

WE-BTWF
产品说明书
User Manual
(仅供内部使用)

修订记录:

Revision record:

版本号 Version No.	修订人 Reviser	修订日期 Date	修订描述 Description
V0.1	巫木军 Mujun Wu	2021-10-13	初始版本 Initial version
V0.2	巫木军 Mujun Wu	2022-02-10	更新模块尺寸和安装图 The module size and installation drawing are revised
V0.3	邓娟 Julia Deng	2022-9-26	新增FCC 警示语

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一、产品概述 Product description

WE-BTWF 是基于家庭储能电池的应用需求，自主设计开发的一款无线 WIFI 和蓝牙模块产品；具备串口通信、无线蓝牙通信、无线 WIFI 通信、支持云平台接入和手机 APP 连接访问等功能；产品广泛适用于家庭储能、工商业储能、工业动力等 IOT 应用。

We-BTWF is a wireless WIFI and Bluetooth module product independently designed and developed based on the application requirements of home energy storage batteries. It's with functions of serial communication, wireless Bluetooth communication, wireless WIFI communication, cloud platform access and mobile APP connection & access. The products are widely used in household energy storage, industrial & commercial energy storage, industrial power and other IOT applications.

二、产品特性 Product features

- 电池信息监测 Battery information monitoring
- 低功耗蓝牙通信 Low-power Bluetooth communication
- 2.4GHz 无线 WIFI 通信 Wireless WIFI communication 2.4GHz
- 1 路 RS232 通讯 1 channel RS232 communication
- 支持云平台接入 Cloud platform access
- 手机 APP 连接访问 Mobile APP visit access
- 超低功耗休眠 Ultra low-power dormancy

三、产品应用 Product application

- 家庭储能系统 Home energy storage system
- AGV 电池应用 AGV battery
- 机器人电池应用 Robot battery
- 智能电网应用 Smart grid
- 工业电池模块 Industrial battery module
- 备用电源系统 Back up battery system

四、技术参数 Technical data

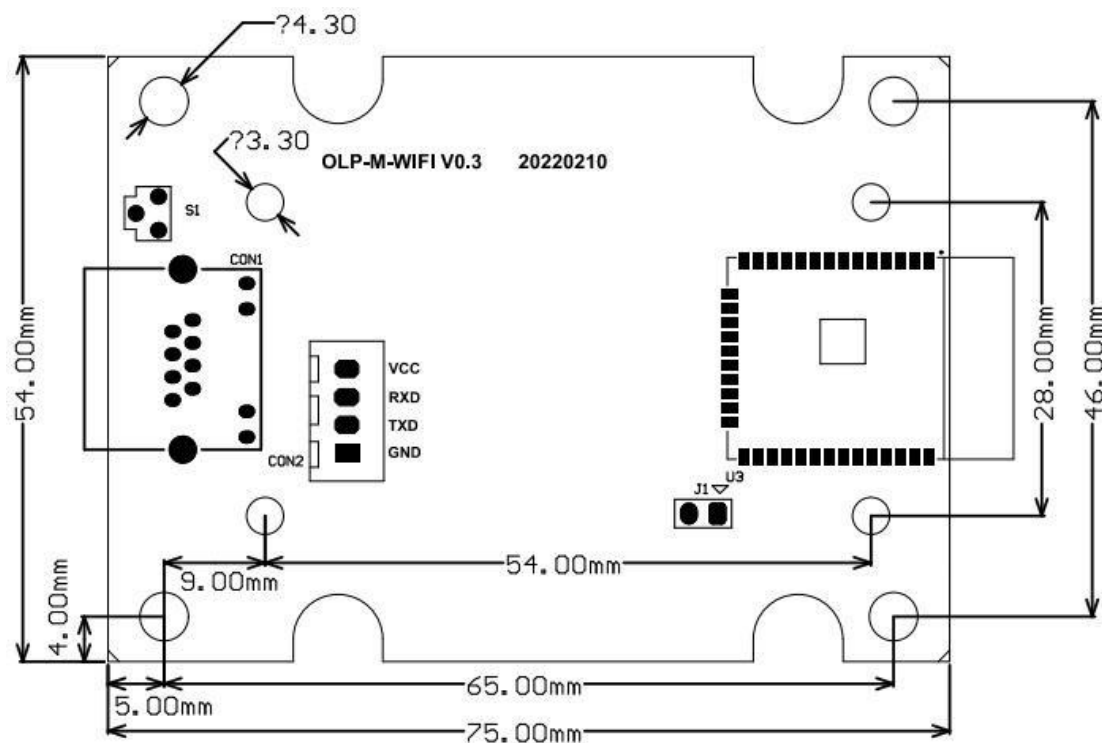
产品型号 Model	WE-BTWF 模块 WE-BTWF Module	WE-BTWF 盒子 WE-BTWF box
外形尺寸（长 x 宽 x 高） Size (LxWxH)	75 x 54 x 17mm	92 x 68 x 28mm
电源规格 Power specification		
额定电压 Rated voltage	12V	
工作电压范围 Working voltage range	5V~15V	
工作电流 Working current	5V 时，平均<100mA When it's 5V, <100mA in average 12V 时，平均<50mA When it's 12V, <50mA in average	
供电电流 Power supply current	5V 时，最小为300mA When it's 5V, min.300mA 12V 时，最小为120mA When it's 12V, min.120mA	
指示灯 Indicator	绿灯：电源指示灯 Green light: power light 黄灯/红灯：通信指示灯 Yellow/red light: communication light	
蓝牙通信 Bluetooth communication		
蓝牙协议 Bluetooth protocol	符合蓝牙 v4.2 BR/EDR 和 BLE 标准 Bluetooth v4.2 BR/EDR and BLE standard	
蓝牙射频 Bluetooth Radio	Class-1、Class-2 、Class-3 发射器 emitter NZIF 接收器 Receiver AFH 跳频 Frequency hopping	
频率范围 Frequency range	2402MHz~2480 MHz	
发射功率 Radiated power	0 dBm(最大 Max.)	
工作模式 Working mode	支持低功耗蓝牙模式工作 Support low power Bluetooth mode	
WIFI 通信 Communication		
WIFI 协议 Protocol	802.11 b/g/n	
传输速度 Transmission speed	802.11 n(2.4GHz) up to 150 Mbps	
WIFI 频率 Frequency	2.4 GHz	
频率范围 Frequency range	2412MHz~2462 MHz	
发射功率 Radiated power	+17dBm (最大 Max.)	
RS232 通信 Communication		
通道数 Channel qty	1 通道 1 channel	

支持波特率 Supported baud rate	9600, 115200bps	
通信协议 Communication protocol	MODBUS	
隔离类型 Isolation type	Non-Isolated	
通信接口 Communication interface	A2502-WV04, stitch length 2.54mm	RJ45
使用环境参数 Environment Parameters		
工作温度 Working temp.	-20℃~+70℃	
存储温度 Storage temp.	-20℃~+80℃	
环境湿度 Environment humidity	10%~85%RH	

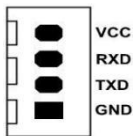
RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

五、安装尺寸 Installation size



六、接口定义 Interface definition

连接器 Connector	引脚 Pin	线标定义 Definition	功能说明 Function description	压接端子 Crimping terminal	使用线径 Wire diameter
CON2 A2502- WV04 	4	VCC	电源输入正 Positive power input	A2502-TP	22AWG
	3	RXD	RS232 Data receiving terminal		
	2	TXD	RS232 数据发送端 Data sending terminal		
	1	GND	电源输入负 Negative power input		
CON1 RJ45 接口 	1	TXD	RS232 Data receiving terminal	RJ45	直连网线 (带屏蔽) Directly connected network cable (With shielding)
	2	RXD	RS232 数据接收端 Data sending terminal		
	3	GND	电源输入负 Negative power input		
	4	VCC	电源输入正 Positive power input		
	5	NC	保留 Reserved		
	6	NC	保留 Reserved		
	7	NC	保留 Reserved		
	8	NC	保留 Reserved		

七、制造商信息 Manufacturer information

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八、FCC 警示语 FCC warnings

请注意，未经合规方明确批准的更改或修改可能会使用户操作设备的权限失效。

该设备符合FCC规则第15部分。操作需满足以下两个条件：

- (1) 本装置不会造成有害干扰
- (2) 设备必须接受接收到的任何干扰，包括可能导致不希望的操作的干扰。

本设备符合FCC为不受控环境规定的辐射暴露限值。本设备安装和操作时，散热器与身体之间的距离至少为20cm。

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.