

# Omada Gateway | Datasheet

## DR3650v-4G

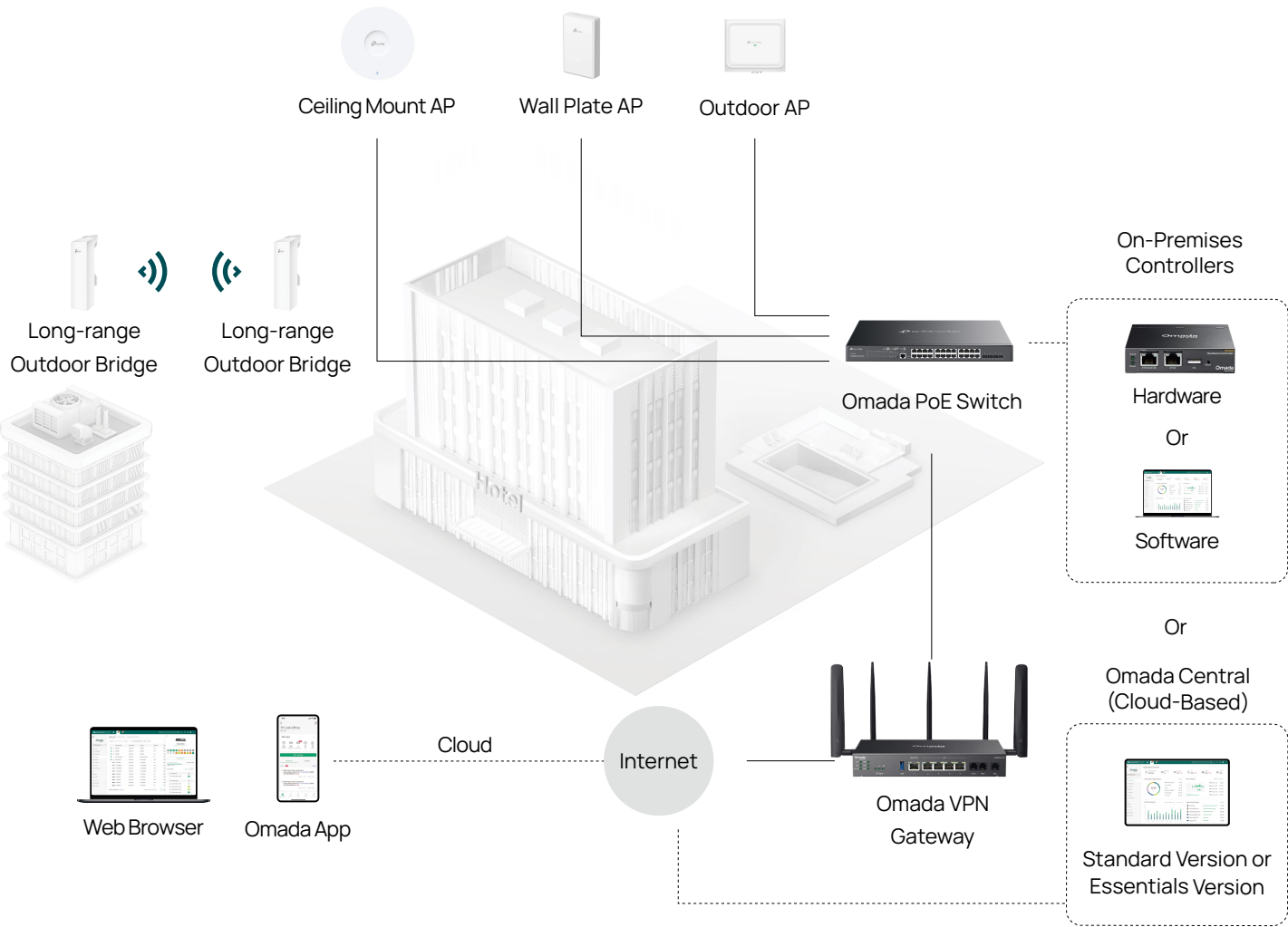
Omada 4G+ Cat6 AX3000 Gigabit Desktop DSL Gateway



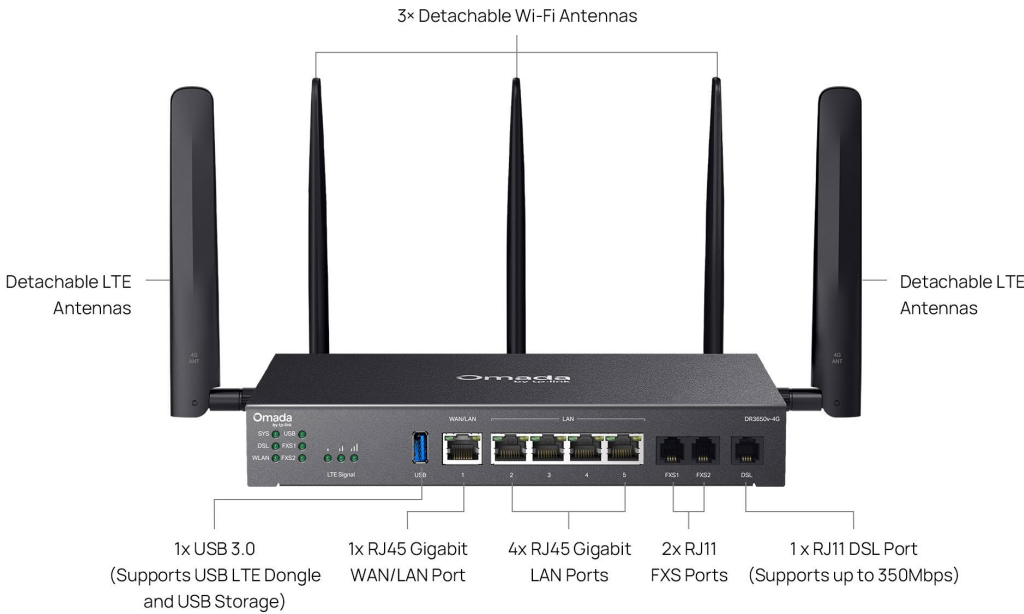
## Highlights

- AX3000 WiFi 6 with 2402 Mbps on 5 GHz and 574 Mbps on 2.4 GHz\*
- 4G+ Cat6 up to 300Mbps
- 3× RJ11 Ports (2× FXS, 1× DSL) & 5× RJ45 Gigabit Ports & 1× USB 3.0 Port
- 2× Nano SIM for 4G/LTE Failover
- VDSL2 35b: Supports 350Mbps DSL Access<sup>†</sup>
- VDSL2/ADSL2+/ADSL2/ADSL Compatibility
- IPSec/PPTP/L2TP/OpenVPN/WireGuard/GRE/SSL VPN
- Load Balancing Across DSL, 4G, and Ethernet WAN for Optimized Connectivity
- Centralized Cloud Management
- Desktop/Wall/Rack Mounting (Purchase Rackmount Kit-D226 Separately)

# Omada Solution



# Product Pictures



# Specifications

| Model    |                         | DR3650v-4G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hardware | Standards and Protocols | IEEE 802.3, IEEE802.3u, IEEE802.3ab, 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, 802.11a/b/g/n/ac/ax                                                                                                                                                                                                                                                                                  |
|          | Interface               | 1 Gigabit WAN/LAN Port<br>4 Gigabit LAN Port<br>1 DSL Port<br>2 FXS Port                                                                                                                                                                                                                                                                                                                                                                                                                   |
|          | USB                     | 1*USB 3.0 (supports USB LTE dongle and USB Storage <sup>1</sup> )                                                                                                                                                                                                                                                                                                                                                                                                                          |
|          | LTE                     | Dual-SIM Nano SIM Slot (4G+ Cat6)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|          | LTE Speed               | Downlink: 300 Mbps, Uplink: 50 Mbps                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|          | DSL Standards           | VDSL2: ITU G.993.2, ITU-T G.997.1<br>VDSL2 Profile, 8a, 8b, 8c, 8d, 12a, 12b, 17a, 35b<br>ADSL2+: ITU-T G.992.5<br>ADSL2: ITU-T G.992.3<br>ADSL: ITU-T G.992.1(G.dmt), ITU-T G.992.2 (G.lite)                                                                                                                                                                                                                                                                                              |
|          | DSL Speed               | Up to 350Mbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|          | Compatibility           | VDSL2/ADSL2+/ADSL2/ADSL                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|          | Wi-Fi Speed             | 2.4 GHz: 574 Mbps<br>5 GHz: 2402 Mbps HE160                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|          | Antennas                | Wi-Fi: Three 5GHz 5dBi & 2.4GHz 3.5dBi dual-band detachable antennas<br>LTE: Two 4.0dBi omnidirectional detachable antennas                                                                                                                                                                                                                                                                                                                                                                |
|          | 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)                                                                                                                                                                                                                                                        |
|          | Network Type            | LTE Band of EU:<br>4G LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32 (2100/1800/850/2600/900/800/700/1450 MHz)<br>4G LTE-TDD: B38/B40/B41 (2600/2300/2500 MHz)<br>3G DC-HSDPA/HSPA+/HSDPA/HSUPA/WCDMA: B1/B3/B5/B8 (2100/1800/850/900 MHz)<br>Carrier Aggregation of EU:<br>B1+B1/B3/B5/B7/B8/B20/B28/B38/B40/B41<br>B3+B3/B5/B7/B8/B20/B28/B38/B40/B41 B5+B5/B7/B38/B40/B41<br>B7+B7/B8/B20/B28/B32<br>B8+B32/B38/B40/B41<br>B20+B32/B38/B40<br>B28+B32/B38/B40/B41<br>B38+B38<br>B40+B40<br>B41+B41 |
|          | Button                  | Reset button                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|          | Power Supply            | 12VDC / 3.3A Power Adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

1. For compatibility list, visit <https://www.omadanetworks.com/omada-router/compatibility/>.

| Model                    |                                                       | DR3650v-4G                                                                                                                                                                                                        |
|--------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hardware                 | Flash                                                 | 256MB NAND                                                                                                                                                                                                        |
|                          | DRAM                                                  | 512MB DDR4                                                                                                                                                                                                        |
|                          | LED                                                   | SYS, DSL, WLAN, USB, FXS1, FXS2, LTE Signal<br>WAN/LAN (1000M Link/Act, 100/10M Link/Act), LAN (1000M Link/Act, 100/10M Link/Act)                                                                                 |
|                          | Max Power Consumption                                 | Power adapter not included: 28.482 W (Full load + USB)<br>Power adapter included: 31.42 W (Full load + USB )                                                                                                      |
|                          | Surge Protection                                      | DSL Port: 6 kV surge protection; Others Ports: 4 kV surge protection                                                                                                                                              |
|                          | Mounting                                              | Desktop/ Wall/Rack-mounting                                                                                                                                                                                       |
|                          | Dimensions ( W x D x H )                              | 8.9 × 5.2 × 1.4 in (226 × 131 × 35 mm) (Antenna dimensions not included)                                                                                                                                          |
|                          | Net Weight                                            | 1.11 Kg                                                                                                                                                                                                           |
|                          | MTBF                                                  | 612053.103632@25°C ; 430515.503016@40°C                                                                                                                                                                           |
| SDN Support              | Hardware Controller                                   | Automatic Device Discovery<br>Intelligent Network Monitoring<br>Abnormal Event Warnings<br>Unified Configuration<br>Reboot Schedule<br>Captive Portal Configuration<br>ZTP (Zero-Touch Provisioning) <sup>1</sup> |
|                          | Software Controller                                   |                                                                                                                                                                                                                   |
|                          | Omada App                                             |                                                                                                                                                                                                                   |
| Performance <sup>2</sup> | Concurrent Session                                    | 150,000                                                                                                                                                                                                           |
|                          | New Sessions /Second                                  | 3,800                                                                                                                                                                                                             |
|                          | DPI Throughput                                        | TCP: 881 Mbps; UDP: 813 Mbps                                                                                                                                                                                      |
|                          | Static IP NAT Throughput (Upload / Download)          | 937.2 Mbps/936.1 Mbps                                                                                                                                                                                             |
|                          | DHCP NAT Throughput (Upload / Download)               | 945.8 Mbps /940.6 Mbps                                                                                                                                                                                            |
|                          | PPPoE NAT Throughput (Upload / Download)              | 942.9 Mbps/942.9 Mbps                                                                                                                                                                                             |
|                          | L2TP NAT Throughput (Upload / Download)               | 837.4 Mbps /881.5 Mbps                                                                                                                                                                                            |
|                          | PPTP NAT Throughput (Upload / Download)               | 803.0 Mbps/910.5 Mbps                                                                                                                                                                                             |
|                          | 66 Byte Packet forwarding rate (Upload / Download)    | 1,453,489 pps / 1,453,488 pps                                                                                                                                                                                     |
|                          | 1,518 Byte Packet forwarding rate (Upload / Download) | 81274 pps/ 91275 pps                                                                                                                                                                                              |
|                          | IPSec VPN Throughput                                  | ESP-SHA1-AES256: 569.9 Mbps<br>ESP-SHA256-AES256: 543.3 Mbps<br>ESP-SHA384-AES256: 549.0 Mbps<br>ESP-SHA512-AES256: 539.3 Mbps                                                                                    |
|                          | GRE                                                   | Unencrypted: 967 Mbp; Encrypted: 616 Mbps                                                                                                                                                                         |
|                          | WireGuard VPN                                         | 311.6Mbps                                                                                                                                                                                                         |
|                          | SSL VPN                                               | 126.7Mbps                                                                                                                                                                                                         |
|                          | OpenVPN                                               | 129.3Mbps                                                                                                                                                                                                         |
|                          | L2TP VPN Throughput                                   | Unencrypted: 909.4 Mbps; Encrypted: 494.9 Mbps                                                                                                                                                                    |
|                          | PPTP VPN Throughput                                   | Unencrypted: 897.5 Mbps; Encrypted: 190.8 Mbps                                                                                                                                                                    |

1. Zero-Touch Provisioning is supported only when using Omada Cloud-Based Controller.

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

| Model             |                                       | DR3650v-4G                                                                                                                                                                  |
|-------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Address                                                                                                                                                          |
|                   | IPTV                                  | IGMP v2/v3 Proxy, Custom Mode, Bridge Mode                                                                                                                                  |
|                   | SMS                                   | Receive / Send SMS                                                                                                                                                          |
|                   | 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                               | √                                                                                                                                                                           |
| VoIP              | Protocols                             | RTP/RTCP, SIP                                                                                                                                                               |
|                   | SIP Registrars                        | 12                                                                                                                                                                          |
|                   | Telephone Functions                   | Telephony Book, DND & Call Blocking, Call Waiting, Call Forwarding, Call hold, Call return, Emergency Number, Call log, Voice mail                                          |
|                   | Telephone Operation Codes             | √                                                                                                                                                                           |
|                   | Voice Codec                           | G.711 A/u law, G.726, G.729 A/B, G.722                                                                                                                                      |
| Wireless Function | Wireless Encryption                   | WPA/WPA2/WPA3 Personal, WPA/WPA2/WPA3 Enterprise                                                                                                                            |
|                   | Multiple SSIDs                        | 16 in total (8 per radio)                                                                                                                                                   |
|                   | Enable/Disable Wireless Radio         | √                                                                                                                                                                           |
|                   | Enable/Disable SSID Broadcast         | √                                                                                                                                                                           |
|                   | Guest Network                         | √                                                                                                                                                                           |
|                   | Automatic Channel Selection Algorithm | √                                                                                                                                                                           |
|                   | Transmit Power Control                | Adjust transmit Power on dBm                                                                                                                                                |
|                   | Seamless Roaming                      | √                                                                                                                                                                           |
|                   | Mesh                                  | √ (with EAP that supports Mesh)                                                                                                                                             |
|                   | OFDMA                                 | √                                                                                                                                                                           |
|                   | Beamforming                           | √                                                                                                                                                                           |
|                   | MU-MIMO                               | √                                                                                                                                                                           |
|                   | Rate Limit                            | Based on SSID/Client                                                                                                                                                        |
|                   | Load Balance                          | √                                                                                                                                                                           |
|                   | Airtime Fairness                      | √                                                                                                                                                                           |

| Model             |                    | DR3650v-4G                                                                                                                                                                                                                                                                                                                                |
|-------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wireless Function | Band Steering      | √                                                                                                                                                                                                                                                                                                                                         |
|                   | RADIUS Accounting  | √                                                                                                                                                                                                                                                                                                                                         |
|                   | MAC Authentication | √                                                                                                                                                                                                                                                                                                                                         |
|                   | Reboot Schedule    | √                                                                                                                                                                                                                                                                                                                                         |
|                   | Wireless Schedule  | √                                                                                                                                                                                                                                                                                                                                         |
|                   | Support Data Rates | 802.11ax: 8 Mbps to 2402 Mbps (MCS0-MCS11, NSS = 1 to 2 HE20/40/80/160)<br>802.11ac: 6.5 Mbps to 2166.7 Mbps (MCS0-MCS11, NSS = 1 to 2 VHT20/40/80/160)<br>802.11n: 6.5 Mbps to 300 Mbps (MCS0-MCS15, HT20/40)<br>802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>802.11b: 1, 2, 5.5, 11 Mbps<br>802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps |
| 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>Virtual Server<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                                                                                                                                                                                                                                                     |

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, DR3650v-4G can connect with up to 10 VPN servers.

| Model          |                    | DR3650v-4G                                                                                                                                                                                                                                                                                          |
|----------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VPN            | 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>5</sup><br>55 OpenVPN Tunnels<br>"Certificate + Account" Mode<br>Full Mode                                                                                                                                                                                |
| 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                                                                                                                                                                                                      |
| Authentication | DPI                | Deep Packet Inspection<br>Support 2421 type Applications                                                                                                                                                                                                                                            |
|                | 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 Server<br>External Portal Server <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>4</sup><br>Port Mirroring<br>CLI (only in Standalone Mode)<br>Syslog Support<br>TR-069 (data models of TR-098 and TR-181 are supported) |

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 Server.
4. LDAP and NTP Synchronize are supported only in Standalone Mode.
5. For OpenVPN, DR3650v-4G can connect with up to 5 VPN servers.

| Model  |                     | DR3650v-4G                                                                                                                                                                                                       |
|--------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Others | Certification       | CE                                                                                                                                                                                                               |
|        | Package Contents    | DR3650v-4G, Power Adapter, Ethernet Cable, Phone Cable, Rubber Feet, SIM Card Eject Pin, Quick Installation Guide                                                                                                |
|        | System Requirements | Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7/8/8.1/10/11<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 |

## Ordering Information

| Host Gateway |                                                   |
|--------------|---------------------------------------------------|
| Model        | Description                                       |
| DR3650v-4G   | Omada 4G+ Cat6 AX3000 Gigabit Desktop DSL Gateway |

\*Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and coverage are not guaranteed and will vary.

†Maximum wired signal rates are the physical rates. Actual data throughput is not guaranteed and will vary as a result of network conditions, client limitations, and environmental factors.

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).

Specifications are subject to change without notice. All brands and product names are trademarks or registered trademarks of their respective holders. © 2025 TP-Link