1. Preface

2. Description and Model
2.1 Description Rechargeable Lithium-ion button battery
2.2 Model LiR2477

3. Specification
3.1 Capacity Nominal 150mAh
Typical 180mAh
3.2 Charging Voltage 4.20V
3.3 Nominal Voltage 3.7V at 0.2C mA
3.4 Standard Charging Method Constant current:75mA Constant voltage 4.20V 5h
3.5 Cut-off Discharge Voltage 3.00V
3.6 Max.Discharge Current 300mA
3.7 Max.Charge Current 150mA
3.8 Cycle Life >500 cycles at 0.2C mA discharge
3.9 Ambient Temperature
   for Standard Charge 0C~ 45C
   for Discharge -20C~ 60C
3.10 Storage
   for within the temperature -20C~ 60C
   for within the humidity <75%
3.11 Energy Density
   Wh/L ~200
   Wh/Kg ~90
3.12 Weight of Bare Cell ~7g
3.13 Charge State Internal Impedance <300mOhms

4. Appearance
   Appearance shall be free from any remarkable scratch,flaws, rust, discoloration or electrolyte leakage(visible or by smell)

5. Standard Test condition
5.1 Environment Conditions
   Unless otherwise specified,all test stated in this Product Specification are conducted within the temperature 15~25C and the humidity 45~85%RH.

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5.2 Test Equipment
   (1) Impedance meter
       The impedance meter with AC 1kHz should be used

6. Test Procedure and Its Standard

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<th>Item</th>
<th>Measuring Procedure</th>
<th>Standard</th>
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<td>Visual</td>
<td>No Defect and Leak</td>
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<td>6.2 Dimension</td>
<td>Caliper</td>
<td>As item 8</td>
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<td>6.3 Weight</td>
<td>Scale</td>
<td>As item 3.12</td>
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<tr>
<td>6.4 Maximum Charge Current</td>
<td>CCCV(Constant Current Constant Voltage)</td>
<td>150mA</td>
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<td>6.5 Full charge</td>
<td>CCCV</td>
<td>CC-0.2CmA CV- 4.2V total 8h</td>
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<tr>
<td>6.6 Open Circuit Voltage</td>
<td>Within 1hr after full charge, measure Open circuit voltage</td>
<td>&gt;4.15V</td>
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<tr>
<td>6.7 Internal Impedance</td>
<td>Measure the battery with 1kHz AC</td>
<td>&lt;300mOhms</td>
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<tr>
<td>6.8 Discharge Capacity</td>
<td>Within 1hr after full charge, discharge until final discharge, at 0.2C mA and measure the capacity</td>
<td>&gt;150mAh</td>
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<tr>
<td>6.9 Maximum Discharge Current</td>
<td>Until final discharge voltage</td>
<td>300 mA</td>
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<tr>
<td>6.10 Charge/Discharge Cycle Life</td>
<td>Charge:CCCV,CC- 0.2CmA,CV- 4.2V total8h</td>
<td>Discharge capacity should be &gt;70% of item 6.8</td>
</tr>
<tr>
<td></td>
<td>Discharge:0.2CmA to 3.00V,This charge/discharge shall be repeated 500 times</td>
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<tr>
<td>6.11 Leakage Proof</td>
<td>After full charging, the battery shall be stored at 40±2°C and humidity 8 0 ± 5 % f or 21 days</td>
<td>No leakage should be observed by visual inspection</td>
</tr>
<tr>
<td>6.12 Temperature Characteristics</td>
<td>1)After full charge at 20±5C ,stand at -20±2C for 18hrs, then discharge at 0.2C mA and measure the capacity</td>
<td>Discharge capacity should be &gt;60% of item 6.8 and no abnormality on its appearance and structure</td>
</tr>
<tr>
<td></td>
<td>2)After full charge at 20±5C ,stand at 55±2C for 2hrs , then discharge at 1C mA and measure the capacity</td>
<td></td>
</tr>
<tr>
<td>6.13 Charge Retension</td>
<td>After full charging, stand at 20±5C for 28 days, measure the discharge capacity according to item 7.8</td>
<td>Discharge capacity should be &gt;85% of item 6.8</td>
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</tbody>
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7.1 Charge/Discharge Characteristics
Charge: CC/CV 4.2V, 75mA (0.5C), total 5h
Discharge: 75mA (0.5C) Cut-off at 3.00V
Temperature: 25℃

7.3 Temperature Characteristics
Charge: CC/CV 4.2V, 0.5CA, total 5h
Discharge: 0.5CA, Cut-off at 3.00V

7.2 Charge/Discharge Cycle Life
Charge: CC/CV 4.2V, 0.2CA, total 8h
Discharge: 0.2CA, Cut-off at 3.00V
Temperature: 25℃

8. Dimension (Bare cell) mm

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