

# A501U

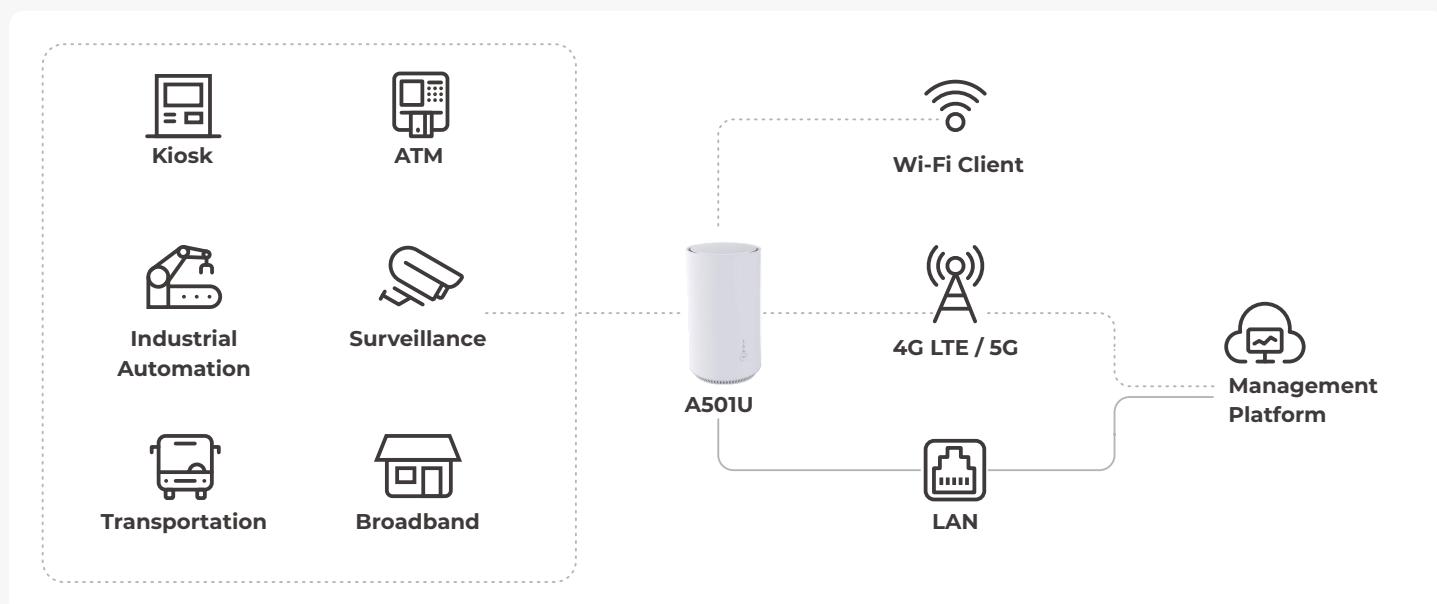
## 4G/5G Indoor Router



### 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	
<b>3G/4G/5G data connectivity</b>	It provides data connectivity on 5G NR SA and NSA, LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA and UMTS networks.
<b>3G/4G/5G frequency bands</b>	<b>5G NR</b> 5G Sub-6: n1/3/5/7/8/20/28/38/40/41/77/78 LTE FDD: B1/3/5/7/8/20/28/32 LTE TDD: B38/40/41/42/43 WCDMA: B1/5/8  <b>MIMO</b> 5G NR: DL 4x4 MIMO: n1/3/7/28/38/40/41/77/78 UL 2x2 MIMO: n40/41/77/78 LTE: DL 4x4 MIMO: B1/3/7/28/32/38/40/41/42/43
	*Remarks: More frequency bands or requirements please contact with us.
<b>3G/4G/5G data rates</b>	5G NSA: Max 5.47Gbps (DL)/825Mbps (UL) 5G SA: Max maximum 4.67Gbps (DL)/1.25Gbps (UL) LTE: Max 1.6Gbps (DL)/211Mbps (UL) WCDMA: Max 42Mbps (DL)/ 11.5Mbps (UL)
<b>5G NR features</b>	3GPP Release 16 Supported modulations: - Uplink: π/2-BPSK, QPSK, 16QAM, 64QAM and 256QAM, 200MHz 2 UL CA - Downlink: QPSK, 16QAM, 64QAM and 256QAM, 200MHz 2 DL CA Supported SCS: 15 kHz and 30 kHz Option 3x, 3a, 3 and Option 2
<b>LTE features</b>	3GPP Release 16 LTE Category: DL Cat 19/ UL Cat 18 Supported modulations: - Uplink: QPSK, 16QAM and 64QAM and 256QAM, 40MHz 2 ULCA - Downlink: QPSK, 16QAM and 64QAM and 256QAM, 100MHz 5 DLCA, Supports 1.4/3/5/10/15/20 MHz RF bandwidth

<b>UMTS features</b>	Compliant with 3GPP Rel-8 DC-HSDPA, HSPA+, HSDPA, HSUPA and WCDMA Modulations: - DL: QPSK, 16QAM and 64QAM - UL: BPSK, QPSK, 16QAM
<b>3G/4G/5G</b> <b>Transmitting Power</b>	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
<b>Antennas</b>	4* 4G/5G internal antenna, 4*4 MIMO, with 50 Ω impedance.
<b>SIM CARD</b>	
<b>SIM card</b>	Supports 1* SIM slots, 1.8V/3V, Or 1* eSIM ( Optional )
<b>HARDWARE</b>	
<b>CPU</b>	Quad-core ARM Cortex-A55 up to 2.0GHz, Unisoc V620
<b>Memory</b>	4Gb LPDDR4x + 2Gb NAND Flash
<b>Hardware interface</b>	1*2.5Gbps WAN/LAN+1*Gbps LAN ports, 1*USB2.0 port, 1*RJ11 VOLTE (Optional)
<b>Watchdog</b>	Built-in watchdog feature
<b>Key button</b>	Reset, WPS or MESH
<b>Protection level</b>	Ethernet port, contact electric shock, +/-4KV, air discharge: +/-8KV
<b>LED status indicator</b>	Power, Net, WIFI
<b>Power supply</b>	Power supply input, DC 12V/2.5A
<b>Peak current</b>	Max current. 2.5A@12V
<b>Working current</b>	Max 450 mA, 5.4W@12V
<b>HARDWARE</b>	
<b>Power consumption</b>	Idle: 120mA, 1.44W@12V Data link: Max 450mA, 5.4W@12V Peak: Max 710mA, 8.52W@12V
<b>Temperature</b>	Operating Temperature: 0 °C ~+50°C, Storage Temperature: -10~+55°C
<b>Environment humidity</b>	5%~95%, no condensation
<b>Ingress protection</b>	IP30
<b>Housing</b>	ABS plastic material, white shell
<b>Dimensions</b>	110mm*112mm*195mm
<b>Installations</b>	Desktop placement
<b>Weight</b>	670g
<b>WI-FI 6</b>	
<b>WLAN</b>	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)
<b>Wireless mode</b>	Supports AP or station mode
<b>Wireless security</b>	Supports WPA2-PSK (AES), WPA/WPA2-PSK (TKIP/AES) protocols for Wi-Fi Authentication
<b>Antennas</b>	2*2 MIMO internal antenna , with 50Ω impedance
<b>WIFI hotspot sharing</b>	Supports more than 32 users to share WIFI for accessing to the Internet

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

## Appearance

