

Tongyu MacroWiFi

T-AOAX361Q



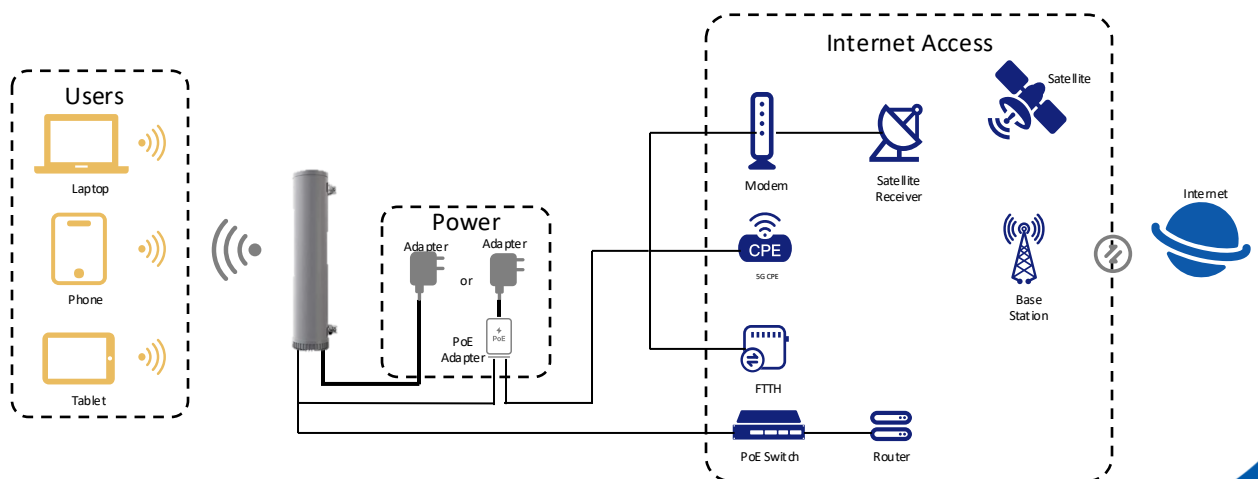
The MacroWiFi Solution designed for expansive, long-range coverage in rural areas, farms, and remote locations where traditional WiFi solutions often struggle with limited coverage, interference, and user capacity. It features an innovative high-gain, wide-beam antenna array, delivering kilometer-level coverage for reliable connectivity and supporting a massive number of users across vast open spaces.

With an advanced protocol, optimized antenna design, and built-in out-of-band filtering, it ensures exceptional signal clarity and a dependable, high-performance WiFi experience while meeting strict emission standards.

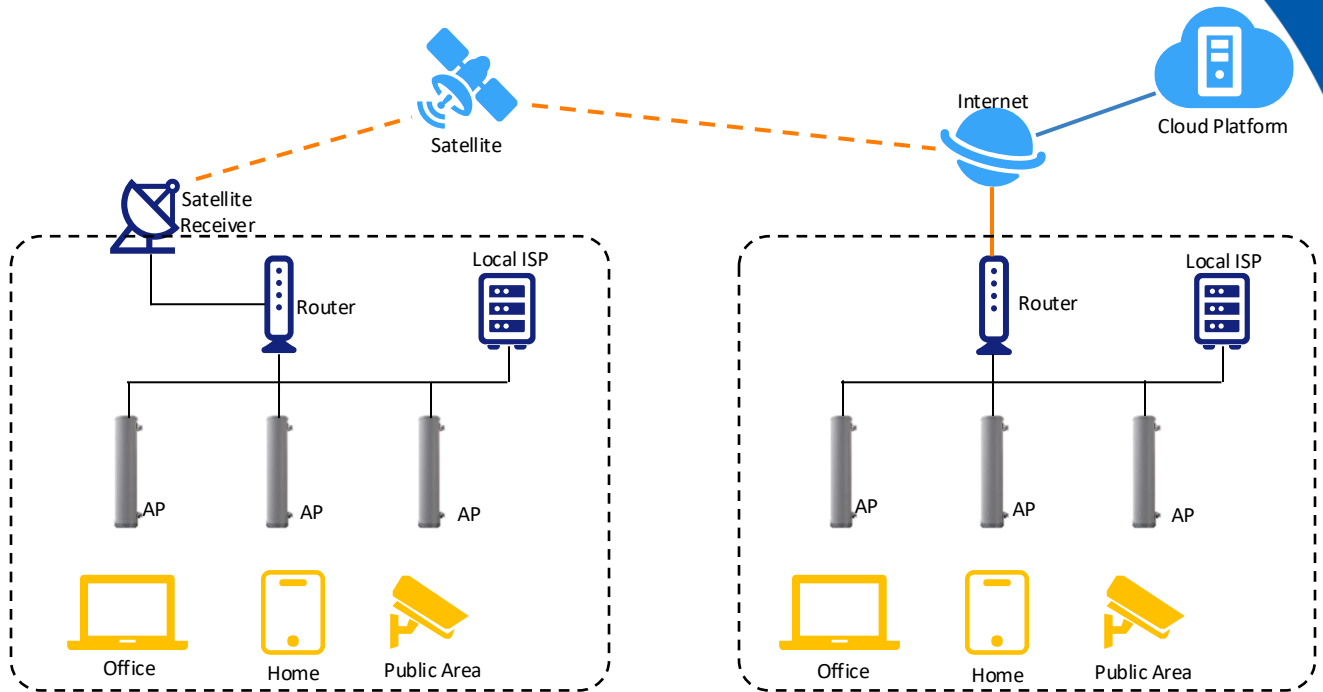
Features

- ▲ Cloud management and billing platform
- ▲ Support 2.4/5GHz dual band
- ▲ Support AX3600
- ▲ Support 200+ users
- ▲ 4*4 MIMO antenna with 12.5dBi high gain
- ▲ 180° Sector coverage
- ▲ 1.5~2km Maximum coverage distance
- ▲ 2.5 GE PoE+ Port

Network Topological Graph



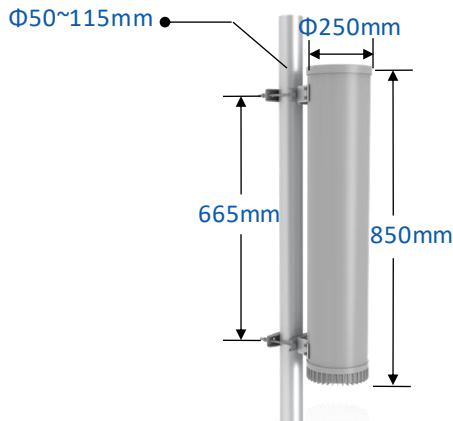
Networking Platform



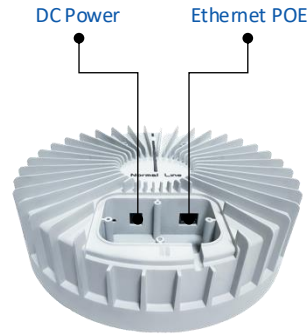
Platformized Software Features

- **Converged Platform**
 - ✓ AC Function
 - ✓ CRM Function
 - ✓ Billing Function
 - ✓ Selfcare Function
- **Flexible Deployment**
 - ✓ On Premise
 - ✓ On Cloud
 - ✓ Multi Tenancy
- **Flexible Bundles**
 - ✓ Monthly
 - ✓ Temporary for days
 - ✓ Unlimited
 - ✓ Limited
 - ✓ Speed Control
- **Rich Services**
 - ✓ KYC
 - ✓ Selfcare
 - Portal
 - Apps
 - ✓ Flexible payment
 - ✓ Invoice
- **Management**
 - ✓ AP Discover
 - ✓ Auto Configuration
 - ✓ Organization
 - ✓ Dashboard
 - ✓ Report

Specifications



Dimensions



Bottom Interface

Main Design

LAN Interfaces	1x 2.5Gbps Ethernet Port
Wi-Fi Standards	IEEE 802.11 a/b/g/n/ac/ax
Maximum Data Rate	1148 Mbps (2.4 GHz) 2402 Mbps (5 GHz)
Wireless Client Capacity	1000+
Optimal Wireless Client Threshold (LAWiFi Protocol)	200
Maximum EIRP	36dBm for 2.4GHz and 5GHz (EIRP on different channels may be limited by country regulations)
Maximum Coverage Range	1.5-2km (An unobstructed coverage environment)
Reception Sensitivity	2.4GHz: 11AX 20MHz MCS0: -95 11AX 20MHz MCS11: -66 11AX 40MHz MCS0: -94 11AX 40MHz MCS11: -63 5GHz: 11AX 20MHz MCS0: -94 11AX 20MHz MCS11: -64.5 11AX 40MHz MCS0: -90.5 11AX 40MHz MCS11: -63 11AX 80MHz MCS0: -88.5 11AX 80MHz MCS11: -60.5

Wireless Function

Multiple SSIDs	16 (8 on each band)
Channel	US: 2.4GHz: 1 - 11; 5GHz: 36,40,44,48,149,153,157,161,165; EU: 2.4GHz: 1 - 13; 5GHz: 36,40,44,48,52,56,60,64,100,104,108, 112,116,120,124,128,132,136,140
Automatic Channel Selection	√
Transmit Power Control	Adjust transmit Power on dBm
QoS (WMM)	√
Seamless Roaming	√
MESH	√
Beamforming	√
MU-MIMO	2G: 4x4 DL MU-MIMO 5G: 4x4 DL MU-MIMO
OFDMA	UL/DL OFDMA
Rate Limit	Based on SSID/Client
LAWiFi Protocol	√

Support Data Rates

802.11ax	8 Mbps to 2402 Mbps (MCS0-MCS11, NSS = 1 to 4 HE20/40/80)
802.11ac	6.5 Mbps to 2166.7 Mbps (MCS0-MCS11, NSS = 1 to 4 VHT20/40/80)
802.11n	6.5 Mbps to 600 Mbps (MCS0-MCS31, HT20/40)
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11b	1, 2, 5.5, 11 Mbps
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps

Specifications

Security

Access Control	√
Maximum MAC Filter	4000
VLAN	√
Wireless Encryption	WPA-Personal/Enterprise WPA2-Personal/Enterprise WPA3-Personal/Enterprise
802.1X Support	√

Antenna

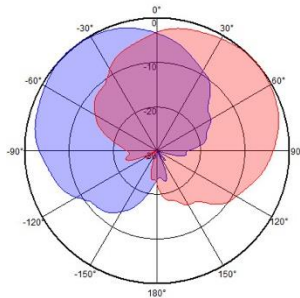
Radiation Pattern	Directional antenna
Polarization	±45°
Beam Pointing	±45°
Gain (dBi)	2.4GHz: 4 x 12.5±0.5 5GHz: 4 x 12.5±0.5
Horizontal 3dB Beamwidth (°)	2.4GHz: 85±5 5GHz: 85±5
Electrical Downtilt (°)	0 (Customizable)
Out-of-band Spurious Emission	<-36 dBm

Physical Design

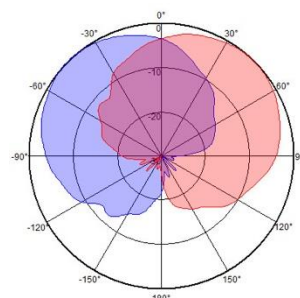
Power Supply	802.3at PoE or 12V/2A DC
Maximum Power Consumption	25.5W (for PoE); 22.5W (for DC)
Reset	√
Mounting	Pole Installation
Dimensions	Φ250 mm x 850 mm
Net Weight	9 kg
Enclosure Material / Rack Material	UPVC
Packing Size (mm)	1020 x 355 x 380
Installation Kit Weight (kg)	2.5
Packing Weight (kg)	13.9
Wind Load (N,at 150km/h)	168/168/168 (Frontal/Lateral/Rearside)
Environment	Operating Temperature: -25 °C~60 °C / -40 °C ~ 70 °C Storage Temperature: -40 °C~70 °C Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% non-condensing

Antenna Patterns

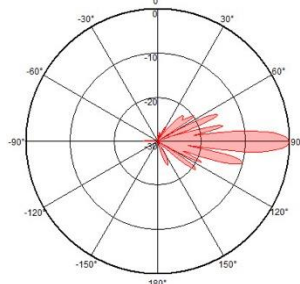
2.4 GHz Horizontal Beam



5 GHz Horizontal Beam



2.4 GHz Vertical Beam



5 GHz Vertical Beam

