

Omada Easy Managed Switch | Datasheet

ES220GP

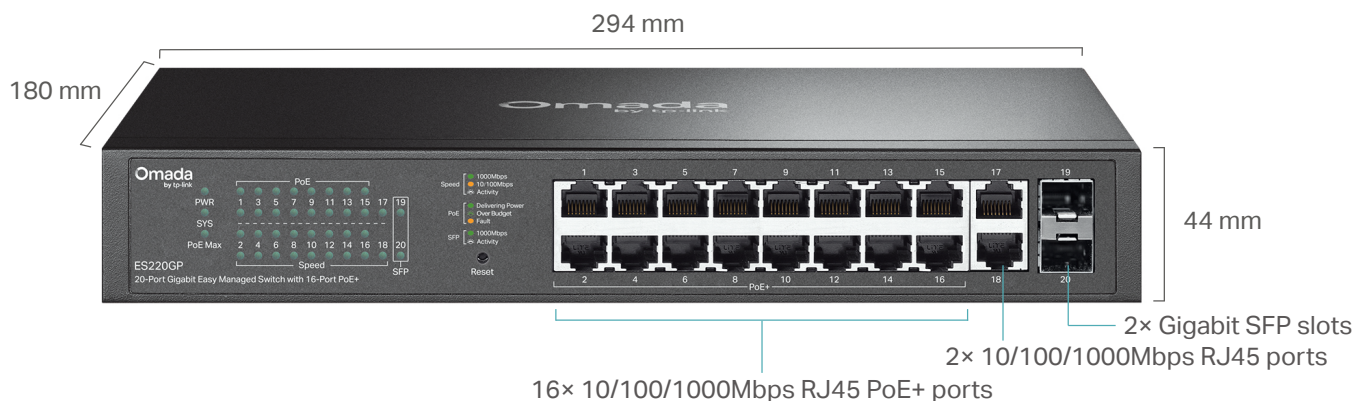
Omada 20-Port Gigabit Easy Managed Switch with 16-Port PoE+



Highlights

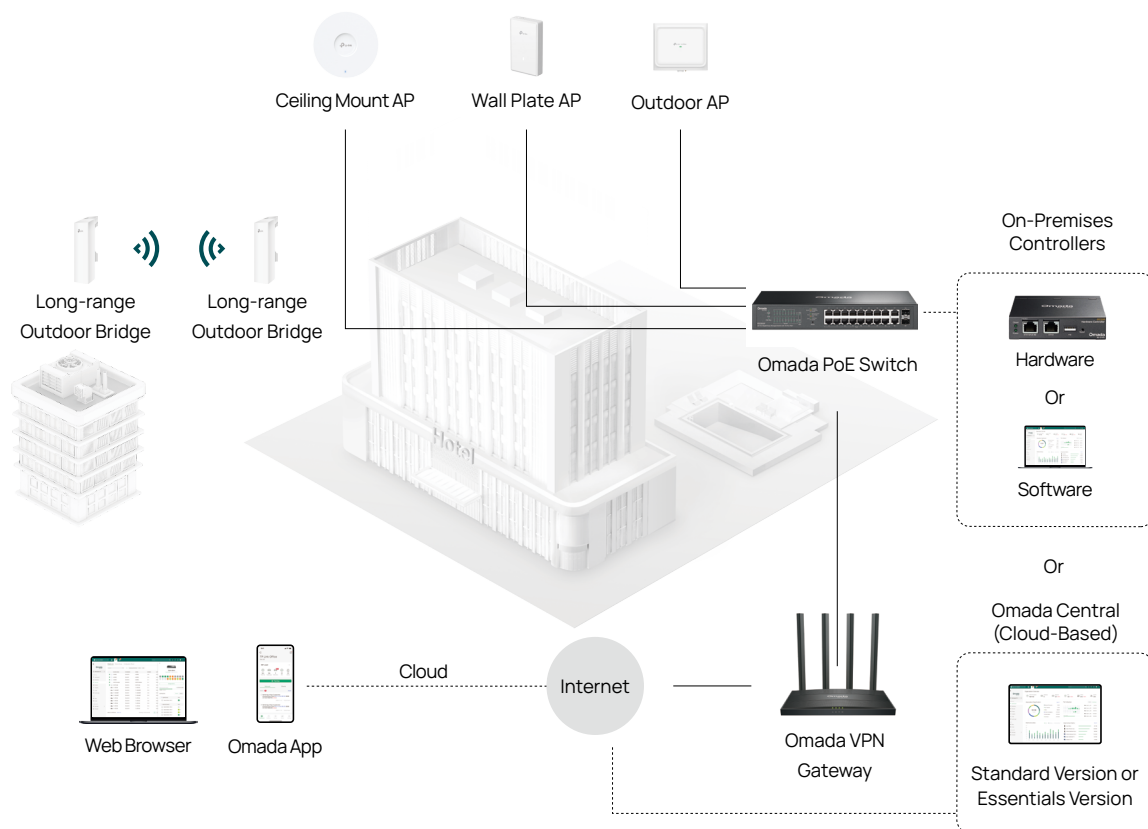
- 18× 10/100/1000Mbps RJ45 ports (16× 802.3af/at-compliant PoE+)
- 2× Gigabit SFP slots
- 150W PoE Power Budget, with up to 30W for each PoE port*
- Easy to Use: Supports plug-and-play for instant connectivity and simple configuration for additional features
- Centralized Cloud Management via the web 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

Multi-Site Cloud Management



Zero-Touch Provisioning (ZTP)[†]



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
	PoE Pinout	Alternative A, 1/2(-) & 3/6(+)
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	±6 kV in common mode for Ethernet Ports
	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)
	Net Weight	1.9 kg (4.19 lbs)
	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

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 • Port Isolation • 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 • IEEE 802.3az EEE
L2 Multicast	• IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave / Report Suppression
VLAN	• 802.1Q Tag VLAN - Max 32 VLAN Groups - 4K VID
QoS	• Port-based/802.1p/DSCP QoS[△] • 8 Priority Queues • Priority Schedule Mode - Weighted Round Robin (WRR) • Queue Weight Config • Bandwidth Control - Port-Based Rating Limit • Storm Control - Multiple Control Modes (kbps/pps) - Broadcast/Multicast/Unknown-Unicast Control
Management	• HTTPS/HTTP • DHCP Client • Cable Diagnostics • ONVIF^{***} • IntelliRecover[‡]

[†]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.

[‡]IntelliRecover is supported under Controller Mode. POE Auto Recovery is supported under Standalone Mode.

[△]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.

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