Omada Switch | Datasheet

SG2218P

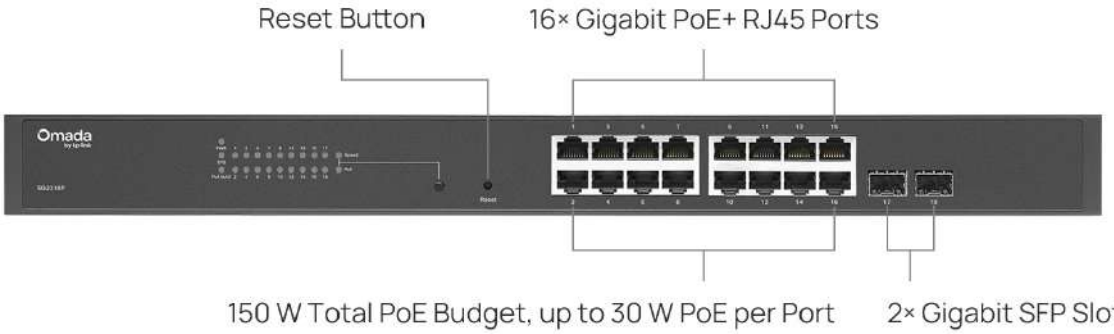
Omada Access 18-Port Gigabit Switch with 16-Port PoE+



Highlights

- 16× Gigabit 802.3af/at PoE+ ports and 2× Gigabit SFP Slots
- 150 W total PoE budget with up to 30 W PoE output per port*
- Centralized cloud management via the web or the Omada app†
- Standalone management via web, CLI, SNMP, and RMON
- Static Routing helps route internal traffic for higher efficiency
- VLAN, ACL, QoS, IGMP Snooping and DDM
- Fanless design for silent operation
- Durable metal casing and rackmountable design

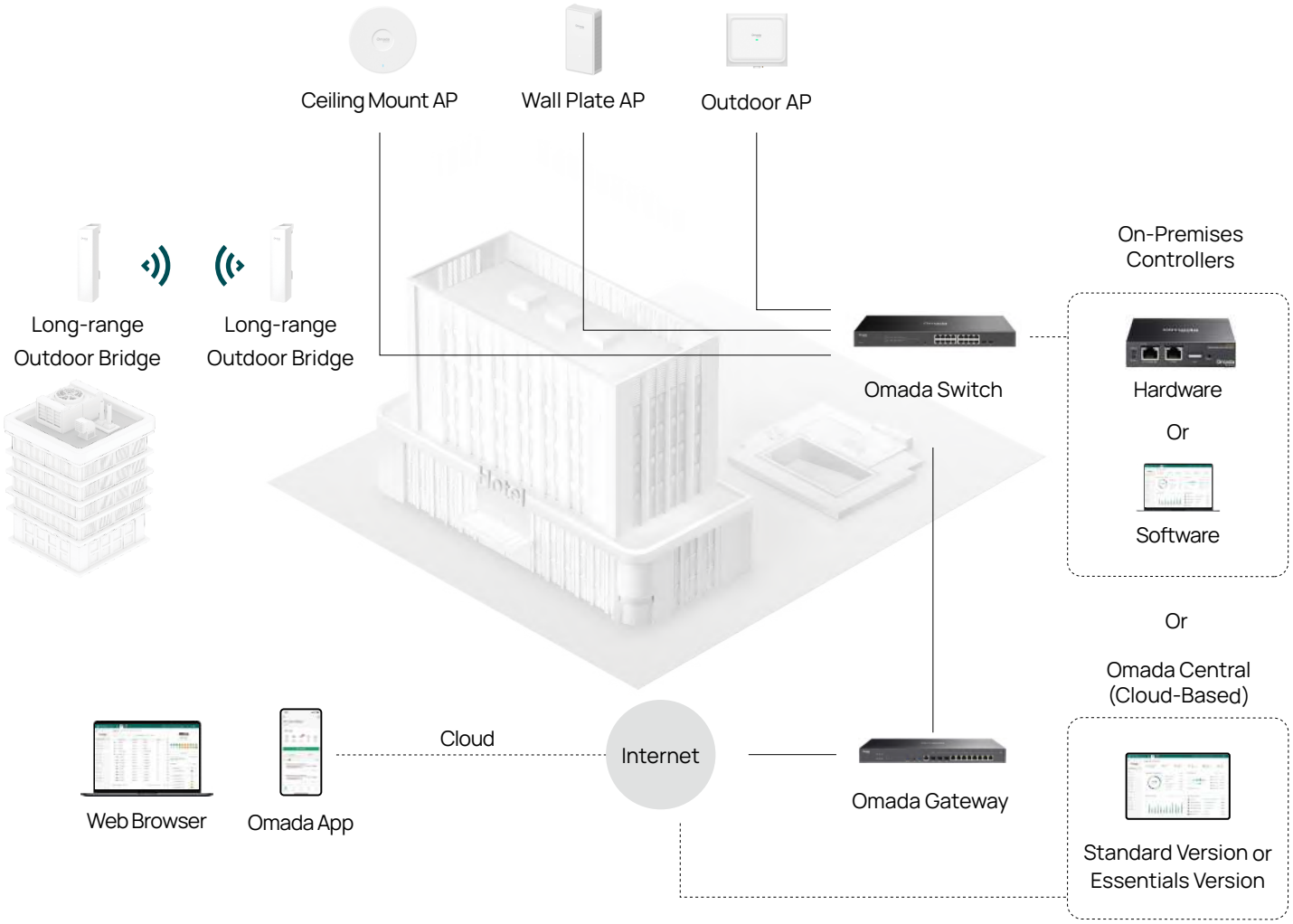
Product Picture







Omada Solution



Hassle-Free Cloud or On-Premises Controllers

Zero-Touch Provisioning (ZTP)†

Multi-Site Cloud Management

Intelligent Monitoring

Specifications

Hardware Features & Performance		
Model		SG2218P
General	Interface	16 × 10/100/1000Mbps RJ45 ports 2 × Gigabit SFP Slots
	Flash	32 MB
	DRAM	256 MB
	Port Standard	IEEE 802.3: Ethernet Media Access Control (MAC) Protocol 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)
PoE	PoE Standard	802.3af/at
	PoE Ports	16, up to 30 W per port
	PoE Power Budget	150 W
	PoE Pinout	Alternative A, 1/2(-) & 3/6(+)
	Perpetual PoE	YES
	Fast PoE	YES
	PoE Extend Mode	YES
Performance	Switching Capacity	36 Gbps
	Packet Forwarding Rate	26.78 Mpps
	MAC Address Table	8K
	Packet Buffer	4.1 Mbit
	Transmission Method	Store and Forward
	Number of IP Interfaces	32
	Number of Static Routers	32 (IPv4, IPv6)
	Jumbo Frame	9 KB
Physical & Environment	Power Supply	100-240V AC, 50/60Hz
	Max Power Consumption	172.9 W (220 V/50 Hz @ 25 °C) (with 150 W PD connected) 178.2 W (110 V/60 Hz @ 25 °C) (with 150 W PD connected)
	Standby Power Consumption	5.7 W (220 V/50 Hz) 6.4 W (110 V/60 Hz)
	Max Heat Dissipation	588.00 BTU/hr (220 V/50 Hz @ 25 °C) (with 150 W PD connected) 605.81 BTU/hr (110 V/60 Hz @ 25 °C) (with 150 W PD connected)
	Fan Quantity	Fanless
	Surge Protection	Service port: ±6 kV in common mode
	ESD Protection	Air: ±8.5 kV, Contact: ±4.5 kV
	MTBF	612090 h @ 25 °C
	Dimensions (W x D x H)	17.3 × 7.1 × 1.7 in (440 × 180 × 44 mm)
	Net Weight	2.5 kg (5.51 lbs)
	Installation	Rack Mountable
	Operating Temperature	-5 ˚C to 45 ˚C (23 ˚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

Software Features[△]

Model	SG2218P	
SDN Support	• Support Omada Hardware Controller, Software Controller • Automatic Device Discovery • Batch Configuration • Batch Firmware Upgrading	• Intelligent Network Monitoring • Abnormal Event Warnings • Unified Configuration • Reboot Schedule
L3 Features	• 32 IPv4/IPv6 Interfaces • Static Routing - 32 IPv4/IPv6 Static Routes • DHCP Server • DHCP Relay - DHCP Interface Relay - DHCP VLAN Relay • DHCP L2 Relay	• Static ARP • Proxy ARP • Gratuitous ARP
L2 Features	• Link Aggregation - Static link aggregation - 802.3ad LACP - Up to 8 aggregation groups and up to 8 ports per group • Spanning Tree Protocol - 802.1d STP - 802.1w RSTP - 802.1s MSTP - STP Security: TC Protect, BPDU Filter, BPDU Protect, Root Protect • Loopback Detection - Port based - VLAN based	• Flow Control - 802.3x Flow Control • Mirroring - Port Mirroring - CPU Mirroring - One-to-One - Many-to-One - Flow-Based - Ingress/Egress/Both • Device Link Detect Protocol (DLDP) • 802.1ab LLDP/ LLDP-MED
L2 Multicast	• Supports 511 (IPv4, IPv6) IGMP groups • IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - Static Group Config • Multicast VLAN Registration (MVR) • Multicast Filtering	• Multicast Listener Discovery (MLD) Snooping - MLD v1/v2 Snooping - Fast Leave - MLD Snooping Querier - Static Group Config • Limited IP Multicast - 256 profiles and 16 entries per profile
VLAN	• VLAN Group - Max 4K VLAN Groups • 802.1Q Tagged VLAN • MAC VLAN (12 entries)	• Protocol VLAN (IEEE 802.1v) • Private VLAN (RFC 5517) • GVRP • Voice VLAN
QoS	• 802.1p CoS/DSCP priority • 8 priority queues • Priority Schedule Mode - Strict Priority (SP) - Weighted Round Robin (WRR) • Queue Weight Config	• Bandwidth Control - Port/Flow based Rating Limit • Smoother Performance • Storm Control - Multiple Control Modes (kbps/ratio) - Broadcast/Multicast/Unknown-Unicast Control

Software Features[△]

Model	SG2218P	
ACL	• Support up to 230 entries • Time-Range - Time Slice - Week Time-Range - Absolute Time-Range - Holiday • Time-based ACL • MAC ACL - Source MAC - Destination MAC - VLAN ID - User Priority - Ether Type • IP ACL - Source IP - Destination IP - IP Protocol - TCP Flag - TCP/UDP Source Port - TCP/UDP Destination Port - DSCP/IP TOS	• IPv6 ACL • Combined ACL • Rule Operation - Permit/Deny • Policy Action - Mirror - Rate Limit - Redirect - QoS Remark • ACL Rules Binding - Port Binding - VLAN Binding • Actions for flows - Mirror (to supported interface) - Redirect (to supported interface) - Rate Limit - QoS Remark
Security	• Authentication, Authorization, Accounting (AAA) • 802.1X - Port based authentication - MAC (Host) based authentication - Authentication Method includes PAP/EAP-MD5 - MAB - Guest VLAN - CoA & DM - Support Radius authentication and accountability • IP/IPv6-MAC Binding - 512 Binding Entries - DHCP Snooping - DHCPv6 Snooping - Dynamic ARP Inspection (DAI) - ND Detection - ND Snooping • IP Source Guard - 253 Entries - Source IP+Source MAC	• IPv6 Source Guard - 183 Entries - Source IPv6 Address+Source MAC • DoS Defend • DHCP Filter • Static/Dynamic/Permanent Port Security - Up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control - kbps/ratio control mode • 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 • CPP (Control Plane Policing) • MAC Flapping Detection
IPv6 Support	• IPv6 Static Routing and ACL • IPv4/IPv6 Dual Stack • IPv6 Interface • MLD Snooping • IPv6 neighbor discovery (ND) • Path maximum transmission unit (MTU) discovery • Internet Control Message Protocol (ICMP) version 6 • TCPv6/UDPv6	• IPv6 applications - DHCPv6 Client - Ping6 - Tracert6 - Telnet (v6) - IPv6 SNMP - IPv6 SSH - IPv6 SSL - Http/Https - IPv6 TFTP

Software Features[△]

Model	SG2218P	
Management	• Web-based GUI • Command Line Interface (CLI) through telnet • SNMPv1/v2c/v3 • SNMP Trap/Inform • RMON (1,2,3,9 groups) • SDM Template • DHCP/BOOTP Client • Dual Image, Dual Configuration • CPU Monitoring • Cable Diagnostics • IEEE 802.1az Energy Efficient Ethernet (EEE)	• SNTP • System Log • Dying Gasp • ONVIF • Digital Diagnostic Monitoring (DDM) • IntelliRecover (Controller Mode Only) • Packet Capture • Syslog (UDP/TCP/DTLS/TLS) • DNS Lookup • Remote Access (NAT Traversal, Controller Mode Only)
MIBs	• MIB II (RFC1213) • Bridge MIB (RFC1493) • P/Q-Bridge MIB (RFC2674) • Radius Accounting Client MIB (RFC2620)	• Radius Authentication Client MIB (RFC2618) • Remote Ping, Traceroute MIB (RFC2925) • Support TP-Link private MIBs • RMON MIB(RFC1757, rmon 1,2,3,9)

Others

Package Content	• SG2218P Switch • Power Cord • Rackmount Kit • Rubber Feet • Installation Guide
System Requirements	Microsoft® Windows® 98SE, NT, 2000, XP, Vista™ or Windows 7/8/10/11, MAC® OS, NetWare®, UNIX® or Linux.

Ordering Information

Host Switch	
Model	Description
SG2218P	Omada Access 18-Port Gigabit Switch with 16-Port PoE+

SFP Module	
Model	Description
SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km

RJ45 SFP Module	
Model	Description
SM331T	1000BASE-T RJ45 SFP Module

MC Series Media Converter	
Model	Description
MC220L	Gigabit SFP Media Converter, up to 100 m, chassis mountable
MC210CS	Gigabit Single-Mode Media Converter, up to 20 km, chassis mountable
MC211CS-20	Gigabit WDM Media Converter, up to 20 km, chassis mountable
MC212CS-20	Gigabit WDM Media Converter, up to 20 km, chassis mountable
MC211CS-2	Gigabit WDM Media Converter, up to 2 km, chassis mountable
MC212CS-2	Gigabit WDM Media Converter, up to 2 km, chassis mountable
MC200CM	Gigabit Multi-Mode Media Converter, up to 550 m, chassis mountable

†These functions require the use of the Omada SDN Controller. Zero-Touch Provisioning requires the use of the Omada Cloud-Based Controller. Go to the Omada Cloud-Based Controller Product List to find all the models supported by the Omada Cloud-Based Controller.

*PoE budget calculations are based on laboratory testing. The actual PoE power budget is not guaranteed and will vary due to client limitations and environmental factors.

△Some features are available only after upgrading to the latest software version.

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