



零件規格書/承認書

SPECIFICATION FOR APPROVAL

CUSTOMER : _____

DESCRIPTION : Li-ion 3-serial battery charger

MODEL : _____

CUSTOMER PART NO : _____

CUSTOMER PART NO: _____

APPROVED SIGNATURES

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Rev	Date	Description	Designed	Checked	Approved
A	2021.08.26	Li-ion 3-serial battery charger	David		Nelson

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1. Scope

This specification is a charger PCBA for 3-serial-cell lithium-ion / lithium polymer rechargeable batteries.

2. Application

- Lithium-ion rechargeable battery packs
- Lithium polymer rechargeable battery packs

3. Specification

No.	Item	Specification	Remark
1	Support Lithium-ion Battery Cells	3S	
2	Charge Voltage	$12.6 \pm 25\text{mV}$	
3	PreCharge Voltage	$\leq 9.3\text{V} \pm 50\text{mV}$	
4	Recharger Voltage	$\leq 12.3\text{V} \pm 0.5\%$	
5	Charge Current	$3\text{A} \pm 0.1\text{A}$	
6	Pre-Charge Current	$150 \pm 10\text{mA}$	
7	Charge Current Termination	$150 \pm 10\text{mA}$	
8	Input Voltage	$15\text{V} \sim 24\text{V} \pm 1\text{V}$	
9	Input Current	$3\text{A} \pm 3\%$	
10	Operating Temperature	$0 \sim 45^\circ\text{C}$	
11	Charge Time	120min	

Charger IC : BQ24610



4. Safety Protection

No.	Item	Specification	Remark
1	Input over voltage	24V	Max.
2	Charge safety timer	263min \pm 10%	
3	Charge Over Current	3 \pm 0.064A	
4	Battery short	1A / 10us	
5	Battery over voltage	13.05 \pm 0.1V	
6	IC Thermal shutdown	145°C/100us	

5. LED indicator Status

No.	Description	Color	Remark
1	Charging	Red	
2	Charging Complete	Green	



6. Pin define

Pin No.	Pin name	Description	Remark
1	BAT+	Battery Postive	
2	BAT-	Battery Negative	
3	SYS+	System Postive	
4	SYS-	System Negative	
5	VIN+	DC power Postive	
6	VIN-	DC power Negative	

