



Hardware Development

Version: 20210602

Contents

1 Prerequisites	2
2 Procedure	3
2.1 Configure custom product	3
2.2 Configure the no-code development product	4
3 Next	7



If you are familiar with hardware embedded development, you can select the module, add the firmware, and purchase the debugging module online. And Tuya will send the module burned with the firmware to you for testing your smart products. This topic describes how to select a module and configure the module firmware I/O port for a smart product.



1 Prerequisites

You have created a product. For more information, see [Create Products](#).

2 Procedure

2.1 Configure custom product

The following steps describe how to configure hardware development based on a custom solution.

1. Go to the [Smart Products](#) page on the Tuya IoT Platform.
2. Find a product in **Developing**, and click **Entering to Develop**.
3. On the **Hardware Development** page, make sure the **Selected Cloud Connection Mode** is selected. You can select from different custom solutions for product development.
4. In the **Select Module** area, select a module according to the **Chip/Dimensions/Applicable Scenarios** in the module list.

It is recommended to select the **recommended module** as it is applicable to your defined functions.



Selected Cloud Connection Mode

Tuya Standard Module MCU SDK

Tuya Standard Module SDK


Select Module

Enter a module name

Module	Chip/Dimensions/Applicable Scenarios	Debugging Price	Operation
 WB3S WiFi&BLE Dual Protocol Module	Chip: BK7231T / Size: 16x24x3.5mm / Fit for: Home Appliance, Socket, Light	¥15.00	Details Select
 WB2S WiFi&BLE Dual Protocol Module	Chip: BK7231T / Size: 15x17.3x3.3mm / Fit for: Electric, Socket, Lighting Driver	¥15.00	Details Select

1. (Optional) After selecting a module, you can click **Module Details** to view the module information. You can change the module as needed.
2. In the **Select Firmware** area below **Selected Module**, click **Select Firmware** and select **General firmware scheme** in the pop-up box.

Selected Module



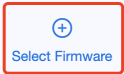
WB3S WiFi&BLE Dual Protocol Module
Chip: BK7231T Size: 16x24x3.5mm Fit for: Home Appliance, Socket, Light
[Module Details >](#)


Change Module

¥15.00

Purchase Module

Select Firmware





Please select Tuya firmware first, then add custom firmware.

1. (Optional) If you need custom firmware, you can click **Add custom firmware** in the **Generated Firmware** area. For more information, see [Update Firmware](#). [image.png](

Generated Firmware

Firmware Name/Firmware Key	Associated Hardware	Chipset Platform	Firmware Category	Current Version	Operation
General firmware scheme key34ak4q5mrkef	WB3S WiFi&BLE Dual Protocol Module	BK7231S	Module Firmware	1.1.71 Change	More ▾

Add custom firmware

2. (Optional) On the right side of the selected module, click **Purchase Module** to purchase the module online for debugging.

The firmware configuration above is burned to the module. It can be directly used to debug the product after you place an order.

2.2 Configure the no-code development product

The following steps describe how to configure hardware development based on a no-code solution. For more information, see [Create Electrical Products](#) and [Create Smart Light](#).

1. Go to the [Smart Products](#) page on the Tuya IoT Platform.
2. Find a product in **Developing**, and click **Entering to Develop**.
3. In the **Select Module** area of the **Hardware Commission** step, select a module according to the **Chip/Dimensions/Applicable Scenarios** of the module list. It is recommended to select the **recommended module** as it is applicable to your defined functions.

1 Function Definition
2 Device Panel
3 Hardware Commission
4 Product Configuration
5 Test Services

① WiFi+Bluetooth networking mode, recommended with APP3.17.6 or above

Hardware Commission

How to commission hardware?

Select a module and firmware based on the specified connection mode, download development documents, and purchase commissioning modules.

Select Module

Enter a module name

Module	Chip/Dimensions/Applicable Scenarios	Debugging Price	Operation
WB2S WiFi&BLE Dual Protocol Module	Chip: BK7231T / Size: 15x17.3x3.3mm / Fit for: Electric, Socket, Lighting Driver	¥15.00	Details Select
WB3S WiFi&BLE Dual Protocol Module	Chip: BK7231T / Size: 16x24x3.5mm / Fit for: Home Appliance, Socket, Light	¥15.00	Details Select

- (Optional) After selecting a module, you can click **Module Details** to view the module information. You can change the module as needed.
- In the **Generate firmware** area, you can configure the firmware by clicking **Online Firmware Generation**. And the firmware of the selected module will be generated.

Selected Module

WB2S WiFi&BLE Dual Protocol Module
Chip: BK7231T Size: 15x17.3x3.3mm Fit for: Electric, Socket, Lighting Driver
[Module Details >](#)

Change Module
¥15.00
Purchase Module

Generate firmware 1 To be generated

oem_bk7231s_rnd_switch (keya4gvchmtapm8n)
Firmware Version: 1.1.2 [Change](#) Associated Hardware: WB2S WiFi&BLE Dual Protocol Module
[Online Firmware Generation](#)

① The following is the default configuration of this firmware, which can be adjusted as needed.

distribution_network_setting

netled ②: PWM2 Low-level a...

first_distribution_network_trigger_mod Long press network pairing butto...

Note: During the **Generate firmware** process, you can see the I/O port table of the module. Read the firmware information carefully and modify the information as needed. Save the information after confirming. All modules will be burned according to the firmware configuration information, and the modules cannot be changed after being sent. If you change the firmware configuration information after the module is sent, the two versionss will be inconsistent. The previous

product cannot be upgraded online. The I/O configuration information varies in products. Fill in the information according to different versions.

6. In the **Development and debugging** area below the module, complete **Drawing PCBA**, download the **Tuya Cloud Test app**, and test the device.
7. (Optional) On the right side of the selected module, click **Purchase Module** to purchase the module online for debugging.

The firmware configuration above is burned to the module. It can be directly used to debug the product after you place an order.

3 Next

After completing the hardware development, you can select and manage the firmware for the product. For more information, see [Select and Change the Firmware Version](#).