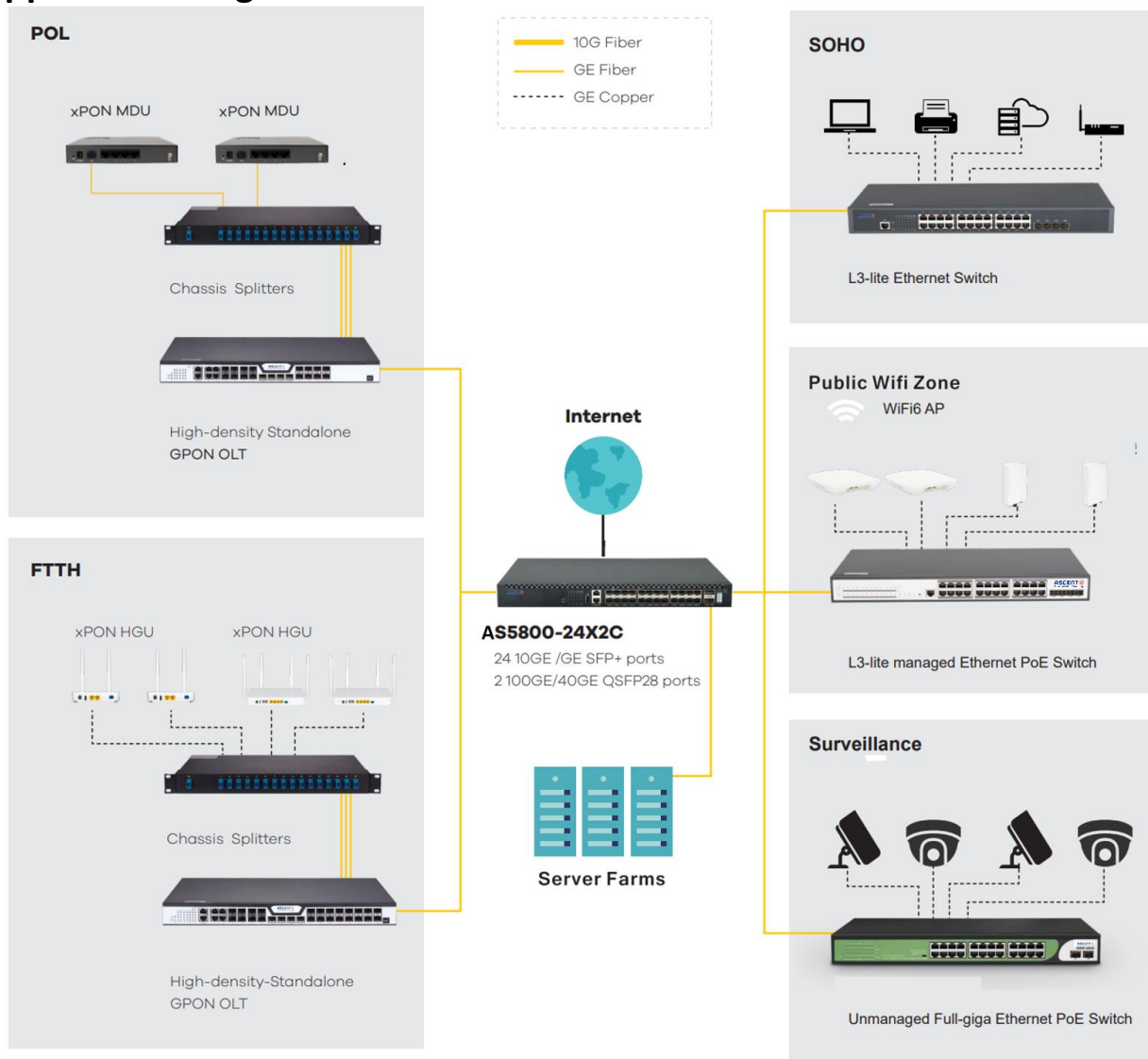- Data Center Level High-reliability

Model Lists

AS5800-24X2C
· 24-Port 10G/GE SFP+
· 2-Port 100G/40G QSFP28

AS5684HB
· 48-Port 10G/GE SFP+
· 2-Port 40G QSFP+
· 4-Port 100G/40G QSFP28

Application Diagram

POL

xPON MDU   xPON MDU

Chassis Splitters

High-density Standalone
GPON OLT

FTTH

xPON HGU   xPON HGU

Chassis Splitters

High-density-Standalone
GPON OLT

Legend:
- 10G Fiber
- GE Fiber
- GE Copper

Internet

AS5800-24X2C
24 10GE /GE SFP+ ports
2 100GE/40GE QSFP28 ports

Server Farms

SOHO

L3-lite Ethernet Switch

Public Wifi Zone
WiFi6 AP

L3-lite managed Ethernet PoE Switch

Surveillance

Unmanaged Full-giga Ethernet PoE Switch

Specifications

Product Characteristics

Item		Unit	Description	
			AS5800-24X2C	**AS5864HB**
Interface			24-Port 10G/GE SFP+	48-Port 10G/GE SFP+
			2-Port 100G/40G QSFP28	2-Port 40G QSFP+
				4-Port 100G/40G QSFP28
Console			1 RJ45 console, 1 MGMT	1 RJ45 console, 1 MGMT
Backplane		Gbps	880	1920
Forwarding Rate		Mpps	660	1440
Chassis	Dimensions(WxDxH)	mm	440x300x44	440x300x44
	Weight(Empty)	kg	6.1	8.8
Package	Dimensions(WxDxH)	mm	576x448x94	616x488x140
	Weight	kg	7.1	10
Power Consumption	No-Load	W	45	102
	Full-Load	W	70	147
Power Supply (Hot-Swap)	AC: 100-240, 50Hz±10%	V	2	2
Power Status Monitoring			Support	Support
Total Output BTU (1000BTU/H=293W)			238.91	501.71
Fan Number			4	4
Noise@25(dBA)		°C	57	57
MTBF(H)			>200,000	>200,000
Forwarding Mode			Store-forward	Store-forward
Flash		MB	4096	64
DRAM		MB	2048	1024
MAC		K	128	64
Jumbo Frame		K	9	16
Routing Table	IPv4	K	16	16
	Ipv6	K	8	8
ARP Table	IPv4	K	16	16
	Ipv6	K	8	2
Total SVI		K	1	1

AS5800 10GE Multiservice Switch

Features

Item	Description
VLAN	4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, Voice-VLAN
Spanning Tree	802.1D (STP)
	802.1W (RSTP) and 802.1S (MSTP)
	BPDU guard, root guard and loopback guard
Multicast	PIM-DM(S5864HB)
	PIM-SM/SSM
	IGMP v1/v2/v3
	IGMP Snooping
	IGMP Fast Leave
	MVR, IGMP filter
IPV4	Static routing, RIP v1/v2
	OSPF, BGP, PBR, ECMP
	BFD for OSPF, BGP
Ipv6	ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet
	IPv6 neighbor discovery, Path MTU discovery
	MLD snooping
	IPv6 Static Routing, RIPng, OSPFv3, BGP4+
	Manual tunnel, ISATAP tunnel, 6 to 4 tunnel
QoS	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 traffc shaping
Security	Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky
	DHCP Snooping and option 82, DAI & I P source guard, PPPoE+
	IEEE 802.1x, AAA, Radius and BDTacacs+ L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc
	Broadcast/multicast/unknown unicast storm-control
	MD5, SHA-256, RSA-1024, AES256, etc
DHCP	DHCP server/relay/client
	DHCP snooping/option82
Reliability	Static/LACP link aggregation
	Interface backup
	BVSS virtual-stacking
	EAPS and ERPS
	URPF, LLDP
	ISSU
	VRRP
	1+1 power backup
Management	Console, Telnet, SSH v1/2, HTTP, HTTPS
	SNMP v1/v2/v3, RMON
	TFTP, FTP, SFTP
	NTP, SPAN, RSPAN
	Syslog
Environment	Operating Temperature/Humidity: 0 to 50°C ,10%-90% non-condensing
	Storage Temperature/Humidity: -20 to 70°C , 5%-95% non-condensing
Certification	CE, FCC, ROHS
Accessories	Power cord, rackmount kits, console cable

Ordering Information

Product name	Product description
AS5800-24X2C	24-Port 10G SFP+ 2-Port 100G QSFP28 L3 Managed Switch (2 power slots with dual AC220V power supplies;1U, 19-inch rack-mounted installation
AS5864HB	48-Port 10G SFP+ 2-Port 40G QSFP+ 4-Port 40/100G QSFP28 L3 Stackable Managed Switch (2 power slots with dual AC220V power supplies; 4 fan slots with 4 cooling fans; standard front-back air channel design, 1U, 19-inch rack-mounted installation)

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Ver. ACT_AS5800_10GE_Switch_Datasheet_V1b_Nov_2021