



Dongguan Xuanjing Electronics Co., Ltd.

Sample Approval Letter

SPECIFICATION FOR APPROVAL

Customer name : _____

Customer model: _____

Main material configuration: CW1244AFAS+DP038NE8B*18 Xuanjing _____

material number: XJ-D301FT4S100A-01 Date: 2023-12-20 _____

Xuanjing internal confirmation			
Engineering confirmation, quality confirmation, market confirmation			Approval
client confirmation			
Engineering Confirmation Quality Confirmation Procurement Confirmation			Approval
Confirmation result: qualified () unqualified () other ()			

Xuanjing Company Name: Dongguan Xuanjing Electronics Co., Ltd.

Address: 3rd Floor, Building B, No. 10, Dajing 1st Road, Shitanbu, Tangxia, Dongguan City

Phone: 15012973360

Fax: 0769-81000859

Contact person: Zeng Xianglu



1 Overview

This acknowledgment describes the application scope, process standards, and electrical performance parameters of the lithium battery protection circuit produced by Dongguan Xuanjing Electronics Co., Ltd., mainly Materials, dimensional specifications, testing standards and other related items. All project standards described in this acknowledgment can be used as quality inspection standards and basis.

2. Product application scope

- 2.1 Liquid lithium-ion rechargeable battery;
- 2.2 Polymer lithium-ion rechargeable battery.

3. Product appearance and process indicators

serial number	project		Inspection methods and means	Inspection standards
3.1	Appearance		Visually	The appearance of the protective board should meet the following requirements: reasonable wiring, neatly arranged components, and oxygen-free pads and soldering points. The surface of the components and PCB board is clean and free of stains, which does not affect its commercial value.
3.2	product Craftsmanship	Visual inspection of the welding process, with the help of a magnifying glass,		the welding points are smooth, the welding is firm and reliable, and there are no welding defects such as false welding, false welding, and burrs.
		Board material		γAluminum substrate γ Glass fiber single side γ Ordinary single side γ Others
		PCB coater art		γThick gold γCobalt gold γSprayed tin γOrdinary gold γSprayed lead-free tin γOthers
		Finished board welding Craftsmanship		γ Ordinary tin γ Environmentally friendly lead-free tin γ Environmentally friendly halogen-free tin γ Others

4. Main parameters of electrical performance

serial number	project	smallest	typical	maximum	unit
1	Battery pack charging voltage		14.6	14.6	IN
2	Charging MOS voltage resistance value	85			IN
3	Discharge MOS withstand voltage value	85			IN
4	Single cell overcharge detection voltage	3.60	3.65	3.70	IN
5	Overcharge recovery voltage	3.50	3.55	3.60	IN
6	Overcharge detection delay	500	1000	1500	mS
7	Single cell over-discharge detection voltage	2.20	2.30	2.40	IN
8	Over-discharge recovery voltage	2.60	2.70	2.80	IN
9	Over discharge detection delay	500	1000	1500	mS
10	Battery pack continuous discharge current			100	A
11	Battery pack continuous charging current			100	A
12	Discharge overcurrent protection	220	300	350	A
13	Overcurrent protection delay	5	10	15	mS
14	Short circuit protection current	800	1000	1200	A



Dongguan Xuanjing Electronics Co., Ltd.

15	Short circuit protection delay	100	500	1000	uS
16	self consumption		30	50	uA
17	Balanced current	60	70	80	mA
18	Balanced voltage	3.475	3.525	3.575	IN
19	Charging temperature protection	65±4℃.			
20	Discharge temperature protection	75±4℃.			
21	Output short circuit/over discharge/over current protection recovery	Automatic recovery after removing the load after short circuit/over-discharge/over-current protection			
22	Short circuit protection delay	100	300	600	uS
23	Normal working state B- to P-internal resistance			10	mΩ
24	Continuous 100A output current maximum temperature rise			40	℃

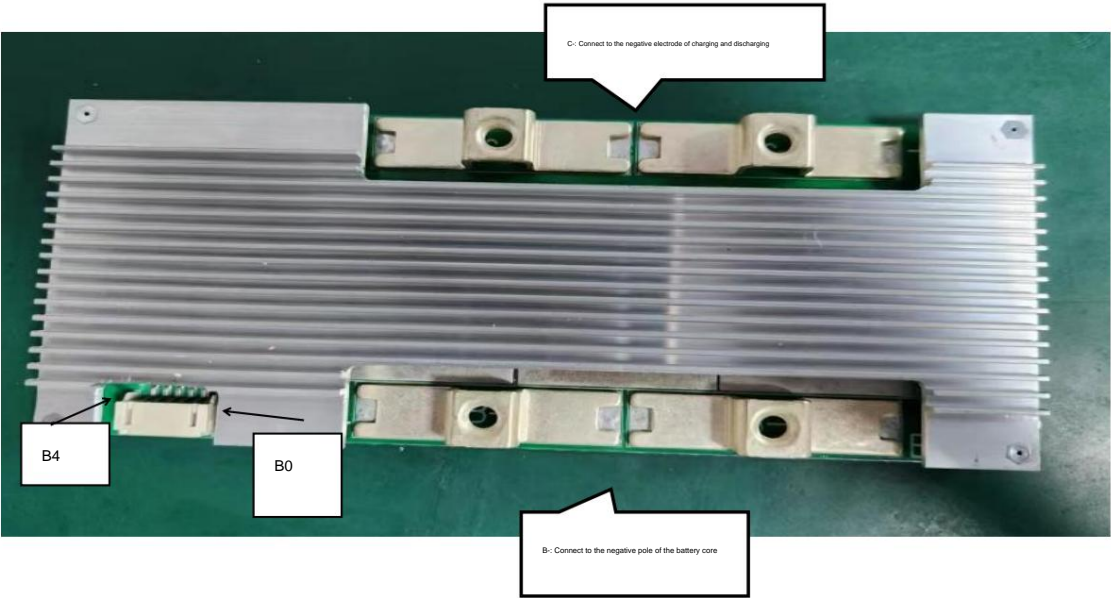
Note: The above test environments are all values measured at 25°C. They may be different at very high temperatures. The operating temperature range of this circuit is -40~85°C. For specific test conditions and test circuits, please refer to the test results.

Protect IC specifications.

5. Wiring instructions:

collection line	B1	Section 1 Battery Negative Terminal
	B2	Section 1 battery positive pole
	B3	Section 2 battery positive pole

	B5	Section 4 battery positive pole
Ÿ-	Connect the negative pole of the battery and select the thickness of the power cord according to the current.	
C-	The protection board charges and discharges the negative electrode, and the thickness of the power cord is selected according to the current.	
connection method	1. The collection lines should be welded on the battery core accordingly, and the order of the collection lines cannot be wrong. 2. Solder B- to the B- pad on the PCBA.	

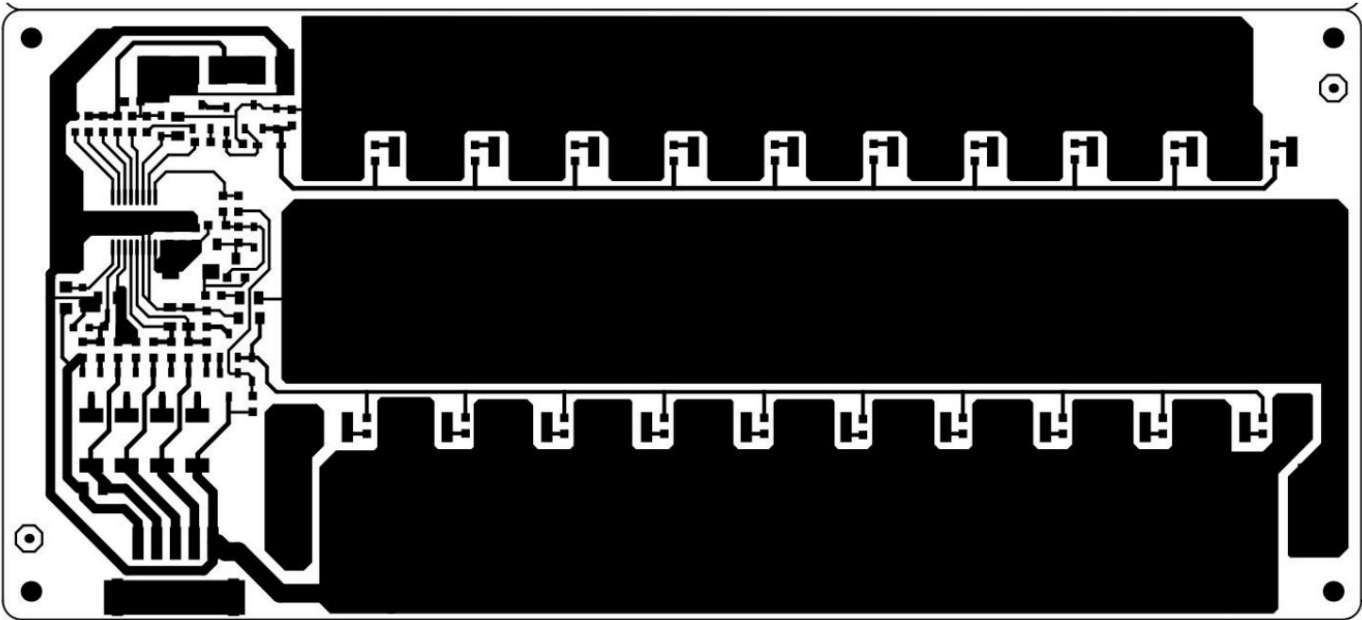


7.Main material list

Serial number	material name	Material code	Material specifications	Dosage	Manufacturer
1	Protection IC	U1	CW1244AFAS	1	
2	MOSFET T4-T10,T24-T30		DP038NE8B	18	

8. PCB layout

top-level roadmap





9. Actual size drawing (length 145±0.15mm, width 65±0.15mm, thickness 12±1mm)

10. Environmental substance requirements:

All materials in this specification comply with the requirements of the RoHS directive, and the content of restricted substances meets the following standards:

限用物质清单			
List of Prohibited Substances			
有害物质名称 Hazardous substances	限定值PPm (mg/Kg) Limit ppm(mg/kg)	保证符合选项 Guarantee of conformity	备注Remark
Cd	≤100ppm	OK	欧盟RoHS 2.0
Pb	≤1000ppm	OK	欧盟RoHS 2.0
Hg	≤1000ppm	OK	欧盟RoHS 2.0
Cr6+	≤1000ppm	OK	欧盟RoHS 2.0
PBB	≤1000ppm	OK	欧盟RoHS 2.0
PBDE	≤1000ppm	OK	欧盟RoHS 2.0
DIBP	≤1000ppm	OK	欧盟RoHS 2.0
DEHP	≤1000ppm	OK	欧盟RoHS 2.0
BBP	≤1000ppm	OK	欧盟RoHS 2.0
DBP	≤1000ppm	OK	欧盟RoHS 2.0

11. The use of flux and rosin is strictly prohibited in the PACK production process!

If used, it will cause intermittent short circuit between the IC or MOS pins of the protection board, causing the battery to be unable to charge and discharge normally and cause self-consumption.
The phenomenon of over-voltage.

12Packaging , storage and transportation guidelines

Packaging: Wrap the finished panel with anti-static film according to the actual quantity, affix the material label, and clearly indicate the model, quantity, and configuration.

Transportation: express or send someone to deliver the goods.

Storage: The general storage temperature is -15°C-45°C, the relative humidity is not greater than 60%, and it is dust-free/non-acidic/non-alkaline/free of other corrosive gases. Storage time is one year.

It must be fully inspected for more than one year before it can be circulated again.

Note: During transportation and use, care should be taken to prevent moisture and moisture, and avoid extrusion, collision, etc. to avoid deformation of the protective plate.

Product change history

version date		Content before change	Content after change	Reason for change
A0 first issued on 2023-05-06				