

A501U

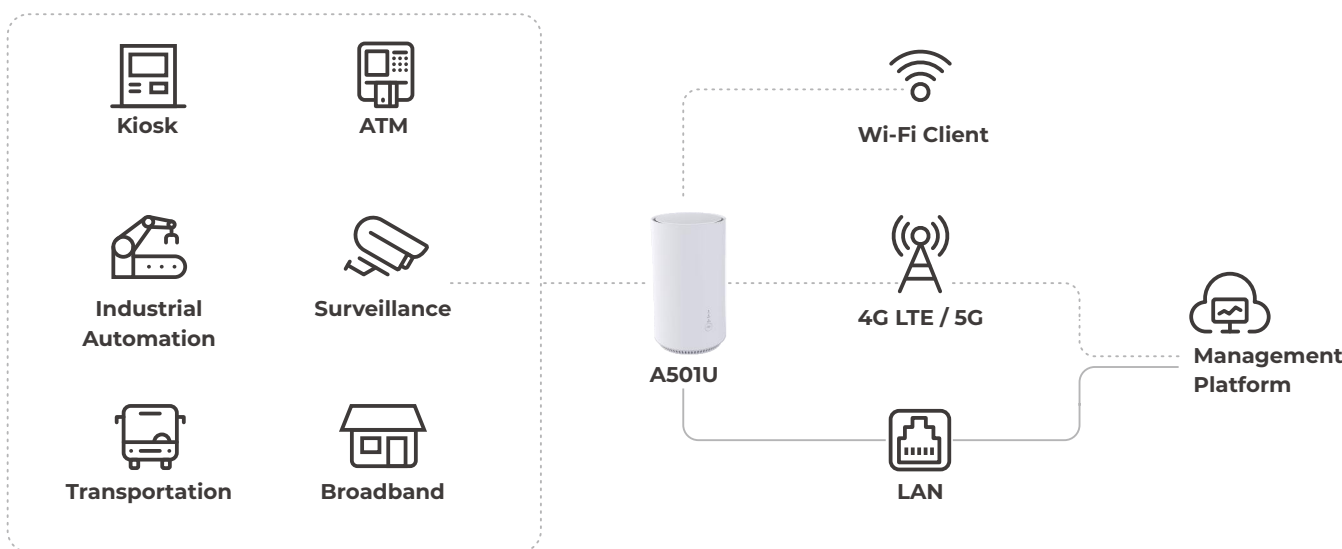
4G/5G Indoor Router



Overview

A501U 4G/5G indoor router is a wireless communication product developed based on 3G/4G LTE/5G network requirements. Supports 3G/4G LTE/5G global frequency bands. Supports 3G/4G LTE/5G internet high speed access. Support 5G NSA up to 5.47Gbps (DL)/825Mbps (UL). 5G SA maximum 4.67Gbps (DL)/1.25Gbps (UL) access bandwidth service. It supports 1*2.5Gbps/1* Gigabit Ethernet ports, one RJ11 telephone port, and supports VOLTE voice. Support for 802.11AX Wi-Fi 6, 2.4GHz/5GHz dual-band feature. Supports Wi-Fi mesh feature. And provide users with Wi-Fi 6, AX3000 large bandwidth hotspot sharing. Meet the access and sharing of more than 32 users' Wi-Fi hotspot. Meet the needs of families, enterprises, and chain stores to provide 4G/5G high-speed Internet access services.

Topology diagram



Features



Wireless Connectivity

- Wireless Mobile Broadband 3G/4G LTE/5G connection.
- Supports 3G/4G/5G global frequency bands.
- Compliant with IEEE 802.11a/b/g/n/ac/ax, AX3000, 2*2 MIMO WIFI 6, support tri-band 2.4 GHz/5GHz.



Easy to Use and Easy Maintenance

- User friendly web interface for user interaction.
- Supports Central Management.
- Supports local web UI and remote FOTA update firmware.



Hardware & Design

- Power supply, DC 12V/2.5A.
- ABS plastic material shell, Novel and fashionable appearance.



Network & Security Features

- Support WIFI MESH feature.
- Supports Multiple VPN tunnels for data encryption.



Operating System

- Built-in OpenWRT 24.10 operating system.

Specification

CELLULAR	
3G/4G/5G data connectivity	It provides data connectivity on 5G NR SA and NSA, LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA and UMTS networks.
3G/4G/5G frequency bands	<p>5G NR</p> <p>5G Sub-6: n1/3/5/7/8/20/28/38/40/41/77/78</p> <p>LTE FDD: B1/3/5/7/8/20/28/32</p> <p>LTE TDD: B38/40/41/42/43</p> <p>WCDMA: B1/5/8</p> <p>MIMO</p> <p>5G NR: DL 4×4 MIMO: n1/3/7/28/38/40/41/77/78</p> <p>UL 2×2 MIMO: n40/41/77/78</p> <p>LTE: DL 4×4 MIMO: B1/3/7/28/32/38/40/41/42/43</p> <p>*Remarks: More frequency bands or requirements please contact with us.</p>
3G/4G/5G data rates	<p>5G NSA: Max 5.47Gbps (DL)/825Mbps (UL)</p> <p>5G SA: Max maximum 4.67Gbps (DL)/1.25Gbps (UL)</p> <p>LTE: Max 1.6Gbps (DL)/211Mbps (UL)</p> <p>WCDMA: Max 42Mbps (DL)/11.5Mbps (UL)</p>
5G NR features	<p>3GPP Release 16</p> <p>Supported modulations:</p> <ul style="list-style-type: none"> - Uplink: $\pi/2$-BPSK, QPSK, 16QAM, 64QAM and 256QAM, 200MHz 2 UL CA - Downlink: QPSK, 16QAM, 64QAM and 256QAM, 200MHz 2 DL CA <p>Supported SCS: 15 kHz and 30 kHz</p> <p>Option 3x, 3a, 3 and Option 2</p>
LTE features	<p>3GPP Release 16</p> <p>LTE Category: DL Cat 19/ UL Cat 18</p> <p>Supported modulations:</p> <ul style="list-style-type: none"> - Uplink: QPSK, 16QAM and 64QAM and 256QAM, 40MHz 2 ULCA - Downlink: QPSK, 16QAM and 64QAM and 256QAM, 100MHz 5 DLCA, <p>Supports 1.4/3/5/10/15/20 MHz RF bandwidth</p>

UMTS features	Compliant with 3GPP Rel-8 DC-HSDPA, HSPA+, HSDPA, HSUPA and WCDMA Modulations: - DL: QPSK, 16QAM and 64QAM - UL: BPSK, QPSK, 16QAM
3G/4G/5G Transmitting Power	Class 3 (24dBm±1.5dB) for WCDMA bands Class 3 (23dBm±2dB) for LTE-FDD bands Class 3 (23dBm±2dB) for LTE-TDD bands Class 3 (23dBm±2dB) for NR bands Class 2 (26dBm±2dB) for NR N41/77/78 Class 1.5 (29dBm±2dB) for NR N41/77/78
Antennas	4* 4G/5G internal antenna, 4*4 MIMO, with 50 Ω impedance.
SIM CARD	
SIM card	Supports 1* SIM slots, 1.8V/3V, Or 1* eSIM (Optional)
HARDWARE	
CPU	Quad-core ARM Cortex-A55 up to 2.0GHz, Unisoc V620
Memory	4Gb LPDDR4x + 2Gb NAND Flash
Hardware interface	1*2.5Gbps WAN/LAN+1*Gbps LAN ports, 1*USB2.0 port, 1*RJ11 VOLTE (Optional)
Watchdog	Built-in watchdog feature
Key button	Reset, WPS or MESH
Protection level	Ethernet port, contact electric shock, +/-4KV, air discharge: +/-8KV
LED status indicator	Power, Net, WIFI
Power supply	Power supply input, DC 12V/2.5A
Peak current	Max current. 2.5A@12V
Working current	Max 450 mA, 5.4W@12V
HARDWARE	
Power consumption	Idle: 120mA, 1.44W@12V Data link: Max 450mA, 5.4W@12V Peak: Max 710mA, 8.52W@12V
Temperature	Operating Temperature: 0 °C ~+50°C, Storage Temperature: -10~+55°C
Environment humidity	5%~95%, no condensation
Ingress protection	IP30
Housing	ABS plastic material, white shell
Dimensions	110mm* 112mm* 195mm
Installations	Desktop placement
Weight	670g
WI-FI 6	
WLAN	IEEE 802.11 a/b/g/n/ac/ax, AX3000 Wi-Fi 6, Max bandwidth 2975Mbps Supports 2.4G/5GHz Wi-Fi 6. Supports Dynamic Frequency Selection (DFS, radar detection) Supports 20 MHz/40 MHz channel bandwidth for 2.4 GHz and 20 MHz/40 MHz/80 MHz/160 MHz channel bandwidth for 5 GHz Supports 2x2 Multi-User Multiple-Input Multiple-Output (MU-MIMO)
Wireless mode	Supports AP or station mode
Wireless security	Supports WPA2-PSK (AES), WPA/WPA2-PSK (TKIP/AES) protocols for Wi-Fi Authentication
Antennas	2*2 MIMO internal antenna , with 50Ω impedance
WIFI hotspot sharing	Supports more than 32 users to share WIFI for accessing to the Internet

SOFTWARE FEATURE	
Parameter settings	Supports automatic detection of MNC and MCC parameters of global operators. Built-in global operator APN, user name, password and other network parameters. At the same time, manual setting of network parameters is supported
Dial method	After the device is powered on, the system automatically dials up to connect to the network
Protocol	Supports PPTP, L2TP, TCP, UDP, DHCP, HTTP, DDNS, TR-069, HTTPS, SSH etc protocol
Routing	Supports static routing, multiple routing tables
Bridge	Supports 4G/5G bridge mode feature
Multiple APN	Supports multiple APN access network
Data link maintenance	Built-in link maintenance and self-recovery mechanism
Firewall	Supports flexible access control of TCP, UDP, ICMP packets Supports port Mapping, NAT etc feature
DDNS	Supported some service providers, others can be configured manually
Firmware update	Supports local WebUI and remote OTA update firmware
Embedded system	OpenWRT 24.10
Application development	Supports secondary development of application functions based on our device motherboard software
MONITORING & MANAGEMENT	
Web GUI	HTTP, Firmware Upgrade
Command line interface	SSHv2
Management	Supports TR-069 remote management protocol

Appearance

