# ESP-WROOM-02/ESP32-WROOM-32/ESP32-WROVER 屏蔽盖镭射增加二维码

Adding an QR code to the shielding case of ESP-WROOM-02/ESP32-WROOM-32/ESP32-WROVER

<table>
<thead>
<tr>
<th>PCN No.</th>
<th>Issue Date of PCN</th>
<th>Proposed Date of Change</th>
<th>Proposed Date of First Shipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCN-03-2019120301</td>
<td>2019-12-02</td>
<td>2019-12-05</td>
<td>2020-02-20</td>
</tr>
</tbody>
</table>

- **Product Name**: ESP-WROOM-02, ESP32-WROOM-32, ESP32-WROVER
- **Package Type/Size**: Module
- **Customer Consent**: Notification, Approval Not Required
- **Classification of Change**: Minor
- **Reason for Change**:
  1) Provide enhanced traceability of module production.
  2) Meet the increasing requirement for QR codes from more and more customers.

## Description of Change:

The shielding cases of the affected modules do not contain QR code before change, and contain QR code after change.

<table>
<thead>
<tr>
<th>Before change</th>
<th>After change</th>
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</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Before change" /></td>
<td><img src="image2.png" alt="After change" /></td>
</tr>
</tbody>
</table>
变更影响/Impact of Change:
增加模组追踪性，给有需求的客户提供 MAC 地址
The traceability for modules is enhanced. Information of customized MAC addresses can be included in the QR code (provided on request).

变更识别方式/Change Identification Method:
变更前：屏蔽盖无二维码
Before change: no QR code on the shielding case of the modules;
变更后：屏蔽盖增加二维码，二维码内容：Fab code(2 位)+Date code(4 位)+MAC address（12 位）
After change: QR codes are added to the shielding case of the modules. The information contained in the QR code consists of Fab code (2 bits) + Date code (4 bits) + MAC address (12 bits).

变更前后产品处理/How to Deal with Products:
FIFO

相关报告/Report(s) Attached:
□Related ECN No.:
□Reliability Report or Plan:
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.

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) 客户须在乐鑫发出PCN后的30天内告知已收到PCN。
   Customers should confirm receipt of the PCN within 30 calendar days from the date Espressif sends it to them.

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。
   If customers do not confirm receipt of the PCN within 30 calendar days, they will be regarded as having accepted 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。
   After the customers confirm receipt of the PCN, the lack of any additional responses on their part within 90 calendar days constitutes acceptance of the proposed 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。
   If customers do not confirm receipt of the PCN within 7 calendar days, they will be regarded as having accepted the proposed changes.

请反馈至pcn@espressif.com.
Please send feedback to pcn@espressif.com.

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/Approval
- □ 不批准/Disapproval
- □ 需要分析/Further Analysis Required

客户意见/Comment:

<table>
<thead>
<tr>
<th>公司代表人姓名</th>
<th>公司代表人职责</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative’s Name:</td>
<td>Representative’s Job Title:</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>公司代表人签名</th>
<th>日期</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative’s Signature:</td>
<td>Date:</td>
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</tbody>
</table>