APPROVAL SHEET

Battery Pack Delivery Specification

CUSTOMER	
MODEL	HSP-423443A
P\N	001
DESCRIPTION	Li-ION
DATE	



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1. Scope

This approval sheet is specified for the rechargeable Lithium ion battery pack compatible with HSP-423443

NO	Description	Specification	Unit	Condition
1	Cell model	423443		ІСР
2	Nominal Capacity	800	mAh	1C Charge (3H) 0.2C Discharge
3	Nominal Voltage	3.7	V	
4	Charge Voltage (Max.)	4.2	V	
5	Charge Current (Max.)	1200	mA	1.5C
6	Discharge Current (Max.)	1200	mA	1.5C
7	Operating Temperature Range	0~45 -20~60	°C	Charge Discharge
8	Storage Temperature Range	-20~40 -20~20	°C	Less than 1Month Less than 3Months

2. Product Specifications

NO	Item	Brand	Specification
1	Housing	/	Molex-51021-3P
2	РСМ	PCB1	3.7*32mm
3	Cell	ICP	423443

3. Key Components



Description			
Item	Part		
1	PCB1 Protection Circuit Board		1
2	CELL Li-ION 423443 800mAh		1
3	1571#28AWG 73.0mm±2mm Red		1
4	4 1571#28AWG 73.0mm±2mm White		
5	5 1571#28AWG 73.0mm±2mm Black		
6	Housing Molex 51021-3P		
	Basic Function		
No.	Electrical Characteristics	Specification	Unit
1	Over-charge detection voltage	4.280±0.025	V
2	Over-charge hysteresis voltage	0.15±0.05	V
3	Over-discharge detection voltage	2.8V±0.05	V
4	Over-discharge hysteresis voltage	0.3±0.05	V
5	Over-current detection voltage	0.100V±0.020	V
Note	1.Voltage → Over 3.7V \circ 2.Initial Internal Impedance → Under 180mΩ \circ 3.Cell made in China \circ		

• SPECIFICATION OF CONSERVATION CIRCUIT BLOCK

4. ABSOLUTE MAXIMUM RATINGS

Top Side:



Bottom side:

		09)
848	B702Z01		

Pattern and Pin assignment :

B + = Battery +

- B = Battery –
- V+ = Battery Pack + / Charger +
- V = Battery Pack / Charger -

Electric Characteristic:

ITEM	Minimum	Typical	Maximum	Unit
Over-charge threshold voltage	4.255	4.280	4.305	V
Over-discharge threshold voltage	2.70	2.80	2.90	V
Over-discharge current threshold voltage	80	100	120	V
Over-charge delay time	840	1200	1560	msec
Over-discharge delay time	100	144	188	msec
Over-discharge Current delay time	6	9	15	msec

5. Protection Circuit Specification

Whenever the following conditions occur due to misuse, the protection circuit will work to insure the safety of the battery pack.

(1) Over-charge protection

Whenever voltage reaches to 4.255~4.305V/cell by charging, over-charge protection should work, and the charging current shall

be shut down.

(2) Over-discharge protection

Whenever voltage down to 2.7-2.9V/cell, over-discharge protection should work. The discharging current shall be shut down and consumption current shall below $1 \mu A$.

(3) Over-discharge current protection

Whenever discharging current exceeds 2.0~3.5A/cell, over-discharge current protection should work, and over discharging current shall be shut down.

(4) Short-circuit protection

Short-circuit condition occurs when terminals between V+ and Vare shorted. Protection circuit should stop discharging the cell whenever short-circuit condition occurs.

6. Sample Test Report

NO	Voltage (V)
1	3.77
2	3.76

7. Battery Information & Maintenance

- (1)Charge with constant current 1C (800mA) and constant voltage 4.2V for 3 hours.
- (2)Discharge with constant current 0.2C (160 mA) to 3.0V.
- (3)Do not short-circuit positive and negative terminals of the battery with any metal.
- (4)Do not expose to temperature above 60° C.
- (5)Do not incinerate or heat the battery.

- (6)Do not disassemble or modify the battery.
- (7)Do not use or leave battery in water or get it wet.
- (8)Do not charge the battery pack inversely.
- (9)Do not over-charge the battery pack.
- (10) Do not touch the electrolyte leakage of the broken battery.
- (11) Do not use the battery pack that has exposed to any liquid, flame, or heat by any circumstances.