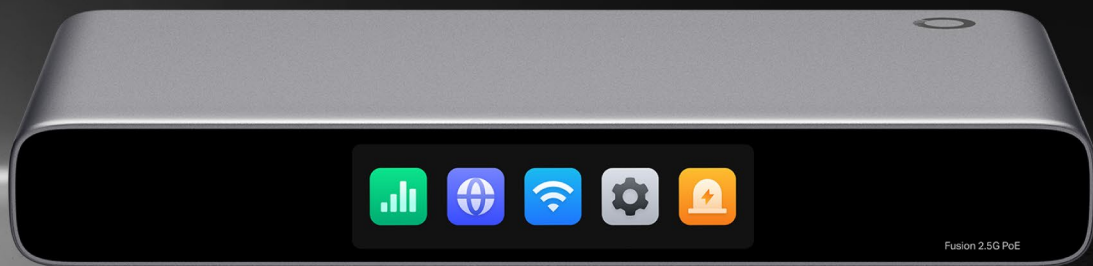


Enterprise Solution

Omada Fusion 2.5G PoE Gateway



Model: Fusion 2.5G PoE

Product Overview

The Omada Fusion 2.5G PoE Gateway integrates a gateway and controller into a single device. Positioned at the center of the Omada networking ecosystem, Fusion 2.5G PoE unifies networking and centralized management with license-free cloud control straight out of the box. Bluetooth setup, PoE connectivity, and touchscreen-based troubleshooting simplify deployment, cut installation time, and reduce on-site visits—helping installers boost profitability and deliver projects more efficiently.

- License-free cloud management for multi-site work
- Simplified setup with app-guided onboarding via Bluetooth and one-tap bulk device adoption
- Enterprise-grade performance: high-performance quad-core CPU, 9× 2.5G RJ45 ports (8× with PoE+ support, 110W total budget), up to 8-WAN load balancing with auto failover, and 2.1 Gbps-Class IDS/IPS throughput*
- Quick troubleshooting via touchscreen for fewer on-site visits
- Secure remote network access in one click with Omada LightLink VPN
- Advanced software capabilities: app-based ACL, one-click auto QoS, full-mesh SD-WAN, and content filtering
- Flexible Mounting Options: Desktop, Wall-Mountable,** Rack-Mountable**

Product Appearance



*Actual throughput with IPS/IDS enabled may vary and is not guaranteed. Performance is subject to traffic conditions, enabled features, and network environment.

**Magnetic-mount plate and rack-mount kit are sold separately.

Feature Descriptions

License-Free Cloud Management

Fusion 2.5G PoE features a built-in controller, enabling full access to all features from day one. No additional licenses required. It supports centralized multi-site management and allows administrators to remotely access and control the network through the Omada Cloud portal via web or the Omada app.

Simplified Setup for Faster Deployment

Easily set up the Fusion Gateway via Bluetooth using the Omada app. Automatically discover and batch adopt all other Omada networking devices at once, significantly reducing setup time. PoE out simplifies cabling, while flexible desktop, wall, and rack mounting ensures flexible installation in a wide range of scenarios.

Enterprise-Grade Performance

Featuring a high-performance quad-core CPU and nine RJ45 ports (eight with PoE+ support, 110W total budget), Fusion 2.5G PoE eliminates LAN bottlenecks and enables stable operation under heavy loads. Up to 8-WAN load balancing with auto failover keeps networks reliable, while built-in IPS/IDS delivers robust threat protection at 2.1 Gbps without compromising performance.

Touchscreen for On-Site Troubleshooting

An integrated 3.69-inch touchscreen gives you instant access to network health scores, speed tests, alerts, and real-time traffic for basic diagnostics and troubleshooting right on the device.

Secure Remote Network Access

Fusion 2.5G PoE supports Omada LightLink VPN for secure remote access. Smart Split Tunneling optimizes traffic routing to maintain performance. It also supports mainstream VPN protocols, including WireGuard, OpenVPN, IPsec, SSL, L2TP, and PPTP, plus Full-Mesh SD-WAN connectivity across up to 20 sites. Take advantage of flexible, scalable inter-site connectivity, even without public IP addresses at each site.

Advanced Software Capabilities

Fusion 2.5G PoE supports application- and category-level access control. QoS enables traffic prioritization through predefined profiles and custom rules, ensuring critical applications receive sufficient bandwidth. It also supports content filtering with flexible, category- and time-based rules for centralized policy enforcement.

Specifications

Overview		
Built-In Omada OS Applications	Network Application	
Managed Omada Devices	Recommended for up to 30 devices	
Client Capacity	Recommended for up to 300 connected clients	
Interface	<ul style="list-style-type: none"> • 1× 2.5G RJ45 WAN port • 8× 2.5G RJ45 LAN/WAN PoE ports • Up to 8 simultaneous WAN ports 	
Mounting	<ul style="list-style-type: none"> • Desktop • Wall-mount (magnetic-mount plate sold separately)** • Rack-mount (rackmount kit sold separately)** 	
Dimensions	8.90 × 5.31 × 1.24 in (226 × 135 × 31.5 mm)	
Hardware		
Standards and Protocols	IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.1q, IEEE 802.1p, IEEE 802.1ab, TCP/IP, DHCP, ICMP, NAT, PPPoE, NTP, HTTP, HTTPS, DNS, IPSec, PPTP, L2TP, OpenVPN, WireGuard VPN, SNMP, LLDP	
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) 2.5GBASE-T: UTP category 5, 5e, 6 cable (Max 100 m)	
CPU	Quad-core ARM Cortex-A73 @ 1.8 GHz	
Memory	2 GB DDR4	
Touchscreen	3.69-inch color LCM touchscreen	
PoE	8 ports PoE+ output, 110 W PoE Budget***	
Button	Reset Button	
Enclosure	Polycarbonate	
LED	Link, PoE	
Fan	Quantity	1
	Noise	Max: 37.8 dBA @ 1 m (100% load, 50 °C ambient)
		Typical: Fanless Mode (100% system load, 80% PoE load, 25°C ambient)
		Min: Fanless Mode (25°C ambient)
Antenna	1× BLE Antenna	
Net Weight	1.60 lb (728 g)	
Power Supply	100-240V~ 50/60Hz 54V/2.43A	
Max Power Consumption	131 W, with power adapter	
Surge Protection	4 kV surge protection	
ESD Protection	±8 kV (Air) ±4 kV (Contact)	
Onboarding	Bluetooth or Ethernet	

**Magnetic-mount plate and rack-mount kit are sold separately.

***PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.

MTBF	473,686 h @ 25 °C
Performance[†]	
Concurrent Sessions	150,000
New Sessions/Second	7,800
Static IP NAT Throughput (Upload/Download)	2,362 Mbps / 2,361 Mbps
DHCP NAT Throughput (Upload/Download)	2,363 Mbps / 2,359 Mbps
PPPoE NAT Throughput (Upload/Download)	2,355 Mbps / 2,357 Mbps
L2TP NAT Throughput (Upload/Download)	1,727 Mbps / 1,235 Mbps
PPTP NAT Throughput (Upload/Download)	1,843 Mbps / 1,399 Mbps
66 Byte Packet Forwarding Rate (Upload/Download)	3,472,452 pps / 3,472,359 pps
1,518 Byte Packet Forwarding Rate (Upload/Download)	202,671 pps / 202,668 pps
Omada LightLink VPN Throughput	527 Mbps
IPSec VPN Throughput	ESP-SHA1-AES256: 1,023 Mbps ESP-SHA256-AES256: 1,073 Mbps ESP-SHA384-AES256: 972 Mbps ESP-SHA512-AES256: 1,087 Mbps
OpenVPN Throughput	223 Mbps
L2TP VPN Throughput	892 Mbps
PPTP VPN Throughput	193 Mbps
SSL VPN Throughput	250 Mbps
WireGuard VPN Throughput	605 Mbps
IPS Throughput (Upload/Download)	2,183 Mbps / 2,152 Mbps
DPI Throughput (Upload/Download)	2,206 Mbps / 2,219 Mbps
Networking	
WAN Connection	Static IP / Dynamic IP / PPPoE / PPTP / L2TP / MAP-E / DS-Lite
Multi-WAN Failover & Load Balancing	√
DHCP	DHCP Server DHCP Options Customization DHCP Address Reservation Multi-IP Interfaces Multi-Net DHCP WAN DHCP Option 60
VLAN	802.1Q VLAN
MAC Clone	√ (Customizable WAN MAC Address)
Bridge VLAN	√

[†] Rated specifications may vary depending on traffic conditions, enabled features, and network environment.

Virtual WAN	WAN Connection Type: Static IP, Dynamic IP, PPPoE Max Virtual WAN Entries: 3
Networking	
Bandwidth Control	√
QoS	√
Routing	Static Routing Policy Routing
NAT	Virtual Server NAT-DMZ FTP/H.323/SIP/IPSec/PPTP ALG UPnP One-to-One NAT Disable NAT
Dynamic DNS	Dyndns, No-IP, Peanuthull, Comexe, TP-Link DDNS, DDNS Customization
IPv6	Static IP / SLAAC / DHCPv6 / PPPoE / 6to4 Tunnel / Pass-Through / Non-Address Mode
Bonjour / mDNS	√
IPTV	IGMP v2/v3 Proxy, Custom Mode, Bridge Mode
Session Limit	IP-Based Session Limit
Security	
IDS/IPS	Signature-Based IPS/IDS Threat Detection
DPI	Deep Packet Inspection (DPI) Application Filter Rules
ACL	Source/Destination IP-Based ACL Application-Based ACL Stateful ACL IPv4/IPv6 ACL Nation-Based ACL FQDN
Content Filtering	URL Category, Ad Block, Allow List, Block List
Safe Search	√
Secure DNS	DNSSEC, DoH, DoT, DNS Redirection
Firewall	Stateful Firewall Attack Defense
ARP Inspection	√
MAC Filtering	√
IP-MAC Binding	√
VPN & SD-WAN	
Site-to-Site VPN	WireGuard VPN / IPsec VPN
VPN Server	WireGuard VPN / OpenVPN / IPsec VPN / SSL VPN / L2TP VPN / PPTP VPN
VPN Client	WireGuard VPN / OpenVPN / L2TP VPN / PPTP VPN
SD-WAN [§]	Full Mesh Mode

[§]SD-WAN can only be configured via the Omada Cloud Portal.

Omada LightLink VPN	<p>Invite by Link</p> <p>Invite by Email</p> <p>Max LightLink Clients: 253</p>
VPN & SD-WAN	
IPSec VPN	<p>Max IPSec VPN Tunnels: 20</p> <p>LAN-to-LAN, Client-to-LAN</p> <p>Main and Aggressive Negotiation Modes</p> <p>DES, 3DES, AES128, AES192, and AES256 Encryption Algorithms</p> <p>IPSec Failover</p> <p>IKE v1/v2</p> <p>MD5, SHA1, SHA256, SHA384, and SHA512 Authentication Algorithms</p> <p>NAT Traversal (NAT-T)</p> <p>Dead Peer Detection (DPD)</p> <p>Perfect Forward Secrecy (PFS)</p>
PPTP VPN	<p>PPTP VPN Server</p> <p>Max PPTP VPN Clients: 10</p> <p>Max PPTP VPN Tunnels: 16</p> <p>PPTP with MPPE Encryption</p>
L2TP VPN	<p>L2TP VPN Server</p> <p>Max L2TP VPN Clients: 10</p> <p>Max L2TP VPN Tunnels: 16</p> <p>L2TP over IPSec</p>
OpenVPN	<p>OpenVPN Server</p> <p>Max OpenVPN Clients: 10</p> <p>Max OpenVPN Tunnels: 110</p> <p>"Certificate + Account" Mode</p> <p>Full Mode</p> <p>Split Mode</p>
SSL VPN	<p>Max SSL VPN Tunnels: 80</p>
Built-in Omada Controller[§]	
Cloud Access	√
Local Management	√
Omada App	√
Multi-Site Management	Via the Omada Cloud Management Platform
Restore & Backup	√
Automatic Device Discovery	√
Network Topology	√
Dashboard	√
Device List / Client List	√
Logs / Alerts / Events	√
Batch Firmware Upgrade	√
Health Monitoring	√
Internet Activity	√
Captive Portal	√
RADIUS / LDAP Authentication	√
802.1X Authentication	√
OUI-Based VLAN	√

[§]Controller and management features may vary depending on connected Omada devices, software versions, and deployment modes.

Diagnostics Tools	Ping Test, Packet Capture, Terminal, Cable Test, Interference Detection, Remote Access, IntelliRecover, Port Mirroring
SNMP	v1/v2c/v3
Management & Maintenance	
Management	Cloud, local, and Omada App management
Maintenance	<ul style="list-style-type: none"> Web Management Interface Remote Management Export & Import Configuration SNMP v1/v2c/v3 Diagnostics (Ping & Traceroute) NTP Synchronization Port Mirroring Syslog Support
Environment & Certifications	
Environment	<ul style="list-style-type: none"> Operating Temperature: 14°F to 104°F (-10 °C to 40 °C) Storage Temperature: -22°F to 158°F (-30 °C to 70 °C) Operating Humidity: 10% to 90% non-condensing Storage Humidity: 5% to 90% non-condensing
Certifications	CE, FCC, RoHS