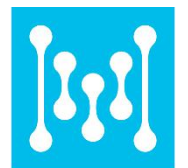# MOKO BLE to WIFI Gateway

MK107 Series

MOKO SMART

Product Introduction

MK107 series product is a Bluetooth Low Energy (BLE) to WIFI gateway, which works as a data bridge between your beacon and cloud server. It scans and collects the advertising data of the surrounding beacon through Bluetooth, and uploads the Bluetooth data packet to your server through the WIFI network, effectively realize indoor positioning service, centralized asset tracking and real-time status monitoring in a low-cost way.

MK107 gateway supports the connection of standard MQTT broker (such as EMQTT, Mosquito) and other servers that support the MQTT protocol, also can work with AWS iot and Ali iot. All data of the gateway will be directly uploaded to your own server, convenience for your further application development.

MK117   WiFi   Router   Internet   Your cloud server   Client

MQTT
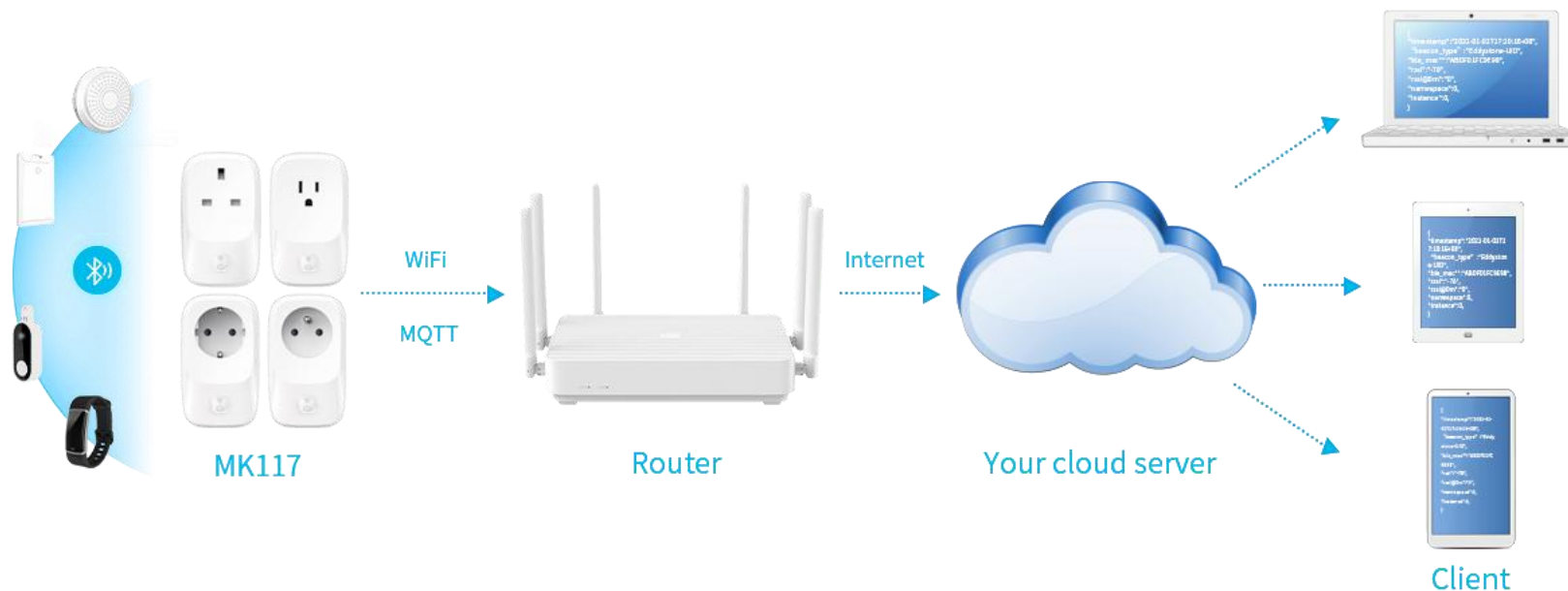
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Product Model

The MK107 series includes several product models, the product model list is as below:

Series Model	Master Module	Slave Module	Product Model	Description
MK107	ESP32 (2.4GHz WIFI & BLE 4.2)	/	MK107- B	US type
			MK107- G	UK type
			MK107- F	EU type
			MK107- E	FR type
MK107 Pro	ESP32 (2.4GHz WIFI)	nRF52833 (BLE 5.0)	MK107Pro- B	US type
			MK107Pro- G	UK type
			MK107Pro- F	EU type
			MK107Pro- E	FR type
MK107D Pro	RTL8720 (2.4GHz & 5GHz WIFI)	nRF52833 (BLE 5.0)	MK107DPro- B	US type
			MK107DPro- G	UK type
			MK107DPro- F	EU type
			MK107DPro- E	FR type

Note: D - Dual Frequency;
Pro - The hardware has a separate Bluetooth module and WIFI module.

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Features

Support wide range of voltage input

Supports AC 100-240V, 50/60HZ voltage input.

Support AC power output

The AC output can supply power for your other electrical devices.

Flexible hardware solution

The control board can be quickly replaced to realize different hardware versions. Customers have more choices according to the performance and cost.

FCC&CE certified (pending)

Product quality and safety are guaranteed.

Connection to customer server

➢ All data is directly uploaded to your server, convenient for your further application development.
➢ Also ensures the data security and privacy.

Built-in MOKO standard firmware

➢ Filter by RSSI, MAC, ADV name and raw data to effectively obtain the target data.
➢ Upload only unduplicated data to your server in a filter period, effectively saving server resources.
➢ Locally decode iBeacon, Eddystone(UID/URL/ TLM) and all MOKO beacon raw data.

Applications

Based on its low cost, simple deployment and real-time scanning features, MK107 gateway can be widely used in indoor positioning services, real-time condition monitoring and asset tracking, and is mainly used in smart factory, smart healthcare, smart farms and smart workplace.


1. Indoor positioning service
Deploy the gateway in the museum/exhibition, visitors who enter wear a beacon. The gateway scans the advertising data of the beacon and uploads the data to the server. According to RSSI, MAC address and other information, the real-time location of the visitor can be calculated and located on the server.
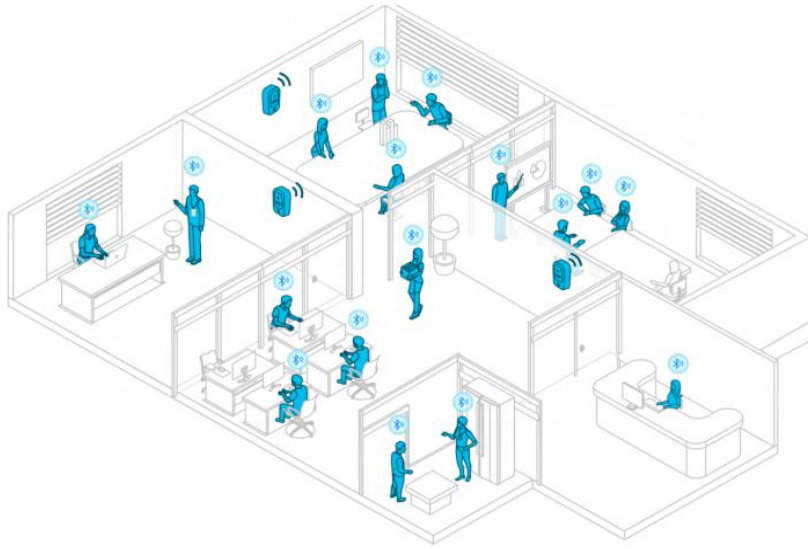
Scenario 2: Smart Workplace

Deploy the gateway in the workplace, the personnel need to wear an ID card (Beacon), the gateway scans the advertising data of the card and uploads it to the server. You can know the employee's attendance status, working hours and interaction at any time on the server.


23.5°C

45%
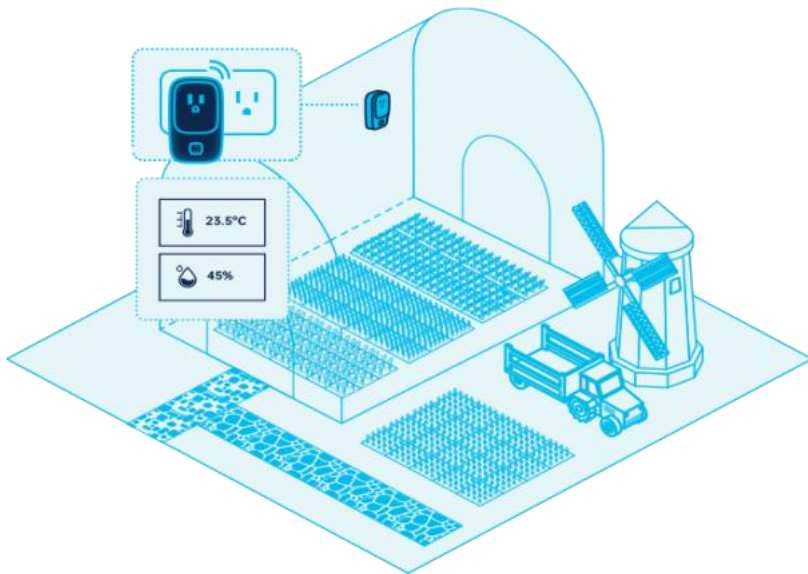
Scenario 3: Smart Farm

Deploy the gateway in the greenhouse, it can work with the temperature and humidity sensors. The gateway scans the advertising data of the sensor and uploads the data to your server. Generate the T&H change trend report on the server and send a notification when the temperature or humidity exceeds the appropriate range, so that the farmer can make timely adjustments.
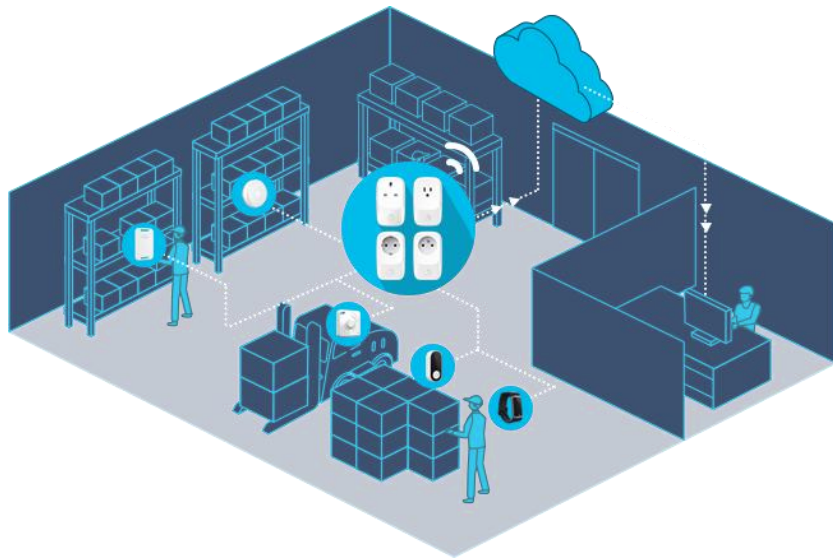
Scenario 4: Smart Factory

Deploy the gateway in the factory, and deploy beacons on some important equipment, goods and forklifts. The gateway will scan the advertising data of the beacon and upload it to your server. The server can compute and locate the real-time position of the goods, generate motion trajectory reports, so as to understand the utilization rate of the goods. It also can send a notification when the goods are not scanned for a period of time.
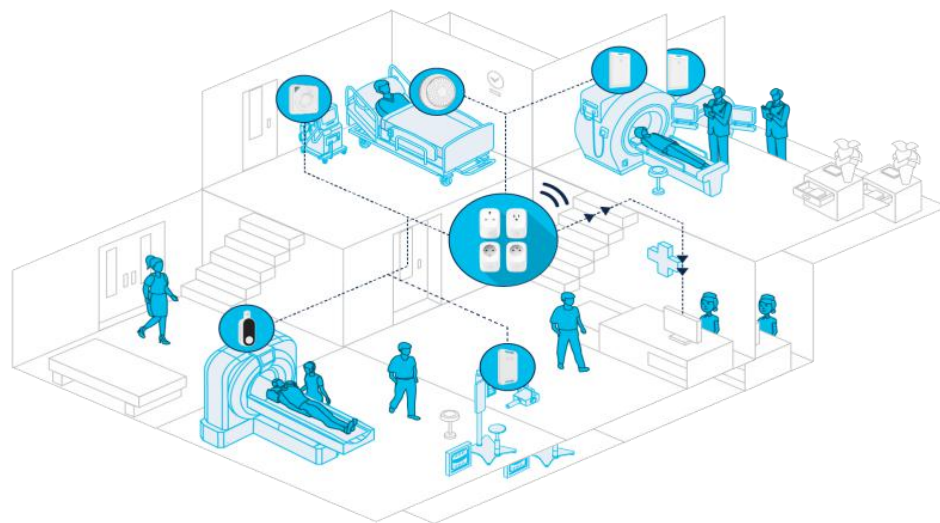
Scenario 5: Smart Healthcare

Deploy the gateway in the hospital and deploy the beacon on some important and often used medical equipment. The gateway will scan the advertising data of the beacon and upload the data to the server. The server can compute and locate the real-time position based on the timestamp, RSSI, mac address and other messages, so as to realize asset tracking and management.

Main Specification

Wireless

WIFI & BLE

Power Supply

100V-240V AC, 50/60Hz

Material

ABS + PC

Dimensions

104mm*61mm*34.5mm

Plug Type

US/UK/EU/FR

Output Capacity

US type: 15A
UK type: 13A
EU/FR type: 16A

Color

White

Certification (pending)

USA: FCC
Europe: CE
(The certifications are on the process, other certifications can be customized)

Customized Service

Based on MOKO standard product

➢ You can develop your own mobile APP, MOKO provides Android and iOS APP SDK for you to reduce your development time
➢ Provides white label service, support customized label and package, also can print your company logo on the products
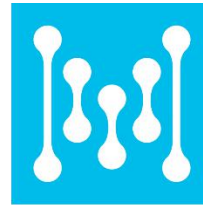
Based on MOKO standard hardware

➢ Flash custom firmware, MOKO provides schematic for your firmware development
➢ Support firmware and APP modification according to customer's requirements
➢ Support light customization on MOKO standard hardware

New product design

If MOKO standard products don't meet your requirements, MOKO supports the design of new products for you, including:
➢ Hardware design
➢ Software development
➢ Mechanical design

More details about the customized services, please contact our sales team: Sales@mokosmart.com

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