

## L2/L3 managed Ethernet Switches

- **Gigabit Speed & Scalability:** Full gigabit access with 10/100/1000Mbps on all ports, ensuring seamless high-speed data transfer for large networks.
- **Powerful PoE Support:** IEEE 802.3af/at/bt compliant, with up to 90W per port on PoE++ models, supporting high-power devices like IP cameras and wireless APs.
- **Industrial Reliability:** Designed for harsh environments with wide temperature range and 6kV surge protection to guarantee consistent performance.
- **Smart Management & Flexibility:** Offers Web UI, CLI, SNMP, and centralized DCMS for easy network configuration, monitoring, and control.



Full Gigabit Managed PoE Switches are purpose-built to meet the evolving networking demands of modern enterprises, surveillance systems, and smart infrastructure. With comprehensive Layer 2/Layer 3 capabilities, robust PoE support, and intelligent management features, these switches deliver powerful performance, stability, and scalability for mission-critical networks.

### Key Highlights:

- **Full Gigabit Access:** All ports support 10/100/1000Mbps for high-speed connectivity.
- **Intelligent PoE Power Supply:** Supports IEEE 802.3af/at/bt standards; models with up to 90W PoE++ (BT) per port.
- **Flexible Power Design:** Redundant AC/DC power options ensure continuous uptime.
- **Rich Layer 2/3 Features:** VLAN, QoS, IGMP, port isolation, DHCP, static routing, RIP, and OSPF.
- **Industrial-grade Durability:** Wide operating temperature and 6kV surge protection.
- **Smart Management:** Web UI, CLI, SNMP, and centralized cloud management (DCMS).

### Application Scenarios:

- High-power wireless AP backhaul
- IP camera and surveillance deployments
- Office, campus, and hospitality network access
- Aggregation in enterprise and government networks.

## Software Specification:

Category	Feature Description
Protocol Standards	IEEE 802.3x, IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ad IEEE 802.1Q, IEEE 802.1p, IEEE 802.3q, IEEE 802.1w, IEEE 802.1d, IEEE 802.1s
MAC Address Table	Supports 16K MAC address table, automatic updating, bidirectional learning
VLAN Configuration	Port-based VLAN, up to 4096 VLANs, supports IEEE 802.1Q, voice VLAN with QoS
Spanning Tree	Supports STP, RSTP, MSTP, EPPS ring protocol, EAPS, IEEE 802.1x authentication
Port Aggregation	Supports 8 groups, up to 8 ports per group
Port Mirroring	Supports bidirectional (Rx & Tx) port mirroring
Loop Protection	Real-time detection, alarm, location, intelligent blocking, automatic recovery
Port Isolation	Downlink port isolation with uplink communication supported
Port Flow Control	Half-duplex: Backpressure-based; Full-duplex: PAUSE frame-based
Port Rate Limiting	Port-based input/output bandwidth management
Multicast Control	IGMP v1/v2/v3, MLD v1/v2 Snooping, GMRP, multicast VLAN, multicast address management Multicast routing ports, static multicast address configuration
DHCP	Supports DHCP Snooping
Storm Suppression	Suppresses unknown unicast, multicast, broadcast storms using bandwidth tuning & filters
Security	IP + MAC + port binding, ACLs based on IP/MAC, port-based MAC address security
QoS	IEEE 802.1p queue priority, CoS/ToS tagging, WRR, SP, WFQ scheduling algorithms
Cable Detection	Supports Auto-MDIX (auto-detects straight/crossover cables)
Auto Negotiation	Supports auto-negotiation for speed and duplex mode
System Maintenance	Firmware upgrade, system log, web-based factory reset
PoE Management	Port PoE on/off control, scheduling, auto device detection (no manual action required)
Network Management	Web GUI, CLI via Telnet/Console, SNMP v1/v2/v3, SSH v1/v2, RMON

## Recommended Switch Models:

### L2 Switch Models

Model	Bandwidth	Ports	Fiber Ports	PoE	Description
SWN-SA23-0804NA	56G/128G	8GE	4 COMBO	No	General-purpose medium-sized enterprise switch
SWN-SA23-1602NA	56G/128G	16GE	2SFP	No	Access layer, high-density model
SWN-SA23-2402NA	56G/128G	24GE	2SFP	No	Mainstream non-PoE with high port count
SWN-SA25-4804NA	128G/256G	48GE	4SFP	No	Non-PoE, full-port flagship model
SWN-SA21-0402PD	20G	4GE	2SFP	1BT+3AF/AT	Small PoE access point
SWN-SA23-0802PA	56G/128G	8GE	2SFP	8BT*90W	High-power PoE (suitable for AP/IP Cameras)
SWN-SA21-0802PAA	20G	8GE	2SFP	8*AUTO(24/48V)	Small-to-medium enterprise PoE deployment
SWN-SA23-1602PA	56G/128G	16GE	2SFP	2BT+14AF/AT	PoE for medium-sized network
SWN-SA23-2404PA	56G/128G	24GE	4 COMBO	2BT+22AF/AT	Common PoE deployment model
SWN-SA23-2404PAAS	56G/128G	24GE	4 COMBO	4*AUTO(24/48V) +4*BT+16*AF/AT	High-end PoE power supply solution

### L3 Switch Models

Model	Bandwidth	Ports	Fiber Ports	PoE	Description
SWN-SA31-0802NA	160G	8GT	2*10G SFP+	No	Standard enterprise L3 access layer configuration
SWN-SA31-0502NA	160G	5GT	2*10G SFP+	No	Compact, high-performance L3
SWN-SA31-0008NA	160G	None	8*10G SFP+	No	Pure fiber aggregation/core model
SWN-SA31-0206NDX	160G	2XGT	6*10G SFP+	No	Data center or uplink core
SWN-SA31-0800NA	160G	8GT	None	No	Basic L3 pure Ethernet configuration
SWN-SA31-0500NA	160G	5GT	None	No	Entry-level L3, cost-optimized choice

Note: All models support VLAN, IGMP Snooping, QoS, Port Isolation, Link Aggregation, ACL, SNMP, and centralized cloud-based DCMS management.