

CAMBRIDGE

Industries (Group) Co Ltd.

CIG

WF-122 Hardware Installation Manual

June .2014

Version 1

Revision History

Version	Release Time	Revision Notes
Version 1	June, 2014	Initial release

Notice

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1 Safety

- Do not install the device near the power line, electric lamp, power grid, or in any forceful power grid place, which is to avoid the abnormal work.
- Ensure the power adapter is grounded well if install the device indoor.
- Install other lightning protection equipment near the device If necessary, because the lightning protection module inside the device is basic.
- Use the steady power grid to provide the power to the device, which is to avoid the abnormal work.
- Use a less than 50m network cable to connect the PoE port, which is to acquire the steady power. The network cable complies with the DC resistance definition in the YD/926.2 protocol.

2 Introduction

This document describes the procedure of installing the indoor wireless device WF-122.

2.1 Network Applications

The WF-122 is a dual band 2x2 MIMO indoor Wi-Fi AP, which is designed for high-density deployments in large offices, schools, hospitals and hotels that require premium performance. Having perfect compatibility, the WF-122 works with most wireless terminals to builds a high capacity Wi-Fi network.

The WF-122 can provide up to 600Mbps high throughput. The enhanced TX power and receive sensitivity make it deliver the high throughput and reliable coverage required by the most demanding business applications. The WF-122 supports multiple operation mode, including AP, AP WDS and WDS bridge. The flexible applications can meet the requirements in different senarios.

The WF-122 supports cloud based managment by ezCloudFi controller. It is convenient to remotly manage and mornitor the APs. Multiple separate SSIDs help to control the access to the network. With the QoS policy, the service with high priority can be assured for the good experience. The 802.1x and Web authencicaiotn provide the enhanced security for the system.

Figure1 Network applications

2.2 Features

Good performance, strong function, flexible mode and convenient installation are the features of the WF-122.

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- One 10/100/1000 Base-T port
- One console port
- Integrated 802.11a/b/g/n wireless
- Operating frequency: 2.4GHz and 5 GHz
- Multiple network topology:
 - FAT AP
 - AP WDS
 - NAWDS

2.3 Specifications

Table1 Physical specification

Dimensions	160 mm x160 mm x40mm (Height x Width x Depth)
Weight	Less than 1kg
Ethernet interface	RJ-45 connector

Table2 Electrical specification

Power input	+12V DC power input 1A or PoE (Power on Ethernet)
Power consumption	<12W

Table3 Environmental specification

Working temperature	0°C ~ 45°C
Working humidity	5% ~ 95% relative humidity
Dustproof and waterproof	IP30
Lightning protection	4KV

3 Hardware Features

3.1 Appearance

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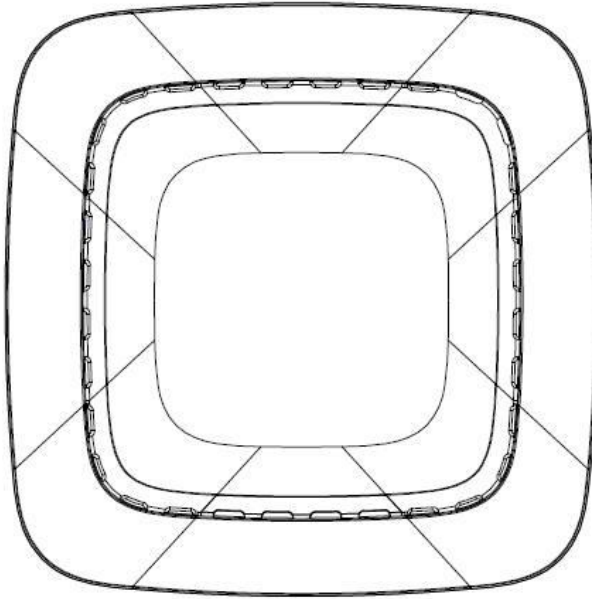


Figure2 Appearance of the WF-122

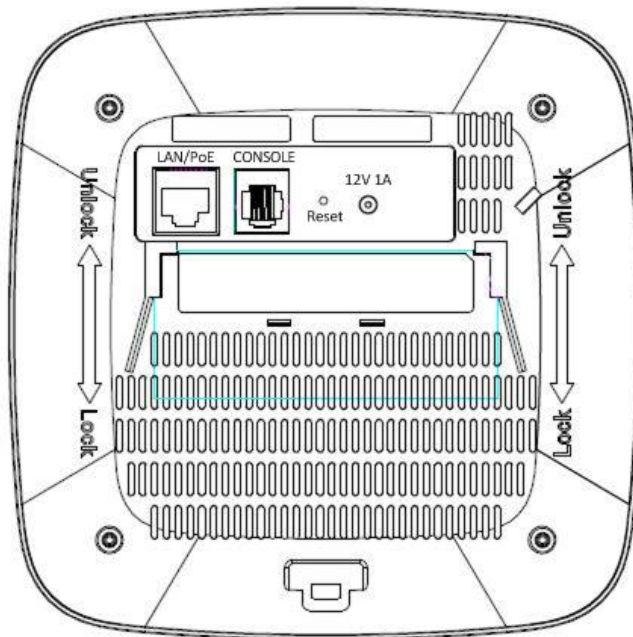


Figure3 Ports of the WF-122

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3.2 Ports

Table4 Functions of ports of the WF-122

Port	Description
LAN/PoE	10/100/1000M Base-T Ethernet ports (RJ-45), used as a WAN port and used for being powered by PoE function.
CONSOLE	Console port (RJ-11), used to manage the WF-122 software.
Reset	Reset button. Pressing the button for a long time (longer than 5s) to restore the device to factory defaults and resets the device.
12V 1.5A	Power port, used for connecting the power adapter.

3.3 Indicators

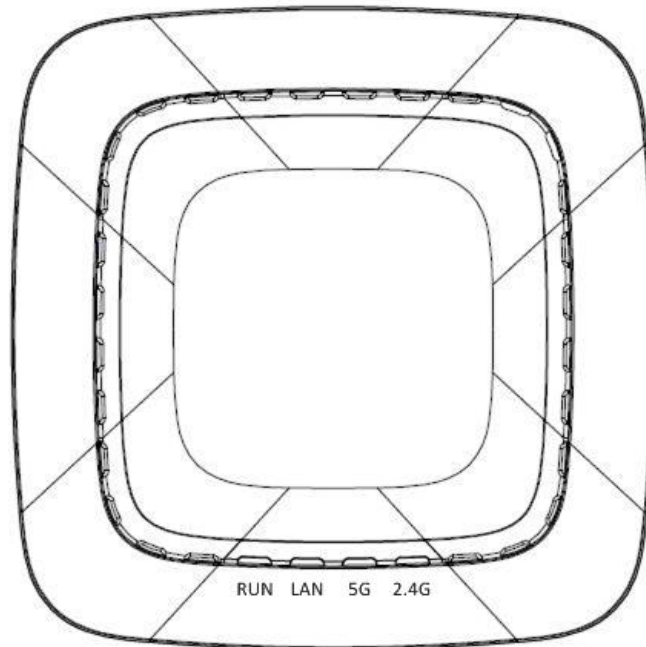


Figure4 Indicators

Table5 Indicators of the WF-122

Indicator	Color	Status	Description
RUN	-	Off	No power to AP
	Red	Steady on	The hardware of the device is failure.
	Green	Blinking	The device is managed by controller.
LAN	-	Off	The Ethernet link is unavailable.
	Yellow	Steady on	Reserved for link speed (NIB in PCB)
	Green	Steady on	The Ethernet link is negotiated, and the rate is 1000Mbps.

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Indicator	Color	Status	Description
		Blinking	The Ethernet link has been activated.
5G	Green	Off	The 5G Hz radio is disabled.
		Steady on	The 5G Hz radio is enabled in HT WLAN mode.
2.4G	Green	Off	The 2.4G Hz radio is disabled.
		Steady on	The 2.4G Hz radio is enabled in HT WLAN mode.

Users can turn off indicators by the Web or the Wi-Fi controller:

- Default configuration: Indicators are all turned off after 15 minutes.
- Using web or AC can permanently turn on LED

4 Installation

4.1 Preparation

- Installation Environment
 - Operating ambient temperature: 0°C ~ 45°C
 - Operating ambient humidity: 5% ~ 95% relative humidity
- Installation mode: Wall mounting, or cell mounting.
- Installation tool: Network cables, power adapter, screws, a screw-driver, a 9/16-inch and 15/16-inch T-bar.
- Installation site: Please ensure the visibility between the WF-122 and a base station AP, and there are no tall buildings and woods block between them.

4.2 Packing List

- 1 x WF-122
- 1 x Cell mounting kit
- 1 x Wall mounting bracket
- 1 x Quick Start Guide

4.3 Procedure

4.3.1 Connect to the Service

1. Connect the WF-122 to the service. Plug the network cable into the **LAN/PoE** port.

Notice

The longest length of the network cable plugged in to the **LAN/PoE** port is up to 50m, and the network cable complies with the DC resistance definition in the YD/926.2 protocol.

2. If necessary, use a power adapter to connect the **12V 1.5A** port to the power

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socket.

Notice

If no power adapter, please see the next step to use the PoE function, which can power on the WF-122.

3. Check the status of indicators of the WF-122. If the **RUN** and **LAN** indicators turn blinking green, the installation of the WF-122 is successful. Otherwise, please refer to [4 FAQs](#).

4.3.2 Cell Mounting

1. Mount the bigger kit first to a 9/16-inch and 15/16-inch T-bar of the cell, and drive two screws into the T-bar to fix the kit. Push the smaller kit to the bigger kit.

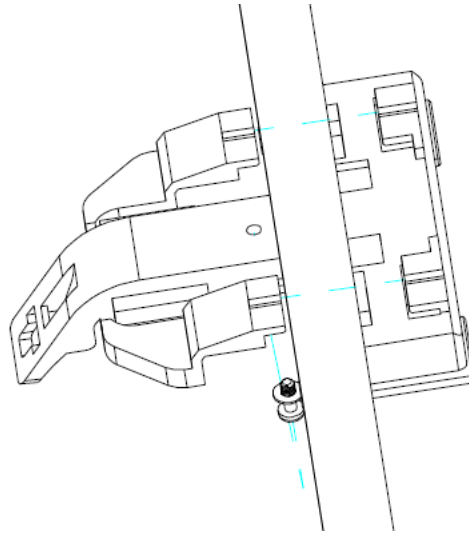


Figure5 Mount cell kits

2. Install the WF-122 to the kit

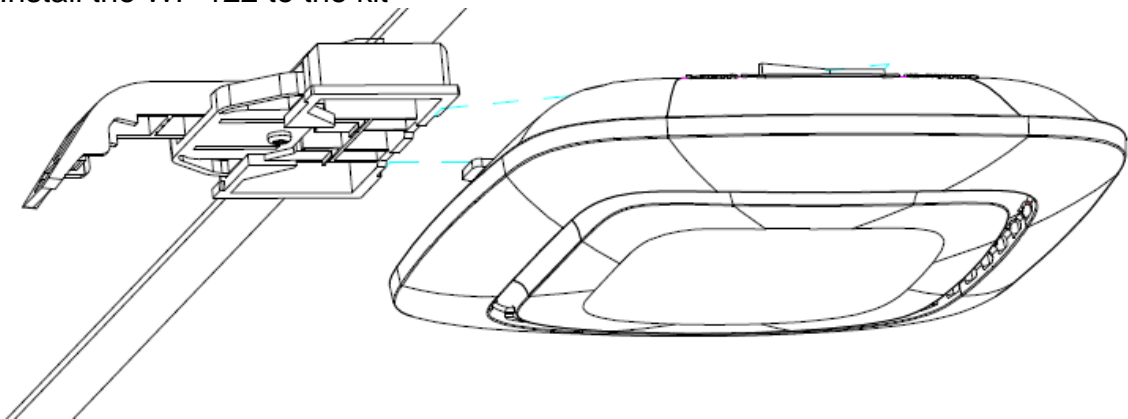


Figure6 Mount the WF-122 to the cell

4.3.3 Wall Mounting

4. Drive two screws to fix the wall bracket to the wall. The dimension between two

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screws mounted on the wall is 60mm.

5. Push the WF-122 to the bracket from up to down. Open the fastener in down to up direction, and pull the door below of the WF-122 in the up to down direction.

5 Logging in to the Web Page

5.1 Configure PC IP address

1. Connect your PC to the “LAN-IN” port on PoE Adapter of AP.
2. Configure your wired NIC with a static IP address on the 192.168.188.x subnet (e.g. 192.168.188.202).

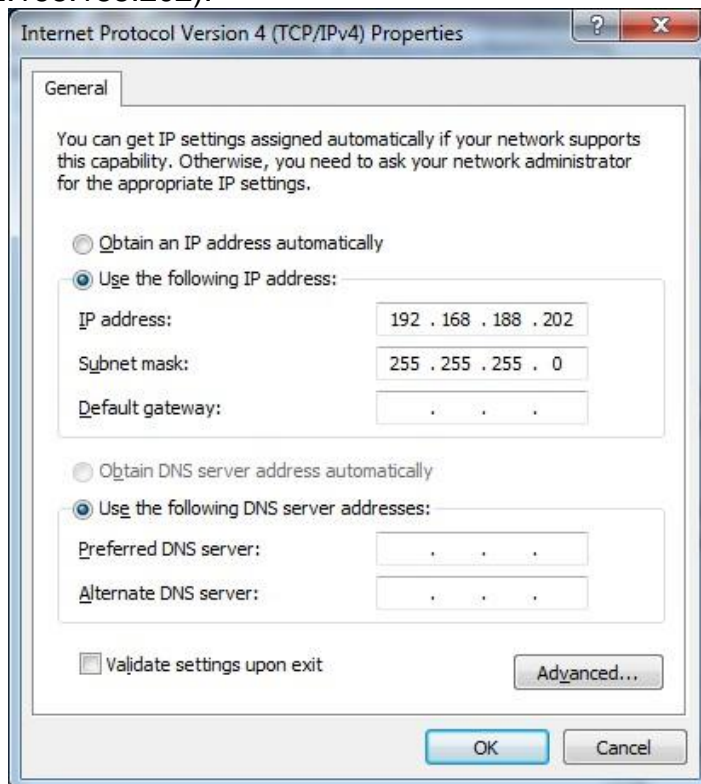


Figure7 Internet Protocol Version 4 (TCP/IPv4) Properties dialog box

5.2 Log in to the web page.

1. Enter the default IP address **http://192.168.188.251** in the address bar of the web browser and press Enter.
2. Enter the default username and password (username: admin, password: password), After password authentication is successful, the web page is displayed, as shown in Figure 13.

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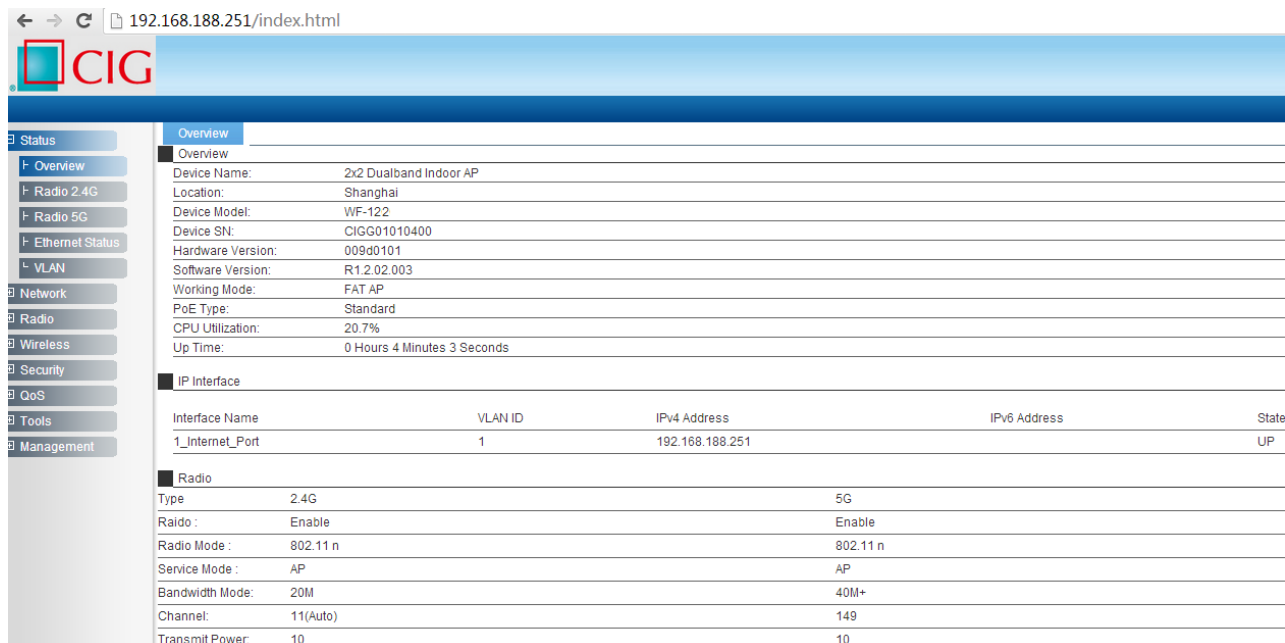


Figure8 Web page

6 FAQs

Table6 lists solutions of the frequently asked questions

Table6 FAQs of the indicators

FAQ	Solution
The RUN indicator is off.	Check that the power adapter is plugged into a live AC outlet.
	Check the power cable for shorts or breaks.
	Check whether the connection between the LAN/POE port of the combiner and the LAN/POE port is correct.
The LAN port indicator is off.	Check whether the connection between the LAN/POE port of the combiner and the LAN/POE port is correct.

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Federal Communications Commission (FCC) Interference Statement

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 generate, 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 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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.