

OS Products Newsletter

2021. Vol 01



Add linkage

Hi
Welcome

Please select your installation location

Door
Safe in and out

Window
Always guard

Have a nice day!
No alarm

History

0
Time (Day)

Opened
State

Alarm

No notification

Alarm History

9/25/2020

Tamper Detected
12:00PM

Low Battery
9:00AM

9/24/2020

Contents

1/1 – 1/31

01

New Products

A photograph of a bedside table with a lamp and a potted plant, used as a background for the first content card.

02

New Modules

A photograph of a woman sitting on a couch reading a book, used as a background for the second content card.

03

New Solutions

A photograph of a man standing by a window with a bag, used as a background for the third content card.

04

*New Capabilities
of Tuya IoT
Development
Platform*

A photograph of hands typing on a laptop, used as a background for the fourth content card.

TOP

New Products Release

1/1 — 1/31

Recommendations

Fix it as Where as You Want



Wireless Remote Controller

Key Features

1. Cross-communication protocol scene linkage;
2. Supports dimming, color adjustment, gear adjustment, and temperature adjustment in scenes;
3. Support distributed and not distributed lighting devices;
4. Protocol: Zigbee.

Key Selling Points

1. Support standard Zigbee lighting control;
2. Support all categories and protocols;
3. Continuously press the button to adjustment of scene changes.



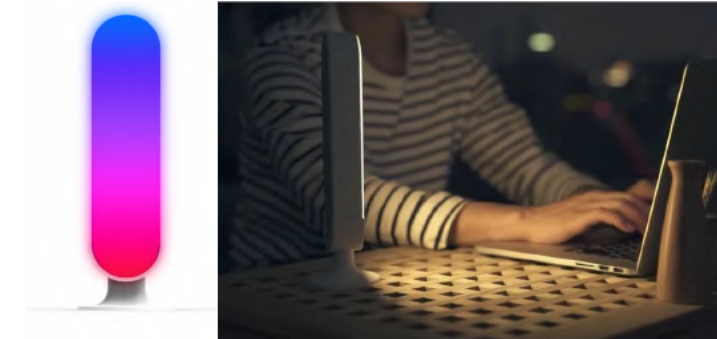
Rotary Wireless Remote Controller

Key Features

1. Cross-communication protocol scene linkage;
2. Supports dimming, color adjustment, gear adjustment, and temperature adjustment in scenes;
3. Support distributed and not distributed lighting devices;
4. Protocol: Zigbee.

Key Selling Points

1. Continuously press the button to adjustment of scene changes



Smart Ambient Lamp

Key Features

1. Rated power: 5W
2. Input voltage: 110-240Vac, 5V/1A
3. Dimensions: 230 x 60 x 35 mm3
4. Parameters: 300lm, Ra80
5. CCT range: RGB, 2700K-6500K

Key Selling Points

1. Support account sharing, mainstream domestic and foreign smart speaker controls.
2. Support lighting adjustment, magic color control and local music rhythm.
3. Support timing, wake-up, sleep-aid and rhythm, etc. functions.

TOP

New Products Release

1/1 — 1/31

Recommendations



PIR + Luminance Sensor

Key Features

1. Detects human movement and ambient illumination;
2. Support detection range adjustment;
3. Support OTA;
4. IP66 grade protection, suitable for installation in various environments;
5. Zigbee protocol.

Key Selling Points

1. For multipurpose use, PIR and brightness detection are combined;
2. Adjust the brightness of light according to the environment;
3. Automatically light up when someone is moving,

For more details, please visit: <https://expo.tuya.com/product/737074>



Temperature and Humidity Sensor (NB-IoT)

Key Features

1. OLED display shows real-time temperature and humidity monitoring values;
2. Measurement accuracy: $\pm 0.2^{\circ}\text{C}$ 、 $\pm 3\% \text{RH}$;
3. Upload data via 4G network by NB-IoT module.

Key Selling Points

1. Real-time temperature and humidity monitoring, Flexible configuration of temperature & humidity collection and data upload intervals;
2. Sound and light reminder function (when exceeding the set temperature and humidity value)



Air Quality Monitor

Key Features

1. Detect a variety of environmental information , including CO_2 , PM1.0/ PM2.5/PM10, HCHO, temperature and humidity
2. Colorful LCD display, showing 7 air quality conditions.

Key Selling Points

1. All-in-one sensors, real-time monitoring of air quality that affects people's comfort and health;
2. Intelligent linkage with air-cleaning equipments.

TOP

New Products Release

1/1 — 1/31

Recommendations



Air Fryer

Key Features

1. Low fat and oil free cooking;
2. Large capacity due to double-layer;
3. Remote control;
4. Remote monitoring of working status and remaining time;
5. Cooking task appointment;
6. A large number of cloud recipes;
7. Custom recipes upload.

Key Selling Points

1. Remote control and monitoring of working status
2. Cloud recipe
3. Wi-Fi & BLE protocol



Gas Water Heater

Key Features

1. Voltage: 220V / 50Hz
2. Power: 40W
3. Gas Type: G20 (pressure : 2000Pa)
4. G30 / G31 (pressure: 2800Pa)
5. Rated heating capacity: 30kW
6. Applicable water pressure: 0.02-1MPa
7. Hot water supply: 16L / min ($\Delta t = 25^{\circ}\text{C}$)

Key Selling Points

1. Remote control;
2. Status inquiry;
3. Fault reminder.



Pet Feeder

Key Features

1. 10L large capacity, specially designed for large-sized pets;
2. Regular and quantitative supply of food and supply reminder;
3. Fully sealed, splash-proof, with a built-in drying box;
4. Dual power supply in case of power cuts, guaranteeing continuous food supply.

Key Selling Points

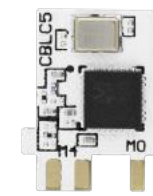
1. Large capacity, suitable for small and medium-sized dogs

New Smart Solutions – Connection –

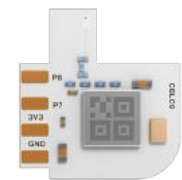
Six Mass Production Modules Released



CBU
WiFi+BLE Module
Application: Universal



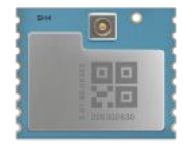
CBLC5
WiFi+BLE Module
Application: Filament lamp



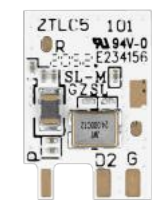
CBLC9
WiFi+BLE Module
Application: Light GU10



NX1
NB-IoT Module
Application: Outdoor series



SH4
Sub-G Module
Application: IR gateway



ZTLC5
(First ZigBee plus Bluetooth
combo module)
Application: Filament lamp

Highlights about Connection:

HomeKit: Realtek 8720CM baseline under testing;

SmartThings: Release the solution of door sensor, water sensor, motion sensor, garage door opener;

Outdoor: Cat.1first version firmware release;

Bluetooth: First version Beacon protocol firmware release

New Smart Solutions – Electrical –

Zigbee 1–6–Gang Non–neutral Switch

New Modules

Chip platform: TLSR8258

Supported module: ZT3L

Docking type: SOC solution

Firmware key: keyjpgsr (1.0.1)

Supported panel:

Public panel V3 for switch (000000dbv8)

Public panel V2 for switch (00000004c1)

Supported gateway:

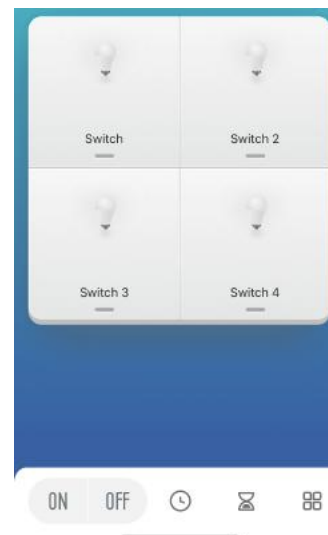
Formal released V1.5.9 and above for large gateway

Formal released V1.3.10 and above for small gateway



Highlights

- TLSR8258 module, with high competitiveness;
- Support linkage with devices using Zigbee 3.0 protocol.



BK Energy Monitor Plug

Function Iteration

Chip platform: BK7231T

Supported module: WB3S WB2S

Docking type: SOC solution

Firmware key: keym9qkuywghyrvs (1.3.5)

Supported panel:

Old single–plug panel V2: 00000003kh

New single–plug panel V3: 00000045lx

Power strip panel: 00000003u2



Iterative content:

Added calibration–free high–precision metering chip bl0942

Highlights

- Calibration–free: No need to calibrate, streamline production process and increase production capacity;
- High precision: the minimum acquisition to 1w, accuracy of 1%.

Metering chip comparison:

	BL0937	BL0942
Metering Chip	≈0.8	≈1.2
Calibration Cost of a Single Chip	≈0.3	0
Minimum Acquisition Power	5W	1W
Precision	5%	1%
Capability	–	Increase 10%–20%

Zigbee 1–4–Gang Switch Module

New Solution

Chip platform: MG21

Supported module: ZS2S, ZS3L

Docking type: SOC solution

Firmware key: keyye7cv (1.0.0)

Supported panel: 00000004c1

Supported gateway:

Beta V 4.99.43 and above for large gateway

Formal released 1.9.x (to be confirmed)

Highlights:

- Cycle timing, random timing, delay off, power-on status setting;
- Support rocker switch & self-reset switch, applicable to a wide range of scenarios;
- Support zero-crossing action to improve the service life of the relay;
- Support switch/power on/off multiple network connection;
- Full ecological scene linkage: one click to trigger the linkage of all Tuya products, no barrier;
- Support Zigbee 3.0 protocol



Bluetooth Mesh 1–4–Gang Switch Module

New Solution

Chip platform: TLSR8250ET

Supported module: BT2S, BT3L

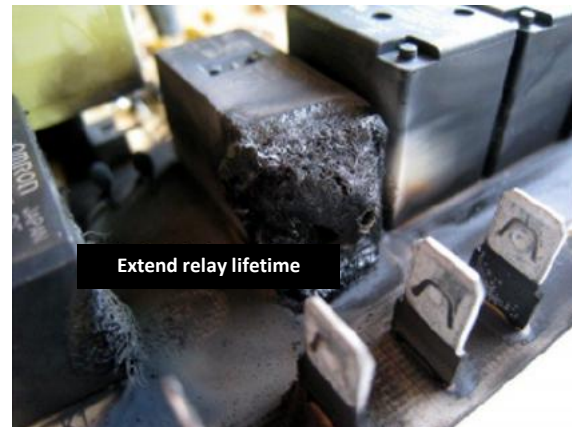
Docking type: SOC solution

Firmware key: keytqagv (0.3)

Supported panel: 00000004c1

Highlights:

- Support gateway control and directly control by mobile phone app;
- Delay off, power-on status setting;
- Support rocker switch & self-reset switch, applicable to a wide range of scenarios;
- Support zero-crossing action to improve the service life of the relay;
- Support switch/power on/off multiple network connection;
- Full ecological scene linkage: one click to trigger the linkage of all Tuya products, no barrier;
- Bluetooth mesh module is cost-effective.



Comparison of differences between different protocols for 1-4-Gang Switch Module (non-neutral)

	WiFi_BLE	Zigbee	Bluetooth Mesh
Chip Platform	BK7231T	MG21	TLSR8250ET
Cost of Module	Medium	High	Low
Need for a Gateway	No	Yes	Yes / also support control by app
Devices Supported	Depend on router	More than 128	128
Communication Distance	Medium	Medium	Short
Astronomical Timing	Support	Not support	Not support
Advanced Timing	Random, cycle, delay off	Random, cycle, delay off	Delay off



New Smart Solutions – Lighting –

Floor Lamp (WiFi_BLE 1-5 Channels) [New Solution]

Development-Free



Chip platform: BK7231T
 Supported firmware: open source hardware
 Supported module: chip on board
 Info output: BOM, SCH, Gerber, hardware design notes

- Key Features:**
- Low voltage DC-DC power supply
 - Supports infrared control
 - Button available
 - External microphone
 - Compliances with FCC



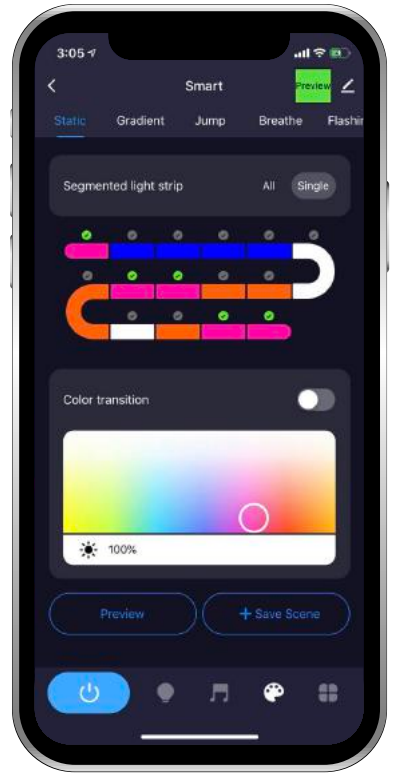
Floor Lamp (WiFi_BLE 3 Channels) [New Solution]

Development-Free



Chip platform: RLT8720CF
 Supported module: WBR3

- Key Features:**
- Segmented dimming and color adjustment
 - Colorful scene
 - Length setting
 - APP music rhythm
 - Timer and countdown, etc.



New Smart Solutions – Lighting –



Sensing Lamp (WiFi_BLE 1-5 Channels) [New Function] [New Solution]

Development-Free



Chip platform: BK7231T

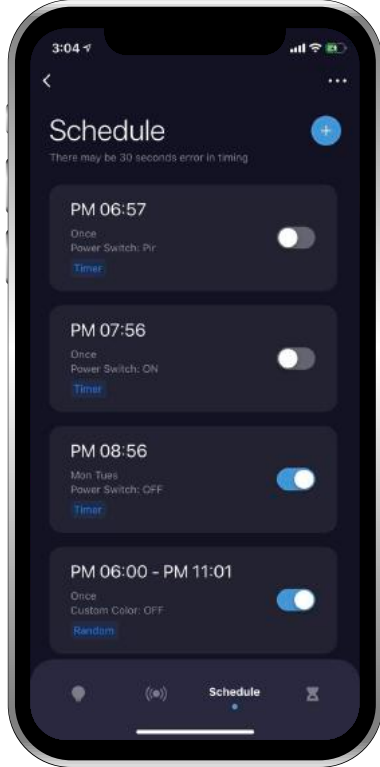
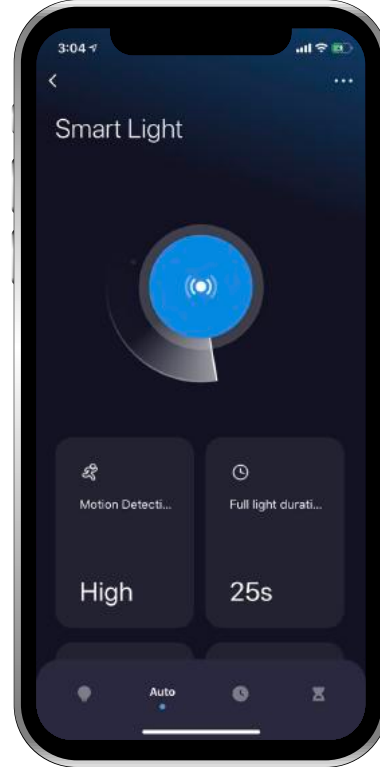
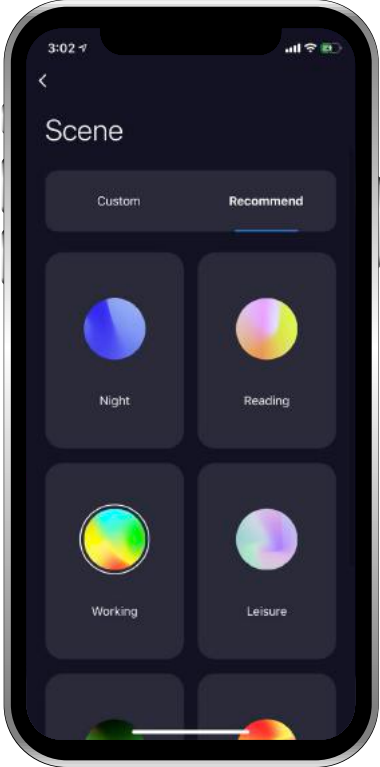
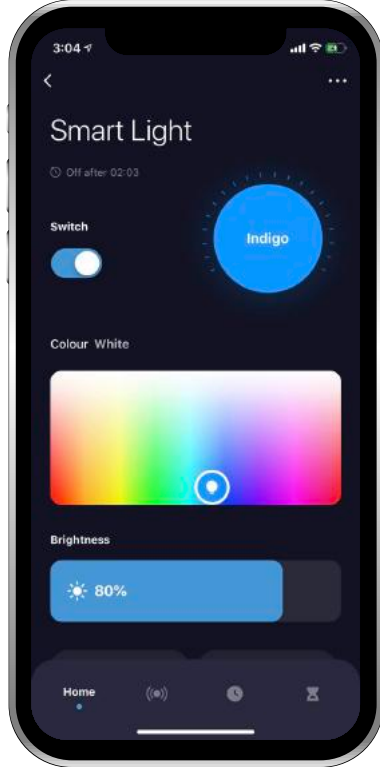
Supported firmware: firmware of sensing lamp

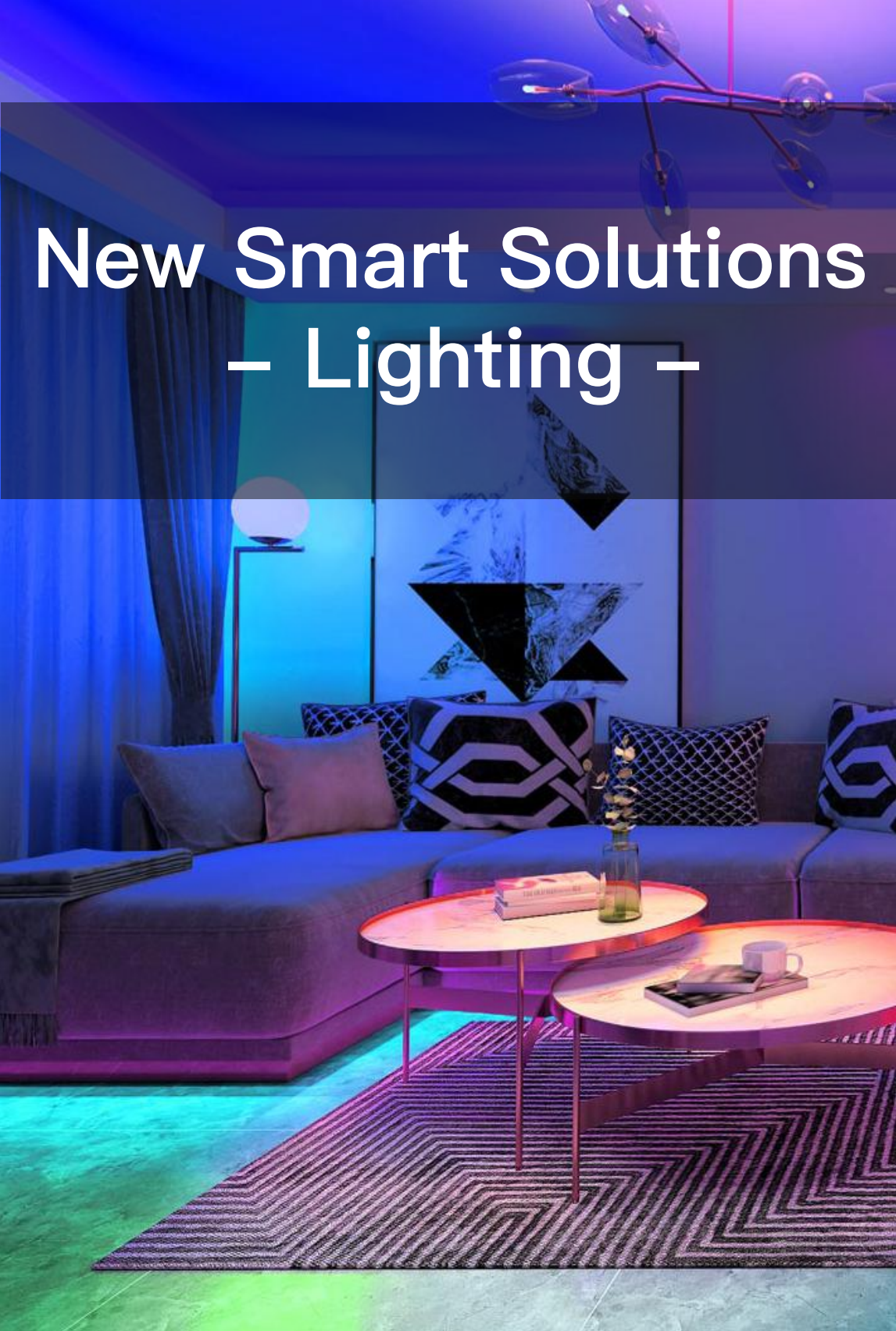
Supported module: WB3S

Info output: BOM, SCH (WB3S), solution introduction, hardware design notes

Key Features:

- Optimizes timing
- Randomizes timing
- Synchronization in induction group





New Smart Solutions – Lighting –

Luminaire (ZigBee 1–5 Channels) [New Module]

Development–Free



Chip platform: TLS8258
 Firmware key: keyu8cek V1.0.12
 Supported module: ZT3L\ZTLC5\ZTU

Key Features:

- Transplant MG21 platform development–free scheme function
- Supports SM2135EH
- Supports BP5758D
- Supports color light gamma adjustment
- Supports distribution network flashing prompt mode
- ZLL distribution network signal threshold configuration
- ZLL distribution network and gateway coexist distribution network

Gateway information:

- Wired gateway firmware version 1.9.1 (in–test & unpublished)
- Wireless gateway firmware version 1.5.4 (in–test & unpublished)

Note: solution is opened only for selected customers

Luminaire (Wi-Fi & BLE 1–5 Channels) [New Function]

Self–Define



Chip platform: BK7231T
 Firmware key: keytg5kq8gvkv9dh V2.9.12
 Supports module: WB3S, WB3L, WB2S, WB2L, WBLC5

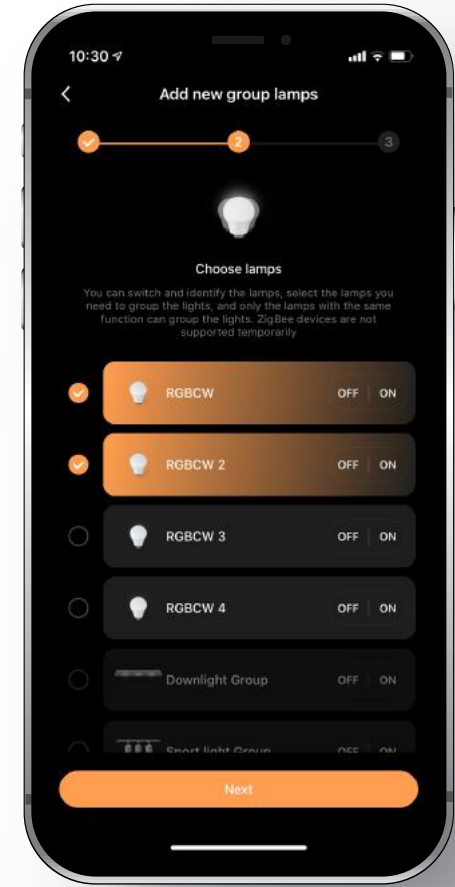
Key Features:

- 4–channel and 5–channel mixed
- Driven by BP5758D

Note: solution is opened only for selected customers

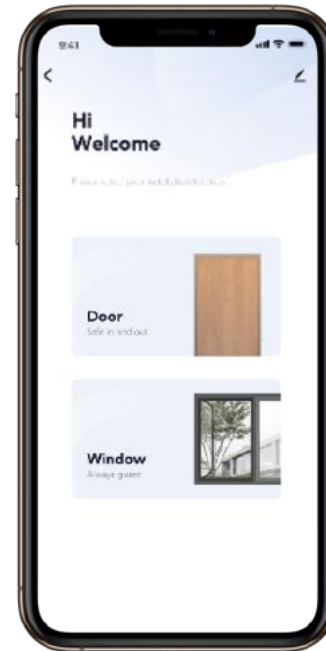
Smart Home Light Environment APP V2.2.0 [New Generation]

- Supports identifying lamps to group lights, users can identify lamps by switching and selectively add lamps to the group lights.
- Distribution network optimization
- Schedule non–motion optimization
- Lamp management optimization quick deletion



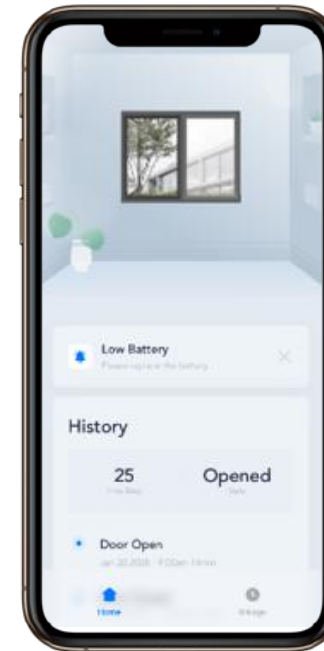
New App Panel of Door Window Sensor

New Smart Solutions – Sensors –



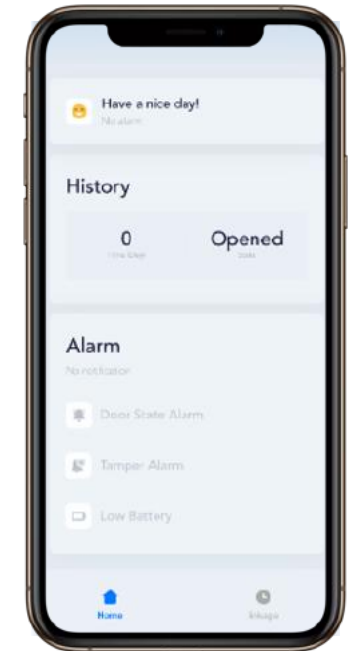
Installation location selection

Easily distinguish the installation location without manual operation.



Length & Frequency Statistics

Easier to keep track of the length and frequency of opening the doors.



Alarm Settings

- Door opening time alarm setting
- Door opening timeout alarm setting
- Notification setting

Thermometer



New Solution

Chip platform: EFR32

Module: Tyzs5

Docking type: SOC/module

Firmware key: keyvkj4

Supported panel: Temperature Sensor U2

Functions:

- Temperature detection
- Temperature alarm
- Sensitivity setting

Highlights:

- Sensitivity setting
- 2 dry batteries can be used for up to one year with ultra-low power sleep mode
- Support Zigbee 3.0 protocol

Application scenes:

- Infant's body temperature regulation function is not perfect, which can be greatly affected by the environment; Generally, the temperature in the baby's room is around 22°C, not lower than 18°C, and not higher than 28°C. A constant temperature around the baby can be achieved through linkage with the air conditioner.
- Safety guarantees can be achieved by environmental monitoring for specific items, such as tobacco & alcohol, food materials, musical instruments, warehouses, automobiles, etc.,

Scenes:



Thermometer Studio App Panel

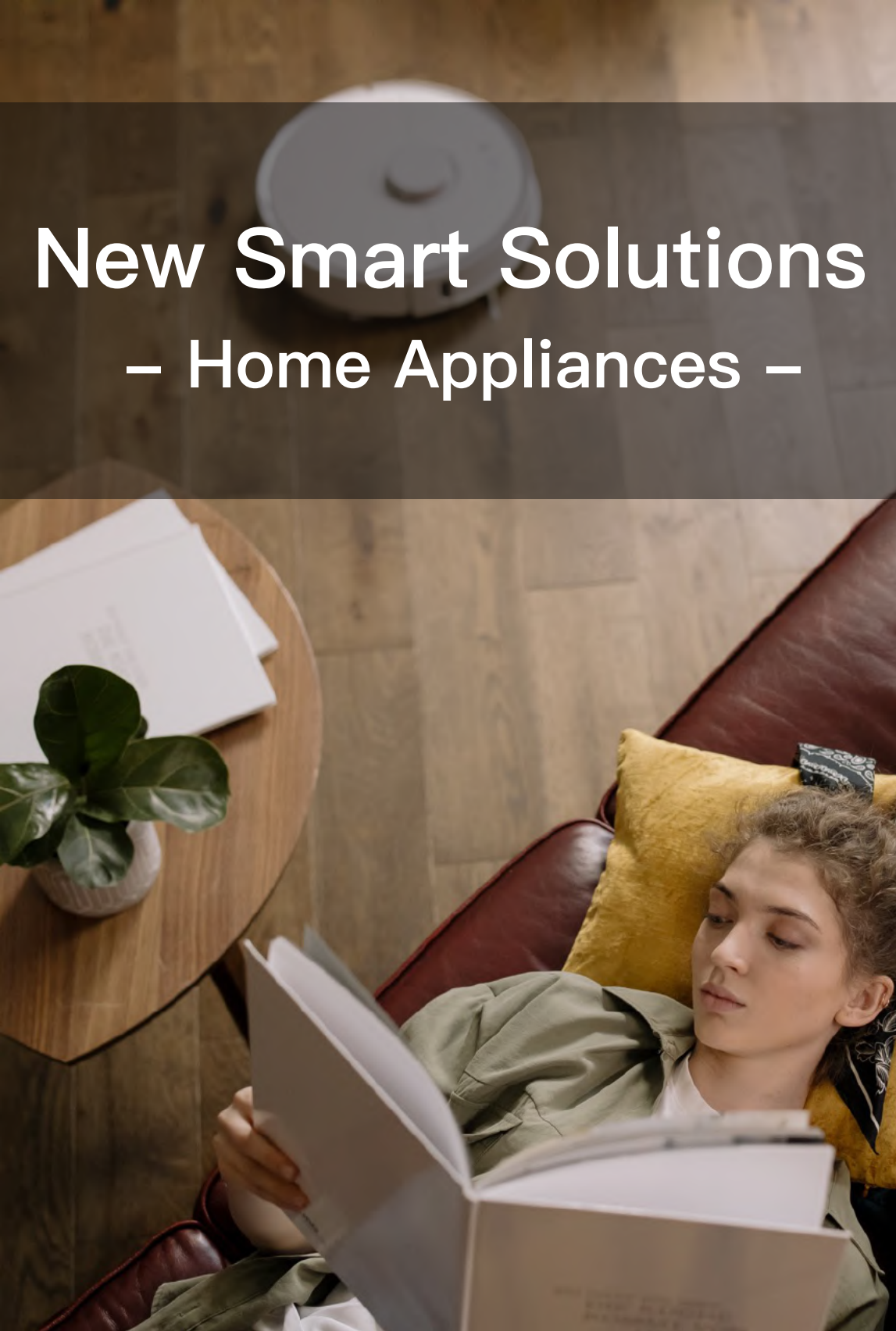
- Temperature detection
- Temperature alarm
- Sensitivity setting



Plant Monitor Studio App Panel

- Suitable for plant monitor and soil detector, etc.
- Support temperature scale switch
- Support remote query on temperature, humidity, PH value and other information
- Support parameter changes view according to the curve

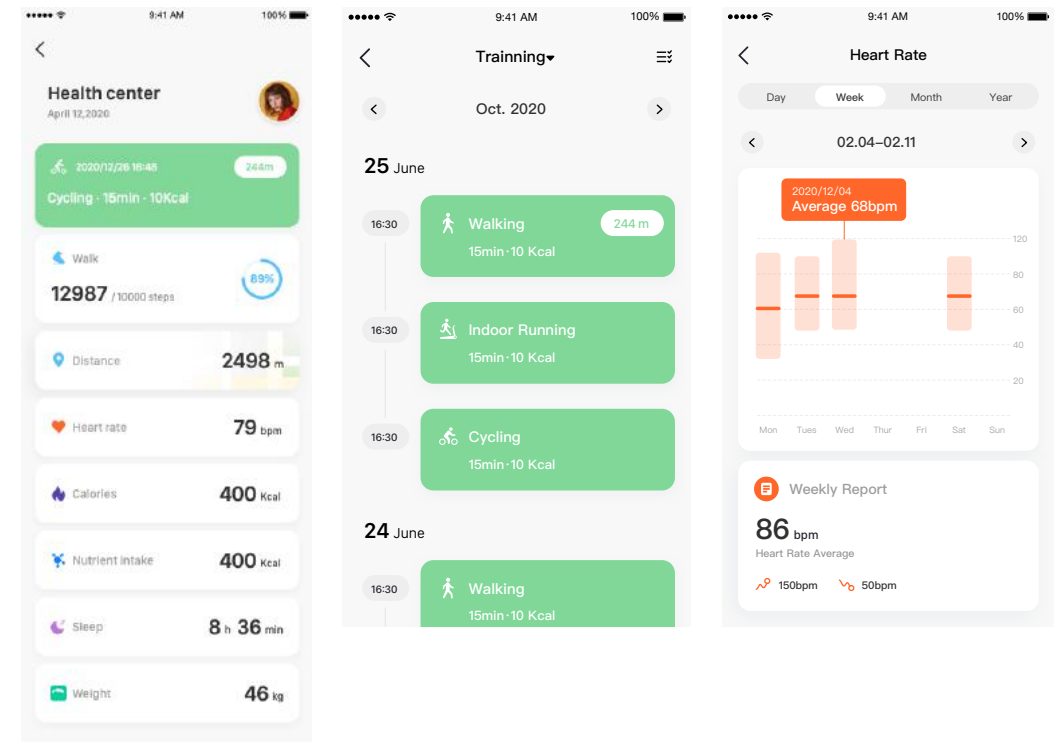




New Smart Solutions

– Home Appliances –

Health Center for App Users



- The user health center on the APP aggregates all health data from all Tuya health equipments to help the user have a comprehensive understanding of their own health;
- Multi-dimensional health data display: exercise records, steps, distance, calories, heart rate, intake of 23 kinds of nutrients, sleep analysis, body composition, etc.;
- View the daily / weekly / monthly / yearly changes in physical condition to analyze the long-term health condition of the user by online data charts;
- Support health goals setting to help users improve their physical condition.

Dishwasher App Panel Workbench



- Remote control and working status view
- Cleaning tasks reservation
- Cleaning mode and wash strength adjustment
- Water and electricity consumption statistics
- Fault reminder

Baby Rocking Chair App Panel

Three main functions: rocking chair function, music function and timing function.

- Rocking chair switch
- Swing amplitude setting
- Rocking chair working mode setting
- Song play/pause
- Previous song/next song
- Volume setting
- Countdown
- Battery level display
- Timing function



New Smart Solutions – Innovative Products –

TV App V1.0.6

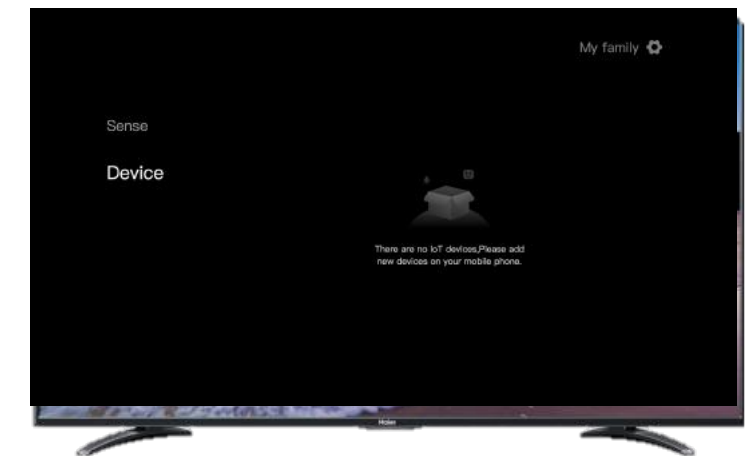
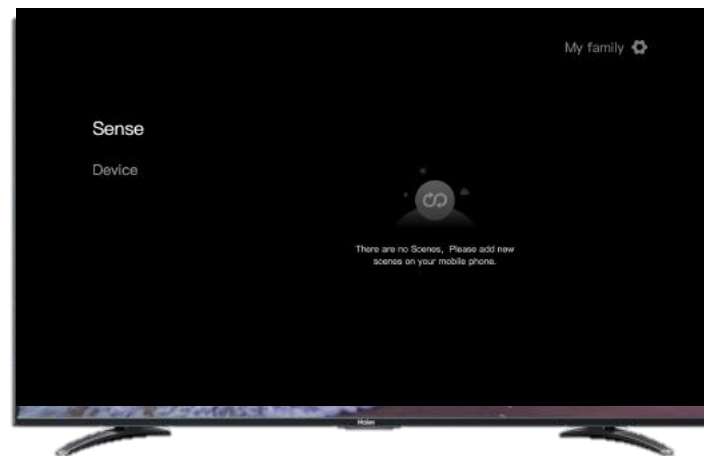
Function Iteration

Optimized functions:

- **Auto-refresh scene:** The scene list supports MQTT automatic refresh.

New functions:

- Add default reminders on device list page and scene list page.
- Add detailed reminders of successful and failed equipment in scene execution.



Cloud Digital Photo Frame SDK Solution

New Solution

Supported Platform: Android 4.0 and above/API 19 and above

Docking type: SDK

Info output: SDK development documents, DPF demo

Highlights:

- Integrated IoTOS QR SDK
- Integrated cloud photo frame API interface
- Minimal code development
- Photo cloud storage



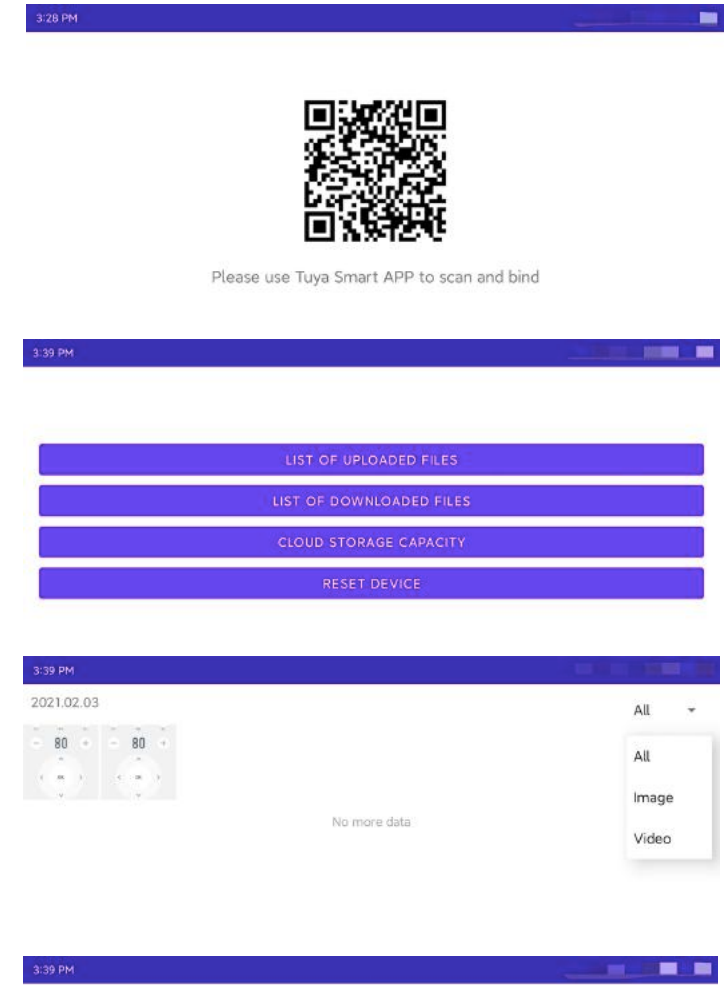
Q&A

Q. How much is the workload of the integrated photo frame SDK?

A: The SDK has encapsulated and integrated IoT capabilities of devices and cloud photo frame photo interface. The integrated SDK can directly use the demo source code provided by Tuya. Developers only need to develop the front-end display page of the photo frame.

Q. What functions can the Photo Frame SDK achieve?

A: 1. The device can access the Tuya Cloud and control the device through APP; 2. The device can receive photos uploaded by App users and download them locally.

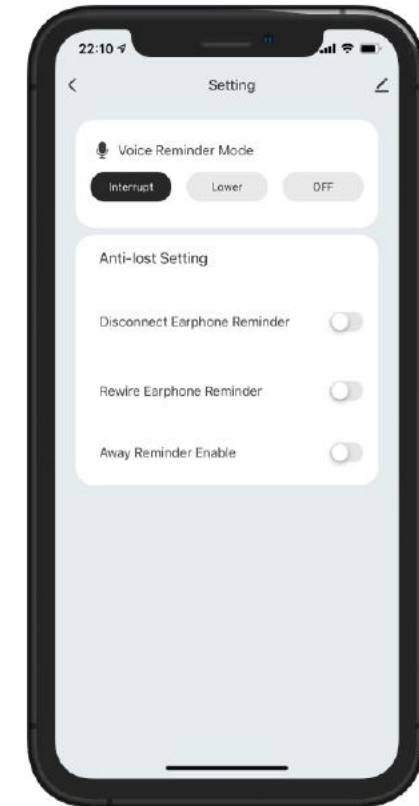
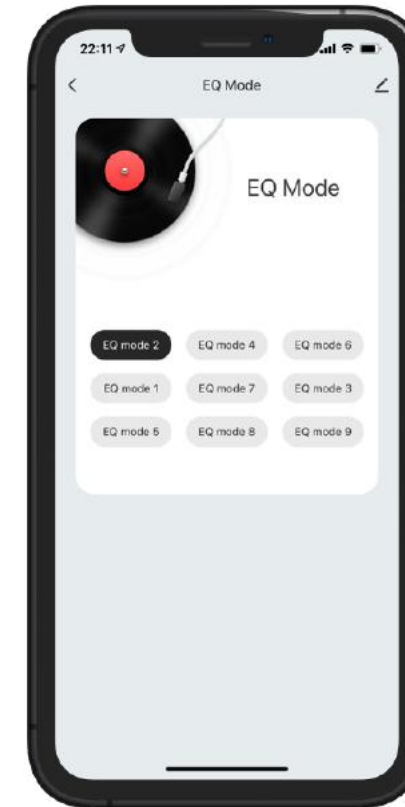
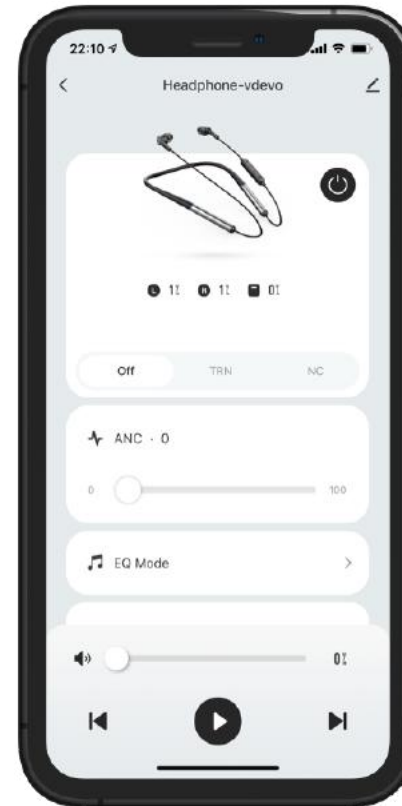


Total capacity: 6.00GB
 Used capacity: 99.13KB
 Video usage capacity: 0B
 Image usage capacity: 99.13KB

Headphone Studio Panel

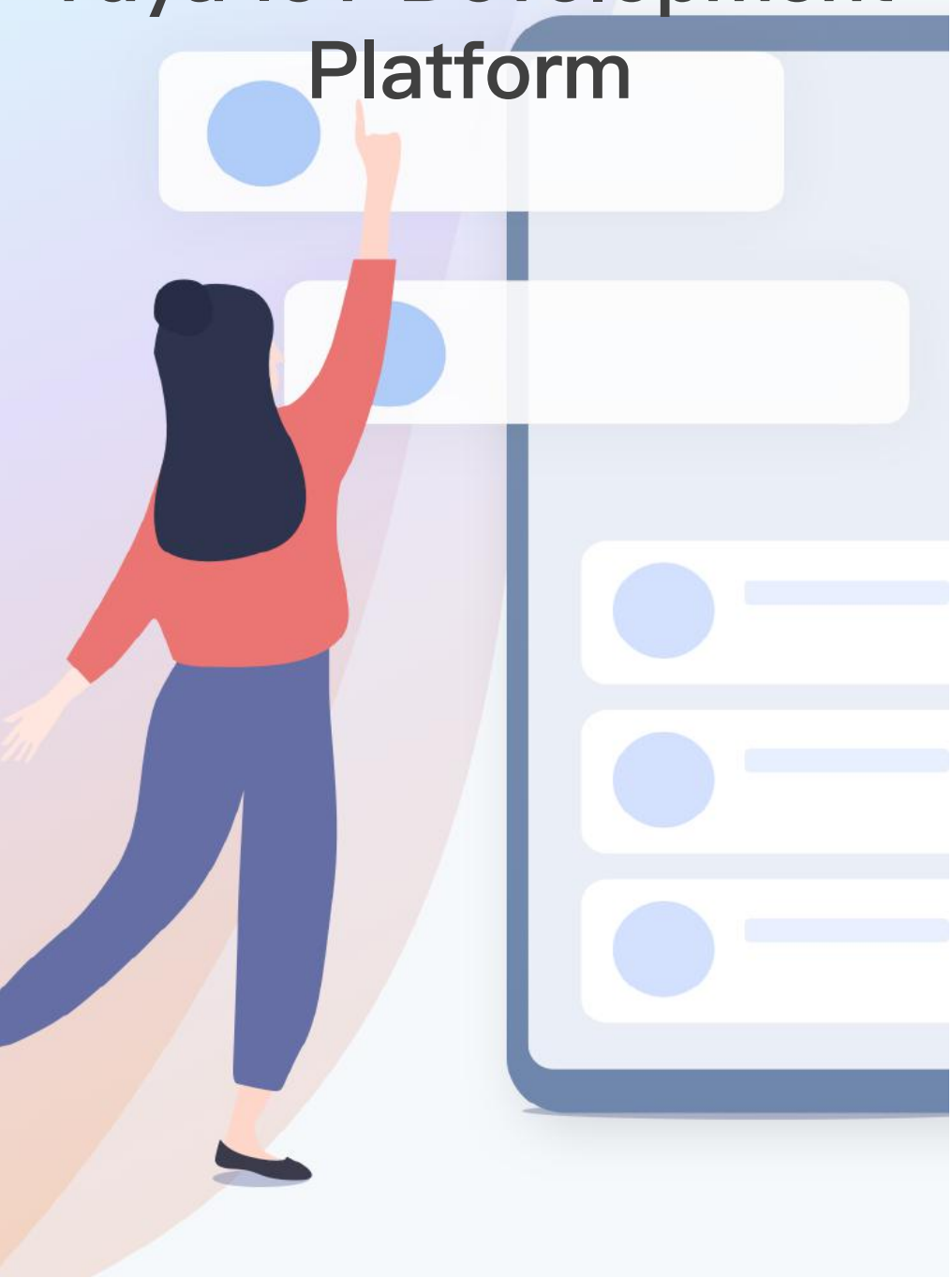
Key features and selling points:

- **EQ mode:** multiple mode adjustment
- **Player function:** play/pause/previous song/next song/volume adjustment
- **Noise reduction mode:** noise reduction/unvarnished transmission/off
- **Active noise reduction:** noise reduction percentage adjustment
- **Off countdown:** shutdown countdown setting
- **Find headphones:** function setting
- **Anti-lost settings:** disconnection reminder/reconnection reminder/away reminder setting
- **Voice broadcast mode:** interruption reminder/lower tone reminder/close reminder



NEW

New Capabilities of Tuya IoT Development Platform



New function of the panel workbench – Temperature Scale Switch

C° & F°

Two methods are supported currently : following the APP account center or reporting C°& F° by the device

Following the APP account center

Some devices only support one temperature value (°C or °F). If it is inconsistent with the user’s preferred temperature scale, it can be unified by switching the temperature unit in Tuya Smart App account center.

- **Advantages:** Platform users can just choose to follow the App account center without configuring each temperature component. Panel users can only set the panel once other panels will automatically go along with the same setting.
- **Disadvantages:** It is mainly suitable for sensors now. Further evaluation for other products is required.

New function of the panel workbench – Temperature Scale Switch

C° & F°

Reporting °C & °F by the device

If the devices can support °C and °F reporting function simultaneously, users only needs to select the relevant DP point and set the display rule of temperature scale.

- **Advantages:** The device will automatically perform temperature scale conversion display values on the panel without no precision loss.
- **Disadvantages:** It is necessary to set the “hidden” linkage for all components bound to temperature DP in the panel, which can cause an easy loss.



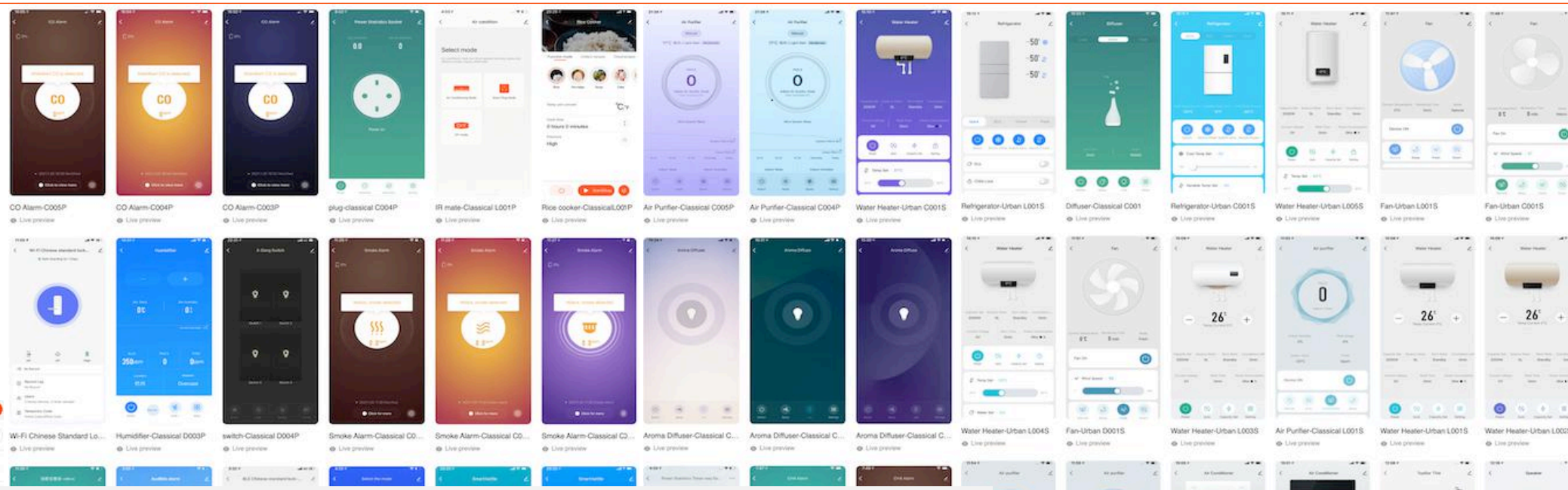
Panel Center Launch

New Platform

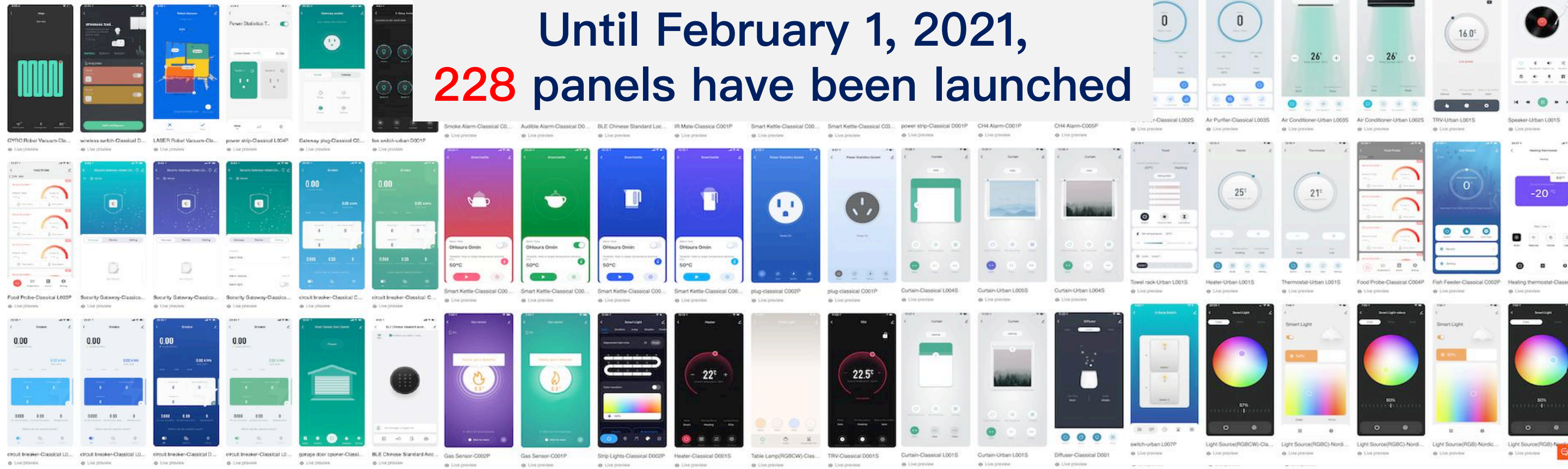
<https://solution.tuya.com/panel/all>

It can provide customers with the selection of the panel solutions. Customers can experience a panel directly by viewing the design drawings and demo videos, or scanning the QR code via the App. They can also view all Tuya product solutions which are applicable to the panel and create products directly from those solutions.

From now on, you can just send a link When recommend solutions to your clients!



Until February 1, 2021,
228 panels have been launched





OS Products Newsletter

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