

# Materials Needed/Building Instructions

External A1 Battery  
[6S2P Setup]

IMPORTANT:

\*Video Being Followed: <https://www.youtube.com/watch?v=NgNddKpP9mw> \*  
Another Video Same Build More instruction:  
<https://www.youtube.com/watch?v=gro976ya41q>

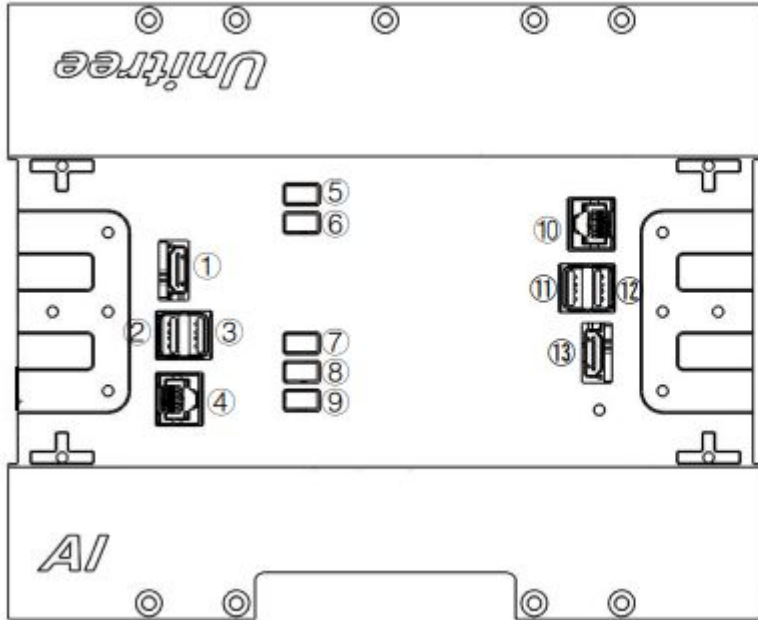
# A1 Battery Pack Specifications

## ● Battery

Capacity	4200 mAh
Voltage	21.6 V
Battery Type	Lithium-ion 6S



# A1 Interface Diagram



1. TX2 HDMI
2. TX2 USB3.0
3. TX2 USB2.0
4. Ethernet Interface 1
5. Power Input 24V
6. Power Input 24V
7. Power Output (5V, 2A)
8. Power Output (12V, 2A)
9. Power Output (19V, 2A)
10. Ethernet Interface 2
11. MiniPC USB2.0
12. MiniPC USB3.0
13. MiniPC HDMI

Port 5 will be used for connecting the external battery.

## 6S2P Built Battery

Each Battery: + ICR18650 2000mah 3.7v TP LI-ION MH46259

WL312The video below shows A1 being powered from a power supply.

[A1 External Battery Video](#)



# H Nickel Strips - Ease of Assembly

## The ones we already have are weaker



Click to see full view



2P Nickel Plating Strip 0.15x27mm (16.4ft/roll)  
Spacing 20.25mm used for 2 Parallel 18650  
Batteries Spot Welding DIY 18650 Battery Pack

Brand: JichuET

4.6 ★★★★★ (118)

\$15<sup>99</sup>

✓prime Tomorrow

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if you pre-qualify with no impact to your credit bureau score.

Size: 0.15x27mm(5M)

0.15x27mm(5M)

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0.15x8x100mm(100PCS)

\$9.99  
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Material	Nickel
Brand	JichuET
Color	Silver
Shape	Rectangular
Item Diameter	27 Millimeters

About this item

# 6S 14A/20A 25.2V-26V PCB BMS Protection Board for 6 Pack 18650 Li-ion Lithium Cell Module Arrival

## -For the 6S2P build-



Size:34\*53.5\*3.0mm  
Upper working current: 14A  
(pay attention to heat dissipation)  
Upper limit instantaneous current:20A  
Equilibrium current:56mA







Overcharge voltage range:4.25v±0.05v


Over discharge voltage range:2.7v±0.05v

Static current:less than 30uA

Charging voltage: 25.2V-26V

Short circuit protection: protectable, delayed self-recovery





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Short circuit protection: protectable, delayed self-recovery


6S 14A/20A 25.2V-26V PCB BMS Protection Board for 6 Pack 18650 Li-ion Lithium Cell Module Arrival

Brand: Generic  
[Search this page](#)


\$7<sup>24</sup>

- 6S 14A/20A 25.2V-26V PCB BMS Protection Board For 6 Pack 18650 Li-ion Lithium Cell Module Arrival

[Report an issue with this product or seller](#)



Battery PCB Board for 13Series 48V/54.6V Li-...  
\$13.24 ✓prime

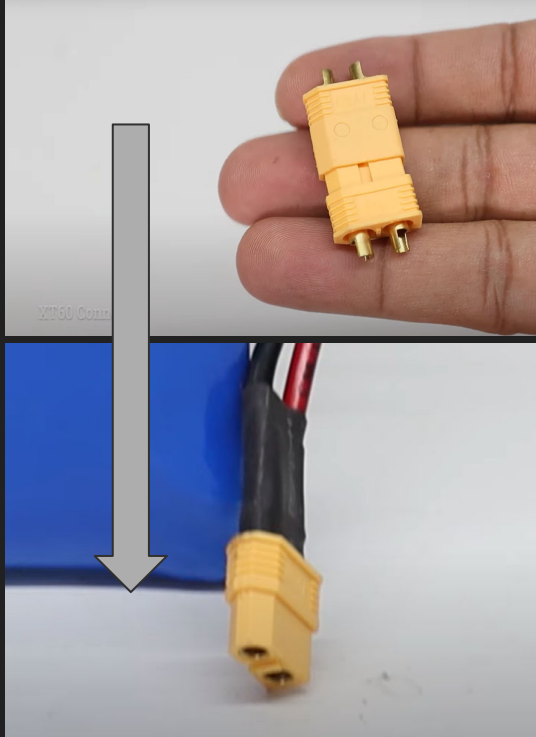



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# Male To Female Pair Attachment XT60

Detaches to to become  
bottom photo below this





10474

**DigiKey Part Number** 1568-10474-ND

**Manufacturer** [SparkFun Electronics](#)

**Manufacturer Product Number** 10474

**Description** XT60 CONNECTORS MALE/FEMALE PAIR

**Manufacturer Standard Lead Time** 12 Weeks

**Customer Reference**

**Detailed Description** - Connector

**Datasheet** [Datasheet](#)

**EDA/CAD Models** [10474 Models](#)

Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

**In-Stock: 3,070**


Can ship immediately


**QUANTITY**

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All prices are in USD

**Bulk**

QUANTITY	UNIT PRICE	EXT PRICE
 1	\$2.50000	\$2.50

 Manufacturers Standard Package

**Product Attributes**

# Female To DC



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Ask Rufus

Can it handle high power demands?

Is it easy to connect?

Does it work with other devices?

Ask something else



## Amass XT60 XT-60 Female to DC 5.5/2.5mm Jack Power Adapter for FPV Monitor Power

Brand: Generic

4.1 (33) | [Search this page](#)

\$7<sup>99</sup>

**prime** Two-Day

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Compatible Devices	Monitor
Specific Uses For Product	Monitor
Connector Type	XT60, 5.5mm/2.5mm DC
Color	Black
Brand	Generic

### About this item

- **Compatible Devices:** Works with FPV monitors for power supply
- **High Current Rating:** 1.5 amp output for fast charging
- **Durable Construction:** Made from sturdy plastic with metal connectors
- **Quick Connector:** 5.5mm and 2.5mm jack plugs for easy use
- **Compact Size:** Small 60mm x 60mm footprint saves space

[See more product details](#)



[Report an issue with this product or seller](#)



# 25.2V Power Supply Adapter Charger Lithium ion Battery Charger Power Adapter with Indicator Light



[Click to see full view](#)

Ask Rufus

Does it charge batteries safely?

Is it compatible with other devices?

Does it have overcharge protection?

[Ask something else](#)



## 25.2V 1A Battery Power Adapter, AC100-240V Battery Charger Power Adapter Charging Power Supply for Headlights Toy Cars

[Visit the Qiilu Store](#)

3.6 ★★★★★ (4) | [Search this page](#)

\$6<sup>94</sup>

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Brand	Qiilu
Connectivity Technology	DC Barrel
Connector Type	Barrel Connector (5.5mm x 2.5mm)
Compatible Devices	Headlights, Toy Cars, Balance Cars
Included	1 x AC Adapter
<a href="#">Comments</a>	
<a href="#">See more</a>	

### About this item

- [ Features ] --- Input: AC100-240V 50/60Hz, Output: 25.2V 1A, Cable Length: 100cm, Interface: about 5.5 \* 2.5mm / 0.2 \* 0.1in.
- [ Wide Application ] --- 25.2V 1A power adapter, compatible with a variety of devices, suitable for headlights, toy cars, balance cars, etc.
- [ Quality Material ] --- This Battery Power Adapter is made of ABS shell, high temperature and fire-resistant, more assured to use.
- [ Multiple ] --- Overcharge, short circuit, over current and over temperature, you can rest assured to use it.
- [ Easy to Use ] --- LED indicator to easily see the charging situation, the charger will display a red light when charging and turn green from red when the battery is fully charged.

[See more product details](#)

## ● Slow (1 Amp) Charger

### 25.2V 1A Battery Charger Power Adapter

#### Specification:

- Type: Battery Power Adapter
- Material: ABS
- Interface: about 5.5 \* 2.5mm / 0.2 \* 0.1in
- Output current: 1A
- Weight: Approx. 94.4g

Reference Video - (Custom Adjustments Will Be Implemented

Reference Video:

<https://www.youtube.com/watch?v=NgNddKpP9mw>