Omada by tp-link
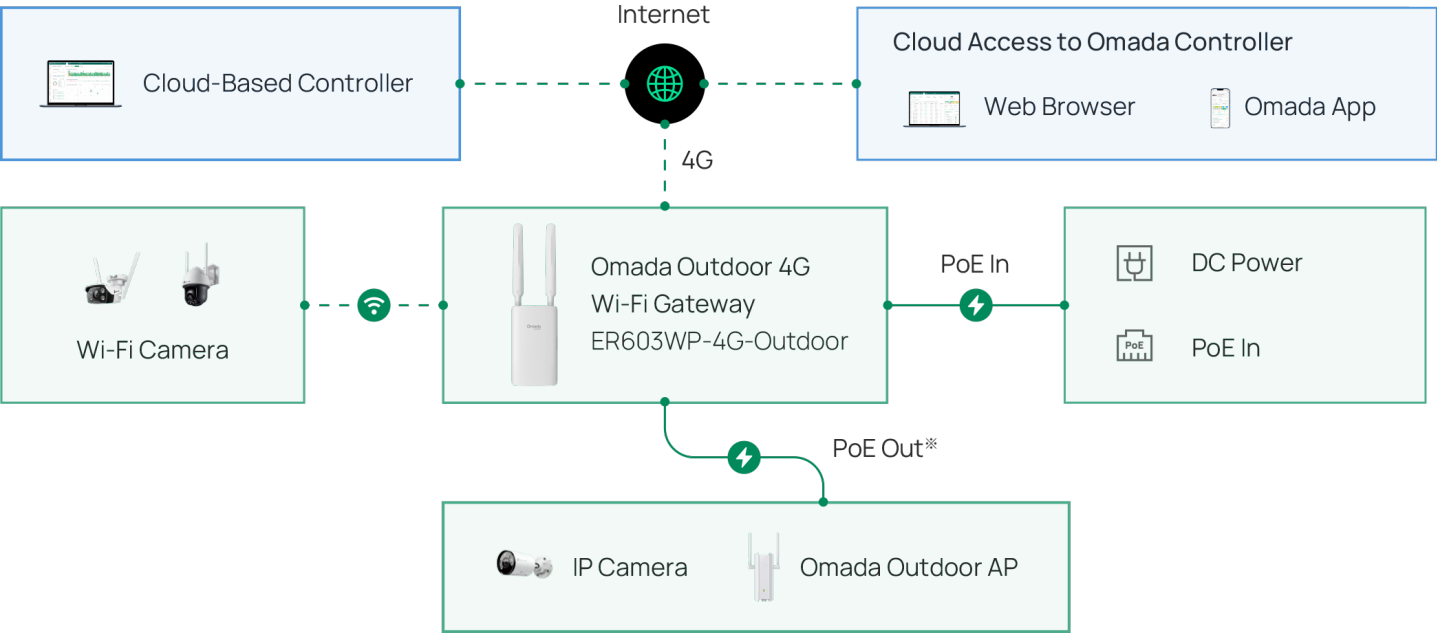
Omada Gateway | Datasheet

ER603WP-4G-Outdoor
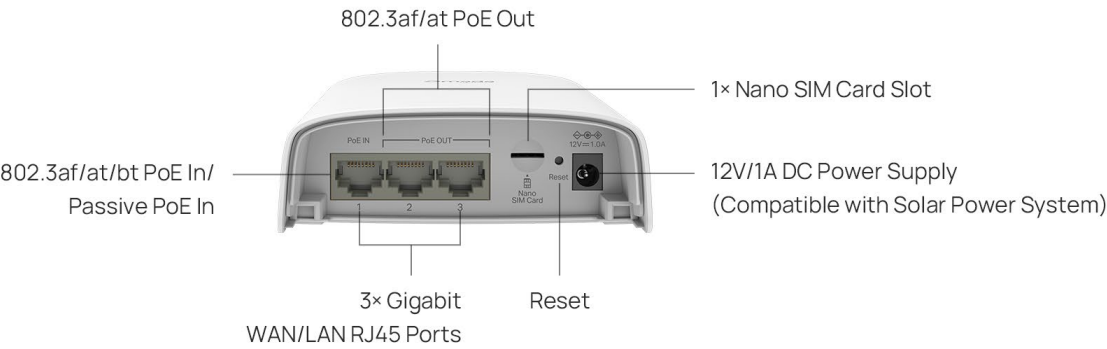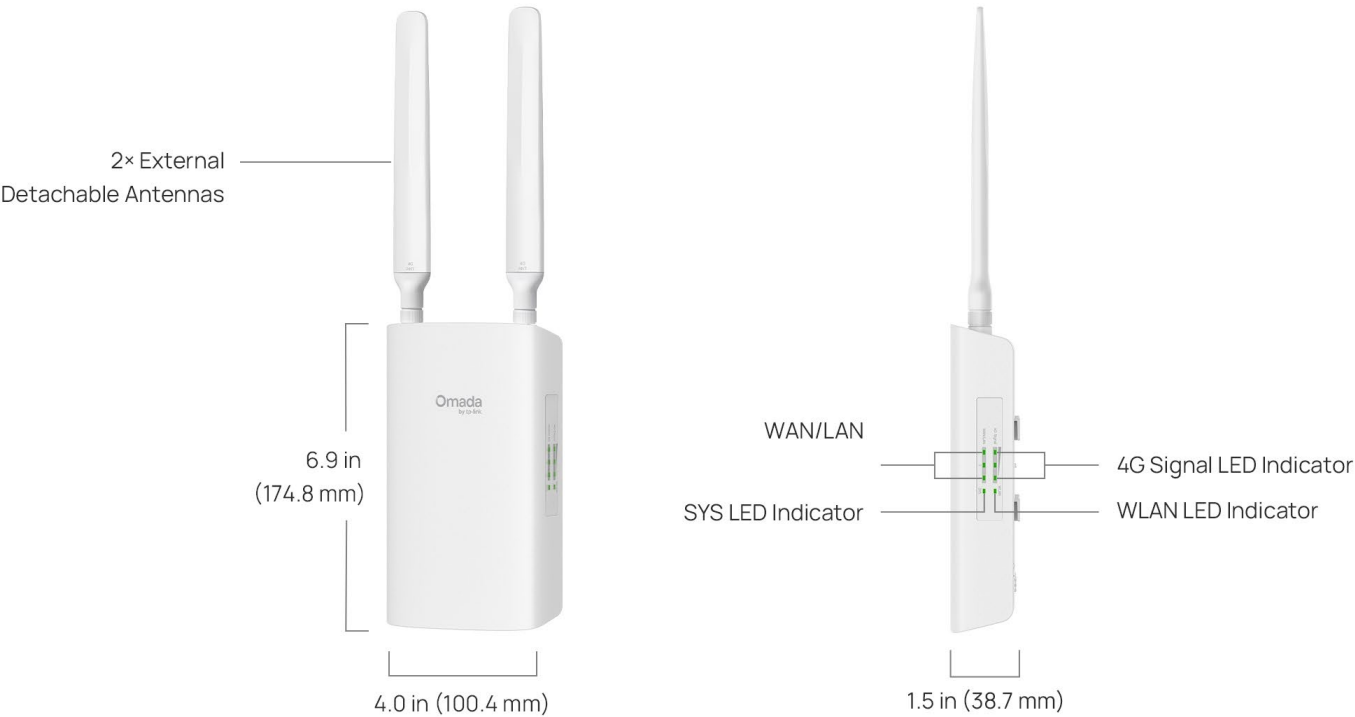Omada 4G Cat4 N300 Outdoor PoE Gateway

Highlights

- 4G Cat4 up to 150 Mbps*
- Wi-Fi 4, Support 300 Mbps on 2.4 GHz**
- 3× Gigabit WAN/LAN Ports (2× PoE Out, 1× PoE In)
- 1× Nano SIM Card Slot
- 802.3af/at/bt PoE/Passive PoE/DC Power Supply
- IP55 Weatherproof & 4 kV Lightning Protection
- Load Balancing between 4G and Ethernet WAN
- IPSec/PPTP/L2TP/OpenVPN/WireGuard/GRE[†] VPN
- Centralized Cloud Management[‡]
- Wall/Pole Mounting

Omada Solution

Internet

Cloud-Based Controller

Cloud Access to Omada Controller

Web Browser

Omada App

4G

Wi-Fi Camera

Omada Outdoor 4G
Wi-Fi Gateway
ER603WP-4G-Outdoor

PoE In

DC Power

PoE In

PoE Out※

IP Camera

Omada Outdoor AP

※The PoE-out feature requires 802.3bt PoE input.

Product Pictures

2× External
Detachable Antennas

6.9 in
(174.8 mm)

4.0 in (100.4 mm)

Omada
by tp-link

WAN/LAN

SYS LED Indicator

4G Signal LED Indicator

WLAN LED Indicator

1.5 in (38.7 mm)

802.3af/at PoE Out

1× Nano SIM Card Slot

PoE IN   PoE OUT

802.3af/at/bt PoE In/
Passive PoE In

12V/1A DC Power Supply
(Compatible with Solar Power System)

Nano
SIM Card

Reset

12V 1.0A

3× Gigabit
WAN/LAN RJ45 Ports

Reset

Specifications

Model	ER603WP-4G-Outdoor	
Hardware	Standards and Protocols	IEEE 802.3, IEEE802.3u, IEEE802.3ab, IEEE 802.3x, IEEE 802.1q, TCP/IP, DHCP, ICMP, NAT, PPPoE, NTP, HTTP, HTTPS, DNS, IPSec, PPTP, L2TP, OpenVPN, WireGuard VPN, GRE VPN, SNMP, LLDP, 802.11b/g/n
	Interface	3 Gigabit WAN/LAN Ports
	LTE	1 Nano SIM slot (CAT4 4G)
	LTE Speed	Downlink: 150 Mbps, Uplink: 50 Mbps
	Wi-Fi Speed	2.4 GHz: 300 Mbps
	Antennas	2 internal Wi-Fi antennas 2 external LTE antennas
	Network Media	10BASE-T: UTP category 3, 4, 5 cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 100BASE-TX: UTP category 5, 5e cable (Max 100 m) EIA/TIA-568 100Ω STP (Max 100 m) 1000BASE-T: UTP category 5, 5e, 6 cable (Max 100 m)
	PoE	PoE Standard
		Passive/802.3af/at/bt PoE in for port 1 Passive/802.3af/at PoE out for port 2-3
		PoE Power Budget
		52 W when powered by 802.3bt Type 4 (90 W) 34 W when powered by 802.3bt Type 3 (60 W) 13 W when powered by 802.3at (30 W) 9 W when powered by Passive (the provided PoE adapter
	Network Type	LTE Band of EU: 4G LTE-FDD: B1/B3/B5/B7/B8/B20/B28 (2100/1800/850/2600/900/800/700) 4G LTE-TDD: B38/B40/B41 (2600/2300/2500 MHz) 3G HSPA+/HSDPA/HSUPA/WCDMA: B1/B5/B8 (2100/850/900 MHz)
	Button	Reset button
	Power Supply	Passive/802.3af/at/bt PoE or 12V/1A Adapter A passive PoE adapter is provided
	Flash	128 MB NAND
	DRAM	256MB DDR3
	LED	4G Signal, WLAN. WAN/LAN, SYS
	Max Power Consumption	10 W without PoE 62 W with PoE
	Surge Protection	4 kV surge protection
	Mounting	Wall-mounting/ Pole-mounting
	Dimensions (W x D x H)	4.0 × 1.5 × 6.9 in (100.4*38.7*174.8mm)(excluding antennas)
	Net Weight	0.420 Kg (including antennas)
	MTBF	889200h@25℃ 510826h@40℃

Model		ER603WP-4G-Outdoor
SDN Support	Hardware Controller	Automatic Device Discovery Intelligent Network Monitoring Abnormal Event Warnings Unified Configuration Reboot Schedule Captive Portal Configuration ZTP (Zero-Touch Provisioning)[1]
	Software Controller	
	Omada App	
Performance[2]	Concurrent Session	50,000
	New Session/Second	2,028
	Static IP NAT Throughput(Upload/Download)	944.785 Mbps/939.201 Mbps
	DHCP NAT Throughput(Upload/Download)	944.545 Mbps /927.491 Mbps
	PPPoE NAT Throughput(Upload/Download)	939.278 Mbps /928.516 Mbps
	L2TP NAT Throughput(Upload/Download)	432.126 Mbps /355.712 Mbps
	PPTP NAT Throughput(Upload/Download)	513.104 Mbps /457.323 Mbps
	66 Byte Packet forwarding rate (Upload/Download)	1419519 pps /1418731 pps
	1518 Byte Packet forwarding rate (Upload/Download)	81068 pps/81068 pps
	IPSec VPN Throughput	ESP-SHA1-AES256: 192.432 Mbps ESP-SHA256-AES256: 195.445 Mbps ESP-SHA384-AES256: 48.55 Mbps ESP-SHA512-AES256: 48.363 Mbps
	GRE	Unencrypted: 425.292 Mbps Encrypted: 164.058 Mbps
	Wireguard VPN	50.175 Mbps
	OpenVPN	11.369 Mbps
	L2TP VPN	Unencrypted: 370.822 Mbps Encrypted: 144.05 Mbps
	PPTP VPN	Unencrypted: 408.038 Mbps Encrypted: 35.912 Mbps

1. Zero-Touch Provisioning is supported only when using Omada Cloud-Based Controller.
2. Rated specifications are based on test results using specific software version. Device performance may vary as a result of the actual scenario.

Model		ER603WP-4G-Outdoor
Basic Functions	WAN Connection Type	Static IP Dynamic IP PPPoE (supports MRU Configuration) PPTP L2TP
	DHCP	DHCP Server DHCPv6 PD Server (only in Standalone Mode) DHCP Options Customization DHCP Address Reservation Multi-IP Interfaces Multi-Net DHCP WAN DHCP 60
	MAC Clone	Modify WAN Address
	IPTV	IGMP v2/v3 Proxy, Custom Mode, Bridge Mode
	IPv6	StaticIP / SLAAC / DHCPv6 / PPPoE / 6to4Tunnel / PassThrough / Non-Address mode
	Stateful ACL	√
	mDNS Repeater	√
	Quality of Service	√
	Bridge VLAN	√
	VLAN	802.1Q VLAN
	LAN DNS	LAN DNS
	SMS	Receive/Send SMS
Wireless Function	Wireless Encryption	WPA/WPA2 Personal, WPA/WPA2 Enterprise
	Multiple SSIDs	8 in total (8 per radio)
	Enable/Disable Wireless Radio	√
	Enable/Disable SSID Broadcast	√
	Guest Network	√
	Automatic Channel Selection Algorithm	√
	Transmit Power Control	Adjust transmit Power on dBm
	Rate Limit	Based on SSID/Client
	Load Balance	√
	RADIUS Accounting	√
	MAC Authentication	√
	Reboot Schedule	√
	Wireless Schedule	√
	Support Data Rates	802.11n: 6.5 Mbps to 300 Mbps (MCS0-MCS15, HT20/40) 802.11g: 6, 9, 12, 18, 24, 36, 48 ,54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps

Model		ER603WP-4G-Outdoor
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing, Failover) Online Detection
	NAT	One-to-One NAT Multi-Net NAT Virtual Server Port Triggering[1] NAT-DMZ FTP/H.323/SIP/IPSec/PPTP ALG UPnP Disable NAT
	Routing	Static Routing Policy Routing RIP[2] OSPF[2]
	Session Limit	IP-based Session Limit
	Bandwidth Control	IP-based Bandwidth Control
VPN	IPSec VPN	6 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, AES128, AES192, AES256 Encryption Algorithm IPsec Failover IKE v1/v2 MD5, SHA1, SHA-256, SHA2-384, SHA2-256 and SHA2-512 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	PPTP VPN	PPTP VPN Server PPTP VPN Client (6) 6 Tunnels PPTP with MPPE Encryption
	L2TP VPN	L2TP VPN Server L2TP VPN Client (6) 6 Tunnels L2TP over IPSec
	GRE	√ (Only in Standalone Mode)
	SD-WAN	√ (Only in Controller Mode)
	WireGuard VPN	√
	OpenVPN	OpenVPN Server OpenVPN Client (3) 18 OpenVPN Tunnels "Certificate + Account" Mode Full Mode

1. Port Triggering is supported only in Standalone Mode.
2. RIP and OSPF are supported only in Standalone Mode.

Model		ER603WP-4G-Outdoor
Security	Attack Defense	TCP/UDP/ICMP Flood Defense Block TCP Scan (Stealth FIN/Xmas/Null) Block Ping from WAN
	Filtering	Web Group Filtering[1] URL Filtering Web Security[1]
	DNS Proxy	DNSSEC, DoH, DoT, DNS Override
	ARP Inspection	Sending GARP Packets ARP Scanning[2] IP-MAC Binding ARP Detection
	Access Control	Source/Destination IP Based ACL Stateful ACL IPv4/IPv6 ACL National Based ACL
Authentication	Web Authentication	No Authentication Simple Password[3] Hotspot (Local User / Voucher[3] / SMS[3] / Radius[3]) External Radius Server External Portal Server[3] LDAP
Management	Service	Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe, DDNS Customization)
	Maintenance	Web Management Interface Remote Management Export & Import Configuration SNMP v1/v2c/v3 Diagnostics (Ping & Traceroute) NTP Synchronize[4] Port Mirroring CLI (only in Standalone Mode) Syslog Support
Others	Certification	CE, RoHS
	Package Contents	ER603WP-4G-Outdoor Gateway, Antennas, Mounting Kits, Passive PoE Adapter, Quick Installation Guide
	System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10/11 MAC OS, NetWare, UNIX or Linux
	Environment	Operating Temperature: -30 °C to 60 °C Storage Temperature: -40 °C to 70 °C Operating Humidity: 5% to 95% non-condensing Storage Humidity: 5% to 90% non-condensing

1. Web Group Filtering and Web Security are supported only in Standalone Mode.
2. ARP Scanning is supported only in Standalone Mode.
3. The following web authentication methods are supported only in Controller Mode: Simple Password, Voucher, SMS, Radius, and External Portal Server.
4. NTP Synchronize are supported only in Standalone Mode.

Ordering Information

Host Gateway	
Model	Description
ER603WP-4G-Outdoor	Omada 4G Cat4 N300 Outdoor PoE Gateway