




# Espressif

## Product Selector Tool Instructions



Version 0.3  
Espressif Systems  
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# About This Guide

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This document provides instructions on how to use product selector tool for new users.

## Release Notes

Date	Version	Release notes
2020.09.17	V0.1	Internal use.
2020.10.25	V0.2	<ul style="list-style-type: none"><li>• Update Figures 1-1 ~ 1-4;</li><li>• Add Section 1.5.</li></ul>
2020.11.18	V0.3	<ul style="list-style-type: none"><li>• Update Figures 1-1 ~ 1-5;</li><li>• Remove Section 1.5;</li><li>• Add Section 2.</li></ul>

## Documentation Change Notification

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## Certification

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# 1. Selector Interface

## 1.1. Home Page

The screenshot displays the ESP Product Selector Home Page. The top navigation bar includes tabs for 'Product Selector', 'Product Comparison', '4. Selector/Comparison Switch', '5. Language and Help', and '6. Business/Technical Support'. The left sidebar, labeled '1. Filter', contains various filtering options such as Part Number, Wi-Fi, Bluetooth, Temperature, Products, Series, Status, Core, Antenna, Package, Memory, and Peripherals. The main content area is divided into two sections: '3. Product Information' and '2. Results List'. The '3. Product Information' section shows a 'No Data Available' message. The '2. Results List' section displays a table of 49 items, with columns for Name, Marketing Status, Type, Wi-Fi, Bluetooth, Temp (°C), GPIO, Flash (MB), SRAM (KB), ROM (KB), PSRAM (KB), Price (USD), and Size (mm).

Figure 1-1 Home Page of the Selector Interface

As shown in Figure 1-1, the home page includes the following parts:

- Filter: conditional options for product filtering;
- Results List: list of products that meet the filtering conditions;
- Product Information: product brief, block diagram, documents, boards, and etc.;
- Selector/Comparison Switch: switch between selector interface and comparison page;
- Language and Help: switch language between Chinese and English;
- Business/Technical Support: provide entries for Espressif's official business and technical support.



## 1.2. Filter

The screenshot shows the ESP Product Selector interface. The sidebar on the left contains filter categories. The main area displays a list of products. Red circles highlight four filter types:

- Type 1:** A dropdown menu for selecting a product by name.
- Type 2:** A checkbox for selecting specific conditions.
- Type 3:** A slider for setting a range for a parameter.
- Type 4:** An input box for setting a minimum value for a parameter.

The main area also includes a 'No Data Available' message and a table of product details.

Figure 1-2 The Filter Column

As shown in Figure 1-2, the filter column includes the following types:

- Type 1 - dropdown menu: directly select the desired product with its name;
- Type 2 - checkbox: select the desired conditions and the results list will only show matched products;
- Type 3 - slider: drag the slider to set the desired range with each parameter, and the results list will only show products within this range;
- Type 4 - input box: type in a minimum value and the results list will only show products with corresponding parameters not lower than this value.



## 1.3. Results List

The screenshot shows the ESP Product Selector interface. The sidebar on the left contains various filters: Part Number (Please Select), Wi-Fi (Check All), Bluetooth (N/A), Temperature (2.4 GHz 802.11 b/g/n), Products (Check All), Series (N/A), Sorton (N/A), Core (N/A), Antenna (N/A), Package (N/A), and Memory (SRAM from 160 to 512 (KB)). The main area displays a table of products with columns for Part Number, Marketing Status, Type, Wi-Fi, Bluetooth, Temp. (°C), CPU, Flash (MB), SRAM (KB), ROM (KB), PSRAM (KB), Price (USD), and Size (mm). A 'Total Number' of 49 items is shown. A 'Comparison/Export' section on the right allows for comparing products and exporting data.

Figure 1-3 Results List Overview

As shown in Figure 1-3, the results list includes the following parts:

- Total Number: the total number of products that meet the filtering conditions;
- Product List: a list of products that match the filtering conditions, with multiple forms of sorting results supported;
- Export: the results can be exported to various file formats (csv, html, xml, txt);
- Comparison: select the desired products and they will be displayed on the detailed comparison page.



## 1.4. Product Information

**Product Preview**

**Display Area**

**Features:**

- **Core:** Non-volatile dual-core 32-bit L86 CPU, frequency up to 240MHz
- **Memories**
  - + 448 KB of ROM
  - + 520 KB of SRAM
  - + 16 KB of RTC SRAM
  - + 4 MB of Flash memory
  - + up to 8 MB External PSRAM
- **Working Voltage:** 2.3 V to 3.6 V
- **Up to 36 GPIOs**
- **2\*12-bit ADC (up to 18 channels)**
- **Communication Interfaces**
  - + 2 UARTs
  - + 2 I2S interfaces
  - + 4 SPI interfaces

**Block Diagram:**

**Table of Product Variants:**

ID	Name	Marketing Status	Type	Wi-Fi	Bluetooth	Temp (°C)	GPIO	Flash (MB)	SRAM (KB)	ROM (KB)	PSRAM (MB)	Freq. (MHz)	Size (mm)
1	ESP32-S2	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	43	0	520	128	0	240	CPIN6 (7*7)
2	ESP32-S2P	Sample	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	43	2.4	520	128	0	240	CPIN6 (7*7)
3	ESP32-C020-01	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	0	520	448	0	240	CPIN6 (7*7)
4	ESP32-C020-02	Sample	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	0	520	448	0	240	CPIN6 (7*7)
5	ESP32-C020-03	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	0	520	448	0	240	CPIN6 (7*7)
6	ESP32-C020-04	Sample	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	0	520	448	0	240	CPIN6 (7*7)
7	ESP32-C020-05	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	2	520	448	0	240	CPIN6 (7*7)
8	ESP32-C020-06	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	4	520	448	0	240	CPIN6 (7*7)
9	ESP32-C020-07	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	2	520	448	0	240	CPIN6 (7*7)
10	ESP32-C020-08	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	4	520	448	0	240	CPIN6 (7*7)
11	ESP32-C020-09	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	4	520	448	0	240	CPIN6 (7*7)
12	ESP32-C020-10	Sample	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	BR/EDR + Bluetooth LE v4.2	-40 ~ 125	34	4	520	448	0	240	CPIN6 (7*7)
13	ESP32-C020-11	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	0	160	0	0	160	CPIN6 (7*7)
14	ESP32-C020-12	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	1	160	0	0	160	CPIN6 (7*7)
15	ESP32-C020-13	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	1	160	0	0	160	CPIN6 (7*7)
16	ESP32-C020-14	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	2	160	0	0	160	CPIN6 (7*7)
17	ESP32-C020-15	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	4	160	0	0	160	CPIN6 (7*7)
18	ESP32-C020-16	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	4	160	0	0	160	CPIN6 (7*7)
19	ESP32-C020-17	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	4	160	0	0	160	CPIN6 (7*7)
20	ESP32-C020-18	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	4	160	0	0	160	CPIN6 (7*7)
21	ESP32-C020-19	Mass Production	SAC	IEEE 802.11 b/g/n 2.4 GHz HT20	N/A	-40 ~ 125	17	4	160	0	0	160	CPIN6 (7*7)

Figure 1-4 Product Information Interface

As shown in Figure 1-4, the product information area includes the following contents:

- **Product Preview:** showing a preview of the physical drawing of the selected product;
- **Product Brief:** showing information of the selected product, such as overview, detailed parameters, mass production status, block diagram, and etc.;
- **Docs & Certs:** showing documents and related certificates of the selected product;
- **Boards:** showing related development boards based on the selected product;
- **Display Area:** showing corresponding contents according to different options selected.



## 2. Comparison Interface

	ESP8266-02	ESP8266-02F	ESP8266-02WD-V3
Series	ESP8266-02	ESP8266-02	ESP8266-02
CPU	Xtensa® single-core 32-bit LX7	Xtensa® single-core 32-bit LX7	Xtensa® dual-core 32-bit LX6
Core	1	1	2
Dimensions (mm)	7*7	7*7	9*9
Temp. (°C)	-40 °C ~ 125 °C	-40 °C ~ 125 °C	-40 °C ~ 125 °C
Status	Mass Production	Sample	Mass Production
Wireless	Bluetooth	N/A	ESP8266 + Bluetooth LE v4.2
DRAM (KB)	320	320	520
ROM (KB)	128	128	448
Flash (MB)	0	2.4	0
A/D	2*12-bit ADC, 20 channels	2*12-bit ADC, 20 channels	2*12-bit ADC, 18 channels
Touch	14	14	50
GPIO	43	43	34
UART	2	2	3
SDIO HOST	0	0	1
SDIO SLAVE	0	0	1
I2S	1	1	2
I2C	4	4	8
LED PWM	8	8	16
MCUPWM	0	0	6
USB OTG	1	1	0
HSR	0	0	1
Ethernet	0	0	1
TCP	YES	YES	N/A

Figure 2-1 Detailed Comparison Interface

As shown in Figure 2-1, the detailed comparison interface includes the following parts:

- Filter: select the chips/modules to be compared here, and the number is not limited.
- Comparison Area: a detailed display of parameters of the selected products to show their differences;
- Hide/Show Switch: hide/show the identical items.





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