Espressif

Product Ordering Information



Version 2.9 Espressif Systems Copyright © 2019

About This Guide

This guide provides the ordering information of Espressif products.

Release Notes

For any changes to this document over time, please refer to the last page.

Documentation Change Notification

Espressif provides email notifications to keep customers updated on changes to technical documentation. Please subscribe at https://www.espressif.com/en/subscribe.

Certification

Download certificates for Espressif products from https://www.espressif.com/en/certificates.

Purchase

Buy Espressif products from https://www.espressif.com/en/company/contact/pre-sale-questions-crm.



1. Notes to This Guide

- MP denotes mass production.
- SPQ: Standard Pack Quantity; MOQ: Minimum Order Quantity.
- For high temperature range option, please contact our salesperson.
- Unless otherwise specified, all the modules have the same dimensional tolerance: ±0.10 mm for length, width and thickness.
- Release notes for this document are listed on the last page.
- Label *New indicates that this is an new product, label *Recommend indicates that this product is recommended by Espressif, and label *Default indicates the default specification of a product.



2. ESP32 Series

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
				ESP32	Series of	SoCs						
	ESP32-D0WD	-	SMD IC ESP32- D0WD, dual-core MCU, Wi-Fi & Bluetooth combo, QFN 48-pin, 5*5 mm	-	-	-	-40 °C ~ +125 °C	5×5	5,000 & 1,000	1,000	MP	-
ESP32 Datasheet	ESP32- D0WDQ6	-	SMD IC ESP32- D0WDQ6, dual-core MCU, Wi-Fi & Bluetooth combo, QFN 48-pin, 6*6 mm	-	-	-	−40 °C ~ +125 °C	6×6	3,000 & 1,000	1,000	MP	-
	ESP32-D2WD	-	SMD IC ESP32- D2WD, dual-core MCU, Wi-Fi & Bluetooth combo, 2 MB flash inside, QFN 48-pin, 5*5 mm	2 MB	-	-	-40 °C ~ +105 °C	5×5	5,000 & 1,000	1,000	MP	-
	ESP32-S0WD	-	SMD IC ESP32- SOWD, single-core MCU, Wi-Fi & Bluetooth combo, QFN 48-pin, 5*5 mm	-	-	-	−40 °C ~ +125 °C	5×5	5,000 & 1,000	1,000	MP	-



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
				ESP32 S	eries of M	lodules						
	ESP32- WROOM-32D (*Default)	ESP32- WROOM-32D(M 113DH3200PH3 Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×25.5 0×3.10	650	650	MP	ESP32-D0WD
ESP32-	ESP32- WROOM-32D (8 MB)	ESP32- WROOM-32D(M 113DH6400PH3 Q0)	SMD module, ESP32-D0WD, 8 MB SPI flash, PCB antenna	8 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×25.5 0×3.10	650	650	MP	Datasheet ESP32- DevKitC-32D Getting Started
WROOM-32D <u>Datasheet</u> (*Recommend)	ESP32- WROOM-32D (16 MB)	ESP32- WROOM-32D(M 113DH2800PH3 Q0)	SMD module, ESP32-D0WD, 16 MB SPI flash, PCB antenna	16 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×25.5 0×3.10	650	650	MP	Guide.
	ESP32- WROOM-32D (High Temp. 105°C)	ESP32- WROOM-32D(M 113DH3200PS3 Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, PCB antenna, -40 °C ~ +105 °C	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +105 °C	18.00×25.5 0×3.10	650	650	MP	ESP32-D0WD Datasheet
ESP32-	ESP32- WROOM-32U (*Default)	ESP32- WROOM-32U(M 113DH3200UH3 Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, IPEX antenna connector	4 MB	-	External IPEX antenna	-40 °C ~ +85 °C	18.00×19.2 0×3.20	650	650	MP	ESP32-D0WD
WROOM-32U Datasheet (*Recommend) (Continued on the next page)	ESP32- WROOM-32U (8 MB)	ESP32- WROOM-32U(M 113DH6400UH3 Q0)	SMD module, ESP32-D0WD, 8 MB SPI flash, IPEX antenna connector	8 MB	-	External IPEX antenna	-40 °C ~ +85 °C	18.00×19.2 0×3.20	650	650	MP	Datasheet ESP32- DevKitC-32U Getting Started
	ESP32- WROOM-32U (16 MB)	ESP32- WROOM-32U(M 113DH2800UH3 Q0)	SMD module, ESP32-D0WD, 16 MB SPI flash, IPEX antenna connector	16 MB	-	External IPEX antenna	-40 °C ~ +85 °C	18.00×19.2 0×3.20	650	650	MP	<u>Guide</u>



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32- WROOM-32U <u>Datasheet</u> (*Recommend)	ESP32- WROOM-32U (High Temp. 105°C)	ESP32- WROOM-32U(M 113DH3200US3 Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, IPEX antenna connector, -40 °C ~ +105 °C	4 MB	-	External IPEX antenna	-40 °C ~ +105 °C	18.00×19.2 0×3.20	650	650	MP	ESP32-D0WD Datasheet
ESP32- WROOM-32 <u>Datasheet</u>	-	-	SMD module, ESP32-D0WDQ6, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×25.5 0×3.10	550	550	MP	ESP32- D0WDQ6 <u>Datasheet</u>
ESP32-SOLO-1	ESP32-SOLO-1 (*Default)	ESP32- SOLO-1(M113S H3200PH3Q0)	SMD module, ESP32-S0WD, single core, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×25.5 0×3.10	650	650	MP	ESP32-S0WD Datasheet
Datasheet	ESP32-SOLO-1 (High Temp. 105°C) (*New)	ESP32- SOLO-1(M113S H3200PS3Q0)	SMD module, ESP32-S0WD, single core, 4 MB SPI flash, PCB antenna, -40 °C ~ +105 °C	4 MB		Internal PCB on- board antenna	-40 °C ~ +105 °C	18.00×25.5 0×3.10	650	650	MP	ESP32- DevKitC-S1 Getting Started Guide
ESP32-WROVER-	ESP32- WROVER-B (*Default)	ESP32- WROVER- B(M213DH3264 PC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, PCB antenna	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	ESP32-D0WD Datasheet ESP32- DevKitC-VB
ESP32-WROVER-B Datasheet (*Recommend) ES	ESP32- WROVER-B (8 MB flash)	ESP32- WROVER- B(M213DH6464 PC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, PCB antenna	8 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	Getting Started Guide



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
	ESP32- WROVER-B (16 MB flash)	ESP32- WROVER- B(M213DH2864 PC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, PCB antenna	16 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	ESP-WROVER- KIT-VB Getting Started Guide
ECDOO WDOVED	ESP32- WROVER-IB (4 MB flash)	ESP32- WROVER- IB(M213DH3264 UC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, IPEX antenna connector	4 MB	8 MB	External IPEX antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	
ESP32-WROVER-B Datasheet (*Recommend)	ESP32- WROVER-IB (8 MB flash)	ESP32- WROVER- IB(M213DH6464 UC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, IPEX antenna connector	8 MB	8 MB	External IPEX antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	ESP32-DOWD Datasheet ESP32- DevKitC-VIB Getting Started
	ESP32- WROVER-IB (16 MB flash)	ESP32- WROVER- IB(M213DH2864 UC3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, IPEX antenna connector	16 MB	8 MB	External IPEX antenna	-40 °C ~ +65 °C	18.00×31.4 0×3.30	650	650	MP	<u>Guide</u>
	ESP32- WROVER (PCB)	-	SMD module, ESP32-D0WDQ6, 1.8 V, 8 MB PSRAM, 4 MB SPI flash, PCB antenna	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×31.4 0×3.30	650	650	MP	ESP32- DOWDQ6 Datasheet
ESP32-WROVER Datasheet	ESP32- WROVER (IPEX)	-	SMD module, ESP32-D0WDQ6, 1.8 V, 8 MB PSRAM, 4 MB SPI flash, IPEX antenna connector	4 MB	8 MB	External IPEX antenna	-40 °C ∼ +85 °C	18.00×31.4 0×3.30	650	650	MP	ESP32- DOWDQ6 <u>Datasheet</u>



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-PICO-D4 Datasheet	-	-	SiP module with 4 MB flash, dual-core MCU, Wi-Fi & Bluetooth combo, LGA 48-pin, 7*7 mm	4 MB	-	-	-40 °C ~ +85 °C	7×7	2,000 & 1,000	1,000	MP	ESP32-PICO- KIT Getting Started Guide
			ESP3	2 Series	of Develor	oment Boa	ırds					
ESP32-DevKitC Getting Started Guide (Continued on the next page	ESP32- DevKitC-32D	ESP32- DevKitC-32D	ESP32 general- purpose development board, embeds ESP32- WROOM-32D, 4 MB flash, with pin header	4 MB	-	Internal PCB on- board antenna	-40 °C ∼ +85 °C	54.4×27.9	1	_	MP	ESP32- WROOM-32D Datasheet
	ESP32- DevKitC-32U	ESP32- DevKitC-32U	ESP32 general- purpose development board, embeds ESP32- WROOM-32U, 4 MB flash, with pin header	4 MB	-	External IPEX antenna	-40 °C ~ +85 °C	54.4×27.9	1	-	MP	ESP32- WROOM-32U <u>Datasheet</u>
	ESP32- DevKitC-S1	ESP32-DevKitC- S1	ESP32 general- purpose development board, embeds ESP32- SOLO-1, 4 MB flash, with pin header	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	54.4×27.9	1	-	MP	ESP32-SOLO-1 Datasheet



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-DevKitC Getting Started Guide	ESP32- DevKitC-VB	ESP32-DevKitC- VB	ESP32 general- purpose development board, embeds ESP32- WROVER-B, 4 MB flash, 8 MB PSRAM, with pin header	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	54.4×27.9	1	-	MP	ESP32- WROVER-B <u>Datasheet</u>
	ESP32- DevKitC-VIB	ESP32-DevKitC- VIB	ESP32 general- purpose development board, embeds ESP32- WROVER-B (IPEX), 4 MB flash, 8 MB PSRAM, with pin header	4 MB	8 MB	External IPEX antenna	-40 °C ~ +65 °C	54.4×27.9	1	-	MP	ESP32- WROVER-B (IPEX) Datasheet
ESP-WROVER-KIT Getting Started Guide	ESP-WROVER- KIT-VB	ESP-WROVER- KIT-VB	ESP32 development board, JTAG function, TFT display and camera supported, ESP32- WROVER-B on the board	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	85.1×84.3	1	-	MP	ESP32- WROVER-B Datasheet
ESP32-PICO-KIT Getting Started Guide	-	ESP32-PICO-KIT	ESP32-PICO-D4 development board	4 MB	-	Internal 3D antenna	-40 °C ∼ +85 °C	52.0×20.3	1	-	MP	ESP32-PICO- D4 Datasheet



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-LyraT User Guide	-	ESP32-LyraT	ESP32 audio development board, integrates ESP32- WROVER/ESP32- WROVER-B, peripherals like touch buttons, mic, speaker supported	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ∼ +65 °C	95.5×80.6	1	-	MP	ESP32- WROVER Datasheet ESP32- WROVER-B Datasheet
ESP32-LyraTD- DSPG User Guide (*New) (*Recommend)	-	ESP32-LyraTD- DSPG	An Espressif Audio Development Board, based on ESP32-WROVER- B, a BT/WIFI combo module, and DBMP5P DSP that features a three- microphone array for noise reduction, echo cancellation, beamforming and wake-word detection.	16 MB	8 MB	Internal PCB on- board antenna	−20 °C ~ +65 °C	Main board: 85 mm X 65 mm Sun board: diameter 90 mm	1	-	MP	ESP32- WROVER-B <i>Datasheet</i>
ESP32-LyraTD- MSC <u>User Guide</u>	-	ESP32-LyraTD- MSC	ESP32 audio development board, integrates ESP32- WROVER-B and DSP, noise reduction, echo cancellation, voice recognition, near- field and far-field voice wake-up supported	4 MB	8 MB	Internal PCB on- board antenna	-40 °C ~ +65 °C	90×90	1	-	MP	ESP32- WROVER-B Datasheet



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-LyraT-Mini Getting Started	-	ESP32-LyraT- Mini	ESP32-LyraT-Mini is a lightweight audio development board based on ESP32-WROVER-B, which implements AEC, AGC, NS WWE (wake word engine) and other audio signal processing technologies.	8 MB	8 MB	Internal PCB on- board antenna	−20 °C ~ +65 °C	77x72	-	-	MP	ESP32- WROVER-B Datasheet
ESP-Prog Getting Started	-	ESP-Prog	Development and debugging tool with functions including automatic firmware downloading, serial communication, and JTAG online debugging	-	-	-	−20 °C ~ +65 °C	73.4×25.1	1	-	MP	ESP32-Sense Kit User Guide ESP32- MeshKit-Sense Hardware Design Guidelines
ESP32-MeshKit- Sense Hardware Design Guidelines	-	ESP32-MeshKit- Sense	A development board that embeds ESP32- WROOM-32D, peripherals such as temperature and humidity sensor, ambient light sensor, LCD screen connector, Micro USB port and ESP- Prog connector	4 MB	-	Internal PCB on- board antenna	-40 °C ∼ +65 °C	75.0×41.0	1	-	MP	ESP32- WROOM-32D Datasheet ESP-Prog Getting Started ESP32- MeshKit-Light User Guide



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-MeshKit- Light <i>User Guide</i>	-	ESP32-MeshKit- Light	Smart lights based on ESP-Mesh networking technology	4 MB	-	-	−20 °C ~ +40 °C	60×60×118	1	-	MP	ESP32- MeshKit-Sense Hardware Design Guidelines
ESP-EYE Getting Started (*Recommend)	-	ESP-EYE	A development board for image recognition and audio processing in AloT applications	4 MB	8 MB	3D Antenna	0°C - 50°C	41.00 x 21.00 x 6.50	1	10	MP	ESP32-D0WD Datasheet
ESP32-LCDKit Hardware Design Guidelines (*New)	-	ESP32-LCDKit	An HMI development board based on ESP32-DevKitC (need to purchase if you didn't have one), integrated with such peripherals as SD-Card, DAC-Audio, can be connected to an external display.	-	-	-	-40 °C ~ +85 °C	73.4×25.1	1	-	MP	ESP32-DevKitC Getting Started Guide

ESP32 Series of Development Kits



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-Sense Kit <u>User Guide</u> (*New)	-	ESP32-Sense Kit	Touch sensor development kit, with ESP-Prog by default	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	-	1	-	MP	ESP32- WROOM-32 Datasheet ESP32- WROOM-32D Datasheet ESP-Prog
ESP32-MeshKit	-	-	Smart-light development kit, containing 1×ESP32-MeshKit- Sense, 5×ESP32- MeshKit-Light, 1×ESP-Prog	-	-	-	-	-	1	-	MP	ESP32- MeshKit-Sense Hardware Design Guidelines ESP32- MeshKit-Light User Guide ESP-Prog Getting Started



3. ESP8266 Series

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
				ESP826	6 Series o	f SoCs						
ESP8266EX Datasheet	-	-	SMD IC ESP8266EX, QFN32-pin, 5*5 mm	NA	-	NA	-40 °C ∼ +125 °C	5×5	5,000 & 1,000	1,000	MP	-
ESP8285 Datasheet	ESP8285N08	ESP8285N08	SMD IC ESP8285N08, QFN32-pin, 5*5 mm, 1 MB flash inside, -40 °C ~ +85 °C	1 MB	-	NA	-40 °C ~ +85 °C	5×5	5,000 & 1,000	1,000	MP	-
	ESP8285H08	ESP8285H08	SMD IC ESP8285H08, QFN32-pin, 5*5 mm, 1 MB flash inside, -40 °C ~ +105 °C	1 MB	-	NA	-40 °C ∼ +105 °C	5×5	5,000 & 1,000	5,000	MP	-
	ESP8285H16	ESP8285H16	SMD IC ESP8285H16, QFN32-pin, 5*5 mm, 2 MB flash inside, -40 °C ~ +105 °C	2 MB	-	NA	-40 °C ~ +105 °C	5×5	5,000 & 1,000	5,000	Sample	-



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
			E	SP8266	Series of I	Modules						
	ESP- WROOM-02D (*Default)	-	SMD Module ESP- WROOM-02D, ESP8266EX, 2 MB SPI flash, UART Mode	2 MB	-	Internal PCB on- board antenna	-40 °C ∼ +85°C	18.00×20.0 0×3.20	650	650	MP	 ESP8266EX <u>Datasheet</u> ESP8266-
ESP- WROOM-02D <u>Datasheet</u> (*Recommend)	ESP- WROOM-02D (4 MB)	-	SMD Module ESP- WROOM-02D, ESP8266EX, 4 MB SPI flash, UART Mode	4 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	18.00×20.0 0×3.20	650	650	MP	DevKitC Getting Started
("Recommend)	ESP- WROOM-02D (High Temperature) (*New)	ESP- WROOM-02D(M1 102H1600PS3Q0)	SMD Module ESP- WROOM-02D, ESP8266EX, 2 MB SPI flash, UART Mode, -40 °C ~ +105 °C	2 MB	-	Internal PCB on- board antenna	-40 °C ~ +105°C	18.00×20.0 0×3.20	650	650	MP	ESP8266EX Datasheet
	ESP- WROOM-02U (*Default)	-	SMD Module ESP- WROOM-02U, ESP8266EX, 2 MB SPI flash, UART Mode, external IPEX antenna connector	2 MB	-	External IPEX antenna	-40 °C ~ +85 °C	18.00×14.3 0×3.20	650	650	MP	• ESP8266EX Datasheet • ESP8266-
ESP- WROOM-02U Datasheet (*Recommend)	ESP- WROOM-02U (4 MB)	-	SMD Module ESP- WROOM-02U, ESP8266EX, 4 MB SPI flash, UART Mode, external IPEX antenna connector	4 MB	-	External IPEX antenna	-40 °C ~ +85 °C	18.00×14.3 0×3.20	650	650	MP	DevKitC Getting Started



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
	ESP- WROOM-02U (High Temperature) (*New)	ESP- WROOM-02U(M1 102H1600US3Q0)	SMD Module ESP- WROOM-02U, ESP8266EX, 2 MB SPI flash, UART Mode, external IPEX antenna connector, – 40 °C ~ +105 °C	2 MB	-	External IPEX antenna	-40 °C ~ +105 °C	18.00×14.3 0×3.20	650	650	MP	ESP8266EX <u>Datasheet</u>
ESP- WROOM-02 <u>Datasheet</u>	-	-	SMD Module, ESP8266EX, 2 MB SPI flash, UART Mode	2 MB	-	Internal PCB on- board antenna	– 40 °C ~ +85 °C	18.00×20.0 0×2.80	650	650	MP	ESP8266EX Datasheet
ESP-WROOM- S2 <u>Datasheet</u>	-	-	SMD Module, ESP8266EX, 2 MB SPI flash, SPI Mode	2 MB	-	Internal PCB on- board antenna	-40 °C ~ +85 °C	16.00×23.0 0×2.80	650	650	MP	ESP8266EX Datasheet
ESP8266 Series of Development Boards												
ESP8266- DevKitC Getting Started (*Recommend)	ESP8266- DevKitC-02D-F	ESP8266- DevKitC-02D-F	ESP8266 General Development Kit with ESP-WROOM-02D embedded and female header connector on board	2 MB	_	Internal PCB on- board antenna	-40 °C ~ +85°C	44.9×25.4	1	_	MP	ESP- WROOM-02D Datasheet
	ESP8266- DevKitC-02U-F	ESP8266- DevKitC-02U-F	ESP8266 General Development Kit, embeds ESP- WROOM-02U and female header connector on the board	2 MB	-	External IPEX antenna	-40 °C ~ +85 °C	44.9×25.4	1	-	MP	ESP- WROOM-02U <u>Datasheet</u>



Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP-Launcher Hardware Design Guidelines	-	ESP-LAUNCHER	Development board for ESP8266EX, with external SMA antenna	4 MB	-	External SMA antenna	−25 °C ~ +85 °C	46×78.5	1	_	MP	ESP8266EX Datasheet



4. Production Testing Equipment

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Operating Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
	Production Testing Board											
ESP-FactoryTB1	-	ESP-FactoryTB1	Production testing board with two high- speed serial ports	-	-	-	-40 °C ~ +65 °C	66.5×46.0	1	-	MP	All Espressif products
	Signal Boards											
ESP-BAT32		ESP-BAT32	RF testing board for ESP32 products	4 MB	-	External SMA antenna	−25 °C ~ +75 °C	100×60×25	1	-	MP	ESP32 products
ESP-BAT8	-	ESP-BAT8	RF testing board for ESP8266 products	4 MB	-	External SMA antenna	−25 °C ~ +75 °C	100×60×25	1	-	MP	ESP8266 products



Release Notes

Date	Version	Release notes				
2017.06	V1.0	First release.				
2017.08	V1.1	Updated version.				
		Added ESP32-PICO-D4;				
2017.08	V1.2	• Deleted ESP8689;				
		Corrected typos.				
		Updated SPQ and MOQ for ESP32-PICO-D4;				
2017.09	V1.3	 Updated the marketing status of ESP32-D0WD and ESP32-D2WD to MP; 				
		Added ESP-WROOM-02D module.				
		Added ESP-WROOM-32D and ESP32-WROOM-32U modules;				
2017.11	V1.4	Added ESP32-PICO-KIT;				
2017.11	V1.4	Added ESP-WROOM-02D and ESP-WROOM-02U modules;				
		Updated SPQ and MOQ for several modules.				
2017.12	V1.5	Corrected some typos.				
2018.03	V1.6	Updated the product names of ESP-WROOM-32 and ESP-WROOM-32D.				
		 Updated the marketing status of ESP32-S0WD, ESP32-WROOM-32D, ESP32-WROOM-32U, ESP-WROOM-02D, and ESP-WROOM-02U to MP; 				
2018.06	V1.7	Updated the module information of ESP32-DevKitC;				
		 Updated the information of PSRAM integrated on ESP32-WROVER and ESP32-WROVER-I; 				
		Added ESP32-SOLO-1, ESP32-LyraT, ESP32-LyraTD-MSC, ESP32-Sense Kit, and ESP-Prog.				
2018.06	\/1 0	Added the link to ESP32-SOLO-1 Datasheet;				
2010.00	V1.8	Added ESP32-WROVER-B and ESP32-WROVER-IB.				



Date	Version	Release notes
		 Updated the marketing status of ESP32-PICO-D4, ESP32-LyraT, ESP32-LyraTD-MSC, ESP32-Sense Kit, ESP-Prog, ESP32-WROVER-B, and ESP32-WROVER-IB to MP;
2018.07	V1.9	Added ESP32-MeshKit-Sense and ESP32-MeshKit-Light.
		Added the column "Custom flash size" for modules available for customized order.
		Added labels *New ,*Recommend and *Default;
2018.09	V2.0	Updated document cover;
2010.03	٧٤.0	Updated information of modules' dimensions;
		Updated the description of a number of products.
		• Added variants of ESP32-WROOM-32D and ESP32-WROOM-32U with high temperature range (–40 °C \sim +105 °C);
2018.11	V2.1	• Updated the operating temperature range of ESP32-WROVER from $-40~^{\circ}\text{C}\sim65~^{\circ}\text{C}$ to $-40~^{\circ}\text{C}\sim85~^{\circ}\text{C}$;
2010.11	VZ.1	Removed all ESP32-DevKitC variants with female headers;
		Updated the description of ESP32-MeshKit.
		Removed information about ESP8089;
		Added new products and variants:
2018.12	V2.2	- ESP-WROOM-02DC
2010.12	٧٧.٧	- ESP-WROOM-02UC
		- ESP-WROOM-02D (High Temperature)
		- ESP-WROOM-02U (High Temperature)
2019.01	V2.3	Added the development board for image recognition and audio processing ESP-EYE.
2019.02	V2.4	Removed information about ESP-WROOM-02DC and ESP-WROOM-02UC.
2019.05	V2.5	Added a new product ESP32-LCDKit
		Corrected a typo in the product description of ESP32-WROOM-32;
2019.07	V2.6	Added a new variant for ESP32-SOLO-1;
		Updated the description of ESP32-SOLO-1.



Date	Version	Release notes
		Added a new product ESP32-LyraTD-DSPG;
		Updated SPQ and MOQ information of the following products:
		- ESP32-D0WD
		- ESP32-D0WDQ6
2019.08	V2.7	- ESP32-D2WD
		- ESP32-S0WD
		- ESP32-PICO-D4
		- ESP8266EX
		Updated information of ESP8285.
		Updated information of ESP32 series of chips;
2019.08	V2.8	 Added MPNs for ESP32-WROOM-32D and ESP32-WROOM-32U;
		• Move the location of ESP32-LyraTD-DSPG in the table, so it is closer to other ESP32-LyraT boards.
2019.09	V2.9	Added a new product ESP32-LyraT-Mini.



www.espressif.com

Disclaimer and Copyright Notice

Information in this document, including URL references, is subject to change without notice.

THIS DOCUMENT IS PROVIDED AS IS WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE.

All liability, including liability for infringement of any proprietary rights, relating to use of information in this document is disclaimed. No licenses express or implied, by estoppel or otherwise, to any intellectual property rights are granted herein.

The Wi-Fi Alliance Member logo is a trademark of the Wi-Fi Alliance. The Bluetooth logo is a registered trademark of Bluetooth SIG.

All trade names, trademarks and registered trademarks mentioned in this document are property of their respective owners, and are hereby acknowledged.

Copyright © 2019 Espressif Inc. All rights reserved.