

RG-AirMetro460F

CPE of RG-AirMetro Series Wireless Bridges



Highlights

- PTP Max. 15 km Working Distance
- PTMP Easy Pairing All in 30 sec
- 24 V Passive PoE
- IP65, 6 kV Surge Protection and ± 24 kV ESD against Harsh Environment
- 220.32 km/h (137 mph) Wind Survivability
- All-in-one Cloud Management Simplifies the User Journey

Highlight Features



RG-AirMetro Series Wireless Bridges

After pairing, the bridges support:

15 km

Up to 15 km
Wireless Transmission

32 PTMP

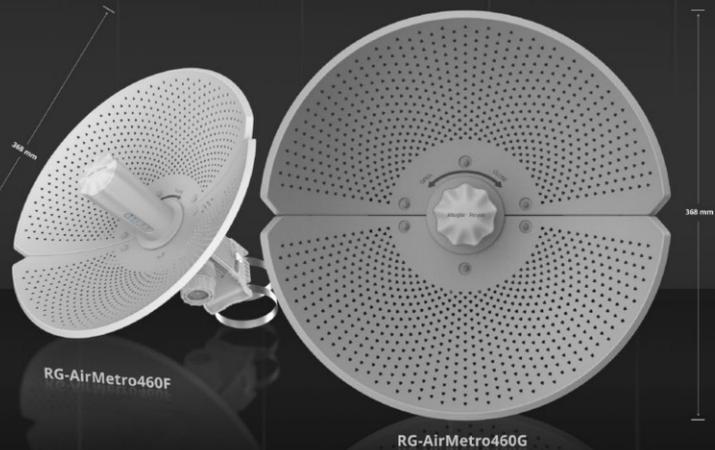
Up to 32 PTMP
Links



Easy Site Survey
Tool



All-in-One Cloud
Management



Highlight Features

CPE

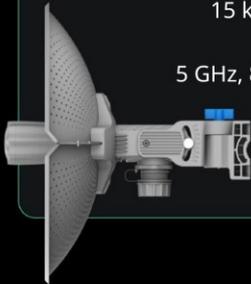
Mix freely for Various Scenarios

RG-AirMetro460G

1 x 10/100/1000 Mbps Port

15 km, 23 dBi

5 GHz, 867 Mbps

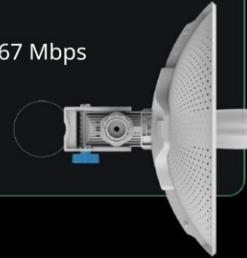


RG-AirMetro460F

1x 10/100 Mbps Port

15 km, 23 dBi

5 GHz, 867 Mbps



Signal Enhancement

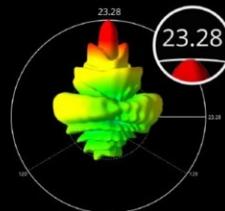
The Secret of Circular Grace

Compared with Square Antenna:

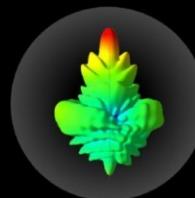
The **total gain** of the circular is **increased**;

The gain in both horizontal and vertical directions is more **balanced**;

Therefore, **under the same coverage area, the signal of the circular antenna is stronger.**



Horizontal: 23.28 dBi



Vertical: 23.19 dBi

Note: All data here are theoretical values obtained by Ruijie Reeye internal laboratories through tests carried out under particular conditions. Actual data may vary owing to differences in individual products, software versions, application conditions, and environmental factors. All data is subject to actual usage.

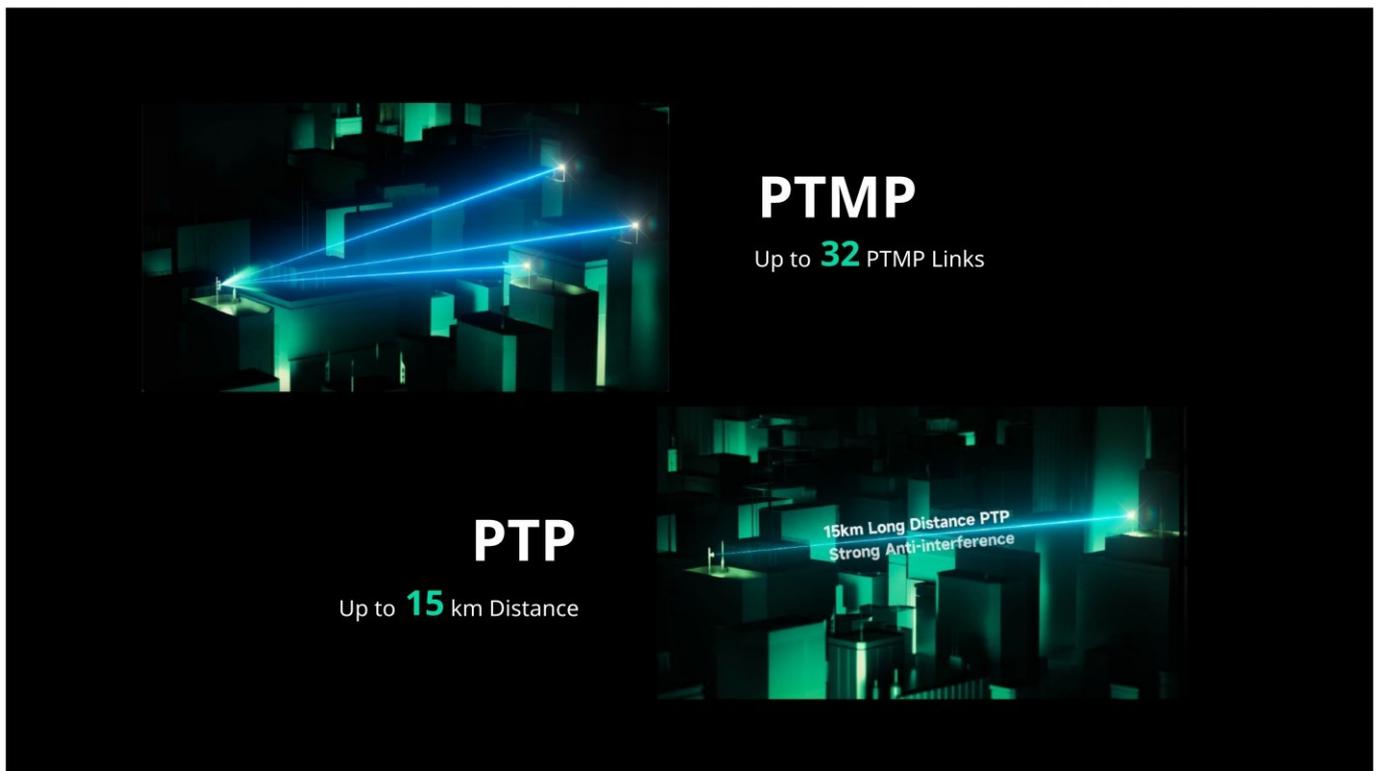
Highlight Features



Still Stable

Fearless of Harsh Environment

- IP65**
Weatherproof
- 220.32 km/h (137 mph)**
Wind Survivability
- 6 kV**
Surge Protection
- 24 kV**
24 kV Contact/ Air ESD



PTMP

Up to **32** PTMP Links

PTP

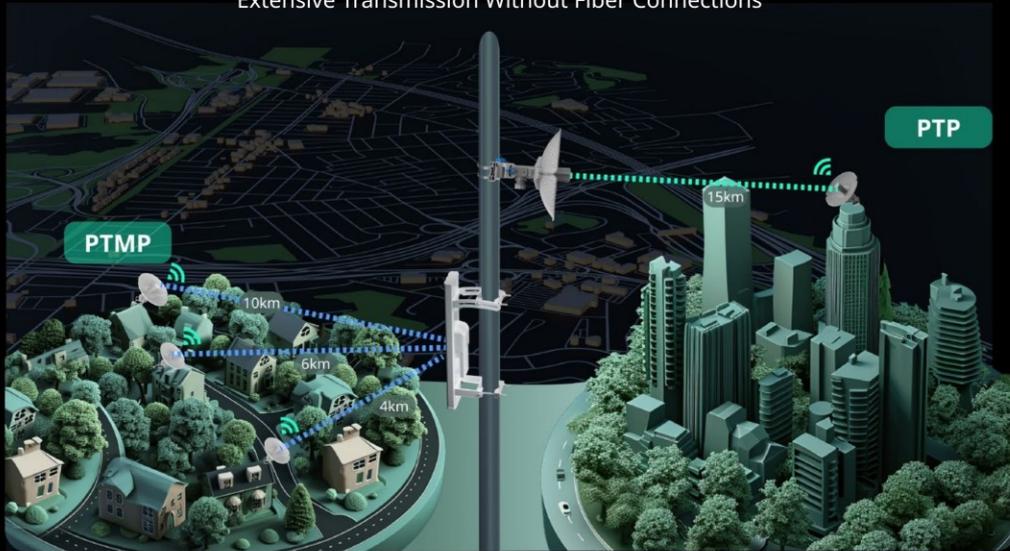
Up to **15** km Distance

15km Long Distance PTP
Strong Anti-interference

Highlight Features

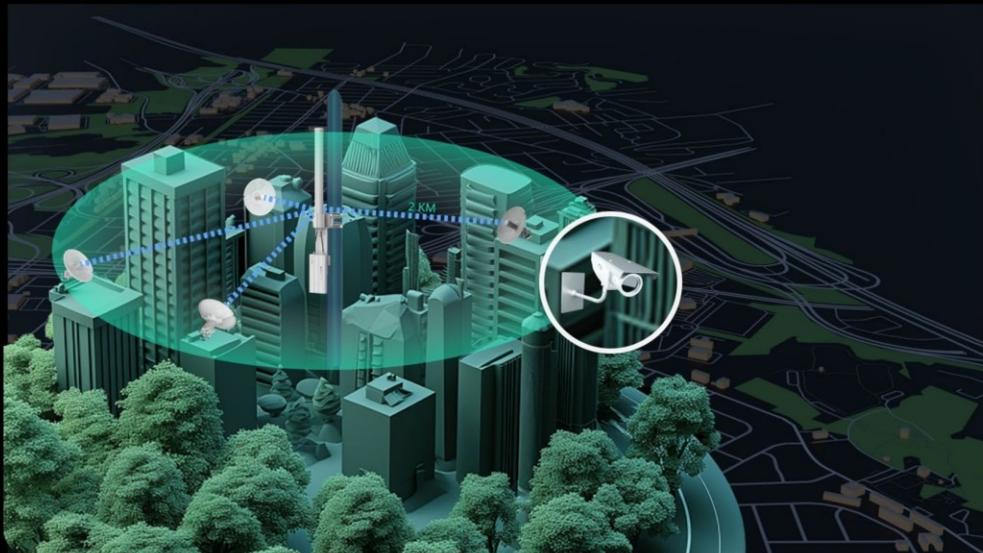
WISP

Extensive Transmission Without Fiber Connections



CCTV

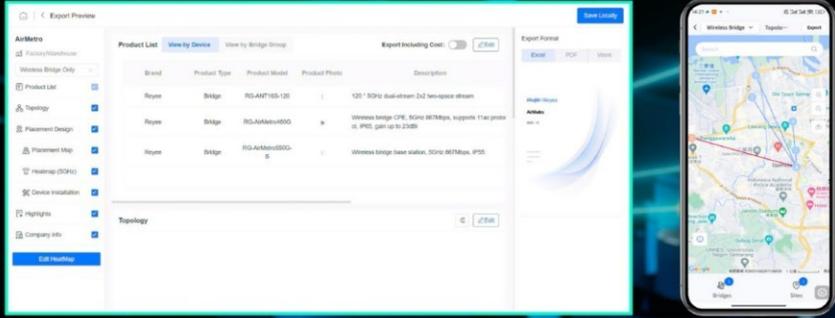
Affordable Excellence and Smooth Surveillance



Highlight Features

AI Heatmap for Bridge

Your Real Outdoor Adventure Companion

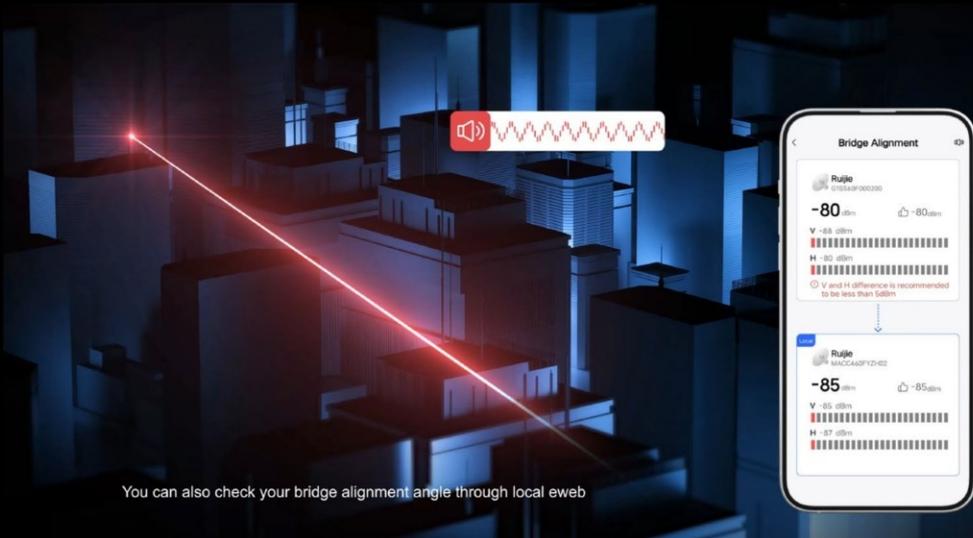


The screenshot shows the 'Export Preview' interface for the AI Heatmap for Bridge. It features a sidebar with navigation options like 'Product List', 'Topology', and 'Placement Map'. The main area displays a table of products with columns for Brand, Product Type, Product Model, Product Photo, and Description. A 'Save Locally' button is visible in the top right corner. To the right, a mobile phone displays a map with a heatmap overlay, indicating signal strength or coverage areas.

Available on both Ruijie Cloud and Ruijie Reyee App

Alignment Tool

Your Big-Voice, Time-Saver Guide



The image shows a 3D architectural rendering of a city with a red laser line indicating a bridge alignment. A speaker icon with a soundwave is positioned above the laser line. To the right, a mobile phone displays the 'Bridge Alignment' tool interface, which shows two data points for signal strength and alignment. The first point is labeled 'Ruijie 0155a3f060200' with a value of -80 dBm. The second point is labeled 'Ruijie MacCa5fF24e2' with a value of -85 dBm. Both points show V and H difference indicators and a note: 'V and H difference is recommended to be less than 5dBm'.

You can also check your bridge alignment angle through local eweb

Highlight Features

Spectrum Scan and Link Optimization

Thumbs-Up Guide



Available on both Ruijie Cloud and Ruijie Reyee App

Cloud: Make Your Business Easy

- Quick Setup
- All-in-one Cloud
- Monitoring based on Real, Complete Topology
- Identifying Issues by Auto-Alarm



/ Product Information

Model	RG-AirMetro460F
Product Type	Bridge
Accessory	No

/ Hardware Specifications

Model	RG-AirMetro460F
Applicable Scenarios	
Applicable Scenarios	CCTV/WISP
Wi-Fi Radio	
Radio design	Dual-radio 3 spatial streams <ul style="list-style-type: none">• Radio 1: 2.4 GHz, 1 spatial stream: 1 x 1, SISO• Radio 2: 5 GHz, 2 spatial streams: 2 x 2, MIMO
Operating band	IEEE 802.11b/g/n: 2.400 GHz to 2.483 GHz IEEE 802.11a/n/ac: 5.150 GHz to 5.350 GHz IEEE 802.11a/n/ac: 5.470 GHz to 5.725 GHz IEEE 802.11a/n/ac: 5.725 GHz to 5.850 GHz Note: Available bands vary with countries and regions. To use the preceding frequency bands, ensure that your country or region supports these frequency bands. For details, see Channels for Countries & Regions (official website link to be added).
Wi-Fi standard	Wi-Fi 5 (IEEE 802.11ac) standard, compatible with IEEE 802.11a/b/g/n standards
2.4 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11b/g/n)
5 GHz Wi-Fi	Wi-Fi 5 (IEEE 802.11ac)
2.4 GHz channel width	Auto/20/40 MHz
5 GHz channel width	Auto/20/40/80 MHz
Transmission rate	Maximum wireless data rate: 1166 Mbps <ul style="list-style-type: none">• Radio 1: 2.4 GHz, 300 Mbps• Radio 2: 5 GHz, 866 Mbps
Maximum transmit power	Frequency bands and maximum Effective Isotropic Radiated Power (EIRP):

Hardware Specifications

Model	RG-AirMetro460F
	<p>Note: Country specific restrictions apply.</p> <p>European Union & United Kingdom: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>Myanmar: 2400–2483.5 MHz, EIRP ≤ 23 dBm 5725–5850 MHz, EIRP ≤ 30 dBm</p> <p>Thailand: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm 5470–5725 MHz, EIRP ≤ 30 dBm 5725–5850 MHz, EIRP ≤ 30 dBm</p> <p>Indonesia: 2400–2483.5 MHz, EIRP ≤ 36 dBm 5725–5825 MHz, EIRP ≤ 36 dBm</p> <p>Egypt: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>Vietnam: 2400–2483.5 MHz, EIRP ≤ 23 dBm 5150–5350 MHz, EIRP ≤ 23 dBm 5470–5725 MHz, EIRP ≤ 30 dBm 5725–5850 MHz, EIRP ≤ 30 dBm</p>
Maximum transmit power (2.4 GHz)	Combined power: 20 dBm (single stream power: 20 dBm) Note: The transmit power varies according to regulations in different countries and regions.
Maximum transmit power (5 GHz)	Combined power: 29 dBm (single stream power: 26 dBm) Note: The transmit power varies according to regulations in different countries and regions.
Receive sensitivity	802.11b: -91 dBm (1 Mbps), -88 dBm (5 Mbps), -85 dBm (11 Mbps) 802.11a/g: -89 dBm (6 Mbps), -80 dBm (24 Mbps), -76 dBm (36 Mbps), -71 dBm (54 Mbps) 802.11n: -83 dBm@MCS0, -65 dBm@MCS7, -83 dBm@MCS8, -65 dBm@MCS15 802.11ac HT20: -83 dBm (MCS0), -57 dBm (MCS9) 802.11ac HT40: -79 dBm (MCS0), -54 dBm (MCS9) 802.11ac HT80: -76 dBm (MCS0), -51 dBm (MCS9)
Modulation	802.11b: BPSK, QPSK, CCK 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Highest QAM order	256
Antenna	

Hardware Specifications

Model	RG-AirMetro460F
Antenna	2.4 GHz: 1 x 1 Built-in omnidirectional antenna 5 GHz: 2 x 2 External directional antenna with built-in feed source, horizontal: 9°, vertical: 9°
Antenna gain (2.4 GHz)	3 dBi
Antenna gain (5 GHz)	23 dBi
Antenna horizontal orientation	9°
Antenna vertical orientation	9°
System Specifications	
CPU	Single-core processor, 575/580 MHz clock frequency
Flash memory	16 MB
RAM	128 MB DDR3
Dimensions and Weight	
Weight	0.20 kg (0.44 lbs) (without packaging materials)
Shipping weight	2.33 kg (5.14 lbs)
Product dimensions (W x D x H)	368.5 mm x 271 mm x 368.5 mm (14.51 in. x 10.67 in. x 14.51 in.) (Dimensions of the device after installation, including the mounting bracket.)
Package dimensions (W x D x H)	404 mm x 256 mm x 147 mm (15.91 in. x 10.08 in. x 5.79 in.)
Color	Elegant white
Port Specifications	
Number of fixed LAN ports	1
Number of 10/100BASE-T ports	1
Reset button	1
LEDs	1 x system status LED 1 x Ethernet port LED 3 x signal status LEDs
Power Supply and Consumption	
Power supply	Passive PoE adapter

Hardware Specifications

Model	RG-AirMetro460F
Power input	Passive PoE adapter: <ul style="list-style-type: none"> Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Rated input current: 0.5 A Max Rated output voltage: 24 V DC Maximum output current: 0.6 A
Number of PoE In ports	1
Maximum power consumption	9 W
Environment and Reliability	
Mounting options	Pole
Operating temperature	-40°C to +70°C (-40°F to +158°F)
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Operating humidity	5% RH to 95% RH (non-condensing)
Storage humidity	5% RH to 95% RH (non-condensing)
Altitude	Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.) Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)
MTBF	400,000 hours (about 45 years)
Cooling	Natural cooling
IP rating	IP65
ESD protection	Standard test: contact discharge=24 kV, air discharge=24 kV, Class B
Surge protection	Service port: ±6 kV for common mode Power connector: ±4 kV for common mode and ±2 kV differential mode
Certification and Regulatory Compliance	
Safety compliance	EN62368-1
EMC	EN 55032 EN 55035 EN 61000-3-3 EN 61000-3-2 EN 301489-1

Hardware Specifications

Model	RG-AirMetro460F
	EN 301489-3 EN 301489-17
Certification	CE, CB

Software Specifications

Model	RG-AirMetro460F
WLAN	
BaseStation/CPE mode switching	Yes
Enhanced one-to-many transmission (TDMA)	Yes
Bridge SSID hiding	Yes
WPA2-PSK encryption	Yes
WPA-PSK encryption	No
WPA/WPA2-PSK encryption	No
Recommended channel	Yes
Bridge speed test	Yes
Random security key upon configuration delivery	No
Configuring a security key for network-wide bridges	Yes
Configuring a security key for a single bridge group	Yes
Configuring a security key for a single bridge	Yes
Bridge SSID, channel, and power configuration	Yes
WMM	Yes
Maximum PTMP connections	1
Maximum bridge distance	15 km (9.32 miles)
One-touch pairing	Yes
Maximum effective distance of one-touch pairing	20 m (65.62 ft.)
Bridge performance	80 Mbps/1 km (0.62 miles) (HT40) 80 Mbps/3 km (1.86 miles) (HT40) 70 Mbps/5 km (3.11 miles) (HT40) 50 Mbps/10 km (6.21 miles) (HT40)
RSSI	- 58 dBm/1 km (0.62 miles) - 66 dBm/3 km (1.86 miles)

Software Specifications

Model	RG-AirMetro460F
	<ul style="list-style-type: none"> - 70 dBm/5 km (3.11 miles) - 78 dBm/10 km (6.21 miles)
Recommended number of connected cameras (3 Mbps)	<ul style="list-style-type: none"> 12/1 km (0.62 miles) 12/3 km (1.86 miles) 10/5 km (3.11 miles) 6/10 km (6.21 miles)
Recommended number of connected cameras (4 - 5 Mbps)	<ul style="list-style-type: none"> 8/1 km (0.62 miles) 8/3 km (1.86 miles) 6/5 km (3.11 miles) 4/10 km (6.21 miles)
Recommended number of connected cameras (6 - 7 Mbps)	<ul style="list-style-type: none"> 6/1 km (0.62 miles) 6/3 km (1.86 miles) 5/5 km (3.11 miles) 3/10 km (6.21 miles)
Recommended number of connected cameras (7-8 Mbps code streams)	<ul style="list-style-type: none"> 4/1 km (0.62 miles) 4/3 km (1.86 miles) 3/5 km (3.11 miles) 2/10 km (6.21 miles)
Real-time signal strength	Yes
Optimal signal strength	Yes
Active/Standby channel	Yes
Restoring to the active channel	Yes
Maximum number of devices on the SON	200
Basic Configurations	
eWeb login with the username and password	Yes
Local upgrade	Yes
Configuration backup	Yes
System language	Chinese (Simplified), English
System time settings	Yes
Ethernet Switching	
Interface rate	10/100 Mbps auto-negotiation

Software Specifications

Model	RG-AirMetro460F
VLAN	Yes
Link aggregation	No
IP Service	
IPv4 ping	Yes
IPv4 traceroute	Yes
DHCP server	Yes
DHCP client	Yes
Security	
Broadcast storm control	Yes
Network Management and Monitoring	
SON	Yes
AI heatmap	Yes
Camera detection	No
Network-wide management SSID configuration	Yes
Network connection through the management SSID	No
Ruijie Cloud management	Yes
Restarting devices through Ruijie Reyee App	Yes
SNMPv1, v2c, and v3	No
Fault diagnosis	Yes Note: support for network tools (ping, traceroute, and nslookup), fault alarms, and fault collection
Restart cause prompt	Yes
Disconnection cause prompt	No
Cloud alarms on DFS signal detection	No

Package Contents

Model	RG-AirMetro460F
Device	
Device	1
Parabolic dish antenna	2
Accessories	
Hose clamp	2
Power adapter	1 Note: 24 V passive PoE adapter
Power cord	1
Mounting bracket	1 x Mounting bracket 1 x Antenna base
Screw	10 x Phillips pan head screws 1 x hex head machine screws M5 x 65 mm 1 x M5 nut
Cable gland	1
Manual	
User Manual	1
Warranty Card	1

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