# tp-link | Omada

# Omada Easy Managed Switch | Datasheet

## ES228GMP

Omada 28-Port Gigabit Easy Managed Switch with 24-Port PoE+



## Highlights

- 26× 10/100/1000Mbps RJ45 ports (24× 802.3af/at-compliant PoE+)
- 2× Gigabit SFP port
- 384W Power Budget, with up to 30W for each PoE port*
- Easy to Use: Supports plug-and-play for instant connectivity and simple configuration for additional features
- Centralized Cloud Management via the web or the Omada app[†]
- Up to 250m PoE**, QoS[Δ], PoE Auto Recovery[‡], and Port Isolation for reliable surveillance networking
- Automatic Loop Prevention, VLAN, and IGMP Snooping
- Durable metal casing and rack-mountable design

# Product Pictures



24 × Gigabit PoE+
RJ45 Ports

2× Gigabit
RJ45 Ports

2× SFP Ports

330 mm

440 mm

44 mm
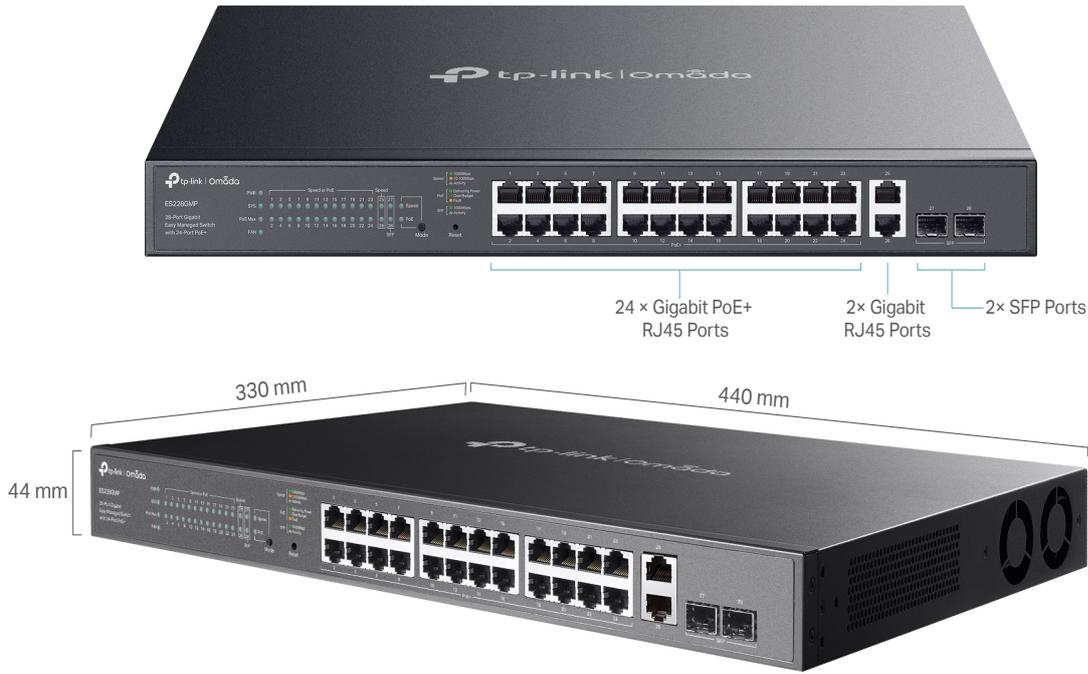
# Omada Solution

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.



Long-Range Outdoor
Access Point

Long-Range Outdoor
Access Point

Wall Plate AP

Outdoor AP

On-Premises
Controllers

Ceiling Mount AP

Omada Hardware
Controller

Or

Omada Software
Controller

Omada PoE
Switch

Or

Omada
VPN Gateway

Omada Cloud-Based
Controller△
(Subscription Required)

Cloud Access

Internet

Web Browser

Omada App
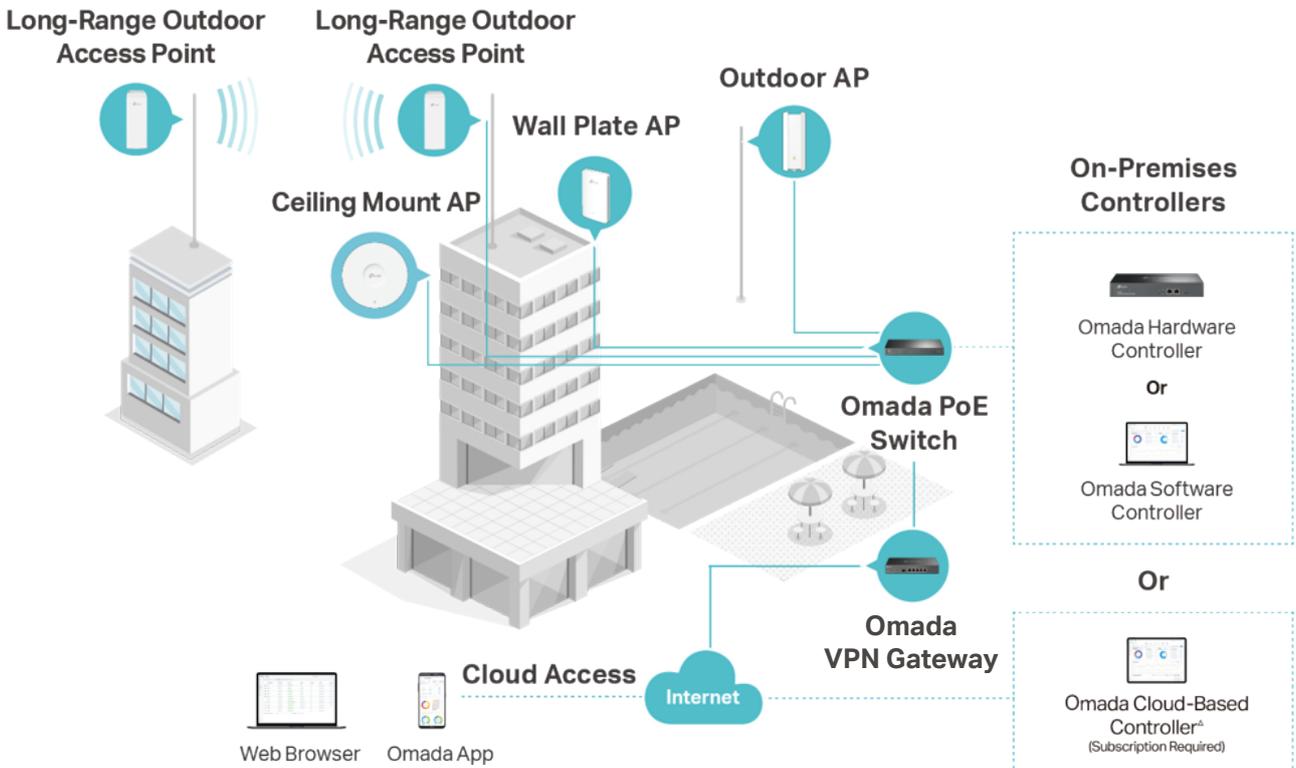
**Hassle-Free Cloud or
On-Premises Controllers**

**Zero-Touch Provisioning (ZTP)†**

**Multi-Site Cloud Management**

**Intelligent Monitoring**

# Specifications

## Hardware Features & Performance

| | | |
|---|---|---|
| Model | | ES228GMP |
| General | Interface | 24× 10/100/1000 Mbps PoE+ RJ45 Ports<br>2× 10/100/1000 Mbps RJ45 Ports<br>2× Gigabit SFP Ports |
| | Flash | 64 Mbit |
| | Port Standard | IEEE 802.3i:10BASE-T Ethernet<br>IEEE 802.3u:100BASE-X Fast Ethernet<br>IEEE 802.3ab:1000BASE-T Gigabit Ethernet<br>IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical Fiber)<br>IEEE 802.3x: Flow Control<br>IEEE 802.1p: Traffic Class Expediting and Dynamic Multicast Filtering<br>IEEE 802.1q: Virtual Bridged Local Area Networks<br>IEEE 802.1ab: Station and Media Access Control Connectivity Discovery (LLDP) |
| PoE | PoE Standard | 802.3af/at |
| | PoE Ports | 24, up to 30 W per port |
| | PoE Power Budget | 384 W |
| | Fast PoE | YES |
| | Perpetual PoE | YES |
| Performance | Switching Capacity | 56 Gbps |
| | Packet Forwarding Rate | 41.66 Mpps |
| | MAC Address Table | 8K |
| | Packet Buffer | 4 Mbit |
| | Transmission Method | Store and Forward |
| | Jumbo Frame | 15 KB |
| Physical & Environment | Power Supply | 100-240V ~ 50/60Hz |
| | Max Power Consumption | 454.8 W (110V/60Hz) (with 384 W PD connected) |
| | Max Heat Dissipation | 1546.15 BTU/hr (110 V/60 Hz) (with 384 W PD connected) |
| | Standby Power Consumption | 17.2 W (110V/60 Hz) |
| | Surge Protection | ±6 kV in common mode for Ethernet Ports |
| | ESD Protection | Air: ±8 kV, Contact: ±4 kV |
| | MTBF | 224143h @ 25℃ |
| | Dimensions (W x D x H) | 17.3×13.0×1.7 in (440×330×44 mm) |
| | Fan Quantity | 2 |
| | Noise | Min: 36.9 dBA @ 1m 25 ℃<br>Max: 46.2 dBA @ 1m 25 ℃ |
| | Installation | Desktop/Rackmountable |
| | Operating Temperature | -5 ℃ to 45 ℃ (23 °F to 113 °F) |
| | Storage Temperature | -40 ℃ to 70 ℃ (-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 | ES228GMP |
| SDN Support | • Support Hardware Controller, Software Controller, Cloud-Based Controller<br>• Automatic Device Discovery<br>• Batch Configuration<br>• Batch Firmware Upgrading<br>• Unified Configuration |
| L2 Features | • Link Aggregation<br>- Static Link Aggregation<br>- Up to 4 aggregation groups and up to 8 ports per group<br>• Loopback Detection<br>• Flow Control<br>- 802.3x Flow Control<br>• Mirroring<br>- Port Mirroring<br>- One-to-One<br>- Many-to-One<br>- Ingress/Egress/Both<br>• Port Statistics<br>- Port Mirror Status<br>- Traffic Statistics<br>• 802.1ab LLDP |
| L2 Multicast | • IGMP Snooping<br>- IGMP v1/v2/v3 Snooping<br>- Fast Leave |
| VLAN | • MTU VLAN<br>• Port-Based VLAN<br>• 802.1Q Tag VLAN<br>- Max 32  VLAN Groups<br>- 4K VID |
| QoS | • 802.1p DSCP Priority<br>• 8 Priority Queues<br>• Priority Schedule Mode<br>- WRR (Weighted Round Robin)<br>• Queue Weight Config<br>• Bandwidth Control<br>  - Port-Based Rating Limit<br>• Storm Control<br>- Multiple Control Modes (kbps/pps)<br>- Broadcast/Multicast/Unknown-Unicast Control |
| Management | • Web-based GUI<br>• DHCP Client<br>• Cable Diagnostics |

# Ordering Information

## Host Switch

| Model | Description |
|---|---|
| ES228GMP | Omada 28-Port Gigabit Easy Managed Switch with 24-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 |

## 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 |