DESCRIPTION

PRODUCT COVERED:

USL, CNL - Power Bank(s), Model(s): SP0337, **CPP-4639**, **SP0363**, **CPP-4669.**

MODEL DIFFERENCE:
Model SP0337, CPP-4639 are identical except for model designation.
Model SP0363 is identical to Model SP0337 except for Input Rated Current, layout of PWB and enclosure shape.
Models SP0363, CPP-4669 are identical to each other except for model designation.

ELECTRICAL RATING:

Input Rated Voltage, Vdc	5.0
Input Rated Current, A	1.5 **for model SP0337 and CPP-4639,** **2.0 for model SP0363 and CPP-4669**
Output Port # 1 Rated Voltage, Vdc	5.0
Output Port # 1 End-of-Discharge Voltage, Vdc	4.5
Output Port # 1 Rated Current, A	1.0
Output Port # 1 Rated Capacity, mAh	5000
Output Port # 2 Rated Voltage, Vdc	5.0
Output Port # 2 End-of-Discharge Voltage, Vdc	4.5
Output Port # 2 Rated Current, A	2.1
Output Port # 2 Rated Capacity, mAh	5000
Manufacturer's Maximum Recommended Ambient, °C	0~45°C for Charging; 0~50°C for Discharging

Note: The products have been tested based upon their electrical ratings. No testing with a host product including a charger has been conducted.

CELL CHEMISTRY AND CONFIGURATION:

Pack Model	Cell Model	Cell Chemistry and Type#	Number of Cells	Configuration*: X-S/Y-P
SP0337, **CPP-4639, SP0363, CPP-4669**	GPC606090P	Lithium ion (soft pouch)	2	1-S/2-P

* - X = No. of cells in series; Y = Number of parallel strings.
\# - e.g. lithium ion cylindrical, lithium ion prismatic, lithium ion polymer (soft pouch), Ni-Cad prismatic, etc.

*

INTERNAL BATTERY CHARGING PARAMETERS RECOMMENDED BY MANUFACTURER:

Pack Model	Standard Charging Current, A	Standard Charging Voltage, Vdc	Maximum Charging Current, A	Maximum Charging Voltage, Vdc
SP0337, CPP-4639, SP0363, CPP-4669	4.0	4.2	4.0	4.2

MARKINGS/INSTRUCTIONS:

All markings shall be legible and permanent such as ink stamped, etched, adhesive labels, etc. All adhesive labels shall be R/C (PGDQ2) component marking and labeling systems or printed on R/C (PGJI2) Component Printing Materials.

Nameplate Marking – The Listee Name, trade name, file number (MH60484), trademark or other descriptive marking, catalog or model number, electrical rating, date of manufacturer and UL Listing Mark, UL Listing Mark for Canada.

Electrical Rating Marking - The following information shall be provided:

a. Input rating in Vdc and A;
b. Output rating in Vdc and A;
c. Electrical capacity in Ah or mAh.

Date of Manufacturer Marking can be identified as following:

S/N: YYMMXXXXXX or YY-MM-XXXXXX
Where, YY for Year, MM for Month. For example, 1708000000 indicates the Power Bank was manufactured in August, 2017.

Factory Location Marking - See Section General for manufacturing location marking.

Cautionary Markings/Instructions - Each power bank, the smallest unit package of power bank, or the instructions provided with each power bank, shall include the following statements or equivalent:

a. An attention word such as “CAUTION”, “WARNING”, or “DANGER”, and a brief description of possible hazards associated with mishandling of the battery pack such as burn hazard, fire hazard, or explosion hazard.
b. A list of actions to take to avoid possible hazards, such as do not crush, disassemble, dispose of in fire, or similar actions.

A lithium ion battery pack shall be marked with the following or equivalent: “CAUTION: Risk of Fire and Burns”. Following wording or equivalent shall also be included in the instructions packaged with the battery pack: “CAUTION: Risk of Fire and Burns, don’t open, crush, disassemble and dispose of in fire, Don’t heat above 45˚C or Incinerate. Follow Manufacturer’s Instructions.”

a. Instructions pertaining to the proper selection and replacement of its power supply or charger. See Ill.3 **and Ill.6**.
b. Instructions pertaining to a risk of fire or injury to persons associated with the use of the product. See Ill.3 **and Ill.6**.

Power Bank, Model(s): SP0337, CPP-4639 See Fig.1~Fig.5. **SP0363, CPP-4669 See Fig.6~Fig.11.**

See Ill.1 for additional views of overall constructions **of Model(s): SP0337, CPP-4639.**
See Ill.4 for construction of Model(s): SP0363, CPP-4669.

1. Cell – See table below:

Battery Pack Model	Cell Manufacturer	Cell Model No.	Recognized Cells, Y or N*	recognized Cells	
				File Number	Issue Date
SP0337, **CPP-4639, SP0363, CPP-4669**	USC056	GPC606090P	Y	MH49375	2012-12-03
Note: See Cell Chemistry and Configuration Table at beginning of report for information on type of cells, number of cells and their configuration in the battery pack circuit.					

Cells are located within the product in a manner that would not result in blocking of vents in the event of cell venting. Cells are secured in their enclosure and prevented from movement that would cause damage to connections and short circuit of parts as described in Fig.3 **and Fig.8.**

Connections to cell terminals are constructed as described in Fig.4 **and Fig.8.**

2. Power Bank Enclosure/Case – See Table Below:

Pack Model No.	Overall Dimensions, L x W x H, mm	Minimum Thickness, mm	Enclosure Material Manufacturer/Grade	Enclosure Material Type	Enclosure Material Flame Rating at Minimum Thickness*
SP0337, CPP-4639	Approximately 140.0 mm x 74.0 mm x 17.0 **mm(Ill.1)**	1.1 (Plastic Frame)	SABIC (E45329, E121562 or E207780)	CX7240 (GG)	Rated V-0, 90°C ,Refer to Fig.1 and Ill.1 for detail
SP0363, CPP-4669	**Approximately 130.0 mm x 72.0 mm x 18.0 mm(Ill.4)**	**1.1 (Plastic Frame)**	**SABIC (E45329, E121562 or E207780)**	**CX7240 (GG)**	**Rated V-0, 90°C ,0.75mm Min Thickness**
* - V-0, V-1, or compliant with UL 746C 20 mm Flame Test					

Plastic Frame and Aluminum Tube are fitted by snap-in design and Adhesive.

No openings designed in the enclosure except for the recessed Input/Output connector.

3. Battery Protective Circuitry – Consists of the following:

Battery Pack Model	Component Type	Component Location	Component Manufacturer	Component Part No.	Component Ratings
SP0337, **CPP-4639, SP0363, CPP-4669**	IC (U1)	Battery PWB	Developer Microelectronics	DW01	--
	MOSFET (Q1,Q2)	Battery PWB	Developer Microelectronics	DP8205	--

4. Power Bank Charging/Discharging DC/DC Circuitry – Consists of the following:

Battery Pack Model	Component Type	Component Location	Component Manufacturer	Component Part No.	Component Ratings
SP0337, **CPP-4639, SP0363, CPP-4669**	L1	PWB	Various	Various	1µH
	IC (U1)	PWB	INJOINIC	IP5306	--
	IC (U2)	PWB	Developer Microelectronics	DW01	--
	MOSFET (Q1,Q2 **for Model SP0337, CPP-4639)**	PWB	Developer Microelectronics	DP8205	--
	MOSFET (Q2, Q3 for model SP0363, CPP-4669)	**PWB**	**Developer Microelectronics**	**DP8205**	**--**

See the following illustrations for details of protective circuitry:

Battery Pack Model	Test Ref. No.
SP0337, CPP-4639	ILL.1
SP0363, CPP-4669	**Ill.3**

5. Input/ Output Connector – Constructed as noted below: R/C (ECBT2 or RTRT2), minimum 30 V or made of material with minimum flammability Class V-1 and minimum 75 degree C.

Inadvertent shorting of connector prevented by the following:

Description of Mechanism to Prevent Inadvertent Short Circuiting of Connector Terminals
Recessing construction (Construction as Fig.4)

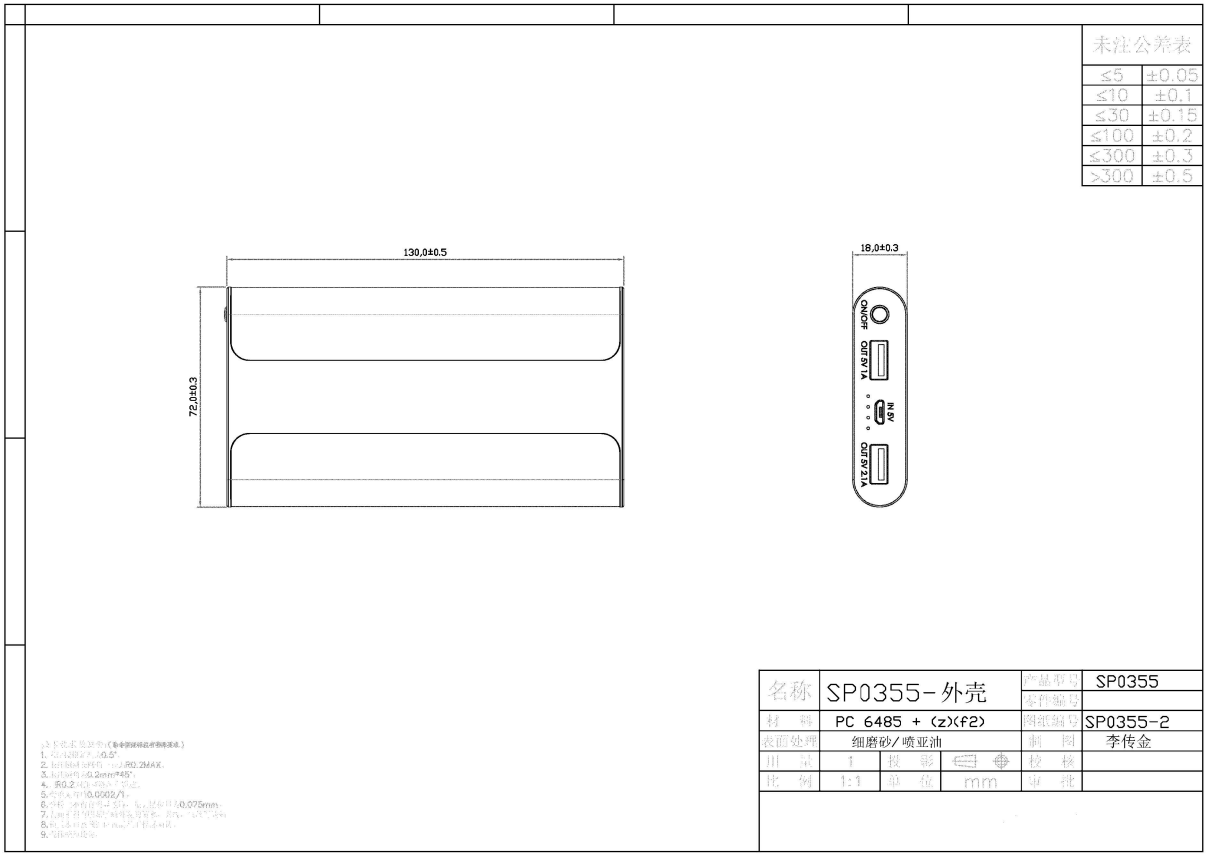
6. Insulation (Optional) – R/C (OANZ2), located between cell and other parts, minimum 100 degree C or designated “Flame Retardant”, except for less than or equal to 2cm^3.

*7. Printed Wiring Board – R/C (ZPMV2 or ZPXK2), Min. V-1, Min. **130** degree C, provided for mounting of circuit, which secured in place by cover enclosure internal recessing construction.

8. Internal Lead Wires – R/C (AVLV2), Rated minimum 105 degree C, 30 V, minimum 24 AWG, FEP, PTFE, PVC, TFE, neoprene, or surface marked VW-1 or FT-1. Prevent from internal shorting. Constructed as described in Fig.4.

9. Internal Wiring(connect LED Screen to PWB, refers to Fig.3) – R/C (AVLV2), Rated minimum 80 degree C, 30 V, minimum 30 AWG, FEP, PTFE, PVC, TFE, neoprene, or surface marked VW-1 or FT-1. Prevent from internal shorting.

10. Polymeric Adhesive Systems - R/C (QOQW2), Type UT100B, by CEMEDINE CO LTD (E324741), rated -35 degree C to 80 degree C.


未注公差表
≤5 ±0.05
≤10 ±0.1
≤30 ±0.15
≤100 ±0.2
≤300 ±0.3
>300 ±0.5
130,0±0.5
72,0±0.3
18,0±0.3
ON/OFF
OUT 5V1A
IN 5V
OUT 5V2.1A
名称 SP0355-外壳
产品型号 SP0355
材料 PC 6485 + (z)(f2)
图纸编号 SP0355-2
表面处理 细磨砂/喷亚油
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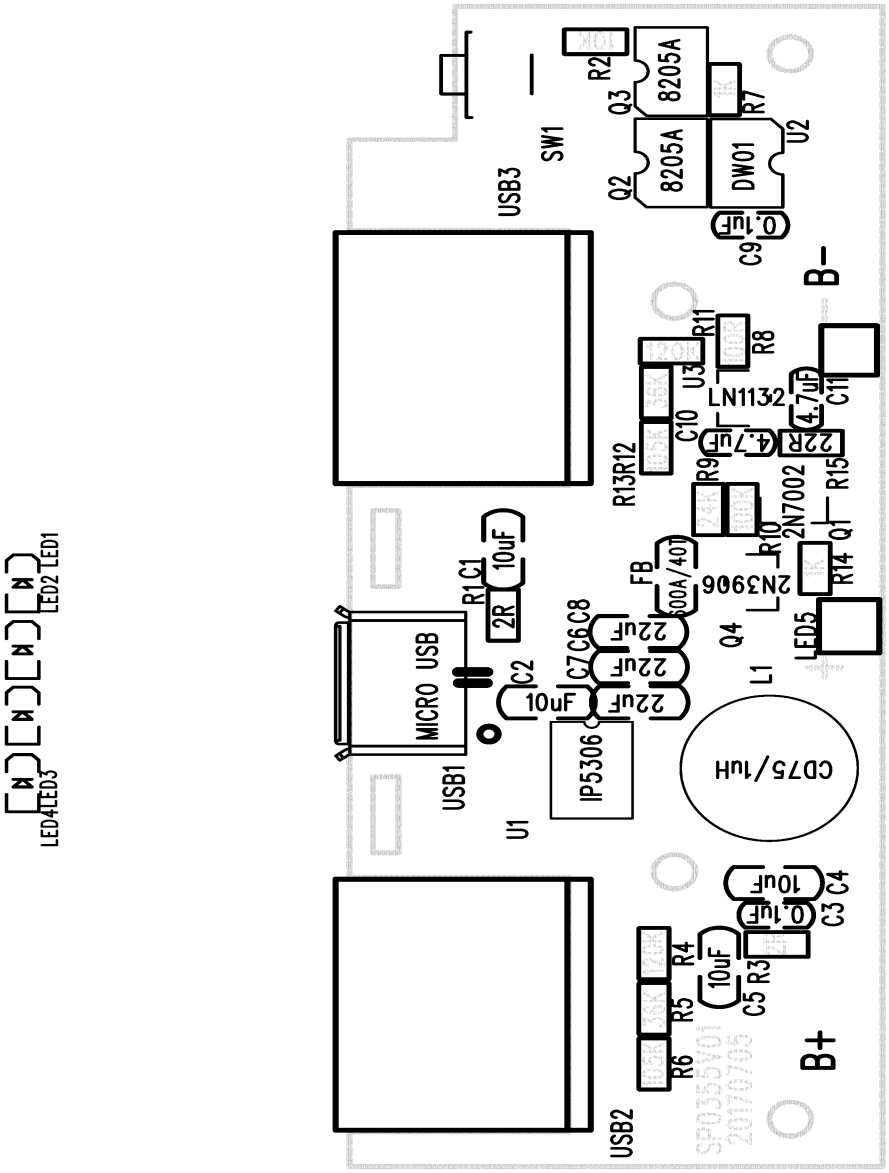
单位 mm
校核
审核

F170329710



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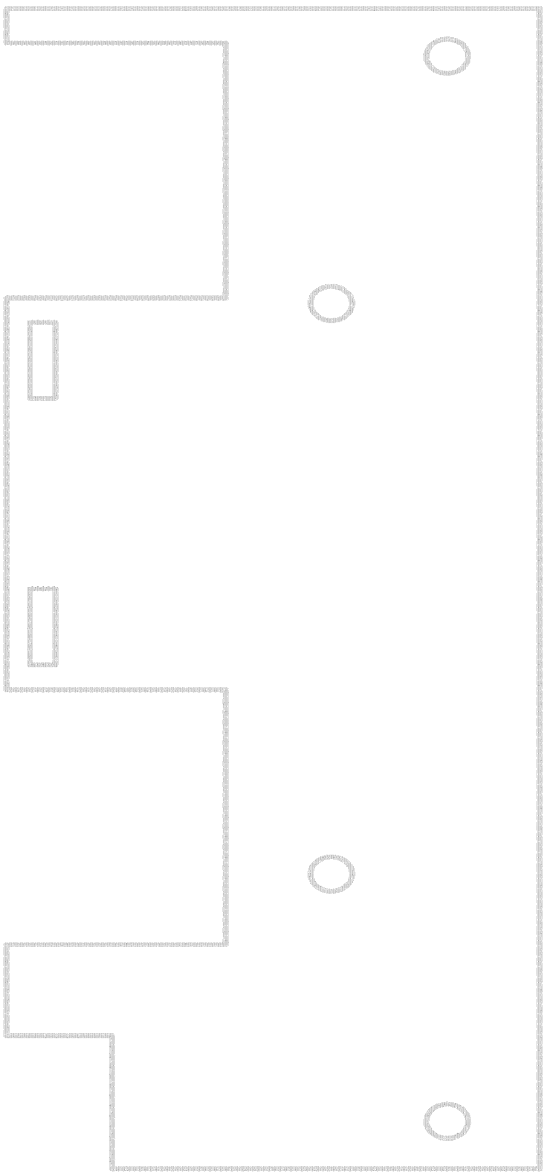

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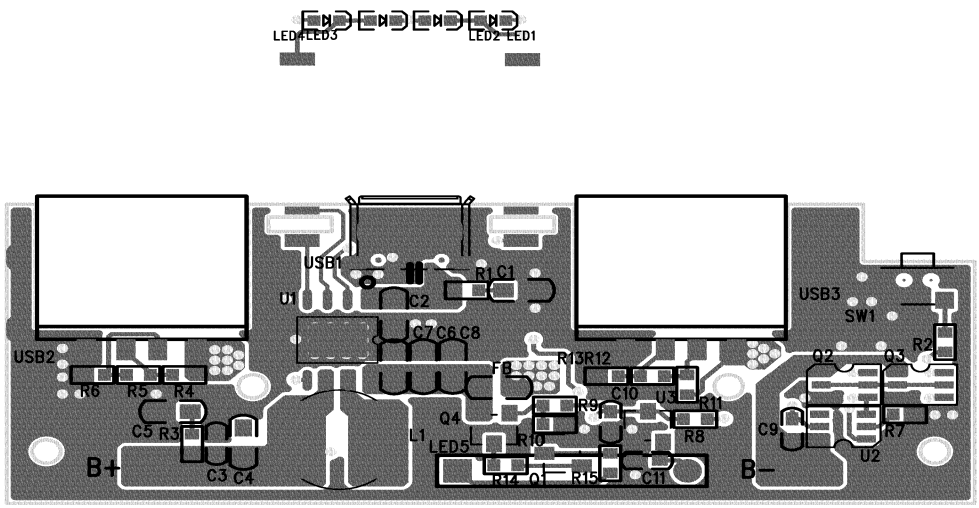

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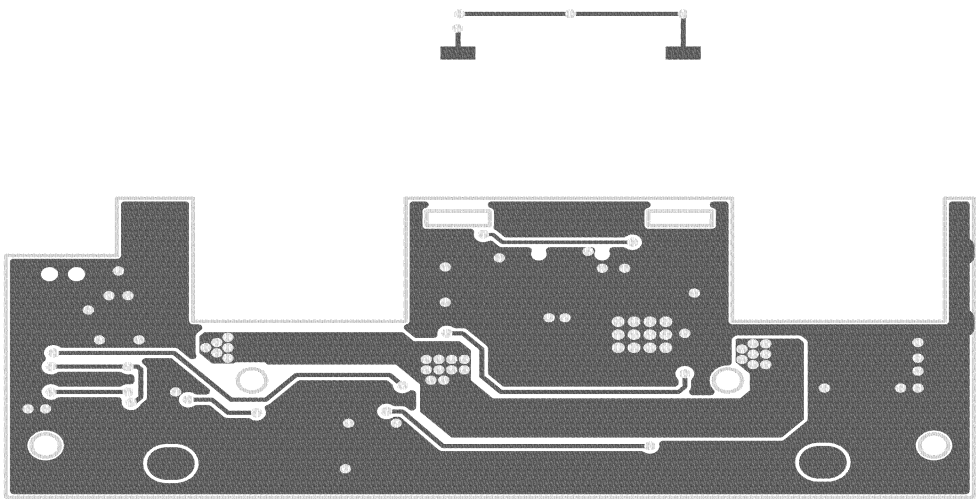
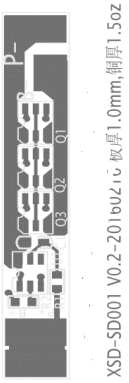


XSD-SD001 V0.2-20160216 板厚1.0mm,铜厚1.5oz

F170329711


XSD-SD001 V0.2-20180216 钣金1.0mm,铬镍1.5oz



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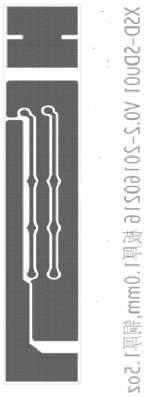
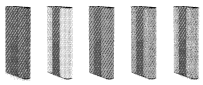

XSD-SD001 V0.2-20180216 板厚1.0mm,铜厚1.5oz

USER MANUAL
for power bank



ITE: Accessories Lithium ion battery UL 2056 certified

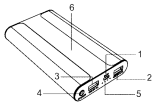
Model: SP0363
Item No.: CPP-4669
Input: DC 5V/2A
Maximum input: VDC 5.3V/2A
Output: DC 5V/1A, 2.1A
Battery/Cell capacity: 29.6Wh , 3.7V / 8000mAh
Product capacity: 25Wh , 5V / 5000mAh
Operating temperature: 0~45°C tor Charging
0~50°C for Discharging
Product Name: Power Bank

EN
CAUTION: Risk of Fire and Burns, don't open, crush, disassemble and dispose of in fire. Accessible surfaces held or touched for short periods only. Don't heat above 50 °C or Incinerate. Follow Manufacturer's Instructions

FR
DANGER: risque d'incendie et de brûlures, ne pas ouvrir, démonter, écraser ni jeter au feu. Ne pas toucher ou tenir les surfaces accessibles sur une longue durée.

MADE IN CHINA

PRODUCT OVERVIEW



1. 5V Input Port (Micro USB)
2. 5V Output Port 1 (USB A-type)
3. 5V Output Port 2 (USB A-type)
4. ON/OFF Button
5. LED indicator (advise of remaining charge – number of illuminated lights decreases as power supply dwindles.)
6. LOGO light (It will light up during charging and discharging)

Button and Indicator

Status	LED Indicator
Charging	flash
Fully charged	lit
Working	lit
Power On	Press once
Power Off	Double press

Accessory: USB Cable

USB CABLE

How to use

Instructions:

1. Charging the portable Power bank

a. Using your mobile phone's USB adapter. Connect a USB cable to your phone's USB adapter. Using the micro USB connector, connect the other end of the USB cable to the IN port on the portable Power bank. Plug the USB adapter into the outlet to begin charging.

b. Using your computer. Connect a USB cable to a USB outlet on your computer. Using the micro USB connector, connect the other end of the USB cable to an IN port on the portable Power bank. Make sure the computer is on to begin charging the portable Power bank.

2. Charging mobile phones and other electronic devices.

a. The portable power device has a USB output port which has the maximum output current of 2100 mA.

b. Connect to USB cable to your mobile phone/device using the appropriate connector. Connect the other end of the USB cable to the OUT port of the portable Power bank. Your mobile phone/device should display the status of charging.

c. Remove the USB cable from your mobile device when it is fully charged.

Note: In order to charge device use only accessory cable (provided with power bank) or the cable included with your own device by the manufacturer.

IMPORTANT SAFETY PRECAUTION

WARNING – When using this product, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.

2. Power bank main unit contains an internal lithium ion battery. Upon initial use or after a prolonged storage period, fully charge it once. The unit's full performance is achieved only after 2 or 3 completed charge and discharge cycles.

3. Power banks are not allowed in checked luggage on commercial airline flights. Handle with care and dispose of in accordance to local regulations. Carry-on only.

4.To reduce the risk of injury, close supervision is necessary when the product is used near children.

5. Do not put fingers or hands into the product.

6. Do not expose power bank to rain or snow.

7. Use of a power supply or charger not recommended or sold by power pack manufacturer may result in a risk of fire or injury to persons.

8. Do not use the power bank in excess of its output rating. Overload outputs above rating may result in a risk of fire or injury to persons.

9. Do not use the power bank that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.

10.Do not disassemble the power bank. Take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or injury to persons.

11.Do not expose a power pack to fire or excessive temperature. Exposure to fire or temperature above 100°C may cause explosion. The temperature of 100°C can be replaced by the temperature of 212°F.

12.Have servicing performed by a qualified repair person using only identical replacement parts.This will ensure that the safety of the product is maintained.

13.Do not charge the power bank while using the power bank to charge a device. Do not charge the power bank for more than 4-6 hours and do not leave unattended.

14.Disconnect off the power bank when not in use.

FCC STATEMENT

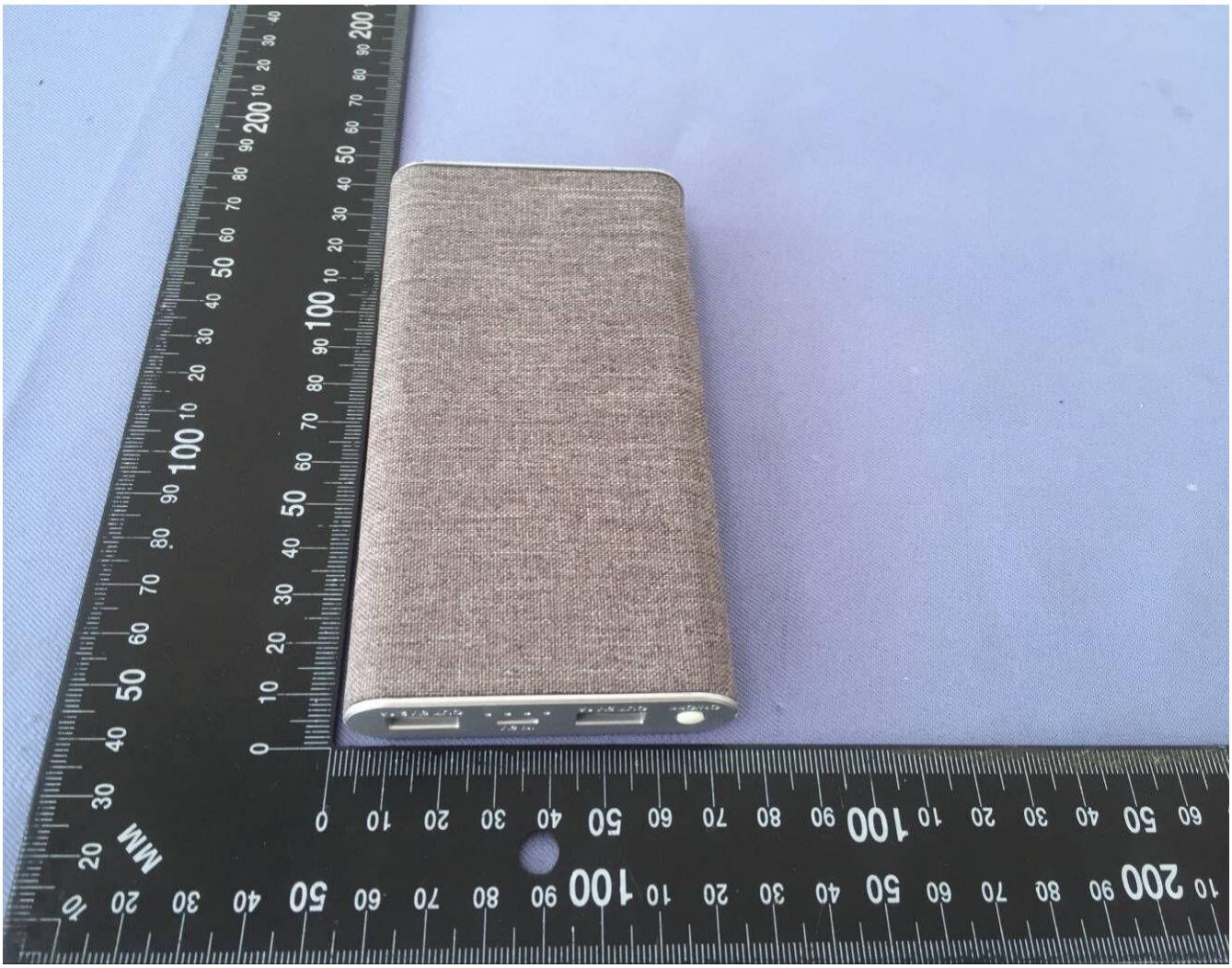
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and
(2)This device must accept any interference received, including interference that may cause undesired operation.

Warning:
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

SAVE THESE INSTRUCTIONS

F170329712


Power Bank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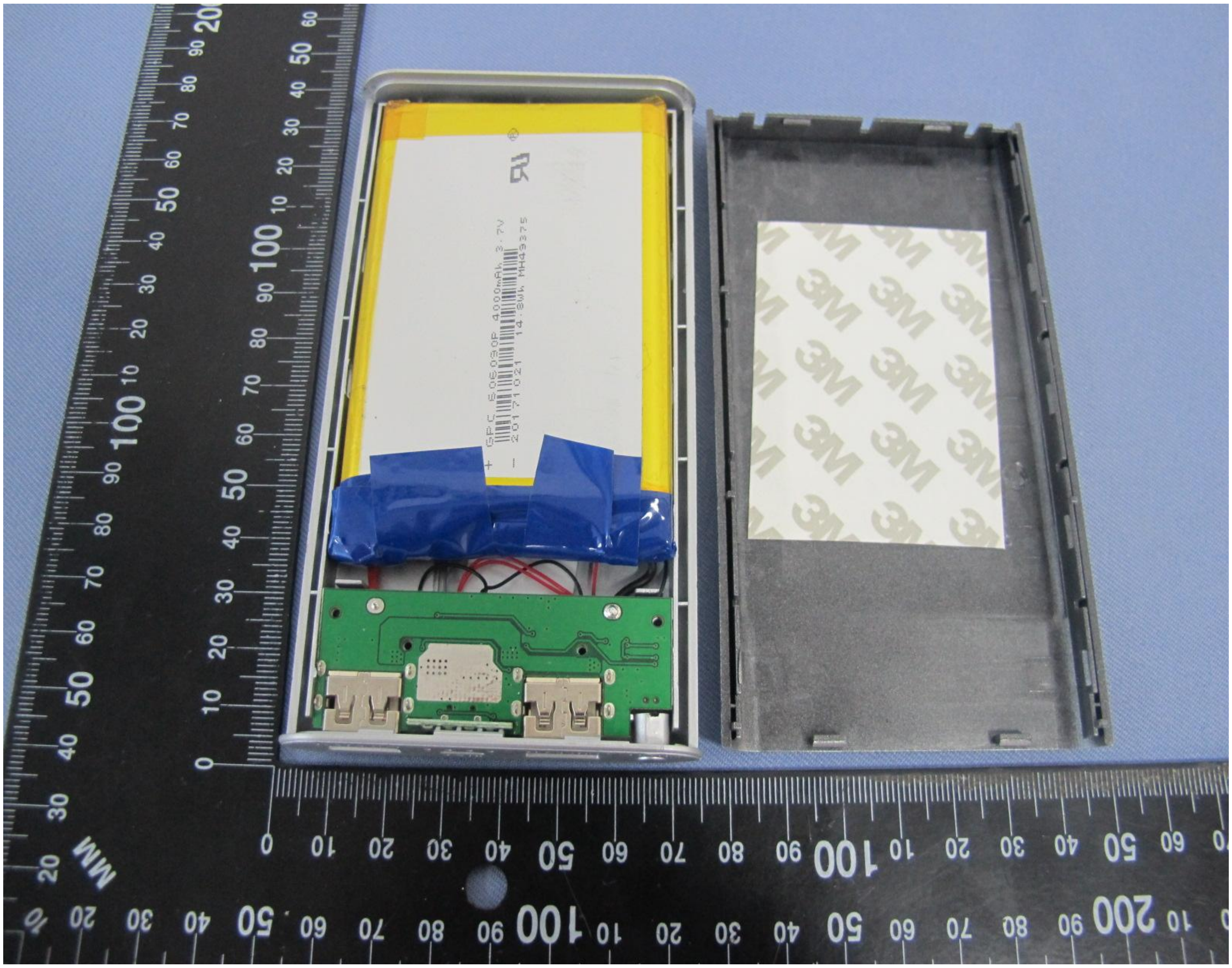
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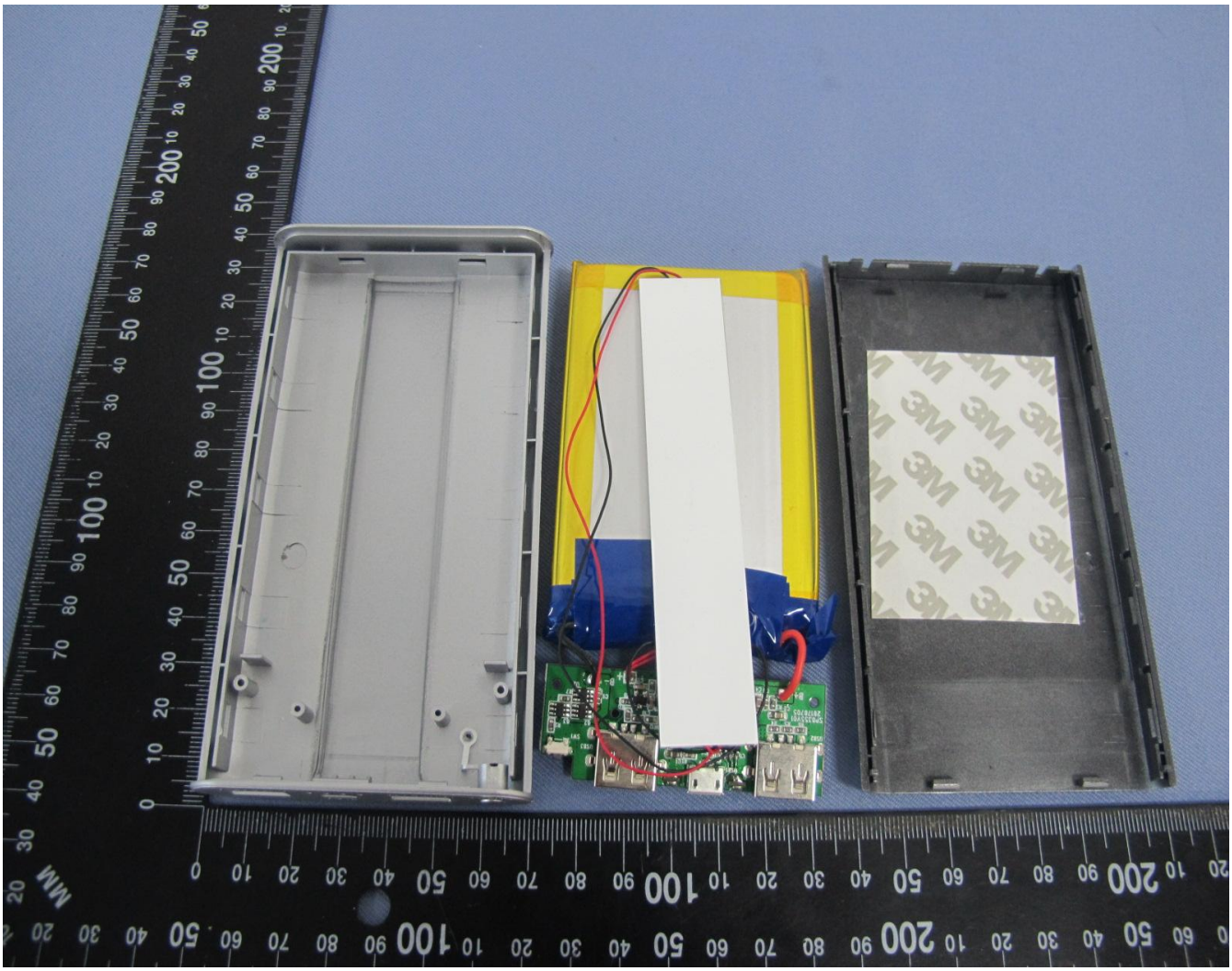
20171021 14.8Wh MH49375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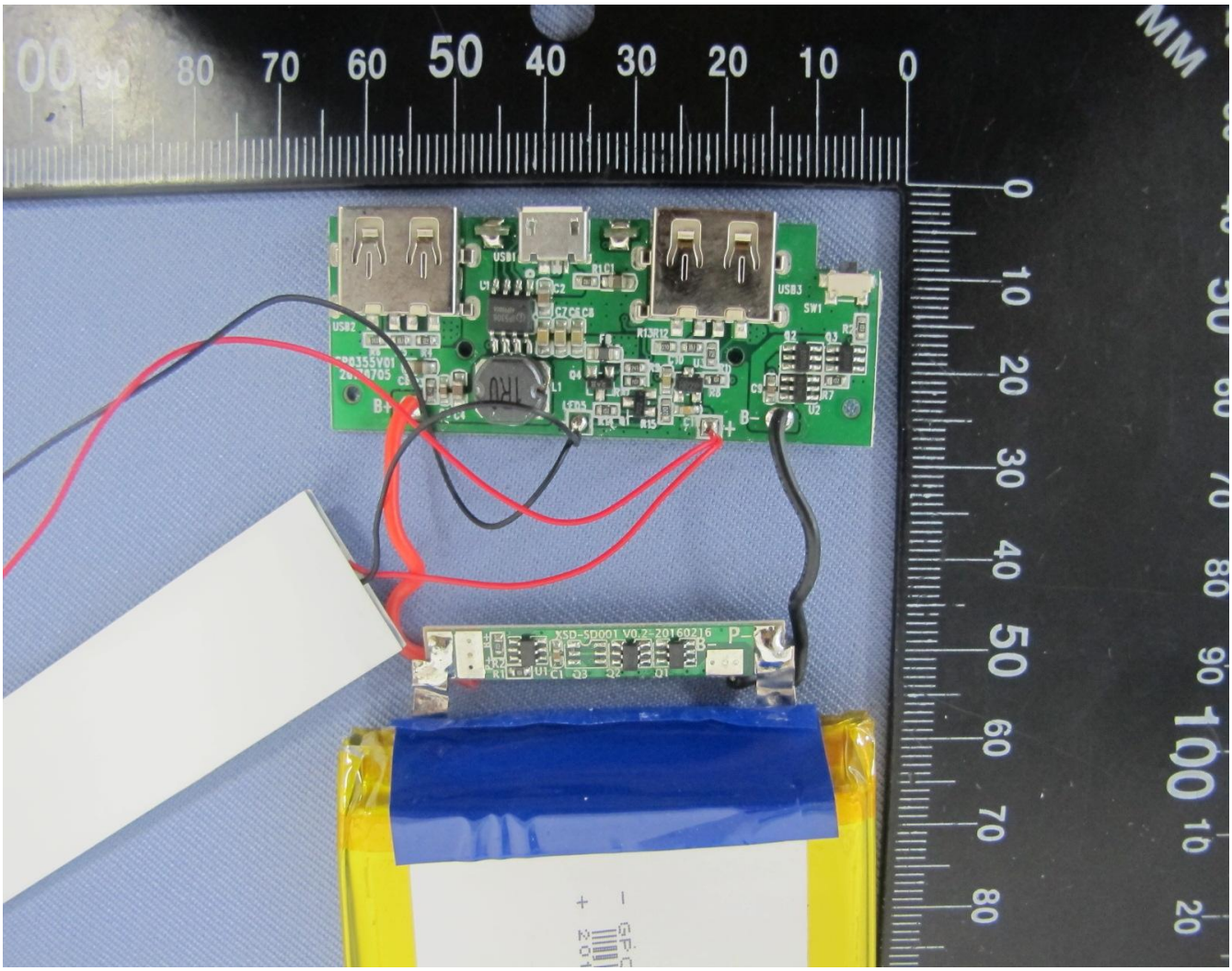
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B-
P-
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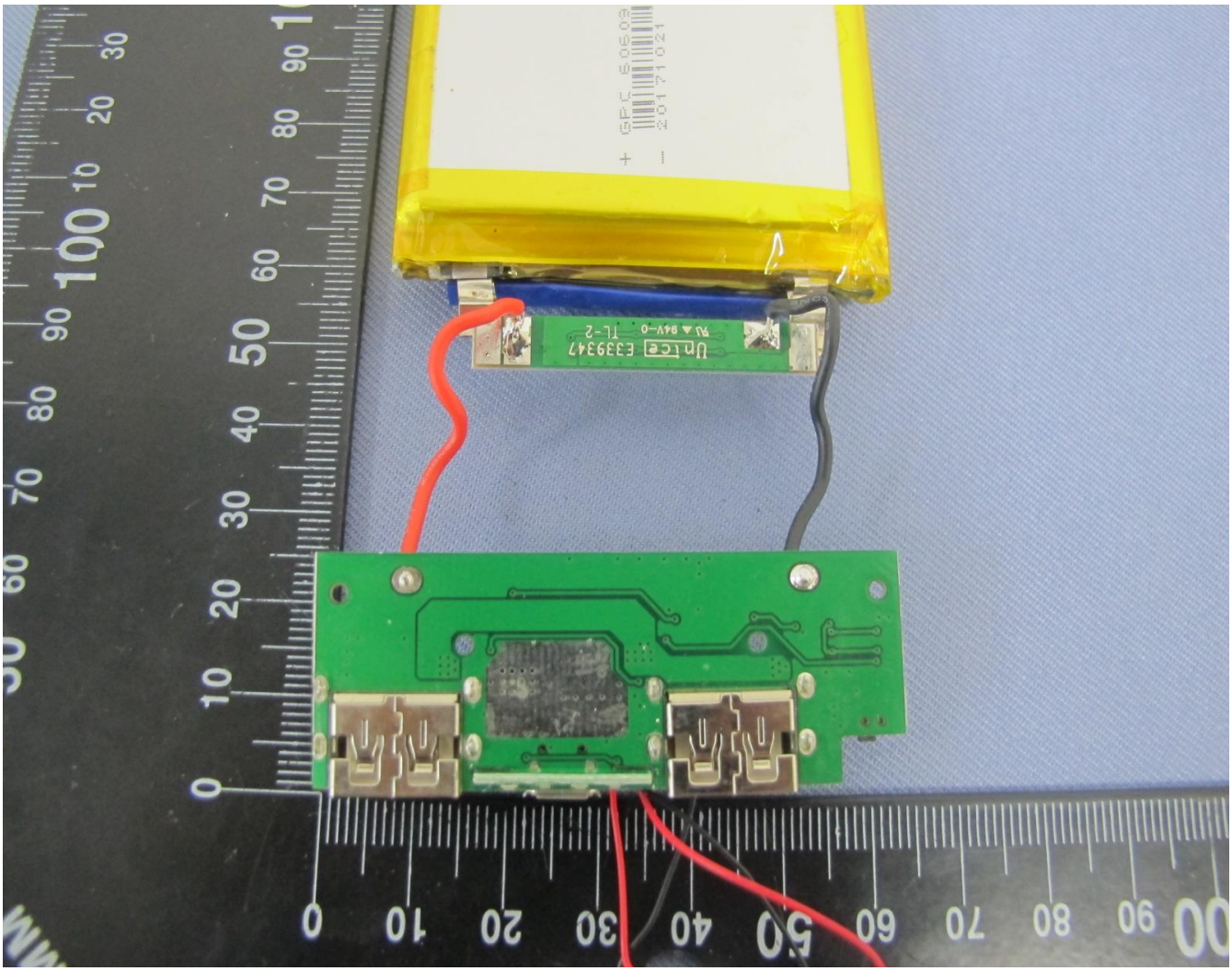
E339347
TL-2

TEST RECORD NO. 2

SAMPLES:

Samples of the Power Banks, Model(s): SP0363, CPP-4669, as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

ELECTRICAL RATING:

Input Rated Voltage, Vdc	5.0
Input Rated Current, A	2.0
Output Port # 1 Rated Voltage, Vdc	5.0
Output Port # 1 End-of-Discharge Voltage, Vdc	4.5
Output Port # 1 Rated Current, A	1.0
Output Port # 1 Rated Capacity, mAh	5000
Output Port # 2 Rated Voltage, Vdc	5.0
Output Port # 2 End-of-Discharge Voltage, Vdc	4.5
Output Port # 2 Rated Current, A	2.1
Output Port # 2 Rated Capacity, mAh	5000
Manufacturer's Maximum Recommended Ambient, °C	0~45°C for Charging; 0~50°C for Discharging

INTERNAL BATTERY CHARGING PARAMETERS:

Pack Model	Standard Charging Current, A	Standard Charging Voltage, Vdc	Maximum Charging Current, A	Maximum Charging Voltage, Vdc
SP0363, CPP-4669	4.0	4.2	4.0	4.2

GENERAL:

MODEL DIFFERENCE: Model SP0363 and CPP-4669 are identical except for model designation.

Test results relate only to the items tested.

All tests are conducted at GUANGDONG UTL CO., LTD. under WTDP.(Address: Lianding Testing Building, No.18 Center Road of Yayuan Industrial Zone, Nancheng District, Dongguan, Guangdong, China).under WTDP

The following tests were conducted.

Battery Pack Model	Test Conducted	UL 2056 Section Reference / (UL/CSA 60950-1 Section Reference)	Compliant Results? [Y] [N][N/A]	Comments
SP0363, CPP-4669	Battery Pack Component Temperature Test, Battery Pack Surface Temperature Test (UL 2056); Lithium Ion System (UL 2056); Heating Test (UL 60950-1/CSA C22.2 No. 60950-1-07); Energy Hazard Measurements (UL 60950-1/CSA C22.2 No. 60950-1-07)	8.1, 8.6-8.8 (2.1.1.5)	Y	--
	250 N Steady Force Test (UL 2056); Steady Force Tests 250N (UL 60950-1/CSA C22.2 No. 60950-1-07)	8.1 (4.2.4)	Y	--
	Mold Stress Relief Test (UL 2056); Stress Relief (UL 60950-1/CSA C22.2 No. 60950-1-07)	8.1 (4.2.7)	Y	--
	Drop Impact Test (UL 2056); Drop (UL 60950-1/CSA C22.2 No. 60950-1-07)	8.1 (4.2.6)	Y	--
	Power Input Test (UL 2056):	9	Y	--
	Overload Of Output Ports Test (UL 2056):	10	Y	--
	Capacity Verification Test (UL 2056):	12, 13.2	Y	--

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in Outline of Investigation for Safety of Power Banks, the Issue 2 of UL 2056, including revisions through revision date November 03, 2015.

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment – Safety - Part 1: General Requirements, CAN/CSA-C22.2 No. 60950-1-07, and UL 60950-1, Second Edition, including revisions through revision date October 14, 2014.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in the U.S. Standard for Outline of Investigation for Safety of Power Banks, UL 2056, Second Edition, including revisions through revision date November 03, 2015, and the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment – Safety - Part 1: General Requirements, CAN/CSA-C22.2 No. 60950-1-07, and UL 60950-1, Second Edition, including revisions through revision date October 14, 2014, and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report. Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. UL shall not otherwise be responsible to anyone for the use of or reliance upon the contents of this Report.

Report by:

Abby Pan
Engineer

Review by:

Devin He
Engineer Project Associate

Alvin Peng
Senior Project Engineer