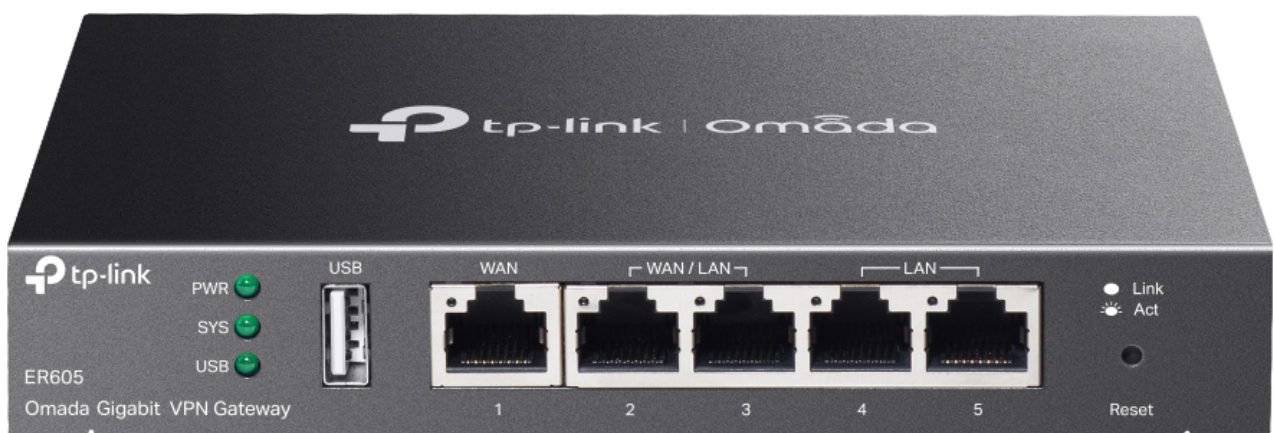# Omada VPN Gateway | Datasheet

ER605
Omada Gigabit VPN Gateway

Highlights

- **Integrated into Omada SDN:** Zero-Touch Provisioning, Centralized Cloud Management, and Intelligent Monitoring.
- **Centralized Management:** Cloud access and Omada app for convenience and easy management.
- **Five Gigabit Ports:** High-speed wired connectivity.
- **Up to 3 WAN Ethernet Ports:** 1 gigabit WAN port and 2 gigabit WAN/LAN ports with load balance raise the utilization rate of multi-line broadband.
- **One USB WAN Port for Mobile Broadband:** Mobile broadband via 4G/3G modem is supported for WAN backup by connecting to the USB port.
- **Highly Secure VPN:** Supports up to 20× LAN-to-LAN IPsec, 16× OpenVPN, 16× L2TP, and 16× PPTP VPN connections.
- **Abundant Security Features:** Advanced firewall policies, DoS defense, IP/MAC/ URL filtering, and more security functions protect your network and data.

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.
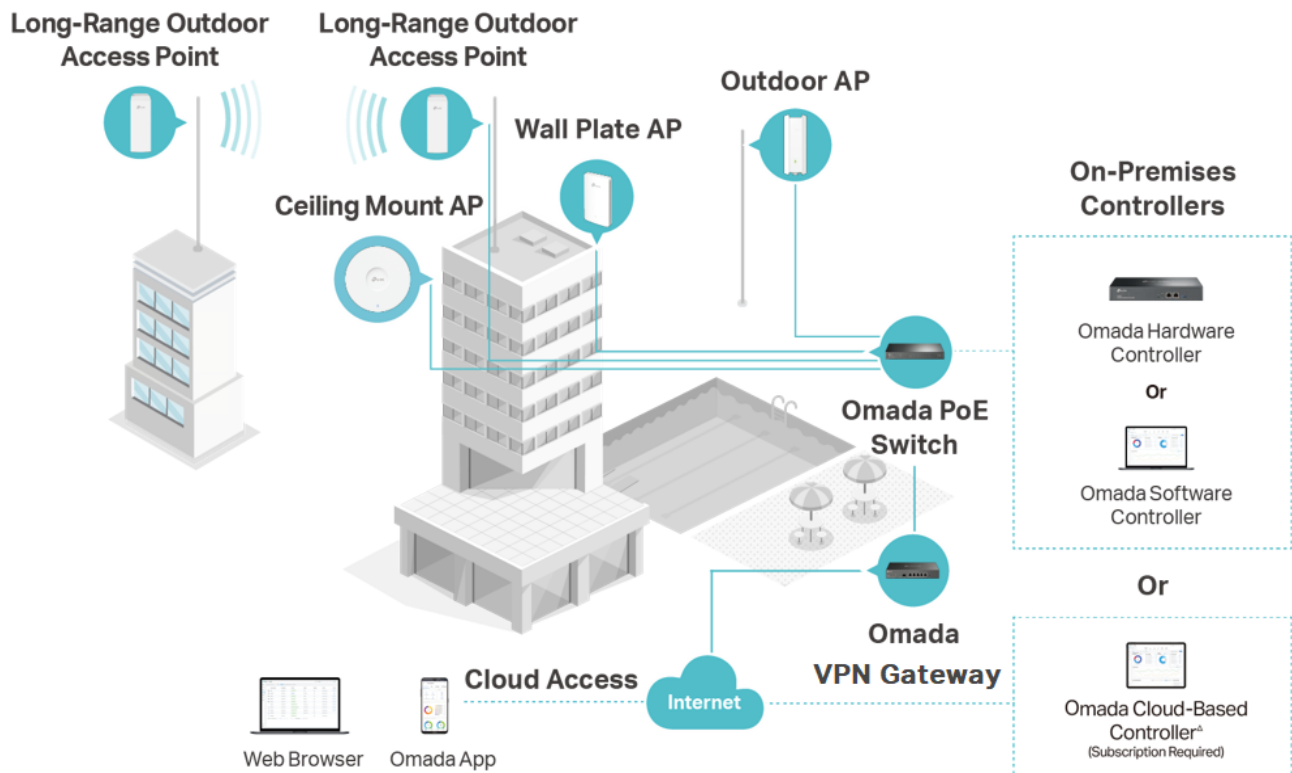
Hassle-Free Cloud or On-Premises Controllers

Multi-Site Cloud Management

Zero-Touch Provisioning (ZTP)*

Intelligent Monitoring

Specifications

Model	ER605 V2.2
Product Picture	
Product Description	Omada Gigabit VPN Gateway
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, SNMP
Interface	1 Gigabit WAN port 2 Gigabit LAN/WAN ports 2 Gigabit LAN ports
USB	1 USB2.0 (supports USB LTE dongle[1])
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 5e, 6 cable (Max 100 m)
Button	Reset Button
Power Supply	External 12 V/1 A DC Adapter
Flash	128 MB NAND
DRAM	256 MB DDR
LED	PWR, SYS, WAN (Link/Act), LAN (Link/Act), USB
Power Consumption (max.)	7.94 W
Dimensions (W x D x H)	6.2 × 4.0 × 1.0 in (158 × 101 × 25 mm)
Physical Security	Kensington Lock
Performance[2] — Concurrent Session	150,000
New Sessions /Second	2,600
DPI Throughput	TCP: 905 Mbps UDP: 788 Mbps
Static IP NAT Throughput	Upload: 945.77 Mbps; Download: 938.79 Mbps Bi-Directional: 1808.29 Mbps
DHCP NAT Throughput	Upload: 945.54 Mbps; Download: 945.66 Mbps Bi-Directional: 1802.77 Mbps
PPPoE NAT Throughput	Upload: 939.71Mbps; Download: 939.43 Mbps Bi-Directional: 1788.54 Mbps
L2TP NAT Throughput	Upload: 815.55 Mbps; Download: 835.59 Mbps Bi-Directional: 903.13 Mbps
PPTP NAT Throughput	Upload: 813.23 Mbps; Download: 850.91 Mbps Bi-Directional: 894.41 Mbps
66 Byte Packet forwarding rate	Upload/Download: 954.50 Mbps Bi-Directional: 1130.00 Mbps
1518 Byte Packet forwarding rate	Upload/Download: 997.50 Mbps Bi-Directional: 1965.00 Mbps

1. For compatibility list, visit https://www.tp-link.com/er605/compatibility/
2. Rated specifications are based on test results using ER605(UN)_V2.2. Device performance may vary as a result of the actual scenario.

Model		ER605 V2.2
Performance[1]	IPSec VPN Throughput	ESP-SHA1-AES256: 259.78 Mbps ESP-SHA256-AES256: 260.81 Mbps ESP-SHA384-AES256: 37.65 Mbps ESP-SHA512-AES256: 38.32 Mbps
	WireGuard VPN	130.96 Mbps
	OpenVPN	21.70 Mbps
	GRE	Unencrypted: 359.74 Mbps Encrypted: 78.11 Mbps
	L2TP VPN Throughput	Unencrypted: 640.99 Mbps Encrypted: 77.31 Mbps
	PPTP VPN Throughput	Unencrypted: 759.55 Mbps Encrypted: 75.80 Mbps
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
	MAC Clone	Modify WAN/LAN MAC Address[2]
	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
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing, Failover) Online Detection
	NAT	One-to-One NAT Multi-Net NAT Port Forwarding Port Triggering[3] NAT-DMZ FTP/H.323/SIP/IPSec/PPTP ALG UPnP Disable NAT
	Routing	Static Routing Policy Routing RIP[3] OSPF[3]

1. Rated specifications are based on test results using ER605(UN)_V2.2. Device performance may vary as a result of the actual scenario.
2. LAN MAC Address can be modified only in Standalone Mode.
3. Port Triggering, RIP, OSPF are supported only in Standalone Mode.

Model		ER605 V2.2
Transmission	Session Limit	IP-based Session Limit
	Bandwidth Control	IP-based Bandwidth Control
VPN	IPSec VPN	20 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, AES128, AES192, AES256, SHA2-384 and SHA2-512 Encryption Algorithm IPsec Failover IKE v1/v2 MD5, SHA1 Authentication Algorithm, SHA2 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	PPTP VPN	PPTP VPN Server PPTP VPN Client (10)[1] 16 Tunnels PPTP with MPPE Encryption
	L2TP VPN	L2TP VPN Server L2TP VPN Client (10)[1] 16 Tunnels L2TP over IPSec
	GRE	Only in Standalone Mode
	WireGuard VPN	√
	OpenVPN	OpenVPN Server OpenVPN Client (10)[1] 16 OpenVPN Tunnels "Certificate + Account" Mode Full Mode
Security	Attack Defense	TCP/UDP/ICMP Flood Defense Block TCP Scan (Stealth FIN/Xmas/Null) Block Ping from WAN
	Filtering	Web Group Filtering[2] URL Filtering Web Security[2]
	DNS Proxy	DNSSEC, DoH and DoT
	ARP Inspection	Sending GARP Packets[3] ARP Scanning[3] IP-MAC Binding
	Deep Packet Inspection (DPI)	√
	Access Control	Source/Destination IP Based Access Control
	ACL Geo-IP	√

1. ER605 can work as a VPN client and can connect with up to 10 VPN servers.
2. Web Group Filtering and Web Security are supported only in Standalone Mode.
3. Sending GARP Packets and ARP Scanning are supported only in Standalone Mode.

Model		ER605 V2.2
Authentication	Web Authentication	No Authentication Simple Password[1] Hotspot (Local User / Voucher[1] / SMS[1] / Radius[1]) External Radius Sever External Portal Sever[1] LDAP[2]
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)[3] NTP Synchronize[3] Port Mirroring CLI (only in Standalone Mode) Syslog Support
Others	Certification	CE, FCC, RoHS
	Package Contents	ER605, Power Adapter, RJ-45 Ethernet Cable, Quick Installation Guide
	System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10 MAC OS, NetWare, UNIX or Linux
	Environment	Operating Temperature: 0 ℃ to 40 ℃ (32 ℉ to 104 ℉) Storage Temperature: -40 ℃ to 70 ℃ (-40 ℉ to 158 ℉) Operating Humidity: 10% to 90% non-condensing Storage Humidity: 5% to 90% non-condensing
SDN Support	Hardware Controller (OC200/OC300)	Automatic Device Discovery Intelligent Network Monitoring Abnormal Event Warnings Unified Configuration Reboot Schedule Captive Portal Configuration
	Software Controller	
SD-WAN	Tunnels	10
	Throughput	250 Mbps
Core Features	Centralized Management	Centralized Control
		Single Interface
		Efficient Operations
	Link Traffic Bearing and Allocation	Multi-Underlay Link Bearing
	High Security	Data Encryption Protection
	Elastic Control & Scalability	Rapid Branch Deployment

1. The following web authentication methods are supported only in Controller Mode: Simple Password, Voucher, SMS, Radius, and External Portal Sever.
2. LDAP is supported only in Standalone Mode.
3. Diagnostics (Ping & Traceroute) and NTP Synchronize are supported only in Standalone Mode.

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