REV.	ZONE	DATE	DESCRIPTION	SIGN	APPROVER
V1.1	---	2021-11-04	---	Zhou Mo	Chen Xing
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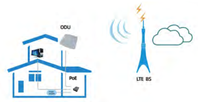
LTE CPE

AirSpot 1412

Quick Start Guide ▶

Introduction

AirSpot 1412 is a highly advanced LTE outdoor multi-service product solution specifically designed to meet integrated data needs for residential, business and enterprise users. The product supports advanced Gigabit networking functionalities. It enables wide service coverage and provides high data throughput and networking features to customers who need easy broadband access.



DEVICE PORTS & LEDs

· I/O panel of ODU ·

Packing List

Make sure you have everything you need to properly configure the device.

ODU	PoE	Ethernet cable	Bracket
Stainless steel clamp	Cable glands	Slotted-end cap	Ground screws

How does it work

1. Connect the power supply cable to the PoE.
2. PoE injector provides the power to ODU via LAN cable.
3. PC connects LAN Cable to PoE, then PC can surf the Internet when ODU accesses the LTE network.

This quick installation guide shows you how to configure your ODU in order to access the Internet.

Configure hardware

CAUTION: Please make sure that you are familiar with all accident prevention and safety procedures necessary for working at height and with electricity before starting to install the device.
DO NOT install the ODU during a lightning storm.

Insert a SIM Card to the Slot

CAUTION: Make sure the ODU is turned off before you insert your SIM card. It is recommended to NOT connect the PoE cable when you do this step. Otherwise, the SIM card may be damaged.

Mount the ODU

To connect the CAT5e (or above) Ethernet cable:

See the installation instructions to mount the ODU correctly.

Step 1 CAT5e (or above) cable to thread through the cable glands.
Step 2 Connect the end of the CAT5e (or above) Ethernet cable to the PoE port of the ODU.
Step 3 Wiring the cable glands into ODU and seal tightly.

NOTE: Make sure you have inserted the SIM card into the ODU.

Header Connection

Mounting Bracket

Connect the protecting ground cable

Put the grounding screw through the hole of the grounding wire, lock it together at the grounding hole of the metal shell (select one of the two holes), and connect the other end of the grounding wire to the earth.

Choose Location

The ODU can be mounted on an antenna pole or mast or on a wall using the supplied mounting bracket.

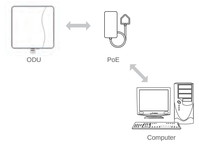
·Choose a mounting point that is sturdy enough to hold the ODU, even during high winds.
·When choosing a location to install the ODU, please note that the ODU's front panel should point towards your service provider's nearest base station. You do not need to be able to see the base station from the ODU's position. However, if you experience difficulties with signal reception, a Line of Sight (LoS) connection may produce better results.
·It is suggested that you transport the ODU to its intended installation location in its original protective package.

To obtain the best radio signal level and connection quality, the CPE antenna should be aimed towards the best eNB or BS directly.To search for the best eNB direction, the user can rotate the CPE slowly and tilt CPE slightly to find the best signal direction. The CPE radio signal strength level can be observed from the RF LEDs mounted on the lower panel as shown below. Different colored LEDs represent different signal strength.

Connect the PoE

Place a CAT5e (or above) Ethernet cable (not included) from the location of your intended Router to the desired PC location.

If you intend to use cable clamps or other methods to secure the cable, do not tighten them until you finish installing the Router and ODU.



Hardware connections of Router

Step 1 Connect the CAT5e (or above) Ethernet cable to PoE.

CAUTION: Do not connect to a computer or switch directly to the PoE port due to high PoE power.

Step 2 Connect the power supply cable to the PoE. The POWER LED turns on a solid green once connected.
Step 3 Connect the included Ethernet cable from the computer to one of the Router's Ethernet ports.

LED Behavior

When setting up the Outdoor Unit, the LED will have the following behavior:

For ODU support visit
https://www.airspan.com/support/

Airspan Networks Holdings Inc. (NYSE American: MIMO) is a U.S.-based provider of groundbreaking, disruptive software and hardware for 5G networks, and a pioneer in end-to-end Open RAN solutions that provide interoperability with other vendors. As a result of innovative technology and significant R&D investments to build and expand 5G solutions, Airspan believes it is well-positioned with 5G indoor and outdoor, Open RAN, private networks for enterprise customers and industrial use applications, fixed wireless access (FWA), and CBRS solutions to help mobile network operators of all sizes deploy their networks of the future, today.

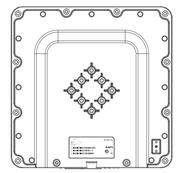
ODU		
POWER	Steady on	Power on
	Off	No power supply
INTERNET	Steady on	Internet available
	Off	Internet unavailable
	Blinking (500ms interval)	Searching network
SIM	Steady on	SIM ready
	Off	No SIM detected
SIGNAL	Green	Signal strong
	Yellow	Signal good
	Red	Signal weak
	Blinking Green and Red	Firmware upgrade

Configure the CPE

Login to the website

Use a browser to access the management web page to configure and manage the CPE.
The following procedure describes how to use a computer running Windows 7 or above version and Internet Explorer to connect to the CPE webpage.

Step 1 Connect to the CPE correctly.
Step 2 Start Internet Explorer, type http://192.168.0.1 in the address bar, and press Enter.



Step 3 Enter the user name and password, and click Log In. You can connect to the management web page after the password is verified.

Configuration of LTE

Step 1 Connect to the CPE correctly.
Step 2 Go to the management website.
Step 3 Choose Settings → Network → LTE Settings.
Step 4 Set the connection mode and scan mode.

The default setting is automatic connection and full band scanning, if you want to connect to the LTE network according to your needs, you can set the connection mode as manual, and simply scan a specific band.

Troubleshooting

The POWER indicator does not turn on.

· Make sure that the power cable is connected to the PoE, and the CPE is connected to the right port of the PoE.

Fails to Log in to the web management page.

· Make sure that the CPE is powered on.
· Verify that the CPE is correctly connected to the computer through a network cable.
If the problem persists contact authorized local service center.

The CPE fails to search for the LTE network.

· Check that the CPE is placed in an open area that is far away from obstructions, such as concrete or wooden walls.
· Check that the CPE is placed far away from household electrical appliances that generate strong electromagnetic field, such as microwave ovens, refrigerators, and satellite dishes.
If the problem persists, contact your Internet Service Provider.

The parameters are restored to default values.

· If the CPE powers off unexpectedly while being configured, parameters might reset to their default settings.
· After configuring the parameters, download the configuration file to quickly restore the CPE to the desired settings.

QC: QC PASS NO.1

Notice

Some features of the product and its accessories described herein rely on the software installed, capacities and settings of local network, and may not be activated or may be limited by local network operators or network service providers, thus the descriptions herein may not exactly match the product or its accessories you purchase.
We reserve the right to change or modify any information or specifications contained in this manual without prior notice or obligation.

FCC Regulations:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/ TV technician for help.
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with FCC RF Exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for the transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Note:
1. 尺寸：595x130mm（单页尺寸：85x130mm）
2. 材质：128g铜版纸
3. 折叠方式：风琴折
4. 印刷要求：彩色印刷，字迹图片清晰，无错印漏印，无明显污渍。

GENERAL TORANCE					QUANTITY	1	上海旷通科技有限公司			
DIM \ GRADE	A	B	C	D	SCALE	1:1				
0~8 ±	0.03	0.05	0.10	0.20	SIZE	A1	PART NAME	AirSpot1412_说明书_V1.2		
8~25 ±	0.05	0.08	0.20	0.30	UNIT	mm	PART NO.			
25~80 ±	0.08	0.12	0.30	0.40	SHEET	1 of 1	PROJECT NAME	金属壳		
80~250 ±	0.12	0.20	0.40	0.50	VIEW DIRECTION		DESIGN	Zhou Mo	MATERIAL	SEE NOTES
250~ ±	0.20	0.30	0.50	0.60			CHECK	Chen Rongbo	FINISH	SEE NOTES
SELECT	A						APPROVAL	Chen Xing	DATE	2021-11-04