Espressif

Product Ordering Information

Version 5.1
Espressif Systems
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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.

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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, label ***Default** indicates the default specification of a product, label ***NRND** indicates that this product is not recommended for new designs, and label ***ACK** indicates this is an Alexa Connect Kit.
- For the definition of "**Temperature**", please refer to product datasheet.

1. ESP32-C3 Series

1.1. ESP32-C3 Series of SoCs

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-C3 *Datasheet*	-	-	SMD IC ESP32-C3, RISC-V single-core MCU, 2.4G Wi-Fi & BLE 5.0 combo, QFN 32-pin, 5*5 mm, –40 ~ 105℃	-	-	-	–40 °C ~ +105 °C	5×5	5,000	1,000	MP	-
ESP32-C3F *Datasheet*	ESP32-C3FN4	-	SMD IC ESP32-C3FN4, RISC-V single-core MCU, 2.4G Wi-Fi & BLE 5.0 combo, QFN 32-pin, 5*5 mm, 4 MB flash inside, -40℃ ~ +85℃	4 MB	-	-	–40 °C ~ +85 °C	5×5	5,000	1,000	MP	-
	ESP32-C3FH4	-	SMD IC ESP32-C3FH4, RISC-V single-core MCU, 2.4G Wi-Fi & BLE 5.0 combo, QFN 32-pin, 5*5 mm, 4 MB flash inside, -40℃ ~ +105℃	4 MB	-	-	–40 °C ~ +105 °C	5×5	5,000	1,000	MP	-

1.2. ESP32-C3 Series of Modules

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-C3-MINI-1	ESP32-C3-MINI-1	ESP32-C3-MINI-1-N4	SMD module, ESP32-C3 with 4MB flash die inside, PCB antenna, -40ºC ~ +85ºC	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	13.20×16.60 ×2.40 (±0.15)	650	650	MP	ESP32-C3FN4 *Datasheet* ESP32-C3-DevKitM-1
	ESP32-C3-MINI-1 (High Temp. 105°C)	ESP32-C3-MINI-1-H4	SMD module, ESP32-C3 with 4MB flash die inside, PCB antenna, -40ºC ~ +105ºC	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +105 °C	13.20×16.60 ×2.40 (±0.15)	650	650	MP	ESP32-C3FH4 *Datasheet* ESP32-C3-DevKitM-1
ESP32-C3-WROOM-02	ESP32-C3-WROOM-02	ESP32-C3-WROOM-02-N4	SMD module, ESP32-C3, 4MB SPI flash, PCB antenna, -40ºC ~ +85ºC	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×20.00 ×3.20 (±0.15)	650	650	MP	ESP32-C3 *Datasheet*
	ESP32-C3-WROOM-02 (High Temp. 105°C)	ESP32-C3-WROOM-02-H4	SMD module, ESP32-C3, 4MB SPI flash, PCB antenna, -40ºC ~ +105ºC	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +105 °C	18.00×20.00 ×3.20 (±0.15)	650	650	MP	ESP32-C3-DevKitC-1

1.3. ESP32-C3 Series of Development Boards

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-C3-DevKitM-1	-	ESP32-C3-DevKitM-1	ESP32-C3 general-purpose development board, embeds ESP32-C3-MINI-1, 4 MB flash, with pin header	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	44.31×25.40	1	-	MP	ESP32-C3-MINI-1
ESP32-C3-DevKitC-02	-	ESP32-C3-DevKitC-02	ESP32-C3 general-purpose development board, embeds ESP32-C3-WROOM-02, 4 MB flash, with pin header	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	44.91×25.40	1	-	MP	ESP32-C3-WROOM-02

2. ESP32-S2 Series

2.1. ESP32-S2 Series of SoCs

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-S2 *Datasheet*	ESP32-S2	-	SMD Wi-Fi IC, ESP32-S2, single-core MCU, QFN 56-pin, 7*7 mm	-	-	-	–40 °C ~ +125 °C	7×7	2,000 & 1,000	1,000	MP	-
ESP32-S2F *Datasheet*	ESP32-S2FH2	-	SMD Wi-Fi IC, ESP32-S2FH2, single-core MCU, QFN 56-pin, 7*7 mm, 2 MB flash inside, -40℃ ~ +105℃	2 MB	-	-	–40 °C ~ +105 °C	7×7	2,000 & 1,000	1,000	MP	-
	ESP32-S2FH4	-	SMD Wi-Fi IC, ESP32-S2FH4, single-core MCU, QFN 56-pin, 7*7 mm, 4 MB flash inside, -40℃ ~ +105℃	4 MB	-	-	–40 °C ~ +105 °C	7×7	2,000 & 1,000	1,000	MP	-
	ESP32-S2FN4R2	-	SMD Wi-Fi IC ESP32-S2FR-01, single-core MCU, QFN 56-pin, 7*7 mm, 4 MB flash and 2 MB PSRAM inside	4 MB	2 MB	-	–40 °C ~ +85 °C	7×7	2,000	1,000	Sample	

2.2. ESP32-S2 Series of Modules

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-S2-MINI-1 *Datasheet* **(*New)**	-	ESP32-S2-MINI-1-N4	SMD module, ESP32-S2FH4, PCB antenna	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	15.40×20.00×2.40(±0.15)	650	650	MP	ESP32-S2FH4 *Datasheet*
ESP32-S2-MINI-1U *Datasheet* **(*New)**	-	ESP32-S2-MINI-1U-N4	SMD module, ESP32-S2FH4, IPEX antenna connector	4 MB embedded in chip	-	External IPEX antenna	–40 °C ~ +85 °C	15.40×15.40×2.40(±0.15)	650	650	MP	ESP32-S2FH4 *Datasheet*
ESP32-S2-WROOM *Datasheet*	ESP32-S2-WROOM (*Default)	ESP32-S2-WROOM(M22S2H3200PH3Q0)	SMD module, ESP32-S2, 4MB SPI flash, PCB antenna	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet* ESP32-S2-Saola-1 *User Guide*
	ESP32-S2-WROOM (High Temp. 105°C)	ESP32-S2-WROOM(M22S2H3200PS3Q0)	SMD module, ESP32-S2, 4MB SPI flash, PCB antenna, –40 °C ~ +105 °C	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +105 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet*
ESP32-S2-WROOM-I *Datasheet*	ESP32-S2-WROOM-I	ESP32-S2-WROOM-I(M22S2H3200UH3Q0)	SMD module , ESP32-S2, 4MB SPI flash, IPEX antenna connector	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet* ESP32-S2-Saola-1 *User Guide*
	ESP32-S2-WROOM-I (High Temp. 105°C)	ESP32-S2-WROOM-I(M22S2H3200US3Q0)	SMD module , ESP32-S2, 4MB SPI flash, IPEX antenna connector, –40 °C ~ +105 °C	4 MB	-	External IPEX antenna	–40 °C ~ +105 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-S2-WROVER *Datasheet*	ESP32-S2-WROVER (*Default)	ESP32-S2-WROVER(M22S2H3216PH3Q0)	SMD module, ESP32-S2, 3.3V, 2MB PSRAM, 4MB SPI flash, PCB Antenna	4 MB	2 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet* ESP32-S2-Saola-1 *User Guide*
ESP32-S2-WROVER-I *Datasheet*	ESP32-S2-WROVER-I	ESP32-S2-WROVER-I(M22S2H3216UH3Q0)	SMD module, ESP32-S2, 3.3V, 2MB PSRAM, 4MB SPI flash, IPEX antenna connector	4 MB	2 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.00×3.30 (±0.15)	650	650	MP	ESP32-S2 *Datasheet* ESP32-S2-Saola-1 *User Guide*

2.3. ESP32-S2 Series of Development Boards

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-S2-DevKitM-1	ESP32-S2-DevKitM-1	ESP32-S2-DevKitM-1	ESP32-S2 general-purpose development board, embeds ESP32-S2-MINI-1, 4 MB flash, with pin header	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	54x25.4	1	-	Sample	ESP32-S2-MINI-1 *Datasheet*
	ESP32-S2-DevKitM-1U	ESP32-S2-DevKitM-1U	ESP32-S2 general-purpose development board, embeds ESP32-S2-MINI-1U, 4 MB flash, with pin header	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	54x25.4	1	-	Sample	ESP32-S2-MINI-1U *Datasheet*
ESP32-S2-Saola-1 *User Guide*	ESP32-S2-Saola-1R	ESP32-S2-Saola-1R	ESP32-S2 general-purpose development board, embeds ESP32-S2-WROVER, 4 MB flash, with pin header	4 MB	2 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	53.9x27.9	1	-	MP	ESP32-S2-WROVER *Datasheet*
	ESP32-S2-Saola-1RI	ESP32-S2-Saola-1RI	ESP32-S2 general-purpose development board, embeds ESP32-S2-WROVER-I, 4 MB flash, with pin header	4 MB	2 MB	External IPEX antenna	–40 °C ~ +85 °C	53.9x27.9	1	-	MP	ESP32-S2-WROVER-I *Datasheet*
	ESP32-S2-Saola-1M	ESP32-S2-Saola-1M	ESP32-S2 general-purpose development board, embeds ESP32-S2-WROOM, 4 MB flash, with pin header	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	53.9x27.9	1	-	MP	ESP32-S2-WROOM *Datasheet*
	ESP32-S2-Saola-1MI	ESP32-S2-Saola-1MI	ESP32-S2 general-purpose development board, embeds ESP32-S2-WROOM-I, 4 MB flash, with pin header	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	53.9x27.9	1	-	MP	ESP32-S2-WROOM-I *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-S2-Kaluga-1 *User Guide*	-	ESP32-S2-Kaluga-1	The new multimedia development board ESP32-S2-Kaluga-1 based on ESP32-S2 has various functions, such as an LCD screen display, touch panel control, camera image acquisition, audio playback, etc. It can be flexibly assembled and disassembled, thus fulfilling a variety of customized requirements.	4 MB	2 MB	Internal PCB on-board antenna	–40 °C ~ +65 °C	128x166x60 (kit size)	1	-	MP	ESP32-S2-WROVER *Datasheet*

3. ESP32 Series

3.1. ESP32 Series of SoCs

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32 *Datasheet*	ESP32-D0WD-V3	-	SMD IC ESP32- D0WD-V3, ESP32 ECO V3, 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-D0WDQ6-V3	-	SMD IC ESP32- D0WDQ6-V3, ESP32 ECO V3, dual-core MCU, Wi-Fi & Bluetooth combo, QFN 48-pin, 6*6 mm	-	-	-	–40 °C ~ +125 °C	6x6	3,000 & 1,000	1,000	MP	-
	ESP32-D0WD **(*NRND)**	-	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-D0WDQ6 **(*NRND)**	-	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-S0WD, 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	-
	ESP32-U4WDH	-	SMD IC ESP32-U4WDH, ESP32 ECO V3, single-core MCU, Wi-Fi & Bluetooth combo, 4 MB flash inside, QFN 48-pin, 5*5 mm	4 MB	-	-	–40 °C ~ +105 °C	5×5	5,000 & 1,000	1,000	MP	-
ESP32-PICO-V3 *Datasheet*	ESP32-PICO-V3	-	Chip in SiP form, ESP32 ECO V3 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	-

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-PICO-V3-02 **(*New)** *Datasheet*	-	-	Chip in SiP form, ESP32 ECO V3 with 8 MB flash and 2 MB PSRAM inside, dual-core MCU, Wi-Fi & Bluetooth combo, LGA 48-pin, 7*7 mm	8 MB	2 MB	-	–40 °C ~ +85 °C	7×7	2,000 & 1,000	1,000	Sample	-
ESP32-PICO-D4 *Datasheet*	-	-	Chip in SiP form, ESP32 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*

3.2. ESP32 Series of Modules

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROOM-32E *Datasheet*	ESP32-WROOM-32E **(*Default)**	ESP32-WROOM-32E(M113EH3200PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	ESP32-D0WD-V3 *Datasheet*
	ESP32-WROOM-32E (8 MB)	ESP32-WROOM-32E(M113EH6400PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 8 MB SPI flash, PCB antenna	8 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	
	ESP32-WROOM-32E (16 MB)	ESP32-WROOM-32E(M113EH2800PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 16 MB SPI flash, PCB antenna	16 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	
	ESP32-WROOM-32E (High Temp. 105°C)	ESP32-WROOM-32E(M113EH3200PS3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 4 MB SPI flash, PCB antenna, –40 °C ~ +105°C	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +105 °C	18.00×25.50×3.10 (±0.15)	650	650	MP	

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROOM-32UE *Datasheet*	ESP32-WROOM-32UE **(*Default)**	ESP32-WROOM-32UE(M113EH3200UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 4 MB SPI flash, IPEX antenna connector	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	ESP32-D0WD-V3 *Datasheet*
	ESP32-WROOM-32UE (8 MB)	ESP32-WROOM-32UE(M113EH6400UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 8 MB SPI flash, IPEX antenna connector	8 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	
	ESP32-WROOM-32UE (16 MB)	ESP32-WROOM-32UE(M113EH2800UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 16 MB SPI flash, IPEX antenna connector	16 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	
	ESP32-WROOM-32UE (High Temp. 105°C)	ESP32-WROOM-32UE(M113EH3200US3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 4 MB SPI flash, IPEX antenna connector, –40 °C ~ +105 °C	4 MB	-	External IPEX antenna	–40 °C ~ +105 °C	18.00×19.20×3.20	650	650	MP	
ESP32-WROOM-32SE *Datasheet*	ESP32-WROOM-32SE	ESP32-WROOM-32SE(M123DH3200PH3Q0)	SMD module , ESP32-D0WD, 4 MB SPI Flash, ATECC608A chip, PCB antenna	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	ESP32-D0WD *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-E *Datasheet*	ESP32-WROVER-E **(*Default)**	ESP32-WROVER-E(M213EH3264PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, PCB antenna	4 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	ESP32-D0WD-V3 *Datasheet*
	ESP32-WROVER-E (8 MB flash)	ESP32-WROVER-E(M213EH6464PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, PCB antenna	8 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	
	ESP32-WROVER-E (16 MB flash)	ESP32-WROVER-E(M213EH2864PH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, PCB antenna	16 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-IE *Datasheet*	ESP32-WROVER-IE **(*Default)**	ESP32-WROVER-IE(M213EH3264UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, IPEX antenna connector	4 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	ESP32-D0WD-V3 *Datasheet*
	ESP32-WROVER-IE (8 MB flash)	ESP32-WROVER-IE(M213EH6464UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, IPEX antenna connector	8 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	
	ESP32-WROVER-IE (16 MB flash)	ESP32-WROVER-IE(M213EH2864UH3Q0)	SMD module, ESP32-D0WD-V3, ESP32 ECO V3, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, IPEX antenna connector	16 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-MINI-1 *Datashett*	ESP32-MINI-1	ESP32-MINI-1-N4	SMD module, ESP32-U4WDH with 4 MB flash die inside, PCB antenna	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	13.20×19.00×2.40 (±0.15)	650	650	MP	ESP32-U4WDH ESP32-DevKitM-1
	ESP32-MINI-1 (High Temp. 105°C)	ESP32-MINI-1-H4	SMD module, ESP32-U4WDH with 4 MB flash die inside, PCB antenna, -40ºC ~ +105ºC	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +105 °C	13.20×19.00×2.40 (±0.15)	650	650	MP	
ESP32-SOLO-1 *Datasheet*	ESP32-SOLO-1 **(*Default)**	ESP32-SOLO-1(M113SH3200PH3Q0)	SMD module, ESP32-S0WD, single core, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	ESP32-S0WD *Datasheet* ESP32-DevKitC-S1 *Getting Started Guide*
	ESP32-SOLO-1 (High Temp. 105°C)	ESP32-SOLO-1(M113SH3200PS3Q0)	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	18.00×25.50×3.10	650	650	MP	
ESP32-PICO-V3-ZERO *Datasheet* **(*ACK)**	ESP32-PICO-V3-ZERO **(*Default)**	ESP32-PICO-V3-ZERO(P103AH0000PH3Q0)	SMD module, ESP32-PICO-V3 with 4MB flash die inside, ESP32 ECO V3, PCB antenna, for Alexa Connect Kit (ACK).	4 MB embedded in chip	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	16.00×23.00×2.30 (±0.15)	650	650	MP	ESP32-PICO-V3 *Datasheet*
ESP32-PICO-MINI-02	-	ESP32-PICO-MINI-02-N8R2	SMD module, ESP32-PICO-V3-02 with 8 MB flash and 2 MB PSRAM die inside, ESP32 ECO V3, PCB antenna	8 MB embedded in chip	2 MB embedded in chip	Internal PCB on-board antenna	–40 °C ~ +85 °C	13.2×16.6×2.4(±0.15)	650	650	Sample	ESP32-PICO-V3-02 *Datasheet* ESP32-PICO-DevKitM-2

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROOM-32D *Datasheet* **(*NRND)**	ESP32-WROOM-32D **(*Default)**	ESP32-WROOM-32D(M113DH3200PH3Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, PCB antenna	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	ESP32-D0WD *Datasheet* ESP32-DevKitC-32D *Getting Started Guide*
	ESP32-WROOM-32D (8 MB)	ESP32-WROOM-32D(M113DH6400PH3Q0)	SMD module, ESP32-D0WD, 8 MB SPI flash, PCB antenna	8 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	
	ESP32-WROOM-32D (16 MB)	ESP32-WROOM-32D(M113DH2800PH3Q0)	SMD module, ESP32-D0WD, 16 MB SPI flash, PCB antenna	16 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	650	650	MP	
	ESP32-WROOM-32D (High Temp. 105°C)	ESP32-WROOM-32D(M113DH3200PS3Q0)	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	18.00×25.50×3.10	650	650	MP	ESP32-D0WD *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROOM-32U *Datasheet* **(*NRND)**	ESP32-WROOM-32U **(*Default)**	ESP32-WROOM-32U(M113DH3200UH3Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, IPEX antenna connector	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	ESP32-D0WD *Datasheet* ESP32-DevKitC-32U *Getting Started Guide*
	ESP32-WROOM-32U (8 MB)	ESP32-WROOM-32U(M113DH6400UH3Q0)	SMD module, ESP32-D0WD, 8 MB SPI flash, IPEX antenna connector	8 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	
	ESP32-WROOM-32U (16 MB)	ESP32-WROOM-32U(M113DH2800UH3Q0)	SMD module, ESP32-D0WD, 16 MB SPI flash, IPEX antenna connector	16 MB	-	External IPEX antenna	–40 °C ~ +85 °C	18.00×19.20×3.20	650	650	MP	
	ESP32-WROOM-32U (High Temp. 105°C)	ESP32-WROOM-32U(M113DH3200US3Q0)	SMD module, ESP32-D0WD, 4 MB SPI flash, IPEX antenna connector, –40 °C ~ +105 °C	4 MB	-	External IPEX antenna	–40 °C ~ +105 °C	18.00×19.20×3.20	650	650	MP	ESP32-D0WD *Datasheet*
ESP32-WROOM-32 *Datasheet* **(*NRND)**	-	ESP32-WROOM-32(M103QH3200PH3Q0)	SMD module, ESP32-D0WDQ6, 4 MB SPI flash, PCB antenna. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROOM-32E*.	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×25.50×3.10	550	550	MP	ESP32-D0WDQ6 *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-B *Datasheet* **(*NRND)**	ESP32-WROVER-B **(*Default)**	ESP32-WROVER-B(M213DH3264PH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, PCB antenna. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	4 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	ESP32-D0WD *Datasheet* ESP-WROVER-KIT-VB *Getting Started Guide*
	ESP32-WROVER-B (8 MB flash)	ESP32-WROVER-B(M213DH6464PH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, PCB antenna. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	8 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	
	ESP32-WROVER-B (16 MB flash)	ESP32-WROVER-B(M213DH2864PH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, PCB antenna. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	16 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-IB *Datasheet* **(*NRND)**	ESP32-WROVER-IB (4 MB flash)	ESP32-WROVER-IB(M213DH3264UH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 4 MB SPI flash, IPEX antenna connector. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	4 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	ESP32-D0WD *Datasheet*
	ESP32-WROVER-IB (8 MB flash)	ESP32-WROVER-IB(M213DH6464UH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 8 MB SPI flash, IPEX antenna connector. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	8 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-IB *Datasheet* **(*NRND)**	ESP32-WROVER-IB (16 MB flash)	ESP32-WROVER-IB(M213DH2864UH3Q0)	SMD module, ESP32-D0WD, 3.3 V, 8 MB PSRAM, 16 MB SPI flash, IPEX antenna connector. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E / ESP32-WROVER-IE*.	16 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	
ESP32-WROVER *Datasheet* **(*NRND)**	ESP32-WROVER (PCB)	-	SMD module, ESP32-D0WDQ6, 1.8 V, 8 MB PSRAM, 4 MB SPI flash, PCB antenna. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E*.	4 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	ESP32-D0WDQ6 *Datasheet*
	ESP32-WROVER (IPEX)	-	SMD module, ESP32-D0WDQ6, 1.8 V, 8 MB PSRAM, 4 MB SPI flash, IPEX antenna connector. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP32-WROVER-E*.	4 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	18.00×31.40×3.30	650	650	MP	

3.3. ESP32 Series of Development Boards

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-DevKitC *Getting Started Guide*	ESP32-DevKitC-32D **(*NRND)**	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 **(*NRND)**	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 *Datasheet*
	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*
	ESP32-DevKitC-32E	ESP32-DevKitC-32E	ESP32 general-purpose development board, embeds ESP32-WROOM-32E, 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-32E *Datasheet*
	ESP32-DevKitC-32UE	ESP32-DevKitC-32UE	ESP32 general-purpose development board, embeds ESP32-WROOM-32UE, 4 MB flash, with pin header	4 MB	-	External IPEX antenna	–40 °C ~ +85 °C	54.4×27.9	1	-	MP	ESP32-WROOM-32UE *Datasheet*
	ESP32-DevKitC-VE	ESP32-DevKitC-VE	ESP32 general-purpose development board, embeds ESP32-WROVER-E, 8 MB flash, with pin header	8 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	54.4×27.9	1	-	MP	ESP32-WROVER-E *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
	ESP32-DevKitC-VIE	ESP32-DevKitC-VIE	ESP32 general-purpose development board, embeds ESP32-WROVER-IE, 8 MB flash, with pin header	8 MB	8 MB	External IPEX antenna	–40 °C ~ +85 °C	54.4×27.9	1	-	MP	ESP32-WROVER-IE *Datasheet*
ESP32-DevKitM-1 *User Guide*	-	ESP32-DevKitM-1	ESP32 general-purpose development board, embeds ESP32-MINI-1, with pin header	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	44.35×25.40	1	-	Sample	ESP32-MINI-1
ESP32-PICO-V3-ZERO-DevKit **(*ACK)**	-	ESP32-PICO-V3-ZERO-DevKit	Development board based on ESP32-PICO-V3-ZERO(ACK) module, compatible with Arduino Zero development board's pin layout	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	53.34×68.58	1	-	MP	ESP32-PICO-V3-ZERO *Datasheet*
ESP32-PICO-DevKitM-2 *User Guide*	-	ESP32-PICO-DevKitM-2	ESP32 general-purpose development board, embeds ESP32-PICO-MINI-02, with pin header	8 MB embedded in chip	2 MB embedded in chip	Internal PCB on-board antenna	–40 °C ~ +85 °C	20.30×46.10	1	-	Sample	ESP32-PICO-MINI-02
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	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-Vaquita-DSPG *User Guide*	-	ESP32-Vaquita-DSPG	Alexa built-in solution powered by ESP32 and DSP Group's DBMD5P audio SoC, 2-Mic array, voice enablement, AWS-IoT cloud connectivity.	16 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +65 °C	Main board: 85 mm X 65 mm Sun board: 65 mm X 24 mm	1	-	MP	ESP32-WROVER-E *Datasheet*
ESP32-LyraTD-DSPG *User Guide*	-	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 *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-LyraTD-SYNA *User Guide*	-	ESP32-LyraTD-SYNA	ESP32-LyraTD-SYNA is one of Espressif's Audio Development Board based on ESP32 MCU and Synaptics DSP. It is an Acoustic Echo Cancelation (AEC) solution, supporting voice recognition and voice wake-up. It also supports connection to Amazon's AVS (Alexa Voice Service), Google's Dialogflow and Google's GVA (Google Voice Assistant).	16 MB	8 MB	Internal PCB on-board antenna	–20 °C ~ +65 °C	91×69	1	-	MP	ESP32-WROVER-E *Datasheet*
ESP32-LyraTD-MSC *User Guide*	-	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*
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	1	-	MP	ESP32-WROVER-B *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-Korvo *Datasheet*	-	ESP32-Korvo	ESP32-based audio development board with microphone arrays, together with Espressif's speech recognition SDK ESP-Skainet, ESP32-Korvo is suitable for far-field speech recognition applications with low power consumption, such as smart displays, smart plugs, smart switches, etc.	16 MB	8 MB	Internal PCB on-board antenna	–20 °C ~ +70 °C	Main board: diameter 88.00 mm Sub board: diameter 88.00 mm	1	-	MP	ESP32-WROVER-E *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	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-MeshKit-Light *User Guide*	-	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*	-	ESP-EYE	A development board for image recognition and audio processing in AIoT 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*	-	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-Korvo-DU1906	-	ESP32-Korvo-DU1906	ESP32-Korvo-DU1906 is an Espressif audio development board with an ESP32-DU1906 module as its core. This board is designed not only to provide advanced end-to-end audio solutions with highly efficient integrated AI capabilities as well as a Cloud + End integrated device-level AIoT platform, significantly lowering the barrier to entry for IoT devices to AI capability.	8 MB	8 MB	Internal PCB on-board antenna	–40 °C ~ +85 °C	110 x 120	1	-	MP	ESP32-DU1906

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-Ethernet-Kit *User Guide*	ESP32-Ethernet-Kit-VE	ESP32-Ethernet-Kit-VE	ESP32-Ethernet-Kit, ESP32-based development board produced by Espressif, consists of two development boards, the Ethernet board A and the PoE board B. The Ethernet board contains Bluetooth / Wi-Fi dual-mode ESP32-WROVER-E module and IP101GRI, a Single Port 10/100 Fast Ethernet Transceiver (PHY). The PoE board (B) provides power over Ethernet functionality. The A board can work independently, without the board B installed.	4 MB	8 MB	Internal PCB on-board antenna	0 °C ~ +70 °C	Board A: 72 × 98 Board B: 25 × 69	1	-	MP	ESP32-WROVER-E *Datasheet*

3.4. ESP32 Series of Development Kits

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-Sense Kit *User Guide*	-	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 *Getting Started*
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*

4. ESP8266 Series

4.1. ESP8266 Series of SoCs

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
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 ℃ ~ +85 ℃	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 ℃ ~ +105 ℃	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 ℃ ~ +105 ℃	2 MB	-	NA	–40 °C ~ +105 °C	5×5	5,000 & 1,000	5,000	MP	-

4.2. ESP8266 Series of Modules

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP-WROOM-02D *Datasheet*	ESP-WROOM-02D **(*Default)**	ESP-WROOM-02D(M1 102H1600PH3Q0)	SMD Module ESP-WROOM-02D, ESP8266EX, 2 MB SPI flash, UART Mode	2 MB	-	Internal PCB on-board antenna	–40 °C ~ +85°C	18.00×20.00 ×3.20	650	650	MP	ESP8266EX *Datasheet*
	ESP-WROOM-02D (4 MB)	ESP-WROOM-02D(M1 102H3200PH3Q0)	SMD Module ESP-WROOM-02D, ESP8266EX, 4 MB SPI flash, UART Mode	4 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	18.00×20.00 ×3.20	650	650	MP	ESP8266-DevKitC *Getting Started*
	ESP-WROOM-02D (High Temp)	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	18.00×20.00 ×3.20	650	650	MP	ESP8266EX *Datasheet*
ESP-WROOM-02U *Datasheet*	ESP-WROOM-02U **(*Default)**	ESP-WROOM-02U(M1 102H1600UH3Q0)	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	18.00×14.30 ×3.20	650	650	MP	ESP8266EX *Datasheet*
	ESP-WROOM-02U (4 MB)	ESP-WROOM-02U(M1 102H3200UH3Q0)	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	18.00×14.30 ×3.20	650	650	MP	ESP8266-DevKitC *Getting Started*
	ESP-WROOM-02U (High Temp)	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	18.00×14.30 ×3.20	650	650	MP	ESP8266EX *Datasheet*

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP-WROOM-02 *Datasheet* **(*NRND)**	-	-	SMD Module, ESP8266EX, 2 MB SPI flash, UART Mode. Note, this module is not recommended for new designs. The recommended replacement for it is *ESP-WROOM-02D*.	2 MB	-	Internal PCB on-board antenna	– 40 °C ~ +85 °C	18.00×20.00 ×2.80	650	650	MP	ESP8266EX *Datasheet*
ESP-WROOM-S2 *Datasheet* **(*NRND)**	-	-	SMD Module, ESP8266EX, 2 MB SPI flash, SPI Mode. Note, this module is not recommended for new designs. For recommended replacement, please contact our sales person directly.	2 MB	-	Internal PCB on-board antenna	–40 °C ~ +85 °C	16.00×23.00 ×2.80	650	650	MP	ESP8266EX *Datasheet*

4.3. ESP8266 Series of Development Boards

Product Name	Variants	MPN	Product Description	Flash Size	PSRAM Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP8266-DevKitC *Getting Started*	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 *Datasheet*
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*

5. Production Testing Equipment

5.1. Production Testing Boards

Product Name	Variants	MPN	Product Description	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP-FactoryTB1	-	ESP-FactoryTB1	Designed for R&D and certification test, this stable production testing board works as a serial port board that provides two high-speed serial ports	–40 °C ~ +65 °C	66.5×46.0	1	-	MP	All Espressif products
ESP-FactoryTB2	-	ESP-FactoryTB2	Designed for mass production and testing, this stable and compact production testing board works as a serial port board that provides two high-speed serial ports and a USB port that allows external power supply.	–40 °C ~ +65 °C	40 x 40	1	-	MP	All Espressif products

5.2. Signal Boards

Product Name	Variants	MPN	Product Description	Flash Size	Antenna Type	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
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

5.3. Flashing Boards

Product Name	Variants	MPN	Product Description	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-DevKitS	ESP32-DevKitS	ESP32-DevKitS	ESP32-DevKitS is a flashing board used to flash official ESP32 WROOM and SOLO modules.	–20 °C ~ +65 °C	48.3x28.9	1	-	MP	ESP32 WROOM and SOLO modules
	ESP32-DevKitS-R	ESP32-DevKitS-R	ESP32-DevKitS-R is a flashing board used to flash official ESP32 WROVER modules.	–20 °C ~ +65 °C	48.3x28.9	1	-	MP	ESP32 WROVER modules
ESP8266-DevKitS *User Guide*	ESP8266-DevKitS	ESP8266-DevKitS	ESP8266-DevKitS is a flashing board used to flash official ESP8266 WROOM modules.	–20 °C ~ +65 °C	38.9x28.9	1	-	MP	ESP8266 WROOM modules

5.4. Test Fixtures

Product Name	Variants	MPN	Product Description	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROOM-V1	ESP32-WROOM-V1T1 (1 v 1)	ESP32-WROOM-V1T1	This test fixture is a set of production equipment used during the production stage. ESP32-WROOM-V1 can be used to download firmware to modules including ESP32-WROOM-32E / ESP32-WROOM-32D / ESP32-WROOM-32/ ESP32-SOLO-1 and can be used with the ESP-BAT32 signal board for production testing. One piece of a module can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
	ESP32-WROOM-V1T4 (1 v 4)	ESP32-WROOM-V1T4	This test fixture is a set of production equipment used during the production stage. ESP32-WROOM-V1 can be used to download firmware to modules including ESP32-WROOM-32E/ESP32-WROOM-32D/ESP32-WROOM-32/ESP32-SOLO-1 and can be used with the ESP-BAT32 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
ESP32-WROOM-V3	ESP32-WROOM-V3T4 (1 v 4)	ESP32-WROOM-V3T4	This test fixture is a set of production equipment used during the production stage. ESP32-WROOM-V3 can be used to download firmware to modules including ESP32-WROOM-32UE/ESP32-WROOM-32U and can be used with the ESP-BAT32 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-

Product Name	Variants	MPN	Product Description	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP32-WROVER-V1	ESP32-WROVER-V1T1 (1 v 1)	ESP32-WROVER-V1T1	This test fixture is a set of production equipment used during the production stage. ESP32-WROVER-V1 can be used to download firmware to modules including ESP32-WROVER-E (PCB) / ESP32-WROVER-B (PCB)/ ESP32-WROVER (PCB), and can be used with the ESP-BAT32 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
	ESP32-WROVER-V1T4 (1 v 4)	ESP32-WROVER-V1T4	This test fixture is a set of production equipment used during the production stage. ESP32-WROVER-V2 can be used to download firmware to modules including ESP32-WROVER-IE / ESP32-WROVER-B (IPEX) , and can be used with the ESP-BAT32 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
ESP32-WROVER-V2	ESP32-WROVER-V2T4 (1 v 4)	ESP32-WROVER-V2T4	This test fixture is a set of production equipment used during the production stage. ESP32-WROVER-V2 can be used to download firmware to modules including ESP32-WROVER-IE / ESP32-WROVER-B (IPEX) , and can be used with the ESP-BAT32 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-

Product Name	Variants	MPN	Product Description	Temperature	Dimensions (mm)	SPQ	MOQ	Production Status	Related Product
ESP-WROOM-V1	ESP-WROOM-V1T1 (1 v 1)	ESP-WROOM-V1T1	This test fixture is a set of production equipment used during the production stage. ESP-WROOM-V1 can be used to download firmware to modules including ESP-WROOM-02 / ESP-WROOM-02D, and can be used with the ESP-BAT8 signal board for production testing. One piece of a module can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
	ESP-WROOM-V1T4 (1 v 4)	ESP-WROOM-V1T4	This test fixture is a set of production equipment used during the production stage. ESP-WROOM-V1 can be used to download firmware to modules including ESP-WROOM-02 / ESP-WROOM-02D, and can be used with the ESP-BAT8 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-
ESP-WROOM-V3	ESP-WROOM-V3T4 (1 v 4)	ESP-WROOM-V3T4	This test fixture is a set of production equipment used during the production stage. ESP-WROOM-V3 can be used to download firmware to ESP-WROOM-02U module, and can be used with the ESP-BAT8 signal board for production testing. Four pieces of modules can be tested with this fixture at a time.	–20 °C ~ +65 °C	150×150×295	1	1	MP	-

Release Notes

Date	Version	Release notes
2017.06	V1.0	First release.
2017.08	V1.1	Updated version.
2017.08	V1.2	• Added ESP32-PICO-D4; • Deleted ESP8689; • Corrected typos.
2017.09	V1.3	• Updated SPQ and MOQ for ESP32-PICO-D4; • Updated the marketing status of ESP32-D0WD and ESP32-D2WD to MP; • Added ESP-WROOM-02D module.
2017.11	V1.4	• Added ESP-WROOM-32D and ESP32-WROOM-32U modules; • Added ESP32-PICO-KIT; • 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.
2018.06	V1.7	• Updated the marketing status of ESP32-S0WD, ESP32-WROOM-32D, ESP32-WROOM-32U, ESP-WROOM-02D, and ESP-WROOM-02U to MP; • 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	V1.8	• Added the link to ESP32-SOLO-1 Datasheet; • Added ESP32-WROVER-B and ESP32-WROVER-IB.

Date	Version	Release notes
2018.07	V1.9	• 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; • Added ESP32-MeshKit-Sense and ESP32-MeshKit-Light. • Added the column “Custom flash size” for modules available for customized order.
2018.09	V2.0	• Added labels ***New** ,***Recommend** and ***Default**; • Updated document cover; • Updated information of modules' dimensions; • Updated the description of a number of products.
2018.11	V2.1	• Added variants of ESP32-WROOM-32D and ESP32-WROOM-32U with high temperature range (–40 °C ~ +105 °C); • Updated the operating temperature range of ESP32-WROVER from –40 °C ~ 65 °C to –40 °C ~ 85 °C; • Removed all ESP32-DevKitC variants with female headers; • Updated the description of ESP32-MeshKit.
2018.12	V2.2	• Removed information about ESP8089; • Added new products and variants: - ESP-WROOM-02DC - 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
2019.07	V2.6	• Corrected a typo in the product description of ESP32-WROOM-32; • Added a new variant for ESP32-SOLO-1; • Updated the description of ESP32-SOLO-1.

Date	Version	Release notes
2019.08	V2.7	• Added a new product ESP32-LyraTD-DSPG; • Updated SPQ and MOQ information of the following products: - ESP32-D0WD - ESP32-D0WDQ6 - ESP32-D2WD - ESP32-S0WD - ESP32-PICO-D4 - ESP8266EX • Updated information of ESP8285.
2019.08	V2.8	• Updated information of ESP32 series of chips; • 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.
2019.11	V3.0	Added a new product ESP32-LyraTD-SYNA.
2020.01	V3.1	• Added new product variants ESP32-D0WD-V3 and ESP32-D0WDQ6-V3. • Added Submit Documentation Feedback link in the footer.

Date	Version	Release notes
2020.01	V3.2	• Added the following products: - ESP32-U4WDH - ESP32-WROOM-32E (*Default) - ESP32-WROVER-E series - ESP32-WROVER-IE series - ESP32-PICO-V3 - ESP32-S2 - ESP32-S2-WROOM - ESP32-S2-WROOM-I - ESP32-S2-WROVER - ESP32-S2-WROVER-I - ESP32-S2-Saola series - ESP32-DevKitS series - ESP8266-DevKitS - ESP32-WROOM-32SE • Modified the information for the following products: - “Related Product” and tags for ESP32-LyraTD-SYNA - Tags for ESP32-WROOM-32D, ESP32-WROOM-32U and ESP32-WROVER-B

Date	Version	Release notes
2020.03	V3.3	• Added the following products: - ESP32-WROOM-32E (8 MB) - ESP32-WROOM-32E (16 MB) - ESP32-WROOM-32UE • Modified the information for the following products: - Added MPN information for ESP32-WROOM-32, ESP-WROOM-02D (*Default), ESP-WROOM-02D (4 MB), ESP-WROOM-02U (*Default) and ESP-WROOM-02U (4 MB); - ESP32-S2-Saola renamed to ESP32-S2-Saola-1.
2020.03	V3.4	• Modified the MPN and operating temperatures for the following products: - ESP32-WROVER-E - ESP32-WROVER-IE - ESP32-WROVER-B • Added a Table of Contents • Updated “Submit Documentation Feedback” link
2020.03	V3.5	• Added the following product: - ESP32-Vaquita-DSPG • Modified the information for the following products: - The production status of ESP32-U4WDH; - The dimensional tolerance of ESP32-S2-WROOM, ESP32-S2-WROOM-I, ESP32-S2-WROVER and ESP32-S2-WROVER-I.

Date	Version	Release notes
2020.04	V3.6	• Added the following product: - ESP32-Korvo - ESP32-PICO-V3-ZERO • Added the following variants in ESP32-DevKitC: - ESP32-DevKitC-32E - ESP32-DevKitC-32UE - ESP32-DevKitC-VE - ESP32-DevKitC-VIE • Modified the information for the following products: - Provided more detailed information in the product description of ESP32-PICO-V3 and ESP32-PICO-D4.

Date	Version	Release notes
2020.05	V3.7	• Moved ESP32-S2 Series to the beginning of the document; • Added a new label **NRND**; • Added the following products or variants: - ESP32-Korvo-DU1906 - ESP32-WROOM-V1 and its variants - ESP32-WROOM-V3 and its variants - ESP32-WROVER-V1 and its variants - ESP32-WROVER-V2 - ESP-WROOM-V1 and its variants - ESP-WROOM-V3 • Modified the product information of the following products: - Modified the production status ‣ ESP32-PICO-V3-ZERO ‣ ESP32-WROVER-E ‣ ESP32-WROVER-IE ‣ ESP32-WROOM-32E ‣ ESP32-WROOM-32UE - Added a **NRND** label ‣ ESP32-WROOM-32 ‣ ESP-WROOM-S2 ‣ ESP-WROOM-02 ‣ ESP32-WROVER - Modified the Related Product information ‣ ESP32-Korvo

Date	Version	Release notes
2020.05	V3.8	• Added the following products: - ESP32-S2-Kaluga-1 - ESP32-S2F • Removed the following products: - ESP32-PICO-V3-ZERO • Modified the production status of the following products: - ESP32-DevKitC • Added reference documents for the following products: - ESP32-LyraTD-SYNA - ESP32-S2-WROOM - ESP32-S2-WROOM-I - ESP32-S2-WROVER - ESP32-S2-WROVER-I - ESP32-S2-Saola-1 - ESP32-WROOM-32E - ESP32-WROOM-32UE - ESP32-WROVER-E - ESP32-WROVER-IE - ESP32-Vaquita-DSPG - ESP32-Korvo
2020.06	V3.9	• Added the following product: - ESP32-Ethernet-Kit • Modified the production status of the following products: - ESP32-S2-WROOM - ESP32-S2-WROOM-I

Date	Version	Release notes

2020.07	V4.0	• Added the following variant:
		  - ESP32-S2FH32
		• Modified the production status of the following products or variants:
		  - ESP32-S2-WROVER
		  - ESP32-S2-WROVER-I
		  - ESP32-S2-Saola-1R
		  - ESP32-S2-Saola-1RI
		  - ESP32-S2-Saola-1M
		  - ESP32-S2-Saola-1MI
		• Modified the product description of the following products or variants:
		  - ESP32-WROVER
		  - ESP32-WROOM-32
		  - ESP-WROOM-02
		  - ESP-WROOM-S2

2020.08	V4.1	• Modified the production status of the following product
		  - ESP32-Korvo-DU1906
		• Modified the product description of the following products or variants:
		  - ESP32-WROVER-B

2020.08	V4.2	• Added the following products or variants:
		  - ESP32-PICO-V3-02
		  - ESP32-S2-WROOM (High Temp)
		  - ESP32-S2-WROOM-I (High Temp)

2020.08	V4.3	Updated the variant names of the following product: • ESP32-S2F

Date	Version	Release notes
2020.09	V4.4	• Updated the variant names of the following product: - ESP32-S2F • Added the following products or variants: - ESP32- WROOM-32E - ESP32- WROOM-32UE - ESP32-S2-MINI-1 - ESP32-S2-MINI-1U
2020.10	V4.5	• Added the following products or variants: - ESP32-S2-DevKitM-1 • Modified the SPQ and MOQ of the following products: - ESP32-S2-MINI-1 - ESP32-S2-MINI-1U • Modified the Production Status of the following products or variant: - ESP32-S2F - ESP32-S2-Kaluga-1 - ESP8285H16 • Modified typos for the following variant: - ESP32-WROOM-32E (High Temp. 105°C) • Modified the labels of the following products or variants: - ESP32-LyraTD-DSPG - ESP32-Vaquita-DSPG - ESP32-S2 - ESP32-S2F - ESP32-S2-WROOM - ESP32-S2-WROOM-I - ESP32-S2-WROVER

Date	Version	Release notes
2020.10	V4.5	- ESP32-S2-WROVER-I - ESP32-S2-SOLO - ESP32-S2-SOLO-U - ESP32-S2-Saola-1 - ESP32-S2-Kaluga-1 - ESP32-D0WD-V3 - ESP32-D0WDQ6-V3 - ESP32-U4WDH - ESP32-WROOM-32E - ESP32-WROOM-32UE - ESP32-SOLO-1 - ESP32-WROVER-E - ESP32-WROVER-IE - ESP32-PICO-V3 - ESP32-DevKitC-32E - ESP32-DevKitC - ESP32-LyraTD-SYNA - ESP32-Korvo - ESP32-LCDKit - ESP32-Korvo-DU1906 - ESP32-Sense Kit - ESP-WROOM-02U (High Temp) - ESP32-DevKitS - ESP8266-DevKitS

Date	Version	Release notes

2020.10	V4.6	• Added the following products or variants:
		  - ESP32-MINI-1
		  - ESP32-DevKitM-1
		• Removed the following products or variants:
		  - ESP32-DevKitC-VB and ESP32-DevKitC-VIB
		• Added the ***NRND** label for the following products or variants:
		  - ESP32-D0WD 和 ESP32-D0WDQ6
		  - ESP32-WROOM-32D
		  - ESP32-WROOM-32U
		  - ESP32-DevKitC-32D 和 ESP32-DevKitC-32U
		• Removed the ***Recommend** label for the following products or variants:
		  - ESP32-S2-MINI-1
		  - ESP32-S2-MINI-1U
		  - ESP32-D0WD-V3 和 ESP32-D0WDQ6-V3
		  - ESP32-WROOM-32E
		  - ESP32-WROVER-E
		  - ESP32-WROVER-IE
		  - ESP32-PICO-V3
		  - ESP32-LyraTD-SYNA
		  - ESP32-Korvo
		  - ESP-EYE
		  - ESP-WROOM-02D
		  - ESP-WROOM-02U
		  - ESP8266-DevKitC

Date	Version	Release notes
2020.11	V4.7	• Added the following products or variants: - ESP32-PICO-V3-ZERO - ESP32-PICO-MINI-02 - ESP32-PICO-DevKitM-2 • Modified the production status of the following product: - ESP32-S2FH4 • Adjusted the placement of ESP32 series of modules
2020.11	V4.8	• Added the following products or variants: - ESP32-S2F - ESP32-PICO-V3-ZERO-DevKit - ESP-FactoryTB2 • Modified the description of the following products or variants: - ESP-FactoryTB1 - ESP32-S2FH2 - ESP32-S2FH4 • Modified the product name of the following variants: - ESP32-WROVER-IB (4 MB flash) - ESP32-WROVER-IB (8 MB flash) - ESP32-WROVER-IB (16 MB flash) • Adjusted the location of the following products: - ESP32-PICO-V3 - ESP32-PICO-V3-02 - ESP32-PICO-D4 • Corrected a typo in ESP32-MINI-1

Date	Version	Release notes
2020.12	V4.9	• Updated the MPN of the following products or variants: - ESP32-S2-MINI-1 - ESP32-S2-MINI-1U - ESP32-MINI-1 - ESP32-MINI-1 (High Temp. 105°C) - ESP32-PICO-MINI-02 • Modified the name of the following variant: - ESP32-S2FR-01 to ESP32-S2FN4R2
2021.01	V5.0	• Added the following products: - ESP32-C3 series of chips, modules and development • Modified the production status of the following products or variants: - ESP32-S2-MINI-1 - ESP32-S2-MINI-1U - ESP32-MINI-1 - ESP32-MINI-1 - ESP32-S2FH4 • Added a note about the “Temperature”.
2021.01	V5.1	• Renamed the following products: - From ESP32-C3-WROOM-1 to ESP32-C3-WROOM-02 - From ESP32-C3-DevKitC-1 to ESP32-C3-DevKitC-02

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