



MOKO BLE to WiFi Gateway

MK110 Plus Series



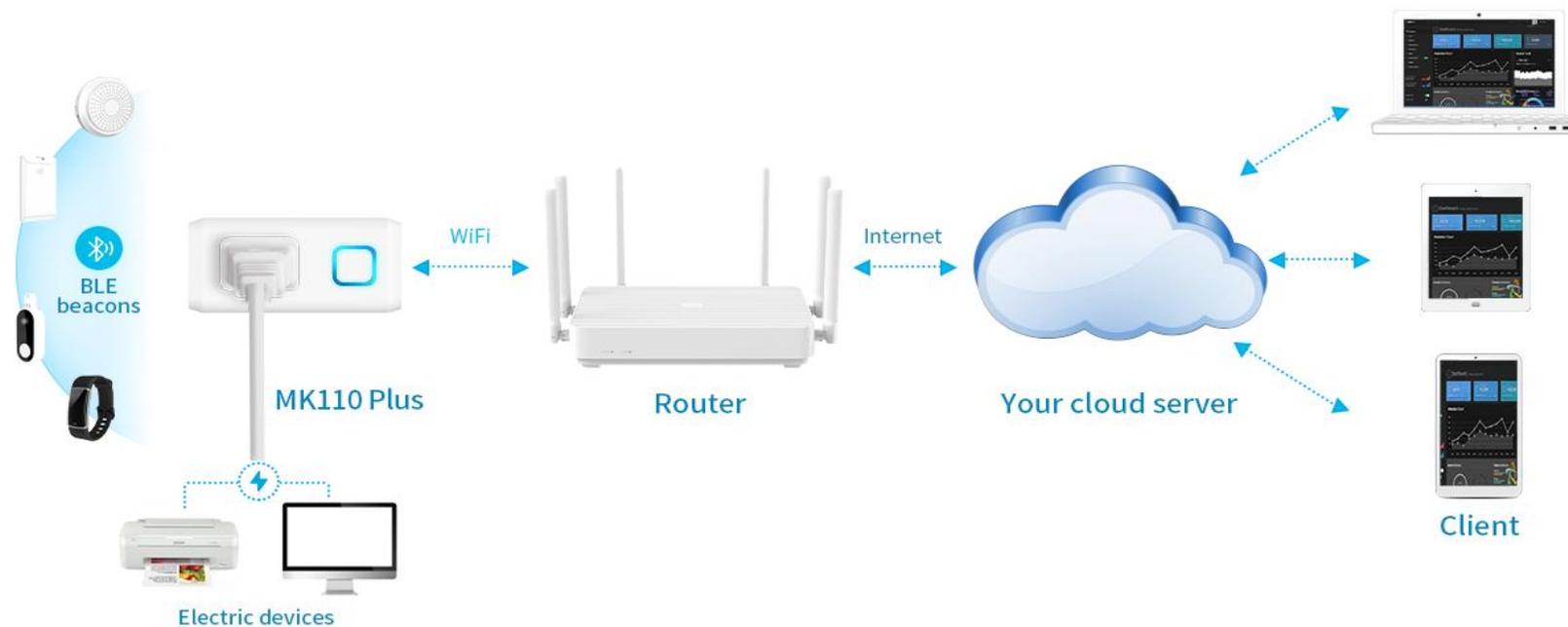
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Product Introduction

MK110 Plus series is a BLE to WIFI gateway, it has a mini body and plug-and-play design, which makes the installation and deployment simple.

The gateway is a data bridge between beacon devices and your cloud server, it support the uplink communication with cloud server, collects beacon advertising data through Bluetooth and uploads them to server through WiFi. It also supports the downlink communication with Beacon devices, users can manage the Beacon device on the cloud by sending commands to the gateway. Based on these features, the gateway can be widely used in real time location service, condition monitoring, assets tracking and personal safety management.

MK110 Plus can connect to the customer server through a personal or enterprise (**WPA2-Enterprise**) WIFI network, it also can work with some popular IOT platforms, such as AWS iot, and Alibaba Cloud iot. Which provides a securite and private way to help users get beacon data and do some application development.



Product Model

MK110 Plus series includes three product models, their main differences are the WIFI and BLE module, which determines their performance and cost.

Product Model	WIFI module	BLE module	Description
MK110 Plus 01	2.4G WIFI and BLE4.2 two-in-one module		/
MK110 Plus 02	2.4G WIFI module	BLE5.0 module	Supports BLE long range
MK110 Plus 03	Dual band WIFI module	BLE5.0 module	Supports BLE long range



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Features



Mini size and compact design

The gateway has a mini body, will not block the second socket when deployed.



Child resistant shutter design

Designed to inhibit access to the electricity supply, unless Live and Neutral pins are all in position



Support Enterprise WIFI security

The gateway can connect to WPA2-Enterprise WIFI, making a security network connectivity



Connect to customer server

The gateway supports connecting to customer's own server, ensuring the data security and privacy.



Efficient data filtering mechanisms

Filter by RSSI, MAC address, ADV name and raw data to help users obtain target beacon data. It also supports filter out the duplicate data, to reduce too many duplicate data uploaded to server.



Powerful data decoding capabilities

Locally decode iBeacon, Eddystone(UID/URL/TLM) and all MOKO beacon advertising data.



Manage Beacon devices

The gateway can connect and communicate with the certain Beacon device, so that users can manage beacon device on the Cloud.



FCC&UL certified

Product quality and safety are guaranteed.

Applications



1. Smart Workplace

The gateway is installed into the power socket in the office. Employees wear cards or B1 Beacon, and install Asset Tag Beacon on the office assets. The gateway scans Beacon data and uploads data to server to achieve the work link of the Beacon-gateway-server. The application processing of the server can achieve different intelligent scenarios, such as:

1. The gateway scans the advertising data of employee's card and asset tags, and reports data to the server in real time. Combined with the server application, the beacons location can be calculated, then personnel positioning and asset tracking can be easily achieved.
2. Set the gateway start scanning every day at 9:30 am and at 18:30 pm, the employee who are scanned is attending, while the employee who are not scanned could be late or early leave. With this way, we can realize the intelligent attendance.
3. Using the gateway together with MOKO B1 Beacon for employee safety management. When employees encounter unexpected conditions, they can push the alarm information to the gateway by pressing the button on B1. Then the rescuers can provide a timely assistance.



2. Smart Factory

Install the gateway into the power socket of the factory warehouse, deploy beacons on warehouse assets and forklifts, deploy temperature and humidity sensors inside some goods that require strict storage conditions. The gateway scans the beacon data and uploads it to the server to realize the working link of data from beacon-gateway-server. Combined with the application processing of the server, different intelligent scenarios can be realized, such as:

1. Set the gateway scan these assets in the warehouse every 30 minutes, to regularly detect whether the assets are in the warehouse;
2. Set the gateway scan the temperature and humidity sensor every 5 minutes, and enable duplicate data filtering at the same time, which can be used to regularly monitor the environmental conditions of the goods, and get timely notifications when the environment changes to ensure a suitable environment for goods storage.
3. Set the gateway start scanning at 18:30pm every day to detect whether the forklift or the goods are in place or not.



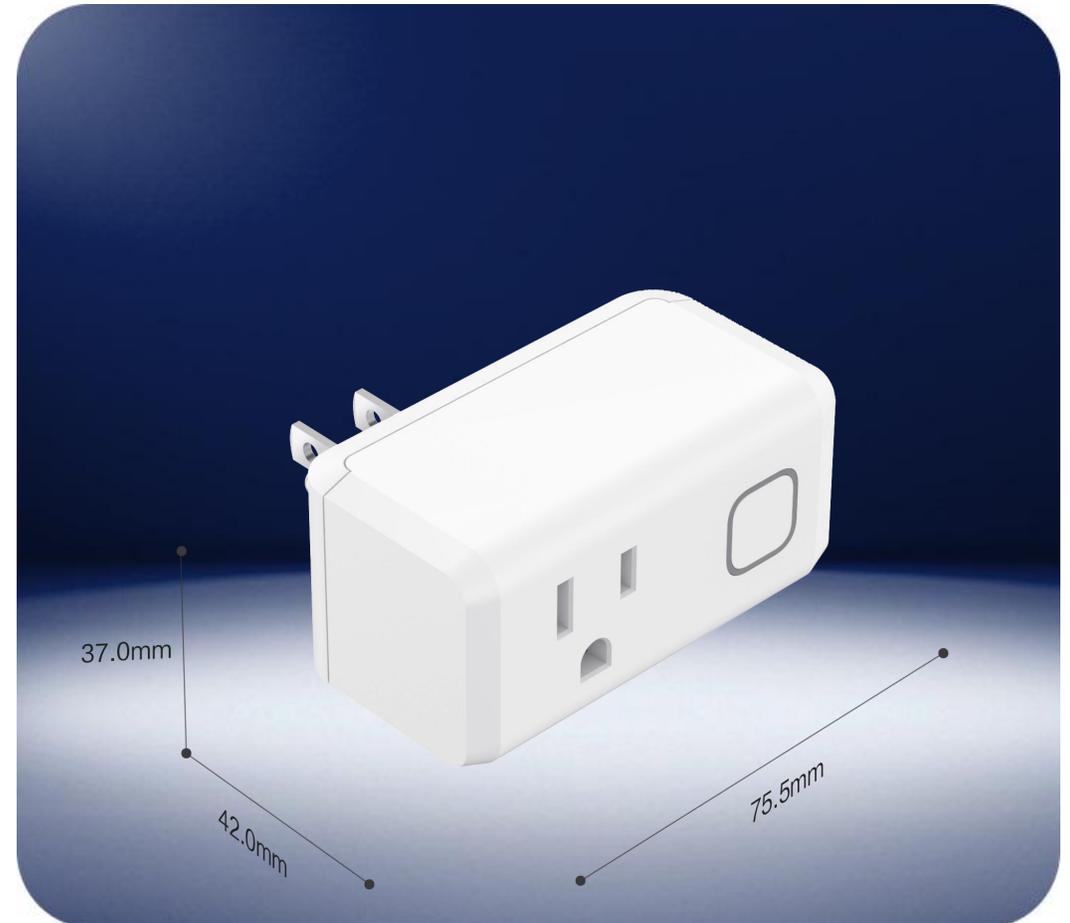
3. Smart Healthcare

The gateway is deployed in the hospital, caregivers or patients wear B1 beacons, and Asset tag beacons are installed on hospital assets (such as medical instruments, wheelchairs, and hospital beds). The gateway scans and uploads the broadcast data of the beacon to the server in real time, realizes the working link of the data from the beacon-gateway-server, combined with server processing, can realize different intelligent scenarios, such as:

1. After the server processes and calculates the beacon data uploaded by the gateway, it can obtain the location information of personnel and assets, realize personnel positioning and asset tracking, reduce personnel search time and realize visual monitoring of goods.
2. When caregivers and patients need assistance in case of an emergency, an alarm is triggered through the button on the B1 Beacon, the gateway scans the alarm information and uploads it to the server immediately, the rescuers will quickly know who and where needs help, reducing the response time.

Main Specification

Physical	
Plug type	US type
Input	120VAC, 60HZ
Output	15A, 1800W max
Dimension	75.5*42*37mm
Color	White
Material	PC+ABS
WIFI	
Band	MK110 Plus 01/02: 2.4GHz MK110 Pus 03: 2.4G&5.0GHz
Protocol	MK110 Plus 01/02: 802.11 b/g/n MK110 Pus 03: 802.11 a/b/g/n
Security	Personal and WPA2-Enterprise(PEAP/TLS/TTLS)
Bluetooth	
Protocol	MK110 Plus 01: BLE 4.2 MK110 Pus 02/03: BLE 5.0
Certification (Pending)	
Certification	UL & FCC



IoT Technologies



Customized Service

Hardware design

If MOKO existing product does not meet your requirements, MOKO supports the redesign of the hardware according to your needs.

Product ID+MD customization

If MOKO existing product does not meet your requirements for appearance, MOKO supports the redesign of product ID and MD to help you create a totally new product.

Firmware/APP customization

If MOKO existing product does not meet your requirements for software, MOKO supports to modify the firmware/APP to make it meet your application scenario.

Firmware verification

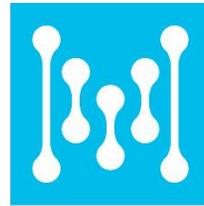
MOKO supports to flash custom firmware when mass production. MOKO provides relevant development documents to help you develop your own firmware.

Logo/Packaging design

MOKO can provide white label services, support custom packaging boxes, labels and logo printing to help you quickly establish your own brand.

Certification Service

As a long-term partner of TUV/UL lab, MOKO engineers are familiar with the certification standards of various countries, can provide professional certification services to help you obtain the certificates quickly.



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MOKO TECHNOLOGY LTD.

Address: 4F, Building 2, Guanghui Technology Park, MinQing Rd, Longhua,
Shenzhen, Guangdong, China
E-mail: Sales@mokosmart.com
Website: www.mokosmart.com