AX1240S Models

Fast Ethernet Layer 2 Switch Featuring Robust Security

The AX1200S series provides high connectivity, usability and interoperability that are all consistent through the AX family. As a compact switch featuring a 1U height and a shallow depth, the AX1200S has two 10/100/1000BASE-T ports and two 1000BASE-X (SFP) ports for uplinks, allowing for flexible network configuration based on each user's network environment combined with the upper AX series.

The AX1240S is a second generation edge switch with advanced hardware and software that can respond to higher demands.

AX1240S-24T2C

AX1240S-48T2C

AX1240S-24P2C

Authentication and Security Functions

■ Triple authentication
- Capable of mixing three types of authentication methods (IEEE 802.1X/Web/MAC) for flexible, robust security based on each user environment and security policy.

■ Fulfilling security function
- Ensures security between local users by logically dividing a LAN, together with MAC VLANs, port VLANs, or/and protocol VLANs, and by performing granular access control with L2/L3/L4 level filtering.

High Reliability and High Availability

■ Various reliability improvement functions
- Capable of configuring highly reliable networks with high-speed failure detection and redundant lines/routes/devices using link aggregation, RSTP, ALAXALA proprietary hot standby switch function GSRP Aware (Gigabit Switch Redundancy Protocol), UDLD, and L2 loop detection function.
- Redundant uplink function allows for a redundant configuration without using a spanning tree.
- Supports the ring protocol with which flexible, scalable, simple, and high-speed networks can be configured.

■ QoS
- Provides granular QoS, such as priority control for important packets and voice packets vulnerable to delays, and bandwidth control that allocates a fixed bandwidth to ports.

■ Support for combo ports for gigabit uplinks
- Capable of using two ports simultaneously by combining 10/100/1000BASE-T or 1000BASE-X (SFP) ports, responding to various network environments.

IPv6 Support

■ Support for the IPv6 multicast cooperation function
- Capable of MLD snooping that controls the transmission of IPv6 multicast packets.

Compact Size and Reduced Environment Load

■ Compact 1U size for all models

■ Fanless switch
- The AX1240S-24T2C model features a completely fanless design.
- Can be installed in places where silence is required, such as an office or a conference room.
- The fanless architecture, which is free from dust accumulation and physically activated parts, reduces potential failures.

■ Power saving
- Lower power consumption of the entire device and various power saving functions reduce power consumption by about 20%, compared to the AX1230S.
- Supports the dynamic power saving function, reducing the device's power consumption according to a preset schedule.
- Meets the energy consumption efficiency requirements defined in the Energy Saving Act.

Operation Management and Maintenance Function

■ CLI Compatible with Advanced Models
- Supports CLI of the AX2400S series for integration of operation management and maintenance operability.

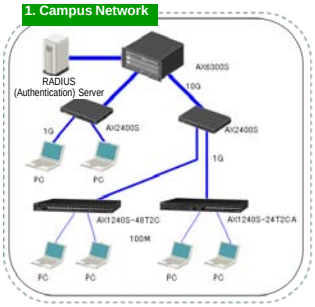
■ Command-free maintenance function
- Capable of log storage and firmware updates with an SD card, improving on-site maintainability.

PoE/PoE Plus (Power Over Ethernet)

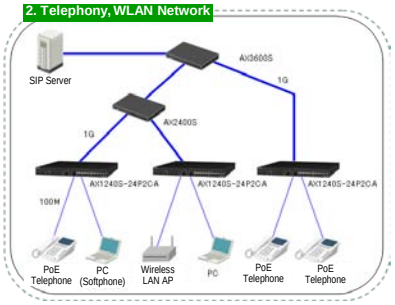
■ Elimination of power lines with PoE (AX1240S-24P2CA)
- Capable of housing PoE devices (such as IP phones and WAPs) to eliminate the need for power lines. This reduces the frustration due to increased cables, the cost of power line wiring, and the construction period.
- Supports the power feeding of Class 3 [15.4 W] for all ports in the AX1240S. Also supports PoE Plus (IEEE 802.3at) capable of the power feeding of Class 4 [30.0 W].

AX1240S Application Example

1. Campus Network



2. Telephony, WLAN Network



Application Example	Points
1. Campus Network - Floor edge, workgroup	- Security function (authentication) - High reliability (GSRP-aware, link aggregation) - Dynamic power saving (scheduling sleep) - TCO reduction (operation management efficiency) - Compact (1U) - IPv6-enabled (MLD Snooping)
2. Telephony, WLAN Network - Floor edge (IP phone power feeding) - WAP connection	- Edge switch housing WAP and IP phone - Security function (authentication) - High reliability (GSRP-aware, link aggregation) - TCO reduction (PoE, operation management efficiency) - Compact (1U) - IPv6-enabled (MLD Snooping) - QoS

AX1240S Product Specifications

Model		AX1240S-24T2C	AX1240S-48T2C	AX1240S-24P2C
Performance	Maximum switching capacity	8.8 Gbps	13.6 Gbps	8.8 Gbps
	Maximum packet forwarding performance	6.5 Mpps	10.1 Mpps	6.5 Mpps
Port count	1000BASE-X (SFP) (SX/SX2/LX/LH/BX)	2[#1]	2[#1]	2[#1]
	10/100/1000BASE-T	2[#1]	2[#1]	2[#1]
	10/100BASE-TX [No PoE]	24	48	-
	10/100BASE-TX [PoE/PoE Plus]	-	-	24[#2]
Layer 2 functions	Maximum entry count	16,384		
	VLAN	Port VLAN, Tag-VLAN (IEEE802.1Q), MAC VLAN, protocol VLAN		
	Spanning tree protocol (STP)	STP(IEEE 802.1D), RSTP(IEEE 802.1w), MSTP(IEEE 802.1s), PVST+, BPDU filter, Port Fast, route guard, loop guard		
	Multicast cooperation functions	IGMP v1/v2/v3 snooping, MLD v1/v2 snooping		
	Ring protocol	Autonomous Extensible Ring Protocol[#3]		
Network functions	Authentication functions	IEEE 802.1X authentication, Web authentication (dynamic VLAN mode/fixed VLAN mode), various Web authentication functions (URL redirection, screen editing, interim certificate), MAC authentication (dynamic VLAN mode/ fixed VLAN mode), multi-step authentication, fixed VLAN mode/dynamic VLAN mode mixed on the same port		
	Security functions	DHCP snooping, interception of relay between ports, EAPOL forwarding, filtering, forced authentication, one-time password for Web authentication (RSA SecurID), Single Sign On client for Web authentication		
	QoS	IEEE802.1p, ToS/CoS mapping, shaping		
	Reliability/operability improvement functions	Link aggregation (IEEE 802.3ad), storm control, jumbo frame, IEEE 802.3ah/UDLD, GSRP aware, GSRP aware extended function, L2 loop detection, uplink redundant, EtherOAM		
Operation management functions	Operation management functions	SNMPv1/v2c, MIB II, RMON, syslog, telnet, FTP, port mirroring, NTP, ping, traceroute, logging (SD card), firmware update (SD card), RADIUS, LLDP, IPv4DHCP server, SSHv1/v2[#8], energy saving operation mode		
	Operation	CLI (AX2400S series base[#4])		
Power saving function	Static power saving	Port power supply off		
	Dynamic power saving	Unit power control (scheduled sleep), Port power supply off (scheduling), unused port power saving, secure Wake On LAN		
Equipment conditions	Input voltage	AC 100-120 V, 200-240 V		
	Maximum input current (A)	0.18 @ AC 100 V	0.31 @ AC 100 V	4.6 @ AC 100 V
		0.10 @ AC 200 V	0.17 @ AC 200 V	2.4 @ AC 200V
	Maximum power consumption (W)	18/21[#5]	30/33[#5]	450/453[#5]
	Maximum heat output (kJ/h)	65/76[#5]	108/119[#5]	1620/1631[#5]
	Fan	None	Mounted	Mounted
	Outer dimensions (W x D x H (mm))	445 x 200 x 43 (1U)	445 x 250 x 43 (1U)	445 x 350 x 43 (1U)
	Weight (kg) of main unit only	2.8	3.8	5.8
Items related to Energy Saving Act[#6]	Energy consumption efficiency (W/Gbps)	Category A 3.7 (standard value 4.1)	Category A 4.1 (standard value 4.7)	-[#7]
	Maximum effective transmission speed (Gbps)	4.4	6.8	-[#7]
	Port speed/count at the time of measurement 1Gbps	2	2	-[#7]
	Port speed/count at the time of measurement 100Mbps	24	48	-[#7]
	PoE Maximum power supplied (W)	-	-	369.6/unit, 30.0/port [#2, #7]
Environment conditions	Permissible operation temperature range	0 to 45℃		
	Temperature when not operating (when not applying current)	-10 to 45℃		
	Temperature during storage and transport	-25 to 60℃		
	Permissible operation humidity range	10% to 90% (no condensation)		
	Humidity when not operating (when not applying current)	8% to 90% (no condensation)		
	Humidity at storage and transport	5% to less than 100% (no condensation)		
	Floating dust	Floating dust of about 10 microns or smaller: 0.15mg/m^3 or smaller		

#1: 1000BASE-T and 1000BASE-X are mutually exclusive (i.e., they cannot be used simultaneously); #2: The maximum number of ports that can feed power is 24 for devices whose power class is Class 3 (15.4 W) and 12 for those with Class 4 (30.0 W); #3: Only transit is supported; #4: May slightly vary because of functional differences from the upper series; #5: When using 2 1000BASE-LH (SFP) ports; #6: Value based on a measuring method defined by the Energy Saving Act (Japan); #7: As the AX1240S-24P2C has the maximum PoE power feeding rate of more than 16, the Energy Saving Act (2009) is not applicable to it. #8: SSH function is subject to export control regulations, and may be excluded when exported.

Caution | For your safety, please be sure to read the *Hardware Instruction Manual* and the *Safety Guide* beforehand.

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