



## ROTEX "Super WiFi Technology"

WiFi 6 OuWiFi 6 Outdoor Access Point

## Super WiFi

The Super WiFi 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. SuperWiFi 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



4\*4 MIMO Antenna with 13dBi high gain



180° Sector coverage



1.5~2Km Maximum coverage distance

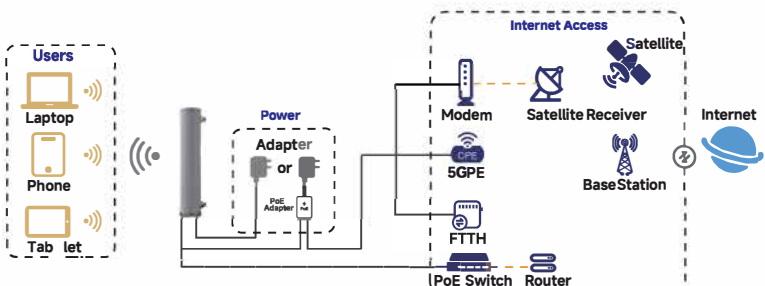


2.5 GE PoE+ Port

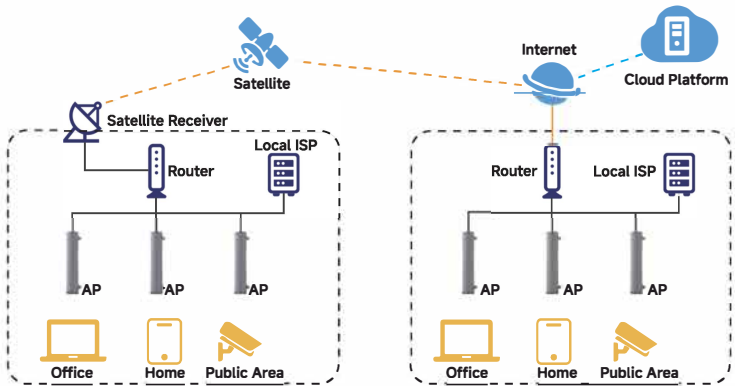


Supports 200 users

## Network Topological Graph



# Networking Platform



## Platformized Software Features

### Converged Platform

- AC Function
- CRM Function
- Billing Function
- Selfcare Function

### Rich Services

- KYC
- Selfcare  
Portal Apps
- Flexible payment
- Invoice

### Flexible Deployment

- On Premise
- On Cloud
- Multi Tenancy

### Management

- AP Discover
- Auto Configuration
- Organization
- Dashboard
- Report

### Flexible Bundles

- Monthly
- Temporary for days
- Unlimited
- Limited
- Speed Control



## 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	<p>2.4GHz:</p> <p>11AX 20MHz MCS0: -95            11AX 20MHz MCS11: -66            11AX 40MHz MCS0: -94            11AX 40MHz MCS11: -63</p> <p>5GHz:</p> <p>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</p>

## Wireless Function

Multiple SSIDs	16 (8 on each band)
Channel	<p>US: 2.4GHz: 1 - 11;            5GHz: 36, 40, 44, 48, 149, 153, 157, 161, 165;</p> <p>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</p>
Automatic Channel Selection	✓
Transmit Power Control	Adjust transmit Power on dBm
QoS (WMM)	✓
Seamless Roaming	✓

## Wireless Function

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

## 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 13±0.5; 5GHz: 4 x 13±0.5
Horizontal 3dB Beamwidth (°)	2.4GHz: 90±5; 5GHz: 85±5
Electrical Downtilt (°)	1.5 (Customizable)
Out-of-band Spurious Emission	<-36 dBm

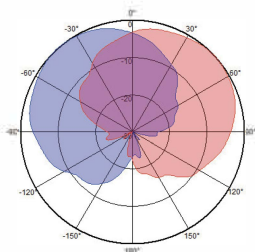
# Physical Design

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 1245 mm
Net Weight	13.2 kg
Enclosure Material / Rack Material	UPVC
Packing Size (mm)	1415 x 355 x 380
Installation Kit Weight (kg)	2.5
Packing Weight (kg)	18
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;

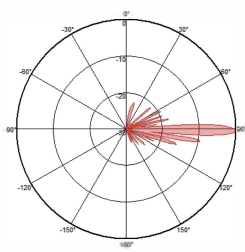
## Antenna Radiation Pattern

2.4G

Horizontal Beam

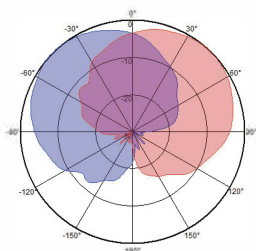


Vertical Beam



5G

Horizontal Beam



Vertical Beam

