

文件编号 Document No.	ESP-07-2-007-03	文件名称 Document Name	产品/工艺变更通知 Product/Process Change Notice (PCN)
文件版本 Document Version	1.3	保存期限 Retention Period	5 年 5 years

通过在 ESP8266/ESP32/ESP32-S2 系列模组的料带底部增加网格结构以提高强度
Strengthening the ESP8266/ESP32/ESP32-S2 Module Series Tape Reel by Embossing Cross Patterns at the Bottom of each Tray

PCN 编号 PCN No.	PCN-2020-008	提出日期 Issue Date of PCN	2020/8/17
变更日期 Proposed Date of Change	2020/8/17	首次出货日期 Proposed Date of First Shipment	2020/9/14
PCN 类型 / PCN Category	<input type="checkbox"/> 客户需要批准/Customer Approval Required <input checked="" type="checkbox"/> 客户通知/Customer Notification		

1. 影响产品名称/Affected Product Name

ESP8266/ESP32/ESP32-S2 全系列模组，包括：

ESP8266/ESP32/ESP32-S2 module series, including:

ESP-WROOM-02, ESP-WROOM-02D, ESP-WROOM-02DC, ESP-WROOM-02U, ESP-WROOM-02UC, ESP32-WROOM-32, ESP32-WROOM-32D, ESP32-WROOM-32E, ESP32-WROOM-32DC, ESP32-WROOM-32SE, ESP32-SOLO-1, ESP32-SOLO-1C, ESP32-S2-SOLO, ESP32-WROOM-32U, ESP32-WROOM-32UC, ESP32-WROOM-32UE, ESP32-S2-SOLO-U, ESP32-WROVER (PCB/IPEX), ESP32-WROVER-B (PCB/IPEX), ESP32-WROVER-E, ESP32-WROVER-IE, ESP32-S2-WROVER, ESP32-S2-WROVER-I, ESP32-S2-WROOM, ESP32-S2-WROOM-I, ESP-WROOM-S2, ESP-WROOM-5C

2. 变更原因/Reason for Change

为了增加模组料带的刚度和压缩强度，在 ESP8266/ESP32/ESP32-S2 系列模组的料带底部增加了网格结构。同时，在每个料带底部的中心增加了一个直径为两毫米的通孔，从而降低了在抽真空时的内外压差导致料带变形的风险。

Cross patterns are embossed at the bottom of each tray of the ESP8266/ESP32/ESP32-S2 module series tape reel in order to increase the rigidity and compressive strength of each tray. A two millimeter diameter hole is added to the center of the bottom of each tray to reduce the risk of deformation of the tray due to pressure differences during vacuum packing.

3. 变更描述/Description of Change

目前正在量产的料带底部为平整设计。此次变更在料带底部增加了网格结构以增加料带的总体刚度和压缩强度。

同时在料带底部的中心增加了直径为两毫米的通孔以平衡抽真空过程中形成的内外压差。

The bottom of the tray of the current tape reel is flat. In this change, cross patterns are embossed to the bottom of the tray to increase the overall rigidity and compressive strength of each tray. A two millimeter diameter hole is added to the center of the bottom of each tray to allow the pressure in the tray to equalize during vacuum packing.

4. 变更对比/Change Comparison

请见附录 I: 变更对比。

Please refer to Appendix I: Change comparison.

5. 变更影响/Impact of Change

品质和性能/Quality & Performance:

对模组品质和性能无影响。增强 ESP8266/ESP32/ESP32-S2 系列模组料带的刚度和压缩强度可以更好地防止在卷料和抽真空过程中发生形变。

There is no impact to the quality and performance of the modules. The rigidity and compressive strength of each tray of the ESP8266/ESP32/ESP32-S2 module series tape reel is increased to better resist deformation during reeling and vacuum packing.

交期/Delivery:

对于段落 1 列出模组产品的交期没有影响。

There is no impact to delivery performance of the affected Espressif modules listed in para 1.

生产料号/Material Part Numbers (MPN):

无需对段落 1 列出模组产品的 MPN 做出变更。客户可以用原有的 MPN 下单。

There is no change to the MPN of the affected Espressif modules listed in para 1. Customers can continue to use existing MPN to place orders.

认证/Certification:

该变更对 Wifi 和蓝牙的性能没有影响，因此对已有 Wifi 和蓝牙的认证的有效性没有影响。

The change does not affect the Wifi and BT performance of the modules and does not affect the validity of their existing Wifi and BT certifications.

其他/Others:

NA

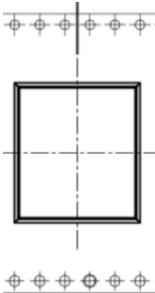
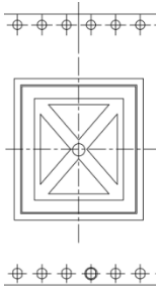
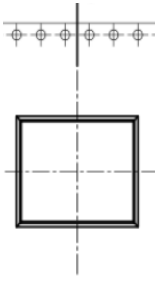
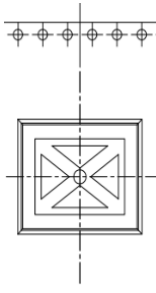
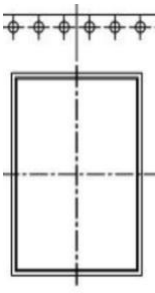
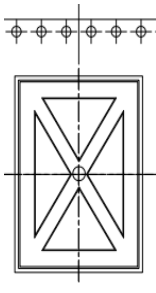
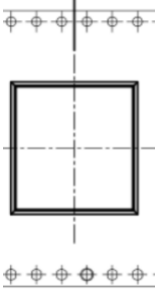
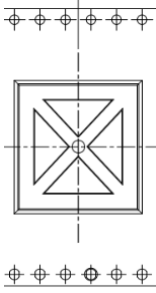
6. 变更前后产品处理/How to Deal with Products


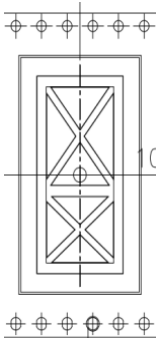

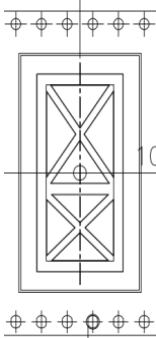
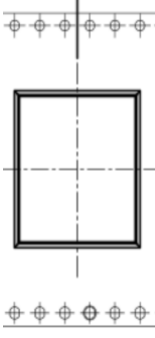
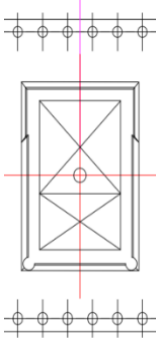
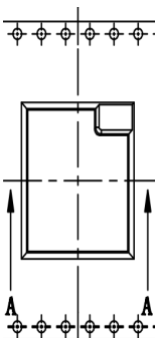
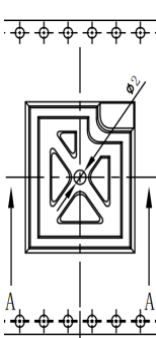
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7. 相关报告/Report(s) Attached:

- Related ECN No. ECN-2020-031/ECN-2020-032
- Material Qualification Report
- Performance Test Report
- Reliability Test Report
- Environment Related Report
(RoHS / REACH / HF)
- Certification
- Other Reports (Pls specify) 料带改善验证报告/Tape & Reel Verification Test Report

Appendix I 变更对比/Change Comparison

模组/Module	变更前/Before Change	变更后/After Change
ESP-WROOM-02 ESP-WROOM-02D ESP-WROOM-02DC	20.5*18.5*3.7mm 	20.5*18.5*4.1mm, Hole D=2mm 
ESP-WROOM-02U ESP-WROOM-02UC	14.8*18.5*3.7mm 	14.8*18.5*4.0mm, Hole D=2mm 
ESP32-WROOM-32 ESP32-WROOM-32D ESP32-WROOM-32E ESP32-WROOM-32DC ESP32-WROOM-32SE ESP32-SOLO-1 ESP32-SOLO-1C ESP32-S2-SOLO	26.2*18.9*3.5mm 	26.2*18.9*3.8mm, Hole D=2mm 
ESP32-WROOM-32U ESP32-WROOM-32UC ESP32-WROOM-32UE ESP32-S2-SOLO-U	19.6*18.5*3.7mm 	19.6*18.5*4.0mm, Hole D=2mm 

<p>ESP32-WROVER (PCB/IPEX) ESP32-WROVER-B (PCB/IPEX) ESP32-WROVER-E ESP32-WROVER-IE</p>	<p>31.8*18.4*3.4mm</p> 	<p>31.8*18.4*4.1mm, Hole D=2mm</p> 
<p>ESP32-S2-WROVER ESP32-S2-WROVER-I ESP32-S2-WROOM ESP32-S2-WROOM-I</p>	<p>31.8*18.4*3.4mm</p> 	<p>31.8*18.4*4.1mm, Hole D=2mm</p> 
<p>ESP-WROOM-S2</p>	<p>24.6*17.1*3.4mm</p> 	<p>24.6*17.1*3.7mm, Hole D=2mm</p> 
<p>ESP-WROOM-5C</p>	<p>19.5*16.5*3.7mm</p> 	<p>19.5*16.5*4.2mm, Hole D=2mm</p> 

邮件订阅**Espressif Email Notifications**

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 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:	