


Hardware Features & Performance

Product Picture				
Model		SG3428X V1.30		
General	Interface	24 10/100/1000Mbps RJ45 Ports with Auto MDI / MDI-X 4 10GE SFP+ Slots		
	Console	1 RJ45 Console Port, 1 Micro-USB Console Port		
	Flash	32 MB		
	DRAM	256 MB		
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber) IEEE 802.3ae: 10 Gigabit Ethernet over fiber		
PoE	PoE Standard	-		802.3af/at
	PoE Ports	-		24, up to 30W
	PoE Power Budget	-		384 W
Performance	Switching Capacity	128 Gbps		
	Packet Forwarding Rate	95.23 Mpps		
	MAC Address Table	16K		
	Transmission Method	Store and Forward		
	Packet Buffer	12 Mbit		
	Number of IP Interfaces	16		
	Number of Static Routers	48 (IPv4, IPv6)		
	Jumbo Frame	9 KB		
Physical & Environmet	Power Supply	100-240 V AC~50/60 Hz		
	Redundant Power Supply	-	Yes	-
	Max Power Consumption	23.6 W (110V/60Hz)	35.7 W (110V/60Hz)	486.2 W (110V/60Hz) (with 384 W PD connected)
	Max Heat Dissipation	80.52 BTU/hr (110 V/60 Hz)	121.81 BTU/hr (110 V/60 Hz)	1658.78 BTU/hr (110 V/60 Hz) (with 384 W PD connected)
	Standby Power Consumption	8.67 W (110 V/60 Hz)	17.6 W (110V/60 Hz)	
	Dimensions (W x D x H)	17.3 × 7.1 × 1.7 in (440 × 180 × 44 mm)	17.3 × 8.7 × 1.7 in (440 × 220 × 44 mm)	17.3 × 13.0 × 1.7 in (440 × 330 × 44 mm)
	Fan Quantity	0	1	2
	Installation	Rack Mountable		
	Operating Temperature	0 °C to 45 °C (32 °F to 113 °F)		
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)		
	Operation Humidity	10% to 90% RH, non-condensing		
	Storage Humidity	5% to 90% RH, non-condensing		
	Certification	CE, FCC, RoHS		

Software Features

Model	SG3210X-M2 / SG3210XHP-M2 V3 / SG3218XP-M2 / SG3428X V1.30 / SG3428XF V1.20 / SG3428XMP V3.20 / SG3428X-M2 V1.20 / SG3428XPP-M2 V1.20 / SG3452X V1.20 / SG3452XP V2.20 / SX3206HPP V1.20 / SX3008F V1.20 / SX3016F V1.20	
SDN Support	<ul style="list-style-type: none"> • Support Omada Hardware Controller • Automatic Device Discovery • Batch Configuration • Batch Firmware Upgrading 	<ul style="list-style-type: none"> • Intelligent Network Monitoring • Abnormal Event Warnings • Unified Configuration • Reboot Schedule
L3 Features	<ul style="list-style-type: none"> • 16 IPv4/IPv6 Interfaces (32 IPv4/IPv6 Interfaces for SG3210X-M2 & SG3210XHP-M2 & SG3218XP-M2 & SG3428X-M2 & SG3428XPP-M2) • Static Routing <ul style="list-style-type: none"> - 48 static routes • Static ARP <ul style="list-style-type: none"> - 128 static entries • 512 ARP Entries 	<ul style="list-style-type: none"> • Proxy ARP • Gratuitous ARP • DHCP Server • DHCP Relay <ul style="list-style-type: none"> - DHCP interface relay - DHCP VLAN relay • DHCP L2 Relay
L2 Features	<ul style="list-style-type: none"> • Link Aggregation <ul style="list-style-type: none"> - Static link aggregation - 802.3ad LACP - Up to 8 aggregation groups and up to 8 ports per group • Spanning Tree Protocol <ul style="list-style-type: none"> - 802.1d STP - 802.1w RSTP - 802.1s MSTP - STP Security: TC Protect, BPDU Filter, BPDU Protect, Root Guard, Loop Protect , Auto Learn 	<ul style="list-style-type: none"> • Loopback Detection <ul style="list-style-type: none"> - Port based - VLAN based • Flow Control <ul style="list-style-type: none"> - 802.3x Flow Control - HOL Blocking Prevention • Mirroring <ul style="list-style-type: none"> - Port Mirroring - CPU Mirroring - One-to-One - Many-to-One - Tx/Rx/Both
L2 Multicast	<ul style="list-style-type: none"> • Supports 1000 (IPv4, IPv6) IGMP groups (511 groups for SG3210X-M2 & SG3210XHP-M2 & SG3218XP-M2 & SG3428X-M2 V1.20 & SG3428XPP-M2) • IGMP Snooping <ul style="list-style-type: none"> - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - IGMP Authentication • IGMP Authentication 	<ul style="list-style-type: none"> • MVR • MLD Snooping <ul style="list-style-type: none"> - MLD v1/v2 Snooping - Fast Leave - MLD Snooping Querier - Static Group Config - Limited IP Multicast • Multicast Filtering: 256 profiles and 16 entries per profile
VLAN	<ul style="list-style-type: none"> • VLAN Group (802.1q VLAN) <ul style="list-style-type: none"> - Max 4K VLAN Groups • 802.1Q Tagged VLAN • MAC VLAN entries: 30 (256 for SG3210X-M2 & SG3210XHP-M2 & SG3218XP-M2 & SG3428X-M2 & SG3428XPP-M2) 	<ul style="list-style-type: none"> • Protocol VLAN: Protocol Template 16, Protocol VLAN 16 (Protocol Template 16 and Protocol VLAN 12 for SX3008F and SX3016F) • GVRP • VLAN VPN <ul style="list-style-type: none"> - VLAN Mapping - VLAN Replace • Voice VLAN
QoS	<ul style="list-style-type: none"> • 8 priority queues • 802.1p CoS/DSCP priority • Queue scheduling <ul style="list-style-type: none"> - SP (Strict Priority) - WRR (Weighted Round Robin) - SP+WRR 	<ul style="list-style-type: none"> • Bandwidth Control <ul style="list-style-type: none"> - Port/Flow based Rating Limiting • Smoother Performance • Action for Flows <ul style="list-style-type: none"> - QoS remark (802.1P Remark, DSCP Remark)

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ACL	<ul style="list-style-type: none"> • MAC ACL <ul style="list-style-type: none"> - Source MAC - Destination MAC - VLAN ID - User Priority - Ether Type • IP ACL <ul style="list-style-type: none"> -Source IP - Destination IP - Fragment - IP Protocol - TCP Flag 	<ul style="list-style-type: none"> - TCP/UDP Port - DSCP/IP TOS • Combined ACL • IPv6 ACL • Policy <ul style="list-style-type: none"> - Mirroring - Redirect - Rate Limit - QoS Remark • ACL apply to Port/VLAN • Time-based ACL • 802.1X
Security	<ul style="list-style-type: none"> • IP-MAC-Port Binding <ul style="list-style-type: none"> -512 Entries - DHCP Snooping - ARP Inspection - IPv4 Source Guard • IPv6-MAC <ul style="list-style-type: none"> -Port Binding -512 Entries - DHCPv6 Snooping - ND Detection - ND Snooping - IPv6 Source Guard • DoS Defend • DHCP Filter • Static/Dynamic Port Security <ul style="list-style-type: none"> - Up to 64 MAC addresses per port • Broadcast/Multicast/Unknown-unicast Storm Control - kbps/ratio/pps control mode MAC Limiting, Dynamic ARP inspection 	<ul style="list-style-type: none"> - Port base authentication - Mac base authentication - VLAN Assignment - MAB - Guest VLAN - Support RADIUS authentication and accountability • AAA (including TACACS+) • Port Isolation • Secure web management through HTTPS with SSLv3/TLS 1.2 • Secure Command Line Interface (CLI) management with SSHv1/SSHv2 • IP/Port/MAC based access control
ISP Features	<ul style="list-style-type: none"> • 802.3ah Ethernet Link OAM • L2PT (Layer 2 Protocol Tunneling) • PPPoE ID Insertion • ERPS 	<ul style="list-style-type: none"> • Device Link Detect Protocol (DLDP) • sFlow (except for SG3428X-M2 & SG3428XPP-M2) • DDM
Management	<ul style="list-style-type: none"> • Web-based GUI • Command Line Interface (CLI) through consoleport, telnet , Auth. MGMT Access • SNMPv1/v2c/v3 <ul style="list-style-type: none"> - Trap/Inform - RMON (1, 2, 3, 9 groups) • SDM Template • DHCP/BOOTP Client • 802.1ab LLDP/LLDP-MED , Password Encryption 	<ul style="list-style-type: none"> • DHCP Auto Install • Dual Image, Dual Configuration • CPU Monitoring • Cable Diagnostics • EEE* • Password Recovery • SNTP • System Log

*TL-SX3008F and TL-SX3016F do not support this feature.

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IPv6 Support	<ul style="list-style-type: none"> • IPv6 Dual IPv4/IPv6 • Multicast Listener Discovery (MLD) Snooping • IPv6 ACL • IPv6 Interface • Static IPv6 Routing • IPv6 neighbor discovery (ND) • Path maximum transmission unit (MTU) discovery • Internet Control Message Protocol (ICMP) version 6 • TCPv6/UDPv6 	<ul style="list-style-type: none"> • IPv6 applications <ul style="list-style-type: none"> - DHCPv6 Client - Ping6 - Tracert6 - Telnet (v6) - IPv6 SNMP - IPv6 SSH - IPv6 SSL - Http/Https - IPv6 TFTP
MIBs	<ul style="list-style-type: none"> • MIB II (RFC1213) • Interface MIB (RFC2233) • Ethernet Interface MIB (RFC1643) • Bridge MIB (RFC1493) • P/Q-Bridge MIB (RFC2674) • RMON MIB (RFC2819) 	<ul style="list-style-type: none"> • RMON2 MIB (RFC2021) • RADIUS Accounting Client MIB (RFC2620) • RADIUS Authentication Client MIB (RFC2618) • Remote Ping, Traceroute MIB (RFC2925) • Support TP-Link Private MIB