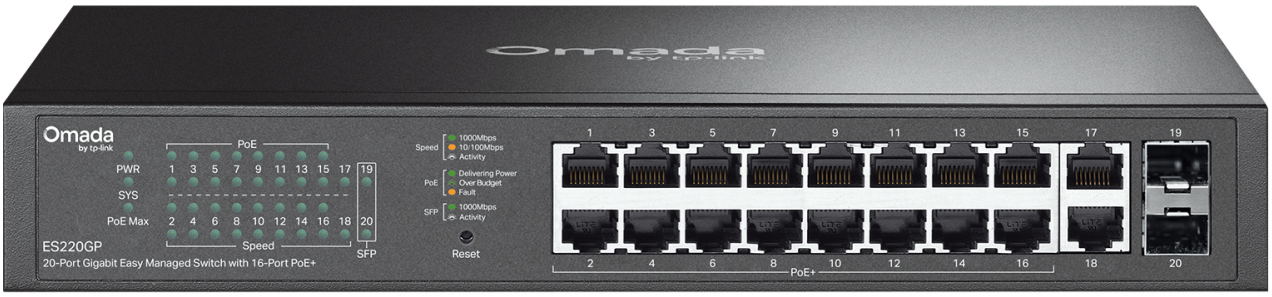
Omada Easy Managed Switch | Datasheet

ES220GP

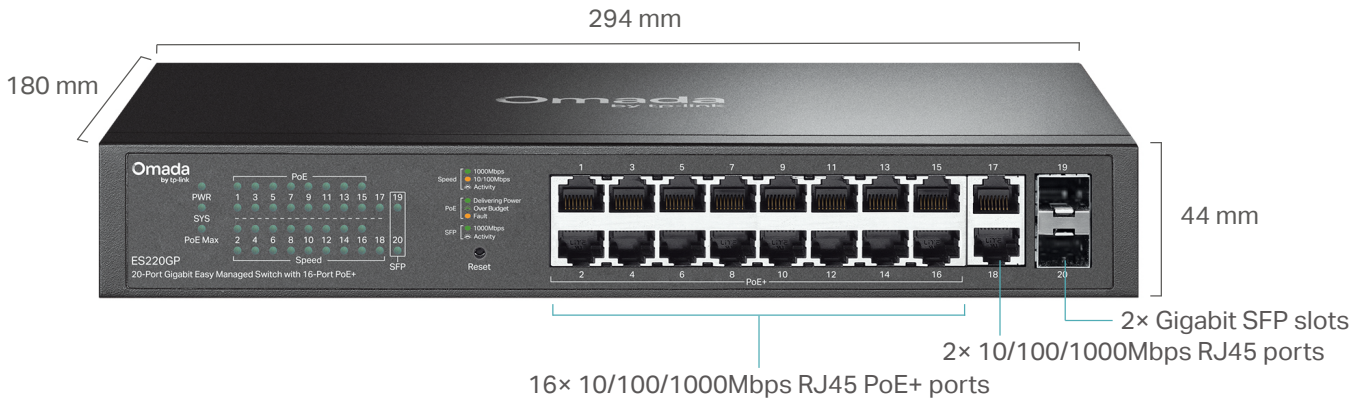
Omada 20-Port Gigabit Easy Managed Switch with 16-Port PoE+



Highlights

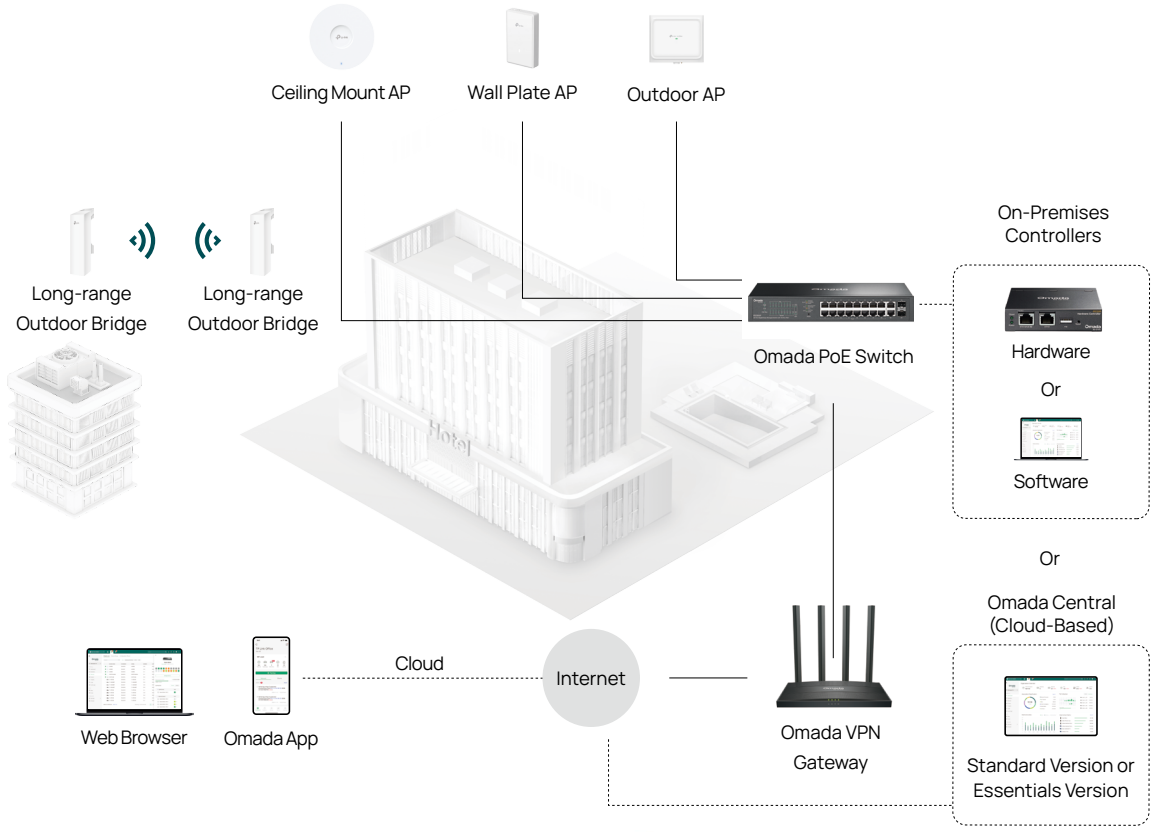
- 18× 10/100/1000Mbps RJ45 ports (16× 802.3af/at-compliant PoE+)
- 2× Gigabit SFP slots
- 150W PoE Power Budget, with up to 30W for each PoE port*
- Easy to Use: Supports plug-and-play for instant connectivity and simple configuration for additional features
- Centralized Cloud Management via the web or the Omada app†
- Up to 820ft PoE**, Remote Camera Reboot†, QoS, and Port Isolation for reliable surveillance networking
- Automatic Loop Prevention, VLAN, and IGMP Snooping
- Fanless design for silent operation
- Durable metal casing and desktop/rackmount design

Product Picture



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		ES220GP
General	Interface	18× 10/100/1000 Mbps RJ45 ports 2× Gigabit SFP slots
	Flash	64 Mbit
	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); IEEE 802.3x: Flow Control IEEE 802.1p: Traffic Class Expediting and Dynamic Multicast Filtering IEEE 802.1q: Virtual Bridged Local Area Networks IEEE 802.1ab: Station and Media Access Control Connectivity Discovery (LLDP)
PoE	PoE Standard	802.3af/at
	PoE Ports	16, up to 30 W per port
	PoE Power Budget	150 W*
	Fast PoE	Yes
	Perpetual PoE	Yes
Performance	Switching Capacity	40 Gbps
	Packet Forwarding Rate	29.76 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 2.5A
	Max Power Consumption	14.01 W (with no PD connected) @ 220V/50Hz 25 °C 16.25 W (with no PD connected) @ 110V/60Hz 25 °C 176.87 W (with 150 W PD connected) @ 220V/50Hz 25 °C 182.43 W (with 150 W PD connected) @ 110V/60Hz 25 °C
	Max Heat Dissipation	47.64 BTU/hr (with no PD connected) @ 220V/50Hz 25 °C 55.25 BTU/hr (with no PD connected) @ 110V/60Hz 25 °C 601.36 BTU/hr (with 150 W PD connected) @ 220V/50Hz 25 °C 620.27 BTU/hr (with 150 W PD connected) @ 110V/60Hz 25 °C
	Standby Power Consumption	9.11 W @ 220V/50Hz 25 °C 9.67 W @ 110V/60Hz 25 °C
	Noise	20.1 dBA max @ 1cm
	Surge Protection	Ethernet port: ±6 kV in common mode Power port: ±4 kV in differential mode; ±4 kV in common mode
	ESD Protection	Air: ±8 kV, Contact: ±4 kV
	MTBF	320,156 h @ 25 °C 182,637 h @ 40 °C
	Dimensions (W x D x H)	11.6×7.1×1.7 in (294×180×44 mm)
	Fan Quantity	Fanless
	Installation	Desktop/Rackmount Installation
	Operating Temperature	-5 °C to 40 °C (23 °F to 104 °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	ES220GP
SDN Support	• Support Hardware Controller, Software Controller, Cloud-Based Controller • Automatic Device Discovery • Batch Configuration • Batch Firmware Upgrading • Unified Configuration
L2 Features	• Link Aggregation - Static Link Aggregation - Up to 4 aggregation groups and up to 8 ports per group • Loopback Detection • Flow Control - 802.3x Flow Control • Mirroring - Port Mirroring - One-to-One - Many-to-One - Ingress/Egress/Both • Port Statistics - Port Mirror Status - Traffic Statistics • 802.1ab LLDP
L2 Multicast	• IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave
VLAN	• MTU VLAN • Port-Based VLAN • 802.1Q Tag VLAN - Max 32 VLAN Groups - 4K VID
QoS	• 802.1p DSCP Priority • 8 Priority Queues • Priority Schedule Mode - WRR (Weighted Round Robin) • Queue Weight Config • Bandwidth Control - Port-Based Rating Limit • Storm Control - Multiple Control Modes (kbps/pps) - Broadcast/Multicast/Unknown-Unicast Control
Management	• Web-based GUI • DHCP Client • Cable Diagnostics

†These functions require the use of the Omada Controller. Zero-Touch Provisioning requires the use of Omada Central (Omada Central Standard or Omada Central Essentials).

*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.

**When Extend Mode is enabled, the speed of ports that support 820ft (250m) PoE transmission will be downgraded to 10 Mbps. Actual transmission distance may vary depending on the quality of the cables.