

Shenzhen Jiabaida Electronic Technology Co., Ltd.

SHENZHEN JIABAIDA ELECTRONICS TECHNOLOGY.CO.,LTD

Product Specifications

Product specification

Customer Name:

Customer

Jiangsu Shenzhou

Product Name:

Sample Name

8string5ABattery pack balancing module

Product Model:

Model Name

JBD-B08S001-L8S-5A V1.1

Submission Date:

Date

2024-03-01

Version:

Version

A02

Customer signature and stamp:

SIGNATURES

Compiled by: Wu Yifan

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approve:

Zhang Qiaoqiao

Change Log

Version number	Page number/chapter	Reviser	Revision Date	Revisions	Remark
A01	full text	Wu Yifan	2023.09.27	Newly Proposed	
A02	full text	Wu Yifan	2024.03.01	Increase the error between opening and closing.	

1.Product Introduction

JBD-B08S001It is specifically designed for6~8The battery pack is balanced during use; it is compatible with lithium-ion cells of different chemical properties.

Examples include lithium-ion, lithium polymer, and lithium iron phosphate. The maximum equalization current is achieved.5A.

2.Technical parameters

2.1.Basic parameters

Operating voltage	24V-33.6V
Equalizing voltage	3.2V-4.2V
Equalizing turn-on voltage	25.6±1.5V
Balanced shutdown	25.4±1.5V
Equalizing current	0-5A (Battery pack voltage difference 0-1V)
Operating power consumption	≤20mA
Power consumption during shutdown	≤400uA
Undervoltage power consumption	≤30uA(Voltage < 22.5V)
Operating temperature	- 30°C~70°C
Protective plate size	137±0.5mm * 58±0.5mm * 16±2mm((Length * Width * Height)

Note: Testing must be conducted at a temperature...25±2°C, relative humidity65±20%environment

3.Function Description

3.1When the battery pack is working, it supplies power to the equalization board, which prevents large voltage differences between the battery packs from causing abnormal power supply.

Damaged battery pack power supply equipment;

3.2After sending a command, load balancing can be enabled; once load balancing is enabled, stop sending commands, the control pin will briefly turn off and then on again, and then continue indefinitely.

Turn it on, then turn it off after power-on; after the equalizer board goes into sleep mode, it needs a command from the protection board to wake it up, and only after waking up will it read the equalizer enable flag.

Will.

3.3When the battery pack is operating, if the active equalization board detects that the total voltage of the battery pack is higher than...26VActive balancing will be activated at times.

4.Main materials

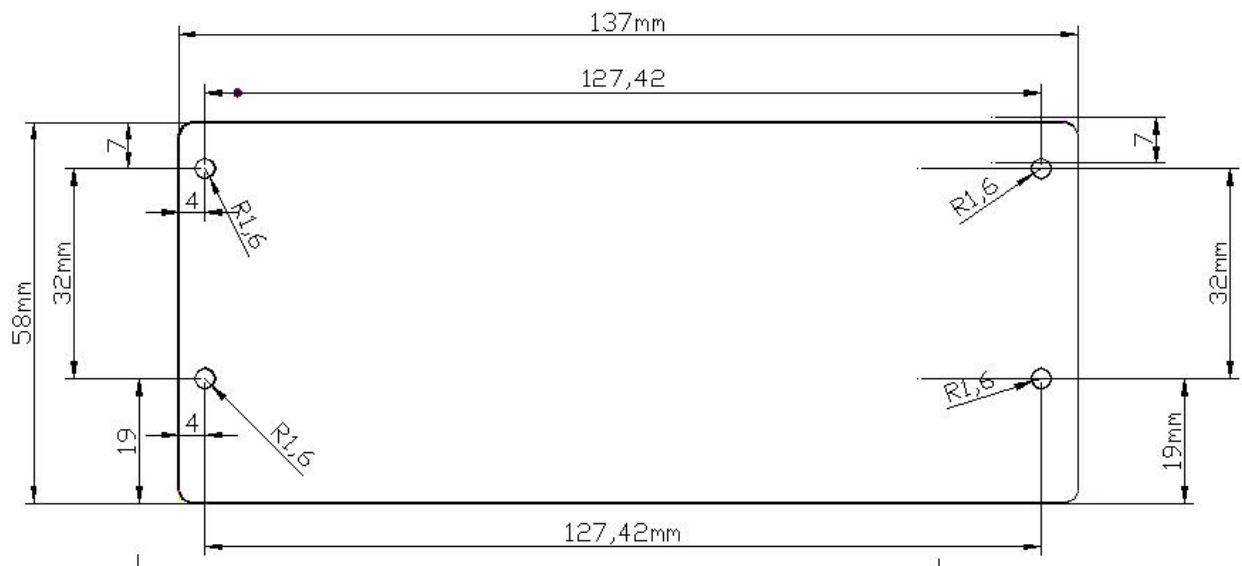
Serial Number	Material Name	Manufacturer	Dosage
1	MOSTube\SMD\SVG041R2NL5\DFN5*6	Silanwei	32PCS
2	IC\EG2104S\SOP8	Yijing Microelectronics	8PCS

Note: The above materials may be substituted with materials of equivalent or better specifications. Material substitution is not permitted if certification requirements necessitate it.

We need to notify our sales team to resubmit the sample and the controlled specification sheet. The final interpretation right belongs to Jiabaida.

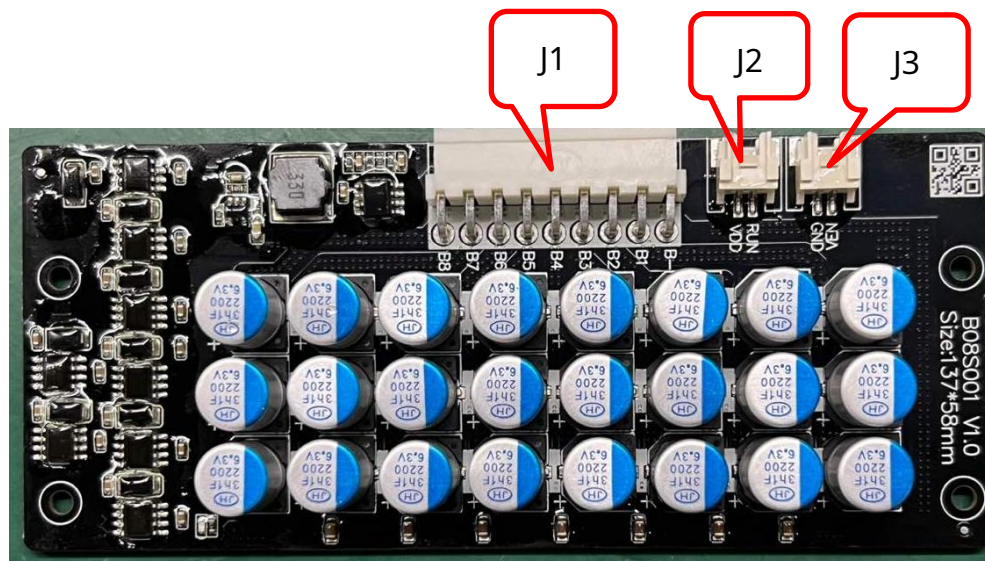
5.Schematic diagram and dimensions

5.1.Mark the dimensions and installation points on the diagram.



6.Signal port definition

6.1.The diagram below shows the interface labels.



Standard Number	Position	Connector function	Connector diagram	Pin definition	PINFunction definition	explain bright
1	J1 (HY3.96-5P) (with buckle)	Battery equalization detection socket(18AWG)		1 B8	Following8Connect to the positive terminal of the battery cell	
				2 B7	Following7Connect to the positive terminal of the battery cell	
				3 B6	Following6Connect to the positive terminal of the battery cell	
				4 B5	Following5Connect to the positive terminal of the battery cell	
				5 B4	Following4Connect to the positive terminal of the battery cell	
				6 B3	Following3Connect to the positive terminal of the battery cell	
				7 B2	Following2Connect to the positive terminal of the battery cell	
				8 B1	Following1Connect to the positive terminal of the battery cell	
				9 B-	Connect the lowest power-saving cell to the negative terminal	
2	J2 (HY2.0-2P) (with buckle)	Equalizer switch		1	VCC	Pre Keep
				2	RUN	
3	J3 (HY2.0-2P)	BMSControl switch		1	GND	Pre Keep
				2	VEN 3.3Vcontrol	

7.Environmental adaptability

7.1.Working conditions:

BMSThe protection board is allowed to operate normally under the following conditions:

Ambient temperature: -30°C ~+75°C;

Relative humidity:5% ~ 90%;

Atmospheric pressure:86 kPa ~ 106 kPa;

7.2.Storage environment

BMSThe protection board should be stored at an ambient temperature of -5°C~+40°CRelative humidity not greater than70%Clean and well-ventilated warehouse

The interior air must not contain corrosive gases or media that affect electrical insulation, and it must not be subjected to any mechanical impact or heavy pressure. It must not be exposed to direct sunlight.

The distance between the radiation source and the heat source (heating equipment, etc.) shall not be less than [amount missing].2mUnder the above storage conditions,BMSThe protective plate can be stored for one year.

8.Packaging and Transportation

8.1.Logo:

BMSThe protective plate should have the following clear durability markings:

1) Product name and model

2) Cell model

3) Manufacturing date and serial number

8.2.Package

1) Packaging should meet the requirements for moisture-proof and vibration-proof. The packaging box should be sturdy and reliable, and the inside of the box should be lined with moisture-proof material. The product should not be exposed to direct sunlight.

It should move around.

2) External cardboard box packaging, veneer anti-static bag plus bubble wrap packaging;

8.3.transportation

1) During transportation, the product must not be subjected to severe mechanical impact, exposure to direct sunlight, rain, corrosive chemicals, or harmful gases; 5.3.2 In

During loading and unloading, products should be handled with care and should not be dropped or subjected to heavy pressure.

2) The stacking height of the packaging boxes is less than 5 layers.

9. Precautions

1) This management system cannot be used in series.

2) When multiple battery packs using this management system are connected in parallel, ensure that the maximum voltage difference between each battery pack is less than 3V before connecting them in parallel.

3) When multiple battery packs using this management system are connected in parallel, the total charging surge current of the adapter may be applied to a single battery pack.

Ensure that the total charging inrush current of the adapter does not exceed the maximum charging inrush current of a single management system.

4) The short-circuit protection function of this management system is applicable to various application scenarios, but it cannot guarantee that a short circuit will occur under all conditions. When the power...

The total internal resistance of the battery pack and short-circuit circuit is less than $40\text{m}\Omega$, the battery pack capacity exceeds the rated value by 20%, and the short-circuit current exceeds 1800A.

If the inductance of the short-circuit loop is very large or the total length of the short-circuit wire is very long, please test and determine whether this tube can be used.

The system.

5) When soldering battery leads, it is crucial to avoid incorrect or reverse connections. If incorrect connections are found, the circuit board may be damaged and requires rework.

It can only be used after passing the new test.

6) During assembly, the management system should not come into direct contact with the surface of the battery cells to avoid damaging the circuit board. Assembly must be firm and reliable.

7) During use, be careful not to let the lead wires, soldering iron, solder, etc. come into contact with the components on the circuit board, otherwise the circuit board may be damaged.

8) During use, pay attention to preventing static electricity, moisture, and water.

9) During use, please follow the design parameters and usage conditions, and do not exceed the values in this specification, otherwise the management system may be damaged.

10) After assembling the battery pack and management system, if you find no voltage output or the battery cannot be charged upon initial power-on, please check if the wiring is correct.

Indeed.