PD 3.1 PD protocol voltage trigger and current meter

(With voltage gear and mode power-off memory function, it can also accurately measure and display the current voltage value and load current value)

==User manual==

1.Product features:

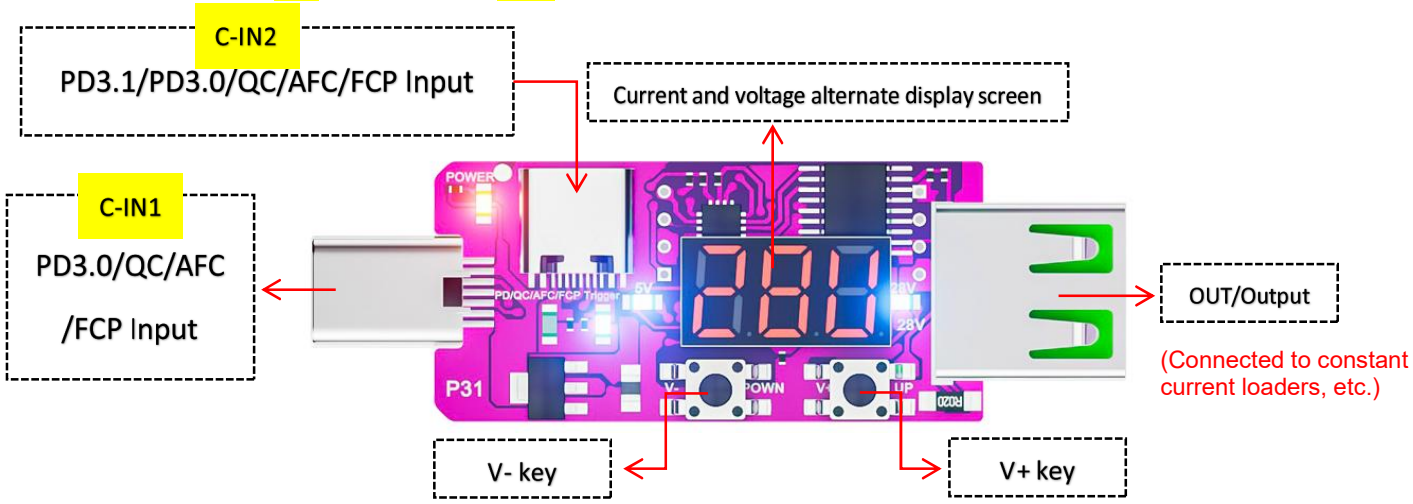
This small equipment can support PD3.1 compatibility with PD3.0 protocol, QC, AFC, FCP and other protocols. By sending fast charging protocols to chargers or power banks with fast charging protocols, it can induce 5V/9V/12V/15V/20V/28V fast charging voltage for various aging and testing, as well as quality identification and voltage current power identification.

2.Support Protocol:

The list of protocol fast charging voltages supported by this small equipment is as follows:
Support PD3.1: 5V, 9V, 12V, 15V, 20V, 28V
Supports PD protocol: 5V, 9V, 12V, 15V, 20V
Supports QC protocols: 5V, 9V, 12V, 20V
Supports Samsung AFC protocol: 5V, 9V
Supports FCP protocol: 5V, 9V, 12V

3.Function description of buttons and indicator lights:

(Connect PD3.1/3.0 chargers, power banks, and other fast charging devices through a dedicated fast charging cable, only this port supports the 28V voltage output of PD3.1)



V-key: Click to send voltage downshift protocol, double-click or long press to take turns sending 28-20V-15V-12V-9V-5V fast charging voltage protocol
V+key: Click to send voltage upshift protocol, double-click or long press to take turns sending 5V-9V-12V-15V-20V-28V
Digital display screen: In DUI mode, only voltage is displayed when there is no load output, and voltage and current are displayed alternately when there is a load output; In D-U mode, only voltage is displayed; In D-I mode, only current is displayed;

Warning: This small device is designed to extract the voltage of fast chargers, power banks, and other devices that support the PD protocol. The voltage is relatively high, so the output cannot be directly used for mobile phone charging purposes. Ordinary mobile phones support 5V, and the voltage extracted from the PD protocol is 9V, 12V, 15V, and 20V. Such high voltage cannot be directly input into ordinary mobile phones. If the user's incorrect application causes losses, it will not be good. It is important to note that this is not a charging accelerator, but rather a device that induces the voltage of PD protocol products by simulating the standard PD handshake protocol of mobile phones through this instrument. This can be used as a charger or power bank to determine whether it is a true PD protocol, helping everyone identify its purpose. It can also be used as a manufacturer or player to cooperate with our electronic load for aging testing purposes, This device can choose between alternating aging mode and manual single voltage triggered aging mode. In manual mode, you can round trip the PD fast charging protocol of 5V/9V/12/15V/20V by long pressing or double clicking the increase/decrease button. When some chargers do not have the 20V gear, it means that this type of charger only supports 15V, and the highest output voltage indicator of the charger can be accurately determined.

Reminder 1: The power-off memory function has been added this time to meet the purpose of fast simulation testing on the production line when the factory produces fast charging equipment in large quantities,
That is to say, the measurement mode is memorized into the memory, and the next time the power is turned on, the memory data will be called out and automatically enter the same mode as before, which can greatly shorten the measurement time
Reduce steps in trial time to improve production testing efficiency
Reminder 2: This time, a voltage memory function has been specially added, which means that the system will call up the previously stored voltage when you manually adjust the voltage value after powering off the power and then turning it on again
Negotiate voltage data, intelligently and automatically send the corresponding protocol to activate it, or store the same voltage value as the last data before, so as to achieve fast charging

Be prepared to use the voltage value induced by this instrument for the purpose of supplying power to other devices (of course, it should be possible to achieve perfect replacement of the adapter when the total power is met), so that
Idle fast charging devices can also serve as other power adapters to supply power to devices with corresponding voltages. The reuse of idle fast charging devices is environmentally friendly and saves a lot of applications.

4. Operation diagram