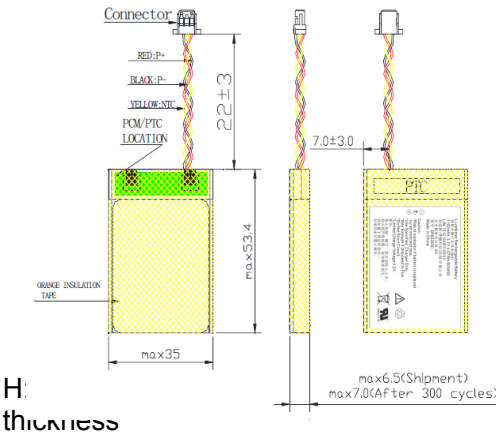


Item	Specifications		
Model No.	Li-polymer Rechargeable battery 1100mAh 3.7V 4.07Wh 603450 L/N: 1512 1ICP7/35/51		
Sizes:	<div>H (Max): 53.4 mm W (Max): 35 mm T (Max): 6.5 mm (Initial Dimension) 7.0 mm (After cycling 300 times)</div> <div><p>H: thickness</p></div>		
CONNECTOR WIRE	ACES 50233-003 UL3302 AWG28#		
Specification			
Minimum capacity	1100 mAh @ 0.2C Discharge		
Battery impedance	≤ 220 mΩ		
Cell impedance	≤ 70 mΩ		
Shipment voltage	≥ 3.7V		
Weight	Approximately 24g		
Nominal voltage	3.7 V		
Fully charge voltage(FC)	4.2 V	Defined in this DOC: FC = 4.2 V	
Fully discharge voltage(FD)	3.0 V	Defined in this DOC: FD = 3.0 V	
Standard charge current	0.5 C		

Standard charging method	0.5C CC (constant current) charge to FC, then CV(constant voltage FC) charge till charge current decline to ≤0.01C		
Charging time	Approximately 5 hours (Standard charging)		
Standard discharge current	0.2C		
Max. charge current (0℃~15℃)	0.2C		
Max. charge current (15℃~25℃)	0.5C		
Max. charge current (25℃~45℃)	1C		
Max. discharge current (-10℃~15℃)	0.2C		
Max. discharge current (15℃~60℃)	2.73C(3A) Duration: 0.1s		
Charge cut-off voltage	Ref. 12.1 OVP (Same as over-charge protection voltage)		
Discharge cut-off Voltage	Ref. 12.1 UVP (Same as over-discharge protection voltage)		
Storage temperature (-20℃~60℃)	≤1 month	The duration when percentage of recoverable capacity is no less than 80% of the initial capacities.	
Storage temperature (-20℃~45℃)	≤3 month		
Storage temperature (-20℃~28℃)	≤1 year		
Recoverable capacity	Constant current 0.5C charge to FC, then constant voltage FC charge to current declines to 0.01C, rest for 10min..constant current 0.5C discharge to FD..rest for 10min.Repeat above steps 3 times, recording the maximum capacity		
Storage humidity	≤75% RH		
Appearance	Without distortion and leakage		
Standard testing condition	Temperature: 23±5℃ Humidity: ≤75%RH Atmospheric pressure: 86-106 Kpa		
Safety Charge Limitation	Temperature Range	Maximum Charging Curr	Maximum Charging Voltage
	-15℃~0℃	0.1C	4.1V
	0℃~10℃	0.5C	4.2V
	10℃~45℃	1C	4.2V
	45℃~60℃	1C	4.2V
	Temperature Range	Maximum Discharging C	Minimum Discharging Voltage

Safety Discharge Limitation	-20°C~-10°C	0.1C	3.0V
	-10°C~0°C	0.2C	3.0V
	0°C~15°C	0.2C	3.0V
	15°C~45°C	1C	3.0V
	45°C~60°C	1C	3.0V
General Performance			
Item	Test Methods and Condition	Criteria	
0.2C Capacity	At standard testing condition, after standard charging, rest battery for 10min, then discharging at 0.2C to voltage FD, recording the discharging time.	≥300min	
1C Capacity	At standard testing condition, after standard charging, rest battery for 10min, then discharging at 1C to voltage FD, recording the discharging Capacity	≥54min	
Cycle Life	Constant current 0.5C charge to 8.40V, then constant voltage charge to current declines to 0.01C, rest 10min , constant current 0.5C discharge to 8.40V, rest 10min. Repeat above steps till continuously discharging capacity Higher than 80% of the Initial Capacities of the Cells	≥ 300 times, thickness swelling ≤ 8%	
Charging and Discharging at low temperature (0~10°C)	At 0~10°C, constant current 0.5C charge to FC, then constant voltage charge to current declines to 0.05C, rest 10 min, constant current 0.5C discharge to FD, rest 10min. Repeat above steps no more than 50 times. Using the Cell on this condition, the attenuation of the capacity accelerates.	No safety issue	
Charging at low temperature (-15~0°C)	At -15~0°C, constant current 0.1C charge to 4.1V, then constant voltage charge to current declines to 0.05C. Charging at this condition no more than 50 times. Using the Cell on this condition, the attenuation of the capacity accelerates.	No safety issue	

Self-Discharge	At 23±2°C, Humidity≤75%RH, Atmospheric pressure 86-106 Kpa, After standard charging, no outer loading circuit, rest the pack one month. Then use 0.2 C discharge to FD, recorded discharge time	≥ 276min	
Environment Performance			
Item	Test Methods and Condition	Criteria	
Discharge at high temperature	At standard testing condition, after standard charging, rest the Cells 4h at 60±2°C, then discharging at 1C to voltage FD, recording the discharging time.	≥54min	
Discharge at low temperature	At standard testing condition, after standard charging, rest the Cells 16h at -20±2°C, then discharging at 0.2C to voltage FD, recording the discharging time.	≥210min	
Safe Characteristic			
Item	Test Methods and Condition	Criteria	
Over charge testing (NO PCM)	At standard testing condition, charging cells with constant current 3C to voltage 4.6V, then with constant voltage 4.6V till current decline to 0. Stop test till cells temperature 10 °C lower than max temperature.	No smoke or fire	
Over discharge testing (NO PCM)	At standard testing condition, the cells will be discharge to cut-off voltage, then connect with external load of 30 ohm for 24 hours.	No fire, no smoke, no leakage.	
Tip: Above testing of safe characteristic must be with protective equipment.			