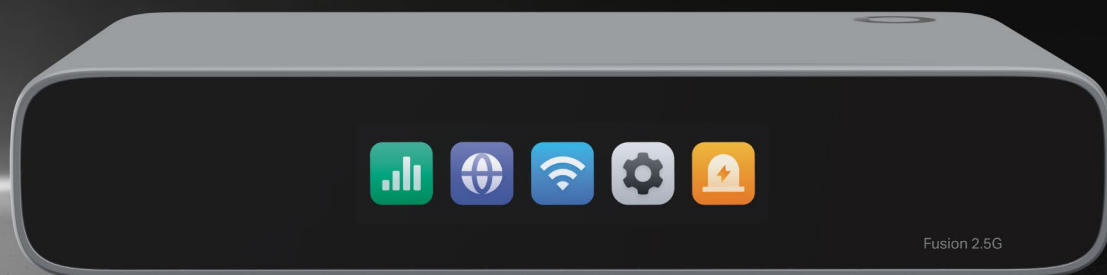


# Enterprise Solution

Omada Fusion 2.5G Gateway



Model: Fusion 2.5G

# Product Overview

Omada Fusion 2.5G Gateway integrates a gateway and controller into a single device. Positioned at the center of the Omada networking ecosystem, Fusion 2.5G unifies networking and centralized management with license-free cloud control straight out of the box. Bluetooth-based setup simplifies deployment, cuts installation time, and reduces on-site visits through touchscreen-based troubleshooting — helping increase profitability while delivering projects more efficiently.

- License-Free Cloud Management for Multi-Site Work
- Simplified Setup with Auto Device Detection via Bluetooth and One-Tap Bulk Device Adoption
- Enterprise-Grade Performance: High-Performance Quad-Core CPU, Five 2.5G Ports, IPS/IDS at 2.1 Gbps\*
- Quick Troubleshooting via Touchscreen for Less On-Site Work
- 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, Content Filtering

# 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.

# Feature Descriptions

## **License-Free Cloud Management**

Fusion 2.5G features a built-in controller, enabling full access to all functions from day one, with no additional license 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 Omada app.

## **Simplified Setup via Bluetooth**

Fusion 2.5G integrates Bluetooth-based provisioning, allowing automatic discovery and batch adoption of Omada networking devices through the Omada app.

## **Enterprise-Grade Performance**

Fusion 2.5G features five 2.5G Ethernet ports and a high-performance quad-core CPU, eliminating LAN bottlenecks and ensuring stable operation under load. It delivers up to 2.1 Gbps IPS/IDS-enabled throughput without impacting overall network performance.

## **Touchscreen for On-Site Troubleshooting**

An integrated 2.51-inch touchscreen provides access to network health scores, speed tests, alerts, and real-time traffic, enabling basic diagnostics and troubleshooting directly on the device.

## **Secure Remote Network Access**

Fusion 2.5G supports Omada LightLink VPN for secure remote access. Smart Split Tunneling routes only designated traffic through the VPN, reducing tunnel load while maintaining network performance.

## **Advanced Software Capabilities**

Fusion 2.5G supports application- and category-level access control. QoS enables traffic prioritization through predefined profiles and custom rules, ensuring critical applications receive appropriate bandwidth. It supports full-mesh SD-WAN connectivity across up to 20 sites — even without public IP addresses at each site — while content filtering provides 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"><li>• 1× 2.5G RJ45 WAN port</li><li>• 4× 2.5G RJ45 LAN/WAN ports</li><li>• Up to 4 simultaneous WAN ports</li></ul>
Mounting	<ul style="list-style-type: none"><li>• Desktop</li><li>• Wall-mount (magnetic-mount plate sold separately)**</li><li>• Rack-mount (rackmount kit sold separately)**</li></ul>
Dimensions	6.3 × 5.12 × 1.24 in (160 × 130 × 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-A53 @ 2.0 GHz
Memory	2 GB DDR4
Storage	64 Mbit NOR flash + 16 GB eMMC
Touchscreen	2.51-inch color LCM touchscreen
Button	Reset Button
Enclosure	Polycarbonate
LED	Ethernet
Fan	Fanless
Antenna	1× BLE Antenna
Net Weight	1.12 lb (510 g)
Power Supply	USB Type C (5V DC / 3A) (Adapter included)
Max Power Consumption	8.18 W, with power adapter
Surge Protection	4 kV surge protection
ESD Protection	±8 kV (Air) ±4 kV (Contact)
Onboarding	Bluetooth or Ethernet
MTBF	613,523 h @ 25 °C

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

<b>Performance<sup>†</sup></b>	
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
<b>Networking</b>	
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	√
Virtual WAN	WAN Connection Type: Static IP, Dynamic IP, PPPoE Max Virtual WAN Entries: 3

<sup>†</sup> Rated specifications may vary depending on traffic conditions, enabled features, and network environment.

<b>Networking</b>	
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
<b>Security</b>	
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	√
<b>VPN &amp; SD-WAN</b>	
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 <sup>§</sup>	Full Mesh Mode
Omada LightLink VPN	Invite by Link Invite by Email Max LightLink Clients: 253

<sup>§</sup>SD-WAN can only be configured via the Omada Cloud Portal.

<b>VPN &amp; SD-WAN</b>	
IPSec VPN	Max IPSec VPN Tunnels: 20 LAN-to-LAN, Client-to-LAN Main and Aggressive Negotiation Modes DES, 3DES, AES128, AES192, and AES256 Encryption Algorithms IPSec Failover IKE v1/v2 MD5, SHA1, SHA256, SHA384, and SHA512 Authentication Algorithms NAT Traversal (NAT-T) Dead Peer Detection (DPD) Perfect Forward Secrecy (PFS)
PPTP VPN	PPTP VPN Server Max PPTP VPN Clients: 10 Max PPTP VPN Tunnels: 16 PPTP with MPPE Encryption
L2TP VPN	L2TP VPN Server Max L2TP VPN Clients: 10 Max L2TP VPN Tunnels: 16 L2TP over IPSec
OpenVPN	OpenVPN Server Max OpenVPN Clients: 10 Max OpenVPN Tunnels: 110 "Certificate + Account" Mode Full Mode Split Mode
SSL VPN	Max SSL VPN Tunnels: 80
<b>Built-in Omada Controller<sup>§</sup></b>	
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	√
Diagnostics Tools	Ping Test, Packet Capture, Terminal, Cable Test, Interference Detection, Remote Access, IntelliRecover, Port Mirroring
SNMP	v1/v2c/v3

<sup>§</sup>Controller and management features may vary depending on connected Omada devices, software versions, and deployment modes.

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