乐鑫 ESP32-P4 系列产品升级至芯片版本 v1.3
Upgrade of ESP32-P4 Series Products to Chip Revision v1.3

PCN 编号 **PCN No.**	PCN20250501(v2)	**提出日期** **Issue Date of PCN**	2025/05/26
变更日期 **Proposed Date of Change**	2025/06/23	**预计变更后产品首次出货日期** **Proposed Date of First Shipment After Change**	2025/07/23
PCN 类型 **PCN Category**	☐客户需要批准/ Customer Approval Required ☑ 客户通知/ Customer Notification		

1. 影响产品名称/ Affected Product Name

产品类型 **Product Type**	**产品名称** **Product Name**	**订购代码** **Ordering Code**	**变更项目** **Change Item**
Chip	ESP32-P4NRW16	ESP32-P4NRW16	Chip revision from v1.0 to v1.3
Chip	ESP32-P4NRW32	ESP32-P4NRW32	Chip revision from v1.0 to v1.3
Development Board	ESP32-P4-Function-EV-Board	ESP32-P4-Function-EV-Board	Chip revision from v1.0 to v1.3

2. 变更原因/ Reason for Change

段落 1 中的乐鑫产品持续升级优化，进一步提升 ESP32-P4 系列芯片性能。

Upgrade the ESP32-P4 series chip to further improve the performance of the products listed in Para 1.

3. 变更描述/ Description of Change

段落 1 中 ESP32-P4 系列产品的芯片晶圆金属层变更，芯片版本将由 v1.0 升级为 v1.3，优化产品模拟电源设计，更适合低功耗应用场景。

The modification to the ESP32-P4 series chip described in Para 1 involves a wafer metal layer change. It optimizes the product's analog power design to enhance efficiency in low-power application scenarios. The chip revision is upgraded from v1.0 to v1.3.

4. 变更对比/ Change Comparison

请见附录 I：变更对比。

Please refer to Appendix I: Change Comparison.

识别方式/ Identification Method:

芯片产品：通过产品 eFuse 及产品丝印。
开发板产品：通过主芯片的 eFuse 及主芯片丝印，或产品外箱标签中的 PW 号。

Chip products: Identified by eFuse bits and chip marking.
Development Board products: Identified by the chip eFuse, chip marking, or PW No. on carton box.

5. 变更影响/ Impact of Change

1) 品质和性能/ Quality & Performance:
ESP32-P4 芯片版本升级为 v1.3，优化了产品模拟电源设计，解决了产品 VDD_ANA 漏电问题，更适合低功耗应用场景。

The upgrade of the ESP32-P4 series chips (chip revision from v1.0 to v1.3) optimizes the product's analog power design to resolve VDD_ANA leakage and enhances efficiency in low-power application scenarios.

2) 交期/ Delivery: 无影响/ No impact

3) 订购代码/ Ordering Code: 无影响/ No impact

4) 软件/ Software: 无影响/ No impact

5) 认证/ Certification: 无影响/ No impact

6) 技术规格书/ Datasheet: 无影响/ No impact

6. 变更前后产品处理/ How to Deal with Products

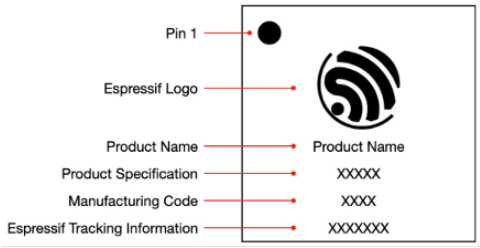
FIFO

7. 给使用者的验证建议/ Verification Suggestion to Users

建议应用低功耗应用场景的客户，可结合实际应用场景进行验证，尽快使用 ESP32-P4 芯片版本 v1.3 系列产品。

If you are targeting low-power application scenarios, please evaluate the ESP32-P4 chip revision v1.3 in your specific use cases and plan for an upgrade at the earliest opportunity.

Appendix I 变更对比/ Change Comparison

1	**产品基本信息/ Product Basic Information**			
No.	**项目 Item**		**变更前 Before Change**	**变更后 After Change**
1.1	Chip Revision		v1.0	v1.3
1.2	eFuse 芯片版本标示位/ Chip Revision Identification by eFuse Bits			
	主版本号 Major Number	EFUSE_RD_MAC_SPI_SYS_2_REG[23]	0	0
		EFUSE_RD_MAC_SPI_SYS_2_REG[5]	0	0
		EFUSE_RD_MAC_SPI_SYS_2_REG[4]	1	1
	次版本号 Minor Number	EFUSE_RD_MAC_SPI_SYS_2_REG[3]	0	0
		EFUSE_RD_MAC_SPI_SYS_2_REG[2]	0	0
		EFUSE_RD_MAC_SPI_SYS_2_REG[1]	0	1
		EFUSE_RD_MAC_SPI_SYS_2_REG[0]	0	1
1.3	Product Ordering Code		No change	
1.4	Chip Marking (Manufacturing Code)			
			xCxx	xExx

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乐鑫为注册用户提供电子邮件通知服务，用户可通过乐鑫订阅系统接收技术文档更新、新闻通讯、PCN 等邮件通知。 Espressif sends email notifications of technical documentation changes, along with newsletters, PCNs and other valuable information, to subscribed customers only. If you wish to stay updated on our products and services, please subscribe here.

客户响应要求 **Customer Response Requirements**
需客户批准的变更/ Change Requiring Customer Approval： a) 客户须在乐鑫发出 PCN 后的 30 天内告知乐鑫已收到 PCN。如客户未在接收到 PCN 后的 30 天内告知已收到，则视为客户收到变更。 Customers are requested to acknowledge receipt of the PCN within 30 calendar days from the date of issue of the PCN. Customers would be considered as notified 30 calendar days after issue of the PCN if no acknowledgement is received. b) 自发布 PCN 之日起 90 天内，客户没有任何其他反馈，则表示客户接受该 PCN。 The lack of any additional responses from customers within 90 calendar days from the date of issue of the PCN constitutes acceptance of the proposed changes. **客户通知/ Customer Notification：** a) 客户需在乐鑫发出 PCN 后 14 天内通知乐鑫收到该 PCN。如客户未在接收到 PCN 14 日反馈乐鑫，则视为客户确认该 PCN。 Customers are requested to acknowledge receipt of the PCN within 14 calendar days from the date of issue of the PCN. Customers would be considered as having acknowledged the PCN if no response is received after 14 calendar days. 请反馈至 pcn@espressif.com。 Please send feedback to pcn@espressif.com.

客户批准/确认信息 **Customer Approval / Acknowledgement and Remarks**			
客户公司全称： Customer's Company Name:			
PCN 评审结果/ PCN Review Result：	☐批准/确认 Accepted / Acknowledged ☐不批准/ Rejected ☐需要分析/ Further Analysis Required		
客户意见/ Comment:			
公司代表人姓名 Representative's Name:		公司代表人职责 Representative's Job Title:	
公司代表人签名 Representative's Signature:		日期 Date:	