

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

<b>引入惠伦 40 MHz 晶振作为 ESP32/ESP32-S2 系列高温（105℃）模组的备选材料</b> <b>Introduction of 40 MHz Faith Long Crystal Oscillator as an Alternate Source for High Temperature (105°C) ESP32 and ESP32-S2 Module Series</b>			
PCN 编号 PCN No.	PCN-2020-011	提出日期 Issue Date of PCN	2020/8/28
变更日期 Proposed Date of Change	2020/8/28	首次出货日期 Proposed Date of First Shipment	2020/11/28
PCN 类型 / PCN Category	<input checked="" type="checkbox"/> 客户需要批准/Customer Approval Required <input type="checkbox"/> 客户通知/Customer Notification		
<b>1. 影响产品名称/Affected Product Name</b> ESP32/ESP32-S2 系列高温（105℃）模组，包括： High Temperature (105°C) ESP32/ESP32-S2 module series, including:  ESP32-WROOM-32D, ESP32-WROOM-32U, ESP32-SOLO-1, ESP32-SOLO-1C, ESP32-WROOM-32E, ESP32-WROOM-32UE, ESP32-S2-SOLO, ESP32-S2-SOLO-U, ESP32-S2-WROOM, ESP32-S2-WROOM-I			
<b>2. 变更原因/Reason for Change</b> 乐鑫完成了广东惠伦晶体科技股份有限公司生产制造的料号为 3S40000266 的晶振（40 MHz，-40 ~ 105 °C）的物料验证，因此决定引入该晶振作为段落 1 列出的模组产品的备选物料。 Espressif has qualified crystal oscillator Part Number: 3S40000266 (40 MHz, -40 ~ 105 °C) manufactured by Faith Long Crystal Technologies Co., Ltd as the new alternative source for Espressif modules listed in para 1.			
<b>3. 变更描述/Description of Change</b> 引入料号为 3S40000266 的晶振（40MHz，-40 ~ 105 °C）作为段落 1 列出的模组产品的备选物料。 Crystal oscillator Part Number 3S40000266 (40MHz, -40 ~ 105 °C) will be introduced as the alternative source for Espressif's modules listed in para 1.			
<b>4. 变更对比/Change Comparison</b> 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:

料号为 3S40000266 的晶振已经通过物料验证测试。乐鑫确认该晶振的品质和性能满足乐鑫的要求并且段落 1 列出的模组在此次变更后有同样的品质和性能。

Crystal oscillator Part Number 3S40000266C has completed material qualification test. Espressif confirms it fully meets the requirements for quality and performance and the Espressif modules listed in para 1 have the same performance and functions after the change.

### 交期/Delivery:

对于段落 1 列出的模组交期无影响。同时为乐鑫的模组产品引入新的晶振物料能够增加供应链的多样性。

There is no impact to delivery performance of the affected Espressif modules listed in para 1. The introduction of a new source of crystal oscillator for the modules will improve the robustness of Espressif's supply chain.

### 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

1. 如客户需要样品，可以联系乐鑫的商务支持部门。

Customers can contact Espressif's Business Support for samples.

2. 如客户需要环保相关的报告（RoHS / REACH / HF），可以联系乐鑫的商务支持部门。

Customers can contact Espressif's Business Support for Environment Related Report (RoHS / REACH / HF).

3. 如客户需要物料验证报告，可以联系乐鑫的商务支持部门。

Customers can contact Espressif's Business Support for material qualification report.

4. 乐鑫的模组产品将遵循先进先出原则。

The products will follow the first in and first out (FIFO) rule.

## 7. 相关报告/Report(s) Attached:

Related ECN No.                      ECN-2020-040

- Material Qualification Report [\*Faith Long Crystal-3S40000266-material qualification report.pdf\*](#)
- Performance Test Report
- Reliability Test Report
- Environment Related Report [\*1. Faith Long Crystal REACH SVHC-Ver3-200616-209.pdf\*](#)  
(RoHS / REACH / HF etc.) [\*2. SGS-CANEC2011104001.pdf\*](#)
- Certification
- Other Reports (Pls specify)

### Appendix I 变更对比/Change Comparison

变更前/Before Change	变更后/After Change
晶振料号 Crystal Part Number	
SX32Y040000MF1T-SU	3S40000266
Crystal Frequency	
40 MHz	40 MHz
Crystal Temperature Range	
-40~105°C	-40~105°C
Crystal Size	
3225	3225

**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](mailto:pcn@espressif.com)。

Please send feedback to [pcn@espressif.com](mailto: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:	