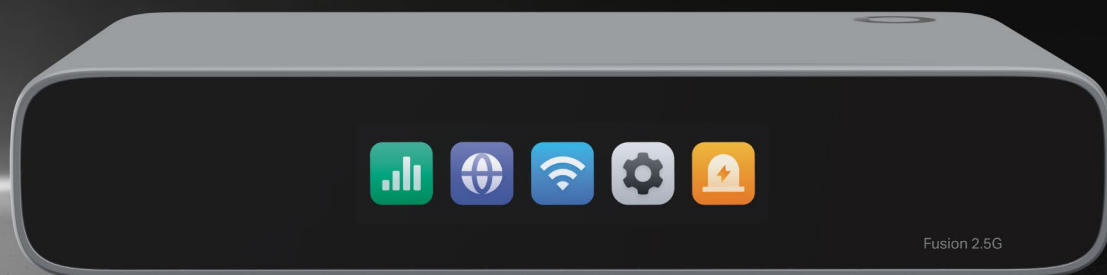


# Enterprise Solution

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: -40°F to 158°F (-40 °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