

## 3S 4S 20A 14.8V 18650 Lithium ion Battery Protection Board BMS



LWS has been specialized in 3S 4S 20A 14.8V 18650 Lithium ion Battery Protection Board BMS for many years. We are known as a reputed manufacturer, wholesale trader, and retailer of BMS. Our range of products is manufactured according to the needs of our client.

### Product Introduction

You are welcomed to come to LWS to buy the latest selling, low price, and high-quality 3S 4S 20A 14.8V 18650 Lithium ion Battery Protection Board BMS Protection Board BMS. We look forward to cooperating with you. Our battery protection board adopts a highly integrated intelligent lithium battery protection board integrated chip, and the performance is superior to the protection board composed of discrete chips. Can complete battery charge and discharge protection, over current, short circuit, over temperature protection and equalization function.

### Product Parameter (Specification)

LWS PCM Specifications For 14.8V (4S) Li-ion Battery Pack			
No.	Test item		Criterion
1	Voltage	Charging voltage	DC:8.4V CC/CV
		Single balanced voltage	
2	Current	Balance current for single cell	
		Current consumption	$\leq 50 \mu A$
		Maximal continuous charging current	20A
		Maximal continuous Discharging current	20A
3	Over charge Protection (single cell)	Overcharge detection voltage	$4.25V \pm 0.025V$
		Over charge detection delay time	0.5—1.5S
		Over charge release voltage for single cell	$3.6 \pm 0.05V$
4	Over discharge protection (single cell)	Over discharge detection voltage for single cell	$2.20 \pm 0.08V$
		Over discharge detection delay time	50mS—150mS
		Over discharge release voltage for	$2.70 \pm 0.10V$

		single cell	
5	Over current protection	Over current detection voltage	100±25mv
		Charge Over current detection	50±10A
		Detection delay time	5mS—15mS
		Release condition	Cut load
6	Short protection	Detection condition	Exterior short circuit
		Detection delay time	200-500us
		Release condition	Cut load
7	Resistance	Protection circuitry (MOSFET)	≤50mΩ
8	Temperature	Operating Temperature Range	-20~+60℃
		Storage Temperature Range	-40~+125℃

## Product Feature and Application

Our 3S 4S 20A 14.8V 18650 Lithium ion Battery Protection Board BMS is suitable for the following products:

Massager battery pack, 4S battery pack, LED light backup power, 12V electronic products, Solar Street light battery pack, Monitoring backup power, and other products. This board is not suit high power electronic tools, if use for screwdriver and drill, it' s unworkable.

## Product Details

This 3S 4S 12A 14.8V 18650 Lithium ion Battery Protection Board from overcharging, over-discharging, overcurrent, and short-circuit. 3S 4S 20A 14.8V 18650 Lithium ion Battery Protection Board BMS connected in series from overcharging, over-discharging, overcurrent, and short-circuit.

4 series 18650 battery 16.8V 16V 14.8V This board is not designed for high powered tools such as portable drills and alike.

## Notes

Above 3A device, means the battery discharge rate is more than 3C.

1C rated battery, 2000mah equals 2ah\*1=2A max working current.

3C rated battery means 2ahx3=6A Max working current.

BMS solder instruction:

B+ connected battery positive.

B1 the connect point between battery 1 and battery 2

B2 connect the point between battery2 and battery 3

B3 Connect the point between battery 3 and battery 4

B- connect to battery negative end

P+ + connection charge / discharge positive.

P- connection charge / discharge negative

P+ P- input output with the same mouth, when combined, the battery capacity, voltage,

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and internal resistance should be the same. If the combination is good, there is no input and will be charged with an 8.4V voltage, the output must be charged at 16.8V after combined.