

AIMroute AW645G

5G WIFI6 AX 3000 Indoor CPE.

Description

The AIMroute AW645G is an industrial 5G router designed for reliable high-speed wireless connectivity in enterprise, branch office, IoT, and mission-critical networking applications. It supports 5G NR, TDD-LTE, and FDD-LTE and is 3GPP Release 15 compliant for 5G NSA and SA, ensuring future-ready performance and low latency.

The device provides 4 x LAN ports and 1 x WAN port, supports 2.4 GHz and 5 GHz Wi-Fi, and includes QoS service flow initiated by the CPE, DHCP, and a built-in web server for secure, password-protected, web-based configuration.



Specifications

Item	Description
Chipset	5G/LTE: Qualcomm Snapdragon SDX62 Wi-Fi: MT7981(dual-core ARM Cortex-A53(1.3GHz)) +MT7976C+MT7531A
RF Standard	5G NR (3GPP Release 15), FDD-LTE,TDD-LTE, HSPA+
Memory	5G Module: Nand flash 2Gbits + RAM 4Gbits LPDDR4x
	Router: ROM 128Mbits + RAM 2Gbits
Indicators	1. Power 2. Wi-Fi Switch Status 3. 4G Internet 4. 5G Internet 5. Signal Bar Indicator
Buttons	Reset Key + WPS Button
Interfaces	1. GE LAN Port * 4, GE WAN Port * 1 2. SIM Slot * 1 (3FF) 3. DC Socket 4. USB2.0 for Manufacture
LAN/WAN	GE LAN Port * 4, GE WAN Port * 1 (Currently DHCP/STATIC mode)
Power Supply	AC100V~240V, 50Hz~60Hz DC 12V DC±10% 2A
Power Consumption	< 24W
Dimensions	117*117*180mm
Weight	~865g

Unit Interface	
LAN – RJ 45	LAN port to connect PC to surf internet via CPE
USIM Slot	Support standard 1.8V / 3.3V USIM
WPS Button	Click to start WPS connection
USB	USB2.0, for test
DC	DC 2.0
WPS Indicator	Indicate WPS connection status
Network Indicator	Indicate network link status
Signal Bar Indicator	Indicate network signal strength
Radio Specification	
Support Bands	5G NSA: n1/n28/n41/n78/n79, 5G SA : n1/n28/n41/n78/n79
	4G FDD: B1/B3/B5/B8/B28 4G TDD: B34/B39/B40/B41 3G WCDMA: B1/B8
ENDC	B3/B5/B7/B8/B28-N78
MIMO	5G (MHB UHB)DL MIMO 4*4,(LB)DL MIMO 2*2, (N41)UL MIMO 2*2 LTE:(MHB UHB)DL MIMO 4*4,(LB)DL MIMO 2*2
Output Power@25°C	5G NR PC3 : 23+-2dBm 5G NR PC2(N41//N78/N79) : 26+-2dBm LTE: 23+-2dBm
5G/4G/ Wi-Fi Antenna	4G*2; 5G*2; 2.4G *2; 5.8G *2
5G/4G/ Wi-Fi Antenna Gain	9dBi
Wi-Fi Frequency	2.4GHz/5GHz
Wireless	MU-MIMO 802.11a/b/g/n/ac/ax WiFi6 2.4GHz 2T2R 574Mbps, B mode@23dBm(Max) 5.8GHz 3T3R 2.4Gbps, A mode@23dBm(Max)
Wi-Fi Output Power	23 dBm/2.4G; 23dBm/5G
Wi-Fi Channel BW	20MHz, 40MHz, 80MHz (AC), 160MHz (AX) 11ax : OFDMA/MU-MIMO: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM. MCS0~MCS11
Peak Throughput	Sub-6G SA 2.4Gbps(DL), 1Gbps(UL) Sub-6G NSA 3.4Gbps(DL), 600Mbps(UL) LTE 1Gbps(DL), 200Mbps(UL) HSPA + 42Mbps(DL), 5.76Mbps(UL)

Software Specifications	
Language	English, German, customizable
Https/Http	Both
Network Status	Signal strength, Network type(5G/4G), SIM card status, Wi-Fi Status, LAN Status
System Status	Mobile parameters, APN/DHCP/Wi-Fi information, Version/Device information
Internet Settings	Network mode setup, Data switch
APN Setup	APN name, PDP(IPV4/IPV6/IPV4V6)
SIM Card	PIN Management
DHCP Setup	Enable/disable DHCP server Configure DHCP IP Pool Configure DHCP Lease Time
Static Route	Route Setup on WAN/LAN interface
DDNS	Support
Backup/Restore	Encryption backup current settings and restore the backup settings (Export/Import Configuration)
Work Mode	NAT/ Router mode
Environmental Specification	
Operating Temperature	0 °C ~ 40 °C (32 °F ~104 °F)
Storage Temperature	-40 °C ~ 70 °C (-40 °F ~ 158 °F)
Operating Humidity	10% ~ 90% non-condensing
Storage Humidity	5% ~ 90% non-condensing
Device Management	
Software Update	WebUI update, TR069 update
TR069	HTTP/HTTPS Supports upload / download the ACS specified file Support download CPE configuration file Support configure & queries parameters Support remote upgrade Support cycle monitor
Diagnostics	Ping/Trace/Tcpdump
	Export current diagnosis results and operation logs

Firewall Features	
DMZ	Yes
Port Mapping	Yes
IP-Port Filter	Yes
MAC Filter	Yes
URL Filter	Yes
Speed Limit	Yes
UPnP	Yes
WIFI Features	
Wi-Fi Switch turn on/off	Support
Wi-Fi SSID/KEY setup	Support
Encryption	OPEN, WPA2-PSK, WPA/WPA2-PSK
SSID broadcasting	Support
Wi-Fi bandwidth setup	Support
Wi-Fi channel	Support self-adapt and select
Wi-Fi maximum users	2.4G Wi-Fi: 64, 5G Wi-Fi: 64
Wi-Fi protocol	IEEE 802.11 b/g/n, IEEE 802.11 ac, IEEE 802.11 ax WIFI6
WPS	Support WPS PBC