



***Dr. Power
Corporation***

Comprehensive Solutions

Your Faithfully Partner



Action Group

Contents

1. Background

2. Action Group Profile

3. The Best Business Partner

4. R&D

5. Quality Assurance

6. Certificate

7. Manufacturer

8. Products



1. Background

- **Date of Foundation : 2003**
- **HQ : Taipei, Taiwan**
- **Capital: USD 1,500,000**
- **Employee: 65 (Factory: 45 ; Office:20)**
- **Core Values: Integrity / Quality / Team Work/Continuous Improvement/Customized service/Customer Satisfaction**



Action Group

2. Action Group Profile



LJ Device Co., Ltd. - since 1995

Agent for electronic parts or develop IC

-Vibration Motor

-Customized IC

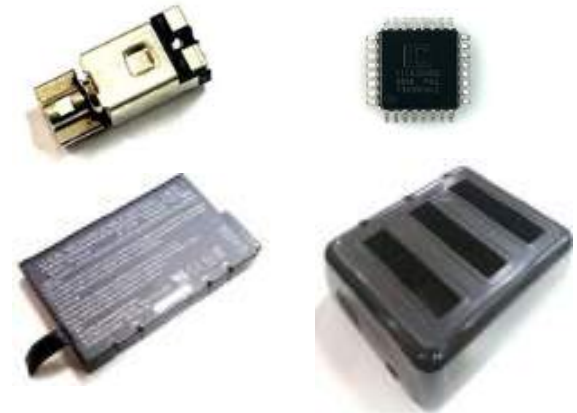


Dr. Power Corporation. - since 2003

Renewable Energy Products

-Battery Pack

-Charging Dock



Action International, Ltd. - since 2007

Office in Shenzhen, China

-Material Purchase

-local transaction



Japone Technology Inc. - since 1992

Battery pack factory in Tamsui, Taiwan

-Joint venture factory

-DPC is the main shareholder



A&S Energy Co., Ltd. - since 2010

Battery pack factory in Xindian, Taiwan

-Joint venture factory

-DPC is the shareholder



Action Group

3. The Best Business Partner



Industrial Technology Research Institute

IC design
-Customized IC



Weltrend Semiconductor, Inc.

IC manufacturing
-Customized IC



CPC Corporation, Taiwan

Renewable Energy Products
-Go-Kart Battery Pack



National Chung Shan Institute of Science and Technology.

Renewable Energy Products
-Military Battery Pack



TOCAD Energy Co., Ltd.

Battery Cell supplier
-Panasonic/SANYO





Action Group

4. *R&D research and development*

R&D is the foundation of Dr. Power, more than 10 engineers specializing in electronic products.



Communication Engineering

NB IoT/LoRa/3G/4G/5G

-Voice Pager

-Human Machine Interface



Hardware Engineering

Renewable Energy Products

-PCB layout

-BMS design



Firmware Engineering

MCU

-Adjust operation logic

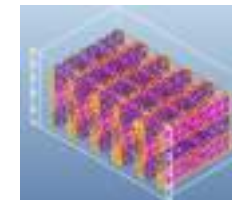
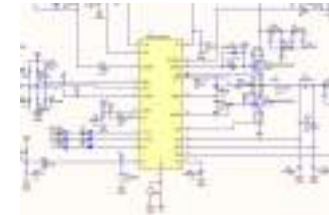


Mechanical engineering

Renewable Energy Products

-Appearance design

-Internal structural design





5. Quality Assurance

- **Quality Assurance :**

- ◎ **Customer satisfaction**

- ◎ **TQM**

- **Certificate:**

- ◎ **ISO 9001 (2015)**

- ◎ **UL certified quality assurer**

- ◎ **TUV certified quality assurer**

- ◎ **EHS**



Action Group

6. Certificate-ISO 9001: 2015/ UL/ TUV



Manufacturer's Declaration per sub-clause 4.2.2 of ISO 9001:2015

The application for issuing a CE mark system
 includes more than one factory location and a
 declaration from the Manufacturer stating that the
 samples submitted for evaluation in one
 representative of the products from each factory have
 been provided.

☐ Yes ☒ No ☐ Not applicable

When otherwise exact they shall be identified in the General product information section.

Name and address of factory (ies):
 JAPONE Technology Co. Ltd. No. 280 P. N. N. P. S. A. C. U. F.
 2F, No. 280, Xinyuan Rd., Taipei City, 10000 New Taipei City, TAIWAN

Report No.: 26143087-BH-H003
 This modification report is as follows:
 1. Revised data sheet for short requirements, see page 4 and attachment photo for details.
 2. Revised number in address temperature of discharge condition from 40 °C to 30 °C, see table for
 details.

No more work deemed necessary for this modification.

General product information
 This equipment is a Rechargeable Li-ion Battery for use in the portable applications.
 The standard ambient temperature specified as 40 °C for charging and 30 °C for discharging conditions.

Detailed information of the Rechargeable Li-ion Battery are as follows:

Product name:	Rechargeable Li-ion Battery
Typical model:	ACU-B08-317E (2.8PH110450-4)
Battery Cell Configuration:	1S4P
Nominal voltage (Vdc):	3.6
Rated cell capacity (mAh / Ah):	8000 mAh / 3.2 Ah
Maximum Charge Voltage (Vdc):	4.2
Optimum charge current (A):	0.8
Maximum Discharge current (A):	8
End voltage (Vdc):	2.5
Weight (kg):	Approx. 8.000 (gross)

The final evaluation of the battery must be conducted in the end product for which the battery will be used.

TUV SÜD New Ltd. Taipei Branch
 2F, No. 280, Xinyuan Rd., Taipei City, 10000
 Representative: David Lin, TUV SÜD Taiwan
 Fax: 886-2-27070000

Product category No.: 26143087-BH-H003
 A33-000-010-000-000
 Page 1 of 1

6. Certificate-RoHS

Action Group

SGS

測試報告 Test Report

號碼(No.): CE/2015/32528 日期(Date): 2015/03/13

頁數(Page): 1 of 10

南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION

新北市樹林區味王街55號 產銷二級技術處

55, WEI WANG ST. SHU LIN DISTRICT, NEW TAIPEI CITY, TAIWAN, R. O. C.

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By): 南亞塑膠工業股份有限公司 (NAN YA PLASTICS CORPORATION)
 樣品名稱(Sample Description): LIQUID PHOTOIMAGABLE SOLIDEX MASK (液態感光防焊油墨)
 樣品型號(Sample/Item No.): LP-AG G-35AG/HP-25D
 收件日期(Sample Receiving Date): 2015/03/09
 測試期間(Testing Period): 2015/03/09 TO 2015/03/13

測試需求(Test Requested):

- (1) 依據客戶要求, 參考RoHS 2011/65/EU Annex II 指令進行鉛、鎘、汞、六價鉻、多環芳烴, 多環芳烴測試。 (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
- (2) 依據客戶要求, 參考 WFO/TBT 通報 G/TBT/N/EU/256 檢測 DBP, BBP, DEHP, DIBP. (As specified by client, with reference to G/TBT/N/EU/256 of WFO/TBT to test DBP, BBP, DEHP, DIBP.)
- (3) 依據客戶指定, 進行全氟辛酸、全氟辛烷磺酸、氟素-氯、氯、溴、碘測試。 (As specified by client, to test PFOA, PFOS, Halogen-Fluorine, Chlorine, Bromine, Iodine contents in the submitted sample.)

測試方法(Test Method): 請見下一頁 (Please refer to next page).

測試結果(Test Results): 請見下一頁 (Please refer to next page).

Edison 
 Edison Chang / Sr. Supervisor
 Signed for and on behalf of
 SGS TAIWAN LTD
 Chemical Laboratory - Taipei

SGS

測試報告 Test Report

號碼(No.): CE/2015/32528 日期(Date): 2015/03/13

頁數(Page): 2 of 10

南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION

新北市樹林區味王街55號 產銷二級技術處

55, WEI WANG ST. SHU LIN DISTRICT, NEW TAIPEI CITY, TAIWAN, R. O. C.

測試結果(Test Results)

測試部位(PART NAME)No.1: 綠色油墨 (GREEN INK)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Results) No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測。 / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
鄰苯二甲酸丁基苯酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n.d.
鄰苯二甲酸二丁酯 / DBP (Di-butyl phthalate) (CAS No.: 84-74-2)	mg/kg	參考IEC 62321-8 (111/321/CD) 以氣相層析儀/質譜儀檢測。 / With reference to IEC 62321-8 (111/321/CD). Analysis was performed by GC/MS.	50	n.d.
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-89-5)	mg/kg		50	n.d.
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.

Full lead free/RoHS process



Action Group

7. Manufacturer-EMS Capability

- Capacity: 1KK units of PCB/month
- Full lead free/RoHS process





Action Group

7. Manufacturer-EMS Capability

- **Capacity: 1KK units of PCB/month**
- **Full lead free/RoHS process**





Action Group

7. Manufacturer-EMS Capability

- **Capacity: 1KK units of PCB/month**
- **Full lead free/RoHS process**





7. Manufacturer-SMT Flow

Action Group

SMT
stock
preparation

Oven



Bare board loading



Solder paste printing



Pick & place
speed machine



Solder paste store
in a cool dry cabinet



Pick & place
general machine



Pick & place
general machine



Outgoing



Repair

NG

Inspection

OK



Reflow



Repair

NG

Inspection

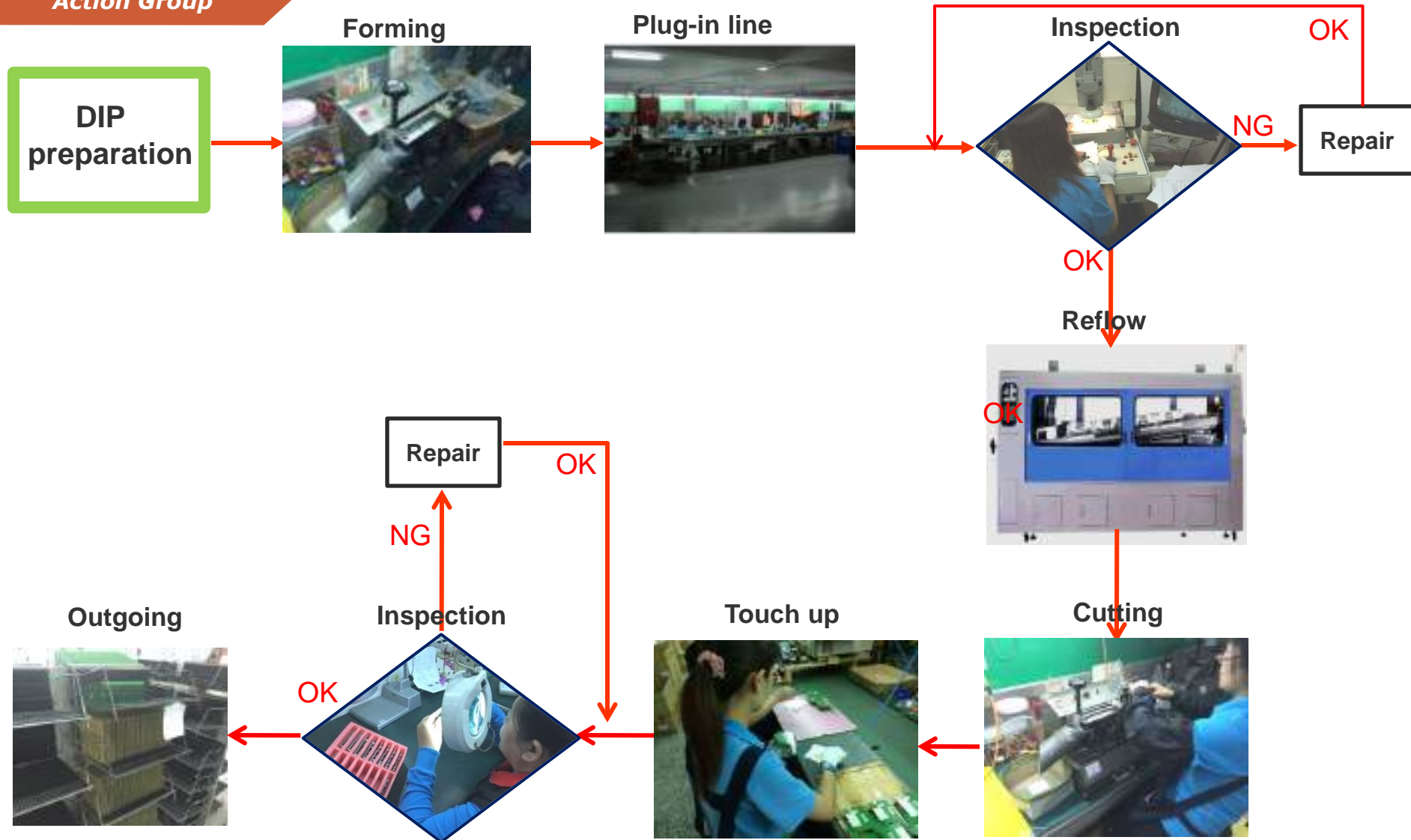
OK





7. Manufacturer-DIP Flow

Action Group





Action Group

7. Manufacturer-Test Equipments

- **CVE 64CH:**
Learning Equipment
- **BAT-730**
Learning Equipment
- **BAT-620/640:**
Battery Testing





Action Group

7. Manufacturer-Production Equipments

- **SC-TZ02:**
Automatic Equipment
18650 Cell Insulator Ring
- **SC-TQKZ10:**
Automatic Equipment
Cell Matching

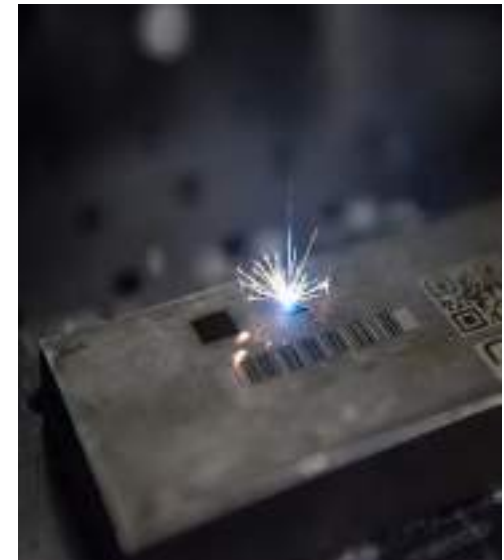
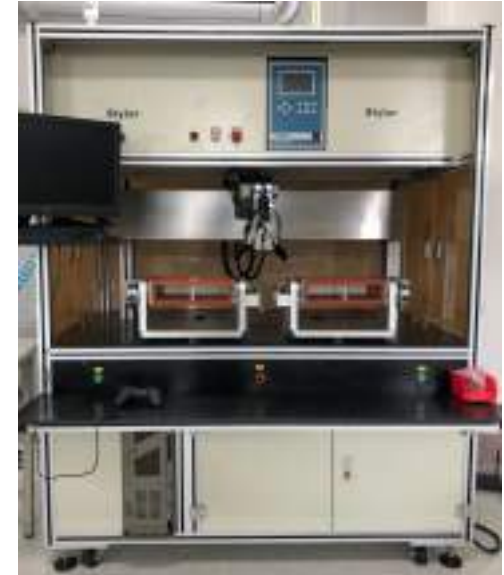




Action Group

7. Manufacturer-Production Equipments

- **ST-SWD-260220:**
Automatic Equipment
Spot Welding
- **XRW-M20:**
Automatic Equipment
Laser Engraving





Action Group

8. Products - Customization

- 1S1P Li-ion Battery Pack



- 2S1P Li-ion Battery Pack





Action Group

8. Products - Military / Medical / Industrial

- 3S2P Li-ion Battery Pack



- 3S3P Li-ion Battery Pack





Action Group

8. *Products - Military / Medical / Industrial*

- **4S2P Li-ion Battery Pack**



- **13S3P Li-ion Battery Pack**





8. Products - Military / Medical / Industrial

Action Group

<div> <div>Year</div> <div>Product</div> </div>	2024				2025				2026				Remark
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
DR-202-V2 10.8V 7800mAh													Available
DR-202-35E 10.8V 10350mAh													Available
DR-202-GA 10.8V 10050mAh													Available
DR-10-GA32 10.8V 6900mAh	Certification& Sampling				MP								
DR-10-GA23 7.2V 10350mAh	Certification& Sampling				MP								
DR-2024-GA 14.1V 10350mAh	Certification& Sampling				MP								
DR-202W2 3 slot charging dock													Available DR202 、 RRC202



8. Products - Military / Medical / Industrial

Action Group

<div>Year</div> <div>Product</div>	2024				2025				2026				Remark
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
DR2037 1 slot charging dock	Certification& Sampling				MP								NB2037 、 RRC2037
DR2057 1 slot charging dock	Certification& Sampling				MP								NB2057 、 RRC2057
DR10 1 slot charging dock	Certification& Sampling				MP								NF2040
DR202W1 1 slot charging dock	Certification& Sampling				MP								DR202 、 RRC202
DR2024 1 slot charging dock	Certification& Sampling				MP								



Action Group

8. Products - Military / Medical / Industrial

- **3S2P Li-ion Battery Pack**

Model: DR-10-GA32

Sample phase(10.8V 6900mAh)
(Product will take CB、UL、PSE、
UN38.3、CE、
201356EU certification)



- **2S3P Li-ion Battery Pack**

Model: DR-10-GA23

Sample phase (7.2V 10350mAh)
(Product will take CB、UL、PSE、
UN38.3、CE、 201356EU certification)





Action Group

8. Products - Military / Medical / Industrial

- **3S3P Li-ion Battery Pack**

Model: DR-202W2

Typical voltage: 10.8V

Typical capacity: 7500mAh

(CB、UL、PSE、UN38.3

、CE、201356EU)

- **3S3P Li-ion Battery Pack**

Model: DR-202V2

Typical voltage: 10.8V

Typical capacity: 7500mAh

(CB、CE、PSE、UL、UN38.3)





Action Group

8. Products - Military / Medical / Industrial

- **3S3P Li-ion Battery Pack**

Model: DR-202-35E

Typical voltage: 10.8V

Typical capacity: 10050mAh
(201356EU、CB、CE、UN38.3)



- **3S3P Li-ion Battery Pack**

Model: DR-202-GA

Typical voltage: 10.8V

Typical capacity: 10350mAh
(UL、201356EU、CB、CE、UN38.3),





Action Group

8. Products - Military / Medical / Industrial

● 4S3P Li-ion Battery Pack

Model: DR-2024-GA

Typical voltage: 14.4V

Typical capacity: 10050mAh

(Product will take CB、UL、PSE、
UN38.3、CE、

201356EU certification)





Action Group

8. Products - Military / Medical / Industrial

- **Battery Charger Dock**
(DR-202 Series,
4.5A Fast Charging)
(FCC 、 CE)

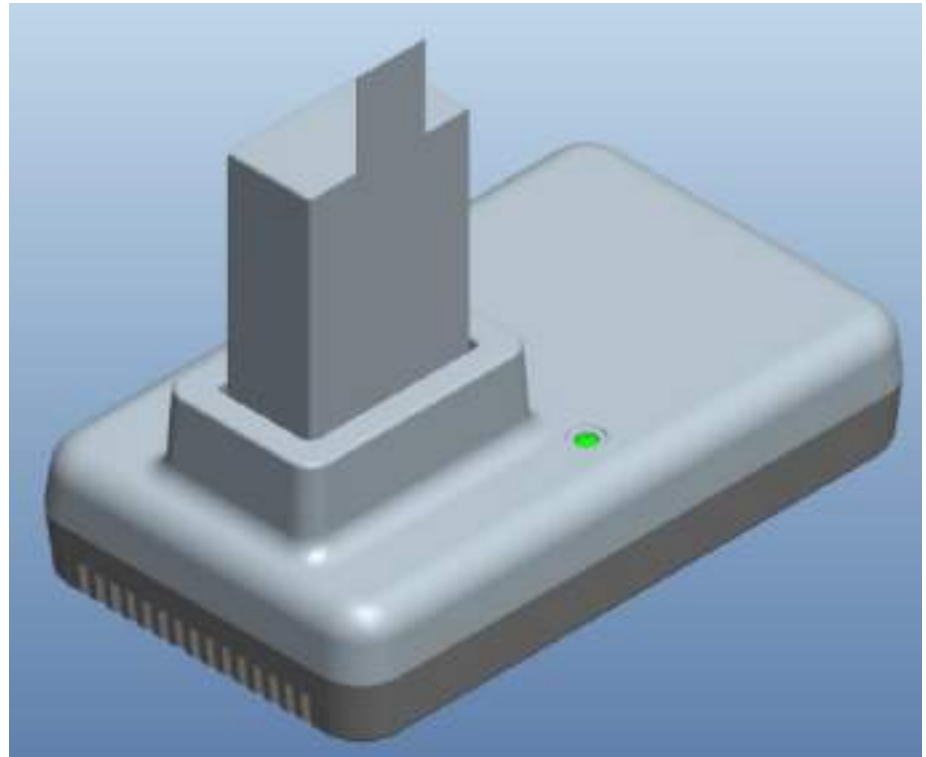




Action Group

8. *Products - Military / Medical / Industrial*

- **Battery Charger Dock**
(DR 2037 、NB2037 、
RRC2037
2S1P Series,)

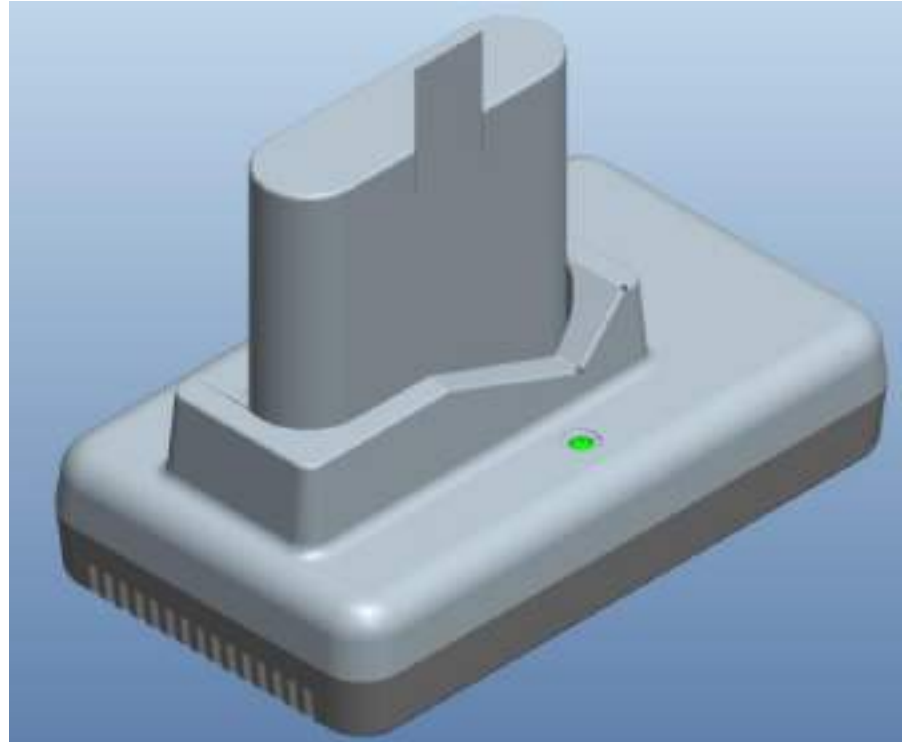




Action Group

8. *Products - Military / Medical / Industrial*

- **Battery Charger Dock**
(DR2057 、
NB2057 、 RRC2057
2S2P Series,)

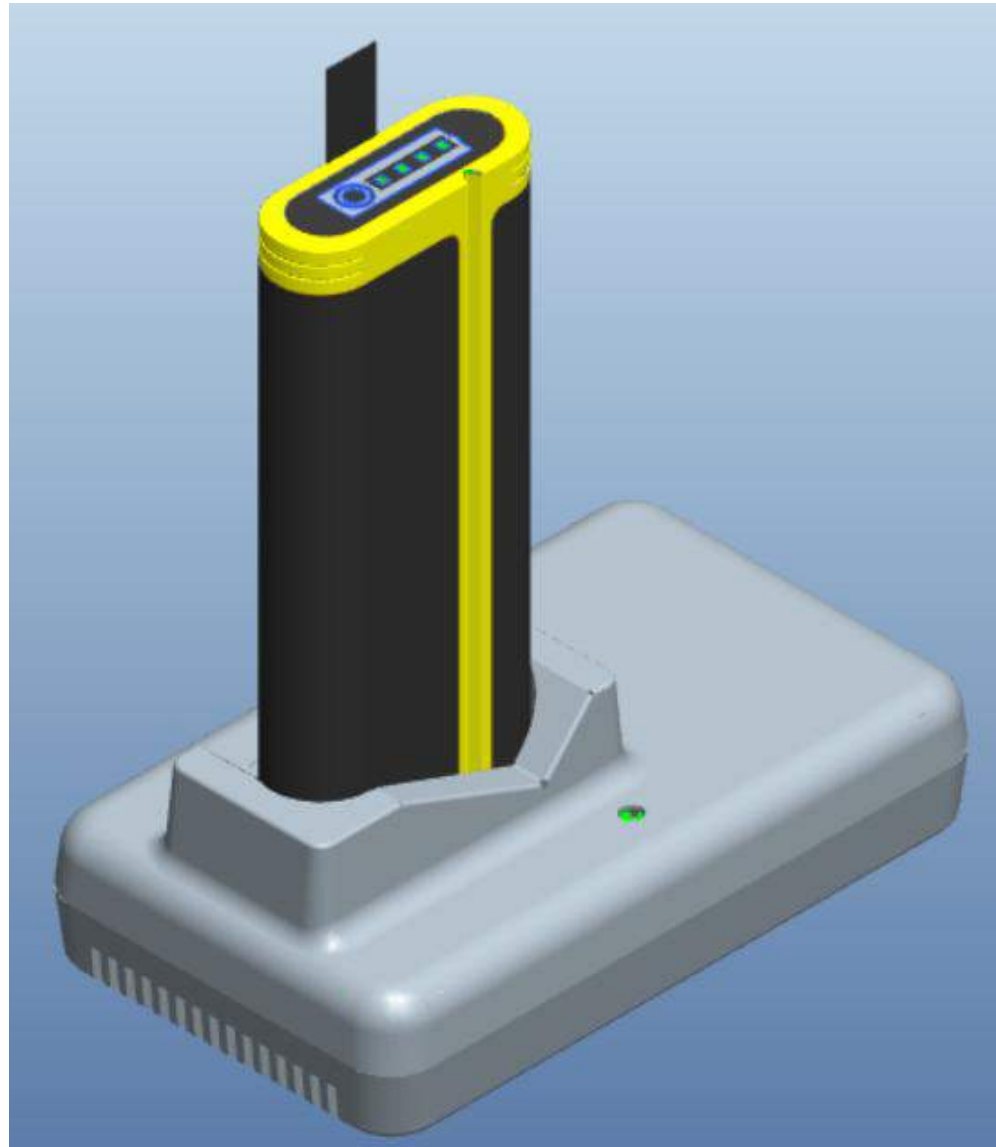
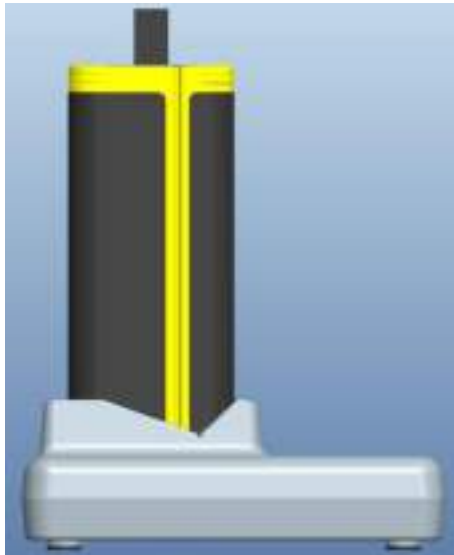




Action Group

8. Products - Military / Medical / Industrial

- **Battery Charger Dock**
(DR-10 NF2040
2S3P/3S2P Series,)

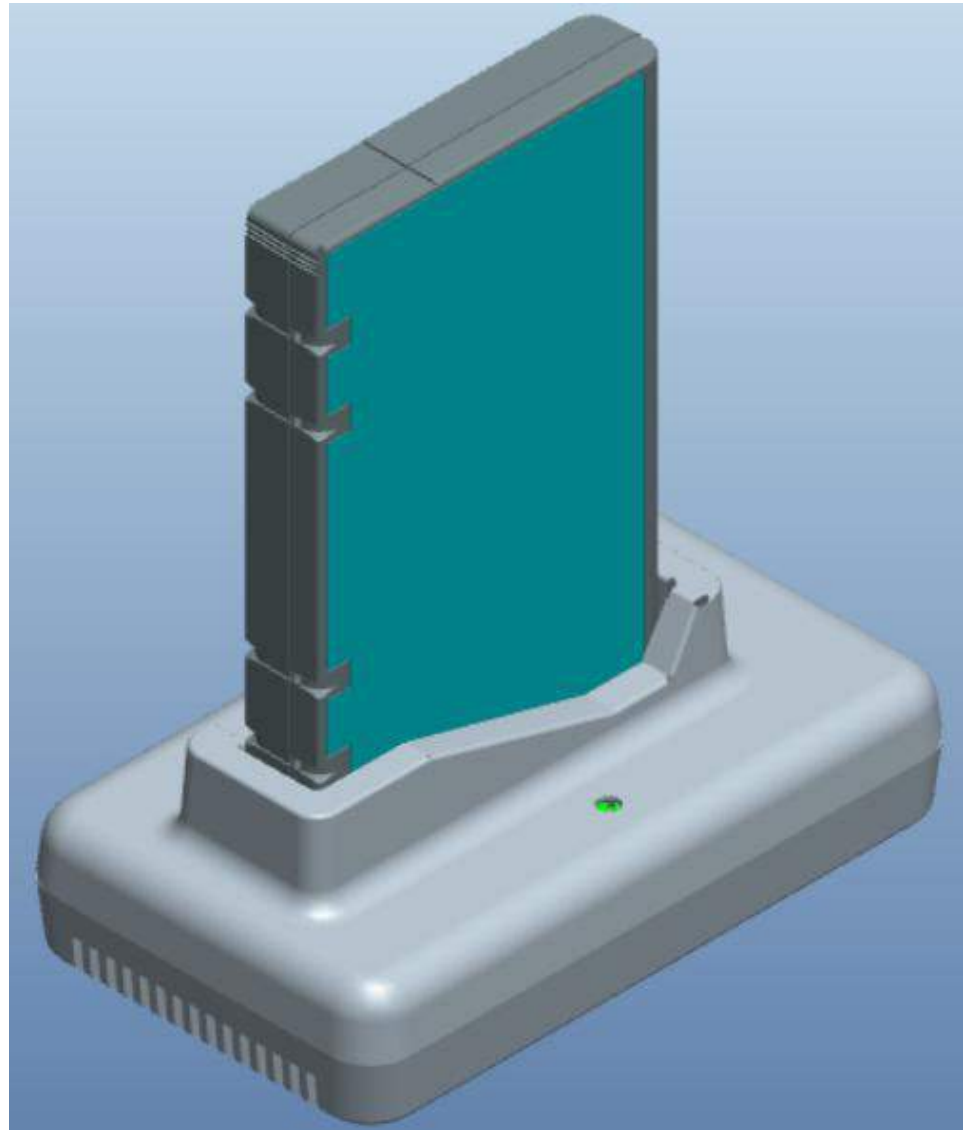
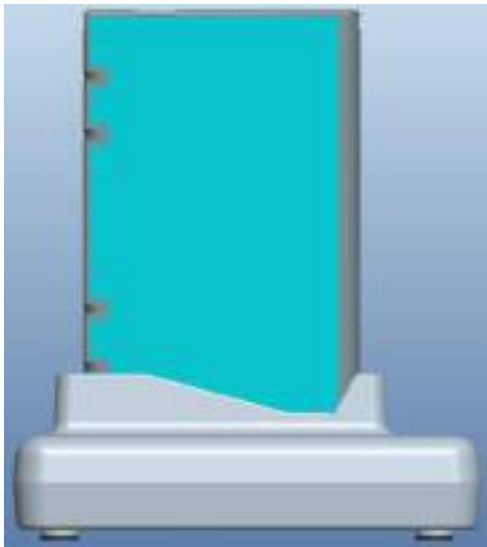




Action Group

8. Products - Military / Medical / Industrial

- **Battery Charger Dock**
(DR-202 3S3P Series,)

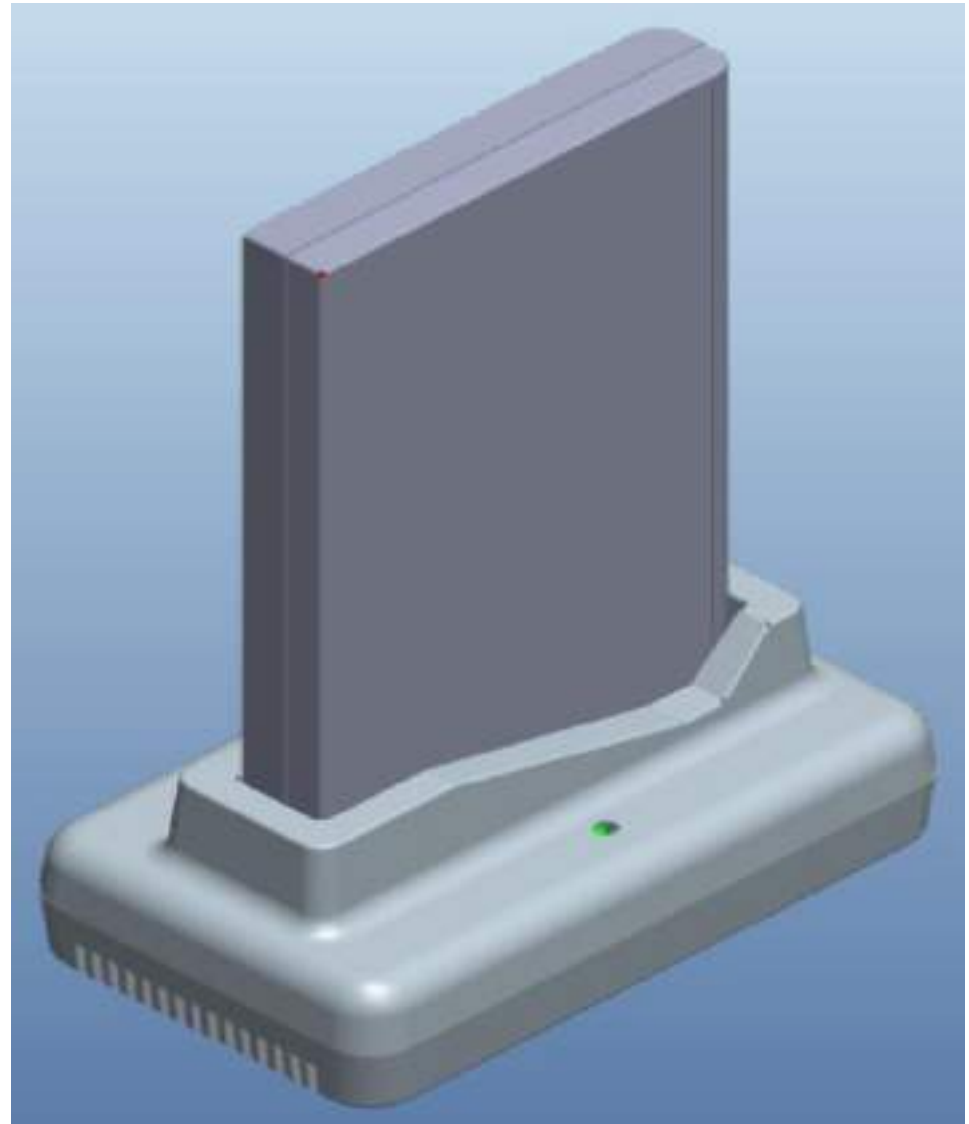




Action Group

8. *Products - Military / Medical / Industrial*

- **Battery Charger Dock**
(DR-2024 4S3P Series,)

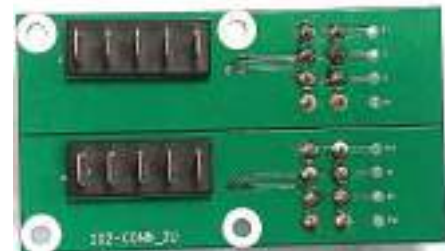




Action Group

8. Products - Military / Medical / Industrial

- Integrated Solution for Multiple Batteries (Control/ Charge / Connection)





Action Group

8. Products - Military / Medical / Industrial

- **4S2P Li-iron Battery Pack**

Typical voltage: 12.8V

Typical capacity: 10000mAh

(Cell: BSMI 、UN38.3)



- **4S4P Li-iron Battery Pack**

Typical voltage: 12.8V

Typical capacity: 20000mAh

(Cell: BSMI 、UN38.3)





Action Group

8. Products - Military / Medical / Industrial

- **4S1P Li-iron Battery Pack**

Typical voltage: 12.8V

Typical capacity: 5000mAh

(RS485)

(Cell: BSMI 、UN38.3)



- **4S1P Li-iron Battery Pack**

Typical voltage: 12.8V

Typical capacity: 20000mAh

(RS485)

(Cell: BSMI 、UN38.3)





Action Group

8. Products - Military / Medical / Industrial

- **8S1P Li-iron Battery Pack**

Typical voltage: 24V

Typical capacity: 20000mAh



- **1U Battery Pack**

Typical voltage: 24V

Typical capacity: 20000mAh





Action Group

8. *Products-Baby super car*

- **4S3P Li-ion Battery Pack**

Typical voltage: 14.4V

Typical capacity: 15000mAh





Action Group

8. Products – Baby super car

- **4S6P Li-ion Battery Pack**

Typical voltage: 14.4V

Typical capacity: 30000mAh





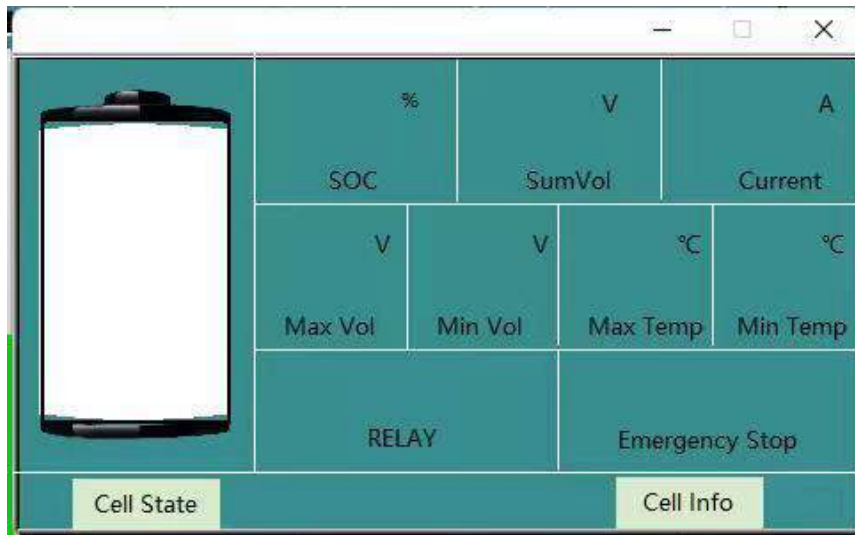
Action Group

8. Products –Go-Kart

- **14S10P Li-ion Battery Pack**

Typical voltage: 48V

Typical capacity: 25000mAh
(Go-Kart)





Action Group

8. Products – Go-Kart

- **14S10P Li-ion Battery Pack**

Typical voltage: 48V

Typical capacity: 25000mAh

(Go-Kart)





Action Group

8. Products - ESS

- **14S42P Li-ion Battery Pack**

Typical voltage: 48V

Typical capacity: 140.7Ah



- **14S42P Li-ion Battery Pack**

Typical voltage: 48V

Typical capacity: 140.7Ah





Action Group

8. Products - ESS

- 14S42P Li-ion Battery Pack
600KWh
ESS





Dr. Power Corporation

**Address: 3F, NO.131, JILI ST., PEITOU DIST.,
TAIPEI CITY, TAIWAN (R.O.C.)**

TEL: +886-2-2820 7419

FAX: +886-2-2827 0348

DPC: <http://battery9999.com/>

LJD: <http://ljdevice.com.tw/>