

# 产品规格承认书

## Product Specification Approval

<b>产品名称 (Product Name)</b>	4G 定位模块欧亚非版——内置天线款 4G Positioning Module EU/AS/AF Version V1 - Built-in Antenna Model	
<b>产品型号 (Product Number)</b>	DL-DW02-EU	
<b>客户名 (Customer Name)</b>		
<b>客户料号 (Customer P/N)</b>		
<b>送样日期 Sample delivery date</b>	<b>版次 Version</b>	<b>文件编号 Document No.</b>
	A1	
<b>编制(Prepared by)</b>	<b>核准(Approved)</b>	<b>审核(Audit)</b>
Tan Lejun	Yang Weihao	Yang Weihao
<b>客户确认栏 Customer Confirmation Column</b>		
<b>确认意见 Confirm opinion:</b>		
<b>客户签章 Customer signature:</b>		
<b>日期 Date:</b>		
<b>注意 (Notice) :</b>		
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 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; Supplier reserves the right of final interpretation of this specification.		
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 Before the customer batches, please sign the specification and return it, and explain the detailed function description, and our company will arrange the batch		



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# 1. 简介 Brief introduction

- 本 4G 多功能通信模组专为 达锂 BMS 设计，以高集成度、低功耗、高可靠性为核心优势，满足新能源与储能领域对电池智能化管理的迫切需求。通过提供稳定、高效的通信与定位能力，助力客户实现电池设备的远程监控与运维，提升产品竞争力与用户体验。
- This 4G multifunctional communication module is specially designed for Daly BMS, with high integration, low power consumption and high reliability as the core advantages, to meet the urgent needs of intelligent battery management in the field of new energy and energy storage. By providing stable and efficient communication and positioning capabilities, it helps customers realize remote monitoring and operation and maintenance of battery equipment, improving product competitiveness and user experience.

# 2. 产品概述及特点 (Product Overview and Features)

- 高集成度设计：集成 2G、4G LTE 通信、GNSS 定位、基站定位功能，满足多种应用需求。
- Highly integrated design: Integrated 2G、4GLTE communication, GNSS positioning, base station positioning functions to meet a variety of application needs.

# 3. 技术参数 Technical parameter

序号 NO.	项目 Item	规格参数 Specification parameter
1	供电	8V – 15V
2	休眠模式自耗电电流 The Standby mode consumes electrical current	≤15mA@12V
3	工作时自耗电电流 Self-consuming electrical current during operation	≤50mA@12V
4	通讯 communication	UART
5	绿灯：卫星信号状态灯 Green LED: Satellite signal status indicator	快闪：卫星信号搜索 Flash: Satellite signal search 常亮：GNSS 已定位 Constantly On: GNSS has been located 不亮：GNSS 休眠 Off: GNSS is in sleep mode
6	红灯：4G 信号状态灯 Red light: 4G signal status indicator	慢闪：网络初始化 Slow flashing: Network initialization 快闪：网络接收信号 Fast flashing: Network signal reception 常亮：设备上电 Constant lighting: Device online 不亮：未插 SIM 卡 Off: SIM card not inserted
7	休眠 Standby	无充电&静置情况下，1 分钟后进入休眠，LED 灯熄灭 Without charging or discharging and when left stationary, it enters a sleep state after 1 minute and the LED light goes out.
8	唤醒 Wake Up	充放电唤醒或者震动唤醒，以及操作 IOT 平台唤醒； Charging/discharging awakening, or vibration awakening, and awakening through operating the IOT platform; (震动唤醒后，无充电&静置情况下，4 分钟后进入休眠) (After being awakened by vibration, in the absence of charging or discharging and when left to stand still, it will enter a sleep state after 4 minutes.)
9	工作&存储温度 Operating&Storage temperature	-40°C ~ +85°C
10	定位方式 Positioning mode	支持北斗、基站、伽利略、GPS、GLONASS 定位
11	天线 antenna	内置 GPS 陶瓷天线、内置 4G 天线 Built-in GPS ceramic antenna, built-in 4G antenna
12	尺寸 Dimension	68.37±0.5*72.96±0.5*16.2±0.5mm
13	重量 Weight	

14	通讯模组规格 Communication module specifications	通信频段 Communication frequency bands	LTE-FDD: B1/B3/B7/B8/B20 GSM: EGSM900/DCS1800 GNSS: GPS/GLONASS/Galileo/BDS/QZSS
		最大输出功率 Maximum output power	EGSM900: Class 4 (33 dBm ±2 dB) DCS1800: Class 1 (30 dBm ±2 dB) EGSM900 8-PSK: Class E2 (27 ±3 dB) DCS1800 8-PSK: Class E2 (26 ±3 dB) LTE-FDD: Class 3 (23 dBm ±2 dB)
		接受灵敏度 Acceptance Sensitivity	GSM900: (-109dBm) DCS1800: (-104dBm) LTE-FDD B1/B3/B8/B20 (10 MHz): (-98dBm) LTE-FDD B7 (10 MHz): (-97dBm)
15	定位模组规格 Positioning module specifications	信号 Signal	BDS: B1I GPS: L1 GLONASS: L1 Galileo: E1 QZSS: L1
		定位精度 Positioning accuracy	<10 meters
		跟踪灵敏度 Tracking sensitivity	-159dBm
		捕获灵敏度 Capture sensitivity	-145dBm
		定位时间热启动 Positioning time Hot start	5s
		定位时间冷启动 Positioning time Cold start	30s
16	SIM 卡 Card	客户可自行配置 SIM 卡,并在购买产品时提供 APN 信息给到达锂团队或者选这达锂默认 SIM 卡 (中国联通漫游卡) Customers can configure their own SIM cards and provide the APN information to the DaLi team when purchasing the product, or choose the default SIM card provided by Daly. (China Unicom roaming card)	

## 4. 产品整机功能表 Product function list

功能明细 Function detail	功能说明 Function description
实时定位 Real-time positioning	实时回传经纬度信息 Real-time return of latitude and longitude information
历史轨迹 Historical track	历史轨迹数据保存 (6 个月) Historical track data saving (six months)
BMS 实时数据查看 BMS real-time data view	通过 APP、云平台查看 BMS 实时数据 View real-time BMS data through apps, and cloud platforms

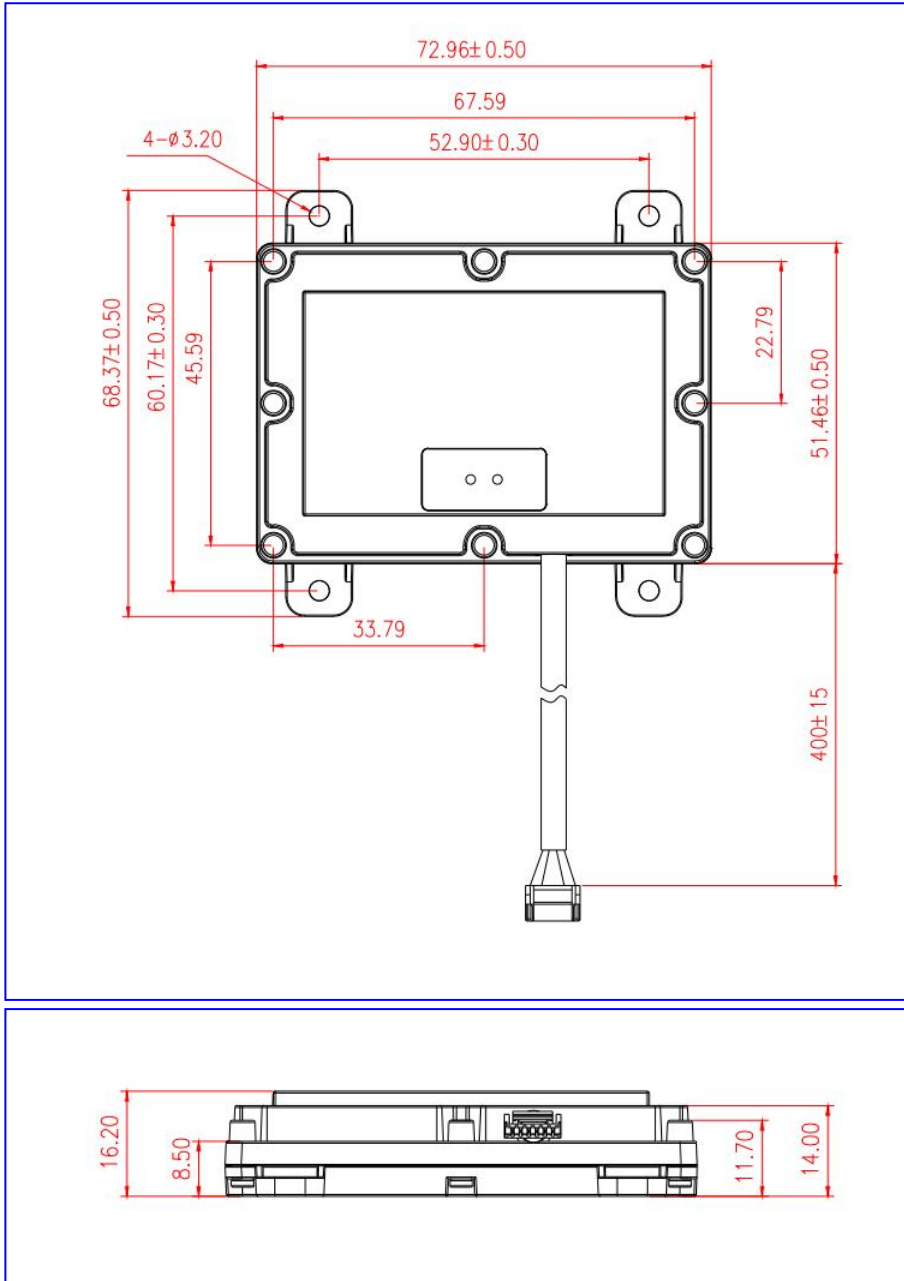


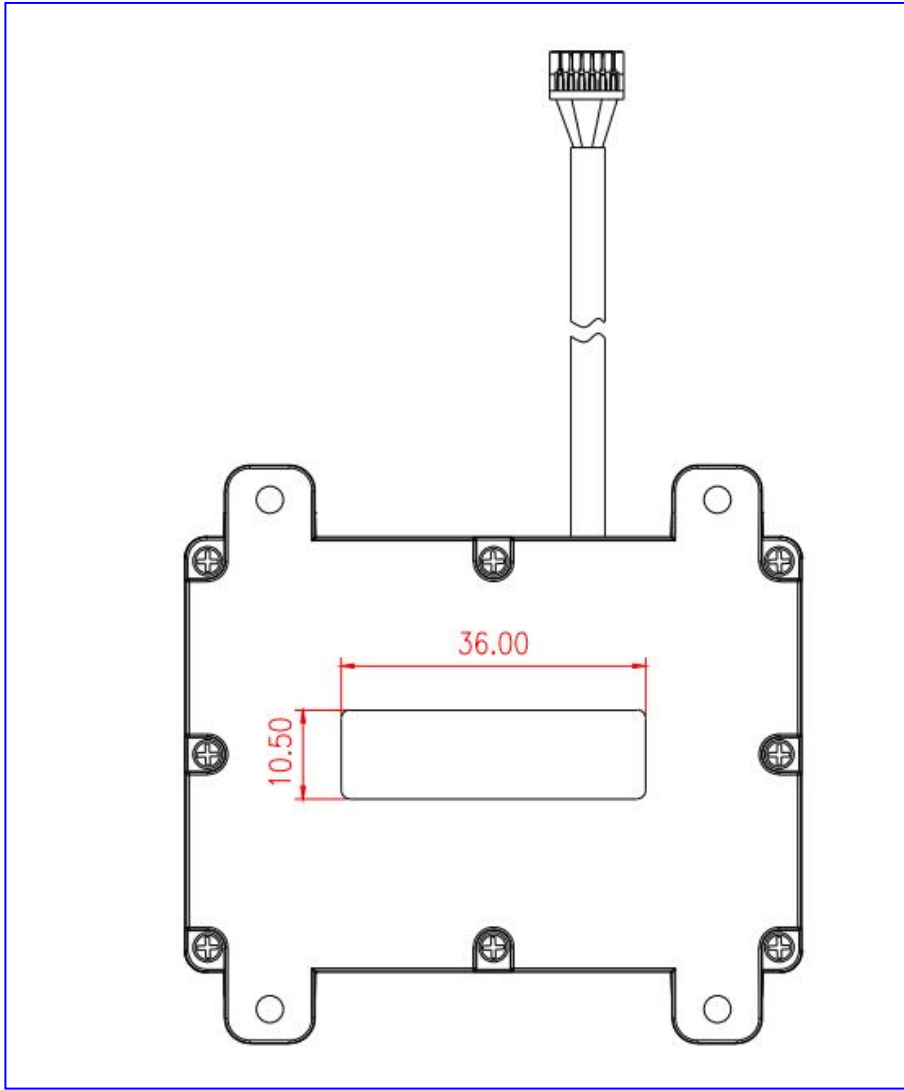
修改 BMS 参数 Modify BMS parameters	通过 "Smart BMS Pro" APP、云平台查看/修改 BMS 的配置参数 View or modify the configuration parameters of the BMS through the "Smart BMS Pro" APP, or the cloud platform.
远程升级 OTA	远程空中升级 (模块和 BMS) Long-range aerial upgrades (modules and BMS)
本地解析 Local resolution	主动上报故障信息 Report the fault information voluntarily

## 5. 适配国家 Supported countries

欧洲	斯洛文尼亚、黑山、法罗群岛、冰岛、立陶宛、俄罗斯、波黑、拉脱维亚、摩尔多瓦、保加利亚、列支敦士登、塞尔维亚、奥地利、白俄罗斯、马耳他、阿尔巴尼亚、丹麦、葡萄牙、比利时、匈牙利、西班牙、爱沙尼亚、瑞典、芬兰、瑞士、克罗地亚、斯洛伐克、北爱尔兰、泽西岛、英国、梵蒂冈、圣马力诺、意大利、德国、爱尔兰、荷兰、捷克、希腊、波兰、乌克兰、罗马尼亚、法国、卢森堡、
亚洲	尼泊尔、伊朗、伊拉克、约旦、塔吉克斯坦、亚美尼亚、阿曼、阿联酋、沙特、阿富汗、蒙古、文莱、约旦河西岸、以色列、格鲁吉亚、吉尔吉斯斯坦、巴勒斯坦、柬埔寨、哈萨克斯坦、乌兹别克斯坦、斯里兰卡、塞浦路斯、土耳其、巴基斯坦、孟加拉、巴林、科威特、老挝、阿塞拜疆、泰国、马来西亚、印尼、中国澳门、越南、菲律宾、新加坡、中国台湾、卡塔尔、中国香港、印度
非洲	塞拉利昂、纳米比亚、贝宁、刚果民主共和国 (刚果金)、南苏丹、南非、刚果共和国 (布)、莫桑比克、卢旺达、乌干达、斯威士兰、加纳、喀麦隆、突尼斯、马达加斯加、阿尔及利亚、几内亚比绍、科特迪瓦、摩洛哥、几内亚、马里、利比里亚、博茨瓦纳、苏丹、莱索托、坦桑尼亚、
大洋洲	巴布亚新几内亚、瑙鲁、斐济、瓦努阿图、萨摩亚、汤加、瓜德罗普岛、塔希提、新西兰、澳大利亚

## 6. 尺寸图 Dimensional Drawing Reference





## 7. 产品选型 Product selection

产品选型表 Product Selection list			
接口类型	<input type="checkbox"/> GH1.25 (LL:400mm)	<input type="checkbox"/> PHB2.0 (LL:400mm)	<input type="checkbox"/> SM-4Y (LL:125mm)
APP	<input type="checkbox"/> DALY APP		<input type="checkbox"/> Smart BMS Pro APP

## 8. 使用说明及 APP 下载 Instructions and APP download

扫码查看说明书及下载 APP, 或使用电脑浏览器登录: <https://www.dalyelec.com/service.html>

Scan the QRcode using the browser to view the user manual and download APP, or use a computer browser to access this website: <https://www.dalyelec.com/service.html>



## 9. 保修 Warranty

该产品，质保一年；人为因素导致损坏的，有偿维修。

The product is guaranteed for one year; If the damage is caused by human factors, it shall be repaired with compensation.

## 10. 特别说明 Special Note

我司产品进行严格的出厂检验测试，但是因为客户使用的环境不同，难免会出现故障，所以客户在选择和使用时，需要在友好的环境下使用。

Our products carry out strict factory inspection and testing, but because of the different environment used by customers, it is inevitable that there will be failures, so customers need to use in a friendly environment when choosing and using.

<b>产品更改说明</b> <b>Product change Instructions</b>			
<b>版本</b> <b>(Version)</b>	<b>更改内容</b> <b>(Change content)</b>	<b>更改人</b> <b>(Editor)</b>	<b>更改日期</b> <b>(Change date)</b>
A0	初版发行 Initial release	Mo Yepeng	2025/11/26
A1	更新适配国家	Tan Lejun	2026/06/15