

Type C Voltage and Current Detector User Manual



Table of contents

Product introduction	1
Parameter description	2
Dimensions	3
Operation instructions	4

Product Introduction

CNC metal shell, dustproof and drop-proof, high-definition 1.14-inch IPS display, real-time charging power detection. 3 display pages to enhance the function, click the button to change the page; multi-function full protocol, curve measurement, ripple measurement, protocol test (automatic test, PD single deception). Fully compatible with fast charging protocol and Qualcomm QC3.0/4.0 protocol, compatible with multiple protocols for fast charging, support PD/OC2.0/3.0/4.0, MTK and other protocols. Supports fast charging automatic protocol detection, PD2.0, 3.0, PPS, QC2.0, 3.0, FCP, SCP, AFC, PE, DASH VOOC, SuperVooc, etc.

Product parameters:

Absolute withstand voltage: 0~40V

Absolute current: 0~16A

Absolute power: 0~240W (typical value: 0.0-140.0W)

Measurement voltage: 3.3~40V (typical value: 4-30V)

Measurement current: 0~12A

Measurement power: 280W

Temperature measurement range: 0~99°C

Sampling frequency: 2~5MHz

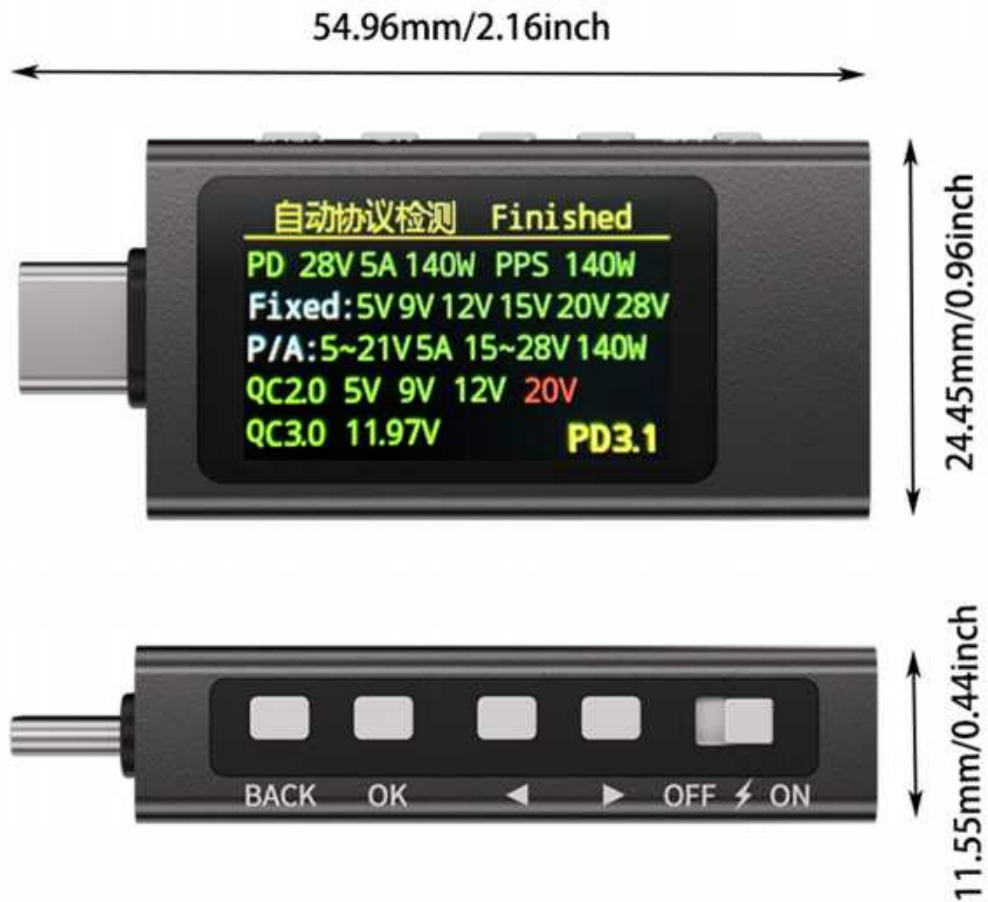
Product size: 54.96*24.45*11.15mm

Parameter Description



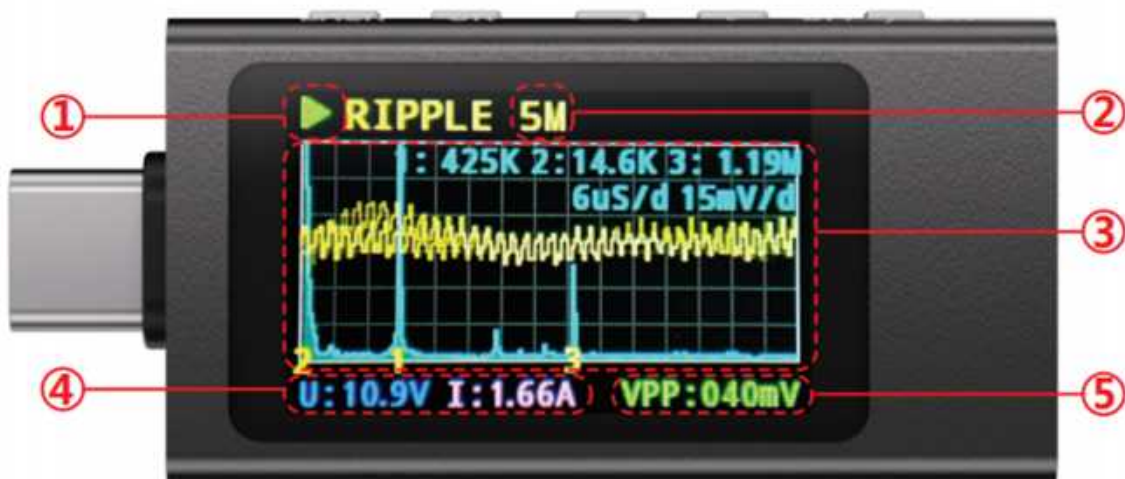
1. Real-time voltage, current and power display.
2. Real-time protocol status.
3. Capacity statistics (support offline power-off storage), can be reset by long pressing the (Confirm) key.
4. Statistics information Current, voltage, power maximum value.
5. MCU on-chip temperature sensor Temperature real-time display.

Dimensions



Instructions

Menu-Ripple Measurement



1. Status indication, real-time measurement or pause measurement (display data at a certain moment) (confirm key switches status)
2. Sampling speed display (+/- switching speed).
3. Draw curve area.
4. Real-time voltage and current display (supports paused display at a certain moment).
5. Real-time display of average ripple within 100ms, measure in real time with VBUS voltage changes

Menu-Curve Measurement



1. (Curves in the 4-zone) unit grid voltage display follows the total voltage adaptation
2. Sampling time display refers to the total time of the displayed table part (+/- switching speed)
3. Current direction indication (follow the current size to try to update the flow rate)
4. Real-time curve drawing
5. Real-time voltage, current and power display

Menu-Settings



Menu options are divided into dark and light colors, dark colors indicate unselected, and light colors indicate currently operated options
 The operation logic is, (+/-) select the option (confirm key) to enter the selected option, (+/-) modify the content in the option, (return exits the selected option and returns to the selection logic of the option directory)

1. Language selection Chinese (English)
2. Screen saver time switching, support always on and never sleep
3. Screen brightness, adapted to the dimming curve similar to commercial displays, the percentage adjusted here is not a linear relationship
4. Gravity sensor, suitable for global screen UI display rotation and other operations

Menu-Protocol Test-Auto Test



Description: Green for support, red for non-support

1. Status indication (prompt after waiting for the automatic operation to complete).
2. PD status indication (including PD2.0-3.1 Fixed AVS EPR).
3. PDO maximum gear and power display.
4. Whether PPS is supported, and the maximum adjustable PPS gear power display
5. Fixed gear supported voltage, and PDO voltage adjustable group number and range.
6. OC2.0 Fixed gear support status.
7. QC3.0 adjustable gear maximum trigger voltage, step 200mV.
8. PD protocol version maximum indication.

Protocol test-PD single deception



Note: The gear selected here (+/-) will not be triggered immediately. You need to press (confirm key) again to confirm the deception, and then it will be displayed synchronously to the top + execute the operation. Display color (red + green) synchronizes the above logic

1. Display of detailed protocol version and gear number (usually defaulted to PDO when supporting the protocol of AVS EPR extension part).
2. Current gear display.
3. Real-time current.
4. Current direction.
5. The supported gear list part, if it exceeds the maximum number that can be displayed, will automatically merge the interval to ensure that the displayed data will not be lost.
6. Selected gear information.

Protocol Test-PD-Single Item Spoofing-PPS

This interface is entered after selecting PPS gear in "Protocol Test-PD-Single Item Deception"



Special note: The adjustment logic here is different from the previous interface. The operation here is executed in real time without confirmation, so be sure to clarify the operation you need to perform.

1. Specific voltage adjustment frame of PPS mode.

- The voltage adjustment frame is divided into voltage and current settings.
- The white underline in the red solid frame represents the selected cursor.

Note: The selection logic of the deep and shallow frame corresponding to the voltage adjustment logic is the same as described above. After selecting and entering a specific option, you can (+/-)

move the cursor, (Confirm key) to enter a number selected by the cursor, and after selecting, you can (+/-) switch.

After editing, (Return key) exits the editing of this option and returns to the (+/-) cursor moving mode.

Protocol Testing-QC

QC2.0



1. Basically the same, except that the status information is changed to display the DP DN handshake voltage.
2. Protocol voltage selection gear The same gray shade represents (+/-) selected logic, and after selection (confirm key) Execute the operation.

QC3.0



Note: QC2.0 is a fixed gear, QC3.0 QC4+ supports 200mV step adjustment, which corresponds to 0.2V as the minimum adjustment unit. 3. Basically the same, except that the status information is changed to display the DP DN handshake voltage. 4. QC protocol voltage adjustment panel The same gray shade represents (+/-) selected logic, and after selection (confirm key) executes the operation.