



Test Report

Number: 151225010SZN-001

Applicant: : Spector & Co.
5700 Kieran Rd, Montreal,
QC, H4S 2B5

Date: Jan 08, 2016

Attn : productcompliance@spector
andco.com

Vendor NO : USC056
Type of Product : 3000 mAh ALUMINUM POWER BANK
Brand : SPECTECH
Model No. of Product : T1027

Country of Origin : China Date of Received : Dec 25, 2015

Date of test Conducted : Dec 25, 2015~Jan 05, 2016

Test Required : Only UL 60950 Clause 4.3.8 and Clause 5.3 per SPECTOR&CO requirement.

Sample Quantity : 5 pieces

Conclusion:

The submitted sample complied with TEST REQUIRED.
 The submitted sample failed to comply with TEST REQUIRED.

Remark:

- Package was not provided.

Tested By:

Approved By:

Bernie Chen
Engineer
Intertek Testing Service SZ

Wisons Lin
Team leader
Intertek Testing Services SZ

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TEST CONDUCT				
EVALUATION	CITATION	CRITERIA	Measurement / Comments	Rating
1. Overcharging of a rechargeable battery	Refer UL/CSA 60950-1 Clause 4.3.8	<p>The battery is charged under each of the following conditions in turn.</p> <ul style="list-style-type: none"> • The battery charging circuit is adjusted with the battery disconnected to give 106 % of the rated output voltage of the charger, or the maximum charging voltage available from the charger (without simulation of faults), whichever is the higher attainable value. The battery is then charged for 7 h. • The battery charging circuit is adjusted, with the battery disconnected, to 100 % of the rated output voltage of the charger. The battery is charged while briefly subjected to the simulation of any single component failure that is likely to occur in the charging circuit and those results in overcharging of the battery. To minimize testing time, the failure is chosen that causes the highest overcharging current. The battery is then charged for a single period of 7 h with that simulated failure in place. <p>After test, the product shall not result in any of the following:</p> <ul style="list-style-type: none"> - Chemical leaks caused by cracking, rupturing or bursting of the battery jacket, - Spillage of liquid from any pressure relief device in the battery, - Explosion of the battery, <p>Emission of flame or expulsion of molten metal to the outside of the equipment enclosure</p>	Complied	P
2. Reverse charging of a rechargeable battery	Refer UL/CSA 60950-1 Clause 4.3.8	<p>The battery is reverse charged while briefly subjected to the simulation of any single component failure that is likely to occur in the charging circuit and that would result in reverse charging of the battery. To minimize testing time, the failure is chosen that causes the highest reverse charging current. The battery is then reverse charged for a single period of 7 h with that simulated failure in place.</p> <p>After test, the product shall not result in any of the following:</p> <ul style="list-style-type: none"> - Chemical leaks caused by cracking, rupturing or bursting of the battery jacket, - Spillage of liquid from any pressure relief device in the battery, - Explosion of the battery, <p>Emission of flame or expulsion of molten metal to the outside of the equipment enclosure</p>	Complied	P

TEST CONDUCT				
EVALUATION	CITATION	CRITERIA	Measurement / Comments	Rating
3. Excessive discharging	Refer UL/CSA 60950-1 Clause 4.3.8	<p>The battery is subjected to rapid discharge by open-circuiting or short-circuiting any current-limiting or voltage-limiting components in the load circuit of the battery under test.</p> <p>After test, the product shall not result in any of the following:</p> <ul style="list-style-type: none"> - Chemical leaks caused by cracking, rupturing or bursting of the battery jacket, - Spillage of liquid from any pressure relief device in the battery, - Explosion of the battery, - Emission of flame or expulsion of molten metal to the outside of the equipment enclosure 	Complied	P
4. Abnormal operating and fault conditions (output short circuit and overload test)	Refer UL/CSA 60950-1 Clause 5.3	<p>Equipment shall be so designed that the risk of fire or electric shock due to mechanical or electrical overload or failure, or due to abnormal operation or careless use, is limited as far as practicable.</p> <p>After abnormal operation or a single fault (see 1.4.14), the equipment shall remain safe for an OPERATOR in the meaning of this standard, but it is not required that the equipment should still be in full working order. It is permitted to use fusible links, THERMAL CUT-OUTS, overcurrent protection devices and the like to provide adequate protection. Compliance is checked by inspection and by the tests of 5.3. Before the start of each test, it is checked that the equipment is operating normally.</p> <p>If a component or subassembly is so enclosed that short-circuiting or disconnection as specified in 5.3 is not practicable or is difficult to perform without damaging the equipment, it is permitted to make the tests on sample parts provided with special connecting leads. If this is not possible or not practical, the component or subassembly as a whole shall pass the tests.</p> <p>Equipment is tested by applying any condition that may be expected in normal use and foreseeable misuse.</p> <p>In addition, equipment that is provided with a protective covering is tested with the covering in place under normal idling conditions until steady conditions are established.</p> <p>After test, the product shall not result in any of the following:</p> <ul style="list-style-type: none"> - Chemical leaks caused by cracking, rupturing or bursting of the battery jacket, - Spillage of liquid from any pressure relief device in the battery, - Explosion of the battery, - Emission of flame or expulsion of molten metal to the outside of the equipment enclosure 	Complied	P



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When determining the test conclusion, the Measurement Uncertainty of test has been considered.

Results Key

-	For information only
P	Pass
F	Fail
NA	Not applicable

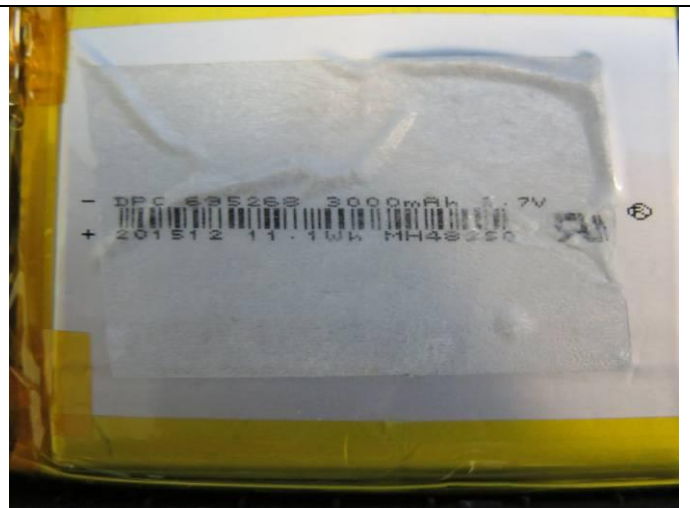
Photo



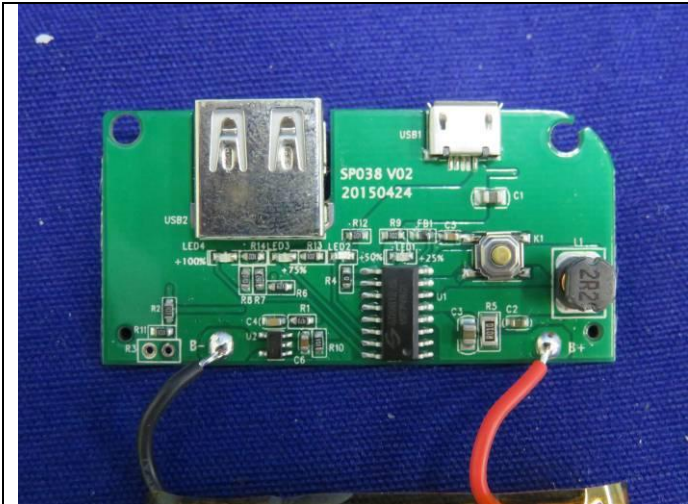
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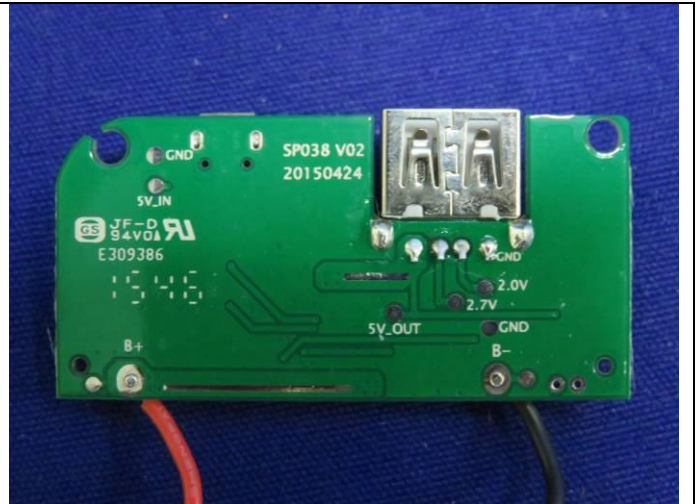
USB PORT



Battery



PCB



PCB



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Testing History

Previous Report No#	Report Issued Date	Test Type	Overall Rating	Failure Reason
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