

# POWER-XTRA

Model : Power-Xtra PX602040 3.7V 410 mAh Li-Polymer Battery with PCM(1.5A) Ver: A1

NO: 900.869.503.195

## PX602040 Battery Spec

**Model:** PX602040

**Stock Code:** 900.869.503.195

**Cell Type:** PX602040

**Nominal Voltage:** 3.7V

**Capacity:** 410mAh

Draft	Checking	Approved	Customer Confirmation
Dora	Peter		

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## 1. Revision History

Revision	Date	Editor	Contents
A0	2018-05-30	Dora	Draft
A1	2018-06-19	Dora	

## 2. Pictures



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### 3. Product Specification

No.	Item	General Parameter		Remark
		Typical		
1	Rated Capacity	410mAh	400mAh	Standard discharge (0.2C C <sub>5</sub> A) after Standard charge
2	Nominal Voltage	3.7V		Mean Operation Voltage
3	Voltage at end of Discharge	2.75V		Discharge Cut-off Voltage
4	Charging Voltage	4.2±0.03V		
5	Internal Impedance	≤300mΩ		Internal resistance measured at AC 1KHz after 50% charge The measure must uses the new batteries that within one week after shipment and cycles less than 5 times
6	Standard charge	Constant Current 0.5C <sub>5</sub> A Constant Voltage 4.2V 0.01 C <sub>5</sub> A cut-off		Charge time : Approx 4.0h
7	Standard discharge	Constant current 0.2 C <sub>5</sub> A end voltage 2.75V		
8	Fast charge	Constant Current 1C <sub>5</sub> A Constant Voltage 4.2V 0.01 C <sub>5</sub> A cut-off		Charge time : Approx 2.5h

Continuous the table 1 (1)

No.	Item	General Parameter	Remark
9	Fast discharge	Constant current 1 C <sub>5</sub> A end voltage 2.75V	
10	Maximum Continuous Charge Current	1 C <sub>5</sub> A	
11	Maximum Continuous Discharge Current	1.5C <sub>5</sub> A	
12	MOS Maximum Continuous Discharge Current	1.5A	
13	Operation Temperature Range	Charge: 0~45°C	60±25%R.H.
		Discharge ( ) : -20~60°C	Bare Cell
14	Storage Temperature Range	Less than 1 year: -20~25°C	60±25%R.H.
		less than 3 months: -20~40°C	at the shipment state
15	Pack Dimension	Length: 40.0±0.5mm	Initial Dimension
		Width: 20.0±0.5mm	
		Thickness: 6.0±0.2mm	

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## 4. Protection circuit

(PCM Standard)

Item	Symbol	Content	Criterion
Current	IDP	Max.Charging Current	1.5A
		Max.Discharging	1.5A
Over charge Protection	VDET1	Over charge detection voltage	4.28±0.05V
	tVDET1	Over charge detection delay time	80–200ms
	VREL1	Over charge release voltage	4.10±0.05V
Over discharge protection	VDET1	Over discharge detection voltage	2.40±0.10V
	tVDET1	Over discharge detection delay time	40-120ms
	VREL1	Over discharge release voltage	3.00±0.1V
Over current protection	VDET3	Over current detection voltage	1.30±0.5V
	IDP	Over current detection current	3.5±1.5A
	tVDET3	Detection delay time	5-20ms
		Release condition	Cut load
Short protection		Detection condition	Exterior short circuit
	TSHOR	Detection delay time	5-120ms
		Release condition	Cut short circuit
Interior resistance	RDS	Main loop electrify resistance	VC=2.5V,RDS≤34mΩ
Current consumption	IDD	Current consume in normal operation	3.0μA Type 6.0μA Max

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## 5. Handling of Cells

### 3.1 Consideration of strength of film package

#### 1) Soft Aluminium foil

Easily damaged by sharp edge parts such as pins and needles, Ni-tabs, comparing with metal-can-cased LIB.

2). Sealed edge may be damaged by heat above 100°C, bend or fold sealed edge.

### 3.2 Prohibition short circuit

Never make short circuit cell. It generates very high current which causes heating of the cells and may cause electrolyte leakage, gassing or explosion that are very dangerous.

The POWER-XTRA tabs may be easily short-circuited by putting them on conductive surface.

Such outer short circuit may lead to heat generation and damage of the cell.

An appropriate circuitry with PCM shall be employed to protect accidental short circuit of the battery pack.

### 3.3. Mechanical shock

POWER-XTRA cells have less mechanical endurance than metal-can-cased LIB.

Falling, hitting, bending, etc. may cause degradation of Power-Xtra characteristics.

### 3.4 Handling of tabs

The battery tabs are not so stubborn especially for aluminum tab.

Don't bend tab.

Do not bend tabs unnecessarily.

## 6. Storing the Batteries

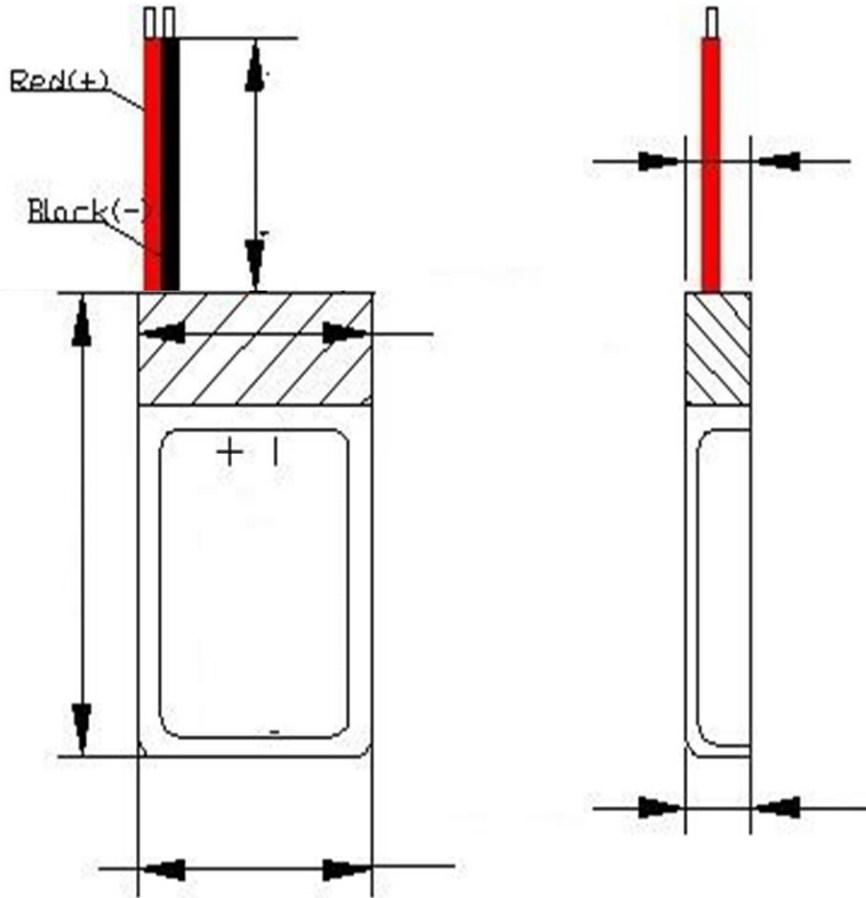
The batteries should be stored at room temperature, charged to about 30% to 50% of capacity. We recommend that batteries be charged about once per half a year to prevent over discharge.

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## 7. Dimension



Dimensions (Units: mm)	PCM	PCM (1.5A)
	Length Cable (L)	100±5mm (Tin plating:2mm)
	Height (H)	42.0±1mm
	Width (W)	20.5±1mm
	Thickness (T)	6.2±0.5mm
	Cable	1007#24AWG

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## Drawing of Label (标签图)

PET 透明标签，黑字，尺寸 32\*16mm。2D(Data Matrix)二维码，内容为：“8680187004675”。日期按出货月份更改。YY 为年，MM 为月，年份在前，月在后（年月），如：1607（2016 年 07 月）。标签格式如下：



## Packing (包装)

整齐装托盘，内置防潮袋，每箱不超 10KG；客户定制 Logo 纸箱，外箱 Logo 格式如下：

# POWER-XTRA

ENA-13 Bar code 条形码/侧唛：

贴于纸箱正/背两侧，侧唛尺寸 130\*100mm（侧唛尺寸视情况而定）：

<b>PO NO.</b>	<b>Order 17-8</b>
<b>MODEL NO.</b>	<b>900.869.503.195</b>
<b>QTY</b>	<b>500PCS</b>
<b>DATE</b>	<b>2017-05-02</b>
<b>Made in China</b>	
 8 680187 004675	