Omada Gateway | Datasheet

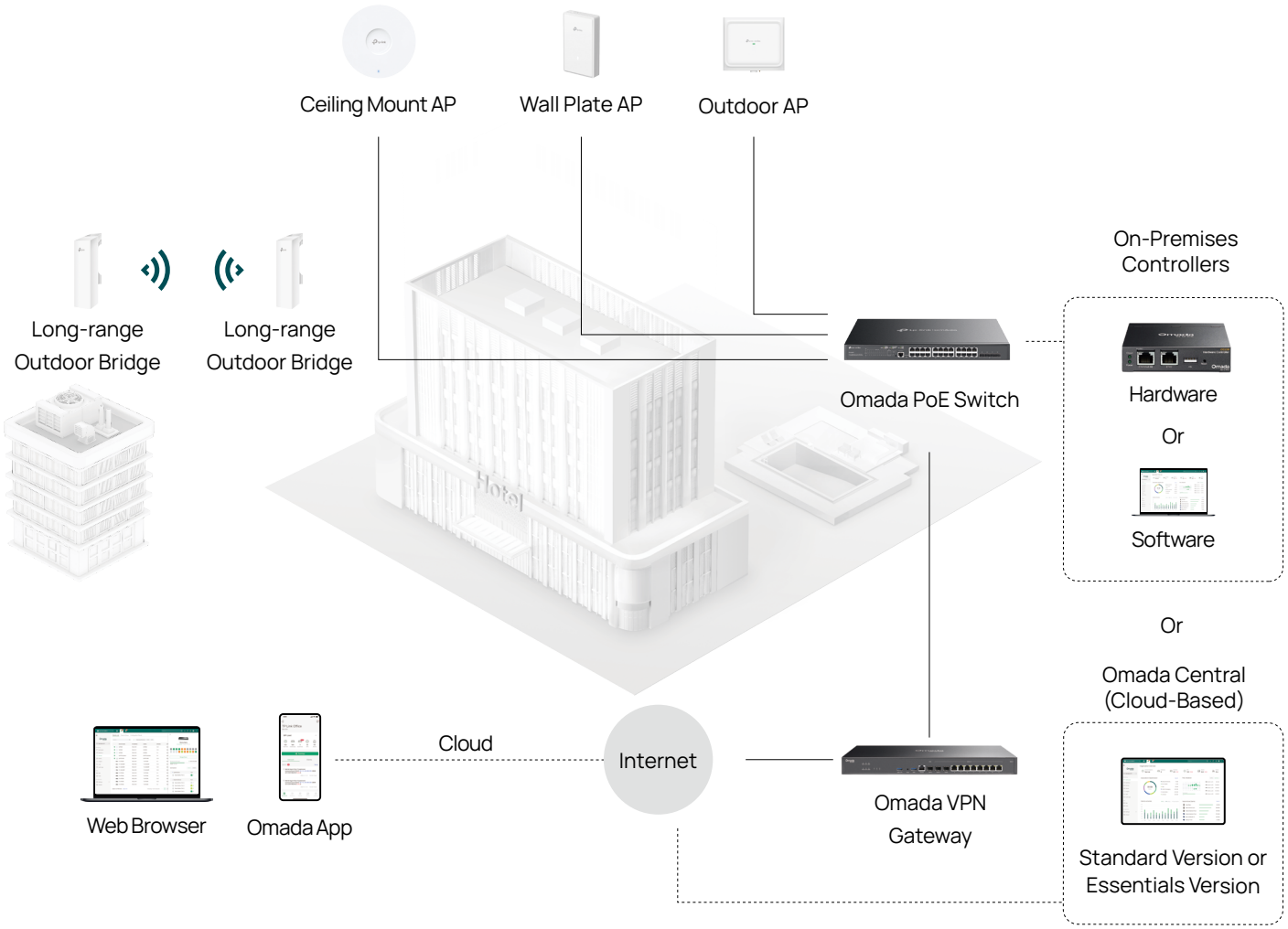
ER8411

Omada VPN Gateway with 10G Ports

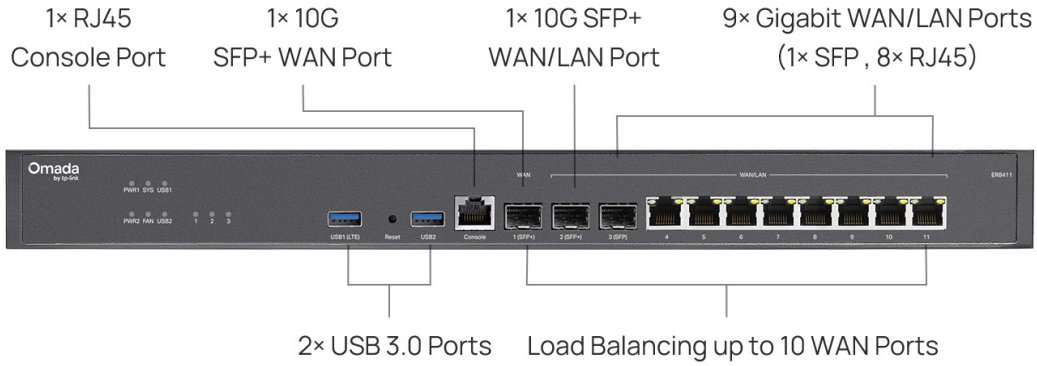
Highlights

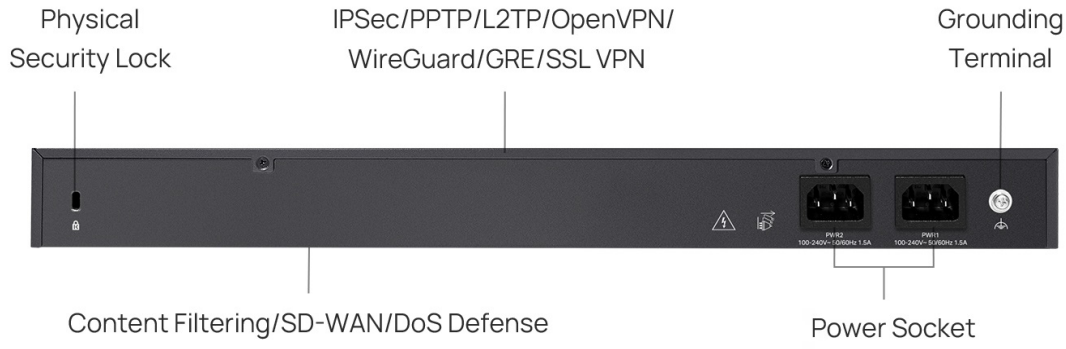
- Integrated into Omada SDN: Zero-Touch Provisioning (ZTP), Centralized Cloud Management, and Intelligent Monitoring.
- Centralized Management: Cloud access and Omada app for ultra convenience and easy management.
- Two 10GE SFP+ Ports: 1× WAN and 1× WAN/LAN 10GE SFP+ ports provide high-bandwidth aggregation connectivity.
- Up to 10 WAN Ports: Fiber and RJ45 WAN ports with load balance raise the utilization rate of multi-line broadband.
- Highly Secure VPN: Enterprise-standard SSL/ IPSec / PPTP / L2TP / WireGuard /GRE VPN & OpenVPN / L2TP over IPSec VPN are ideal for use across multiple branches and for WFH.
- Abundant Security Features: Powerful Firewall, DoS defense, IP/MAC/URL filtering, and IP-MAC Binding, and One-Click ALG Activation provide world-class security.

Omada Solution



Product Pictures





Specifications

Model		ER8411
Hardware	Standards and Protocols	IEEE 802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z, 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
	Interface	1 10G SFP+ WAN port, 1 10G SFP+ WAN/LAN port, 1 Gigabit SFP WAN/LAN port, 8 Gigabit RJ45 WAN/LAN ports
	USB	2 USB3.0 (One supports LTE backup with LTE dongle)
	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
	Dual Redundant Power Supply	2 Fixed AC Power Supply
	Power Supply	100–240 VAC, 50/60 Hz
	Flash	4MB SPI NOR + 256 MB NAND
	DRAM	4 GB DDR4
	Surge Protection	4 kV surge protection
	FAN Quantity	2
	Max Power Consumption	26.36W (with USB3.0 connected) 19.12W (without USB3.0 connected)
	Dimensions (W x D x H)	17.3 × 8.7 × 1.7 in (440 × 220 × 44 mm)
	Mounting	Rack Mountable
	MTBF	802371h@25°C 438454h@40°C
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	
	Cloud-Based Controller	

1. Zero-Touch Provisioning is supported only when using Omada Cloud-Based Controller.

Model		ER8411
Performance	Concurrent Session	2,300,000
	New Sessions /Second	20,000
	IPS Throughput	TCP: 9388 Mbps UDP: 7538 Mbps
	DPI Throughput	TCP: 9067 Mbps UDP: 5873 Mbps
	Static IP NAT Throughput (Upload / Download)	9445.82 Mbps / 9449.26 Mbps
	DHCP NAT Throughput (Upload / Download)	9426.83 Mbps / 9426.20 Mbps
	PPPoE NAT Throughput (Upload / Download)	9413.96 Mbps / 9102.01 Mbps
	L2TP NAT Throughput (Upload / Download)	9064.66 Mbps / 8587.57 Mbps
	PPTP NAT Throughput (Upload / Download)	8712.11 Mbps / 8505.61 Mbps
	64 Byte Packet forwarding rate (Upload / Download)	2,109,375 pps / 2,011,719 pps
	1,518 Byte Packet forwarding rate (Upload / Download)	820,982 pps / 820,982 pps
	SSL VPN Throughput	1006 Mbps
	WireGuard VPN Throughput	1411 Mbps
	GRE	Unencrypted: 8437 Mbps Encrypted: 2775 Mbps
	IPSec VPN Throughput	ESP-SHA1-AES256: 3099.4 Mbps ESP-SHA256-AES256: 2928.4 Mbps ESP-SHA384-AES256: 2935.7 Mbps ESP-SHA512-AES256: 2878 Mbps
	L2TP VPN Throughput	Unencrypted: 10497 Mbps Encrypted: 3178.5 Mbps
	OpenVPN Throughput	1043 Mbps
Basic Functions	WAN Connection Type	Static/Dynamic IP PPPoE PPTP L2TP 6to4 Tunnel IPv6 Pass-Through Mobile Broadband: 4G/3G modem for backup via USB port
	DHCP	DHCP Server/Client DHCP Address Reservation Multi-IP Interfaces Multi-Net DHCP WAN DHCP 60
	MAC Clone	Modify WAN/LAN MAC Address[1]
	IPTV	IGMP v2/v3 Proxy
	IPv6	WAN Connection
	VLAN	802.1Q VLAN
	LAN DNS	√

1. LAN MAC Address can be modified only in Standalone Mode.

Model		ER8411
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing[1], Failover) Online Detection
	NAT	One-to-One NAT[2] Multi-Net NAT Virtual Server Port Forwarding Port Triggering[2] 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/Port-based Bandwidth Control Guarantee & Limited Bandwidth
VPN	SD-WAN	√ (Only in Controller mode)
	GRE	√ (Only in Standalone mode)
	WireGuard VPN	√
	SSL VPN	SSL VPN Server 500 OpenVPN Tunnels
	IPSec VPN	300 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, SHA1, SHA 256, SHA 384, SHA 512, AES128, AES192, AES256 Encryption Algorithm IKE v1/v2 MD5, SHA1 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	PPTP VPN	PPTP VPN Server PPTP VPN Client (32)[3] 300 Tunnels (Shared with L2TP) PPTP with MPPE Encryption
	L2TP VPN	L2TP VPN Server L2TP VPN Client (32)[3] 300 Tunnels (Shared with PPTP) L2TP over IPSec
	OpenVPN	OpenVPN Server OpenVPN Client (10)[3] 110 OpenVPN Tunnels

1. The Timing mode in Link Backup is supported only in Standalone Mode.
2. One-to-One NAT, Port Triggering, RIP and OSPF are supported only in Standalone Mode.
3. ER8411 can work as a VPN client and can connect with up to 32 PPTP/L2TP VPN servers and 10 OpenVPN servers.

Model		ER8411
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 Categories and URLs Filtering Web Security[1]
	ARP Inspection[2]	Sending GARP Packets ARP Scanning IP-MAC Binding ARP Detection
	Access Control	Source/Destination IP Based ACL Stateful ACL IPv4/IPv6 ACL National Based ACL FQDN
	DNS Proxy	DNSSEC, DoH, DoT, DNS Override
	DPI	Deep Packet Inspection Support 2421 type Applications
	IPS/IDS	Signature-based IPS/IDS threat detection
Authentication	Web Authentication	No Authentication Simple Password[3] Hotspot (Local User / Voucher[3] / SMS[3] / Radius[3]) External Radius Sever External Portal Sever[3]
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 Syslog Support
Others	Certification	CE, FCC, RoHS
	Package Contents	ER8411, Power Cord, Quick Installation Guide, Rackmount Kit, RJ45 Console Cord
	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 °C to 40 °C (32 °F to 104 °F) Storage Temperature: -40 °C to 70 °C (-40 °F to 158 °F) Operating Humidity: 10% to 90% non-condensing Storage Humidity: 5% to 90% non-condensing

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

Ordering Information

Host Gateway	
Model	Description
ER8411	Omada VPN Gateway with 10G Ports

SFP/SFP+ Modules	
Model	Description
SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km
SM5110-LR	10GBase-LR SFP+ LC Transceiver, single-mode, LC connector, 1310nm, 10 km
SM5110-SR	10GBase-SR SFP+ LC Transceiver, multi-mode, LC connector, 850nm, 300 m

RJ45 SFP/SFP+ Modules	
Model	Description
SM331T	1000BASE-T RJ45 SFP Module
SM5310-T	10GBASE-T RJ45 SFP+ Module

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