



# Specification of Li-polymer Rechargeable Battery

Model No.: LP-403451-1S-2

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## 1. Scope

This specification describes the definition, technical requirement, testing method, warning and caution of the Lithium ion polymer rechargeable battery.

## 2. Product Model

Battery type: Rechargeable Lithium-ion Polymer Battery

Battery Model: LP-403451-1S-2

## 3. Ratings

- 3.1. Nominal Capacity[at 0.2C]: 780mAh (min );  
800mAh (typical )
- 3.2. Nominal Voltage: 3.7V (average voltage at 0.2C discharge)
- 3.3. Charging Voltage: 4.20V
- 3.4. Max. Charging Current: 0.5C(15°C ~ +45°C)
- 3.5. Charging Method: constant current constant voltage
- Standard Charge: 0°C~15°C 0.2C constant current charge to 4.2V, then constant voltage 4.2V charge till charged current declines to  $\leq 0.02C$  (charging time 5.5~6.5hrs)  
15°C~45°C 0.5C constant current charge to 4.2V, then constant voltage 4.2V charge till charged current declines to  $\leq 0.02C$  (charging time: approx 3.5hrs)
- 3.6. Max. Continuous Discharge Current: 0.5C ( $23 \pm 2^\circ C$ )
- 3.7. Discharge Cut-off Voltage: 2.75V (limited by PCB)
- 3.8. Battery Dimensions (Refer to the attached drawing)
- 3.9. Battery Weight:  $\leq 18g$
- 3.10. Operating Temperature
- Discharge: -20°C ~ +60°C (0.2C discharge current, recommend -0~45°C)
- Charging: 0°C ~ +45°C
- Storage in a 50% charged state
- | Temperature range | Duration | Typ. Capacity recovery |
|-------------------|----------|------------------------|
| -20°C - +60°C     | 1month   | 80%(expected)          |
| -20°C - +45°C     | 3months  | 80%(expected)          |
| -20°C - +25°C     | 1year    | 80%(expected)          |

The storage voltage should keep voltage state in the factory, over long storage periods cells should be cycled every 90 days, The method is to do a charge-discharge cycle with standard method.

## 4. Battery Performance

### 4.1. Visual Inspection

There shall be no such defects as remarkable scratches, cracks, leakage or deformations.