



# Omada Easy Managed Switch | Datasheet

## ES228GP

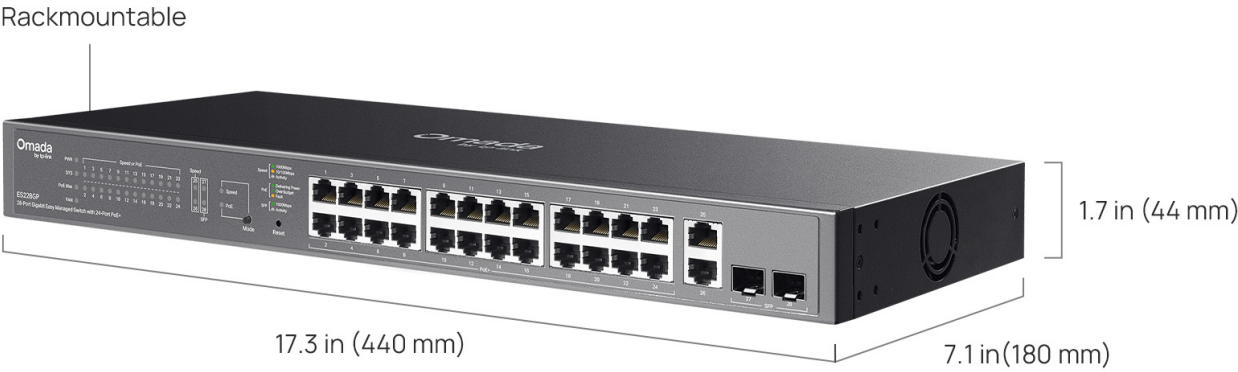
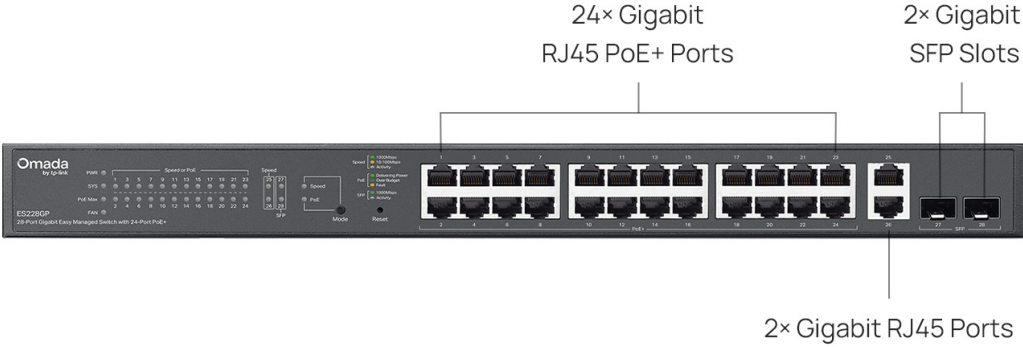
Omada 28-Port Gigabit Easy Managed Switch with 24-Port PoE+



## Highlights

- 26× 10/100/1000Mbps RJ45 ports (24× 802.3af/at-compliant PoE+)
- 2× Gigabit SFP slots
- 250W 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<sup>†</sup>
- Up to 820 ft (250 m) PoE\*\*, QoS<sup>Δ</sup>, PoE Auto Recovery<sup>‡</sup>, and Port Isolation for reliable surveillance networking
- Automatic Loop Prevention, VLAN, and IGMP Snooping
- Durable metal casing and rack-mountable design

# Product Pictures



# Specifications

| Hardware Features & Performance |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                           |                           | ES228GP                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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 802.3: Ethernet Media Access Control (MAC) Protocol<br>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          | 250 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                 | Fast PoE                  | YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                 | Perpetual PoE             | YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                 | PoE Pinout                | Alternative A, 1/2(-) & 3/6(+)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                 | Standby Power Consumption | 11.2 W (220 V/50 Hz @ 25 °C)<br>11.2 W (110 V/60 Hz @ 25 °C)                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                 | Max Power Consumption     | 290.9 W (220 V/50 Hz) (with 250 W PD connected @ 25 °C)<br>301.5 W (110 V/60 Hz) (with 250 W PD connected @ 25 °C)                                                                                                                                                                                                                                                                                                                                                                |
|                                 | Max Heat Dissipation      | 989.06 BTU/hr (220 V/50 Hz) ( with 250 W PD connected @ 25 °C)<br>1025.10 BTU/hr (110 V/60 Hz) ( with 250 W PD connected @ 25 °C)                                                                                                                                                                                                                                                                                                                                                 |
|                                 | MTBF                      | 228,544 h @ 25 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                 | Dimensions<br>(W x D x H) | 17.3×7.1×1.7 in (440×180×44 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                 | Net Weight                | 2.4 kg (5.29 lbs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                 | Fan Quantity              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                 | Noise                     | Min: 12.1 dBA @ 1m 25 °C<br>Max: 35.5 dBA @ 1m 25 °C                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                 | Surge Protection          | ±6 kV in common mode for Ethernet Ports                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                 | ESD Protection            | Air: ±8 kV, Contact: ±4 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                 | Installation              | Desktop / Rack Mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                 | Operating Temperature     | -5 °C to 50 °C (23 °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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Software Features |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model             | ES228GP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SDN Support       | <ul style="list-style-type: none"> <li>• Support Hardware Controller, Software Controller, Cloud-Based Controller</li> <li>• Automatic Device Discovery</li> <li>• Batch Configuration</li> <li>• Batch Firmware Upgrading</li> <li>• Unified Configuration</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| L2 Features       | <ul style="list-style-type: none"> <li>• Link Aggregation <ul style="list-style-type: none"> <li>- Static Link Aggregation</li> <li>- Up to 4 aggregation groups and up to 8 ports per group</li> </ul> </li> <li>• Port Isolation</li> <li>• Loopback Detection</li> <li>• Flow Control <ul style="list-style-type: none"> <li>- 802.3x Flow Control</li> </ul> </li> <li>• Mirroring <ul style="list-style-type: none"> <li>- Port Mirroring</li> <li>- One-to-One</li> <li>- Many-to-One</li> <li>- Ingress/Egress/Both</li> </ul> </li> <li>• Port Statistics <ul style="list-style-type: none"> <li>- Port Mirror Status</li> <li>- Traffic Statistics</li> </ul> </li> <li>• 802.1ab LLDP</li> <li>• IEEE 802.3az EEE</li> </ul> |
| L2 Multicast      | <ul style="list-style-type: none"> <li>• IGMP Snooping <ul style="list-style-type: none"> <li>- IGMP v1/v2/v3 Snooping</li> <li>- Fast Leave / Report Suppression</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| VLAN              | <ul style="list-style-type: none"> <li>• 802.1Q Tag VLAN <ul style="list-style-type: none"> <li>- Max 32 VLAN Groups</li> <li>- 4K VID</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| QoS               | <ul style="list-style-type: none"> <li>• Port-based/802.1p/DSCP QoS<sup>Δ</sup></li> <li>• 8 Priority Queues</li> <li>• Priority Schedule Mode <ul style="list-style-type: none"> <li>- Weighted Round Robin (WRR)</li> </ul> </li> <li>• Queue Weight Config</li> <li>• Bandwidth Control <ul style="list-style-type: none"> <li>- Port-Based Rating Limit</li> </ul> </li> <li>• Storm Control <ul style="list-style-type: none"> <li>- Multiple Control Modes (kbps/pps)</li> <li>- Broadcast/Multicast/Unknown-Unicast Control</li> </ul> </li> </ul>                                                                                                                                                                              |
| Management        | <ul style="list-style-type: none"> <li>• HTTPS/HTTP</li> <li>• DHCP Client</li> <li>• Cable Diagnostics</li> <li>• ONVIF<sup>***</sup></li> <li>• IntelliRecover<sup>†</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

<sup>†</sup>These functions require the use of the Omada Controller. Zero-Touch Provisioning requires the use of the Omada Cloud-Based Controller (Omada Cloud Standard or Omada Cloud Essentials). Go to the [Omada Cloud-Based Controller \(Omada Cloud Standard\) Product List](#) or [Omada Cloud Essentials Product List](#) to find all the supported models.

<sup>‡</sup>IntelliRecover is supported under Controller Mode. POE Auto Recovery is supported under Standalone Mode.

<sup>Δ</sup>Port-based/802.1p/DSCP QoS are supported under Standalone Mode. QoS Rule is supported under Controller mode.

\*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.

\*\*The speed of the ports that support 250m PoE transmission will be downgraded to 10 Mbps. Actual transmission distance may vary depending on the quality of the cables.

\*\*\*ONVIF is supported only in Controller mode.