SMN-SU Series

Unmanaged Ethernet Switches

- Available with 5, 8, 16, or 24 ports; supports 10/100Mbps or 10/100/1000Mbps auto-negotiation depending on model.
- All ports support wire-speed switching with store-and-forward architecture, ensuring stable data flow.
- Each port supports up to 2KV surge protection for enhanced reliability in complex environments.
- Supports auto MDI/MDIX, no configuration needed — ideal for easy deployment and quick setup.
- Supports jumbo frames up to 9216 bytes, IEEE802.3x flow control, and QoS (IEEE802.1p) for optimized network traffic.
- Operates with a wide input voltage range (5V–16V) and low power consumption (1.8W–5W), ensuring energy efficiency.

The SWN-SU Series Unmanaged Ethernet Switches are designed for small to medium-sized networks, including home, school, office, and small surveillance environments. Available in 5, 8, 16, and 24-port configurations with either 100Mbps or Gigabit (1000Mbps) speeds, these switches support plug-and-play operation with full wire-speed forwarding. Each port features auto MDI/MDIX and up to 2KV surge protection, ensuring stable and efficient data transmission without configuration.

Technical Features:

- Auto-negotiation on all ports (10/100 or 10/100/1000 Mbps)
- MDI/MDIX auto crossover support for simplified cabling
- Supports IEEE802.3, 802.3u, 802.3ab standards
- IEEE802.3x full-duplex flow control and backpressure for half-duplex
- Store-and-forward switching architecture
- QoS (IEEE 802.1p) support for traffic prioritization
- Wire-speed forwarding for all packet sizes (64 – 1518 bytes)
- Jumbo frame support up to 9216 bytes (Gigabit models only)
- MAC address table: 4K entries
- Buffer memory: 1Mbit
- Latency: ≤20 μs

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Hardware Specification:	
LED Indicators	Power Link/Activity Speed (Gigabit models only)
Power & Environmental	Power Supply: External power adapter Input Voltage: AC 100~240V, 50/60Hz Device Voltage: DC 5V~16V Power Consumption: 1.8W ~ 5W
Operating Environment	Operating Temperature: -10°C to 65°C Storage Temperature: -40°C to 70°C Operating Humidity: 5% to 95% RH, non-condensing
Mechanical	Material: Metal Color: Black Installation: Desktop or wall-mount (16/24 port models support rack mount)

Model List & Specifications:						
Model	SWN-SU05M	SWN-SU08M	SWN-SU05G	SWN-SU08G	SWN-SU16G	SWN-SU24G
Ports	5	8	5	8	16	24
Network	10/100 Mbps	10/100 Mbps	100/1000 Mbps	100/1000 Mbps	100/1000 Mbps	100/1000 Mbps
Switching Capacity	1 Gbps	1.6 Gbps	10 Gbps	16 Gbps	32 Gbps	48 Gbps

SMN-SA2

L2 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 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 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.

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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

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

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SMN-SA3

L3 managed Ethernet Switches

- Full Gigabit Access: All ports support 10/100/1000 Mbps with optional 10G fiber uplinks.
- High-Power PoE Support: IEEE 802.3af/at/bt compliant, up to 90W per port on select models.
- Industrial Design: Operates in -40°C~80°C temperature range, with 6kV surge protection and redundant DC/AC power.
- Advanced L3 Routing: Static routing, RIP, OSPF, VRRP, DHCP relay.
- L2/L3 Features: VLAN, QinQ, STP/RSTP/MSTP, ERPS, IGMP/MLD Snooping, ACL, port isolation, port mirroring, link aggregation.
- Secure & Flexible Management: Access via Web GUI, CLI, SNMP v1/v2/v3, Telnet, SSH, and centralized DCMS platform.

The Synway SMN-SA3 series Layer 3 managed switches offer high-performance full-gigabit access and 10G uplinks, designed for enterprise, campus, surveillance, and industrial networking. Supporting a broad range of L3 routing protocols and industrial-grade reliability, these switches provide superior scalability, security, and centralized management through DCMS platform, Web UI, CLI, and SNMP.

Key Highlights:

- Full Gigabit Access: All ports support 10/100/1000 Mbps with optional 10G fiber uplinks.
- High-Power PoE Support: IEEE 802.3af/at/bt compliant, up to 90W per port on select models.
- Industrial Design: Operates in -40° C~80° C temperature range, with 6kV surge protection and redundant DC/AC power.
- Advanced L3 Routing: Static routing, RIP, OSPF, VRRP, DHCP relay.
- L2/L3 Features: VLAN, QinQ, STP/RSTP/MSTP, ERPS, IGMP/MLD Snooping, ACL, port isolation, port mirroring, link aggregation.
- Secure & Flexible Management: Access via Web GUI, CLI, SNMP v1/v2/v3, Telnet, SSH, and centralized DCMS platform.

Application Scenarios:

- Aggregation in enterprise/government networks
- IP camera and video surveillance
- Industrial automation and smart cities
- High-speed Wi-Fi access point backhaul
- Campus and hospitality network deployment

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Software Specification:	
Category	Feature Description
Protocol Standards	IEEE 802.3/3u/3ab/3z/3ae, IEEE 802.1Q/p/w/s/x/ad/az, IEEE 802.1x
MAC Address Table	Supports up to 32K entries, automatic update, bidirectional learning
VLAN Configuration	Supports 802.1Q VLAN, QinQ, Voice VLAN, MAC VLAN, IP VLAN, up to 4096 VLANs
Spanning Tree	STP, RSTP, MSTP, ERPS (recovery <20ms), BPDU Guard
Port Aggregation	Supports static/dynamic LAGs, 8 groups max
Port Mirroring	Multi-to-one bidirectional mirroring supported
Loop Protection	Loop detection and auto-recovery supported
Port Isolation	Downlink port isolation with uplink forwarding allowed
Port Flow Control	Half-duplex (backpressure), Full-duplex (PAUSE frame)
Bandwidth Management	Per port input/output rate limiting
Multicast Control	IGMP v1/v2/v3, MLD v1/v2 Snooping, GMRP, multicast VLAN
DHCP	DHCP Client/Server/Relay/Snooping supported
Storm Suppression	Supports suppression for unicast/multicast/broadcast
Security	IP/MAC binding, port security, ARP inspection, ACL (IP/MAC/Layer 3/4), RADIUS, 802.1X
QoS	802.1p CoS/ToS tagging, WRR, SP, WFQ, RED/WRED, traffic classification
Cable Detection	Auto-MDIX supported
Auto Negotiation	Supported for all ports
System Maintenance	Config upload/download, firmware upgrade, logs, ping/tracert, cable detection
PoE Management	Port power on/off, schedule, auto detection (for PoE models only)
Network Management	Web GUI, CLI, Telnet, SSH, SNMP v1/v2/v3, RMON, LLDP, DCMS
Clock Protocols	NTP, PTP (1588v2) supported
Reliability	Redundant power input (DC/AC), surge protection, MTBF >300,000 hrs

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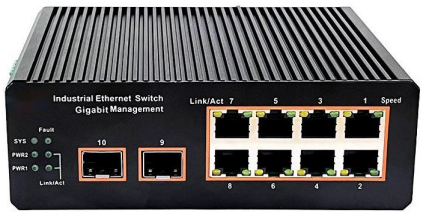
Recommended Switch Models:					
Model	Bandwidth	Ports	Fiber Ports	PoE	Description
SWN-SA31-0802NA	160G	8GT	2*10G SFP+	No	Standard enterprise L3 access layer configuration
SWN-SA31-0502NA	160G	5GT	2*10G SFP+	No	Compact, high-performance L3
SWN-SA31-0008NA	160G	None	8*10G SFP+	No	Pure fiber aggregation/core 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.					

SMN-SU5/SA5

Industrial Ethernet Switches

- Provides self-adaptive 10/100/1000M RJ45 PoE+ ports and Gigabit SFP fiber ports.
- High EMC protection level, resistant to various harsh environments.
- Easy-to-use WEB visual management interface.
- Aluminum alloy shell, sturdy and durable.
- Dual power input with redundant backup, greatly enhancing power supply reliability.



The SMN-SU5/SA5 Series offers a flexible range of gigabit Ethernet switches, designed for industrial applications in demanding environments. The series includes both managed and unmanaged models, with options for PoE and non-PoE configurations.

Built for robust environmental resilience, the series offers mechanical stability, climate and electromagnetic compatibility, with an IP30 protection rating. Redundant power inputs enhance reliability, while the fanless design ensures low power consumption.

Managed models come with advanced features like 802.1Q VLAN, voice VLAN, QoS, ACL, IGMP V1/V2/V3, IGMP Snooping, 802.1X authentication, STP/RSTP/MSTP, ERPS rapid ring protocol (20ms recovery time), AAA authentication, and SNMP management. The SMN-SU5/SA5 Series is perfect for deploying stable, cost-effective communication networks across industries such as smart transportation, power, mining, oil, maritime, and green energy.

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Key features:
Installation Method: DIN Rail Mount
Protection Level: IP30, reduces dust impact
Industrial-grade operating temperature: -40° C to 75° C
8K MAC addresses; static MAC addresses, MAC address filtering, dynamic MAC binding for address table management
MAC address auto-learning, auto-aging, and aging time settings
IEEE 802.1Q VLAN, flexible VLAN segmentation based on user needs
Voice VLAN for QoS configuration, prioritizing voice data flow and ensuring call quality
QoS: Supports port-based, 802.1P-based, and DSCP-based priority modes, with queue scheduling algorithms including Equal, SP, WRR, SP+WRR
ACL: Filtering of data packets through configurable matching rules, actions, and time permissions, providing flexible security access control policies
IGMP V1/V2 multicast protocol, supports IGMP Snooping to meet HD video surveillance and video conferencing needs
Multicast VLAN and multicast filtering for efficient data transmission, bandwidth saving, and reduced network load
802.1X authentication for LAN computer access, with port authorization control based on authentication results
STP/RSTP/MSTP spanning tree protocols to eliminate Layer 2 loops and enable link redundancy
ERPS rapid ring protocol with a recovery time of 20ms (currently supports single ring only)
Ingress/egress bandwidth control based on port
Static and dynamic link aggregation for increased link bandwidth, load balancing, link redundancy, and improved link reliability
Web management, CLI (Console, Telnet), SNMP (V1/V2/V3) for diverse management options
Secure management with HTTPS, SSL V3, TLSV1, SSHV1/V2 encryption
RMON, system logs, and port traffic statistics for network optimization and improvements
Cable detection, Ping, and Tracert tests to easily analyze network faults
LLDP for network management systems to query and assess link communication status
CPU monitoring, memory monitoring, Ping, Tracert tests, and cable detection

Technical Specifications:	
Protocol Standards	IEEE 802.3, 802.3i, 802.3u, 802.3x, 802.3af, 802.3at
Switch Performance	Store-and-forward support; MAC address table depth: 8K
DIP Switch	Not defined yet, customizable options available
Structure	IP30 protection level; DIN rail/wall mountable
Net Weight/Gross Weight	≤1kg / ≤1.4kg
Switching Capacity	20Gbps
Forwarding Rate	14.88Mpps
Buffer	4.1Mb
Operating Temperature	-40° C to 75° C
Storage Temperature	-40° C to 85° C
Humidity	Operating humidity: 10%RH to 90%RH, non-condensing; Storage humidity: 5%RH to 90%RH, non-condensing
Packaging Accessories	1 SR-SHG3210FPI industrial-grade switch, warranty card, user manual

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Software Parameters:	
L2 Switching Features	8K MAC address table, 10K jumbo frames, Flow control (802.3x, Backpressure), IEEE 802.1D (STP), IEEE 802.1w (RSTP), IEEE 802.1s (MSTP), Edge port, BPDU filter, ERPS, Self-loop detection, Link aggregation (Static, LACP), Traffic load balancing.
L3 Switching Features	IPv4/IPv6 Static routing, ARP (Static ARP).
VLAN	Supports 4094 VLANs, IEEE 802.1Q VLAN, Protocol-based VLAN, MAC-based VLAN, Surveillance VLAN, Voice VLAN, QinQ (IEEE 802.1ad), GARP VLAN Registration Protocol (GVRP).
Multicast	Supports 500 multicast groups, IGMP (v1/v2/v3), IGMP Active Query, MLD Listening, IPv4 Multicast VLAN Registration (MVR).
Quality of Service (QoS)	8 priority queues/ports, Queue scheduling (WRR, WFQ, Strict priority, Hybrid WRR+SP or WFQ+SP), Port-based rate limiting, Trusted QoS.
Access Control List (ACL)	L2/L3/L4 ACL types (MAC, IPv4, IPv6).
Security	AAA authentication, 802.1x, TACACS+, SSLv2/SSLv3/TLSv1, CLI SSH v1/v2, Storm control, BPDU protection, Port isolation, DHCP Snooping, Dynamic ARP inspection, DoS prevention, IP/MAC/Port Binding (IMPB).
IPv6 Host	Auto-configuration, Static IPv6 address, IPv6 Neighbor Discovery (ND), Duplicate Address Detection, ICMPv6.
IPv6 Applications	Supports HTTP/HTTPS, Remote Network, SSH, SNMP, TFTP, System Logs, PING, DHCPv6.
Management	CLI, HTTP, HTTPS, SNMP management (V1/V2/V3), File management (Firmware upgrade/backup), Port management, DHCP client, RMON, IEEE (802.3az).
Discovery	IEEE 802.1AB Link Layer Discovery Protocol (LLDP), ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED).
Diagnostics	System logs, CPU/memory/port/utilization diagnostics, Port diagnostic cable test, Fiber module status, Ping/Traceroute, UDLD.
MIB	RFC1213 MIBII, RFC2819 RMON I, SNMPv3-MIB, RFC1215 trap, RFC1493 Bridge MIB, RFC2737, RFC3635, RFC2863 Interface group, RFC2674 Bridge MIB Extensions.

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Recommended Switch Models:

Industrial Switch

Model	RJ45 Ports	Fiber Ports	PoE	Key Features
SWN-SU5-42N	4	2	No	DIN Rail Mounting, DC12~52V Power Supply, Wide Temp -40℃~85℃, Ring Network (STP/RSTP), VLAN
SWN-SU5-42P	4	2	Yes	65W Total Power, SFP, DIN Rail Mounting, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN
SWN-SU5-82N	8	2	No	DIN Rail Mounting, DC12~52V Power Supply, Wide Temp -40℃~85℃, Ring Network, VLAN
SWN-SU5-82P	8	2	Yes	120W Total Power, IEEE802.3 af/at, SFP, DIN Rail Mounting, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN

L2 Industrial Switch

Model	RJ45 Ports	Fiber Ports	PoE	Key Features
SWN-SA5-42N	4	2	No	DIN Rail Mounting, DC12~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-42P	4	2	Yes	65W Total Power, IEEE802.3 af/at, SFP, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-82N	8	2	No	DIN Rail Mounting, DC12~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-82P	8	2	Yes	120W Total Power, IEEE802.3 af/at, SFP, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-84N	8	4	No	DIN Rail Mounting, DC12~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-84P	8	4	Yes	120W Total Power, IEEE802.3 af/at, SFP, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-88N	8	8	No	DIN Rail Mounting, DC12~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP
SWN-SA5-88P	8	8	Yes	120W Total Power, IEEE802.3 af/at, SFP, DC48~52V, Wide Temp -40℃~85℃, Ring Network, VLAN, WEB/CLI, SNMP

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