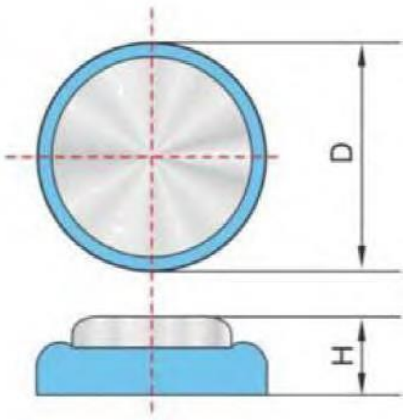
Lithium-ion Button Cell Battery

Primary characteristics		
Parameter	**Value**	**Unit**
Nominal voltage	3.7	V
Nominal capacity	22	mA
Diameter D	9 ±0.1	mm
Height H	4.0±0.1	mm

Battery dimensions



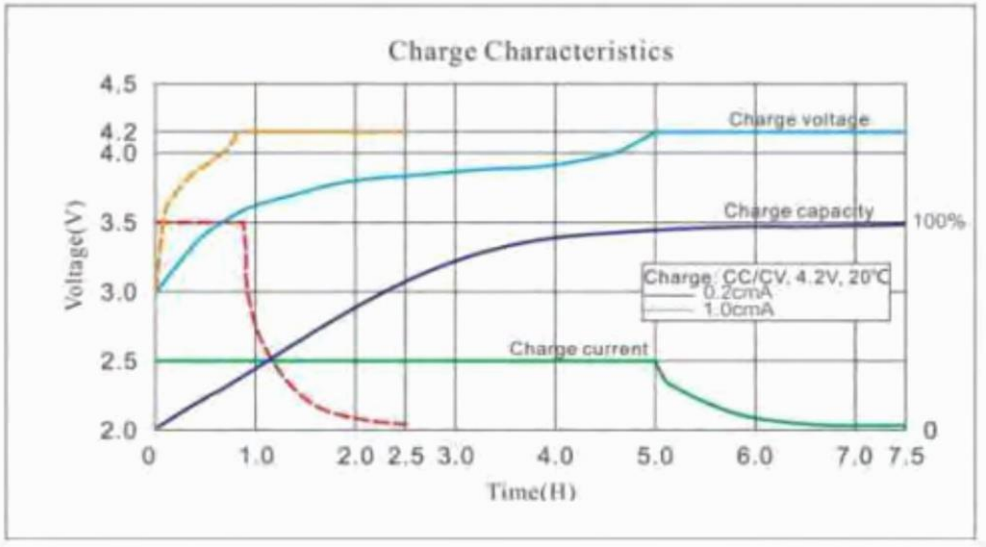
Scope

The purpose of this product specification is to provide technical information for the rechargeable Lithium-ion button battery LIR0940.
The test shall be conducted in strict accordance with the method specified in this specification.
If you have any objection to the test items or test methods, please contact Akyga Battery.

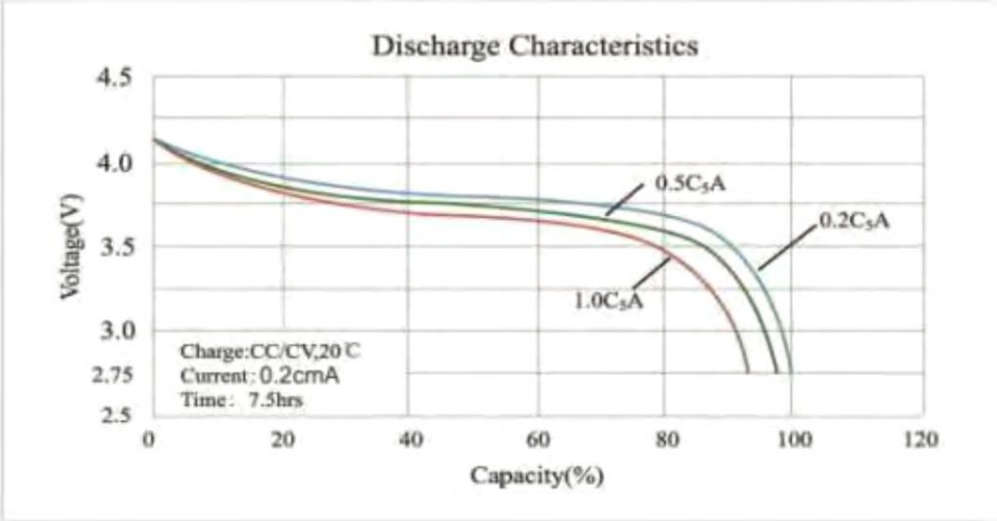
Specification table		
Parameter	**Value**	**Unit**
Model	LIR0940	
Nominal voltage	3.7	V
Nominal capacity	22	mAh
Internal resistance	≤800	mΩ
Weight	0.8±0.2	g

Standard Charge/Discharge Characteristics:
In a temperature of 25℃, CC charge 0.2CmA / voltage up to 4.20V. Then CV charge. Terminate charging when the charging current value is less than 0.02CmA. Rest for no more than 10 minutes, discharge CC at 0.2CmA to 2.75V.
Fast Charge/Discharge:
Temperature 25℃, CC charge at 2CmA to 4.20V, turn to CV charge. Terminate charging when the charging current value is less than 0.02CmA, rest for no more than 10 minutes, then at 1CmA CC discharge to 2.75V
Note:
Unless otherwise specified, all tests stated in this specification are conducted at the following conditions:
Temp.: 25℃, Relative Humidity: 75±5% , Atmosphere Pressure: 1atm

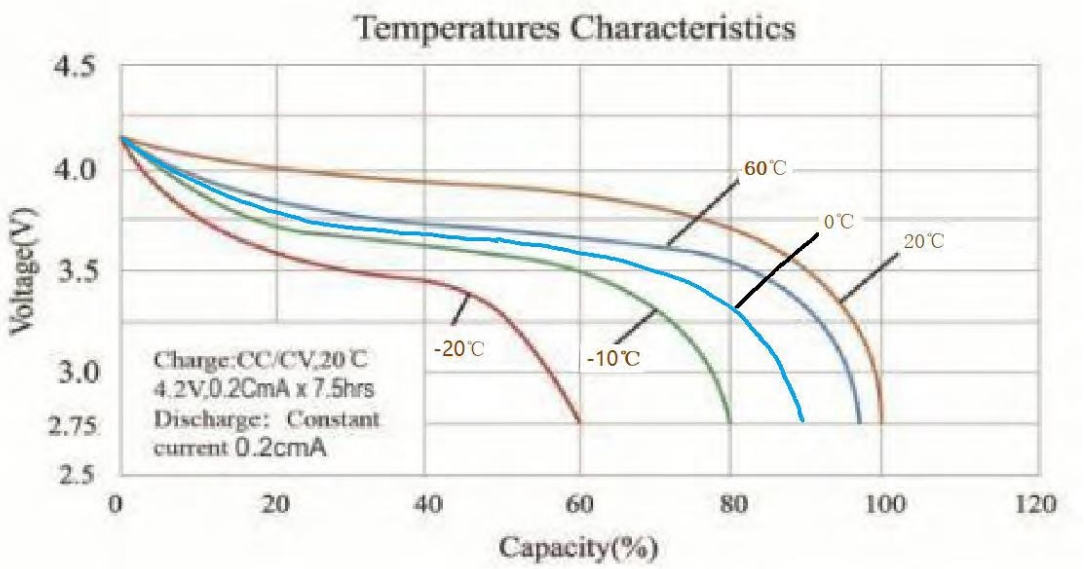
Charging characteristics at various currents



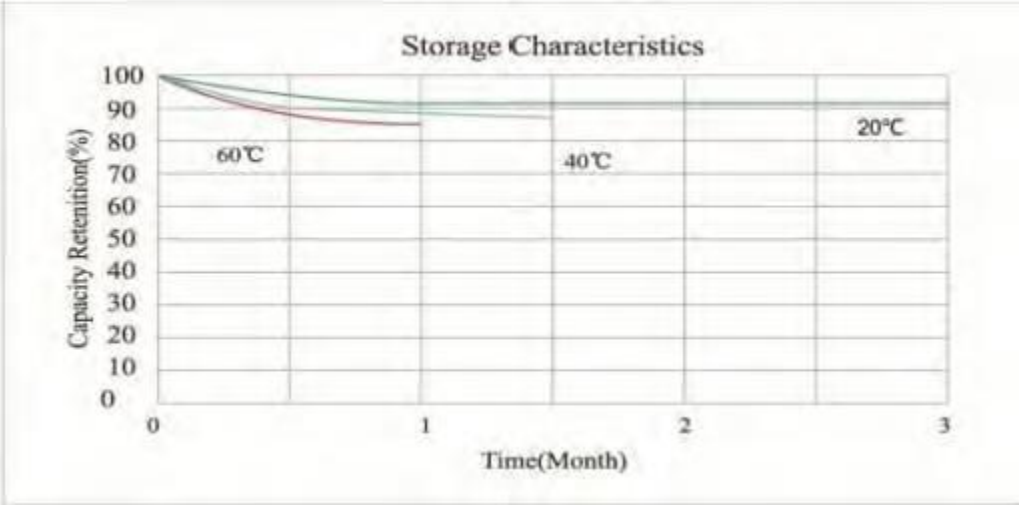
Discharge characteristics



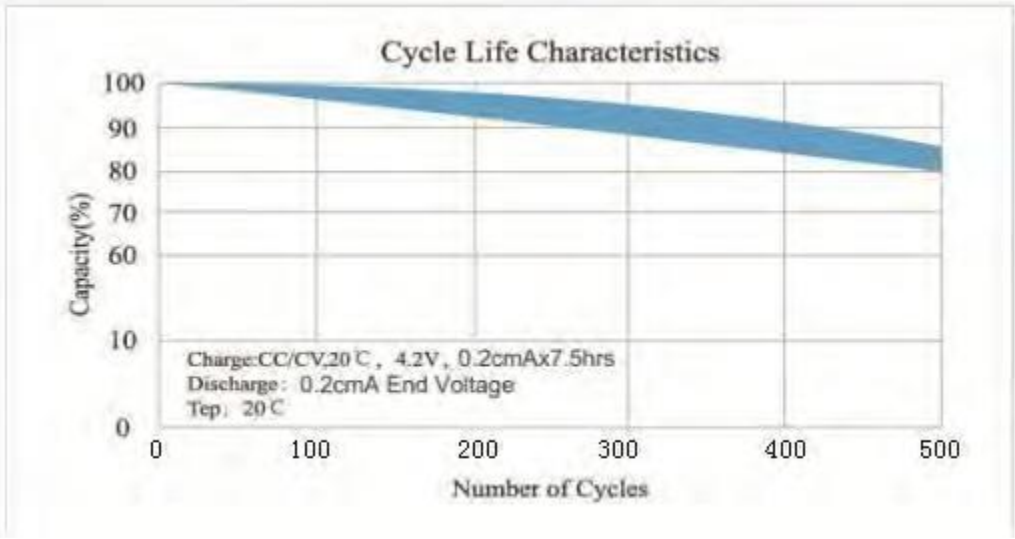
Discharging characteristics at various temperatures



Storage characteristics



Cycle life characteristics



- Before using the Cell, be sure to read the user's manual and cautions on handling thoroughly.
- Charging with specific charger according to product specification. Charge with CC/CV method.
- Strictly prohibits revered charging. Connect cell reverse will not charge the cell. At the same time, it will reduce the charge-discharge characteristics and safety characteristics; this will lead to product heat and leakage.
- Store batteries out of reach of children so that they are not accidentallyswallowed.
- If younger children use the Cell, their guardians should explain the proper handling.
- Before using the Cell, be sure to read the user's manual and cautions on handling thoroughly.
- Batteries have life cycles. If the time that the Cell powers equipment becomes much shorter than usual, the Cell life is at an end. Replace the Cell with a new same one.
- When not using Cell for an extended period, remove it from the equipment and store in a place with low humidity and low temperature.
- While the Cell pack is charged, used and stored, keep it away from objects or materials with static electric charges.
- If the terminals of the Cell become dirty, wipe with a dry clothe before using the Cell.
- Storage the cells in storage temperature range as the specifications. After full discharged, we suggest that charging to 3.8~4.0V if not used for a long time.
- Do not exceed these ranges of the following temperature ranges：
  Working temperature range: -20℃ ~ 60℃
  Storage temperature range: 20℃±1℃

Important notes

Keep away from source of fire and/or heat.
Do not disassemble battery and/or battery pack.
Do not connect the positive and negative pole directly using conductive metal; avoid short circuit.
Do not put the battery into water or damp it.
Do not cut the battery.
Do not strike or needle the battery.
Charge the battery using specified chargers.
Do not solder the battery directly.
Observe the correct polarity (+/-).

Do not use the battery in un-specified application.
Do not mix the battery in usage with other types of battery.
Read the instruction manual carefully before use.
When the battery is used on load, it is recommended to design a charge/discharge protection circuit for the battery.
When the battery is stored and not used under room temperature for over 3 months, it needs to be recharged by the procedure below: Discharge by CC mode at 0.2CmA to 2.75V, then rest for 5 minutes, charge by CC mode at 0.2CmA to 4.20V limit, then change to CV charge mode. Cut off the charge when the charging current is less than 0.05CmA.