

Omada Switch | Datasheet

SG2005P-PD

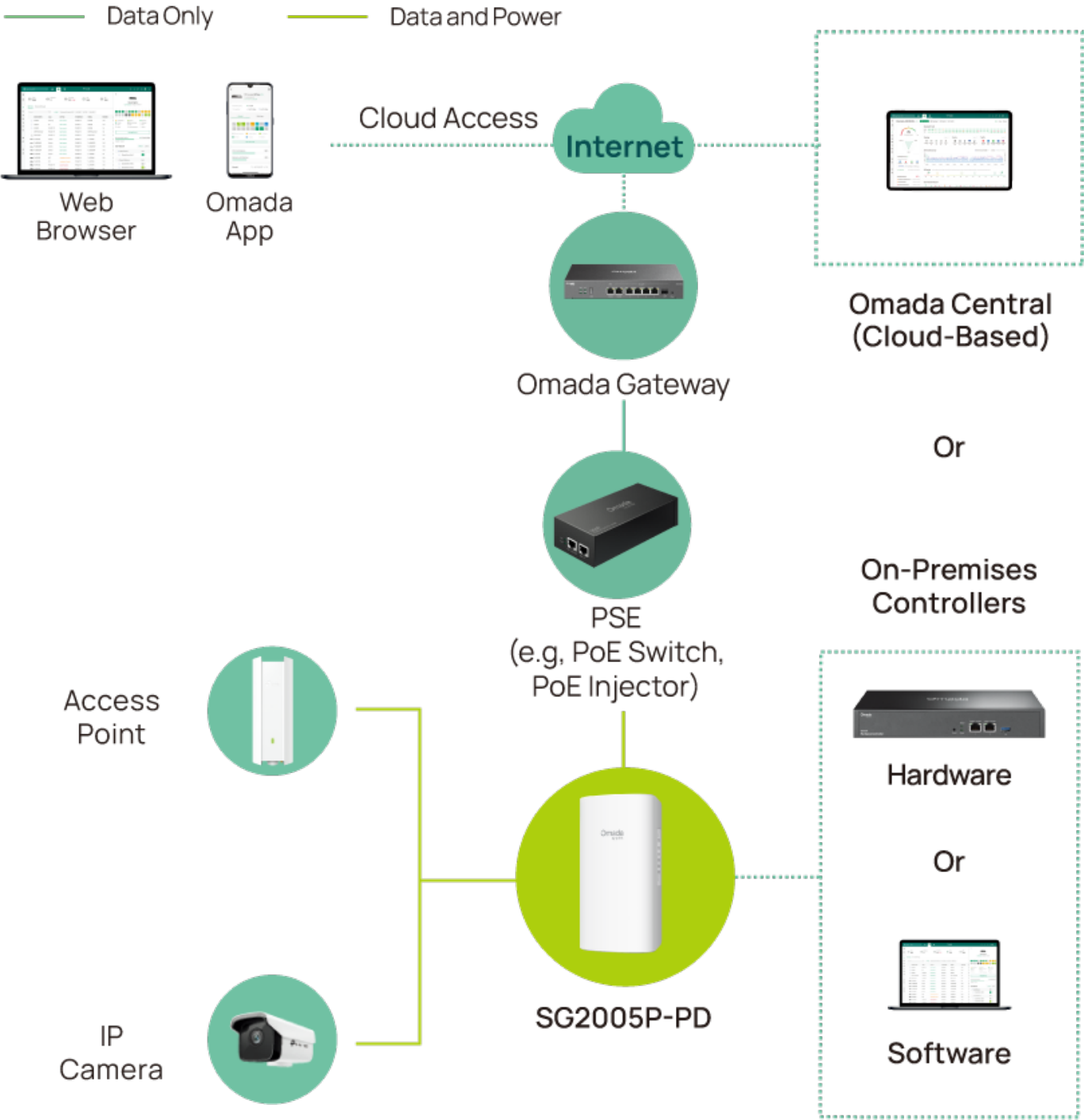
Omada Access 5-Port Gigabit Switch with 1-Port PoE++ in and 4-Port PoE+ out



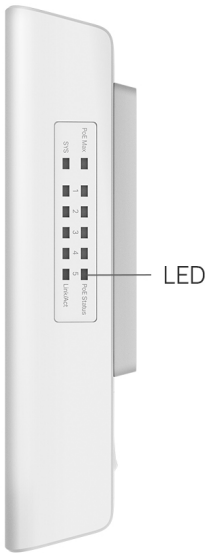
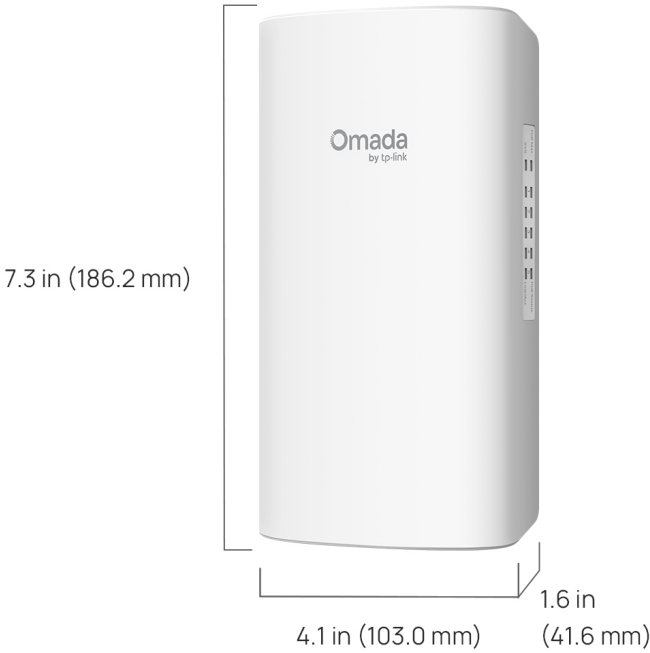
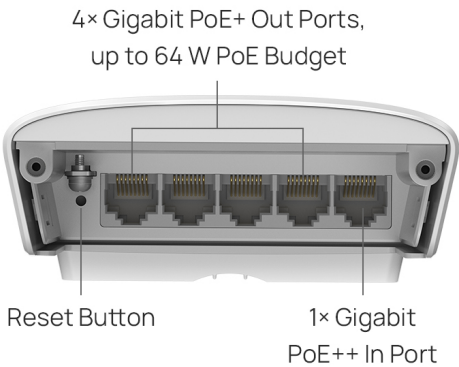
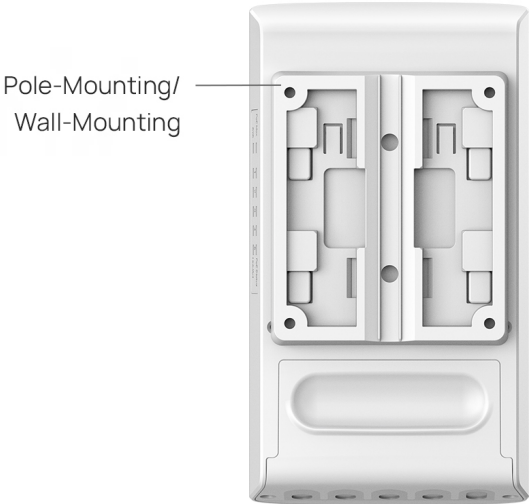
Highlights

- **Up to 200 m PoE Distance:** Standard PoE Passthrough to doubles PoE source-to-device transmission distance from 100 m (328 ft) to 200 m (656 ft) without losing gigabit speeds, perfect for long-range surveillance cameras and access points.*
- **1-Port Gigabit PoE++ In and 4-Port PoE+ Out:** Supports up to 64 W / 44 W / 19 W/ 6 W PoE budget output when powered by 802.3bt Type 4 (90 W), 802.3bt Type 3 (60 W), 802.3at, and 802.3af PoE, respectively.**
- **Outdoor Weatherproof:** IP66 waterproof, dustproof, and UV-resistant enclosure. Operation temperatures of -40 °C to 60 °C (-40 °F to 140 °F) and 6kV lightning protection further ensure stable operation against harsh outdoor conditions.
- **Easy Installation:** Easy to mount to a wall or pole with the provided mounting kits to flexibly fit your needs.
- **Centralized Cloud Management:** Integrates into Omada SDN for cloud access, remote management, and multi-site management.
- **Value-Added Features Foster Touchpoint Experiences:** Static Routing, Access Control List (ACL), QoS, and VLAN.

Omada Solution



Product Pictures



Specifications

Hardware Features & Performance		
Model	SG2005P-PD	
General	Interface	5 × 10/100/1000Mbps
	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;
PoE	PoE Standard	802.3af/at/bt PoE in for port 5 802.3af/at PoE out for port 1-4
	PoE Power Budget	64 W when powered by 802.3bt Type 4 (90 W) 44 W when powered by 802.3bt Type 3 (60 W) 19 W when powered by 802.3at 6 W when powered by 802.3af
	PoE Pinout	Alternative A, 1/2(-) & 3/6(+)
	Perpetual PoE	YES
	Fast PoE	YES
	PoE Extend Mode	YES
Performance	Switching Capacity	10 Gbps
	Packet Forwarding Rate	7.44 Mpps
	MAC Address Table	8K
	Packet Buffer	4.1 Mbit
	Transmission Method	Store and Forward
	Number of IP Interfaces	16
	Number of Static Routers	32 (IPv4, IPv6)
	Jumbo Frame	9 KB
Physical & Environment	Power Supply	Obtain Power from 802.3af/at/bt PoE Source
	Max Power Consumption	71.05 W (when powered by 802.3bt Type 4 (90 W))
	Max Heat Dissipation	241.57 BTU/hr (when powered by 802.3bt Type 4 (90 W))
	Standby Power Consumption	2.95 W
	Dimensions (W x D x H)	4.1 × 1.6 × 7.3 in (103.0 × 41.6 × 186.2 mm)
	MTBF	1419113h@25°C
	Net Weight	0.370 Kg
	IP Rating	IP66
	Surge Protection	6 kV
	Fan Quantity	Fanless
	Installation	Pole-Mounting/Wall-Mounting
	Operating Temperature	-40 °C to 60 °C (-40 °F to 140 °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	SG2005P-PD	
SDN Support	• Support Omada Hardware Controller, Software Controller • Automatic Device Discovery • Batch Configuration • Batch Firmware Upgrading	• Intelligent Network Monitoring • Abnormal Event Warnings • Unified Configuration • Reboot Schedule
L2+ Features	• 16 IP IPv4/IPv6 Interface • Static Routing - 32 IPv4/IPv6 Static Routes • DHCP Server • DHCP Relay - DHCP Interface Relay - DHCP VLAN Relay • DHCP L2 Relay	• Static ARP • Proxy ARP • Gratuitous ARP
L2 Features	• Link Aggregation - Static link aggregation - 802.3ad LACP - Up to 8 aggregation groups and up to 8 ports per group • Spanning Tree Protocol - 802.1d STP - 802.1w RSTP - 802.1s MSTP - STP Security: TC Protect, BPDU Filter, BPDU Protect, Root Protect • Loopback Detection - Port Based - VLAN Based	• Flow Control - 802.3x Flow Control • Mirroring - 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	• Supports 511 (IPv4, IPv6) IGMP groups • IGMP Snooping - IGMP v1/v2/v3 Snooping - Fast Leave - IGMP Snooping Querier - Static Group Config • Multicast VLAN Registration (MVR) • Multicast Filtering	• Multicast Listener Discovery (MLD) Snooping - MLD v1/v2 Snooping - Fast Leave - MLD Snooping Querier - Static Group Config • Limited IP Multicast (- 256 profiles and 16 entries per profile)
VLAN	• VLAN Group - Max. 4K VLAN Groups • 802.1Q Tagged VLAN • MAC VLAN (12 entries)	• Protocol VLAN (IEEE 802.1v) • Private VLAN (RFC 5517) • GVRP • Voice VLAN
QoS	• 802.1p CoS/DSCP priority • 8 priority queues • Priority Schedule Mode - Strict Priority (SP) - Weighted Round Robin (WRR) • Queue Weight Config	• Bandwidth Control - Port/Flow based Rating Limit • Smoother Performance • Storm Control - Multiple Control Modes(kbps/ratio) - Broadcast/Multicast/Unknown-Unicast Control

Software Features

Model	SG2005P-PD	
ACL	• Support up to 230 entries • Time-Range - Time Slice - Week Time-Range - Absolute Time-Range - Holiday • Time-based ACL • MAC ACL - Source MAC - Destination MAC - VLAN ID - User Priority - Ether Type • IP ACL - 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 - Permit/Deny • Policy Action - Mirror - Rate Limit - Redirect - QoS Remark • ACL Rules Binding - Port Binding - VLAN Binding • Actions for flows - Mirror (to supported interface) - Redirect (to supported interface) - Rate Limit - QoS Remark
Security	• Authentication, Authorization, Accounting (AAA) • 802.1X - Port based authentication - MAC (Host) based authentication - Authentication Method includes PAP/EAP-MD5 - MAB - Guest VLAN - CoA & DM - Support Radius authentication and accountability • IP/IPv6-MAC Binding - 512 Binding Entries - DHCP Snooping - DHCPv6 Snooping - Dynamic ARP Inspection (DAI) - ND Detection - ND Snooping • IP Source Guard - 253 Entries - Source IP+Source MAC	• IPv6 Source Guard - 183 Entries - Source IPv6 Address+Source MAC • DoS Defend • DHCP Filter • Static/Dynamic/Permanent Port Security - Up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control - 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 • CPP (Control Plane Policing) • MAC Flapping Detection

Software Features		
Model	SG2005P-PD	
IPv6 Support	• IPv6 Static Routing and ACL • IPv4/IPv6 Dual Stack • IPv6 Interface • MLD Snooping • IPv6 neighbor discovery (ND) • Path maximum transmission unit (MTU) discovery • Internet Control Message Protocol (ICMP) version 6 • TCPv6/UDPv6	• IPv6 applications - DHCPv6 Client - Ping6 - Tracert6 - Telnet (v6) - IPv6 SNMP - IPv6 SSH - IPv6 SSL - Http/Https - IPv6 TFTP
Management	• 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 • Cable Diagnostics	• IEEE 802.1az Energy Efficient Ethernet (EEE) • SNTP • System Log • IntelliRecover (Controller Mode Only) • Packet Capture • Syslog (UDP/TCP/DTLS/TLS) • DNS Lookup • Remote Access (NAT Traversal, Controller Mode Only)
MIBs	• 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)

Others	
Package Content	• SG2005P-PD • Mounting Kits • Installation Guide
System Requirements	Microsoft® Windows® 98SE, NT, 2000, XP, Vista™ or Windows 7/8/10/11, MAC® OS, NetWare®, UNIX® or Linux.

Ordering Information

Host Switch	
Model	SG2005P-PD
Description	Omada Access 5-Port Gigabit Switch with 1-Port PoE++ in and 4-Port PoE+ out

*The actual transmission distance may vary due to the power consumption of PoE-powered devices or the cable quality and type.

**PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.

Some models featured in this guide may be unavailable in your country or region. Visit the website for local sales information:
www.omadanetworks.com

Specifications are subject to change without notice. All brands and product names are trademarks or registered trademarks of their respective holders. © 2026 TP-Link