



Jauch Battery Solutions

- Reliable energy for your application
- Standard cells and customized packs
- ESD protection
- Battery Certification Experts



RoHS compliant



Pb free



REACH compliant



Conflict Mineral free

SPECIFICATION

Cell Used: LP802036JU
 Assembly: 1s1p
 Jauch No.: 248862

	PREPARED BY	CUSTOMER APPROVAL	VERSION
SIGNATURE	VSI		1.5
DATE	25.01.2021		

RECORDS		
Rev. No.	Date	Description
1.1	06.04.2020	Add charge temperature limits, BOM, PCM schematic, layout and BOM, Packing
1.2	07.04.2020	NTC not connected, add label with IEC code
1.3	29.04.2020	Add polarity on the label
1.4	01.07.2020	Change IEC and UN to "YES"
1.5	25.01.2021	Increase max. discharge current



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SPECIFICATIONS

UL1642/UL2054	▪ YES/NO
UN 38.3	▪ YES
IEC62133-2017	▪ YES
Nominal Voltage	▪ 3.7 V
Typ. Capacity	▪ 500 mAh (0.2C / 3.0V discharge)
Min. Capacity	▪ 480 mAh (0.2C / 3.0V discharge)
Weight	▪ Approx. 10 g

CHARGING CHARACTERISTICS PER BATTERY PACK

Charge Voltage	▪ 4.2 V
Standard Current	▪ 0.2 C
Max. Charging Current	▪ 1.0 C
Operating Temperature	▪ 10°C to +45°C ▪ 45°C to +50°C (max. 0.5C)

PCM PARAMETER PER BATTERY PACK

Overcharge Det. Voltage	▪ 4.275 V ± 0.05 V
Overcharge Rel. Voltage	▪ 4.075 V ± 0.05 V
Overdischarge Det. Voltage	▪ 3.00 V ± 0.10 V
Overdischarge Rel. Voltage	▪ 3.20 V ± 0.10 V
Overcurrent Range	▪ 0.8 A – 3.2 A
2 nd Overcharge Det. Voltage	▪ 4.425 ± 0.05 V
2 nd Overcharge Rel. Voltage	▪ 4.225 ± 0.05 V
2 nd Overdischarge Det. Volt.	▪ 2.50 ± 0.10 V
2 nd Overdischarge Det. Vol	▪ 2.90 ± 0.10 V
2 nd Overcurrent Range	▪ 2.5 A – 8.0 A

DISCHARGING CHARACTERISTICS PER BATTERY PACK

Cut-off Voltage	▪ 3.0 V
Standard Current	▪ 0.2 C
Max. Discharging Current	▪ 1060mA
Operating Temperature	▪ -20°C to +60°C
Storage Temperature	▪ -20°C to +20°C (max. 3 months)
Delivery State of Charge	▪ Max. 30% by air ▪ Max. 50%-60% by sea
Life Expectancy 0.2C/0.2C @25°C	▪ 300 cycles ~ 80% of capacity



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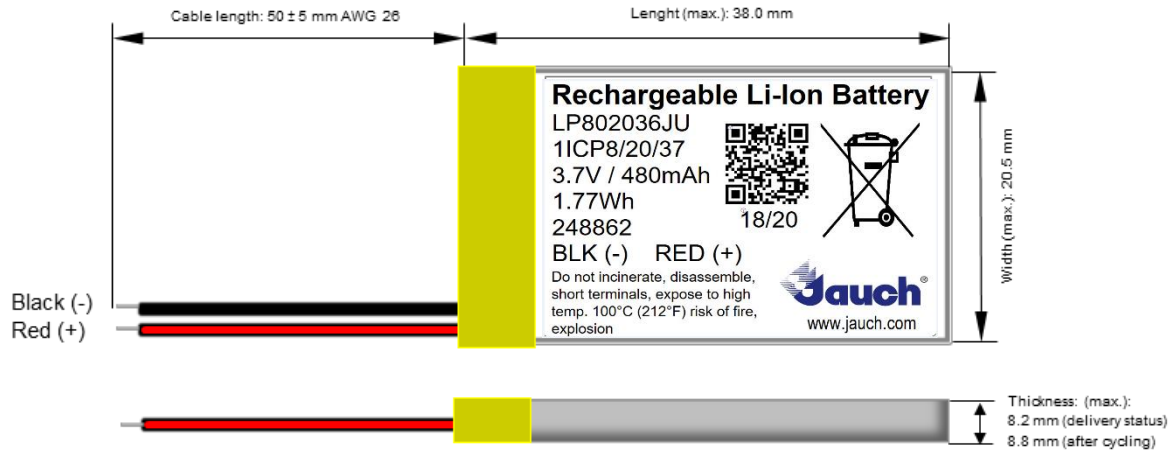


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DRAWING



BOM

Item	Description	Specification
Cell	LP802036JU	Lithium Ion (Pouch) Cell Typ. Capacity 500mAh
PCB	Protection Circuit Board	Protection circuit with two IC's
Wires	Black and red wires	UL3302 AWG26



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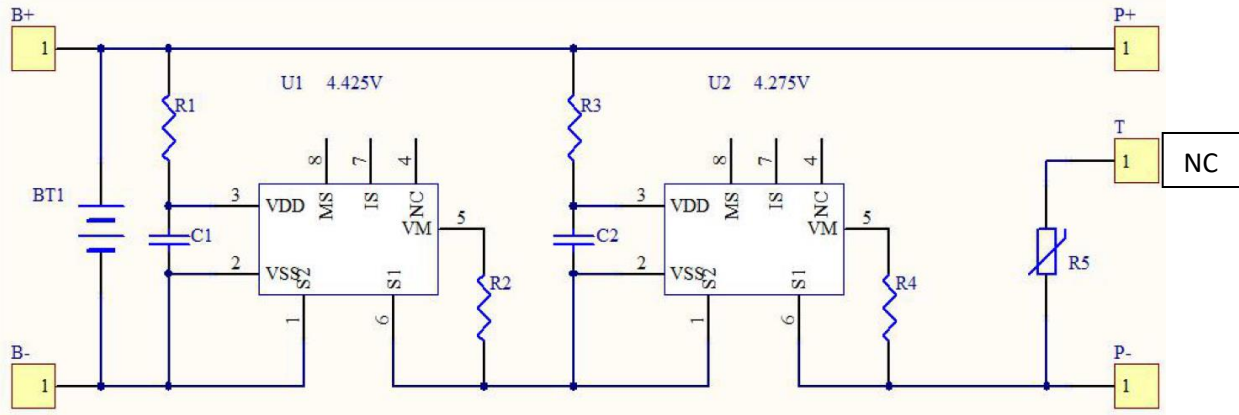
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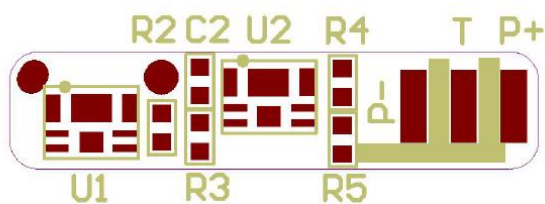
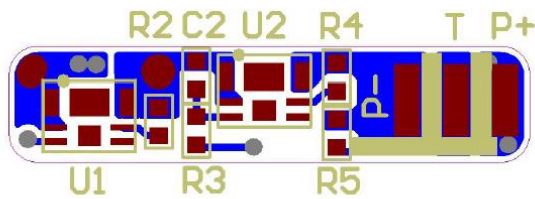
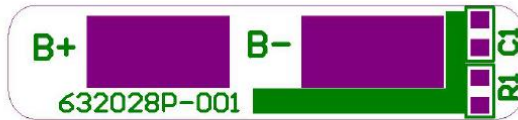
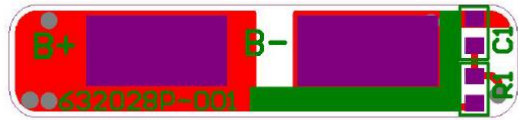
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PCM SCHEMATIC



PCM LAYOUT





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PCM BOM

NO.	Location	Item	Part Name	Package	Qty
1	U2	IC	BM192-LHAA-CE	DFNWB2.2*2.9-6L	1
2	U1	IC	BM192-VCEB-CE	DFNWB2.2*2.9-6L	1
3	R1, R3	Resistor	470Ω±5%	0402	2
4	R2,R4	Resistor	2.2kΩ±5%	0402	2
5	R5	NTC (not connected)	10kΩ±1% B=3435K	0402	1
6	C1,C2	Capacitor	0.1 μF±10% 16V X7R	0402	2
7		PWB	UTLJ-632028P-2F-001 FR-4		1

LABEL

Rechargeable Li-Ion Battery

LP802036JU

1ICP8/20/37

3.7V / 480mAh

1.77Wh

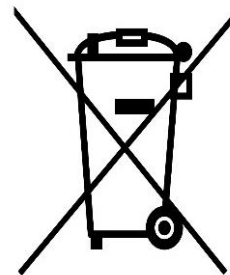
248862

BLK (-) RED (+)

Do not incinerate, disassemble, short terminals, expose to high temp. 100°C (212°F) risk of fire, explosion



18/20



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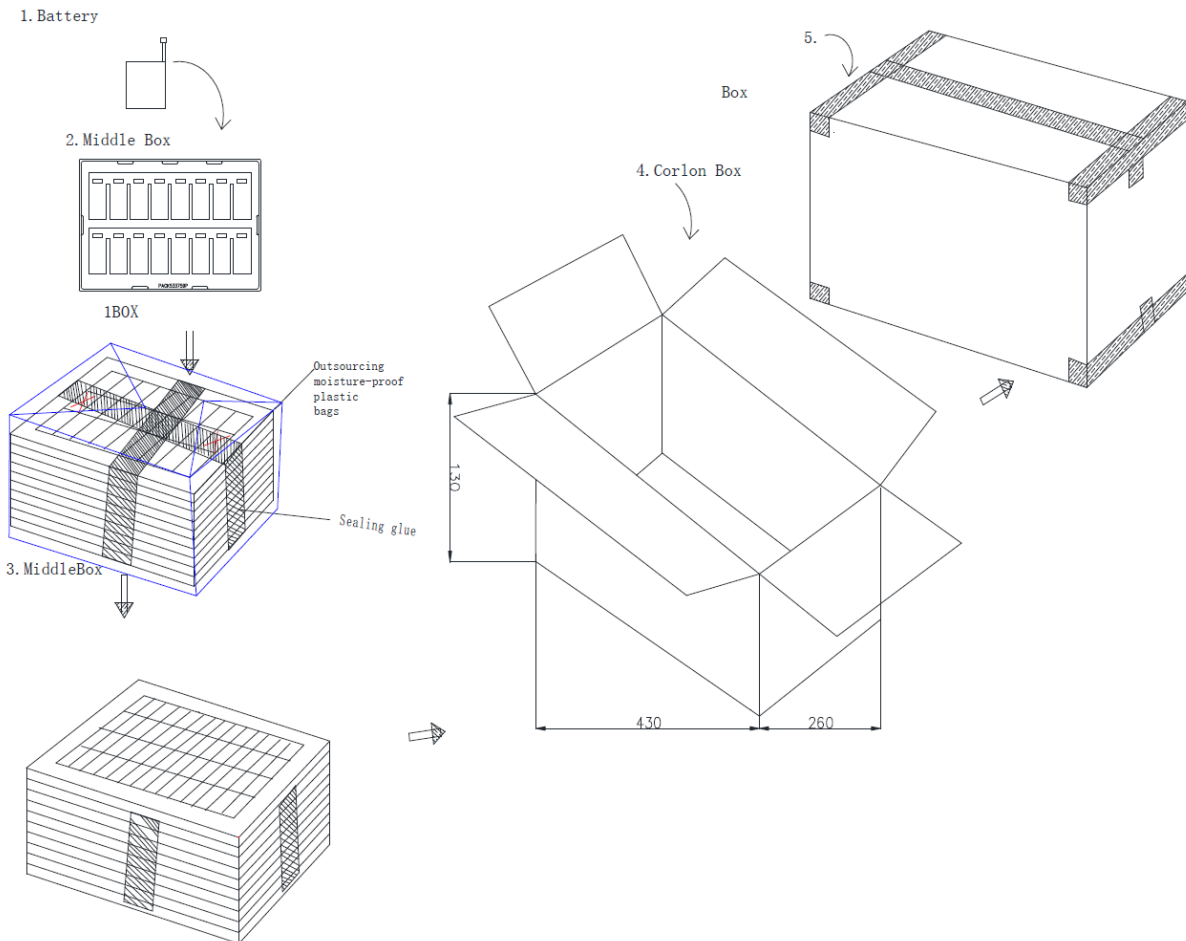


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PACKING





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HANDLING AND STORAGE

When used correctly, Lithium-ion Polymer Battery Pack (Rechargeable Single cell Battery) provides a safe and dependable source of power. However, if they are misused or abused, leakage, venting, or in extreme cases explosion and/or fire may result. Make sure to observe amongst others, following warnings.

Handling

- Do not insert batteries in reverse. Observe the polarity markings on battery and equipment
- Do not short-circuit batteries
- Do not overcharge batteries
- Do not force discharge batteries
- Do not mix batteries
- Do not overheat batteries by exposure to high temperatures and direct sunlight.
- Do not weld or solder directly to batteries
- Do not dismantle batteries
- Do not deform batteries
- Do not dispose of batteries in fire
- A battery with a damaged pouch should not be exposed to water
- Do not allow children to replace batteries without adult supervision
- Keep batteries out of the reach of children. In case of ingestion of a cell or battery, the person involved should seek medical assistance promptly
- Equipment intended for use by children should have battery compartments which are tamper-proof
- Do not encapsulate and/or modify batteries
- Exhausted batteries should be immediately removed from equipment and disposed of (see section XIII)
- When discarding batteries with solder tags, insulate the tags by wrapping them with tape, foil, etc.

Storage

- Store unused batteries in their original packaging and keep them away from metal objects which may short circuit them.
- Storing unpackaged cells together could result in cell shorting and heat build-up
- Store and display batteries in their original packaging in well ventilated, dry and cool conditions
- Avoid storing or display batteries in direct sun or in places where they get exposed to rain
- The normal storage of Lithium-ion Polymer Battery Pack is made at temperature between +10°C and +25°C, never exceeding +30°C In this way the maximum shelf-life (i.e. max. retention of cell performances after storage periods) of Lithium-ion Polymer Battery Pack is achieved
- Storage temperatures above room temperature will increase the rate of self-discharge, reducing the available capacity of the cell. Humidity above 95% R.H. and below 40% R.H. should also be avoided for sustained periods, as these extremes are detrimental to batteries
- Storing the cells at low temperature is also suggested, but attention must be paid when transferring the cells to warmer environments, because of the possibility of having water condensing on to the cells (risk of short circuits)
- Do not stack battery cartons on top of each other exceeding a specified height. The height is clearly dependent on the strength of the packaging. As for general rule this height should not exceed 1.5 m for cardboard packages or 3 m for wooden cases. The above recommendations are equally valid for storage conditions during prolonged transit. Thus, batteries should be stored away from ship engines and not left for long periods in unventilated metal box cars (containers) during summer.