



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	秘密级别 Security Classification	公开 Public

变更标题/Change Title: ESP-WROOM-02 AT bin 升级			
PCN 编号 PCN No.	P2018032701	提出日期 Issue Date of PCN	2018/03/26
产品名称 Product Name	ESP-WROOM-02	变更日期 Proposed Date of Change	2018/05/01
封装类型/尺寸 Package Type/Size	模组	首次出货日期 Proposed Date of First Shipment	About 2018/05/10
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/Change Classification: ☐ 主要变更/Major ☒ 轻微变更/Minor			
变更原因/Reason for Change: 依据客户需求, 升级 ESP-WROOM-02 的 AT bin, 版本升级从 V2.0.0 到 V2.1.0. As per customer requirement, upgrade our generic product of ESP-WROOM-02 AT bin from V2.0.0 to V2.1.0.			
变更描述/Description of Change: Compring with V2.0.0, following changes to solve bugs: ###ESP8266_NONOS_SDK_V2.1.0_17_05_05 Release Notes ###System 1. Fix and update the license; 2. Add definitions of ROM functions; 3. Add efuse mac crc, save efuse mac into the system parameter area of flash, as a backup mac; 4. Implement uart_div_modify, which can support a 32-bit DivLatchValue in the SDK instead of the ROM one, and also remove uart_div_modify from the ld file; 5. Reduce iRAM usage by transferring some functions to flash ; * add weak function void user_spi_flash_dio_to_qio_pre_init(void). If the dio to qio flash mode is not used, users can add an empty user_spi_flash_dio_to_qio_pre_init on the application side to reduce iRAM usage; 6. Fix WDT in system_restart; 7. Fix Write & Read issue in SPI overlap mode; 8. Support 8MB & 16MB spi flash; 9. Update boot v1.7; 10. Support 8MB & 16MB spi flash;			



11. Try boot the first bin for 3 times. If it fails, then boot the backup bin;
12. Fix http packet error, BBP301;
13. Support long periods of deep sleep;
14. Fix NMI handle crash on unaligned memory access, BBP309;
15. Fixed the WPA2 KRACK issue.
16. Fixed the issue of wrong messages being displayed after upgrading the firmware.

###Lwip

1. Add set and get dns server APIs:
 - * espconn_dns_setserver
 - * espconn_dns_getserver
2. Fix 2038 overflow bug in sntp_get_current_timestamp;
3. Fix MTU negotiate bug;

###AT

1. Add new commands, AT+UART? and AT+UART_DEF?;
2. Add new command, AT+SYSRAM?;
3. Add new commands, AT+SYSIO series;
4. Add new command, AT+CWHOSTNAME;
5. Add new command, AT+SYSADC?;
6. Add new commands, AT+CIPSNTPCFG and AT+CIPSNTPTIME;
7. Add new commands, AT+CIPDNS_CUR and AT+CIPDNS_DEF;
8. Support a maximum of 8 stations;
9. Modify keepalive count to 3 times;
10. Fix scan hidden ssid issue in AT+CWLAP;
11. Fix the issue of the UART stop bit being 0 when queried for the first time;
12. Fix MAC addr conflict in AP+STA mode;
13. Add new commands, AT+RFAUTOTRACE;

###WiFi

1. Optimize the RF frequency calibration workflow, having the frequency trace disabled by default;
 - * users can call system_phy_freq_trace_enable in user_rf_pre_init to enable it;
2. Update libphy.a to version 1134_0;
3. Allow sending a broadcast ESP-NOW packet, but make sure that the packet is unencrypted;
4. Fix soft queue error;
5. Fix EVENT_STAMODE_AUTHMODE_CHANGE event mode info;



6. Fix lmac assert;
7. Fix bug in sniffer mode;
8. Fix arp loss continuously issue;
9. Fix bug in WiFi event;
 - * auth mode changed event cannot be throw when station is in the process of scanning;
 - * error old auth mode and new auth mode;
 - * op mode change process cannot be blocked, so add an event to notify the caller that op mode is changed;
10. Fix the bug in mic failure handler;
11. Fix the bug which causes failure of connection to an AP with shared WEP;
12. Fix the bug which causes failure of connection to an AP with hidden ssid;
13. Fix softAP deauth;
14. Fix reconnect policy when trying to connect to an AP that does not exist;
15. Fix scan issue;
16. Fix extra bytes in UDP broadcast packet, BBP310;

变更内容/Proposed Change:

原 ESP-WROOM-02 AT bin : ESP_8266_16M_26M_2.0.0_UART_AT_1.3.0_20170331.bin

新 ESP-WROOM-02 AT bin : ESP_8266_16M_26M_2.1.0_UART_AT_1.5.0_20180319.bin

变更影响/Impact of Change:

ESP-WROOM-02 products' delivery.

变更识别方式/Method of Identifying Change:

PIZZA 标签 & 外箱标签

PIZZA label & Carton Box label

变更前后产品处理/How to deal with products:

ESP-WROOM-02 将服从先入先出原则，并平稳过渡到新版本。

ESP-WROOM-02 will follow FIFO, and transfer to next version smoothly.



相关报告/Report(s) Attached:

Reliability Report or Plan: _____ N/A
Qualification Report or Plan: _____ N/A
RoHS/HF Test Report: _____ N/A
Function Test Report: _____ N/A
Other Reports (Pls specify): _____ N/A

变更人/Change Owner: 林春花	签名/Signature: 林春花	日期/Date: 2018.3.27
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Approved By

批准人

Technical Support		Signature: 林春花	Date: 2018.3.27
R&D Digital Team		Signature: 符己星	Date: 2018.3.27
R&D Hardware		Signature: 符己星	Date: 2018.03.27
QA	黄建	Signature: 黄建	Date: 2018.3.27
Sales Manager	易雨皓	Signature: 易雨皓	Date: 2018.3.27
Purchasing Manager		Signature: 吴振均	Date: 2018.3.28
Marketing Manager		Signature: 邢建刚	Date: 2018.3.28
CEO		Signature: 2/22 (代)	Date: 2018.3.28

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 to confirm receipt of the PCN:

主要变更/For Major Changes:

- 客户须在接收到 PCN 后的 30 天内告知已收到 PCN。
- Customers should acknowledge receipt of the PCN within 30 calendar days from the date of receiving the PCN.
- 如客户未在接收到 PCN 后的 30 天内告知已收到，则视为客户接受变更。
- Lack of acknowledgment of the PCN within 30 calendar days constitutes acceptance of the proposed changes.
- 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 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 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/Disapproval ☐ 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: