

ZW500 V2-M Product Specification

2.5G Smart Gateway

Version 1.0

1. Product Overview

The ZW500 V2-M is a smart gateway that integrates high-speed connectivity, intelligent AP management and control, behavior management, SD-WAN, VPN technology and advanced routing in a single device. With dual 2.5G plus four full-gigabit network interfaces, it delivers whole-device NAT forwarding speeds of up to 5 Gbps, centrally manages up to 128 wireless APs simultaneously and supports 500 concurrent users online. Combined with Layer-7 intelligent traffic control, behavior recognition and behavior-management policies, it controls user behavior and keeps the network fast and unobstructed—“do more when few are online, work well when many are online.” Strong security-protection features safeguard user data. It is the ideal choice for medium-to-large network scenarios such as hotels, supermarkets, department stores, offices, KTVs and restaurants.

2. Product Pictures





3. Product Features

1. Designed on carrier-grade standard hardware. Electromagnetic-interference resistance complies with YD/T 968-2010 “Electromagnetic Compatibility Requirements and Measurement Methods for Telecommunication Terminal Equipment.” Over-voltage / over-current protection meets YD/T 993-2006 “Lightning Protection Technical Requirements and Test Methods for Telecommunication Terminal Equipment” for simulated lightning surge, power-line induction and power-line contact, providing 6 kV common-mode and 1.5 kV differential-mode protection. Surge-withstand capability meets YD/T 1082-2011 “Over-voltage / Over-current Protection and Basic Environmental Adaptability Technical Requirements and Test Methods for Access-Network Equipment.” An enhanced heat-sink, metal enclosure and optimized airflow design prevent heat-related shutdowns during hot weather, ensuring real-time, long-term, stable and high-performance data transmission for a better user experience.
2. Graphical, digitized whole-network overview together with a health index and network-detection functions let you easily see device working status and identify and resolve problems in time.
3. Whole-device NAT forwarding speed up to 5 Gbps. Supports line backup, line offloading and policy routing, with intelligent load balancing based on IP address / session count / carrier / bandwidth / WAN status / time / small-packet priority, plus Layer-7 application management, restriction and rate limiting for efficient, stable and smooth Internet access.
4. Built-in powerful behavior management: block Thunder (P2P), block games, filter web pages and control QQ chatting to guide reasonable employee Internet use. Comprehensive, professional Internet-behavior management with IP grouping and time grouping establishes more flexible, user-friendly management rules, helping you use and manage the network well and improve work efficiency.
5. Supports IPv4/IPv6 dual-stack protocols, together with port aggregation, VPN, dynamic DNS, port mapping and DMZ to meet various complex network scenarios.
6. Supports PPPoE, WEB authentication and RADIUS remote authentication to effectively control connecting users, prevent unauthorized network access and meet local billing/operation

requirements.

7. Built-in AC (access-controller) function for batch management of various wireless AP types, with batch template-based wireless configuration, automatic signal optimization, 802.11k/v/r smart roaming, weak-signal / low-rate user kick-off, wireless blacklist/whitelist and DHCP protection to keep wireless users secure for high-speed mobile Internet access.

8. Built-in smart cloud-management service for remote management via a WEB cloud platform and WeChat mini-program: real-time remote viewing, configuration, upgrade and maintenance to reduce operating costs.

9. SD-WAN one-click remote networking: interconnect multiple sites quickly over the Internet and manage them centrally—no specialist knowledge, leased lines or complex deployment required—enabling LAN data sharing and solving communication and management issues between headquarters and branches.

10. Continuous product updates and function / performance optimization to handle diverse network environments and improve the user experience.

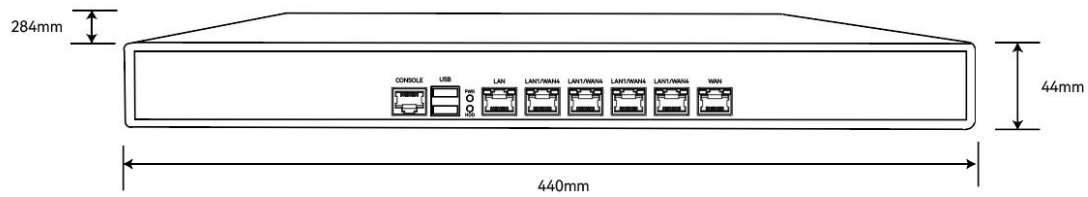
4. Technical Specifications

Hardware Specifications	
Main Chipset	MT7986A + MT7531AE + RTL8221B × 2
CPU	Quad-core ARM® Cortex- A53 MPCore™ @ 2.0 GHz
Memory	DDR4 1 GB
Flash	SPI- NAND 128 MB
Interfaces	1 × 10/100/1000/2500 Mbps auto- negotiating WAN port 4 × 10/100/1000 Mbps auto- negotiating LAN/WAN convertible ports 1 × 10/100/1000/2500 Mbps auto- negotiating LAN port 1 × USB 3.0, AC power connector
Button	Power switch
Indicators	PWR (power) indicator, SYS (system) indicator, port status indicators
Power Supply	AC 100–240 V ~ 50/60 Hz
Operating / Storage Temperature	-20°C to 50°C / -40°C to 70°C
Operating / Storage Humidity	10%–90% (non- condensing) / 5%–90% (non- condensing)
Dimensions	N/A
Weight	N/A

Software Functions

Software Functions	
Operating Mode	Main router / Bypass mode
Concurrent Users	500 users
Managed APs	128 units
Management Methods	WEB-based remote management / Cloud platform management / Mini-program management
Network Overview	Current device, health index, online-user information, whole-network status (Internet, main-device interface traffic, APs, online users), DPI protocols, real-time traffic, historical traffic, historical users
Host Monitoring	Online users, WEB users, PPPoE users, DHCP users
Interface Management	WAN settings (WAN settings, WAN expansion, one-line multi-dial, WAN grouping); LAN settings (LAN settings, DNS proxy); policy routing (policy routing, load balancing, address ranges, line status, logs); IPv6 settings (IPv6 LAN settings, IPv6 WAN settings); port aggregation; interface settings; 4G Internet service; bypass mode
Routing Management	System status (system overview, network status, login records, system logs); flow control (priority settings, bandwidth limiting, bandwidth guarantee, control exceptions); security management (ARP list, access control, ARP defense, MAC filtering, connection-count limiting, DDoS defense, Ping WAN port, connection-count settings); behavior management (time-group management, IP-address-group management, behavior recognition, domain management, QQ filtering); VPN management (IPSec settings, L2TP IPSec, PPTP); advanced management (port mapping, UPnP settings, NAT translation, route settings, DNS policy, dynamic DNS, port mirroring, NAT fast forwarding, Wake-on-LAN); USB storage; fault diagnosis (network health index, network tools)
Authentication Management	User management; authentication settings (basic settings, no-authentication, page management); PPPoE server; PPPoE rate-limit groups; RADIUS settings
Wireless Management	AP list, wireless users, smart roaming, group management, template management (2.4G template, 5.8G template), wireless settings (2.4G wireless settings, 5.8G wireless settings), user management (Internet-access blacklist/whitelist, user-access logs), device management, DHCP defense, system logs
Switch Management	Switch management
Smart Cloud Management	Smart cloud management
System Management	Access settings; router name; configuration management (backup & import, restore factory defaults); device restart (device restart, scheduled restart); system upgrade (local upgrade, application signature-database update); system time

5. Product Dimensions (mm)



Dimensions shown in the diagram: 440 mm (W) × 284 mm (D) × 44 mm (H).

6. Packaging Information

ZW500 V2-M × 1, AC power cord, L-shaped metal bracket × 1, bracket screws × 6, network cable × 1, anti-slip pads × 4, user manual (including warranty card).