

Omada Smart Switch | Datasheet

SG2210MP V5.0

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



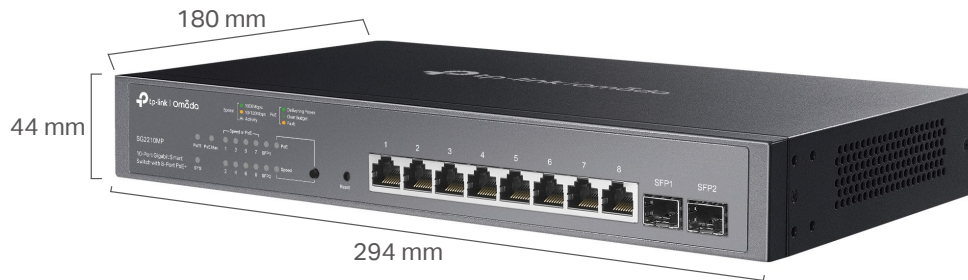
Highlights

- 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
- Fanless design for silent operation
- Durable metal casing and desktop/rack mounting design

Product Pictures

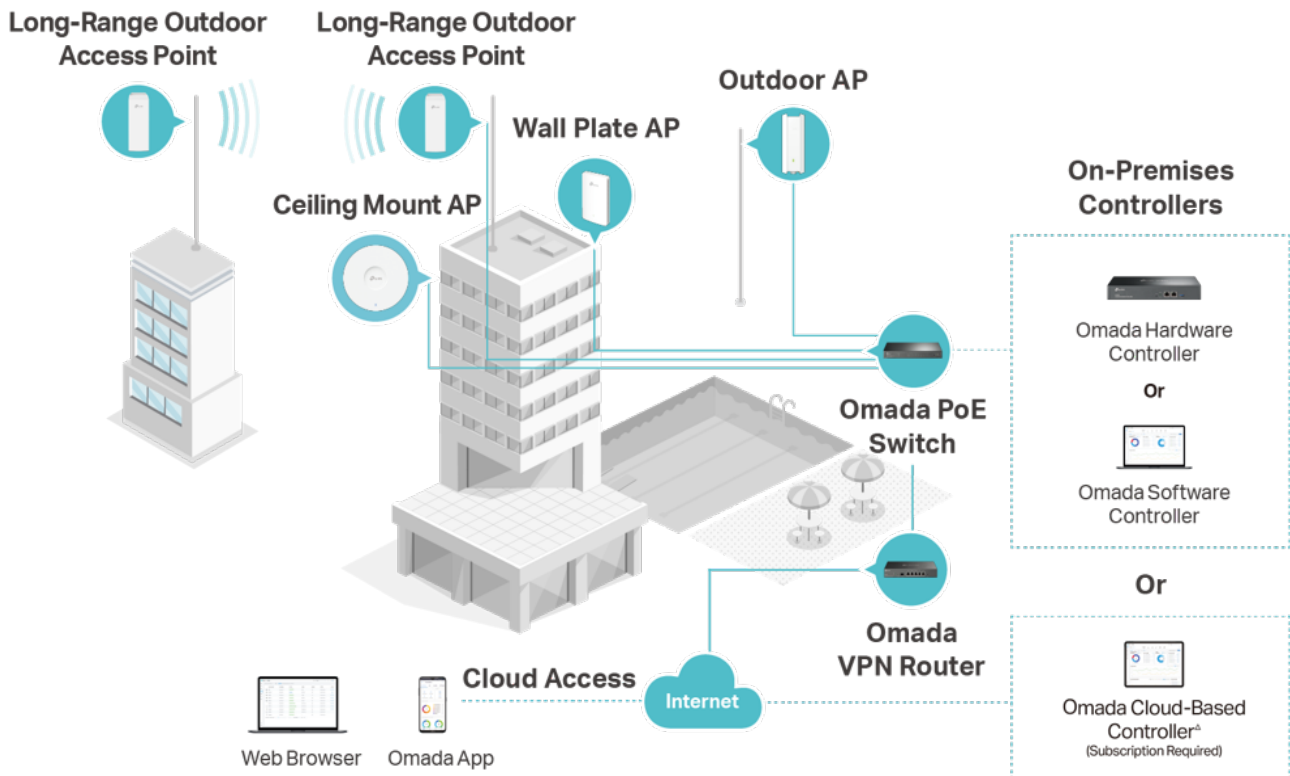


8 × Gigabit PoE+ RJ45 Ports 2 × Gigabit SFP Slots



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



Multi-Site Cloud Management



Zero-Touch Provisioning (ZTP)[†]



Intelligent Monitoring

Specifications

Hardware Features & Performance

| Model | | SG2210MP V5.0 |
|------------------------|---------------------------|--|
| General | Interface | <ul style="list-style-type: none"> • 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 | 174.77 W (110 V/60 Hz) (with 150 W PD connected) |
| | Max Heat Dissipation | 594.22 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 | Fanless |
| | 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 | SG2210MP V5.0 |
| SDN Support | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 32 IP Interfaces <ul style="list-style-type: none"> - Support IPv4/IPv6 Interface • Static Routing <ul style="list-style-type: none"> - 32 IPv4/IPv6 Static Routes • DHCP Server • DHCP Relay <ul style="list-style-type: none"> - DHCP Interface Relay - DHCP VLAN Relay • DHCP L2 Relay • Static ARP • Proxy ARP • Gratuitous ARP |
| 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/Protect, Root Protect • Loopback Detection • Flow Control <ul style="list-style-type: none"> - 802.3x Flow Control • Mirroring <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> • 511 IPv4, IPv6 shared multicast groups • IGMP Snooping <ul style="list-style-type: none"> - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - Static Group Config • Multicast VLAN Registration (MVR) • Multicast Filtering • MLD Snooping <ul style="list-style-type: none"> - 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 V5.0 |
| VLAN | <ul style="list-style-type: none"> • VLAN Group <ul style="list-style-type: none"> - Max. 4K VLAN Groups • 802.1Q tag VLAN • MAC VLAN (16 entries) • Protocol VLAN • GVRP • Voice VLAN |
| QoS | <ul style="list-style-type: none"> • 802.1p CoS/DSCP priority • 8 priority queues • Priority Schedule Mode <ul style="list-style-type: none"> - SP (Strict Priority) - WRR (Weighted Round Robin) • Queue Weight Config • Bandwidth Control <ul style="list-style-type: none"> - Port/Flow based Rating Limit • Smoother Performance • Storm Control <ul style="list-style-type: none"> - Multiple Control Modes(kbps/ratio) - Broadcast/Multicast/Unknown-Unicast Control |
| ACL | <ul style="list-style-type: none"> • Support up to 230 entries • Time-Range <ul style="list-style-type: none"> - Time Slice - Week Time-Range - Absolute Time-Range - Holiday • Time-based ACL • 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 - IP Protocol - TCP Flag - TCP/UDP Source Port - TCP/UDP Destination Port - DSCP/IP TOS • IPv6 ACL • Combined ACL • Rule Operation <ul style="list-style-type: none"> - Permit/Deny • Policy Action <ul style="list-style-type: none"> - Mirror - Rate Limit - Redirect - QoS Remark • ACL Rules Binding <ul style="list-style-type: none"> - Port Binding - VLAN Binding |

Software Features

| | |
|--------------|--|
| Model | SG2210MP V5.0 |
| ACL | <ul style="list-style-type: none"> • Actions for flows <ul style="list-style-type: none"> - Mirror (to supported interface) - Redirect (to supported interface) - Rate Limit - QoS Remark |
| Security | <ul style="list-style-type: none"> • AAA <ul style="list-style-type: none"> - 802.1X <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 512 Binding Entries - DHCP Snooping - DHCPv6 Snooping - ARP Inspection - ND Detection - ND Snooping • IP Source Guard <ul style="list-style-type: none"> - 253 Entries - Source IP+Source MAC • IPv6 Source Guard <ul style="list-style-type: none"> - 183 Entries - Source IPv6 Address+Source MAC • DoS Defend • DHCP Filter • Static/Dynamic/Permanent Port Security <ul style="list-style-type: none"> - Up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> - DHCPv6 Client - Ping6 - Tracert6 - Telnet(v6) - IPv6 SNMP - IPv6 SSH - IPv6 SSL - Http/Https - IPv6 TFTP |

Software Features

| | |
|------------|---|
| Model | SG2210MP V5.0 |
| Management | <ul style="list-style-type: none">• 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 | <ul style="list-style-type: none">• 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 V5.0 | 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 SC SFP Transceiver, up to 550 m, chassis mountable |
| MC200L | Gigabit SFP slot supporting mini-GBIC modules, 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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