



乐鑫信息科技（上海）有限公司
Espressif Systems (Shanghai) Pte., Ltd.

文件编号 Document No.	ESP-03-2-014-03	文件名称 Document Name	产品/工艺变更通知 Product/Process Change Notice
文件版本 Document Version	00	保存期限 Retention Period	3 年 3 Years

变更标题/Change Title: Change of ESP32-PICO-D4 Schematics

PCN 编号 PCN No.	P20180302-1	提出日期 Issue Date of PCN	2017.9.5
产品名称 Product Name	ESP32-PICO-D4	变更日期 Proposed Date of Change	2018.1.15
封装类型/尺寸 Package Type/Size	LGA / 7X7	首次出货日期 Proposed Date of First Shipment	2018.3.19

客户批准/Customer Consent: ☐ 需要批准/Approval Required

☒ 通知，无需批准/Notification, Approval Not Required

变更等级/Classification of Change: ☐ 主要变更/Major ☒ 轻微变更/Minor

变更原因/Reason for Change:

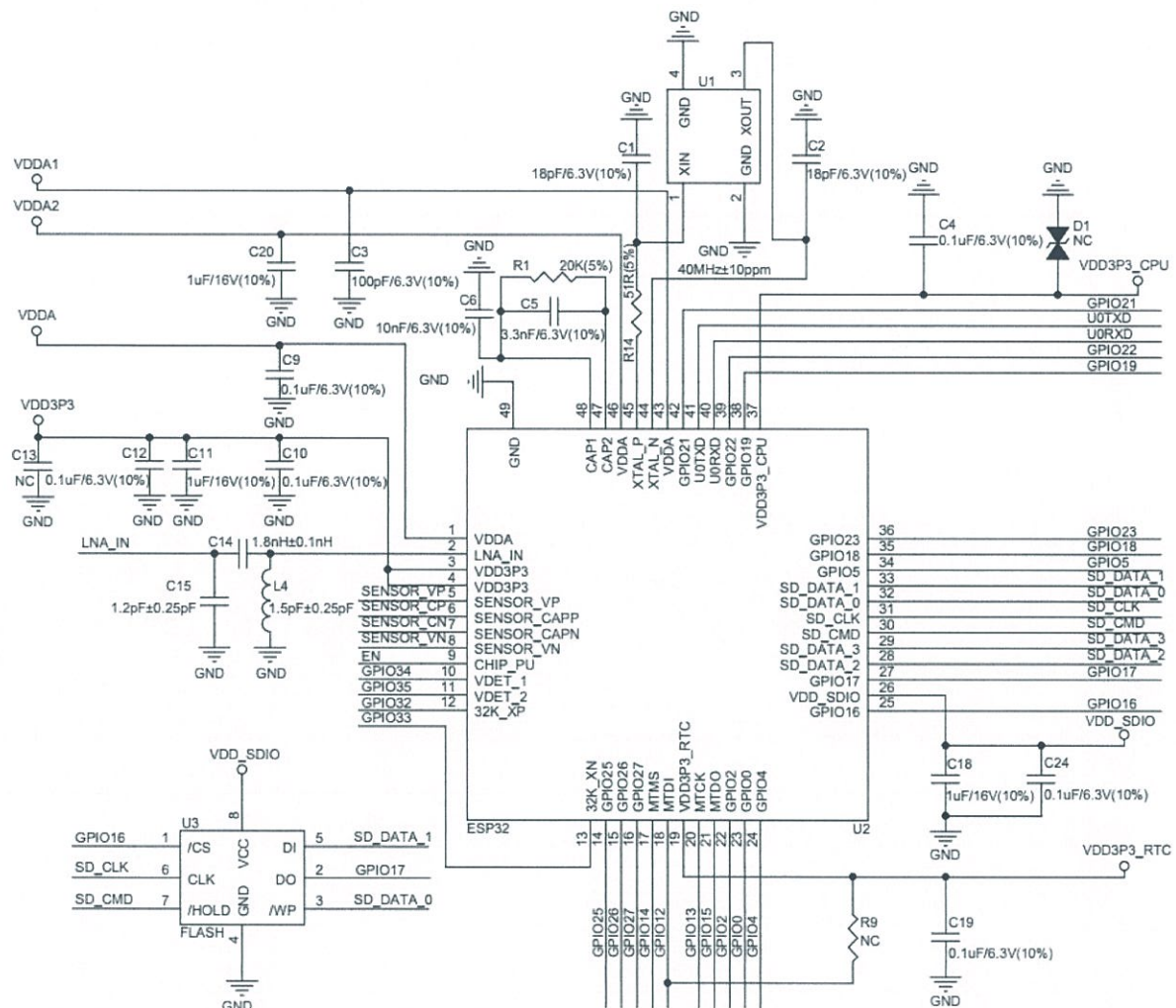
为改善产品 TX 谐波抑制性能

To improve the TX harmonic suppression performance of ESP32-PICO-D4.

变更描述/Description of Change:

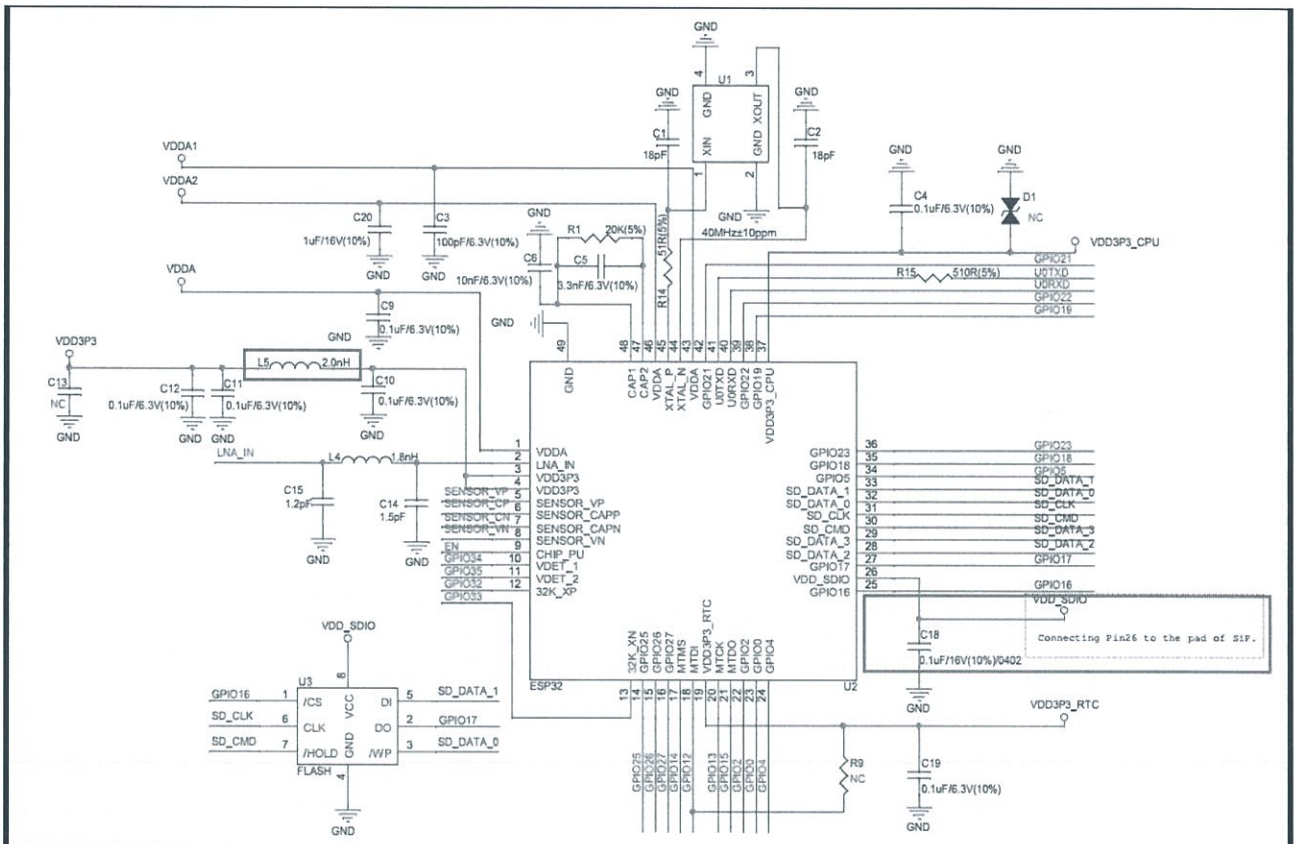
变更前/Before the Change:

1. TX 高频谐波偏高。TX high-frequency harmonics are high.
2. PIN41 U0TXD 会发射 80M 的谐波。The PIN41 U0TXD maybe emit 80M harmonics.
3. PIN26 VDD_SDIO 连接 C24 电容, C18 电容封装为 0201, 作为内部 PIN, 未连接至外部。PIN26 VDD_SDIO is connected to capacitors C24 and C18. C18 was a 0201 package-capacitor. VDD_SDIO is not led out externally.
4. PIN26 VDD_SDIO Description: NC.
5. Schematics:



变更后/After the Change:

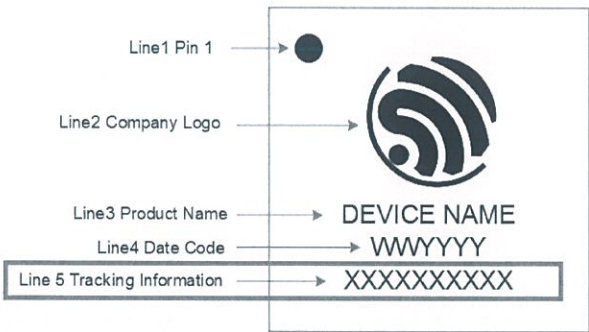
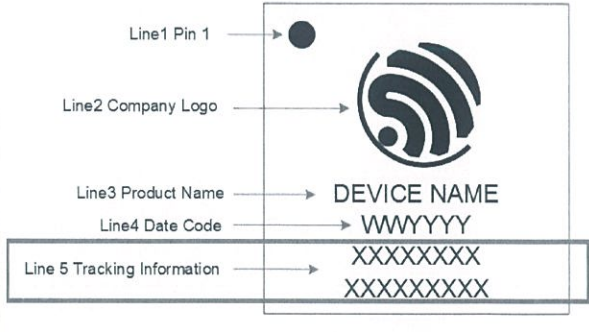
1. PIN3, PIN4 VDD3P3 增加串联电感。Series-inductors are added to PIN3, PIN4 VDD3P3.
2. PIN41 U0TXD 增加串联电阻。A series-resistor is added to PIN41 U0TXD.
3. PIN26 VDD_SDIO 去掉 C24 电容，C18 电容封装为 0402，连线到芯片封装 PIN，便于外接其他电路或做测试调试。Capacitor C24, originally added to PIN26 VDD_SDIO, has now been removed. What we now have is a 0402-package capacitor, C18, which is connected to the pin's chip package, for connecting the chip to external circuits or for debugging.
4. PIN26 VDD_SDIO Description: Output power supply: 1.8V or the same voltage as VDD3P3_RTC.
5. Schematics:



变更影响/Impact of Change:

1. 改善了产品 TX 谐波抑制性能。The TX harmonic suppression performance of ESP32-PICO-D4 has been improved.
2. 针对以上变更，如客户有疑问，请联系 pcn@espressif.com. Please contact pcn@espressif.com if you have any further questions.

变更识别方式/Method of Identifying Change:

通过产品 Top Marking 进行识别/Identification via Top Marking	
变更前/Before the Change	变更后/After the Change
	
Line 5 Tracking Information: one line	Line 5 Tracking Information: two lines
注：如客户收到的样品生产周别是 022018，则 Line 5 Tracking Information 仍为 1 行，但实际是变更后之产品。	



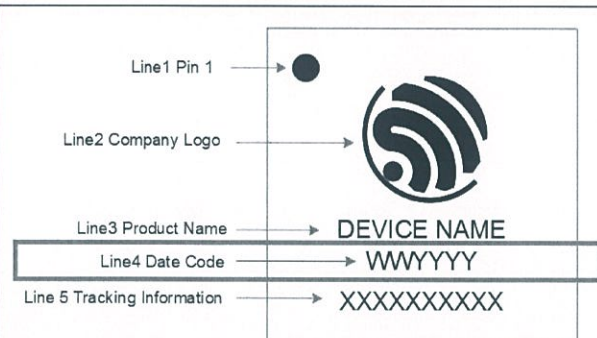
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Notice: If the product sample received by the customer is marked as having been produced during the second week of 2018 (022018), and the Tracking Information on the top marking is still one line, this means that the customer has actually received the revised product.

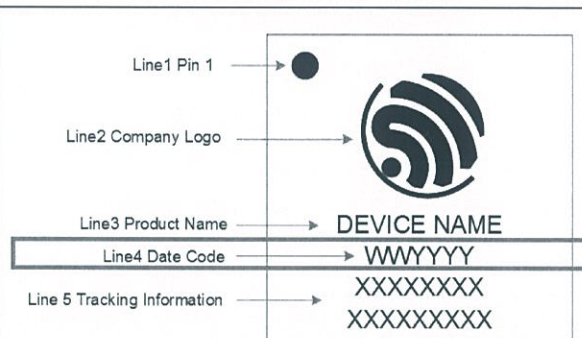
通过生产周别 Date Code 进行识别/Identification via Date Code

变更前/Before the Change



Line 4 Date Code: 在 012018 及以前, 如 502017.
Date Code 012018 and before it, such as 502017.

变更后/After the Change



Line 4 Date Code: 在 022018 及以后, 如 082018.
Date Code 022018 and after it, such as 082018.



Line 8 D/C1 and line 9 D/C2: 1801 及以前生产的, 为变更前产品; 1802 及以后生产的, 为变更后产品。

Before the Change: line 8 D/C1 and line 9 D/C2 1801 and before it, such as 1750.

After the Change: line 8 D/C1 and line 9 D/C2 1802 and after it, such as 1808.

相关报告/Report(s) attached:

Product Datasheet:

Refer to https://www.espressif.com/sites/default/files/documentation/esp32-pico-d4_datasheet_en.pdf



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RoHS/HF Test Report: <u>ESP32-PICO-D4 SGS Report</u>																															
Function Test Report: <u>ESP32-PICO-D4 RF Verification Report</u>																															
Other Reports (Pls specify): <u>NA</u>																															
变更人/Change Owner: <u>王强</u>	签名/Signature: <u>王强</u> 日期/Date: <u>2018.1.15</u>																														
Approved By 批准人																															
Technical Support	<table border="1"> <tr> <td>梁春涛</td> <td>Signature: <u>梁春涛</u></td> <td>Date: <u>2018.1.15</u></td> </tr> <tr> <td>戴玮</td> <td>Signature: <u>戴玮</u></td> <td>Date: <u>2018.1.15</u></td> </tr> <tr> <td>R&D Hardware</td> <td>王栋</td> <td>Signature: <u>王栋</u></td> </tr> <tr> <td>QA</td> <td>陶袁</td> <td>Signature: <u>陶袁</u></td> </tr> <tr> <td>Supply Chain</td> <td>方玲燕</td> <td>Signature: <u>方玲燕</u></td> </tr> <tr> <td>Package</td> <td>刘泳良</td> <td>Signature: <u>刘泳良</u></td> </tr> <tr> <td>Operations</td> <td>吴柏均</td> <td>Signature: <u>吴柏均</u></td> </tr> <tr> <td>Sales Manager</td> <td>易雨皓</td> <td>Signature: <u>易雨皓</u></td> </tr> <tr> <td>Marketing Manager</td> <td>王珏</td> <td>Signature: <u>王珏</u></td> </tr> <tr> <td>CEO</td> <td>张瑞安</td> <td>Signature: <u>张瑞安</u></td> </tr> </table>	梁春涛	Signature: <u>梁春涛</u>	Date: <u>2018.1.15</u>	戴玮	Signature: <u>戴玮</u>	Date: <u>2018.1.15</u>	R&D Hardware	王栋	Signature: <u>王栋</u>	QA	陶袁	Signature: <u>陶袁</u>	Supply Chain	方玲燕	Signature: <u>方玲燕</u>	Package	刘泳良	Signature: <u>刘泳良</u>	Operations	吴柏均	Signature: <u>吴柏均</u>	Sales Manager	易雨皓	Signature: <u>易雨皓</u>	Marketing Manager	王珏	Signature: <u>王珏</u>	CEO	张瑞安	Signature: <u>张瑞安</u>
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如果无需相关人员批准，请在相应栏位填写“N/A”。																															
Input "N/A" in column(s) where approval is not required.																															
注：以上信息由 Espressif 填写。																															
Note: The information above shall be filled in by Espressif.																															
客户响应要求/Customer Response Requirements: 客户须按照如下要求给予 Espressif PCN 反馈： Customers are required to respond to Espressif, according to the following guidelines, and confirm receipt of the PCN: 主要变更/For Major Changes: a) 客户须在接收到 PCN 后的 30 天内告知已收到 PCN。 a) Customers should acknowledge receipt of the PCN within 30 calendar days from the date of receiving the PCN. b) 如客户未在接收到 PCN 后的 30 天内告知已收到，则视为客户接受变更。 b) Lack of acknowledgment of the PCN within 30 calendar days constitutes acceptance of the proposed changes. c) 客户告知确认收到 PCN 后，如未在 90 天内反馈其他要求，则视为客户接受变更。 c) After customers acknowledge receipt of the PCN, lack of additional response on their part within 90 calendar days constitutes acceptance of the changes.																															



轻微变更/For Minor Changes:

- a) 如客户未在接收到 PCN 后的 7 天内告知已收到，则视为客户接受变更。
a) Lack of acknowledgement of the PCN within 7 calendar days constitutes acceptance of the changes.

请反馈至 pcn@espressif.com。

Please send feedback to pcn@espressif.com.

注：以下信息由客户或 Espressif 销售与客户服务部门填写。

Note: The information below shall be filled in by customers or Espressif's sales department.

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 Study Result: ☐ 批准/Approval ☐ 不批准/Rejection ☐ 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: