

APPROVAL SHEET FOR 30085 BATTERY

Date: 2015-10-28

To:

From:

Model No.: 30085


Specification: 3.7V /240mAh

Total No. of Pages: Total 14 pages including this cover sheet

Approved by

	Section	written	checked	Issues
	Name			
	Approve			

Presented by

	Section	written	checked	Issues
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	Approve	2015-10-25	2015-10-28	2015-10-28

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Attachment#1

1. Battery Assembly

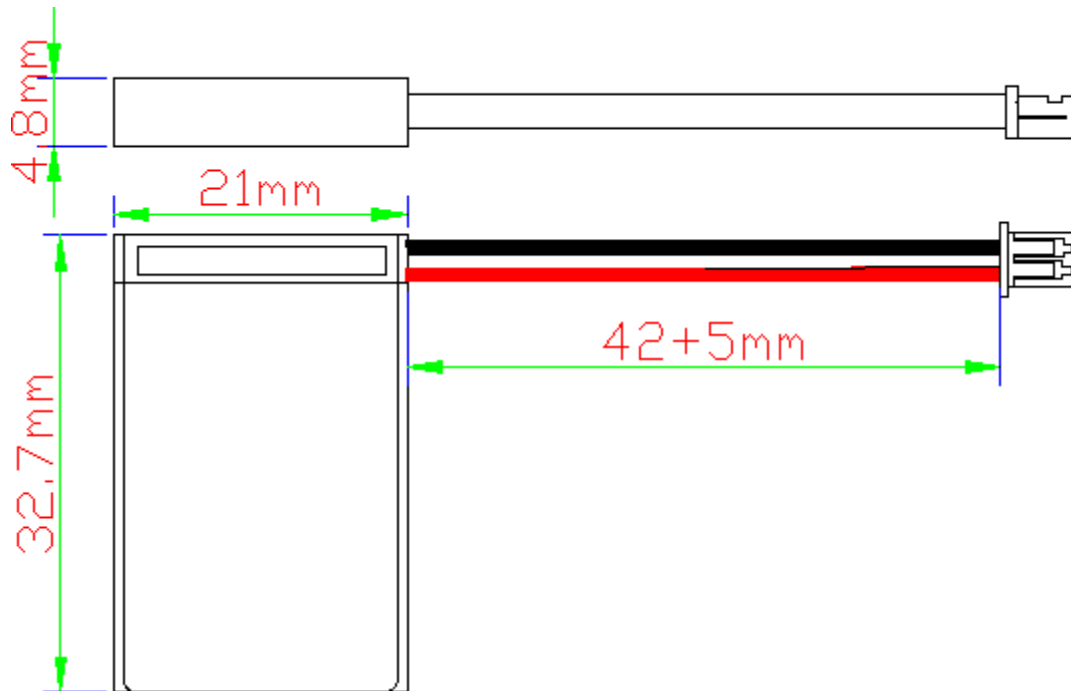
1-1.	Model No.	:	30085/CS50
1-2.	Battery Type	:	Polymer
1-3.	Battery Cells	:	482030PL*1
1-4.	Nominal Voltage	:	3.7V
1-5.	Maximum Charge Voltage	:	4.2V
1-6.	Discharge Cut of Voltage	:	2.8V
1-7.	Typical Capacity	:	240mAh at 0.2Ca
1-8.	Internal Resistance		Less than 330mΩ
1-9.	Temperature Range	:	Charge:0-45°C Discharge:-20~60°C Storage:-20-45°C -10~25°C More than 3 months
1-10.	Safety Features Battery	:	Each Polymer cell is provided with several internal safety features to prevent over-charge, over-current and to resist physical abuse. Each has a temperature sensitive shut down separator, pressure sensitive tear away for current interruption, a safety vent, and the industries only temperature actuated current interrupter.
1-11	Protection Circuit Board	:	Over charge limit per cell:(4.3V+/-0.05V)/Cell Over charge release: remove charger and discharging Over discharge limit per cell:(2.40V+/-0.1V)Cell Over discharge release Voltage Charging Over Charge Current Protection 2A~6A Over Discharge Current Protection: 2A~6A Over charge delay time:1s+/-0.5s Over discharge delay time:20ms+/-10ms Over discharge current delay time:6ms+/-4ms Short circuit delay time:<17ms Maximum current consumption:0.015mA
1-12.	Warranty	:	Twelve(12) months limited warranty from date of purchase.
1-13	Weight		5.3±1g
1-14	humidity range		Operating humidity range: Less than 75% RH Storage humidity range: Less than 75% RH
1-15	Polyswitch		/

**'Data valid only when the battery pack is on fully charged condition.*

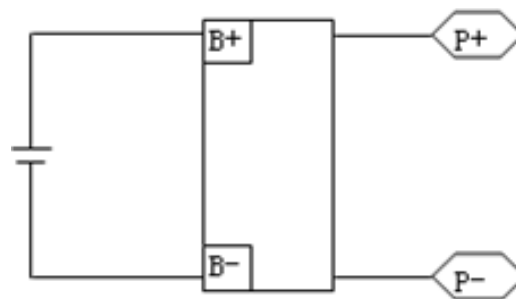
**'Battery pack should be firstly charged and discharged for 3 complete cycles as a warm-up.
(Detail refers to Lithium-Ion Battery Product Specification.)*

2. Mechanical

2-1. Mechanical Drawing(mm)

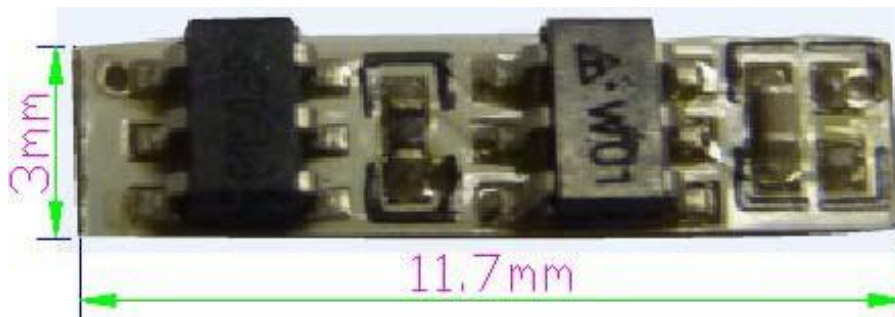


Circuit Diagram

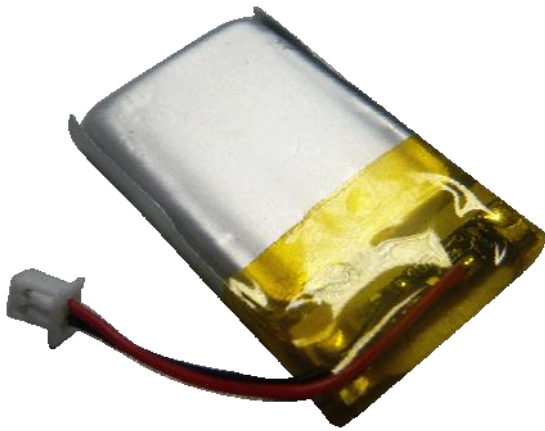


2. Mechanical

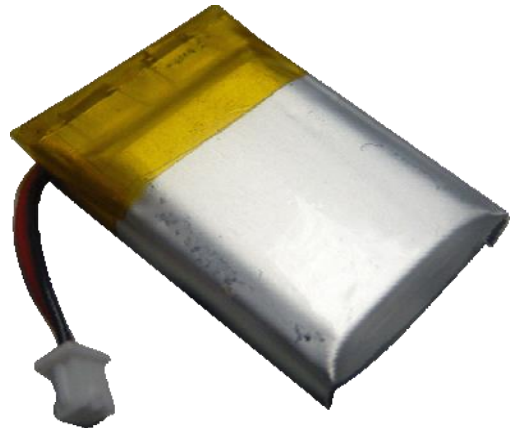
22 : PCBA SPECIFICATION



2-3 :.Photo of the product

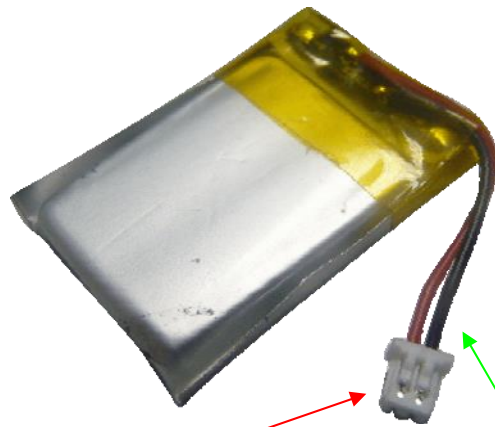


<Top side view>



<Bottom side view>

2-4. Pin Assignment



Red Wire =
Positive supply

Black Wire = Negative
supply

ATTACHMENT#1

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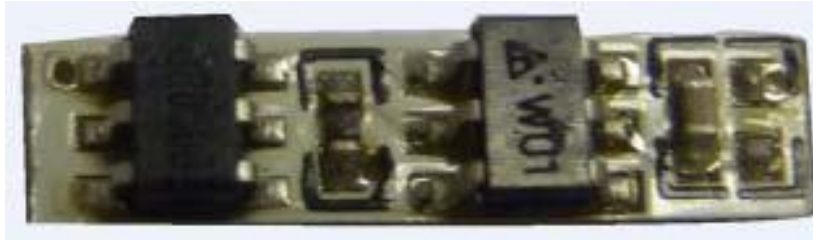
A-1-5. PCM BOM

A-1-1.General Description

1. The protection module adopts the DW01 to monitor LI-POL cell for over-voltage, under-voltage, over-charge current and over-discharge current.
2. External N-FET 8205 will be driven to cut off the loop of charge and discharge if any abnormal condition occurs.

A-1-2 PCM and Board Connection

TOP



BOTTOM

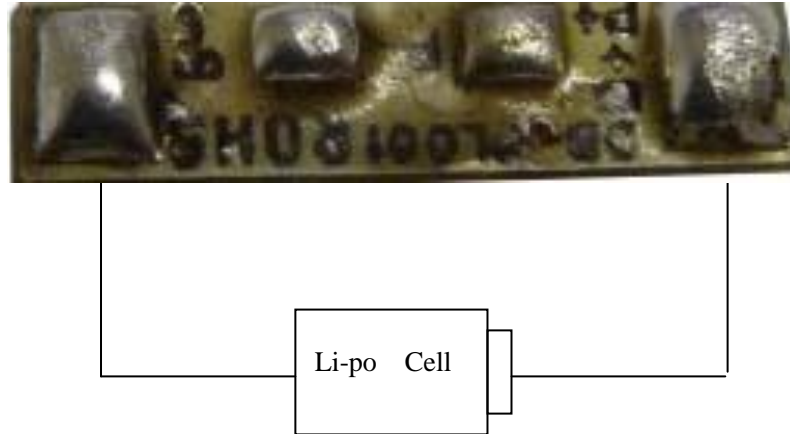


Board Connection

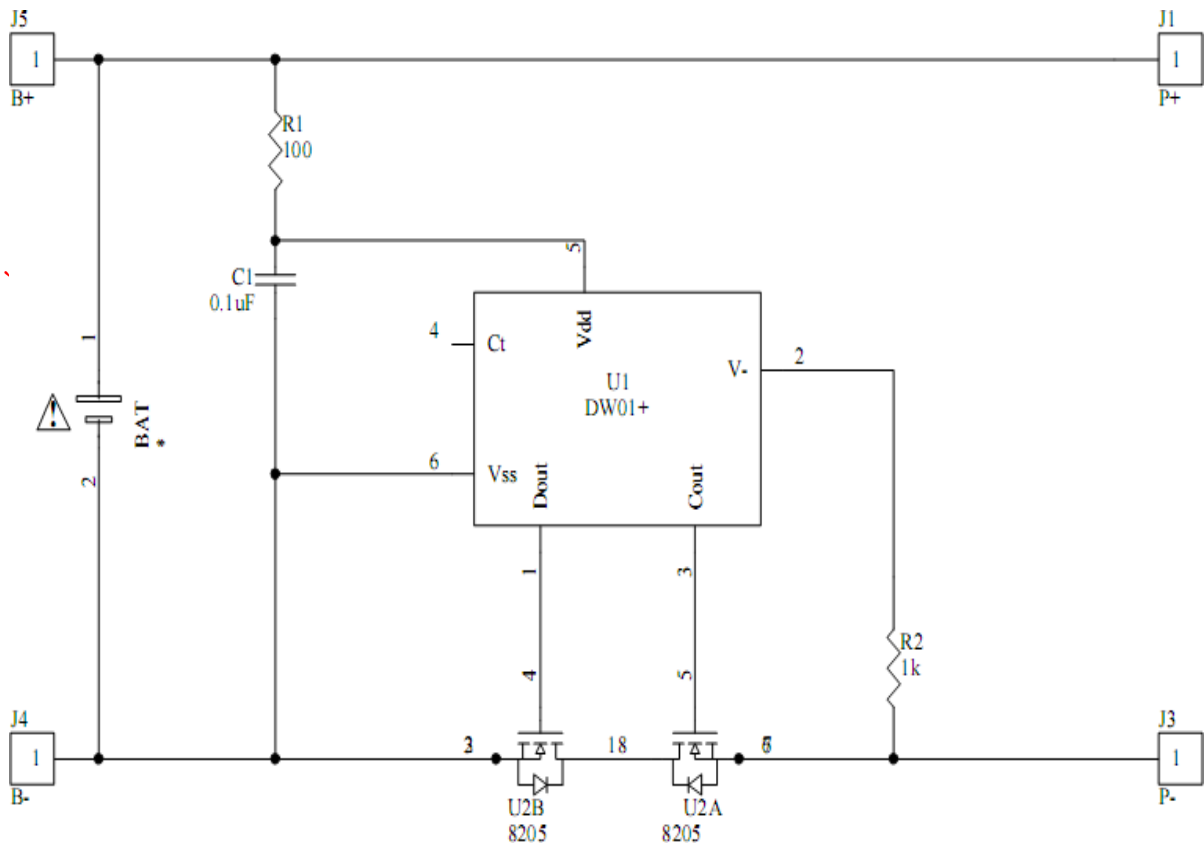
Pin	Description
B+	Connect to Positive terminal of cell1
B-	Connect to negative terminal of cell1
P+	Connect to Camcorder +/Charger +
P-	Connect to Camcorder -/ Charger -

A-1-3.Application Note

Assembly diagram



A-1-4.Schematic



A-1-5.BOM

No	Name	Function	Unit	QTY	Symbol
1	Capacitor	0.1uF 10% 0402	pcs	1	C1
2	Resistor	100Ω 5% 0402	pcs	1	R1
3	Resistor	1K 5% 0402	pcs	1	R2
4	FET	8205 TSSOP-6	pcs	1	U2
5	IC	DW01 SOT-23-6	pcs	1	U1
6	PCM	DB-PL001	pcs	1	

Standard Environmental Test Condition

Temperature: $25 \pm 2^{\circ}\text{C}$,

Relative Humidity: 45%~75%

Barometric Pressure: 86kpa~106kpa

(unless otherwise specified)

Please read and follow the handling instructions for the battery before usage, any mis-operation of the battery may cause heat, rupture, damage or capacity deterioration of the battery.



WARNING

- 1. Do not put the battery into a fire, or heat the battery. Do not store the battery in high temperature environment.**
- 2. Do not connect the battery reversed in positive(+) and negative(-) terminals in the charger or equipment.**
- 3. Do not let the battery terminals(+ and-) contact a wire or any metal(like a metal necklace or a hairpin)with which or stored together, may cause short-circuit.**
- 4. Do not drive a nail in, hit with a hammer, or stamp on the battery; do not strike the battery in other ways.**
- 5. Do not disassemble or alter the batteries' outside structure.**
Do not submerge the battery in water, do not wet the battery when store the battery.



NOTICE

Battery should be charged and discharged with proper charger, in compliance With correct operation contents.

- 1. Do not use the battery with other maker's batteries, different types and/or models of batteries such as dry batteries, nickel-metal hydride batteries, or nickel-cadmium batteries, or new and old lithium batteries together.**
- 2. Do not leave the battery in a charger or equipment if it generates an older and/or heat, changes color and/or shape, leaks electrolyte, or cause any other abnormality.**
- 3. Do not discharge the battery continuously when it is not charged.**



CAUTION

In case young children use the battery, instruct them on the contents of the instructions and ensure the battery is correctly used by them at all times.

1. The battery was inspected carefully by QA before shipment to confirm with the specifications. However, in the case any abnormality of bad smell or heat, etc, arises after purchase, bring it and communicate with us.
2. For long-term storage, please charge at 0.5C for about one hour in advance.
3. Do not use the battery in other than the following conditions; otherwise, the battery might cause heat generation, damage, or deterioration of its performance.

Operating environment:

Charge : 0°C-+45°C

Discharge :-20°C-+60°C

Store less than 1 month: -20°C-+60°C

Store less than 3 months: -20°C-+45°C

Store less than 1 year: -20°C+25°C