PX-MC70

Battery Pack Spec

Model: PX-MC70

Cell Configuration: C10025

Stock Code: 900.601.503.004

Nominal Voltage: 3.7V

Capacity: 1800mAh

Draft	Checking	Approved	Customer Confirmation
Dora	Peter		

Revision History

Revision	Date	Editor	Contents
A0	2018-03-09	Dora	Draft
A1	2018-03-09	Peter	
A2	2018-03-09	Dora	
A3	2018-11-20	Dora	。

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1. Battery Assembly

1-1.	Model No.	:	PX-MC70H
1-2.	Battery Type	:	Lithium Ion
1-3.	Battery Cells	:	BAK 103450AR *1 1800mAh
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	:	1800mAh at 0.2Ca
1-8.	Internal Resistance		Less than 180mΩ
1-9.	Temperature Range	:	Charge:0-45℃ Discharge:-20～60℃ Storage:-20-45℃ -10～25℃ More than 3 months
1-10	Protection Circuit Board	:	Over charge limit per cell (4. 25V~4.35V) Over charge release: remove charger and discharging Over discharge limit per cell /电芯: (2.3V~2. 5V) Over discharge release Voltage Charging Over Charge Current Protection 2A~6A Over Discharge Current Protection: 2A~6A Over charge delay time:0.7s~2.0s Over discharge delay time:80ms~245ms Over discharge current delay time:5ms~15ms Short circuit delay time: 150us~540us Maximum current comsumption:0.1uA
1-11	Warranty	:	Twelve (12) months limited warranty from date of purchase.
1-12	Weight		±2g
1-13	humidity range		Operating humidity range: Less than 75% RH Storage humidity range: Less tha 75% RH
1-14	Polyswitch		\

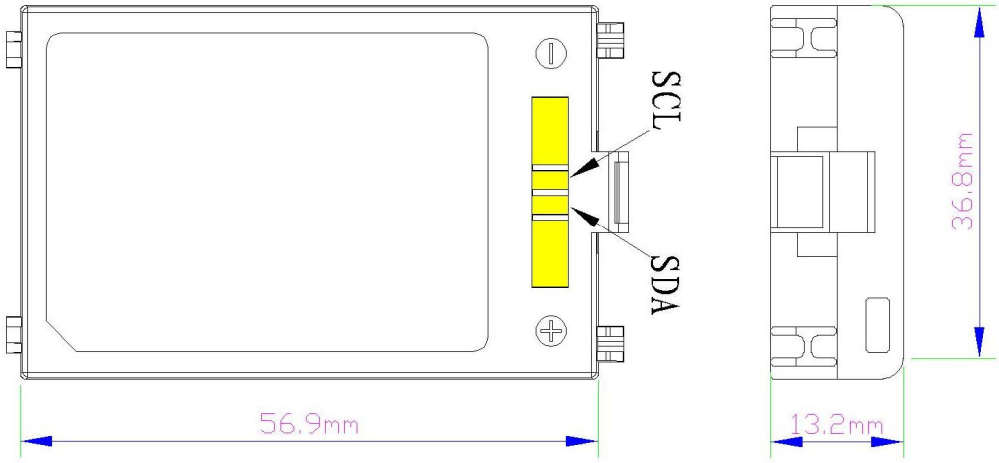
‘*’Data valid only when the battery pack is on fully charged condition.

‘*’Battery pack should be firstly charged and discharged for 3 complete cycles as a warm-up. 3

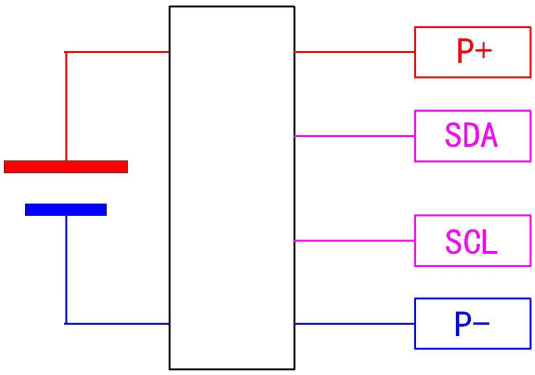
(Detail refers to Lithium-Ion Battery Product Specification.)

2. Mechanical

2-1.Mechanical Drawing（±0.2m）

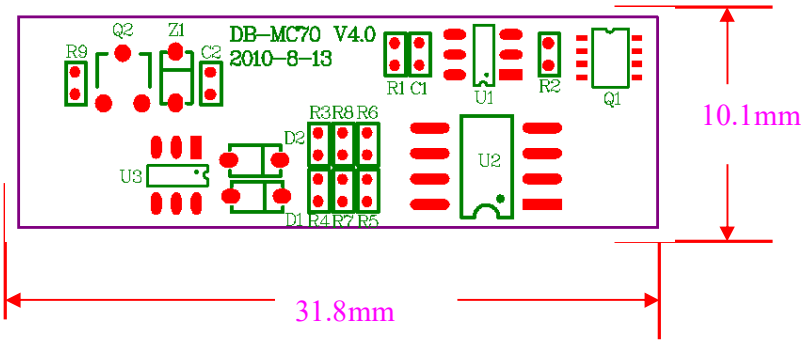


Circuit Diagram



2. Mechanical

2-2: PCBA SPECIFICATION PCB



2-3:.Photo of the product

2-4. Pin Assignment Pin

(-) = Negative supply
负极

(SCL/SDA)= Communication port
通讯端口

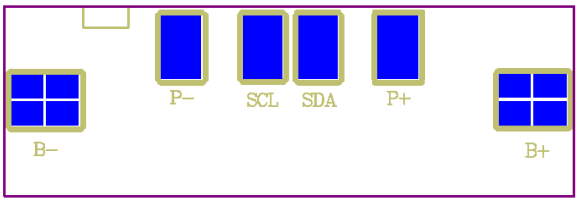
(+) = Positive supply
正极

A-1-1.General Description

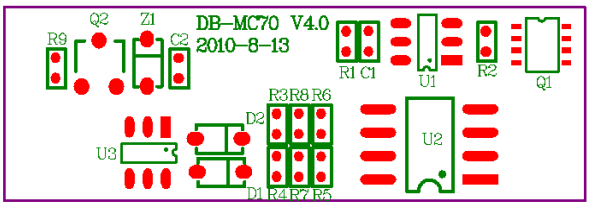
1. The protection module adopts the **DW01** to monitor LI-Ion cell for over-voltage, under-voltage, over-charge current and over-discharge current.采用 **DW01**
2. External N-FET **ECH8601** will be driven to cut off the loop of charge and discharge if any abnormal condition occurs.

A-1-2 PCM and Board Connection PCM

TOP 正面



BOTTOM 底面

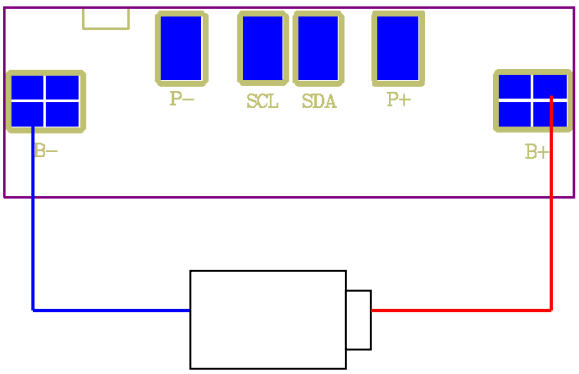


Board Connection

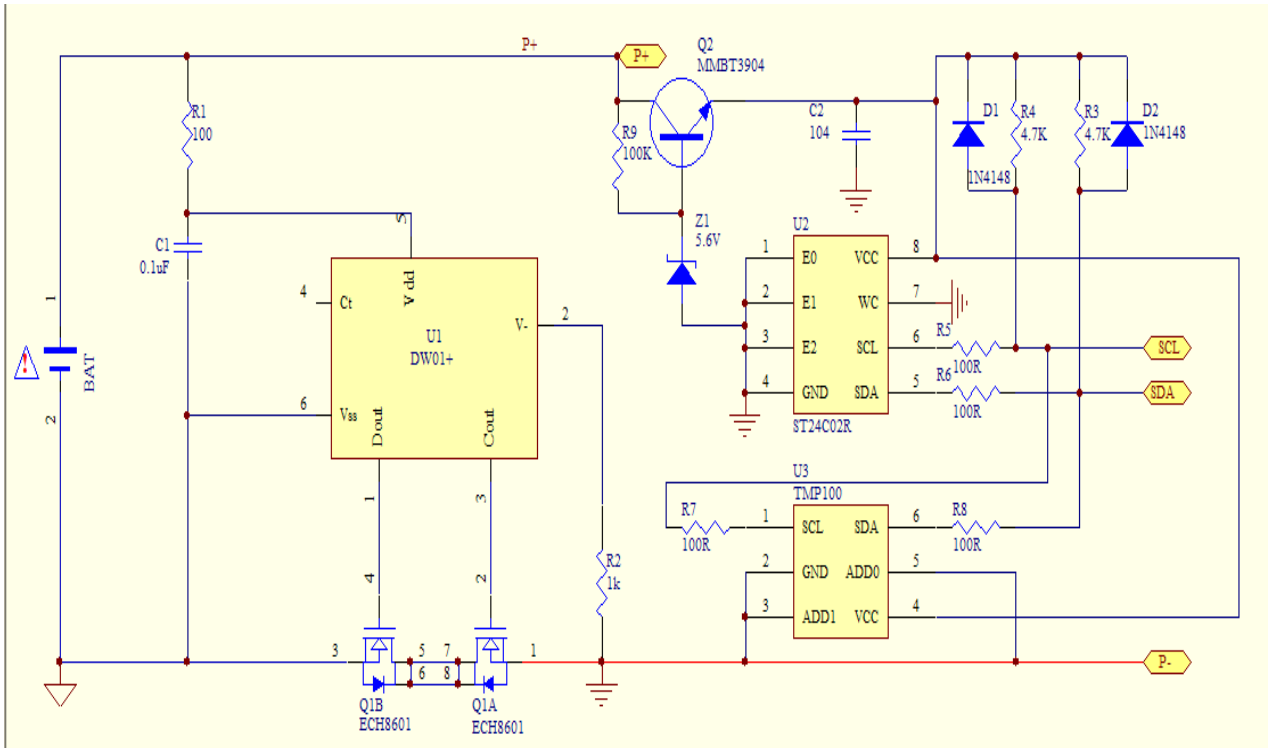
Pin	Description
B+	Connect to Positive terminal of cell1。
B-	Connect to negative terminal of cell1。
P+	Connect to Camcorder +/Charger +。
P-	Connect to Camcorder -/ Charger -。+
SCL	Communication port
SDA	Communication port

A-1-3.Application Note

Assembly diagram



A-1-4.Schematic 原理图



A-1-7.BOM

No.	Name	Function	Unit	Quan	Symbol
1	**Capacitor**	0.1UF 16V Y5V Z 0402	pcs	2	C1 C2
2	**Resistor**	100Ω±5% 0402	pcs	5	R1 R5 R6 R7 R8
3	**Resistor**	1KΩ±5% 0402	pcs	1	R2
4	**Resistor**	4.7K±5% 0402	pcs	2	R3 R4
5	**Resistor**	100K±5% 0402	pcs	1	R9
6	FET	ECH8601 ECH8	pcs	1	Q1
7	IC	DW01+ SOT-23-6	pcs	1	U1
8	IC	ST24C02R SOP-8	pcs	1	U2
9	IC	TMP100 SOT-23-6	pcs	1	U3
10	Dynatron	MMBT3904 SOT-23	pcs	1	Q2
11	Diode	1N4148 SOD-323	pcs	2	D1 D2
12	Diode	5.6V SOD-323	pcs	1	Z1
13	Nickel piece	3.0×4.0×0.3mm	pcs	2	B+ B-
14	PCB	31.8*10.1*0.8mm FR-4			DB-MC70 V4.0

Standard Environmental Test Condition

Temperature: 25±2℃

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 snd/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, arise 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:

: 0℃-+45℃Discharge :-20℃-+60℃

Store less than 1 month : -20℃-+60℃

Store less than 3 months : -20℃-+45℃

Store less than 1 year : -10℃+25℃