Quick start guide

orange pi 800

Meet **Orange Pi 800**: Your mini personal computer, built into a compact keyboard.

The Orange Pi 800 looks like a keyboard in appearance, but there is a motherboard inside. Just connect a monitor and mouse with USB interface, and the Orange Pi 800 can become a complete and usable ARM64 computer. Orange Pi 800 uses Rockchip RK3399 (28nm HKMG process) system level SoC, and equipped with 4GB LPDDR4 memory, 64GB eMMC and a variety of peripheral expansion interfaces. Orange Pi 800 can run Android12.1, OrangePi OS, Manjaro, Ubuntu22.04, Debian11 and other operating systems.

Orange Pi 800 interface specs

1. Speaker
2. 26Pin expansion port
3. VGA interface
4. MicroSD card slot
5. 2xUSB 3.0; 1xUSB 2.0
6. Type-C power interface
7. Analog audio
8. HDMI interface
9. Gigabit ethernet
10. Microphone

Orange Pi 800 uses

- A computer
- Games
- Android
- A wireless server
- HD video

Of course, there are many other features, and we can install various softwares on the installed system to extend the functionality we need, or we can use the SDK provided by Orange Pi to customize our own needs.

Get started

CPU	Rockchip RK3399(64 bit ARM® Dual Core CortexA72 1.8GHz+Quad Core CortexA53 1.4GHz)
GPU	ARM Mali-T860MP4
Memory (SDRAM)	4GB LPDDR4 (shared with GPU)
Onboard Storage	MicroSD card, 64GB eMMC Flash
Onboard Network	YT8531C, 10M/100M/1000M Ethernet RJ45
Onboard WiFi+BT	On-board module (CDW-20U5622) 2.4GHz/5GHz Dual band WiFi, supporting IEEE 802.11a/b/g/n/ac protocol Bluetooth 5.0, supporting BLE
Video Outputs	HDMI 2.0 VGA
Audio Output	HDMI output Analog audio Onboard speaker
Audio Input	Microphone On-board analog audio input
Keyboard	78 keys QWERTY keyboard

Power Source	Type-C power 5V4A
USB	2xUSB 3.0; 1xUSB 2.0
26Pin Expansion Port	Support IIC, SPI, UART, PWM, GPIO and other functions
LED	Power, Caps Lock and Numlk indicator
Supported OS	Android12.1, OrangePi OS, Manjaro, Ubuntu22.04, Debian11

Product dimensions and weight

Product Size	122mm × 286mm × 24mm
Weight	385g

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Orange Pi 800 quick start

Prepare the required accessories

1. MicroSD card , minimum 16GB capacity class10 or higher high-speed card, we recommend the use of genuine SanDisk MicroSD card.

2. MicroSD card reader, used to burn the operating system into the MicroSD card.

3. **HDMI cable** for connecting Orange Pi 800 to HDMI display or TV for display.

4. **VGA cable** for connecting Orange Pi 800 to VGA monitor for display.

5. **Power adapter,** the specifications of the power adapter is 5V4A (power supply is best to use our official with the power adapter, otherwise there will be the risk of not starting up).

6. **USB interface mouse** and standard USB interface mouse can be used. The mouse can be used to control Orange Pi 800.

7. **Ethernet** cable for connecting Orange Pi 800 to the Internet.

8. **USB to TTL module and dupont cable.** When there is a problem during system startup, you can quickly locate the problem by debugging the information output from the serial port through Orange Pi 800.

Note: All related accessories need to be purchased by yourself!

Setting up the Orange Pi 800 keyboard computer

Before setting **Orange Pi 800**

1. Unpack and check whether the accessories are intact.
2. When positioning the Orange Pi 800, ensure that the power supply is easy to use, well ventilated, and there is a horizontal plane to place the Orange Pi 800. Never place Orange Pi 800 in a confined space, such as a cabinet or bag, when it is open.
3. Plug the power adapter into the power socket.

Note: Due to the power requirements of the product, please use our official power adapter (5V4A).

Warning: Do not plug the vent, do not plug foreign matters, and do not allow dust to accumulate. When the Orange Pi 800 keyboard computer is running, do not store it in a poorly ventilated environment, such as a sealed briefcase. Restricted air flow may damage the keyboard and computer or cause a fire.

Note: Placing or stacking heavy objects or sharp objects on the Orange Pi 800 keyboard computer may cause permanent damage to the Orange Pi 800.

Power switch

- Turn Orange Pi 800 on or off.
- The indicator is red when the system is in standby mode or sleep mode.
- When the system is powered off, the indicator goes off.

Orange Pi 800 LED indicators

1. There are three LED indicators on Orange Pi 800, located in the upper right corner of Orange Pi 800, including one red light and two green lights.

2. Description of LED indicators.

Position	Colour	Effect	Explain
Leftmost LED	Red	Power indicator	It will always be on after the system is started
LED light in the middle	Green	Caps lock key indicator	After the system is started, the two LED lights will go out, and then the LED lights will turn on or off according to the pressing of Caps Lock key and Numlk key
Rightmost LED	Green	Numlk key indicator	

3. If the Orange Pi 800 does not have a MicroSD card inserted, and there is no system in the eMMC, and only the Typc-C power supply is inserted, After power on, the LED light (red light) turns on, which is determined by the hardware circuit and has nothing to do with the system. In this way, it can be determined whether the power supply of the Orange Pi 800 is normal when the system is not started normally.

MicroSD card installation and removal

Install the MicroSD card

1. Find the MicroSD slot of Orange Pi 800.
2. Insert the MicroSD card into the slot (usually with the label facing up) and push it in until the card is properly placed.

Remove MicroSD card

1. Click on the edge of the MicroSD card until you hear a click to eject the card from the slot.
2. Pull the MicroSD card out of the slot.

Product list

1. Orange Pi 800 keyboard computer x 1
2. Paper packing box x 1
3. Quick start guide

Safety, use and maintenance

Cleaning the computer keyboard

1. Use a clean soft cloth to absorb some isopropanol wipe.
2. Wipe the surface of the keyboard with this cloth. Wipe keys one by one. If you wipe more than one key at a time, the cloth may catch an adjacent key and may damage it. Make sure there are no water droplets on or between the keys.
3. Wait to dry.
4. To remove any debris or dust from under the keys, use the cool air from a blower or blower with a brush.

※ Note: Avoid spraying detergent directly on the keyboard.

Warranty

1. Product warranty period: one year from the date of purchase.

2. Due to the fault caused by the product itself, the company will provide customers with free maintenance service. Do not disassemble the machine for repair by yourself.

3. Faults caused by natural disasters, fire, self disassembly or non-standard operation are not within the scope of free warranty.

4. The free warranty service is limited to the accessories configured by the original factory.

Warning: This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference (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 compliancecould 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.

This information is for reference only and does not constitute a commitment of any kind. In the event of any inconsistency with the description on the official website, please refer to the description on the official website.
For more information, please visit :
http://www.orangepi.org/html/serviceAndSupport/index.html

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-- Connect the equipment into an outlet on a circuit different
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To maintain compliance with FCC’s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.