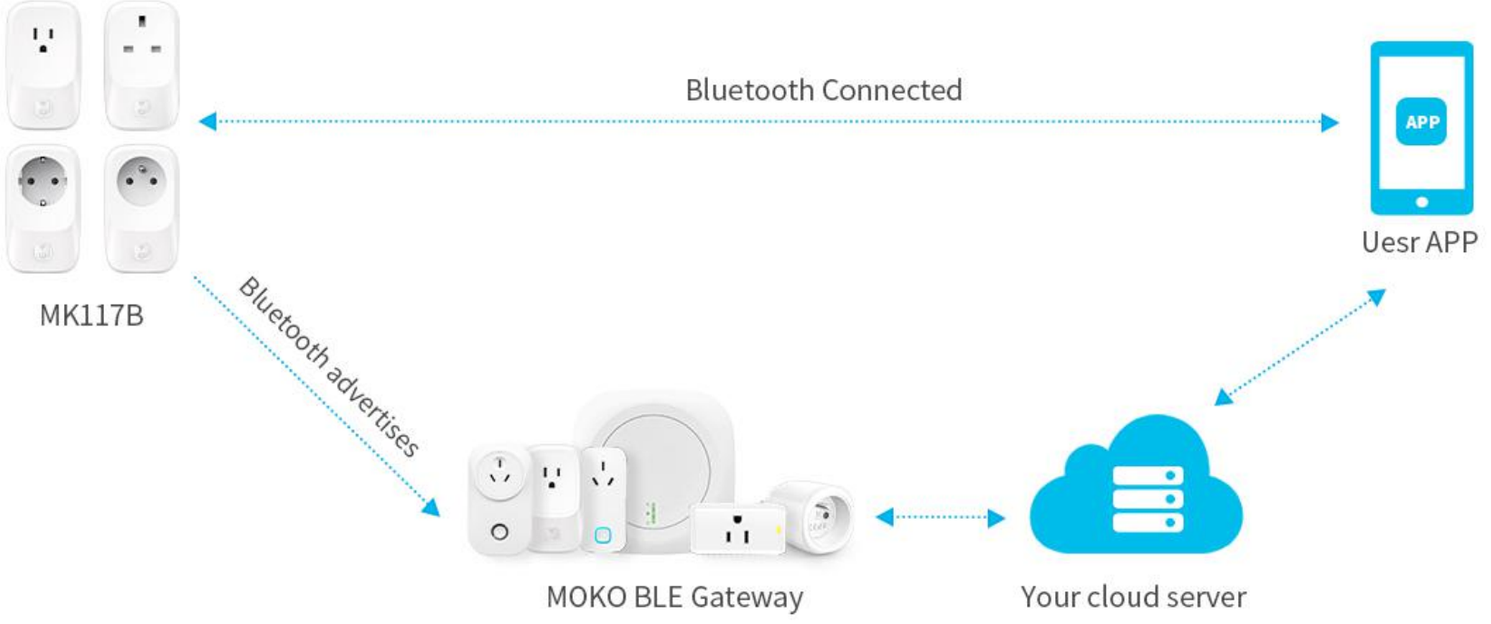
MOKO BLE Smart Plug
MK117B

MOKO SMART

Brief Introduction

MK117B is a BLE smart plug with power and energy monitoring, the measuring accuracy is ±0.5%. It is based on Nordic nRF52833 to realize Bluetooth communication which makes the connected electrical devices smart and controllable.

The plug can be connected with APP via Bluetooth, users can remotely control it and get its real-time power and energy data. It can also work with MOKO BLE gateways, it will advertise the real time switch status and power data via Bluetooth, the gateway collects and ultimately sends the data to your cloud server, so that users can effectively monitor the work status of your electrical devices and centralized manage your electricity bills.



Product Model

MK117B contains multiple plug types, the model list and picture are as below:

Model	Bluetooth Module	Product Model	Description
MK117B	MK07A-nRF52833	MK117B- B	US type, max current is 15A
		MK117B- G	UK type, max current is 13A
		MK117B- F	EU type, max current is 16A
		MK117B- E	FR type, max current is 16A

MK117B- B

MK117B- G

MK117B- F

MK117B- E

Features

1. Support wide range of voltage input

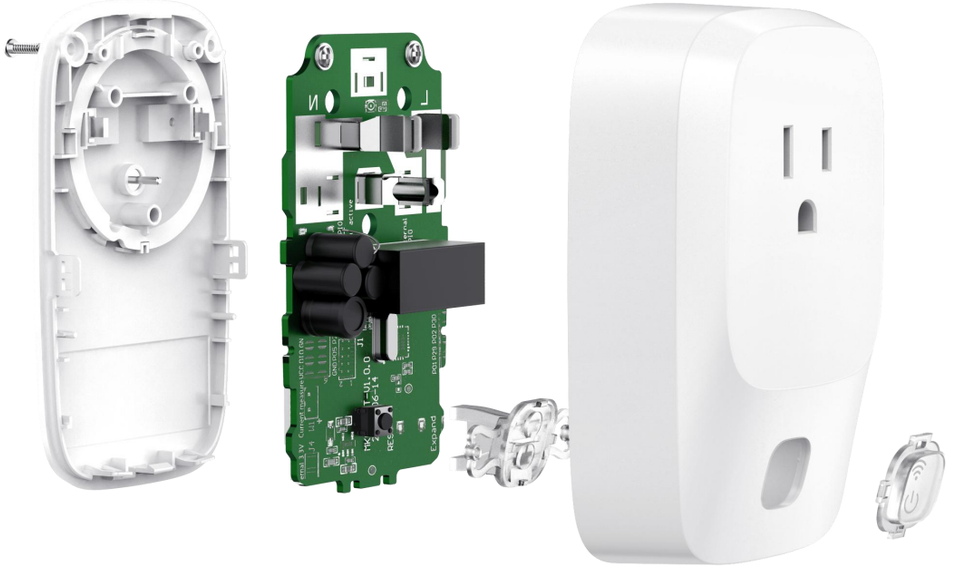
Supports 100V-240V, 50/60Hz voltage input

2. Multiple plug types

Support multiple plug types, can be used in many countries

3. Mature and reliable hardware design

- Low ripple and low noise AC-DC power supply circuit design
- Industrial grade relay
- Professional power metering chip RN8209C and high accuracy sampling resistors
- Built-in EEPROM is used to locally store energy data



4. FCC&CE certified (pending)

Product quality and safety are guaranteed

Features

5. ±0.5% measuring accuracy

- Real-time voltage, current, active power, power factor and frequency measurement
- Locally store the energy data, including the current day/last 30 days/ historical total energy consumption

6. Multiple protection mechanism

- Overload/overvoltage/overcurrent protection: When the plug detects the measured value exceeds the safe range, it will automatically turn off
- Undervoltage protection: When the plug detects the measured voltage under the safe range, it will automatically turn off

7. More intuitive device status indication

- The top indicator is used to indicate the device Bluetooth status
- The bottom indicator is used to indicate the device switch status, and the indicator color changes according to the active power of the connected load, users can intuitively and quickly capture the change of load power

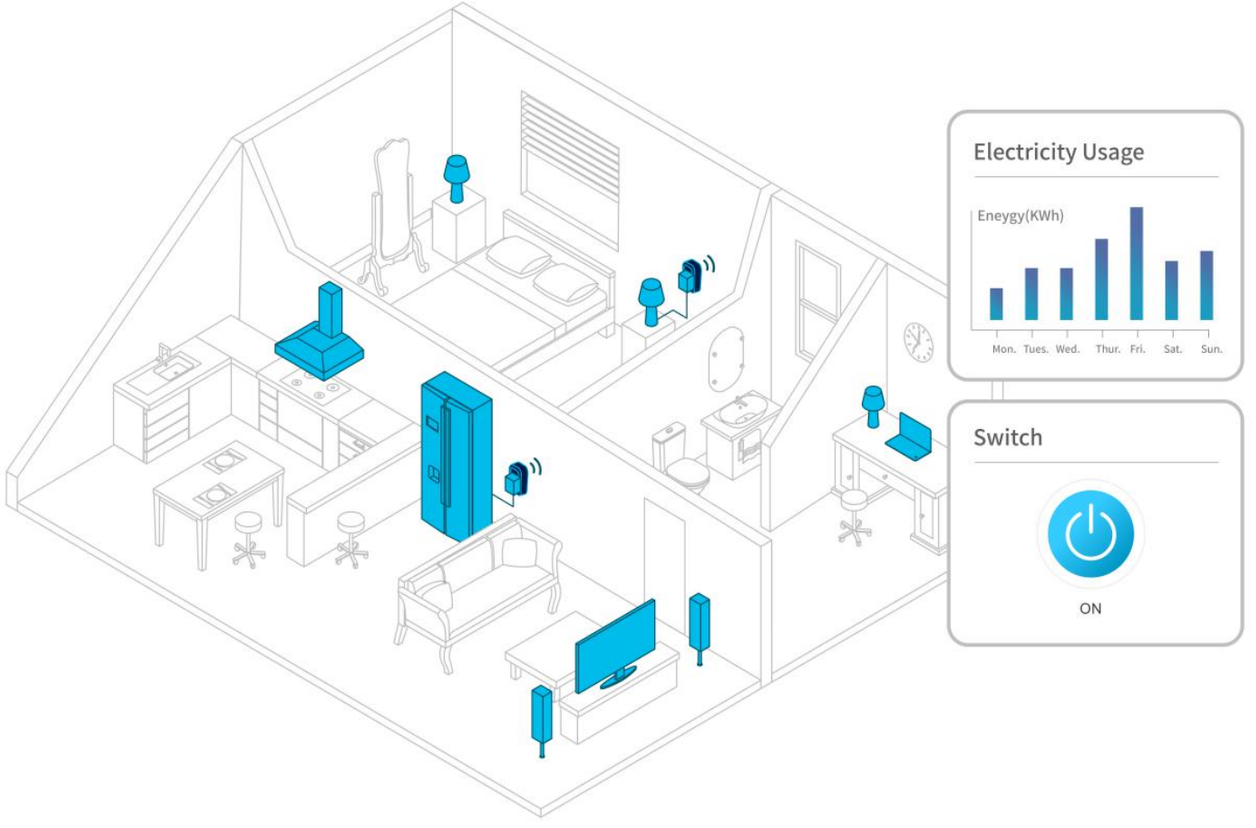
8. Load work status detection

When it detects that the connected load starts/stops working, immediately reports a notification to APP

9. Device parameters can be flexibly configured

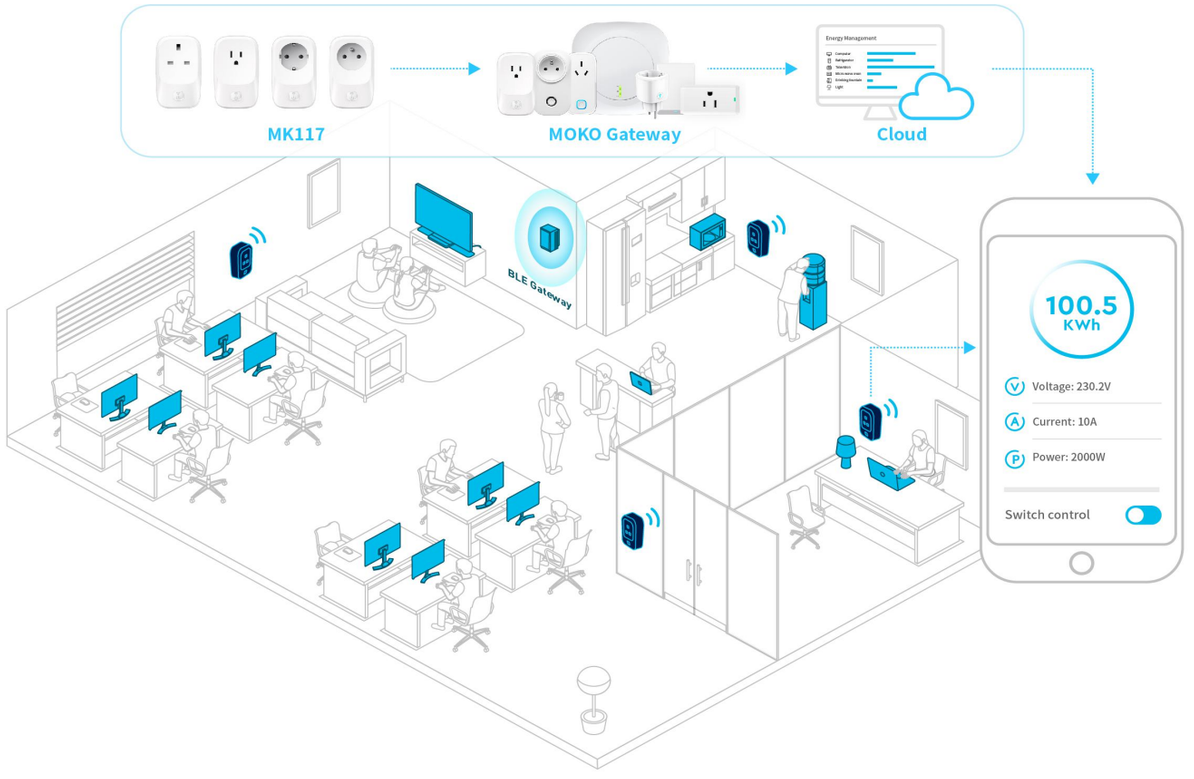
Users can flexibly adjust device parameters according to their application scenarios via APP

Applications



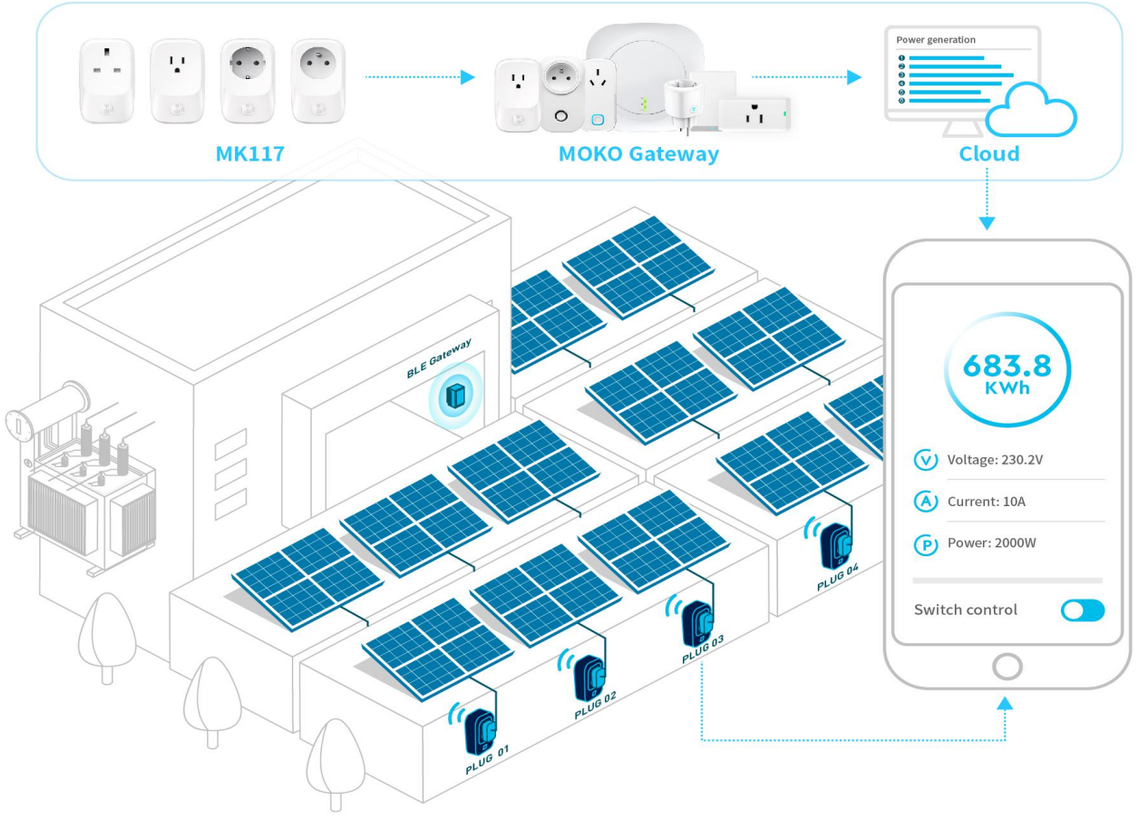
Scenario 1: Smart home appliance control
Connect the household appliance to the socket, you can remotely control the socket switch through the APP, set a switch countdown, and view the power consumption data of the connected appliance.

When the socket detects an abnormal voltage/current/power of the appliance, it will automatically turn off, which will minimize the electricity risk and saves your electricity bills.



Scenario 2: Smart office energy solution
Monitor the power consumption of some frequently used office equipment or electrical appliances. The plug can automatically turn on the conencted devices on working hours and turn them off on the working-off hours, which provides an easy way to save energy and bills.

It can also work with a BLE gateway, the gateway can collect the advertising data of all nearby plugs, and uploads the data to the server in real time, the server can generate data analysis to find out the equipment with abnormal power consumption quickly, and limit the use when the power consumption exceeds the normal range. Which provides an effective way to monitor the real time status of electrical devices.



Scenario 3: Solar system metering
Deploy the socket in your solar system, the socket can measure the instantaneous voltage, current and power values generated by the system, and report the real-time data to the APP.

It can also work with a BLE gateway, the gateway can collect the advertising data of all nearby plugs, and uploads the data to the server in real time, you can calculate the energy generated by the system every day/month/year on your server.

Main Specification

Wireless

BLE 5.0

Plug Type

US/UK/EU/FR

Power Supply

100V-240V AC, 50/60Hz

Output

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

Material

ABS + PC

Color

White

Dimensions

103mm*61mm*34.6mm

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 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 and power metering SDK 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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