Rocktech Displays Limited

ROCKTECH

Smart Control Panel Spec

Module P/N: RK-A8E

Version: 1.0

Description: 8 inch Smart Control Panel

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Revision History

Date	Rev.	Page	Description
2023-07-28	1.0	All	First issue

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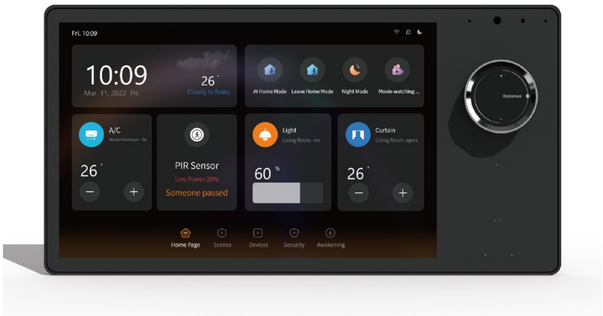
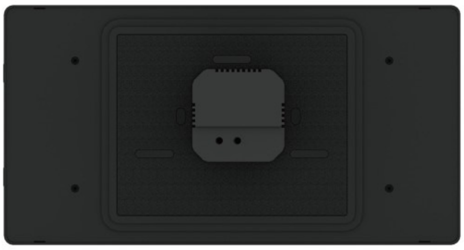
- General features
- Dimension and Interface
- Installation instructions
- Operation specifications
- Reliability testing standard
- Operation guideline
- Technical support

1. General features

Rocktech A8E Smart Control Panel is integrated with 5G+AI+IoT+Cloud technologies, offering customers control over appliances and the home environment, bringing convenience to life, as well as security and energy saving.

With display, touch, voice, motion and a built-in camera, you can choose the best way to interact with your home in every situation, via touch screen on your wall or via your phone.


10:09
26
At Home Mode
Leave Home Mode
Night Mode
A/C
PIR Sensor
Someone passed
Light
60
Curtain
26
Home Page
Scenes
Devices
Security
Awakening



RK-A8E Main Features:

● Standard A8E integrated Tuya Zigbee gateway , Working directly with Tuya PaaS/SaaS to save customer's development cost, supports communication via Zigbee, Wi-Fi, Bluetooth.

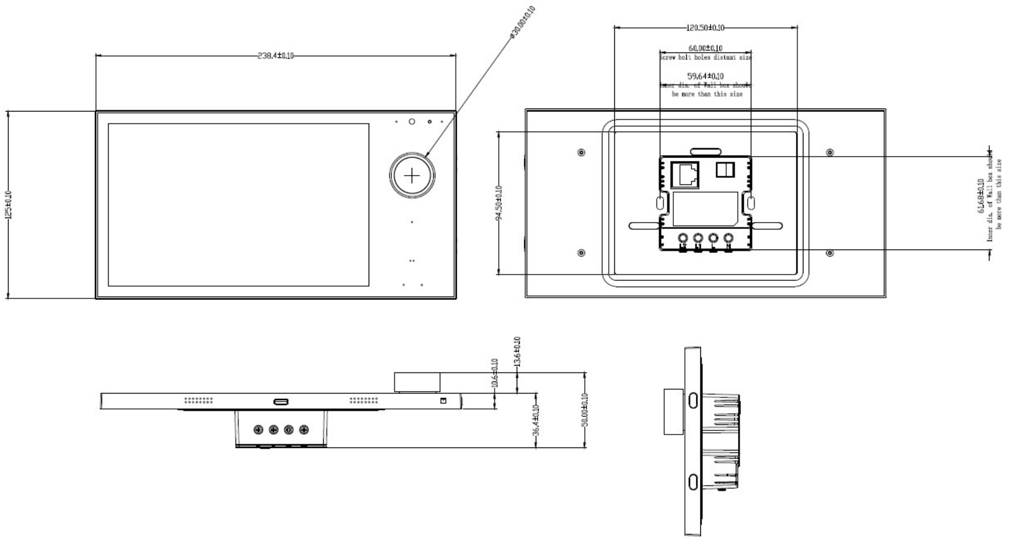
●Compatible with optional AS|EU|US standard wall boxes, simple in wall installation.

● 8-inch HD LCD, IPS, multi touch screen, double Array microphone with noise reduction, Auto light sensor, built in 2*1W speaker.

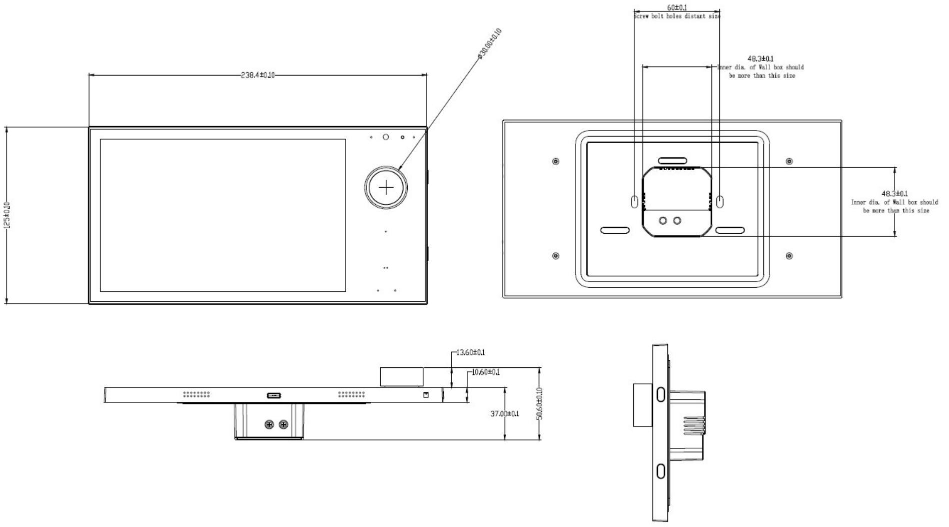
● Control the lights, curtains, air conditioners, and all other smart home devices. Configure smart home scenes in the APP, turn on/off the scene mode with one touch on the screen.

Specifications	
Product dimensions	A8E-AS: 238.4x125x36.4mm(With the back base), A8E-EU: 238.4x125x37mm (With the back base) A8E-US: 238.4x125x35.9mm (With the back base) 238.4x125x10.6mm (outside the wall)
Screen	8 inch 800*1280 HD LCD, IPS, multi touch screen
Operating System	Android 11
CPU	Rockchip RK3326S, Quad core Cortex-A35
RAM/ROM	2G+16G
Installation	In-wall concealed with 86 back box
Interface	Live/Neutral wire in, A8E-AS and A8E-US has Light1/Light2 wire out
Wireless Wi-Fi	Wi-Fi (IEEE802.11b/g/n 5G/2.4GHz)
Zigbee	802.15.4 PHY/MAC Zigbee network protocol stack
Bluetooth	BLE5.2 Single point
Relays	A8E-AS and A8E-US built in 2 relays(200W Each) which can control 2 switches of the room lights locally.
Key	Scene Switch*2 with indicator lights
Microphone	Double array microphone with noise reduction
Voice Control	Current standard solution does not support voice control. Can support customization.
Music play	Built in 2*1W speaker, support local/online music play
Light sensor	Automatically adjust the screen brightness according to surroundings.
Color	Black
Net weight	About 772g
One Smart Control Panel could control all your smart switches, smart plugs, lights, air conditioners, curtains, locks, security cameras, smart sensors, up to 100+ Zigbee sub devices.	

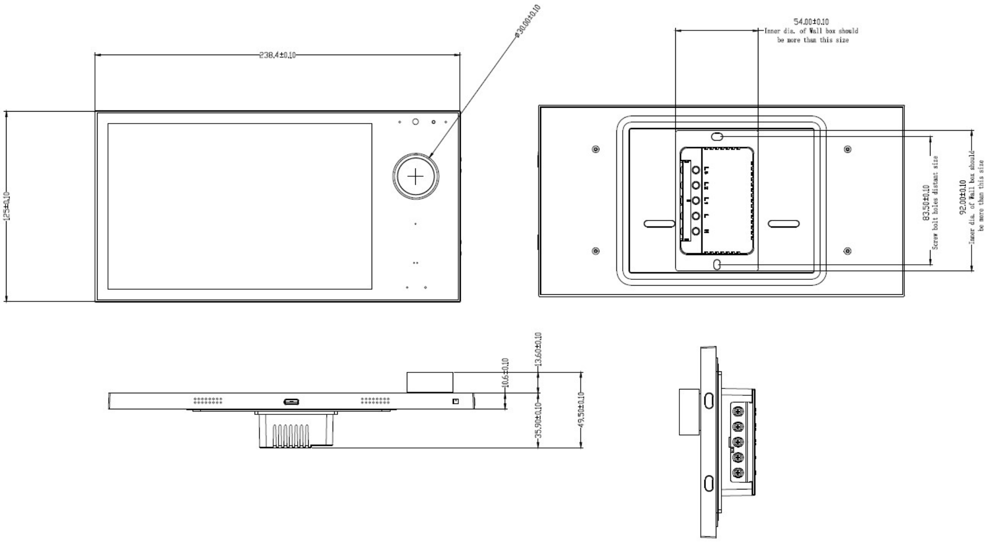
2. Dimension and Interface


238.4±0.10
Φ30.00±0.10
125±0.10
120.50±0.10
60.00±0.10
Screw bolt holes distant size
59.64±0.10
Inner dia. of Wall box should be more than this size
94.50±0.10
61.68±0.10
Inner dia. of Wall box should be more than this size
L2
L1
L
N
10.6±0.10
13.6±0.10
36.4±0.10
50.00±0.10

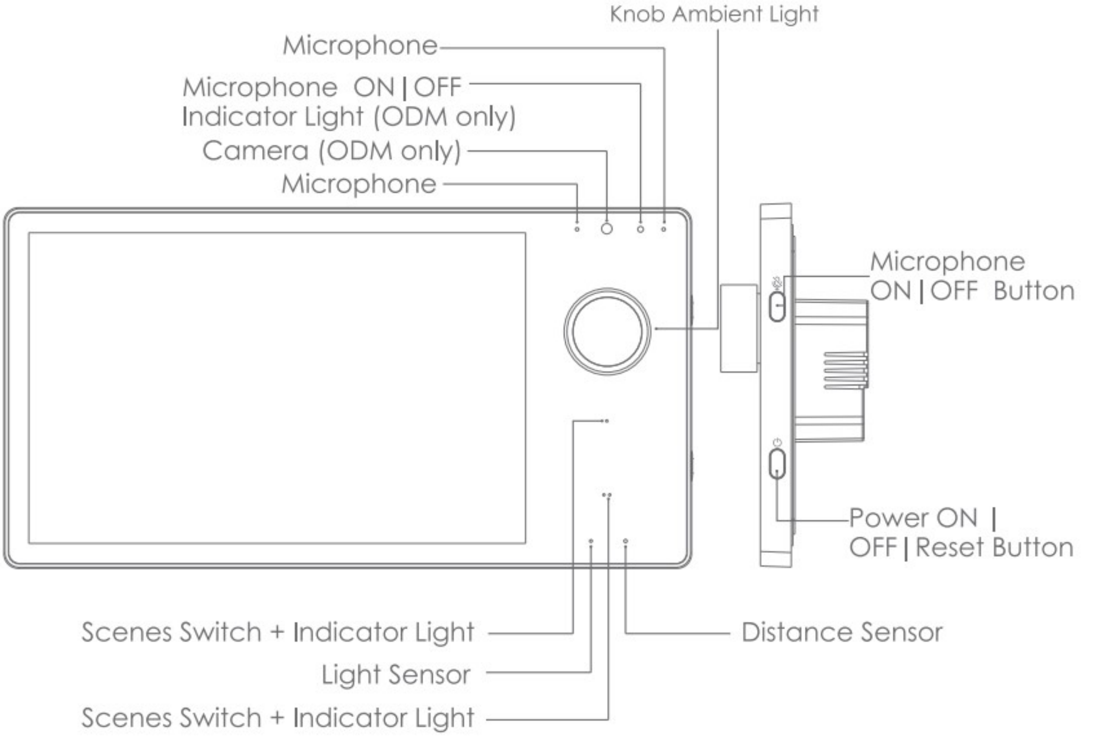
A8E-AS Outline Dimension


60±0.1
Screw bolt holes distant size
238.4±0.10
Φ30.00±0.10
48.3±0.1
Inner dia. of Wall box should be more than this size
125±0.10
48.3±0.1
Inner dia. of Wall box should be more than this size
13.60±0.1
10.60±0.1
37.00±0.1
50.60±0.10

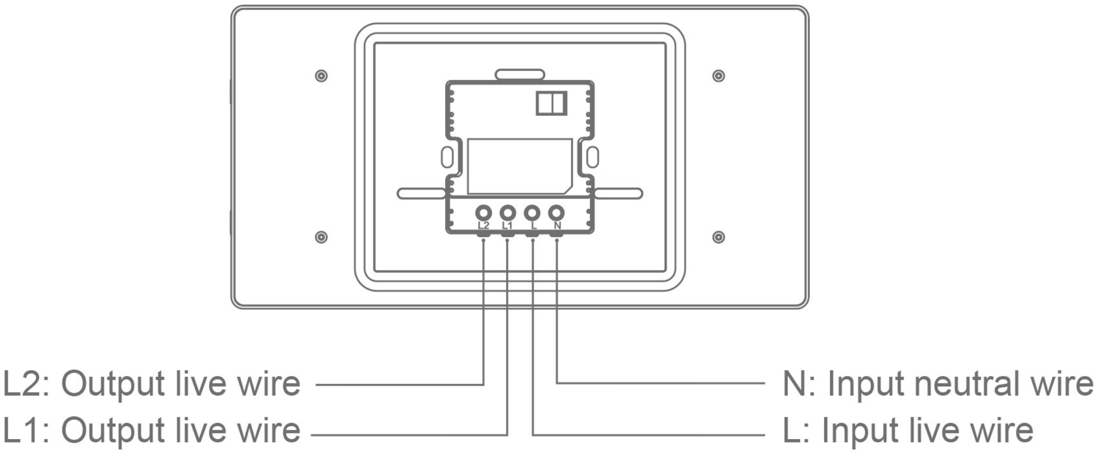
A8E-EU Outline Dimension


Φ30.00±0.10
54.00±0.10
Inner dia. of Wall box should be more than this size
238.4±0.10
125±0.10
83.50±0.10
Screw bolt holes distant size
92.00±0.10
Inner dia. of Wall box should be more than this size
L3
L2
L1
L
N
10.6±0.10
13.60±0.10
35.90±0.10
49.50±0.10

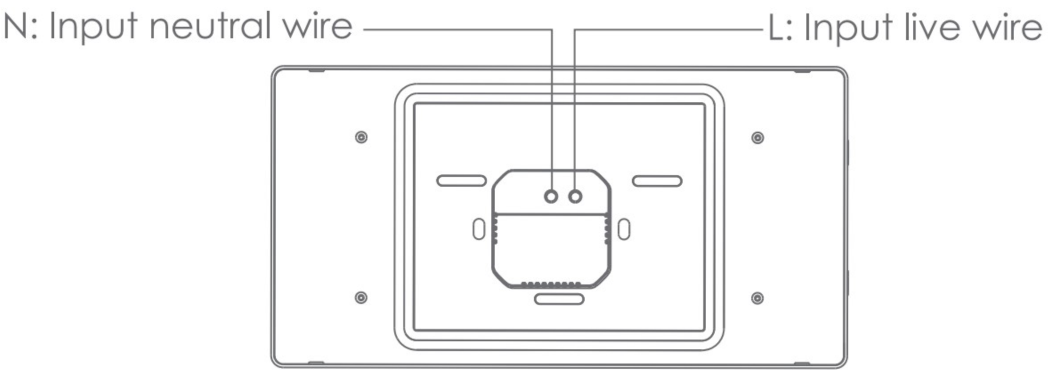
A8E-US Outline Dimension


Knob Ambient Light
Microphone
Microphone ON | OFF Indicator Light (ODM only)
Camera (ODM only)
Microphone
Microphone ON | OFF Button
Power ON | OFF | Reset Button
Scenes Switch + Indicator Light
Light Sensor
Scenes Switch + Indicator Light
Distance Sensor

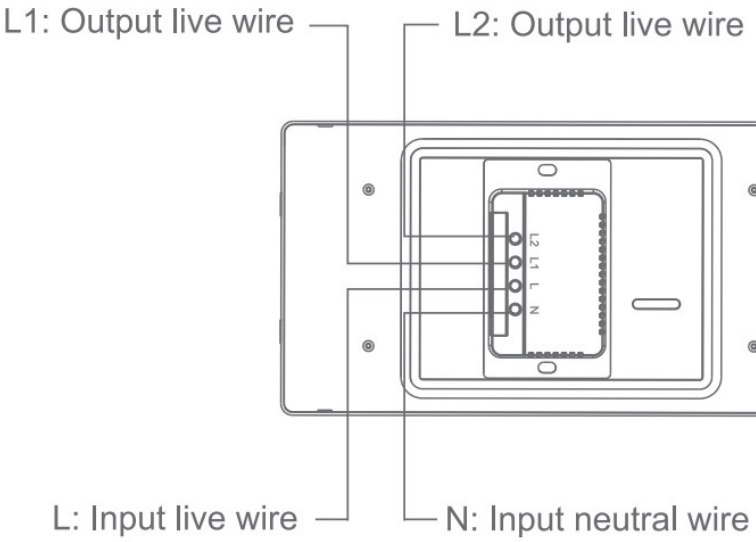
A8E front side


L2
L1
L
N
L2: Output live wire
L1: Output live wire
N: Input neutral wire
L: Input live wire

A8E-AS Back Base


N: Input neutral wire
L: Input live wire

A8E-EU Back Base


L1: Output live wire
L2: Output live wire
L2
L1
L
N
L: Input live wire
N: Input neutral wire

A8E-US Back Base

3. Installation instructions

- Turn off the main power in the electricity box and confirm the fire wire is not alive with a test pencil.

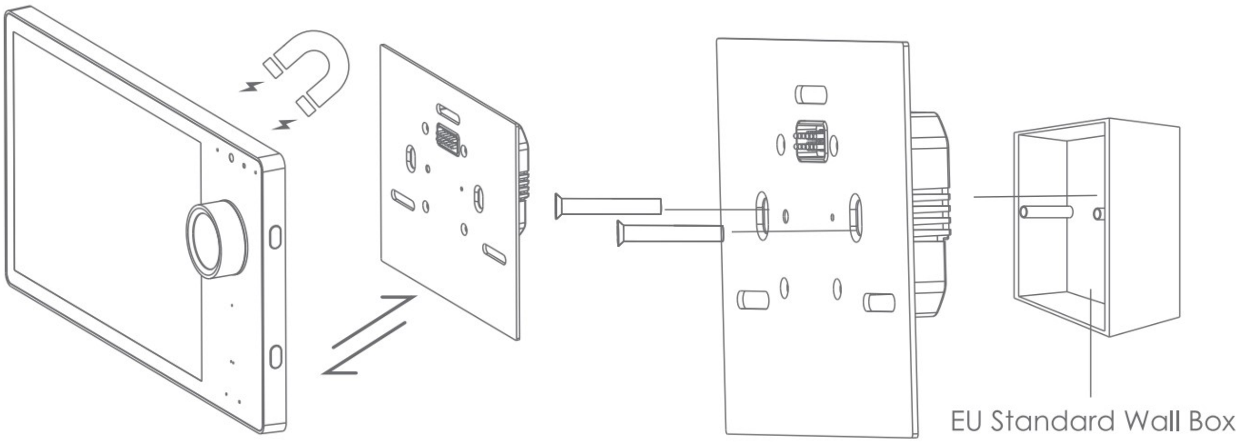
- Remove the base of the Smart Switch and install it in the wall box (as shown in the pictures following).

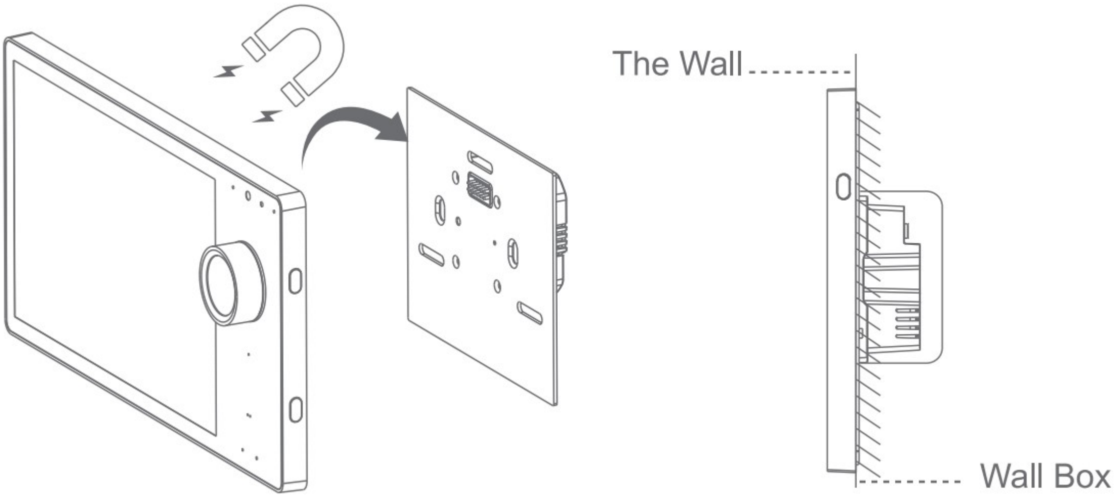
- Check the wires and make sure the wires are in good contact with the terminals and no exposed cooper wires.

- Fasten the base to the wall box with mounting screws and fix the Smart Switch back to the base.

- Note that the screws should not be fixed too tight during installation in case any deformation or damage to the screen and hardware.

- If the Smart Switch is not flat after installation, do not press the screen violently, please check the wall box and the base installation at first.





Depth of the wall box should be more than 50mm.

4. Operation specifications

Items		Min	Typical	Max
Power Supply	100~240V AC,50/60Hz	--	220V	
Power Consumption	Operating current	--	50mA	300mA
Environment	Operating Temp	-10℃	--	60℃
	Storage Temp	-30℃	--	80℃

5. Reliability testing standard

No.	Test Item		Test Conditions	Remark
1	High Temperature	Storage	80℃, 48Hr	
		Operation	60℃, 48Hr	
2	Low Temperature	Storage	-30℃, 48Hr	
		Operation	-10℃, 48Hr	
3	High Temperature and High Humidity		40℃, 90%RH, 48Hr	
4	ESD Test		Air +/-8KV 5 times; Contact:+/-4 KV 5 times;	
5	Vibration Test(Storage)		50HZ, 30min, Amplitude: 2 cm, X/Y/Z directions	

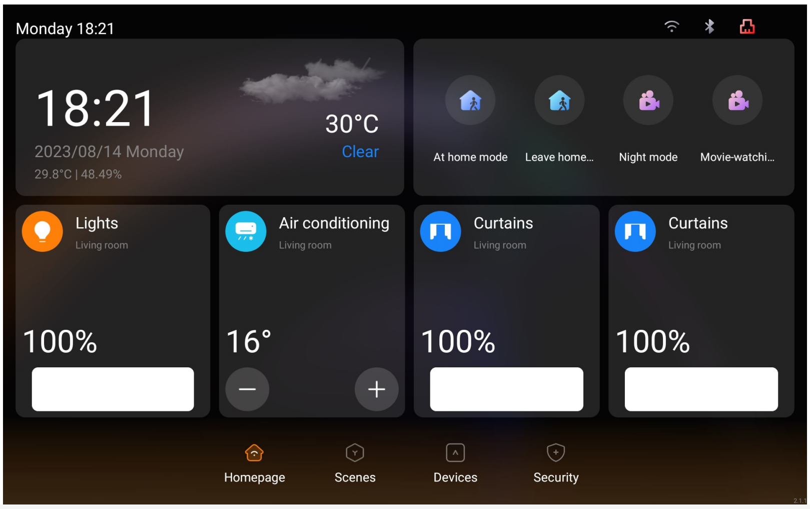
6. Operation guideline

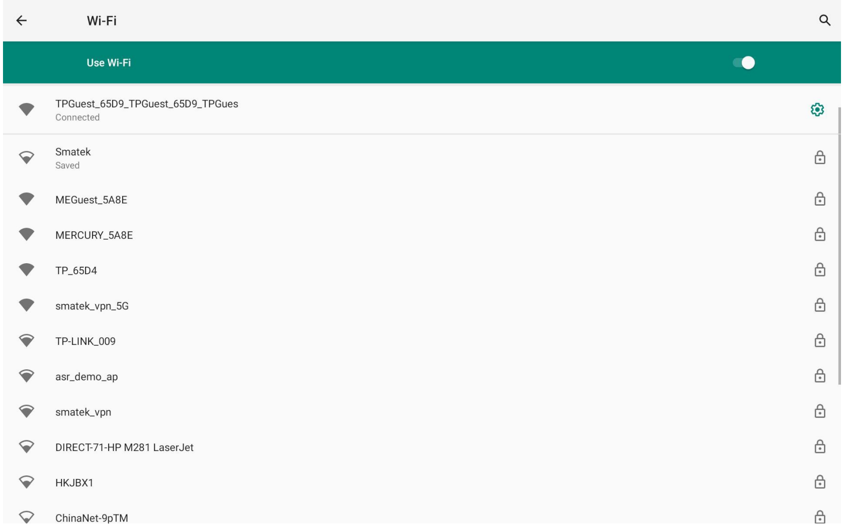
This operation guideline is based on Tuya Zigbee, Tuya App, Tuya PaaS/SaaS and Rocktech A8E firmware. If any other PaaS/platforms or firmware, please follow their operation guidelines.

Safety Notes

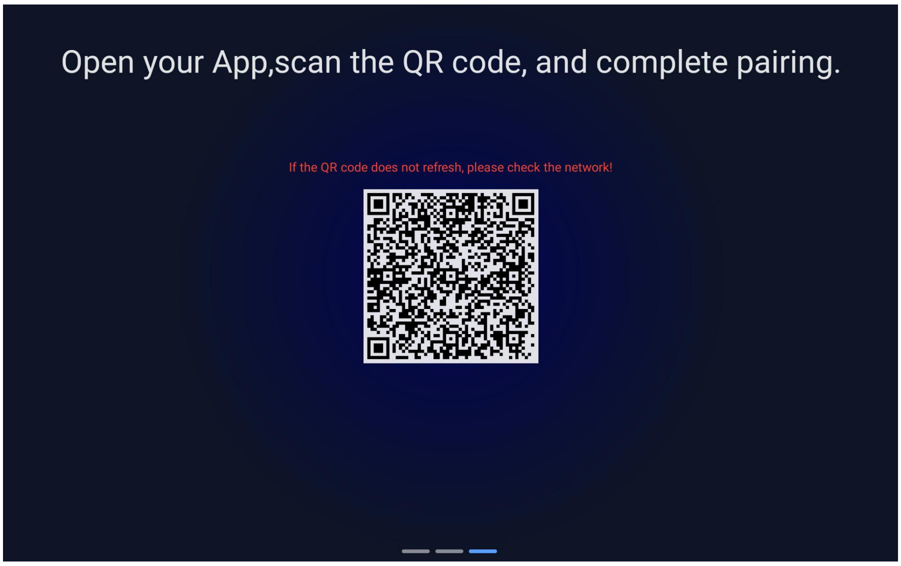
- The product must be installed by professional electricians.
- Turn off the main power in the electricity box and confirm the fire wire is not alive with a test pencil.
- The product should be kept away from fire and water during installation and use.
- The product can’t be used in moisture circumstances such as bathroom.
- Please note the product does not support POE power supply. Do not connect POE switch to this product which would cause damage to the product.

1) The product will be turned on once you connect it to the power supply. The product will get to the network settings when you start it in the first time. You can also get into the network settings from the select menu by dropping down from the top of the LCD screen.


Monday 18:21
18:21
2023/08/14 Monday
29.8°C | 48.49%
30°C
Clear
At home mode
Leave home...
Night mode
Movie-watchi...
Lights
Living room
100%
Air conditioning
Living room
16°
Curtains
Living room
100%
Curtains
Living room
100%
Homepage
Scenes
Devices
Security


Wi-Fi
Use Wi-Fi
TPGuest_65D9_TPGuest_65D9_TPGues
Connected
Smatek
Saved
MEGuest_5A8E
MERCURY_5A8E
TP_65D4
smatek_vpn_5G
TP-LINK_009
asr_demo_ap
smatek_vpn
DIRECT-71-HP M281 LaserJet
HKJBX1
ChinaNet-9pTM

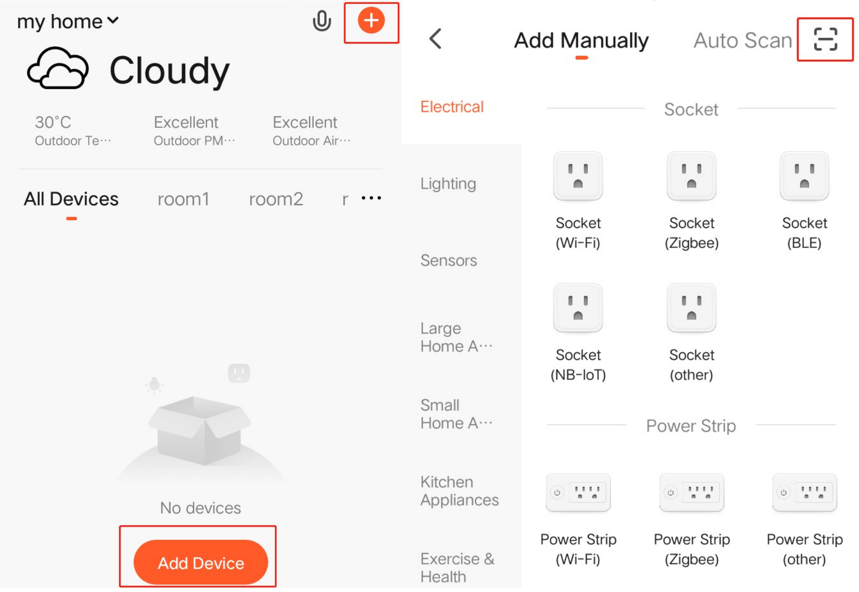
2) There are two options in the network settings. You can select wireless connection or wire connection. There will be a QR code showing on the screen after the network connection is done.



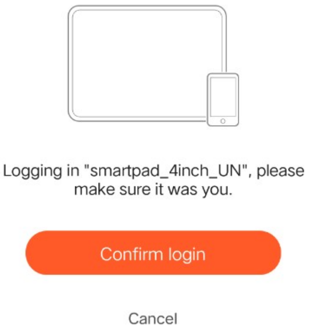
Open your App,scan the QR code, and complete pairing.

If the QR code does not refresh, please check the network!

3) Start the Tuya App in your smart phone, select the “⊕”at top right corner in the App home page, and then select the “⛶”at top right corner in the App page.

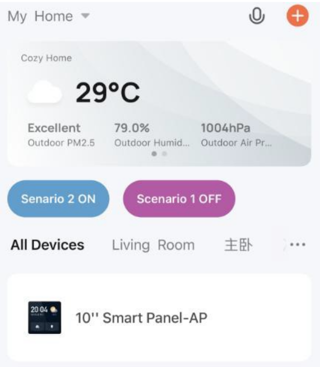

my home
Cloudy
30°C
Outdoor Te…
Excellent
Outdoor PM…
Excellent
Outdoor Air…
All Devices
room1
room2
No devices
Add Device
Add Manually
Auto Scan
Electrical
Lighting
Sensors
Large Home A…
Small Home A…
Kitchen Appliances
Exercise & Health
Socket
Socket (Wi-Fi)
Socket (Zigbee)
Socket (BLE)
Socket (NB-IoT)
Socket (other)
Power Strip
Power Strip (Wi-Fi)
Power Strip (Zigbee)
Power Strip (other)

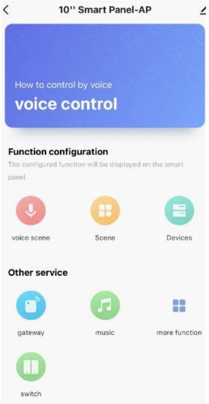
4) Scan the QR code on the screen of the product to add it into the Tuya App.



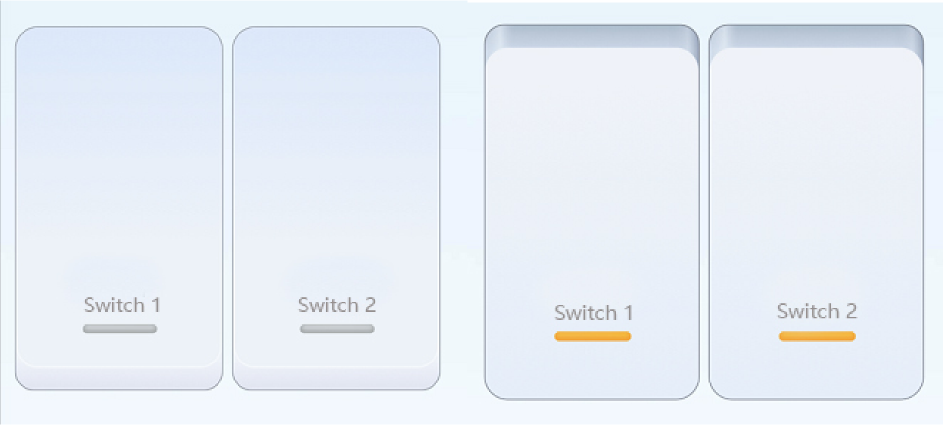
Logging in "smartpad_4inch_UN", please make sure it was you.

Confirm login
Cancel


My Home
Cozy Home
29°C
Excellent
Outdoor PM2.5
79.0%
Outdoor Humid...
1004hPa
Outdoor Air Pr...
Senario 2 ON
Scenario 1 OFF
All Devices
Living Room
主卧
10'' Smart Panel-AP


10'' Smart Panel-AP
How to control by voice
voice control
Function configuration
The configured function will be displayed on the smart panel
voice scene
Scene
Devices
Other service
gateway
music
more function
switch

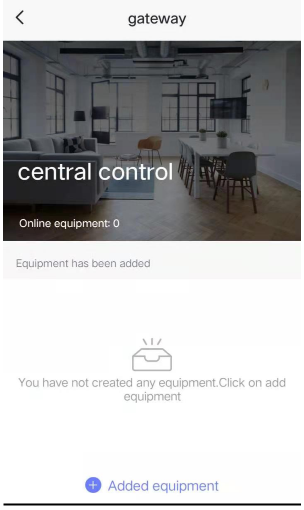
5) Get into the product interface in the Tuya App, you will see the gateway and switch icons like and . Click the switch icon to control 2 local switches (load of each switch should be no more than 200W.). It means the switch is off when the icon is in grey, and the switch is on when it is in orange.



Long press switch 1 or switch 2 to change the name of the switch.

6) Click the gateway icon to add Zigbee sub devices.

Make sure the Zigbee sub devices are in the set-up mode. The gateway will search and add the sub devices automatically. You can follow the user manual of the sub devices to make sure it is in set-up mode. (Usually it is long press the power button or the reset button in 5s, then the LED indication light will flickering which means it is in the set-up mode.)

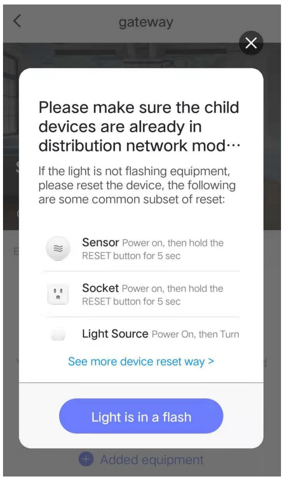


Online equipment: 0

Equipment has been added

You have not created any equipment.Click on add equipment

You will see the following pictures in the Tuya App when you are adding sub devices to the gateway. Make sure the sub devices are in the set-up mode and the LED indication light is flickering.



Please make sure the child devices are already in distribution network mod···

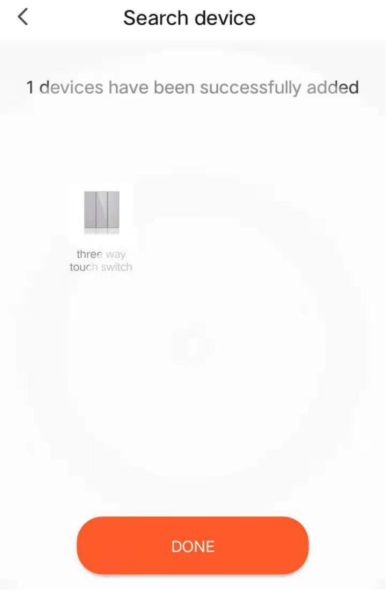
If the light is not flashing equipment, please reset the device, the following are some common subset of reset:

Sensor Power on, then hold the RESET button for 5 sec

Socket Power on, then hold the RESET button for 5 sec

Light Source Power On, then Turn

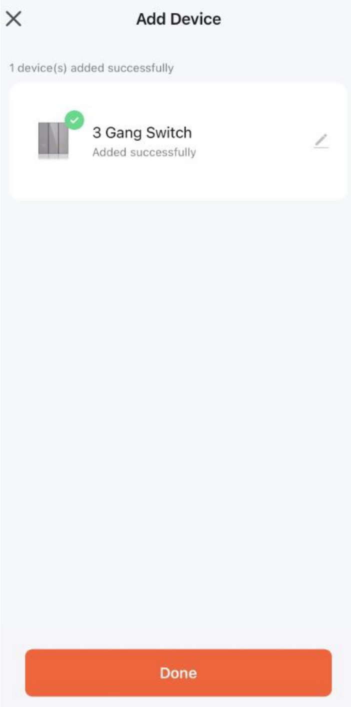
7) Click the finish button on the App after you add the sub device successfully. For example (2 switches panel) as the following.



1 devices have been successfully added

Search device
three way touch switch
DONE

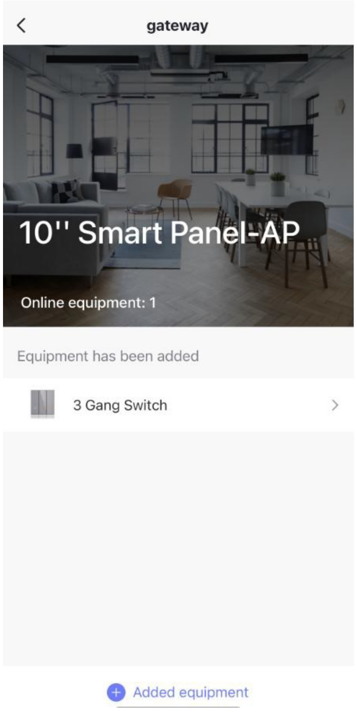
8) You could change the name of the sub devices after they are added to the gateway successfully.



1 device(s) added successfully

3 Gang Switch
Added successfully

Add Device
Done



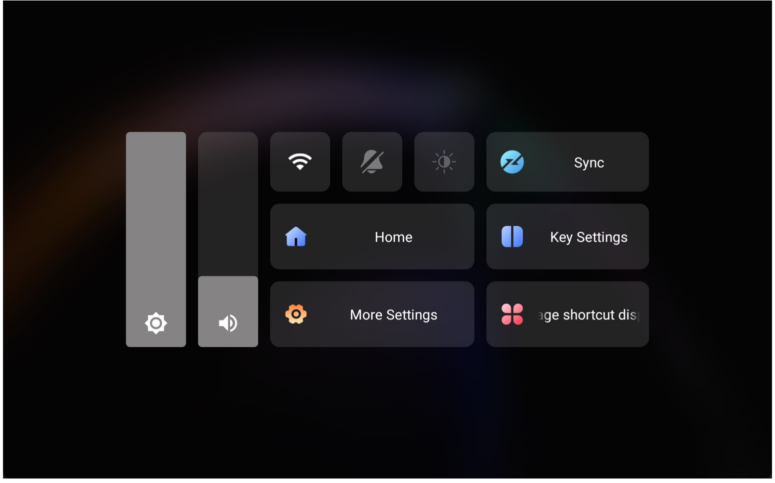
Online equipment: 1

Equipment has been added

3 Gang Switch

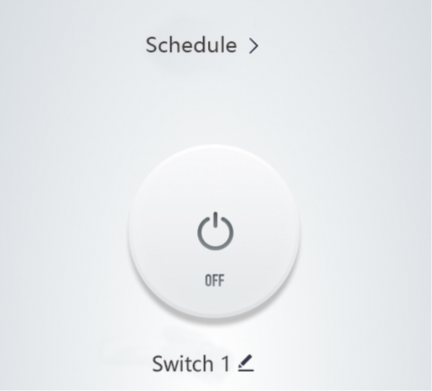
gateway
10'' Smart Panel-AP
Added equipment

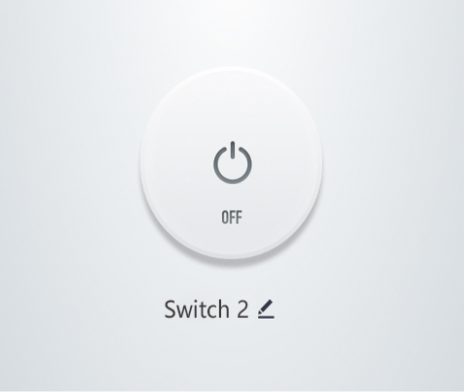
Drop down - sync to have devices and scenes sync to panel.

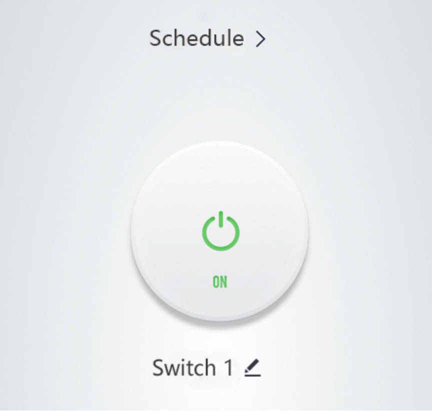


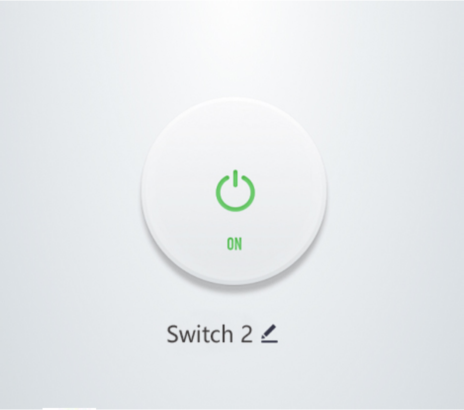
Sync
Home
Key Settings
More Settings
ıge shortcut dis

9) You could change the device type by getting into the device interface in the App. It means the switch is off when it is in grey, and the switch is on when it is in green. You could also set up timers(Schedule) for the switches to realize the automation control.

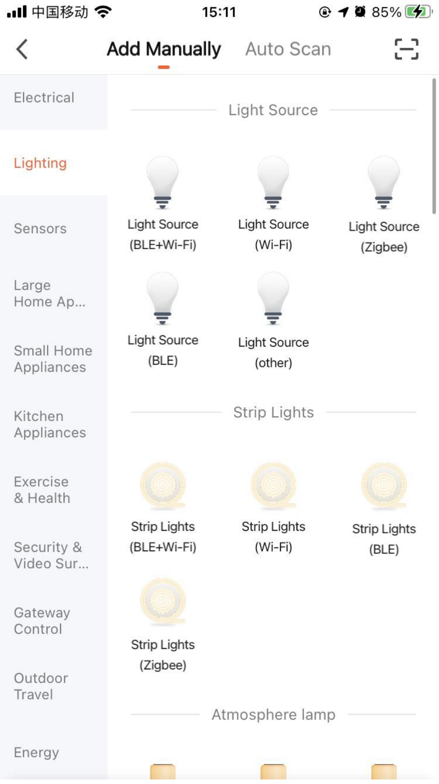

Schedule >
OFF
Switch 1


OFF
Switch 2

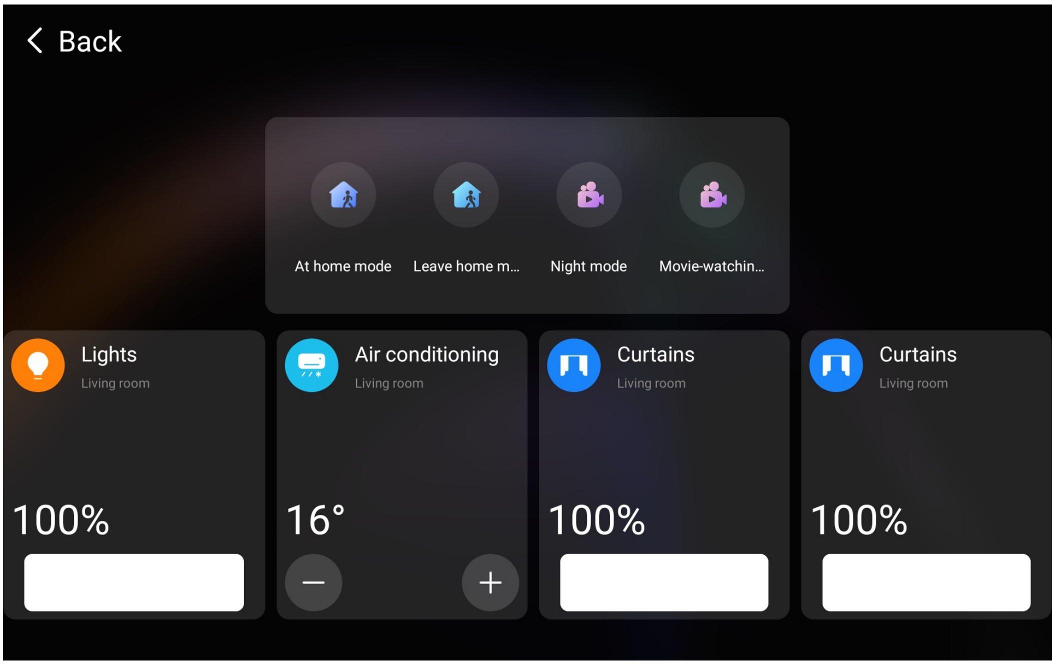

Schedule >
ON
Switch 1

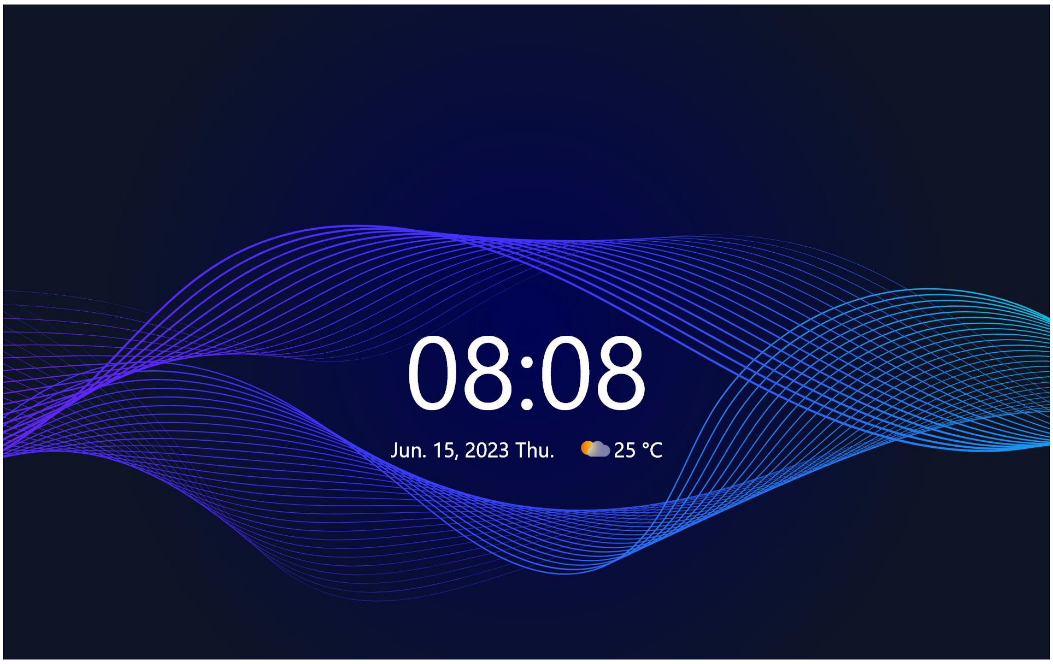


10) If you want to add your devices faster,click the " ⊕ " on App, find devices lists and add corresponding devices manually,finally drop down from top of panel and click "sync" to stay sync with App.


中国移动
15:11
85%
Add Manually
Auto Scan
Electrical
Lighting
Sensors
Large Home Ap...
Small Home Appliances
Kitchen Appliances
Exercise & Health
Security & Video Sur...
Gateway Control
Outdoor Travel
Energy
Light Source
Light Source (BLE+Wi-Fi)
Light Source (Wi-Fi)
Light Source (Zigbee)
Light Source (BLE)
Light Source (other)
Strip Lights
Strip Lights (BLE+Wi-Fi)
Strip Lights (Wi-Fi)
Strip Lights (BLE)
Strip Lights (Zigbee)
Atmosphere lamp

If there are any questions when you add some other sub devices, please contact us for support.


Back
At home mode
Leave home m...
Night mode
Movie-watchin...
Lights
Living room
100%
Air conditioning
Living room
16°
Curtains
Living room
100%
Curtains
Living room
100%


08:08
Jun. 15, 2023 Thu.
25 °C

7. Technical support

Tuya PaaS, standard Smart Panel for customer's choice to save development cost, OEM/ODM supported

Customer's own PaaS, debug customer's APP running smoothly in Rocktech Smart Panel; Support Rocktech Smart Panel communicating with customer's IOT devices via Zigbee, Wifi or Bluetooth. OEM/ODM supported.

Future technical support, pls contact: sales@rocktech.com.hk