Omada Gateway | Datasheet

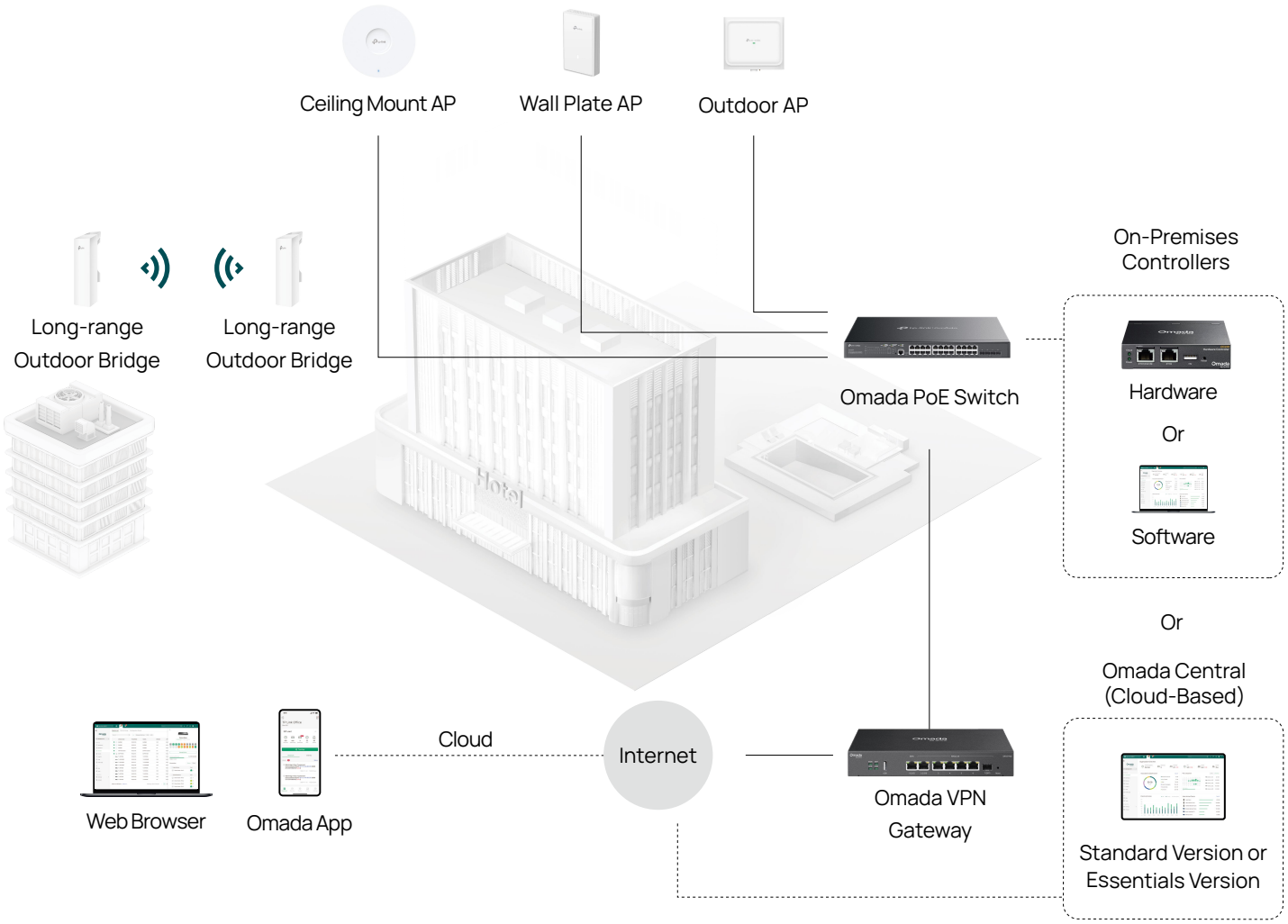
ER707-M2

Omada Multi-Gigabit VPN Gateway

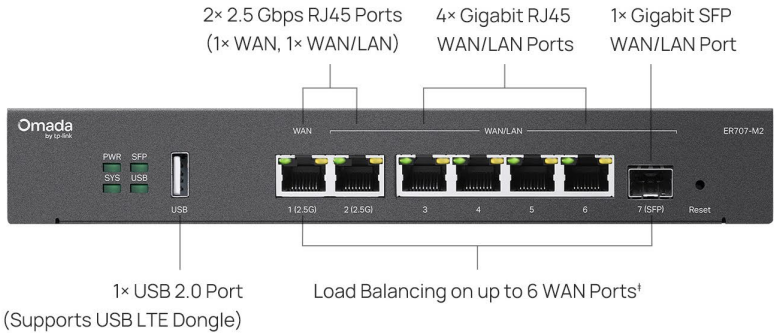
Highlights

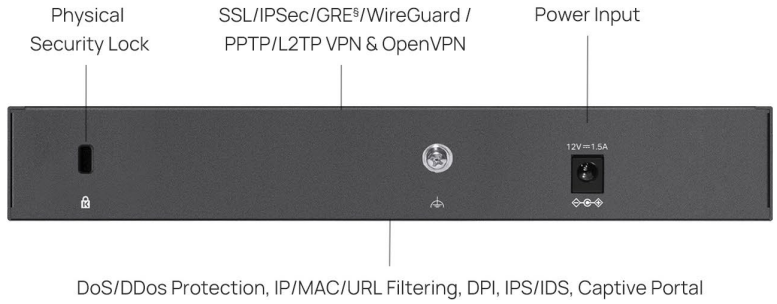
- 2× 2.5 Gbps RJ45 ports (1× WAN, 1× WAN/LAN)
- 5× Gigabit WAN/LAN ports (1× SFP, 4× RJ45)
- Load Balancing on up to 6 WAN ports increases the utilization rate of multi-line broadband
- 1× USB port (Supports USB storage, and LTE backup with LTE dongle)
- High-security SSL/IPSec/GRE/WireGuard/PPTP/L2TP VPN & OpenVPN
- Centralized cloud management via the web or the Omada app
- DoS/DDoS protection, IP/MAC/URL filtering, DPI, and IPS/IDS for enhanced security
- Rackmount, Desktop, or Wall Mount

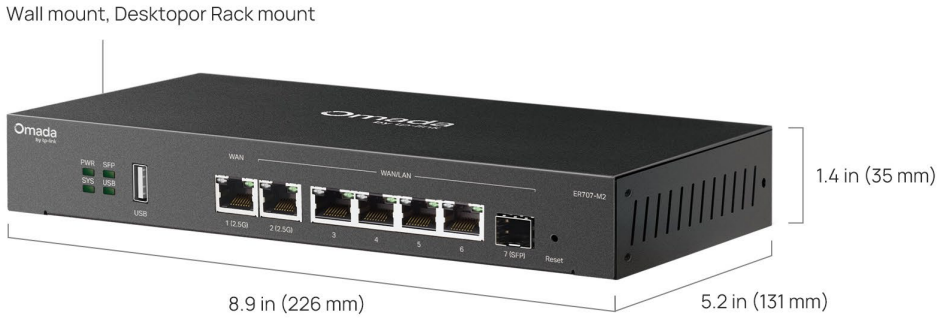
Omada Solution



Product Pictures







§These functions are supported only in Standalone Mode.
†At least one WAN/LAN port needs to function as a LAN port.

Specifications

Model		ER707-M2
General	CPU	Dual-core ARMv8
	Interface	1× 2.5G RJ45 WAN Port, 1× 2.5G RJ45 WAN/LAN Port, 1× Gigabit SFP WAN/LAN Port, 4× Gigabit RJ45 WAN/LAN Ports
	USB	1 USB2.0 (Supports LTE backup with LTE dongle, and USB Storage)
	Button	Reset button
	Power Supply	12V / 1.5A Adapter
	Flash	128 MB NAND
	DRAM	1 GB DDR4
	Surge Protection	4 kV surge protection
	Max Power Consumption	14.2 W (with USB2.0 connected) 7.1 W (without USB2.0 connected)
	Mounting	Desktop/Wall/Rackmount
	Dimensions (W x D x H)	8.9 × 5.2 × 1.4 in (226 × 131 × 35 mm)
	Net Weight	0.886 Kg
	MTBF	1104942h@25°C 809329h@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	
Performance[2]	Concurrent Session	500,000
	New Sessions /Second	6,000
	IPS Throughput	TCP: 1552 Mbps UDP: 1206 Mbps
	DPI Throughput	TCP: 1823 Mbps UDP: 1272 Mbps
	Static IP NAT Throughput (Upload / Download)	2365.17 Mbps / 2364.45 Mbps
	DHCP NAT Throughput (Upload / Download)	2364.45 Mbps / 2366.04 Mbps
	PPPoE NAT Throughput (Upload / Download)	2347.14 Mbps / 2348.29 Mbps
	L2TP NAT Throughput (Upload / Download)	1308.86 Mbps / 974.10 Mbps
	PPTP NAT Throughput (Upload / Download)	1236.27 Mbps / 1280.99 Mbps

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

Model		ER707-M2
Performance	66 Byte Packet forwarding rate (Upload / Download)	Upload: 3,471,004 pps Download: 3,298,939 pps
	1,518 Byte Packet forwarding rate (Upload / Download)	Upload: 202,666 pps Download: 202,348 pps
	SSL VPN Throughput	132.24 Mbps
	GRE VPN Throughput	Unencrypted: 951 Mbps Encrypted: 609 Mbps
	IPSec VPN Throughput	ESP-SHA1-AES256: 673.3 Mbps, ESP-SHA256-AES256: 650.2 Mbps ESP-SHA384-AES256: 629.3 Mbps, ESP-SHA512-AES256: 633.8 Mbps
	L2TP VPN Throughput	Unencrypted: 1243.7 Mbps; Encrypted: 561.0 Mbps
	OpenVPN Throughput	135.0 Mbps
	Wireguard VPN Throughput	343Mbps
Basic Functions	WAN Connection Type	IPv4_Static IP; IPv4_Dynamic IP; IPv4_PPPOE; IPv4_L2TP; IPv4_PPTP IPv6_PPP; IPv6_DHCPv6; IPv6_Static IP; IPv6_6to4; IPv6_Pass-Through Mobile Broadband: 4G/3G modem for backup via USB port
	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/LAN MAC Address[1]
	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	√

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

Model		ER707-M2
Transmission	Load Balance	Intelligent Load Balance Application Optimized Routing Link Backup (Timing[1], Failover) Online Detection
	NAT	One-to-One NAT 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 (only in Standalone Mode) OSPF (only in Standalone Mode)
	Session Limit	IP-based Session Limit
	Bandwidth Control	IP/Port-based Bandwidth Control Guarantee & Limited Bandwidth
VPN	SSL VPN	SSL VPN Server 60 SSL VPN Tunnels
	IPSec VPN	100 IPSec VPN Tunnels LAN-to-LAN, Client-to-LAN Main, Aggressive Negotiation Mode DES, 3DES, SHA1, AES128, AES192, AES256 Encryption Algorithm IKE v1/v2 MD5, SHA1, SHA2-384 and SHA2-512 Authentication Algorithm NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
	GRE	√ (Only in Standalone Mode)
	SD-WAN	√ (Only in Controller mode)
	WireGuard VPN	√
	PPTP VPN	PPTP VPN Server PPTP VPN Client (12)[3] 60 Tunnels (Shared with L2TP) PPTP with MPPE Encryption
	L2TP VPN	L2TP VPN Server L2TP VPN Client (12)[3] 60 Tunnels (Shared with PPTP) L2TP over IPSec
	OpenVPN	OpenVPN Server OpenVPN Client (6)[3] 66 OpenVPN Tunnels

1. The Timing mode in Link Backup is supported only in Standalone Mode.
2. Port Triggering is supported only in Standalone Mode.
3. ER707-M2 can work as a VPN client and can connect with up to 12 PPTP/L2TP VPN servers and 6 OpenVPN servers.

Model		ER707-M2
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]
	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 FQDN
	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 Server External Portal Server[3] LDAP
Management	Service	Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe)
	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, FCC
	Package Contents	ER707-M2, Power Adapter, Rackmount Kit, 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 °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 Scanning is supported only in Standalone Mode.
3. The following web authentication methods are supported only in Controller Mode: Simple Password, Voucher, SMS, Radius, External Portal Server.
4. NTP Synchronize is supported only in Standalone Mode.

Ordering Information

Host Gateway	
Model	Description
ER707-M2	Omada Multi-Gigabit VPN Gateway

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

RJ45 SFP Modules	
Model	Description
SM331T	1000BASE-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.

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