Omada Smart Switch | Datasheet

SG2210MP V5.6

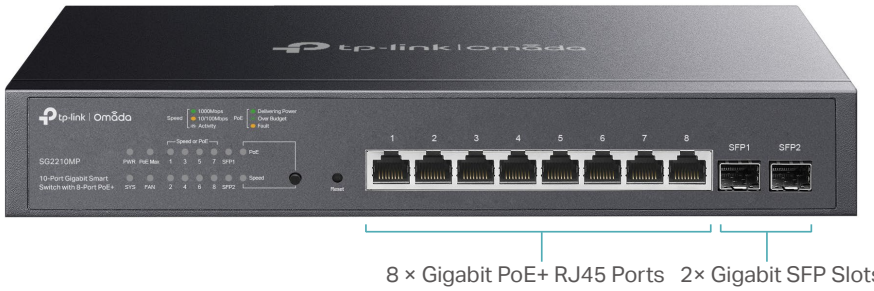
Omada 10-Port Gigabit Smart Switch with 8-Port PoE+

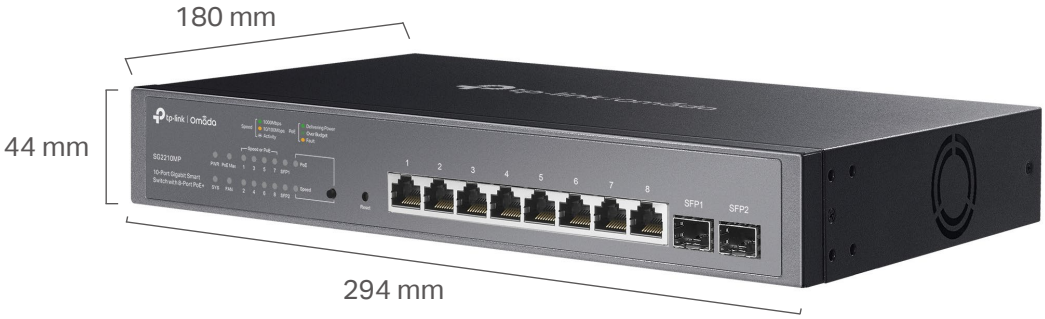


Highlights

- 8× 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, and IGMP Snooping
- Durable metal casing and desktop/rack mounting design

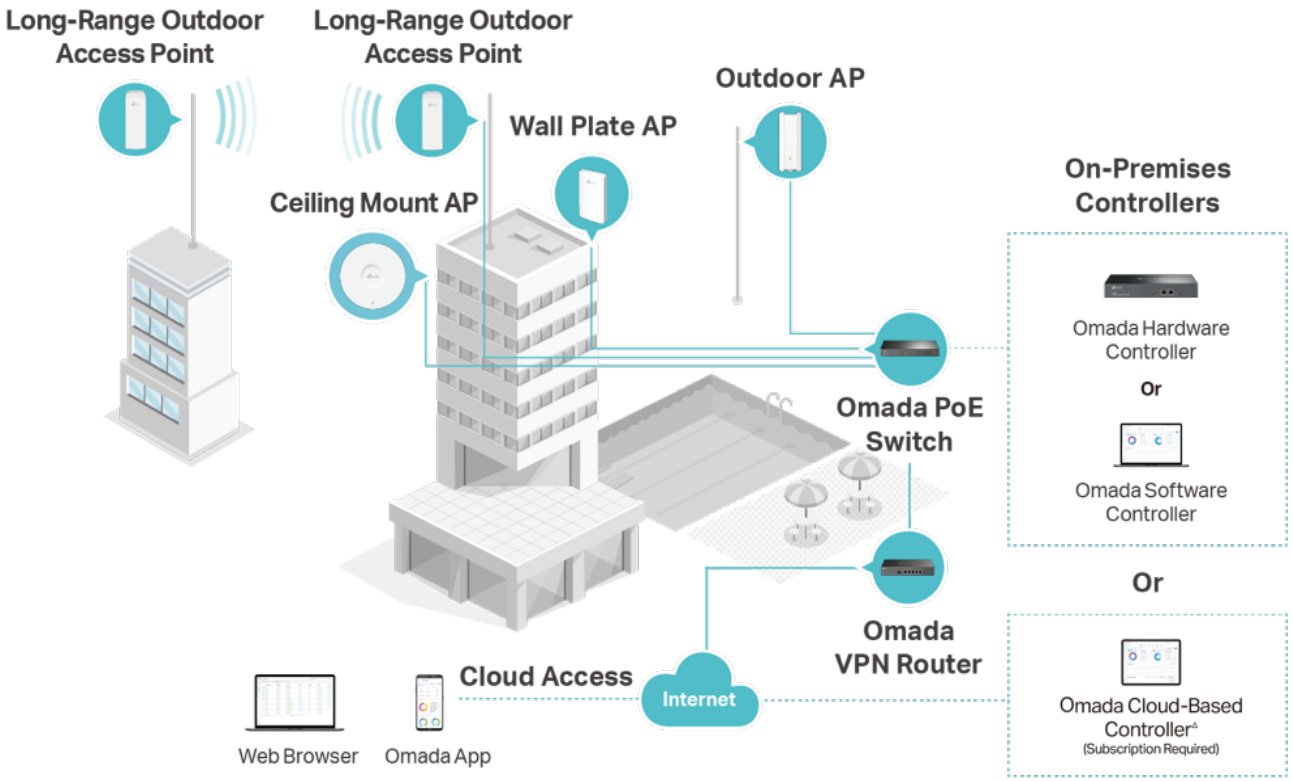
Product Pictures





Omada Solution

Omada's Software Defined Networking (SDN) platform integrates network devices, including access points, switches, and gateways, providing 100% centralized cloud management. Omada creates a highly scalable network—all controlled from a single interface.



- Hassle-Free Cloud or On-Premises Controllers
- Zero-Touch Provisioning (ZTP)†
- Multi-Site Cloud Management
- Intelligent Monitoring

Specifications

Hardware Features & Performance

Model		SG2210MP V5.6
General	Interface	• 8× 10/100/1000 Mbps RJ45 Ports, all supporting PoE+ (Auto-Negotiation/ Auto MDI/MDIX) • 2× 100/1000 Mbps SFP Slots
	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)
PoE	PoE Standard	802.3af/at
	PoE Ports	8, up to 30 W per port
	PoE Power Budget	150 W
Performance	Switching Capacity	20 Gbps
	Packet Forwarding Rate	14.88 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	177.69 W (110 V/60 Hz) (with 150 W PD connected)
	Max Heat Dissipation	604.15 BTU/hr (110 V/60 Hz) (with 150 W PD connected)
	Standby Power Consumption	5.36 W (no link,110v/60 Hz)
	Dimensions (W x D x H)	11.6×7.1×1.7 in (294×180×44 mm)
	Surge Protection	6 KV for port and 4 KV for power module
	Fan Quantity	1
	Installation	Rack Mountable
	Operating Temperature	0 °C to 50 °C (32 °F to 122 °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	SG2210MP V5.6
SDN Support	• Support Hardware Controller, Software Controller, Cloud-Based Controller • Automatic Device Discovery • Batch Configuration • Batch Firmware Upgrading • Intelligent Network Monitoring • Abnormal Event Warnings • Unified Configuration • Reboot Schedule
L2+ Features	• 32 IP Interfaces - Support IPv4/IPv6 Interface • 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/Protect, Root Protect • Loopback Detection • 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	• 511 IPv4, IPv6 shared multicast groups • IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - Static Group Config • Multicast VLAN Registration (MVR) • Multicast Filtering • MLD Snooping - MLD v1/v2 Snooping - Fast Leave - MLD Snooping Querier - Static Group Config • Limited IP Multicast (256 profiles and 16 entries per profile)

Software Features	
Model	SG2210MP V5.6
VLAN	• VLAN Group - Max. 4K VLAN Groups • 802.1Q tag VLAN • MAC VLAN (16 entries) • Protocol VLAN • GVRP • Voice VLAN
QoS	• 802.1p CoS/DSCP priority • 8 priority queues • Priority Schedule Mode - SP (Strict Priority) - WRR (Weighted Round Robin) • Queue Weight Config • Bandwidth Control - Port/Flow based Rating Limit • Smoother Performance • Storm Control - Multiple Control Modes(kbps/ratio) - Broadcast/Multicast/Unknown-Unicast Control
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

Software Features

Model	SG2210MP V5.6
ACL	• Actions for flows - Mirror (to supported interface) - Redirect (to supported interface) - Rate Limit - QoS Remark
Security	• AAA • 802.1X - Port based authentication - MAC (Host) based authentication - Authentication Method includes PAP/EAP-MD5 - MAB - Guest VLAN - Support Radius authentication and accountability • IP/IPv6-MAC Binding - 512 Binding Entries - DHCP Snooping - DHCPv6 Snooping - ARP Inspection - 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
IPv6 Support	• IPv6 Static Routing and ACL • IPv6 Dual IPv4/IPv6 • IPv6 Interface • Multicast Listener Discovery (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	SG2210MP V5.6
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 • DDM • Cable Diagnostics • EEE • SNTP • System Log
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)

Ordering Information

Host Switch

Model	Description
SG2210MP V5.6	Omada 10-Port Gigabit Smart Switch with 8-Port PoE+

SFP Modules

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 Modules

Model	Description
SM331T	1000BASE-T RJ45 SFP Module

MC Series Media Converter

Model	Description
MC210CS	Gigabit Single-Mode Media Converter, up to 20 km, chassis mountable
MC200CM	Gigabit Multi-Mode Media Converter, up to 550 m, chassis mountable
MC220L	Gigabit SFP Media Converter, chassis mountable
MC1400	14-slot power supply chassis for TP-LINK MC Series Media Converter, 19-inch rack-mountable

FC Series Media Converter

Model	Description
FC111A-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable
FC111B-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable
FC311A-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1550nm, RX:1310nm, chassis mountable
FC311B-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1310nm, RX:1550nm, chassis mountable
FC311A-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable
FC311B-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable
FC1400	14-slot power supply chassis for TP-LINK FC Series Media Converter, 19-inch rack-mountable

†Centralized cloud management 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.

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