

# Omada Gateway | Datasheet

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**ER7206**

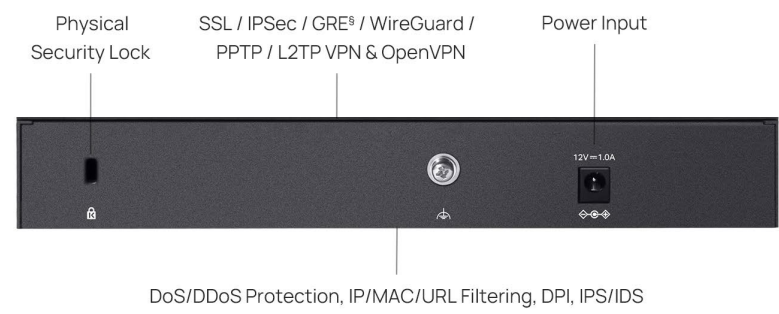
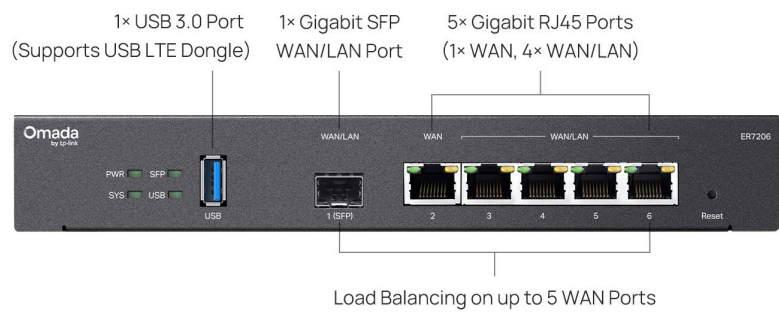
Omada Gigabit VPN Gateway



## Highlights

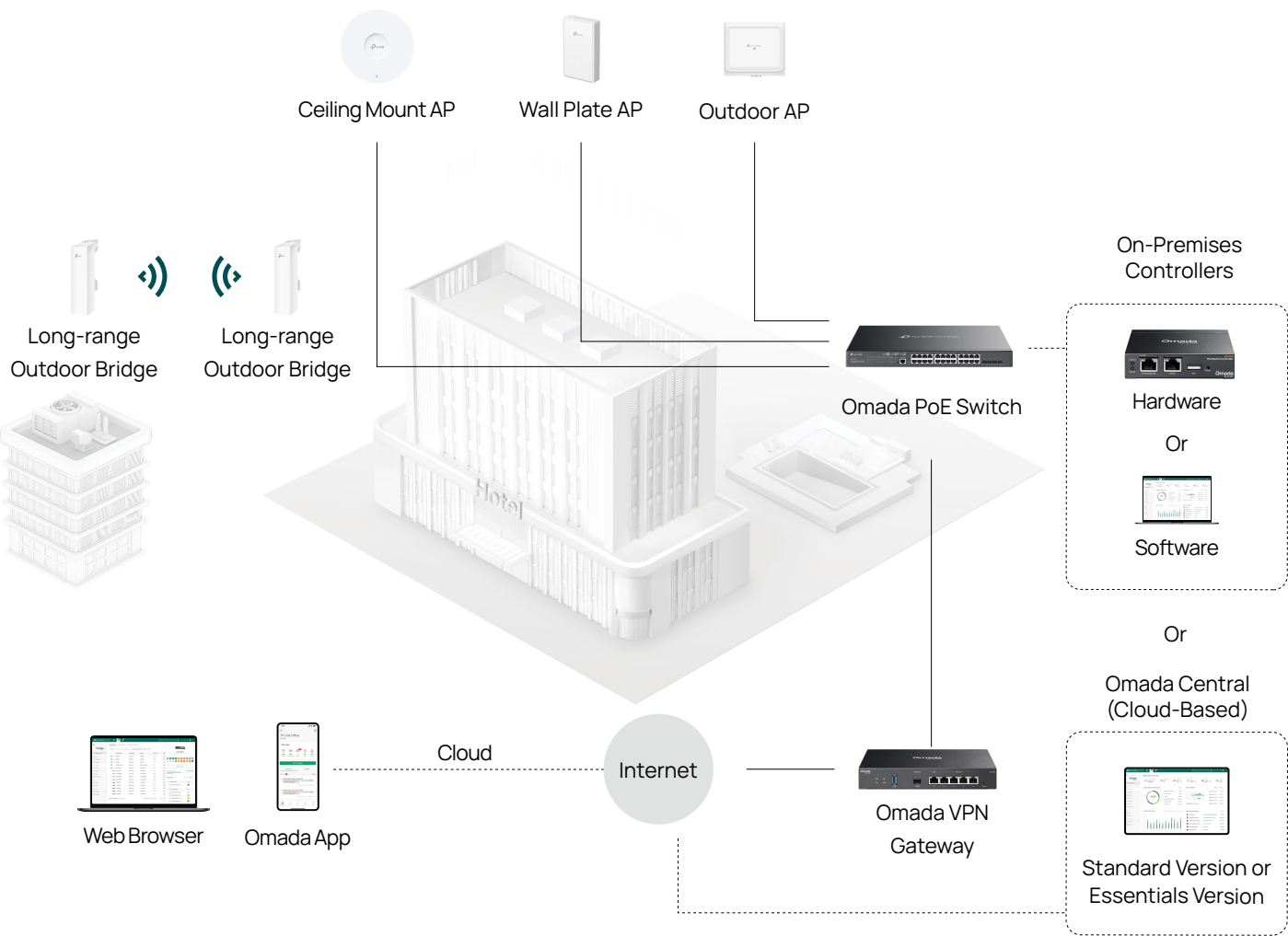
- Dual-core ARM® Cortex-A53 processor and 512MB DDR4 high-speed memory for outstanding performance
- Equipped with 1 Gigabit SFP WAN/LAN port, 1 Gigabit RJ45 WAN port, 4 Gigabit RJ45 WAN/LAN ports and 1 USB3.0 port (supports USB LTE dongle and USB Storage)
- Supports multiple VPN protocols including SSL/ Wireguard/ OpenVPN/ GRE VPN/ IPSec/ PPTP/ L2TP/ L2TP over IPSec, helping users to establish VPN connections more flexibly
- Captive portal provides a convenient method for guest authentication
- Abundant features including load balance, bandwidth control and access control
- Professional 4 kV lightning protection keeps your investments as safe as possible

# Product Pictures



<sup>§</sup>GRE VPN is supported only in Standalone Mode.

# Omada Solution



# Specifications

| Model       |                          | ER7206                                                                                                                                                                                                                              |
|-------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Gigabit SFP WAN/LAN Port<br>1 Gigabit WAN port<br>4 Gigabit LAN/WAN ports                                                                                                                                                         |
|             | USB                      | 1 USB3.0 (supports USB LTE dongle and USB Storage <sup>1</sup> )                                                                                                                                                                    |
|             | Fan Quantity             | Fanless                                                                                                                                                                                                                             |
|             | Network Media            | 10BASE-T: UTP category 3, 4, 5 cable (Max 100 m)<br>EIA/TIA-568 100Ω STP (Max 100 m)<br>100BASE-TX: UTP category 5, 5e cable (Max 100 m)<br>EIA/TIA-568 100Ω STP (Max 100 m)<br>1000BASE-T: UTP category 5, 5e, 6 cable (Max 100 m) |
|             | Button                   | Reset button                                                                                                                                                                                                                        |
|             | Power Supply             | 12V/1A DC Power Adapter                                                                                                                                                                                                             |
|             | Flash                    | 128 MB NAND                                                                                                                                                                                                                         |
|             | DRAM                     | 512 MB DDR4                                                                                                                                                                                                                         |
|             | LED                      | PWR, SYS, SFP, USB, WAN (1000M Link/Act, 100/10M Link/Act), WAN/LAN (1000M Link/Act, 100/10M Link/Act)                                                                                                                              |
|             | Max Power Consumption    | 7.5 W (with USB 3.0 connected)<br>4.5 W (without USB 3.0 connected)                                                                                                                                                                 |
|             | Surge Protection         | 4 kV surge protection                                                                                                                                                                                                               |
|             | Mounting                 | Desktop/Wall/Rackmount                                                                                                                                                                                                              |
|             | Dimensions ( W x D x H ) | 8.9 × 5.2 × 1.4 in (226 × 131 × 35 mm)                                                                                                                                                                                              |
|             | Net Weight               | 0.92 Kg                                                                                                                                                                                                                             |
|             | MTBF                     | 981089h @25°C<br>557441h@40°C                                                                                                                                                                                                       |
| SDN Support | Hardware Controller      | Automatic Device Discovery<br>Intelligent Network Monitoring<br>Abnormal Event Warnings                                                                                                                                             |
|             | Software Controller      | Unified Configuration<br>Reboot Schedule<br>Captive Portal Configuration<br>ZTP (Zero-Touch Provisioning) <sup>2</sup>                                                                                                              |

1. For compatibility list, visit <https://www.omadanetworks.com/omada-router/compatibility/>.
2. Zero-Touch Provisioning is supported only when using Omada Cloud-Based Controller.

| Model                    |                                                       | ER7206                                                                                                                                                                      |
|--------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance <sup>1</sup> | Concurrent Session                                    | 150,000                                                                                                                                                                     |
|                          | New Sessions /Second                                  | 4,600                                                                                                                                                                       |
|                          | IPS Throughput                                        | TCP: 918 Mbps<br>UDP: 920 Mbps                                                                                                                                              |
|                          | DPI Throughput                                        | TCP: 933 Mbps<br>UDP: 927 Mbps                                                                                                                                              |
|                          | Static IP NAT Throughput (Upload / Download)          | 945.3 Mbps / 940.5 Mbps                                                                                                                                                     |
|                          | DHCP NAT Throughput (Upload / Download)               | 939.6 Mbps / 940.9 Mbps                                                                                                                                                     |
|                          | PPPoE NAT Throughput (Upload / Download)              | 943.6 Mbps / 940.9 Mbps                                                                                                                                                     |
|                          | L2TP NAT Throughput (Upload / Download)               | 908.6 Mbps / 918.4 Mbps                                                                                                                                                     |
|                          | PPTP NAT Throughput (Upload / Download)               | 906.2 Mbps / 915.9 Mbps                                                                                                                                                     |
|                          | 66 Byte Packet forwarding rate (Upload / Download)    | 1,453,489 pps / 1,453,488 pps                                                                                                                                               |
|                          | 1,518 Byte Packet forwarding rate (Upload / Download) | 81,279 pps / 81,275 pps                                                                                                                                                     |
|                          | IPSec VPN Throughput                                  | ESP-SHA1-AES256: 885.3Mbps<br>ESP-SHA256-AES256: 844.8 Mbps<br>ESP-SHA384-AES256: 868.5 Mbps<br>ESP-SHA512-AES256: 849.5 Mbps                                               |
|                          | GRE                                                   | Unencrypted: 1094.2 Mbps<br>Encrypted: 702.2 Mbps                                                                                                                           |
|                          | WireGuard VPN                                         | 341.3 Mbps                                                                                                                                                                  |
|                          | SSL VPN                                               | 131.6 Mbps                                                                                                                                                                  |
|                          | OpenVPN                                               | 139.1 Mbps                                                                                                                                                                  |
|                          | L2TP VPN Throughput                                   | Unencrypted: 1422.4 Mbps<br>Encrypted: 686.2 Mbps                                                                                                                           |
|                          | PPTP VPN Throughput                                   | Unencrypted: 1356.1 Mbps<br>Encrypted: 205.1 Mbps                                                                                                                           |
| Basic Functions          | WAN Connection Type                                   | Static IP<br>Dynamic IP<br>PPPoE (supports MRU Configuration)<br>PPTP<br>L2TP                                                                                               |
|                          | DHCP                                                  | DHCP Server<br>DHCPv6 PD Server (only in Standalone Mode)<br>DHCP Options Customization<br>DHCP Address Reservation<br>Multi-IP Interfaces<br>Multi-Net DHCP<br>WAN DHCP 60 |
|                          | MAC Clone                                             | Modify WAN/LAN MAC Address <sup>2</sup>                                                                                                                                     |
|                          | IPTV                                                  | IGMP v2/v3 Proxy, Custom Mode, Bridge Mode                                                                                                                                  |
|                          | IPv6                                                  | StaticIP / SLAAC / DHCPv6 / PPPoE / 6to4Tunnel / PassThrough / Non-Address mode                                                                                             |
|                          | Stateful ACL                                          | √                                                                                                                                                                           |
|                          | LAN DNS                                               | √                                                                                                                                                                           |

1. Rated specifications are based on test results using specific software version. Device performance may vary as a result of the actual scenario.

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

| Model           |                    | ER7206                                                                                                                                                                                                                                                                                                                               |
|-----------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Functions | mDNS Repeater      | √                                                                                                                                                                                                                                                                                                                                    |
|                 | Quality of Service | √                                                                                                                                                                                                                                                                                                                                    |
|                 | Bridge VLAN        | √                                                                                                                                                                                                                                                                                                                                    |
|                 | VLAN               | 802.1Q VLAN                                                                                                                                                                                                                                                                                                                          |
| Transmission    | Load Balance       | Intelligent Load Balance<br>Application Optimized Routing<br>Link Backup (Timing, Failover)<br>Online Detection                                                                                                                                                                                                                      |
|                 | NAT                | One-to-One NAT<br>Multi-Net NAT<br>Port Forwarding<br>Port Triggering <sup>1</sup><br>NAT-DMZ<br>FTP/H.323/SIP/IPSec/PPTP ALG<br>UPnP<br>Disable NAT                                                                                                                                                                                 |
|                 | Routing            | Static Routing<br>Policy Routing<br>RIP <sup>2</sup><br>OSPF <sup>2</sup>                                                                                                                                                                                                                                                            |
|                 | Session Limit      | IP-based Session Limit                                                                                                                                                                                                                                                                                                               |
|                 | Bandwidth Control  | IP-based Bandwidth Control                                                                                                                                                                                                                                                                                                           |
| VPN             | IPSec VPN          | 100 IPSec VPN Tunnels<br>LAN-to-LAN, Client-to-LAN<br>Main, Aggressive Negotiation Mode<br>DES, 3DES, AES128, AES192, AES256 Encryption Algorithm<br>IPsec Failover<br>IKE v1/v2<br>MD5, SHA1, SHA2-384 and SHA2-512 Authentication Algorithm<br>NAT Traversal (NAT-T)<br>Dead Peer Detection (DPD)<br>Perfect Forward Secrecy (PFS) |
|                 | PPTP VPN           | PPTP VPN Server<br>PPTP VPN Client (10) <sup>3</sup><br>50 Tunnels<br>PPTP with MPPE Encryption                                                                                                                                                                                                                                      |
|                 | L2TP VPN           | L2TP VPN Server<br>L2TP VPN Client (10) <sup>3</sup><br>50 Tunnels<br>L2TP over IPSec                                                                                                                                                                                                                                                |
|                 | GRE                | √ (Only in Standalone Mode)                                                                                                                                                                                                                                                                                                          |
|                 | SD-WAN             | √ (Only in Controller Mode)                                                                                                                                                                                                                                                                                                          |
|                 | WireGuard VPN      | √                                                                                                                                                                                                                                                                                                                                    |
|                 | SSL VPN            | 50 Tunnels                                                                                                                                                                                                                                                                                                                           |
|                 | OpenVPN            | OpenVPN Server<br>OpenVPN Client (5) <sup>3</sup><br>55 OpenVPN Tunnels<br>"Certificate + Account" Mode<br>Full Mode                                                                                                                                                                                                                 |

1. Port Triggering is supported only in Standalone Mode.

2. RIP and OSPF are supported only in Standalone Mode.

3. For PPTP VPN and L2TP VPN, ER7206 can connect with up to 10 VPN servers. For OpenVPN, ER7206 can connect with up to 5 VPN servers.

| Model          |                     | ER7206                                                                                                                                                                                                                                   |
|----------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Security       | Attack Defense      | TCP/UDP/ICMP Flood Defense<br>Block TCP Scan (Stealth FIN/Xmas/Null)<br>Block Ping from WAN                                                                                                                                              |
|                | Filtering           | Web Group Filtering <sup>1</sup><br>URL Categories and URLs Filtering<br>Web Security <sup>1</sup>                                                                                                                                       |
|                | DNS Proxy           | DNSSEC, DoH, DoT, DNS Override                                                                                                                                                                                                           |
|                | ARP Inspection      | Sending GARP Packets<br>ARP Scanning <sup>2</sup><br>IP-MAC Binding<br>ARP Detection                                                                                                                                                     |
|                | Access Control      | Source/Destination IP Based ACL<br>Stateful ACL<br>IPv4/IPv6 ACL<br>National Based ACL<br>FQDN                                                                                                                                           |
|                | DPI                 | Deep Packet Inspection<br>Support 2421 type Applications                                                                                                                                                                                 |
|                | IPS/IDS             | Signature-based IPS/IDS threat detection                                                                                                                                                                                                 |
| Authentication | Web Authentication  | No Authentication<br>Simple Password <sup>3</sup><br>Hotspot (Local User / Voucher <sup>3</sup> / SMS <sup>3</sup> / Radius <sup>3</sup> )<br>External Radius Sever<br>External Portal Sever <sup>3</sup><br>LDAP <sup>4</sup>           |
| Management     | Service             | Dynamic DNS (Dyndns, No-IP, Peanuthull, Comexe, DDNS Customization)                                                                                                                                                                      |
|                | Maintenance         | Web Management Interface<br>Remote Management<br>Export & Import Configuration<br>SNMP v1/v2c/v3<br>Diagnostics (Ping & Traceroute)<br>NTP Synchronize <sup>5</sup><br>Port Mirroring<br>CLI (only in Standalone Mode)<br>Syslog Support |
| Others         | Certification       | CE, FCC, RoHS                                                                                                                                                                                                                            |
|                | Package Contents    | ER7206, Power Adapter, Quick Installation Guide, Rackmount Kit                                                                                                                                                                           |
|                | System Requirements | Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10<br>MAC OS, NetWare, UNIX or Linux                                                                                                                                     |
|                | Environment         | Operating Temperature: 0 °C to 40 °C (32 °F to 104 °F)<br>Storage Temperature: -40 °C to 70 °C (-40 °F to 158 °F)<br>Operating Humidity: 10% to 90% non-condensing<br>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 Sever.
4. LDAP is supported only in Standalone Mode.
5. NTP Synchronize is supported only in Standalone Mode.

# Ordering Information

| Host Gateway |                           |
|--------------|---------------------------|
| Model        | Description               |
| ER7206       | Omada 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](http://www.omadanetworks.com).

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