



Quick Operating Manual

USR-EG628

Industrial Mini PC

Linux Ubuntu OS, Network Management

Edge Computing, Built-in Configuration

PLC Programming, 4G/Dual WiFi/Ethernet

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1. Product Introduction

The USR-EG628 is a comprehensive expandable ARM industrial computer. It supports secondary development based on the Linux Ubuntu system and integrates WukongEdge applications, combining edge gateway, local configuration, and PLC programming functions. With IO expansion capabilities, it delivers powerful performance.

Hardware Specifications

Chip: RK3562J industrial-grade chip, 4-core 64-bit high-performance ARM CPU (2.0GHz main frequency), featuring an integrated AI Neural Processing Unit (NPU) with 1.0TOPS computing power and support for multiple AI development tools/APIs.

Connectivity: Built-in cellular 4G, dual Ethernet ports, and Wi-Fi. External interfaces include serial ports, USB 3.0, HDMI, and IO module expansion ports (supporting AI/AO/DI/DO modules).

Installation: DIN rail and wall-mount brackets for easy setup.

2. Package

Packaging: Neutral packaging with a small label (SN and model for inventory tracking).

Contents: Device and accessories (see accessories list).



Model	Accessories	Network
USR-EG628 (ETH)	Power cable, Ethernet, RTC battery	Ethernet
USR-EG628 (GL)	4G/WiFi/GPS antennas, power cable, Ethernet, RTC battery	4G (Global Version)

3.Quick Testing

3.1. Hardware Connection

- 1、 Connect the power adapter (red=positive, black=negative).



2、 Remove the side plastic cover, install the RTC coin battery, and reattach the cover.



3、 Insert the SIM card.



4、 Attach 4G/Wi-Fi antennas and GPS antenna (GL version only).

5、 Use WAN port for router connection, LAN port for direct PC connection; configure PC to obtain IP via DHCP.

6、 Power on the device and verify the PW (Power light) is steady and WK (System light) is blinking.

3.2. Login WEB

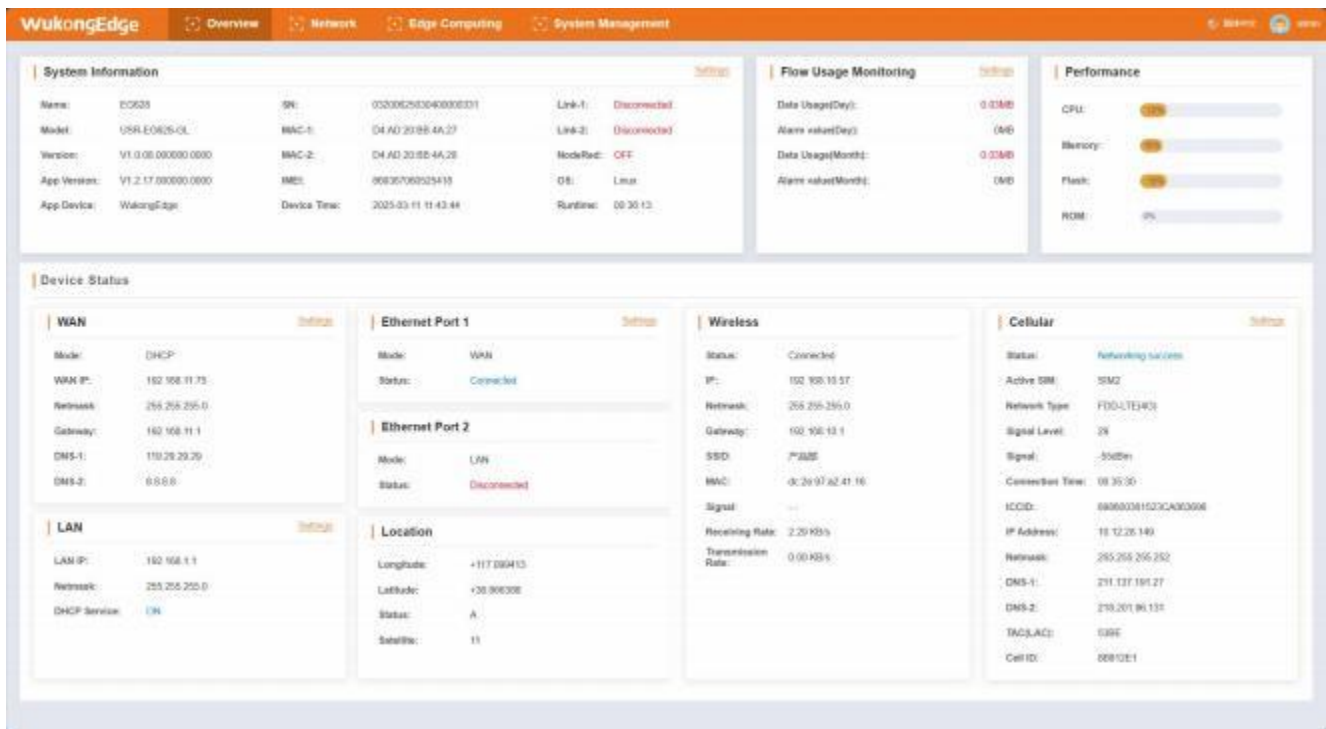
- **Direct PC Connection:** Connect the PC' s network port to the device' s LAN port, set the PC to obtain an IP address automatically

1、 Power on, verify the WK indicator is blinking, then enter the LAN IP into a browser

[Default IP of LAN Port: 192.168.1.1](#)

2、 Login with default username & password (admin/admin)

3、 Check device basic info and network status (e.g., 4G) in the overview.

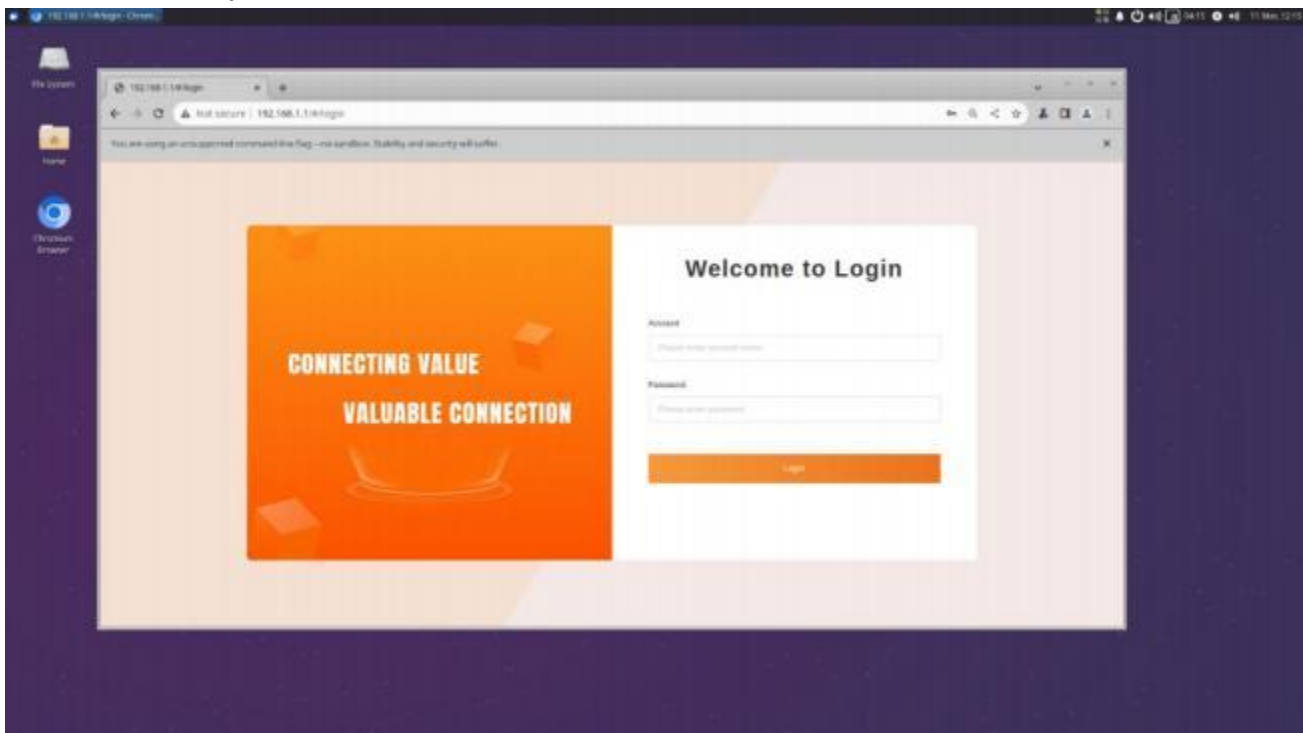


● Configure Parameters via Built-in Desktop

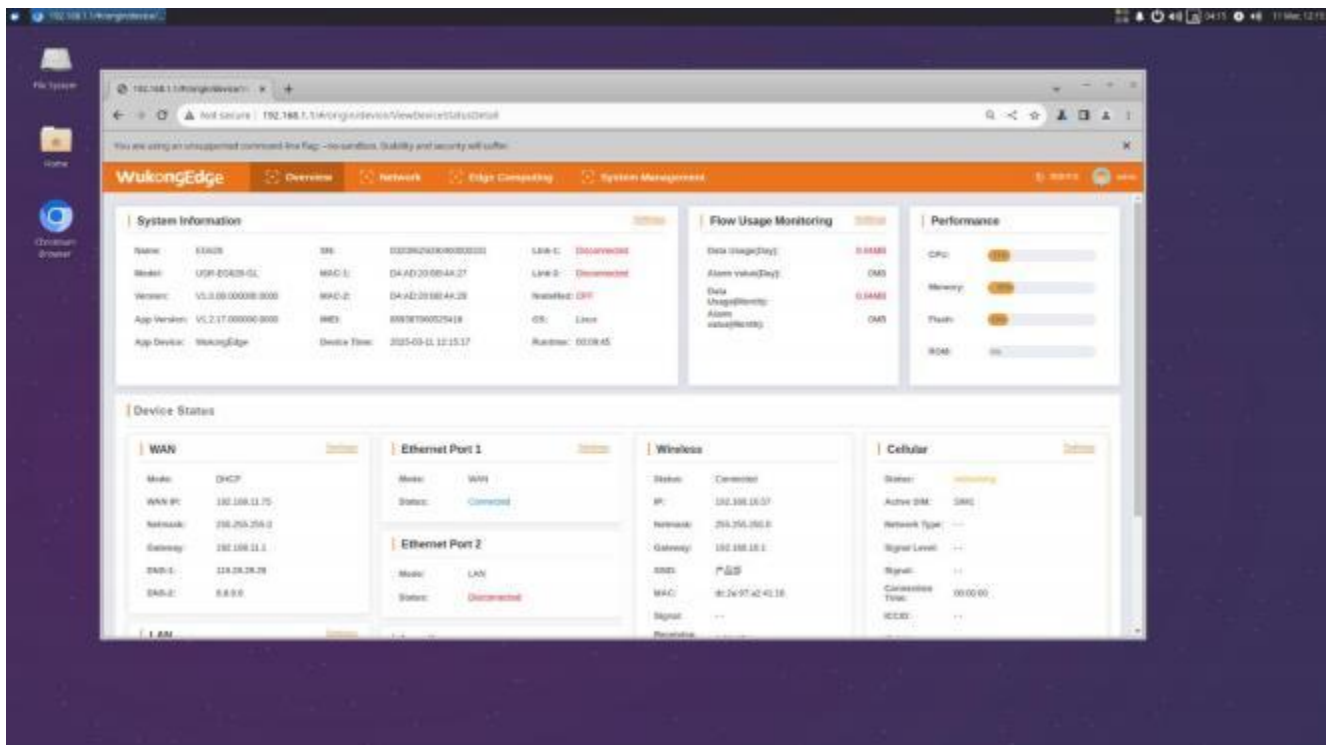
- 1、Connect mouse & keyboard via USB, and the screen via HDMI. For others, refer to 3.1.
- 2、Power on, once the Work indicator starts blinking and the display shows the desktop, perform the operations. As shown in the following figure:



- 3、 Open Chromium Browser on the desktop and enter the LAN port IP (default: 192.168.1.1)



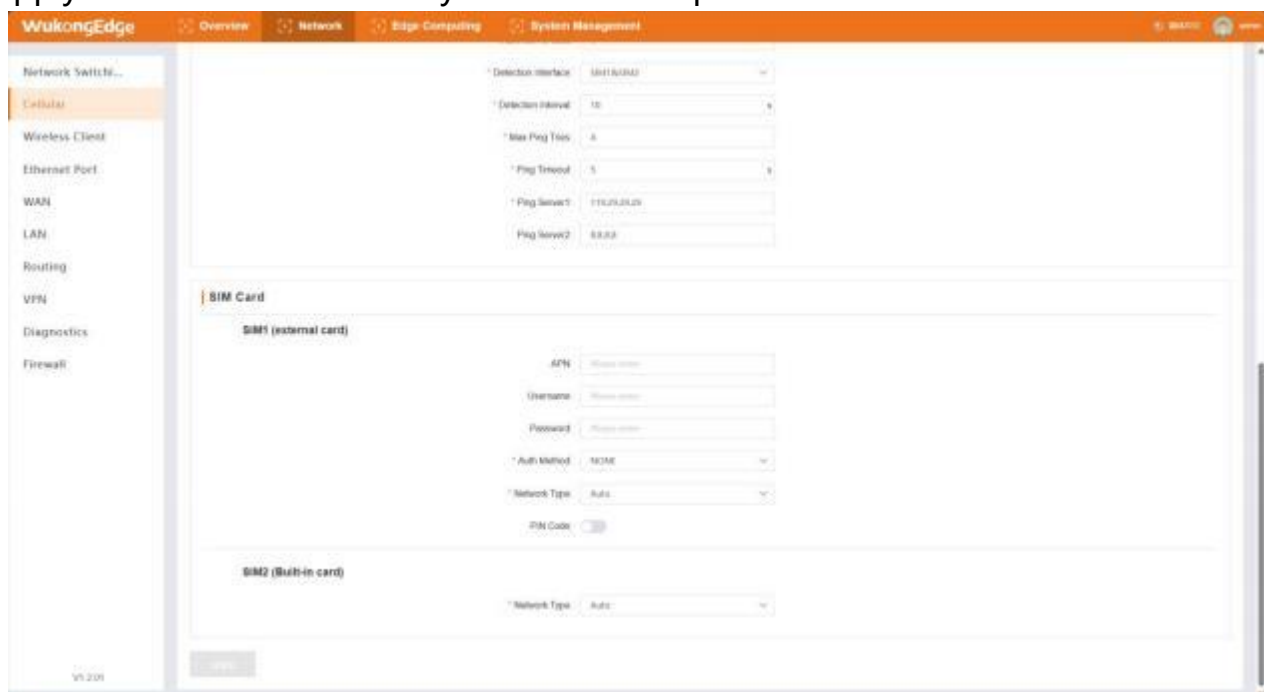
- 4、 Login with default Account & Password (admin/admin)
- 5、 View device information and network status (e.g., 4G) in the overview.



3.3. Network Configuration

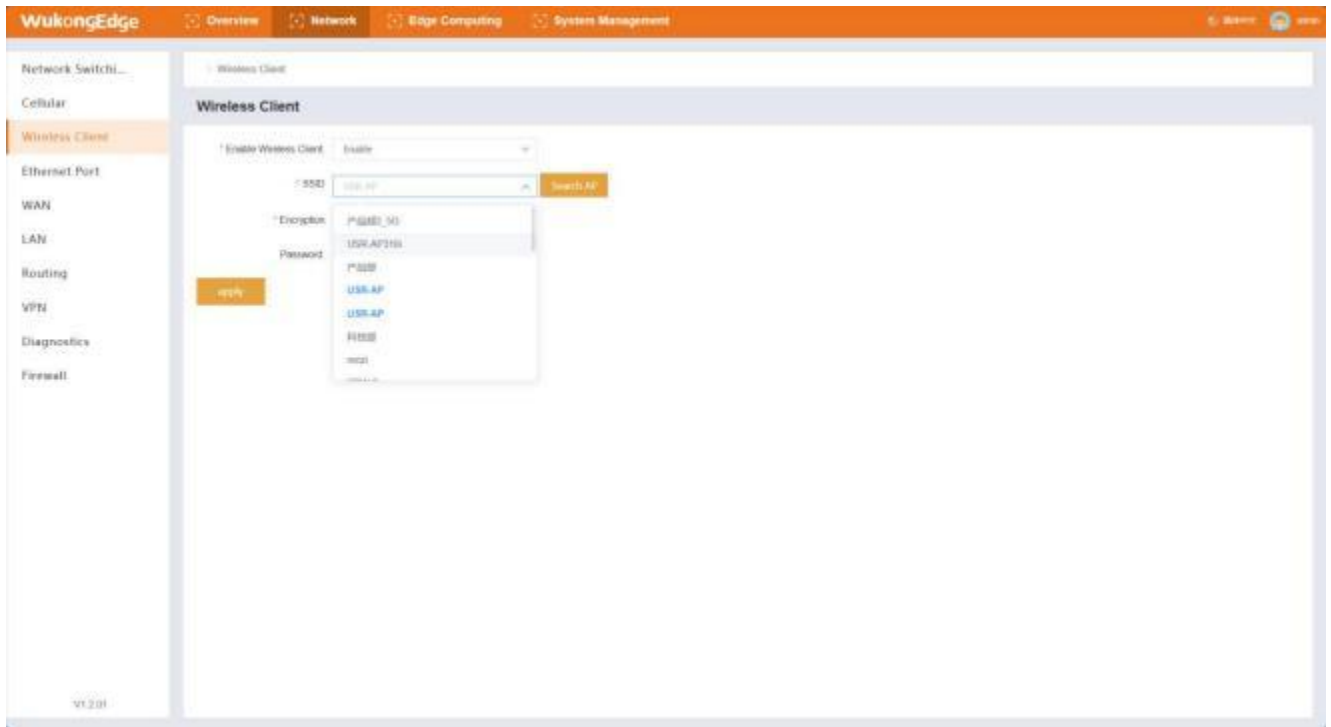
1、SIM 4G: Configure APN parameters

"Network -> Cellular Network" interface as shown in the figure. Once configured, click "apply" to activate immediately—no reboot required.



2、WiFi Network: "Network -> Wireless Client" interface as shown in the figure.

Click "Search AP" to display the input box for a dropdown. Choose directly or search by name. Once configured, click "apply" to activate immediately— no reboot required.



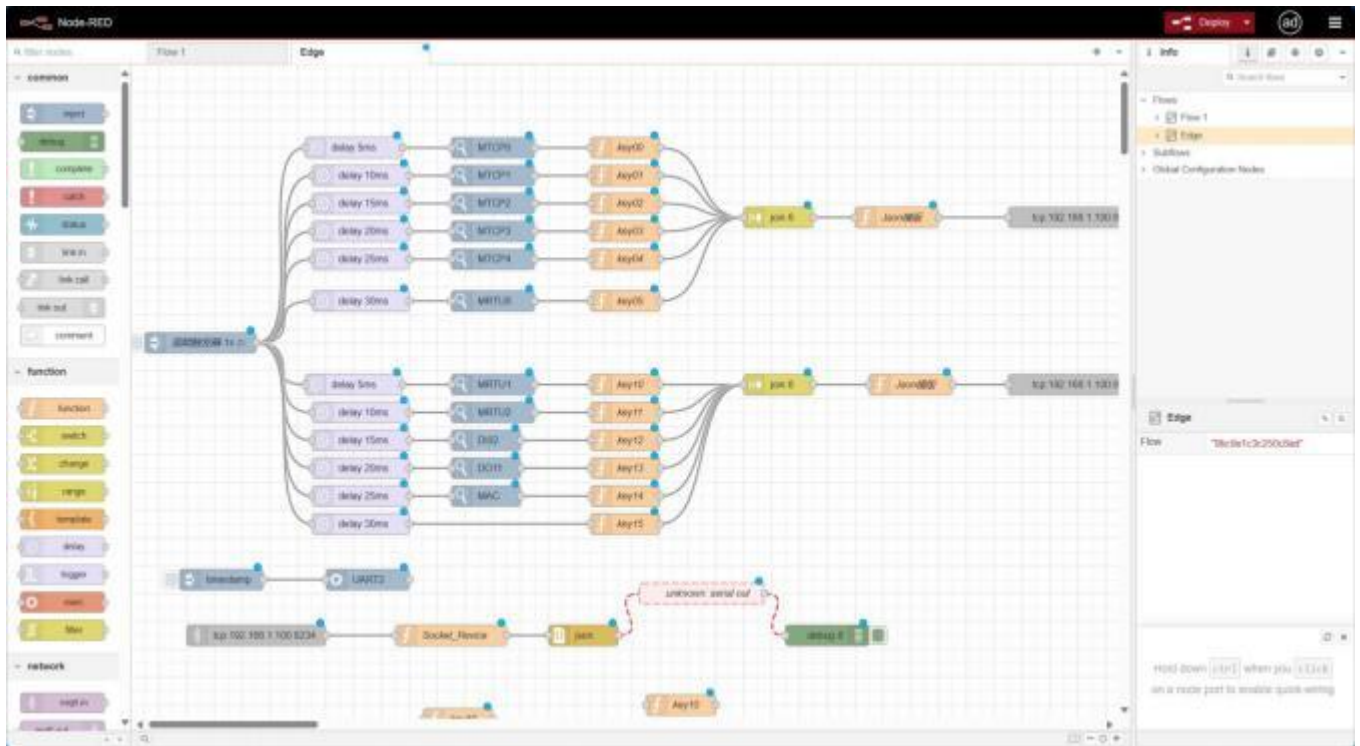
3.4. Node-Red Graphical Interface

- 1、Edge Computing -> Edge Mode interface. Select "Node-red + Edge" and click the "Apply" button, then restart the device.



2、 Once the device restarts, to "Edge Computing→Edge Mode " and click "Graphical Design".

Login with default credentials (admin/admin) - modify them via the built-in web-page if needed. Proceed to create flows graphically:



3.5. Others

The EG628 integrates the WukongEdge application architecture, including edge computing, network management, built-in configuration, and PLC functionality. For specific functional applications, refer to the WukongEdge User Manual.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.