文件编号 Document No.	ESP-00-2-007-03	文件名称 Document Name	产品/工艺变更通知 Product/Process Change Notice (PCN)
文件版本	1.3	保存期限	3 年
Document Version		Retention Period	3 years

ESP32 系列模组 AT 固件升级							
AT BIN UPGRADE FOR ESP32 SERIES MODULE							
PCN 编号	PCN-03-2018083001	提出日期	20180830				
PCN No.		Issue Date of PCN					
产品名称	ESP32 系列模组	变更日期	20180830				
Product Name	ESP32 Series Modules	Proposed Date of Change					
封装类型/尺寸	Module	首次出货日期	20181130				
Package Type/Size		Proposed Date of First Shipment					
客户批准/Customer 区需要批准/Approval Required							
Consent: <ul> <li>●通知,无需批准/Notification, Approval Not Required</li> </ul>							
变更等级/ Classification of	☑主要变更	●轻微变更/Minor					
Change:	/Major						
变更原因/Reason for Change:							
ESP32 IDF 升级,同步升级 AT 应用固件:新增部分功能,并修复上一版本 Bug.							
Because ESP32 IDF had been upgrade, So upgrade AT Bin. Content of change:adding some function and							
cover Bug of last version.							

变更描述/Description of Change:

ESP-IDF

变更内容: 由 V2.0.3 更新到 V3.0.1

详情请见: <u>https://github.com/espressif/esp-idf/releases</u>

## BLE AT

#### **Features**

AT+BLESPPCFG : Sets BLE spp parameters

AT+BLESPP : Enter BLE spp mode

AT+BLESECPARAM : Set BLE encryption parameters

AT+BLEENC : Initiate BLE encryption request AT+BLEENCRSP : Grant security request access.

AT+BLEKEYREPLY : Reply the key value to the peer device in the lagecy connection stage.

AT+BLECONFREPLY : Reply the comfirm value to the peer device in the lagecy connection stage.

AT+BLEENCDEV : Query BLE encryption device list AT+BLEENCCLEAR : Clear BLE encryption device list

### **Bug fixes**

Fix bug that gatt client exception after disconnect Fix gatt Server did not get correct write result code Fix gatt cmd will not report error when disconnected Fix ble incorrect optional parameter checking Fix ble incorrect param type checking Fix ble read/write to char/descriptor without permission did not return error Fix ble Set ATTR value fail Fix ble 128bit uuid crash Fix bug that when deinit the ble, do not free gatts list Fix ble autoconnect in passthrough mode

### Optimizations

support char write long and add param for multi connection support gatts initiate disconnect from client support multi conn for server update connection param command support gatt server

## WiFi AT

### Features

AT+RFPOWER : Set RF TX Power AT+CIPSSLCCONF : Config SSL client

## Bug fixes

Fix bug that UDP packet loss is serious when transparent transmission Fix bug that print error log when startup Fix bug restart problem after boot-strap Fix bug that reconnect to TCP server twice in passthrough mode Fix bug the throughput is very low when uart baudrate is 2000000 Fix bug that ssl connection doesn't reconnect to server when disconnected

Fix bug the current is about 77uA after deep sleep Fix ping repeatedly cause reboot Fix bug It crashes when UART baudrate and mcu mismatch Fix bug tcp server will be closed when connections reach max Fix bug that crash if the parameter number of AT command is less than espatgetparaas digit parameter number Fix bug that it doesnot work when configure server max connection Fix bug that it print CLOSED after link disconnect when in transparent transmition Fix bug that remote port is incorrect. Fix bug the type of execution command parses error Fix Bug that it will reboot after restarting if setting AT+SAVETRANSLINK Fix Bug that works bad if delayed among each character when sending command Fix bug it crash when smartconfig, if SSID length is 32 Fix connected UDP display wrong IP Fix bug that SSL server accepts fail Fix bug that Print 'CONNECT' when ssl connect fail Set the range of AT+CWLAPOPT Fix bug that Print wifi status when wifi status change Fix bug that Sometimes AT+CIPCLOSE cannot return Fix bug that TCP doesn't disconnect when WiFi station disconnected Fix bug that the static param conning\_flag was not reset after deinit Fix bug that WiFi reconnect after AT+CWQAP Fix Delay time is incorrect Fix Dns servers change when connecting different AP Fix bug that ESP32-AT get crushed when been sent AT with 2 "\r\n" **Optimizations** Set Default uart is flow control, and add uart query cmd Add AT command line terminator Add espatcustomnetopsregist in espat.h to callback some status about socket

- add query cmd for blescanparam
- Add multi-ca support for ssl client
- Add save SSID when using WPS
- Add prefix in the string by AT+CWLIF responsed
- Optimize ssl memory in AT module

变更影响/Impact of Change:					
新版 AT Bin 兼容旧版本的 AT Bin,	客户如有疑问请联系 <u>pcn@espressif.com</u>				
New version AT Bin can compat o	ld AT bin , if any concerns please contact pcn@espressif.com				
变更识别方式/ Change-Identificati	on Method:				
变更前 AT 版本: V0.10.0.0 变更	后 AT 版本: V1.1.1.0				
AT version change from V0.10.0.0	) to V1.1.1.0				
变更前后产品处理/Product-Proces	ssing Before and After Change:				
先进先出原则					
FIFO					
相关报告/Report(s) Attached:					
Related ECN No.:	E2018082101				
•Reliability Report or Plan:					
•Function Test Report:					
•RoHS/HF Test Report:					
Other Reports (Pls specify):					
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 sub	other valuable information, to subscribed customers only, in order to keep them updated on its products and				

services. Please subscribe here.

#### 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, and confirm receipt of the PCN:

#### 主要变更/For Major Changes:

a) 客户须在接收到 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.

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/Approval					
	□不批准/Disapproval					
	□需要分析/Further Analysis Required					
客户意见/Comment:						
公司代表人姓名		公司代表人职责				
Representative's Name:		Representative's Job Title:				
公司代表人签名		日期				
Representative's Signature:		Date:				