FASHION

Simple Appearance

5*18650 Power Pack DIY Module
Capacity: 15000mAh

5
BATTERIES

S I M P L E   A P P E A R A N C E

TZT

Please Use 18650 Flat Battery →

移动电源

PRODUCT INDRODUCTION

Two Output Ports

Type-C Input Port

Micro Input Port

Two handed flashlight
(Double click the key to turn on the light
Double click to turn off the light again)

Power Indicator

Key switch

118.0mm

80.0mm

23.0mm

Model	W5
Electric core	18650 * 5 (No welding)
Size	118MM * 80MM * 23MM (L * W * H)
Compatibility	Smartphones and 99% tablets
Weight	About 82.50g (shell+mainboard+spring+lens weight, excluding battery)

FUNCTION DESCRIPTION

Switch Charging

Current up to 5A, efficiency up to 95%

Support 4.2/4.35/4.4/4.5V battery type

Support JEITA specification

Support temperature loop control

Synchronous Boost

Output power up to 22.5W, efficiency up to 95%

Automatic negative teaching detection/light load detection

Support wireless charging mode

Support low current mode

Output Fast Charging Protocol

Support PPS/PD3.0/PD2.0

Support PPS/PD3.0/PD2.0
Support QC4+/QC4/QC3.0/QC2.0
Support AFC
Support FCP
Support SCP
Support PE2.0/PE1.1
Support SFCP
Support VOOC

Enter The Fast Charging Protocol
Support PD3.0/PD2.0
Support AFC
Support FCP
Support SCP
Support PE1.1

Type-C Interface
Built in USB Type-C interface logic
Support Try.SRC function

BC1.2 Module
Support BC1.2 DCP mode
Support Apple/Samsung mode

Lightning Decryption
Built in Lightning decryption function

Electricity Metering And Display
Built in 12bit ADC
Precise electricity quantity of built-in coulometer

Protection Mechanism
Input Overvoltage Protection
Output overcurrent/short-circuit protection
Charging timeout/overvoltage protection
Temperature protection

RECOMMENDED PARAMETERS

Parameters	Symbol	Min	Typical	Max	Unit
Input voltage	VBUSB/VBUSC/VBUSL	4.5	-	13.5	V
Battery voltage	BAT	2.8	-	4.5	V
Working temperature		-20	-	60	℃

CHARGING PROCESS

Trickle flow mode, constant flow mode and constant pressure mode.

When the battery voltage is lower than 3V, the charging module is in trickle mode, and the charging current is 300mA;We Are The Distributor Of TZT Brand In Hong Kong, China.

When the battery voltage is greater than 3V, the charging module will enter the constant current mode, and then charge at full speed according to the set target current;

When the battery voltage rises to the charging target voltage (such as 4.2V), the charging module enters the constant voltage mode, at which time the current gradually decreases while the battery terminal voltage remains unchanged;

When the charging current decreases to the charging cut-off current, the charging ends. After full charge, if the battery voltage drops to 0.1V lower than the target voltage, it will automatically restart charging.

(Note: If the voltage exceeds 4.2V, it is normal and will not damage the battery. If the voltage is 4.2V, the lamp will still flash, indicating that the battery is not fully charged. Full charge is not only based on the charging voltage)

INTERFACE DESCRIPTION

The motherboard has four USB ports, Type-A1+Type-A2+Micro-B+Type-C

Type-A1, Type-A2: support QC3.0/QC2.0/AFC/FCP/SCP/PE2.0/PE1.1/SFCP/VOOC fast charging output;

Type-C: supports PPS/PD3.0/PD2.0/QC4+/QC3.0/QC2.0/AFC/FCP/SCP/PE2.0/PE1.1/SFCP fast charge output and PD3.0/PD2.0/AFC/FCP/SCP/PE1.1 fast charge input;

Micro-B: support QC3.0/AFC/FCP/SCP/PE1.1 fast charging input;

Support PPS/PD3.0/PD2.0

Support QC4+/QC4/QC3.0/QC2.0

Support AFC

Support FCP

Support SCP

Support PE2.0/PE1.1

Support SFCP

Support VOOC

Enter The Fast Charging Protocol

Support PD3.0/PD2.0

Support AFC

Support FCP

Support SCP

Support PE1.1

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Type-C: supports PPS/PD3.0/PD2.0/QC4+/QC3.0/QC2.0/AFC/FCP/SCP/PE2.0/PE1.1/SFCP fast charge output and PD3.0/PD2.0/AFC/FCP/SCP/PE1.1 fast charge input;

Micro-B: support QC3.0/AFC/FCP/SCP/PE1.1 fast charging input;

Micro-B. support QC2.0/AFC/FCP/SCP/PE1.1 fast charging input;

When the input matches the fast charging, the default input is 9V, and the input power can reach 21W.

It supports filling while placing. Fast charging input and output are supported when single port is working, and 5V input and output are supported when multiple ports are working.

The Type-A1/Type-A2/Type-C interface can discharge at the same time, and the output voltage is 5V.We Are The Distributor Of TZT Brand In Hong Kong, China.

It supports low current mode and can charge Bluetooth headset, bracelet and other low current devices. Press and hold to enter or exit the low current mode; After entering the low current mode, the power display will also change, indicating that it is in the low current mode.

FAST CHARGING PROTOCOL SUPPORT

It integrates PPS/PD3.0/PD2.0 fast charging protocol and supports input and output bidirectional fast charging.

PPS output support 5-5.9V@3A, 5-11V@2A ,

PD3.0/PD2.0 output support 5V@3A, 9V@2A, 12V@1.5A .

The input supports 5V/9V/12V voltage.

It integrates QC fast charging protocol, supports QC4+/QC4/QC3.0/QC2.0, and supports Class A. We Are The Distributor Of TZT Brand In Hong Kong, China.

QC2.0 supports 5V/9V/12V output voltage.

QC3.0 supports 5V-12V output voltage, 200mV/Step.

Integrated with AFC fast charging protocol, the output supports 5V/9V/12V. Input supports 5V/9V voltage. We Are The Distributor Of TZT Brand In Hong Kong, China.

The FCP fast charging protocol is integrated, and the output supports 5V/9V/12V. The input supports 5V/9V voltage.

Integraed SCP fast charging protocol, output support 5V@4.5A 。 Input support 5.5V@3A 。

PE2.0 and PE1.1 fast charging protocols are integrated.

PE2.0 supports 5V~12V output voltage and 500mV/Step.

PE1.1 supports 5V/7V/9V/12V output voltage.

The input supports 5V/9V voltage.

It integrates SFCP fast charging protocol and supports 5V/9V/12V output voltage.

Integrated VOOC fast charging protocol, output support 5V@4A.

LED POWER INDICATOR

Battery power indicator under the discharge state of LED lamp

Capacity	LED1	LED2	LED3	LED4
75~100%	On	On	On	On
50~75%	On	On	On	Off
25~50%	On	On	Off	Off
5~25%	On	Off	Off	Off
1~5%	Flicker	Off	Off	Off
0%	Off	Off	Off	Off

Battery power indicator under LED charging state

Capacity	LED1	LED2	LED3	LED4
100%	On	On	On	On
75~99%	On	On	On	Flicker
50~75%	On	On	Flicker	Off
25~50%	On	Flicker	Off	Off
0~25%	Flicker	Off	Off	Off
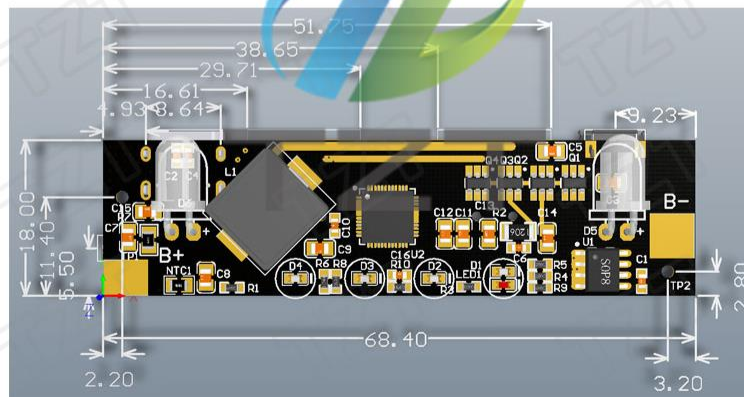
4 White highlighted battery indicator   Red fast charge indicator
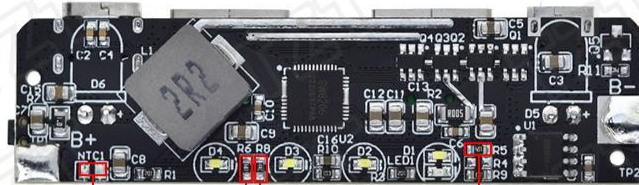
NTC1   R6   R8   R5

R5 welding 100K 0603 resistance is in low current mode.

R6 welding 100K 0603 resistance is in flashlight lighting mode.

Only one of the two can be selected. When two pads are welded with resistance, the low-current mode is preferred.

R8 Set the resistance for the battery capacity. If the battery change is not great in the later period, it can be ignored. If the change is too big, please replace the resistance again Calculation formula of resistance value:

Resistance value Ω=(total battery capacity mAh+2000) * 5/3

For example, the resistance of 30000mAh should be (30000+2000) * 5/3=53333 Ω, which can be replaced by a similar resistance, such as 53K.

NTC1 pad is used for welding the battery to protect the temperature sensor. By default, a wire will be led out, which can be pasted on the battery surface during assembly. If it is not necessary to short-circuit 2 pads directly.

The four USB ports are protected by N MOS tubes, and there is no need to worry about USB port short circuit. High current wiring will lay tin on the bare copper, reducing the heating temperature of the main board in case of high current.

The main control chip and protection chip are not provided with reverse connection protection for this motherboard. Please do not put the battery upside down.

The three parts of 2R2 large inductor, main control chip and battery protection chip are the main heat sources. When the high-power fast charge is output, it is very hot. Please do not touch it with your hands, nor seal it with glue, nor with thermal conductive silicone grease. Moreover, it cannot be used as a fixed heat holding glue. It is OK to expose it or install it in the shell. The heating will not affect the use and will not burn out. Don't worry.

MATTERS NEED ATTENTION

If only the battery is connected to the motherboard, the wire connected to the battery should be able to pass 10A current. It is recommended to use more than 1.5 square meters of copper wire. The glue of the wire should be heat-resistant and fireproof. The thin wire and the wire that is not heat-resistant may cause a fire. Please pay attention!

The motherboard has its own protection chip, and the battery can not be added with a protection board.

Partners who use the alligator clip motherboard to test the use of the phone should not output the charger, which is likely to cause security risks. The motherboard is a high-power fast charging motherboard, and the battery terminal current is very high. If the current is not enough, the output will cause restart and other phenomena, or even burn the motherboard. You can find a small power to test whether it is normal.We Are The Distributor Of TZT Brand In Hong Kong, China.

4.2V 18650/polymer/ternary lithium battery can be used as the battery. Large monomer can be used, and multiple 18650s can be connected in parallel. Iron lithium battery, disposable

dry battery, nickel hydrogen battery, lead acid battery, nickel cadmium battery, etc. cannot be used. The battery cannot be connected in series. After welding the battery, please charge it to activate it. The first time you power on, there will be inaccurate power display. Please discharge the battery and recharge it. The first time you charge, you can continue to charge the battery for more than 10 hours when the four lights are all on. The battery will not be damaged. Don't worry.

KEY FUNCTION

Short press to activate the output (this method will delay the quick charge request of the device inserted later. It is recommended to insert the electric device in standby mode, and the output will be automatically started).

Double click to force shutdown.

Press and hold the power on button to enter the low current charging function or the flashlight function. The low current function can charge the watch Bluetooth and other low current devices. The 4 power lamps will display a running water prompt. Press and hold again to exit. The power will not be turned off within 2 hours.

POINTS FOR ATTENTION

APPEARANCE DAMAGE (It must be noted)	POINTED BATTERY
The exposed part of the damaged battery skin is easy to cause short circuit when contacting with the spring,It is a consequence to connect the positive and negative poles inversely	The length of the tip is longer than that of the flat tip, which will lead to the case that it cannot support the housing cover. In addition, the contact area of the positive pole of the tip is smaller than that of the flat tip.

ABOUT OLD BATTERIES

Batteries have a life cycle, not just a few old batteries can be used after being installed. Before purchasing, first confirm whether the appearance is intact, without skin damage, and the voltage should be between 3.2V and 4.2V. The internal resistance of the battery will increase after a long time. If the internal resistance is too high, the normal voltage rise of the main board and the current limiting of high-power output load will be affected!

If there is no positive and negative pole mark on the battery, please refer to the figure on the right
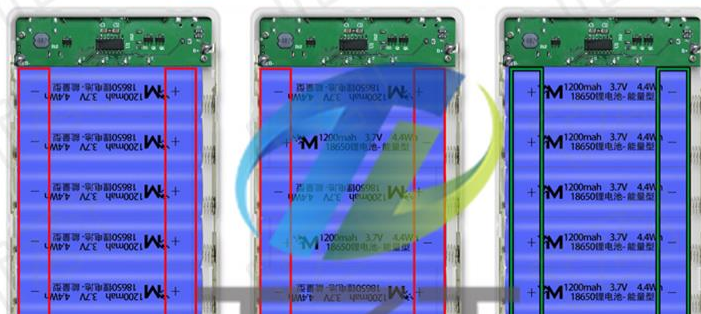
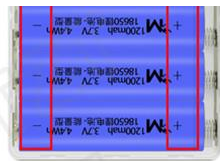The positive pole has several holes
The negative pole has no holes.

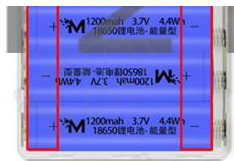Negative Pole   Positive Pole

Wrong ❌   **Wrong** ❌   **Correct** ✅

Wrong direction of positive and negative poles

The positive and negative pole directions of the battery are inconsistent

The left side is positive, the right spring position is negative, and the battery direction should be consistent

Fast And Endless / Dual USB Output

Intelligent matching current | Can charge any smart phone | Dual USB output port

目前电量 100%

12 45

3月29日, 星期三
100%

100%

Double LED Lamp

Type-C Interface

Double Output Port

Micro Interface

Micro USB x1

Type-C USB x1

USB x2

Flashlight x2