

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

变更 ESP32-WROOM-32/32D/32U、ESP32-WROVER-B/IB、ESP32-SOLO-1 和 ESP-WROOM-02/02U 模组的认证 ID 与丝印标识

**KCC Certification ID and Identification Changes for ESP32-WROOM-32/32D/32U, ESP32-WROVER-B/IB, ESP32-SOLO-1, and ESP-WROOM-02/02U Modules**

|                                 |                                                                                                                              |                                           |            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------|
| PCN 编号<br>PCN No.               | PCN-2020-017                                                                                                                 | 提出日期<br>Issue Date of PCN                 | 2020/11/13 |
| 变更日期<br>Proposed Date of Change | 2020/11/16                                                                                                                   | 首次出货日期<br>Proposed Date of First Shipment | 2020/12/16 |
| PCN 类型 / PCN Category           | <input checked="" type="checkbox"/> 客户需要批准/Customer Approval Required<br><input type="checkbox"/> 客户通知/Customer Notification |                                           |            |

**1. 影响产品名称/Affected Product Name**

- 1)ESP32-WROOM-32
- 2)ESP32-WROOM-32D
- 3)ESP32-WROOM-32U
- 4)ESP32-WROVER-B
- 5)ESP32-WROVER-IB
- 6)ESP32-SOLO-1
- 7)ESP-WROOM-02
- 8)ESP-WROOM-02U

**2. 变更原因/Reason for Change**

为了更好的匹配 KCC 的最新标准，乐鑫对段落 1 列出的 8 款模组重新提交 KCC 认证，并取得了新的 KCC ID。

To better meet the latest KCC certification requirements, Espressif resubmitted the modules listed in para 1 for KCC certification test and has obtained new KCC certification IDs.

**3. 变更描述/Description of Change**

用新的 KCC 认证 ID 替换 8 款受到影响的模组产品原有的 KCC 认证 ID，同时更新屏蔽盖上的丝印标签。  
Replace previous KCC certification ID with new KCC certification ID and update shield cover markings on the 8 affected modules.

#### 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

##### **(1) 客户使用相关/Customer usage**

当前 PCN 变更所涉及的 8 款产品，仅针对出口韩国并涉及 KCC 认证要求的相关产品会产生影响，若不在 KCC 要求范围内的客户产品，当前变更不会产生影响。

对于已调用所列 8 款模组 KCC ID 的客户产品，需要在使用变更后的产品时，按照变更后的 KCC ID 完成相应产品规范的相关变更。

如您的产品出口韩国并涉及 KCC 认证要求，请及时和乐鑫取得联系 [sales@espressif.com](mailto:sales@espressif.com)。

The change affects customer products using the modules listed in para 1 and exported to Korea requiring KCC certification. The change will not affect the customer products that does not need to comply with KCC certification requirements.

Customer products that invoked the previous KCC certification IDs of the 8 listed modules need to update the certification of their product to the new KCC certification IDs.

Customers affected by the KCC certification ID change are requested to contact [sales@espressif.com](mailto:sales@espressif.com) for assistance.

当前变更涉及的 ESP32-WROVER-B IPEX 版本模组，此次变更后丝印型号为 ESP32-WROVER-IB，保持丝印型号和最新认证型号一致，同时对认证使用和客户调用不产生影响。

The laser marking of the model name is changed to ESP32-WROVER-IB for ESP32-WROVER-B model with IPEX antenna after this change to keep the consistency of the model name and its certification. And this change will not affect the use of certification and customer invocation.

##### **(2) 品质和性能/Quality & Performance:**

对于段落 1 列出模组产品的品质和性能没有影响。

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

##### **(3) 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.

##### **(4) 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.

##### **(5) 认证/Certification:**

变更了当前所列出的 8 款模组的 KCC 认证 ID。

The KCC certification ID is updated for the 8 affected modules.

(6) 其他/Others:

NA

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

如果受影响的模组以及其下游产品不涉及出口韩国：FIFO

If the affected modules and the downstream products are not exported to Korea: FIFO

如果受影响的模组以及其下游产品出口韩国并涉及 KCC 认证要求：乐鑫将安排变更后的产品发货

If the affected modules and the downstream products are exported to Korea requiring KCC certification:

Espressif will ship modules with the new KCC certification ID change on the shield cover.

#### 7. 相关报告/Report(s) Attached

☒ Related ECN No. ECN-2020-058

☐ Material Qualification Report

☐ Performance Test Report

☐ Reliability Test Report

☐ Environment Related Report

(RoHS / REACH / HF etc.)

☒ Certification <https://www.espressif.com/en/support/documents/certificates>

☐ Other Reports (Pls specify)

## Appendix I 变更对比/Change Comparison

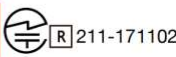
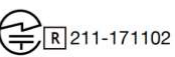
### KCC Certification ID Changes

| Module          | Previous KCC Certification ID | New KCC Certification ID |
|-----------------|-------------------------------|--------------------------|
| ESP32-WROOM-32U | R-CRM-es5-ESP32WROOM32U       | R-C-Esy-ESP32WROOM32U    |
| ESP32-WROOM-32D | R-CRM-es5-ESPWROOM32D         | R-C-Esy-ESPWROOM32D      |
| ESP32-SOLO-1    | R-CRM-es5-ESP32SOLO1          | R-C-Esy-ESP32SOLO1       |
| ESP32-WROVER-B  | R-CRM-es5-ESP32WROVERB        | R-C-Esy-ESP32WROVERB     |
| ESP32-WROVER-IB | R-CRM-es5-ESP32WROVERB        | R-C-Esy-ESP32WROVERB     |
| ESP-WROOM-02U   | R-CRM-es5-ESP-WROOM-02U       | R-C-Esy-ESPWROOM02U      |
| ESP32-WROOM-32  | MSIP-CRM-es5-ESP-WROOM-32     | R-C-Esy-ESPWROOM32       |
| ESP-WROOM-02    | MSIP-CRM-es5-ESP-WROOM-02     | R-C-Esy-ESPWROOM02       |

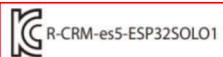
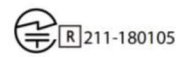
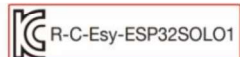
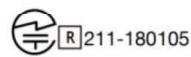
### Changes to KCC Certification ID Mark on Module Shield Cover

| 1.ESP32-WROOM-32U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>€SPRESSIF</p> <p>ESP32-WROOM-32U</p> <p>    CCAH18LP0090T1         </p> <p>  R-CRM-es5-ESP32WROOM32U            211-171103         </p> <p>           FCC ID: 2AC7Z-ESP32WROOM32U<br/>           IC: 21098-ESPWROOM32U<br/>           CMIIT ID: 2017DP7123 (M)         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p>XXXXXX</p>  | <p>€SPRESSIF</p> <p>ESP32-WROOM-32U</p> <p>    CCAH18LP0090T1         </p> <p>   211-171103         </p> <p>           FCC ID: 2AC7Z-ESP32WROOM32U<br/>           IC: 21098-ESPWROOM32U<br/>           CMIIT ID: 2017DP7123 (M)         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p>XXXXXX</p>  |

## 2.ESP32-WROOM-32D

| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p align="center"><b>ESPRESSIF</b><br/><b>ESP32-WROOM-32D</b></p> <p align="center">    </p> <p align="center">   </p> <p>           FCC ID:2AC7Z-ESPWROOM32D<br/>           ANATEL ID: 02152-20-11541<br/>           IC:21098-ESPWROOM32D<br/>           CMIIT ID:2018DP2467         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p align="center">XXXXXX</p>  | <p align="center"><b>ESPRESSIF</b><br/><b>ESP32-WROOM-32D</b></p> <p align="center">    </p> <p align="center">   </p> <p>           FCC ID:2AC7Z-ESPWROOM32D<br/>           ANATEL ID: 02152-20-11541<br/>           IC:21098-ESPWROOM32D<br/>           CMIIT ID:2018DP2467         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p align="center">XXXXXX</p>  |

## 3.ESP32-SOLO-1

| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p align="center"><b>ESPRESSIF</b><br/><b>ESP32-SOLO-1</b></p> <p align="center">    </p> <p align="center">   </p> <p>           FCC ID:2AC7Z-ESP32SOLO1<br/>           IC: 21098-ESP32SOLO1<br/>           CMIIT ID: 2018DP1904         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p align="center">XXXXXX</p>  | <p align="center"><b>ESPRESSIF</b><br/><b>ESP32-SOLO-1</b></p> <p align="center">    </p> <p align="center">   </p> <p>           FCC ID: 2AC7Z-ESP32SOLO1<br/>           IC: 21098-ESP32SOLO1<br/>           CMIIT ID: 2018DP1904         </p> <p>乐鑫信息科技（上海）股份有限公司</p> <p align="center">XXXXXX</p>  |

#### 4.ESP32-WROVER-B

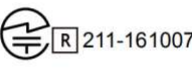
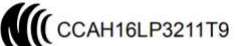
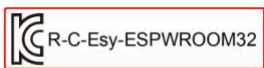
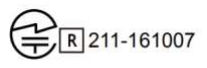
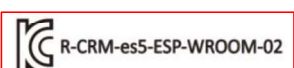
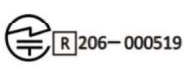
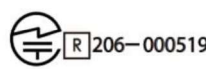
| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>€SPR€SSIF</p> <p>ESP32-WROVER-B</p> <p>CCAP18LP0920T2  211-180419</p> <p>CE  R-CRM-es5-ESP32WROVERB</p> <p>FCC ID:2AC7Z-ESP32WROVERB<br/>IC:21098-ESPWROVERB<br/>CMIIT ID: 2018DP3125</p> <p>乐鑫信息科技（上海）<br/>股份有限公司<br/>XXXXXX</p>  | <p>€SPR€SSIF</p> <p>ESP32-WROVER-B</p> <p>CCAP18LP0920T2  211-180419</p> <p>CE  R-C-Esy-ESP32WROVERB</p> <p>FCC ID:2AC7Z-ESP32WROVERB<br/>IC:21098-ESPWROVERB<br/>CMIIT ID: 2018DP3125</p> <p>乐鑫信息科技（上海）<br/>股份有限公司<br/>XXXXXX</p>  |

#### 5.ESP32-WROVER-IB

| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>€SPR€SSIF</p> <p>ESP32-WROVER-B</p> <p>CCAP18LP0920T2  211-180419</p> <p>CE  R-CRM-es5-ESP32WROVERB</p> <p>FCC ID:2AC7Z-ESP32WROVERB<br/>IC:21098-ESPWROVERB<br/>CMIIT ID: 2018DP3125</p> <p>乐鑫信息科技（上海）<br/>股份有限公司<br/>XXXXXX</p>  | <p>€SPR€SSIF</p> <p>ESP32-WROVER-IB</p> <p>CCAP18LP0920T2  211-180419</p> <p>CE  R-C-Esy-ESP32WROVERB</p> <p>FCC ID:2AC7Z-ESP32WROVERB<br/>IC:21098-ESPWROVERB<br/>CMIIT ID: 2019DP1304 (M)</p> <p>乐鑫信息科技（上海）<br/>股份有限公司<br/>XXXXXX</p>  |

#### 6.ESP-WROOM-02U

| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>€SPR€SSIF</p> <p>ESP-WROOM-02U</p> <p>CCAH18LP0100T1  211-171104 CE</p> <p> R-CRM-es5-ESP-WROOM-02U XXXXXX</p> <p>CMIIT ID: 2017DP7124 (M)<br/>IC: 21098-ESPWROOM02U<br/>FCC ID: 2AC7Z-ESPWROOM02U</p> <p>乐鑫信息科技（上海）<br/>股份有限公司</p>  | <p>€SPR€SSIF</p> <p>ESP-WROOM-02U</p> <p>CCAH18LP0100T1  211-171104</p> <p> CE XXXXXX</p> <p>CMIIT ID: 2017DP7124 (M)<br/>IC: 21098-ESPWROOM02U<br/>FCC ID: 2AC7Z-ESPWROOM02U</p> <p>乐鑫信息科技（上海）<br/>股份有限公司</p>  |

| 7.ESP32-WROOM-32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>ESPRESSIF</b><br/><b>ESP32-WROOM-32</b></p> <p>    </p> <p>   </p> <p>           FCC ID:2AC7Z-ESPWROOM32<br/>           IC:21098-ESPWROOM32<br/>           CMIIT ID:2018DP2463<br/>           乐鑫信息科技（上海）<br/>           股份有限公司<br/>           XXXXXX         </p>               | <p><b>ESPRESSIF</b><br/><b>ESP32-WROOM-32</b></p> <p>    </p> <p>   </p> <p>           FCC ID:2AC7Z-ESPWROOM32<br/>           IC:21098-ESPWROOM32<br/>           CMIIT ID:2018DP2463<br/>           乐鑫信息科技（上海）<br/>           股份有限公司<br/>           XXXXXX         </p>            |
| 8.ESP-WROOM-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Before Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | After Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>ESPRESSIF</b><br/><b>ESP-WROOM-02</b></p> <p>    </p> <p>   </p> <p>           CMIIT ID: 2016DP3252<br/>           IC: 21098-ESPWROOM02<br/>           FCC ID: 2AC7Z-ESPWROOM02<br/>           乐鑫信息科技（上海）<br/>           股份有限公司<br/>           XXXXXX         </p>  | <p><b>ESPRESSIF</b><br/><b>ESP-WROOM-02</b></p> <p>    </p> <p>   </p> <p>           CMIIT ID: 2016DP3252<br/>           IC: 21098-ESPWROOM02<br/>           FCC ID: 2AC7Z-ESPWROOM02<br/>           乐鑫信息科技（上海）<br/>           股份有限公司<br/>           XXXXXX         </p>  |

注：

1. 红框仅为变更示意，最终产品丝印不显示。
2. ESP32-WROVER-B IPEX 版本丝印变更为 ESP32-WROVER-IB。

Remark:

1. The red circle is only a signal of change, and will not showed on final product laser marking.
2. Laser marking of ESP32-WROVER-B model with IPEX antenna will change to ESP32-WROVER-IB.

## Appendix II 补充说明/Additional Remarks

根据 KCC 国立传播研究原稿第 2019-12 号 (P68 2. 标识), ESP-WR00M-02/ESP-WR00M-02U/ESP32-WR00M-32U 可以在屏蔽盖只镭刻 KC 标识.

原文内容:

2 . 产品最大单面面积低于 400 平方毫米的小型产品, 不能作出合格评价标志的, 可以在产品包装上贴有合格评价标志, 或者只能在产品上标明基本图案或者识别符号。

According to KCC National Communications Research Manuscript No. 2019-12 (P68 2. Labeling), we can laser KC logo on shield cover for ESP-WR00M-02/ESP-WR00M-02U/ESP32-WR00M-32U.

Original Content:

2. For small products with a single surface area of less than 400 mm<sup>2</sup>, where a mark of conformity assessment cannot be made, a mark of conformity assessment may be affixed to the product package, or basic patterns or identification symbols may only be marked on the product.

**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<br>Representative's Name:         |  | 公司代表人职责<br>Representative's Job Title: |  |
| 公司代表人签名<br>Representative's<br>Signature: |  | 日期<br>Date:                            |  |