

POROMETISTO UT01C

POROMETISTO UT01C USB Tester User Manual

Model: UT01C

1. INTRODUCTION

The POROMETISTO UT01C USB Tester is a versatile diagnostic tool designed for monitoring and analyzing USB-C power delivery. It provides real-time measurements of voltage, current, and power, along with advanced features such as fast charging protocol detection, ripple analysis, and battery capacity tracking. This manual provides detailed instructions for the proper use and maintenance of your UT01C USB Tester.



Image 1.1: The UT01C USB Tester in use, connected between a laptop and a power source, displaying charging parameters.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x POROMETISTO UT01C USB Tester
- 1 x User Manual (this document)
- 1 x Packaging Box

POROMETISTO **UT01C**

What You Get

- 1 x UT01C USB C Tester
- 1 x User Manual
- 1 x Packing box



Image 2.1: The UT01C USB Tester and its included accessories.

3. PRODUCT OVERVIEW

The UT01C USB Tester is equipped with a color IPS display and intuitive controls for comprehensive power analysis.



Image 3.1: Front view of the UT01C USB Tester, highlighting the display and control buttons.

Key Features:

- **Comprehensive Electrical Parameter Testing:** Real-time measurement of DC voltage (3.3-30V), current (0-12A), and power (up to 240W). Displays capacity, temperature, ripple analysis, and current direction.
- **Extensive Fast Charging Protocol Support:** Compatible with PD2.0/3.0/3.1 (including AVS/EPR), QC2.0/3.0/4.0+, PPS, and BC1.2. Supports PDO/QC gear spoofing, E-marker simulation, and private protocol triggering.
- **Battery Capacity Statistics and Data Storage:** Records cumulative battery capacity (mAh) and energy consumption (Wh) with power-off memory. Tracks maximum voltage, current, and power, combined with temperature monitoring.

- **Multi-mode Graphical Analysis:** Features curve plotting, ripple measurement, and protocol auto-testing functions. Supports real-time spectrum display and data pause analysis with a 5MHz sampling frequency.
- **User-friendly Design:** Color IPS display with gravity rotation, 10kHz dimming, pass-through mode, key shortcuts, brightness adjustment, and automatic screen saver.

4. SETUP

Follow these steps to set up your UT01C USB Tester:

1. **Unpack:** Carefully remove the UT01C USB Tester from its packaging.
2. **Identify Ports:** The tester has a male USB-C connector (input/output depending on connection) and a female USB-C port (output/input depending on connection).
3. **Connect for Testing:**
 - **To test a power source (charger, power bank):** Plug the male USB-C connector of the UT01C directly into the power source's USB-C port.
 - **To test a device's charging (phone, laptop):** Plug the male USB-C connector of the UT01C into the power source, then connect your device's charging cable to the female USB-C port of the UT01C.
4. **Power On:** The tester will automatically power on and display readings once a power source is connected.

5. OPERATING INSTRUCTIONS

5.1 Basic Measurements

Upon connection, the main screen will display real-time voltage (V), current (A), and power (W). Additional parameters like capacity (mAh/Wh) and temperature may also be visible.

High Precision, Accurate Diagnostic Performance

Real-time monitoring of subtle changes in data

6-digit display



Image 5.1: The UT01C display showing high-precision diagnostic data.

5.2 Menu Navigation and Settings

The tester features physical buttons for navigation:

- **< / > Buttons:** Used to navigate through menu options or cycle between different display pages.
- **OK Button:** Selects an option or confirms a setting.
- **BACK Button:** Exits a menu or returns to the previous screen.
- **OFF/ON Switch:** Controls power or enters specific test modes.

Language Selection:

1. Navigate to the settings interface using the navigation buttons.
2. Locate the language selection option, typically found in the fourth column of the settings menu.
3. Use the < or > buttons to select between English and Chinese.
4. Press the **OK** button to confirm your selection.

Note: Menu options are indicated by color; deep color signifies unselected, while light color indicates the currently active option.

5.3 Advanced Testing Functions

- **Fast Charging Protocol Detection:** The tester automatically identifies and displays the active fast charging protocol (e.g., PD, QC, PPS).
- **Ripple Measurement:** Access this function through the menu to analyze the stability of the power output.
- **Curve Plotting:** View real-time graphs of voltage, current, and power to observe dynamic changes during charging.

Protocol Deception and Simulation

Test cable compatibility and unlock hidden fast charging gears



Image 5.3: Illustration of protocol deception increasing charging power.

5.4 Data Logging and Capacity Statistics

The built-in module records cumulative battery capacity (mAh) and energy consumption (Wh). This data is stored even after the device is powered off, allowing for long-term monitoring and analysis of battery and power supply performance.

5.5 Bidirectional Current Testing

The Type-C female port supports both current input and output, enabling the tester to measure current flow in both directions. This is useful for understanding charging and discharging cycles of devices like power banks.

PDE-Marker Data Cable Detection

Test the performance of different cables
and play with fast charging



Image 5.5: Testing multiple cables and devices with E-Marker detection.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Avoid using liquids or abrasive cleaners.
- **Storage:** Store the tester in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the device with care to prevent physical damage. The robust CNC metal housing provides protection against dust and drops.

Industrial-Grade Protection Design, Safer Against Burns

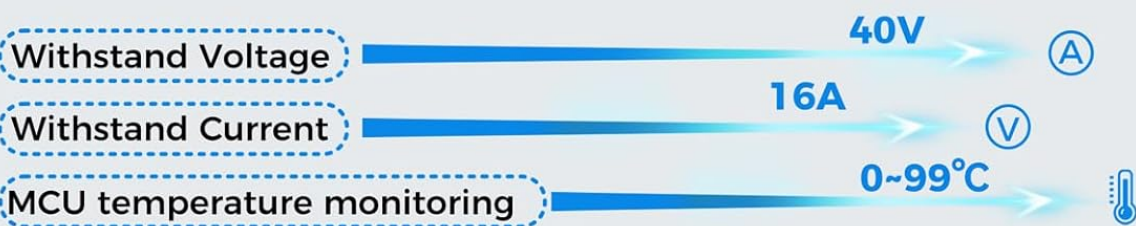


Image 6.1: Industrial-grade protection design of the UT01C.

7. TROUBLESHOOTING

- **Display is in Chinese:** Refer to section 5.2, "Language Selection," to change the display language to English.
- **Readings are not displayed:** Ensure the tester is securely connected between a functioning power source and a load. Check all cables for proper connection.
- **Readings appear inaccurate:** Verify that the power source and connected device are within the tester's specified operating ranges (3.3-30V, 0-12A, up to 240W). Ensure connections are stable.
- **Text on display is small:** The display is compact. Ensure adequate lighting and adjust your viewing angle

for better readability.

8. SPECIFICATIONS

Feature	Specification
Voltage Range	3.3 - 30V DC
Current Range	0 - 12A
Power Range	Up to 240W
Min. Operating Voltage	3.3 Volts (DC)
Withstand Voltage	40V
Withstand Current	16A
MCU Temperature Monitoring	0 - 99°C
Display Type	Color IPS
Sampling Frequency	5MHz
Dimensions	4.76 x 3.27 x 0.94 inches
Weight	1.45 ounces
Manufacturer	POROMETISTO

9. WARRANTY AND SUPPORT

For warranty information, technical assistance, or customer support regarding your POROMETISTO UT01C USB Tester, please contact POROMETISTO customer service. Refer to the product packaging or the official POROMETISTO website for the most current contact details.