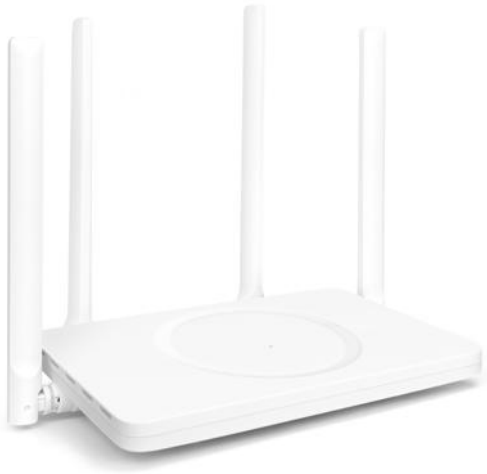
WR1500 SPEC SHEET V1.0

802.11AX WiFi6 1500M Wireless Router

1.Product Introduction

The WR1500 is a high-performance enterprise-level WiFi 6 router product that supports 802.11ax technology. It operates in the 2.4G & 5.8G wireless frequency bands and meets the demand for 32 people to access the internet wirelessly at high speed simultaneously. With all gigabit network interfaces, it can support a maximum wireless access speed of 300Mbps in the 2.4G 802.11n mode and a maximum of 1200Mbps in the 5.8G 802.11ax mode. The total wireless rate of the device is up to 1500Mbps. It features high performance, high gain, high receiving sensitivity, high bandwidth, low latency, high density, and a large number of access points. Not only can it cover a larger area, but it can also provide higher wireless transmission performance and stability. With a fashionable appearance design, simple and convenient installation, it supports MESH self-organizing network and relay functions, which can quickly expand the wireless coverage area. It is the best choice for wireless access in high-density and high-bandwidth environments such as families, stores, restaurants, and enterprises.

2. Product Image



3. Product Features

1)Based on the standard hardware design of operators, the anti-electromagnetic interference ability complies with the requirements of YD/T 968-2010 "Electromagnetic Compatibility Requirements and Measurement Methods for Telecommunication Terminal Equipment"; The overvoltage and overcurrent protection meets the requirements of YD/T 993-2006 "Lightning Protection Technical Requirements and Test Methods for Telecommunication Terminal Equipment" for indicators such as simulated lightning impulse, power line induction, and power line contact, and has a protection capability of common mode 6KV and differential mode 1.5KV; The anti-surge damage ability meets YD/T 1082-2011 "Technical Requirements and Test Methods for Overvoltage and Overcurrent Protection and Basic Environmental Adaptability of Access Network Equipment". The enhanced heat sink + optimized air duct will no longer cause downtime due to heat problems in hot summers, fully ensuring that users' network data can be transmitted in real-time, long-term, stably and efficiently, and improving the user experience.

2) 2.4G supports the 802.11n protocol and can provide a 300Mbps wireless access speed; 5.8G supports the 802.11ax protocol and can provide a 1200Mbps wireless access speed. The entire device can provide a 1500Mbps wireless access speed.

3) External professional MIMO RF chips are used to ensure wider signal coverage, higher rate and longer transmission distance.

4)Supports HNAT hardware fast forwarding, and the wired bidirectional forwarding performance of the WAN port can reach 2Gbps.

5) It is endowed with MU-MIMO, OFDMA, BSS Color, high rate and better coverage, and low latency features, providing better wireless network performance and user experience in high-density network environments and scenarios with a large number of connected devices.

6) Supports rich network functions such as routing mode, bridge mode, WISP, IPV4/IPV6, MESH, port mapping/isolation zone, etc., easily coping with various complex network scenarios.

7) Supports security protections such as WPS, WPA/WPA2/WPA3, SSID hiding, port filtering, MAC filtering, IP filtering, URL filtering, etc., always ensuring the security of user data.

8) Built-in quick setup wizard, no professional knowledge is required, and it is easy to use the router WiFi to access the internet.

9)Continuous product updates, function and performance optimizations ensure that it can cope with various network environments and improve the user experience.

4. Technical Specifications

Hardware configuration	
Main Chip	CPU RTL8367RB+2.4G RTL8197H(IPA)+ 5.8GRTL8832BR(IPA) High-performance enterprise-level chip
Memory	128MB
Flash	128MB
Wireless Technology	-2.4G WiFi 22 802.11b/g/n (Theoretical maximum rate can reach 300Mbps) -5.8G WiFi 22 802.11a/n/ac/ax (Theoretical maximum rate can reach 1200Mbps) -1024QAM ultra-high-speed access rate, OFDMA ultra-high-density user access -OFDMA / MU-MIMO uplink/downlink -BSS Color spatial multiplexing Space-time block code (STBC), low-density parity check (LDPC), uplink and downlink beamforming (Beamformer TX/RX) Energy saving: single-antenna standby technology, dynamic MIMO power-saving technology, enhanced automatic power-saving transmission technology, packet-by-packet power control technology, etc.
Device Interfaces	- WAN*1/LAN*3 10/100/1000Mbps adaptive - DC power interface compatible with power plug with outer diameter of 5.5mm, inner diameter of 2.1mm, and length above 9.5mm
Buttons	- Reset button for factory reset (long press for 6 seconds to reset) - WPS button for easy password-free connection
Indicators	Status indicators
Antennas	- External 2.4G 5dBi rubber rod antennas * 2 - External 5G 5dBi rubber rod antennas * 2
Power	DC 12V/1A, positive outer and negative inner
Operating/Storage Temperature	-10℃～45℃/-20℃～70℃
Operating/Storage Humidity	10% to 90% (non-condensing) / 5% to 90% (non-condensing)
Dimensions	N/A

Weight	0.55KG/PCS

WiFi Spec	
Frequency Range	2.4G：2.4~2.4835GHz 5G: UNII-1: 5.15~5.35GHz UNII-2: 5.47~5.725GHz UNII-3: 5.725~5.825GHz
Channel	2.4G: 1、2、3、4、5、6、7、8、9、10、11、12、13 5G: 36、40、44、48、149、153、157、161、165
Modulation	802.11b: DSSS (DQPSK, DBPSK, CCK) 802.11g: OFDM (BPSK, QPSK,16-QAM) 802.11n: OFDM (BPSK, QPSK,16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK,64-QAM, 256-QAM) 802.11ax: OFDMA (BPSK,256-QAM, 1024-QAM)
Transmission Rate	11b up 11Mbps，11g up 54Mbps，11n up 300Mbps 11ac up 864.7Mbps，11ax 5G up 120Mbps
Receiver Sensitivity	2.4G: 11b：＜-119±1.5dBm @1Mbps， ＜-90±1.5dBm dBm@11Mbps 11g：＜-96±1.5dBm@6Mbps， ＜-78±1.5dBm @54Mbps 11n 20MHz：＜-96±1.5dBm@MCS0， ＜-76±1.5dBm @MCS7 11n 40MHz：＜-92±1.5dBm @MCS0， ＜-74±1.5dBm @MCS7 11ax 20MHz: ＜-96±1.5dBm @MCS0， ＜-66±1.5dBm @MCS11 11ax 40MHz: ＜-94±1.5dBm @MCS0， ＜-63±1.5dBm @MCS11 5G: 11a：＜-94±1.5dBm @6Mbps， ＜-78±1.5dBm @54Mbps 11n 20MHz：＜-94±1.5dBm@MCS0， ＜-74±1.5dBm @MCS7 11n 40MHz：＜-90±1.5dBm @MCS0， ＜-72±1.5dBm @MCS7 11ac 20MHz：＜-94±1.5dBm @MCS0， ＜-72±1.5dBm @MCS8 11ac 40MHz：＜-90±1.5dBm @MCS0， ＜-66±1.5dBm @MCS9 11ac 80MHz：＜-88±1.5dBm @MCS0， ＜-62±1.5dBm @MCS9 11ax 20MHz：＜-94±1.5dBm @MCS0，

	＜-64±1.5dBm @MCS11 11ax 40MHz：＜-92±1.5dBm @MCS0， ＜-60±1.5dBm @MCS11 11ax 80MHz：＜-88±1.5dBm @MCS0， ＜-58±1.5dBm @MCS11
Transmit Power	11b: 20dBm±1.5dBm@11Mbps 11g: 20dBm±1.5dBm@54Mbps 11n(20/40MHz): 20dBm±1.5dBm@MCS7 11ac(40/80MHz): 20dBm±1.5dBm@MCS9 11ax(20/40/80MHz) : 20dBm±1.5dBm@MCS11

Software Functions	
Working Mode	Routing mode/Bridge mode/Wisp mode
Number of connected users	32 Peoples
Management mode	Chinese WEB remote management / Cloud platform WEB remote management
Network mode	Setup Wizard: Mode setting, Select your time zone, Set LAN interface, Set WAN interface, Set wireless frequency, Wireless LAN setting, Wireless security setting Mode setting: Gateway, Bridging, WISP
Network	Ethernet：Network (Routing\Bridge) \ Ethernet Setting (Dynamic IP\Static IP\PPPoE)\ Ethernet Status LAN Setup: Lan: IP Address\Subnet Mask\DHCP setting\DNS\ Lease time Guest Network Address Pool
Wireless 5G setting	Basic Settings: Wireless network interface switch, Frequency band, Mode, Virtual AP, Network type, SSID, Channel bandwidth, Control sideband, Channel number, Broadcast SSID, WMM, Rate, Transmission rate limit, Reception rate limit, Connected clients, Relay mode switch, Extended SSID Advanced Settings: Beacon interval, DTIM Period, Preamble, Short guard interval, Wireless LAN isolation, Multicast to unicast, RF output power, 802.11k, 802.11v BSS transmission, Band Steering Security: Wireless security parameter settings based on SSID, Encryption method (Open, WEP, WPA2(AES), WPA-Mixed, WPA3, WPA2-WPA3-MIXED), WPA2 password group (TKIP/AES), Management frame protection, SHA256, Pre-shared key format, Pre-shared key Access Control: Allowed access list and not allowed access list based on MAC address Site Scan WPS: WPS function switch, WPS status, Own PIN, Button configuration,

	Stop WSC (Wi-Fi Simple Configuration), Client PIN code, Current key information Schedule: Wireless timing on/off period based on the day of the week
Wireless 2.4G setting	Basic Settings: Wireless network interface switch, Frequency band, Mode, Virtual AP, Network type, SSID, Channel bandwidth, Control sideband, Channel number, Broadcast SSID, WMM, Rate, Transmission rate limit, Reception rate limit, Connected clients, Relay mode switch, Extended SSID Advanced Settings: Beacon interval, DTIM Period, Preamble, Short guard interval, Wireless LAN isolation, Multicast to unicast, RF output power, 802.11k, 802.11v BSS transmission, Band Steering Security: Wireless security parameter settings based on SSID, Encryption method (Open, WEP, WPA2(AES), WPA-Mixed, WPA3, WPA2-WPA3-MIXED), WPA2 password group (TKIP/AES), Management frame protection, SHA256, Pre-shared key format, Pre-shared key Access Control: Allowed access list and not allowed access list based on MAC address Site Scan WPS: WPS function switch, WPS status, Own PIN, Button configuration, Stop WSC (Wi-Fi Simple Configuration), Client PIN code, Current key information Schedule: Wireless timing on/off period based on the day of the week
EASYMESH	Basic Settings: Device name, Role (Controller, Satellite, Disabled), Backhaul BSS, WPS trigger Topology: EasyMesh network topology VLAN: Visitor network switch (Addition and deletion of main network/default visitor network SSID) Channel Scan: Based on the frequency band scan, display the channel scan results and the recommended best channel
TCP/IP Settings	LAN Settings: IP address, Subnet mask, DHCP (Disabled, Server, Client), DHCP client range, Active DHCP client list, DHCP lease time, Static DHCP, Domain name, 802.1d Spanning Tree, Clone MAC address WAN Settings: WAN access type (DHCP client, Static IP, PPPoE, PPTP, L2TP), Host name, MTU length, DNS, Clone MAC address, uPNP switch, IGMP proxy switch, WAN port Ping switch, WAN port Web server switch and port settings, VPN connection enables IPsec pass switch, VPN connection enables PPTP pass switch, VPN connection enables L2TP pass switch
IPV6	WAN Settings: IPv6 switch, WAN (Source type setting (Automatic, Static), WAN link type (Ethernet, PPPoE)), DHCP (Stateless address autoconfiguration / Stateful address autoconfiguration, DUID, PD switch, Fast allocation switch), DNS settings (Automatic DNS acquisition / Manual DNS setting, DSLITE switch), MAC address cloning, MLD proxy switch

	LAN Settings: Automatic / Manual configuration of IPv6 LAN, DHCPv6 server configuration (switch, DNS address, interface name, address pool, start address, end address) Route Advertisement Settings: Switch, Router advertisement name, Maximum router advertisement interval, Minimum router advertisement interval, Minimum router advertisement delay, Advertisement management flag switch, Other advertisement configuration flag switch, Advertisement link MTU, Advertisement reachable time, Advertisement transmission time, Current advertisement hop limit, Default advertisement lifetime, Default advertisement preference (High, Medium, Low), Source LL address switch, Unicast only support switch, Prefix 1/2 (Switch, Prefix, Advertisement link flag switch, Automatic advertisement flag, Advertisement valid lifetime, Advertisement preferred lifetime, Advertisement route address switch, if6to4 interface)
Firewall	Port Filtering: Switch, IPv4 and IPv6 selection, Port range, Protocol (All, TCP, UDP), Comment, Filter list IP Address Filtering: Switch, IPv4 and IPv6 selection, Source IPv4 address, Source IPv6 address, Protocol (All, TCP, UDP), Comment, Filter list MAC Address Filtering: Switch, MAC address, Comment, Filter table Port Forwarding: Switch, Local IP address, Local port range, Protocol (All, TCP, UDP), Remote IP address, Remote port range, Comment, Forwarding table URL Filtering: Switch, Forbidden URL address / Enabled URL address, URL address, Filter table Demilitarized Zone (DMZ): DMZ switch, DMZ host address 802.1Q Virtual Local Area Network (VLAN): Switch, VLAN ID, Forwarding rule (Network Address Translation, Bridging mode), Hardware Network Address Translation switch, Port / Member / Tagged list, Current Wireless Local Area Network table (VLAN ID, Priority, Forwarding rule, Tagged port, Untagged port, Selection) Routing Settings: Switch, IP address, Subnet mask, Gateway, Hop count, Interface, Static routing table Quality of Service (QoS): QoS switch, Automatic upstream speed switch, Manual upstream speed, Automatic downstream speed, Manual downstream speed, QoS rule setting (Name, QoS type (IPv4, MAC), Protocol (All, TCP, UDP), Local IP address range, Local port range, Remote IP address range, Remote port range, MAC address), Mode (Mode (Protect minimum bandwidth, Limit maximum bandwidth), Upstream bandwidth, Downstream bandwidth), QoS rule table (Name, IP version, Protocol, Local IP address, Local port, Remote IP address, Remote port, Local IPv6 address, MAC address, Physical port, DSCP, Mode, Upstream bandwidth, Downstream bandwidth, Remarks DSCP, Selection)

Management	Status: System (Update time, Firmware version, Build time), Wireless 1 configuration (Mode, Frequency band, SSID, Channel number, Encryption method, BSSID, Connected clients), Wireless 2 configuration (Mode, Frequency band, SSID, Channel number, Encryption method, BSSID, Connected clients), TCP configuration (Obtained IP protocol, IP address, Subnet mask, Default gateway, DHCP server, MAC address), WAN configuration (Obtained IP protocol, IP address, Subnet mask, Default gateway, MAC address), IPv6 configuration of LAN (Global address, Link-local address, Default gateway, MAC address), IPv6 configuration of WAN (Link type, Connection type, Global address, Link-local address, Default gateway, Domain name server, MAC address) Wireless Clients: List of active wireless clients on 2.4G/5G (MAC address, Mode, Transmitted packets, Received packets, Transmission rate, Power saving, Expiration time) DHCP Clients: List of active DHCP clients (IP address, MAC address, Lease time) Statistics: Wireless 1/Wireless 2/Ethernet LAN1/Ethernet LAN2/Ethernet LAN3/Ethernet WAN (Number of sent packets/Number of received packets) Time zone setting: Current time, Copy computer time, Time zone selection, Automatic daylight saving time adjustment switch, Enable NTP client update switch (NTP server selection, Manual setting) Denial of Service Attack: Switch, System-wide flood switch SYN/FIN/UDP/ICMP packets per second, Per-port IP flood switch SYN/FIN/UDP/ICMP packets per second, TCP/UDP port scan switch (High, Low sensitivity), ICMP Smurf/IP Land/IP Spoof/IP TearDrop/PingOfDeath/TCP scan/TCP SynWithData/UDP Bomb/UDP EchoChargen/IPv6 Denial of Service switch Log Record: Log switch, System-wide/Wireless network/Denial of Service switch, Remote log switch, Log server IP address Firmware Upgrade: Firmware version, Select file to upgrade Language setting: Switch between Simplified Chinese/English Save/Load Settings: Save configuration to file, Load configuration from file, Restore default configuration Set Password: Username/New password/Confirm password Logout: Logout and exit login

5. Packaging information

WR1500 * 1, DC 12V/1A power adapter * 1