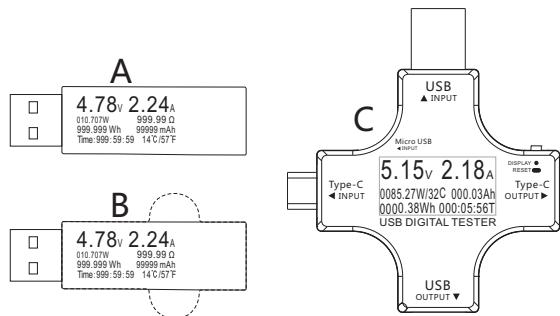


USB Power Tester

(User manual-General version)



This product is used to charge their phone when parameter monitoring, according to and play all kinds of charger, mobile power supply capacity measurement and other USB devices

the output current zero calibration, the button long-press said is the output Load current, when the item in color shown in Ref 2 A, output by constant current Load meter after 2 A constant current, long press again, said current calibrated once in 2 A, the last is Reset to restore factory Settings

Test of mobile power supply capacity of power method and skill:

The charging treasure the electricity first, and then plug in the table, the capacity of power through the button to reset, and then plug in the electronic load on the connection diagram or cell phone to charge treasure to discharge, until the rechargeable battery, it is again electrify can read into the total capacity and the power value, this is the charge of capacity and power about value, because it is the internal power off memory function, so it can be a complete discharge, discharge process can also be multiple discharge, check again until after the treasure to battery charging capacity value.

Test the charger of the maximum output current method:

Connected in figure 1, change the load size make current increase voltage is reduced to the charger nominal voltage instantaneous, when the current value is the charger can output the maximum current value; To change the load to the charger aged 2 ~ 6 hours, nominal current value of discharge current voltage stability in the process of aging, the temperature of the charger is less than 50 degrees or so, explain this charger nominal current realistic, no empty mark, can satisfy the charging speed, on the contrary, if the voltage is reduced, current value difference is too big or too hot, even U watch alarm flashing and no output, measured charger belong to the current standard, quality inferior performance, this method also adapt to all USB output current test methods.

- 2 -

Test the USB of voltage, current, power, power, current time

Connection after electrify to drawing, can be displayed real-time monitoring through the USB line power battery capacity and voltage current flows through the current accumulation of information such as time, in the process of electricity through the short button press screen switching, long press the screen rotation, rapid double-clicking capacity mAh, three quick blow power Wh, four quick blow zero time, five quick blow capacity battery time all reset at a time.

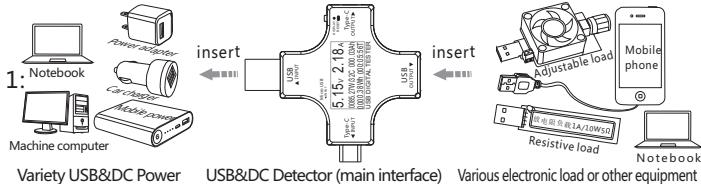
Warm prompt this time show U table refers to > 0.5 W power do timing calculation, if < 0.5 W, the system do not calculate time accumulated, only in this way can judge charging time, please know.

Performance parameters:

Voltage measuring range: 3.80 V to 32.00 V
 Current measuring range: 0.00 ~ 5.10 A
 Cumulative capacity range: 0 ~ 99999 mAh
 Power cumulative range: 0 ~ 999.99 Wh
 Power metering range: 000.00 ~ 163.00 W
 Temperature measurement range: 0 ~ 80 °C
 Timing maximum time: 999 hours, 59 M 59 S
 USB D + voltage range: 0 V to 2.99 V

USB D - voltage range: 0 V to 2.99 V
 Time to refresh: > 500 ms/times
 Measurement rate: 0.5/second
 Since the power flow: < 0.025 A
 Working temperature: - 10 ~ + 60 °C
 Working humidity: 10 ~ 80 (no doubt)
 The pressure of work: 80 ~ 106 kpa
 Product size: 67 mm * 24 mm * 15 mm

Products connecting applications:



Variety USB&DC Power USB&DC Detector (main interface) Various electronic load or other equipment

The keys operation introduction:

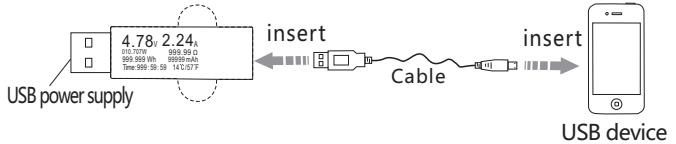
- 1) short button press is conversion screen
- 2) the rapid double-clicking capacity reset reset (mAh)
- 3) three quick blow power reset reset (Wh)
- 4) four quick blow is timing reset reset (00:00:00)
- 5) five quick blow is Transform storage number(NO.01~10)
- 6) all keys according to the capacity, power, long time reset reset(mAh, Wh, 00:00:00)
- 7) when the screen rotation interface button long-press flip the screen
- 8) when the black screen interface button long-press is into the background mode

Tips: When the ambient temperature changes or the outside heat conduction to tester causes the current to not return to zero and the display shows 0.01A or 0.02A or otherwise, Please when operating at close to the screen, then long button press is to enter the background model, and then short button press into the second section, the output does not connect any load, and then put the reset button long-press is current, to ensure that can in no-load current in 0.00 A more precise measurement

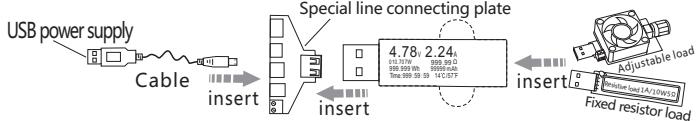
- 1 -

Tips: some users of the failure to understand the current nominal value is the output of the charger when the maximum load of the maximum output current value, is not for mobile phone charging current value, so the different load current value, actual should follow ohm's law to calculate the current value, and in the devices such as mobile phone, mobile phone in different status and at different times of the charging electric current curve is fluctuation change, U table only show the actual flow of current value, is not part of the user see U table testing is not the same as the display value and the nominal current value will doubt U table shows the accuracy of current measurement.

Test of charging line and data line charging speed and quality



1) According to the above link, under the condition of constant power and load, change different cable, U table shows the better the quality, the greater the current cable charging speed is faster



2) According to the above link, under the condition of constant power and load, change different cable, U table shows that the higher the voltage data line pressure drop is smaller, the better the quality

- 3 -

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.