



产品规格承认书

Product Specification Approval

产品名称(Product Name):	WIFI模块/WIFI module	
产品型号(Product Number):	DL-WIFI+BT	
客户名(Customer Name):		
客户料号(Customer P/N):		
送样日期: (Sample delivery date):	版次 (Version)	文件编号 (Document No.)
	A0	
编制(Prepared by)	核准(Approved)	审核(Audit)
杨伟滔	林田生	冯耀辉
客户确认栏 Customer Confirmation Column		
确认意见: Confirm opinion:		
客户签章 Customer signature: 日期 Date:		
<p>注意 (Note):</p> <p>1. 收到样机确认OK 后请及时回签, 7 天内没有回签及问题反馈, 我司默认客户测试合格; 规格书中的图片为通用机型图片, 可能与送样样机有差异, 此份规格书达锂电子保留最终解释权。</p> <p>After receiving the prototype confirmation, please sign back in time. If there is no sign back and problem feedback within 7 days, our company defaults that the customer test is qualified specifications. The pictures in the specification are general model pictures, which may be different from the sample. Daly reserves this specification as final right of interpretation.</p> <p>2. 客户批量前, 请在规格书中签字回传, 并说明详细功能说明, 我司才安排批量。</p> <p>Before the customer batches, please sign the specification and return it, and explain the detailed function description, and our company will arrange the batch.</p>		



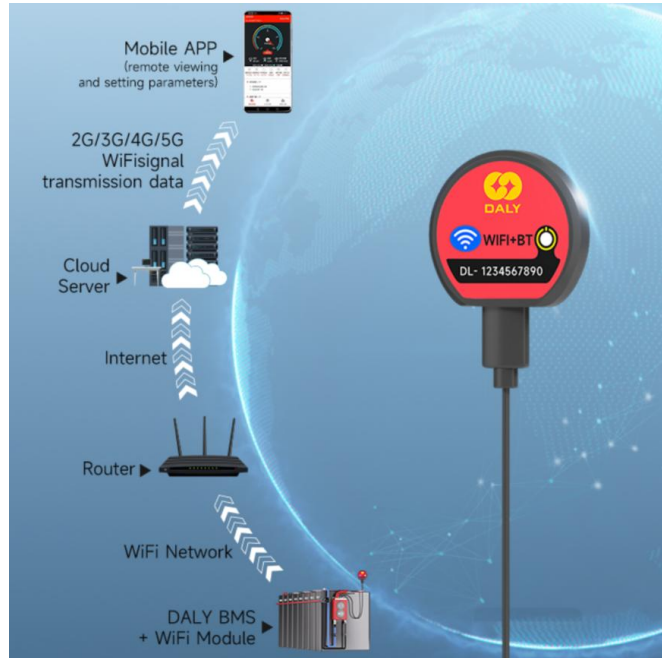
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1. 简介 Introduction

- 达锂全新推出的WiFi模块可实现BMS自主远程传输，适配所有新出的软件保护板，并同步更新手机APP，为客户带来更加便捷的锂电池远程管理使用体验。
- The newly launched WiFi module can realize BMS autonomous remote transmission, adapt to all the new software protection boards, and synchronously update the cell phone APP, bringing customers a more convenient lithium battery remote management experience.



2. 基本参数 Basic parameters

项目/Item	参数/parameter	备注/Remarks
模块型号/Module model	DL-WIFI+BT	
主芯片/Main chip	LF686C-20-Q2I	
Flash	16Mb	
频谱范围/Spectrum ranges	2400 ~ 2483.5MHz	
天线形式/Antenna	板载天线/Onboard antenna	
工作温度/Operating temperature	-20℃ ~ 70℃	
储存环境/Storage environment	-30℃ ~ 85℃, < 90%RH	
供电范围/Power supply range	5V~15V	
对外接口/External port	Micro USB	
静电防护/Electrostatic protection	接触放电contact discharge ±4KV 空气放电air discharge ±8KV	
尺寸/Size	34*37*7mm	



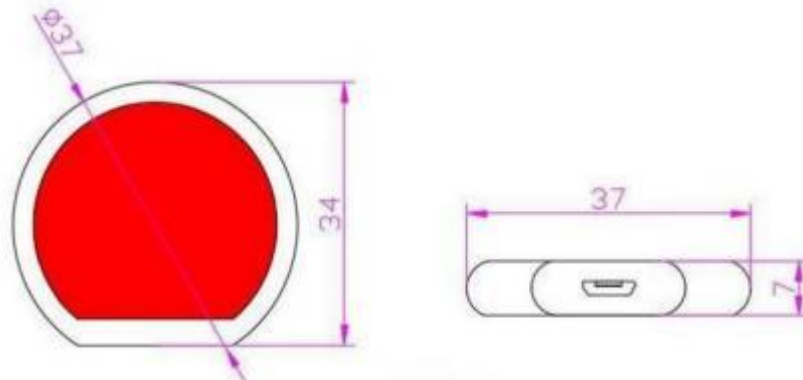
3. 电气参数 Electrical parameter

参数	最小	典型	最大	单位
供电电压	5	12	15	V
电流要求		≥100		mA
电源纹波要求		≤50		mV
平均工作电流		≤20		mA
峰值电流		≤60		mA

4. WIFI性能指标 WIFI performance Indicators

无线参数 Wireless parameters	无线标准 Wireless standards	IEEE 802.11 b/g/n
	频率范围 Frequency range	2400MHz-2483.5MHz
	发射功率 Transmitting power	802.11b: +19±1.5dBm
		802.11g: +17±1.5dBm
		802.11n: +16±1.5dBm
	接收灵敏度 Receiving sensitivity	802.11b: -97dBm (1Mbps)
		802.11b: -90dBm (11Mbps)
		802.11g: -92dBm (6Mbps)
		802.11g: -75dBm (54Mbps)
		802.11n: -72dBm (MCS7)

5. 尺寸图 Dimensional drawings:



6. USB引脚定义 USB definition

管脚	名称	备注
1	VCC	电源输入, 12V供电, 供电电流建议 $\geq 100\text{mA}$ Power input: 12V power supply. The recommended power supply current is at least 100mA
2	ES0	配网控制, 拉低6秒以上 Distribution network control, pull down more than 6 seconds
3	UART_TX	3.3V TTL
4	UART_RX	
5	GND	GND

7. 使用操作 Use operation:

7.1、准备工作：检查产品是否齐全，连接线是否为“wifi 连接线”。确认无线网络为 2.4G 网络且可被正常连接及上网，将手机连上该 wifi 网络。

Preparation: Check if the product is complete and the connection cable is a "wifi cable". Make sure the wireless network is a 2.4G network and can be normally connected to the Internet, connect your cell phone to the wifi network.



7.2、安装产品：将 WiFi 模块通过 wifi 连接线，插入 BMS 的 UART 通讯口；（根据保护板的 UART 接口分带扣和不带扣，不同料号）

Installation of products: WiFi module through the wifi connection cable, inserted into the UART communication port of the BMS; (according to the UART interface of the protection board with buckle and without buckle, different material number)



7.3、安装APP：通过应用商店或二维码，安装“SmartBms”APP，给与对应的权限，打开手机的WIFI、蓝牙、定位功能。

Installation of APP: Install the "SmartBms" APP through the application store or QR code, give the corresponding permissions, and turn on the WIFI, Bluetooth, and positioning functions of the phone.

7.4、APP 操作：点击进入“远程通讯”，如首次使用需通过填入邮箱注册账号；

APP operation: click into the "remote communication", such as the first time to use the need to fill in the mailbox to register an account;



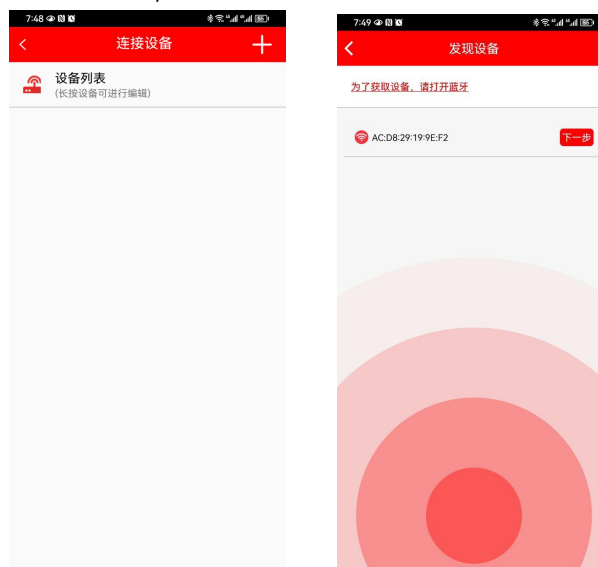
7.5、选择模式：完成账号注册后，进入“远程监控”功能界面。在“单组”、“并联”和“串联”三种模式中，选择自己需要的模式，进入“连接设备”界面。

Select Mode: After completing the account registration, enter the "Remote Monitoring" function interface. Select the mode you need among the three modes of "Single Group", "Parallel" and "Serial", and enter the "Connecting Devices Enter the "Connect Device" interface.



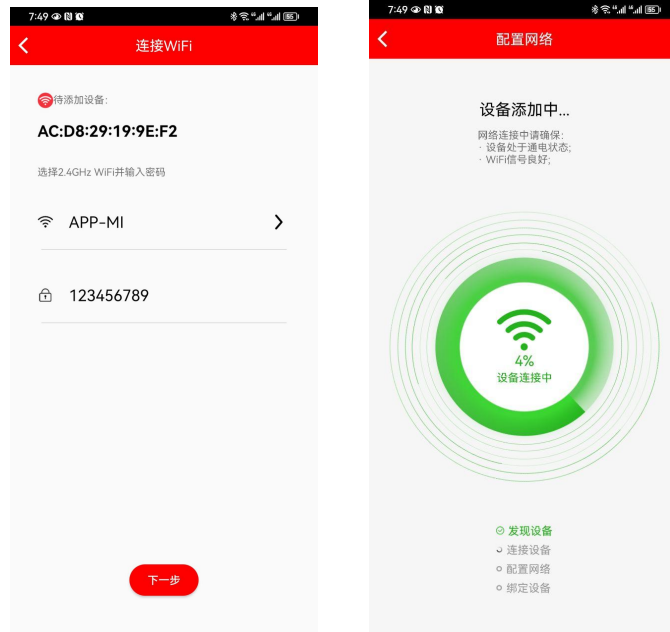
7.6、添加模块：进入右上角的“+”号，选择WIFI设备，直至界面出现对应的产品名称后，点击“连接”。

Add module: Enter the "+" sign in the upper right corner, select WIFI device, until the corresponding product name appears in the interface, click "Connect".



7.7、模块配网：输入 WiFi 网络的密码，等待完成配网。配网过程需保持 APP、路由器、BMS 正常工作。

Module pairing: Enter the password of WiFi network and wait for the completion of pairing. The pairing process needs to keep APP, router and BMS working normally.



7.8、设备命名：配网成功后，可自定义命名 WiFi 模块名称。默认为出厂名称，“DL-xxxxxxx”。命名保存成功后，整个配网流程才结束。

Device Naming: After successful network allocation, you can customize the naming of the Wi Fi module name. The default is the factory name, "DL-xxxxxxx". After the naming is saved successfully, the whole process of network allocation will be finished.



7.9、进入设备：返回“连接设备”页，出现对应的 WiFi 模块设备，如状态为“在线”，可点击进入“数据详情页”。通过 WiFi 网络，将数据上传至云服务器，APP 从云服务器获取 BMS 数据并展示，即可进入该设备的管理界面，查看和设置各项参数。

Enter device: Return to "Connect Device" page, the corresponding WiFi module device will appear, if the status is "Online", you can click to enter the "Data Details Page". Through WiFi network, upload the data to the cloud server, APP will get the BMS data from the cloud server and display it, then you can enter the management interface of the device to view and set the parameters.





7.10、本地监控：既蓝牙模式，wifi 模块状态为“离线”或被删除时，可通过“本地监控”，进行蓝牙连接，使用方法跟蓝牙模块一致。

Local monitoring: Both Bluetooth mode, wifi module status is "offline" or deleted, through the "local monitoring", Bluetooth connection, the use of the same method as the Bluetooth module.

7.11、管理平台：wifi 模块支持达锂云平台，登录方式与蓝牙模块一致，但工作原理不同，当设备“在线”时，是通过设备将 BMS 数据上传至管理平台。蓝牙模块是通过 APP 上传。

Management platform: The wifi module supports Dali cloud platform, the login method is the same as the Bluetooth module, but the working principle is different, when the device is "online", it is through the device to upload the BMS data to the management platform. Bluetooth module is uploaded through APP.

8. APP下载 APP Download

须使用 V3.0.0 以上的版本 SMART BMS，可扫描如下二维码下载。上架后可在华为、谷歌和苹果应用市场更新、下载，或联系达锂工作人员获取最新版 APP 安装文件。V2 开头仅支持蓝牙模块。

The latest SMART BMS starting with V3 must be used, which is currently not on the shelves, and can be downloaded through the following link. Once it is on the shelves, you can update and download it from Huawei, Google and Apple App Market, or contact Dalion staff to get the latest APP installation file.V2 beginningonly supports Bluetooth module.

Download link for Android beta version:<https://www.pgyer.com/y8xP>

Download link for iOS beta version:<https://www.pgyer.com/nomh>

(Updated link when available)



国内安卓



国内外iOS



国外安卓





9. 注意事项caveat

- 1、搜索不到蓝牙：手机权限有无授权，wifi 模块是否已被配网处于“在线”状态。Bluetooth cannot be searched: whether the phone authority is authorized or not, and whether the wifi module has been connected to the network and is in the state of "online".
- 2、配网失败：检查 wifi 网络是否正常，网络是否为 2.4G 网络。Failed to match the network: check whether the wifi network is normal and whether the network is 2.4G network.
- 3、设备离线：检查 wifi 网络是否正常，检查 BMS 供电是否正常，连接线是否正常接入。Device offline: check if the wifi network is normal, check if the BMS power supply is normal, and if the connecting cable is accessed normally.
- 4、连接线：Wifi 模块连接线与蓝牙模块不共用，根据保护板端子分带扣端子，不带端子；如 R16L、R10Q 的通讯口是带扣的，所以连接线也要选带扣的。Connection line: Wifi module connection line is not shared with Bluetooth module, according to the protection board terminal points with buckle terminal, without terminal; such as R16L, R10Q communication port is with buckle, so the connection line should also be selected with buckle.