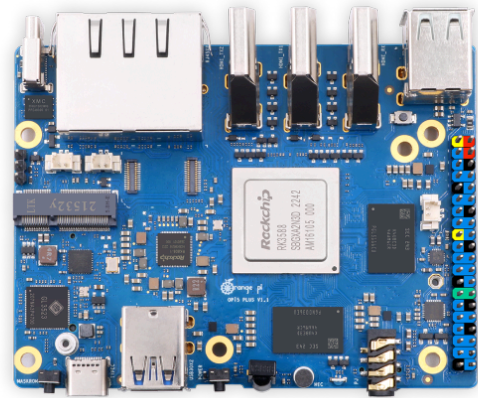




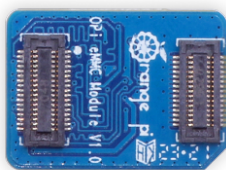


Orange Pi 5 Plus (32GB)



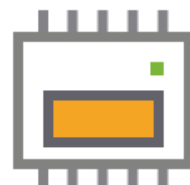
-  Rockchip RK3588 8-core 64-bit processor
-  Main frequency up to 2.4GHz
-  32GB LPDDR4X
-  Support 8K video codec

Orange Pi eMMC Module



32GB / 64GB / 256GB capacity options, fast read/write speed, strong compatibility, to meet the requirements for eMMC high performance, low power consumption, compatibility and stability.

[More info](#)

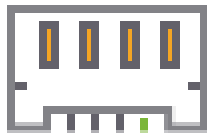


8-core 64-bit
processor

M.2 slot
supporting 2280
SSD

M.2 slot
supporting
2230 Wi-Fi 6/BT
module

External
16GB/32GB/64G
B/128GB/256GB
eMMC module is
available



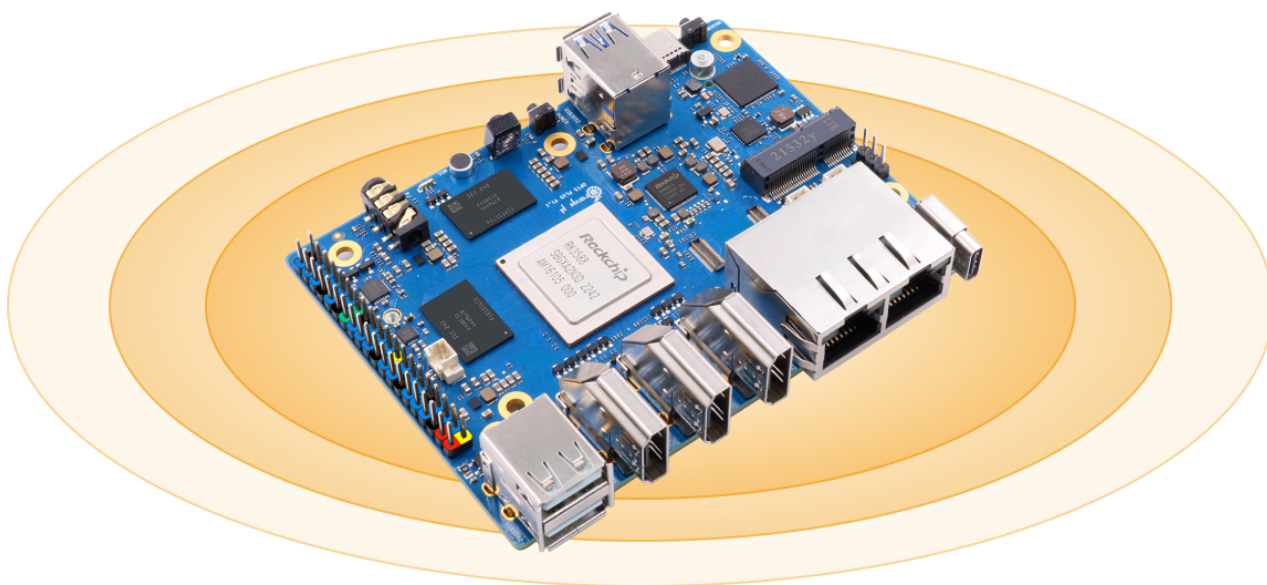
32GB LPDDR4X

2.5G high-speed
dual LAN ports

2 * USB 3.0, 2 *
USB 2.0

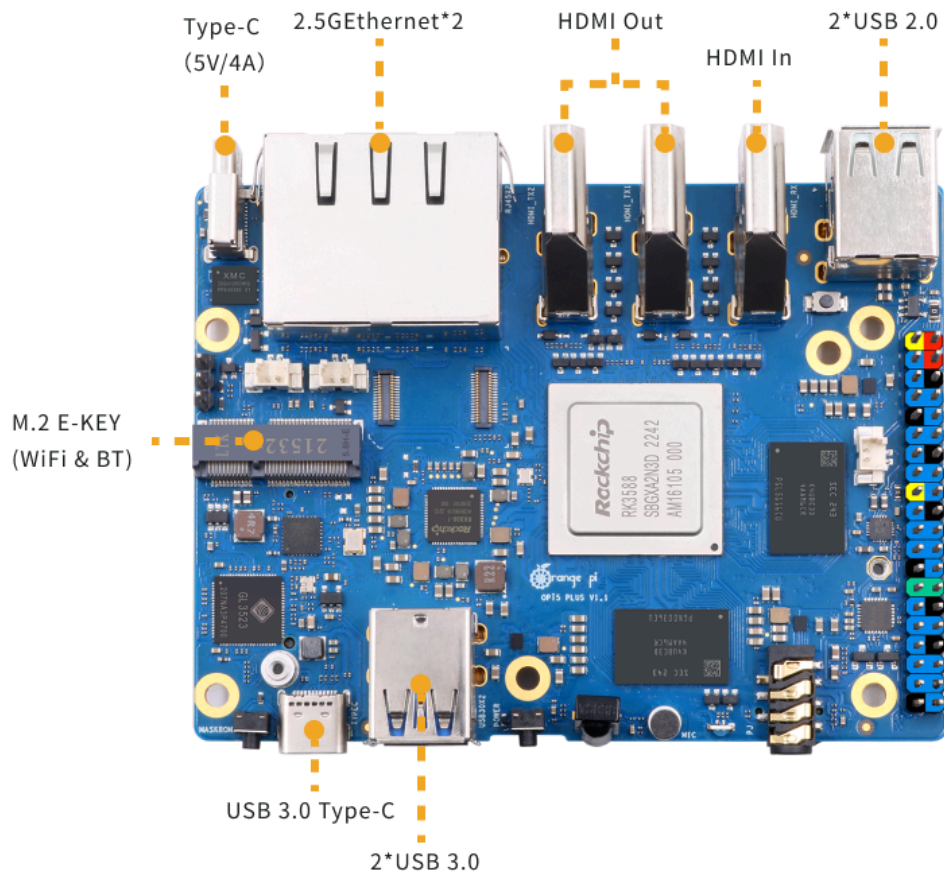
Supports 8K
video decoding

Rockchip RK3588 8-core 64-bit processor



Orange Pi 5 Plus uses Rockchip RK3588 8-core 64-bit processor, quad-core A76+quad-core A55, with 8nm process design, up to 2.4GHz main frequency, integrated ARM Mali-G610, built-in 3D GPU, compatible with OpenGL ES1.1/2.0/3.2, OpenCL 2.2 and Vulkan 1.2; embedded NPU supports INT4/INT8/INT16/FP16 mixed computing, with up to 6Tops of computing power, which can meet the edge computing needs of most end devices; 32GB LPDDR4X memory and eMMC socket, which can be connected with 16GB/32GB/64GB/128GB/256GB eMMC module. Orange Pi 5 Plus supports Orange Pi OS, the official operating system developed by Orange Pi, as well as Android 12, Debian 11, Ubuntu 22.04 and other operating systems.

Provides abundant interfaces



Orange Pi 5 Plus provides abundant interfaces, including two HDMI output ports, one HDMI input port, two PCIe extended 2.5G Ethernet ports, an M.2 M-Key slot that supports installation of NVMe SSDs, and an M.2 E-Key slot that supports Wi-Fi6/BT modules. In addition, Orange Pi 5 Plus has two USB 3.0, two USB 2.0, and two Type-C (one of which is a power connector).

Orange Pi 5 Plus has a wide range of uses to help embedded system development enthusiasts explore, and is also suitable for enterprises developing mini machine vision systems with multiple Ethernet ports. Orange Pi 5 Plus offers enhanced high-end applications performance experience to meet the needs of product customization in different industries.

Rockchip RK3588

embedded with 6 Tops computing power NPU,
suitable for developing AI applications

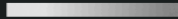


Using 8nm LP process for faster speed and better performance



CPU 8-core 64 core architecture, 4*Cortex-A76 + 4*Cortex-A55

RK3588



RK3399

4 x
Improvement

GPU ARM Mali-G610

RK3588



RK3399

8 x
Improvement

NPU 6Tops AI computing power

Support INT4/INT8/INT16 hybrid computing, empowering various AI scenarios

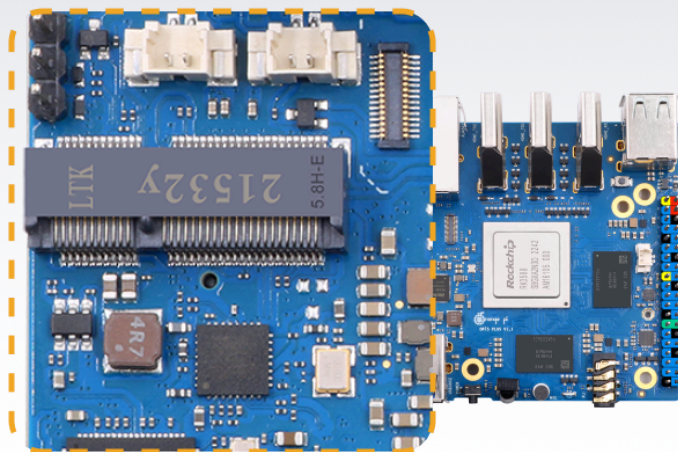
2.5G high-speed dual Ethernet ports

2.5G high-speed dual Ethernet ports with PCIe extension for faster data transfer speeds



Rich display ports

Supports HDMI 2.1 8K video output, Type-C (DP1.4A), MIPI DSI video output, which can realize up to four different displays, suitable for high-end applications such as VR cameras and deep vision.

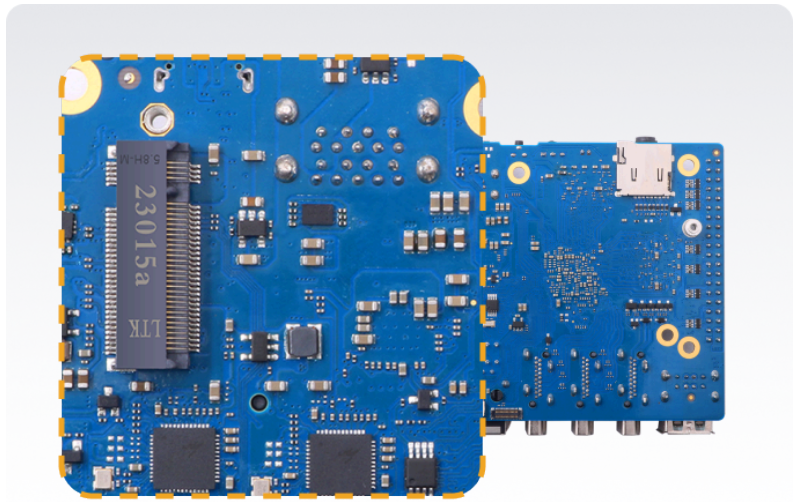


Supports Wi-Fi6/BT modules

Equipped with M.2 E-Key slot to support Wi-Fi6/BT module

Supports NVMe SSD for massive capacity expansion

Equipped with an M.2 M-Key slot, it supports access to NVMe SSD to increase massive data storage space and meet the demand for fast read/write and high-capacity storage.



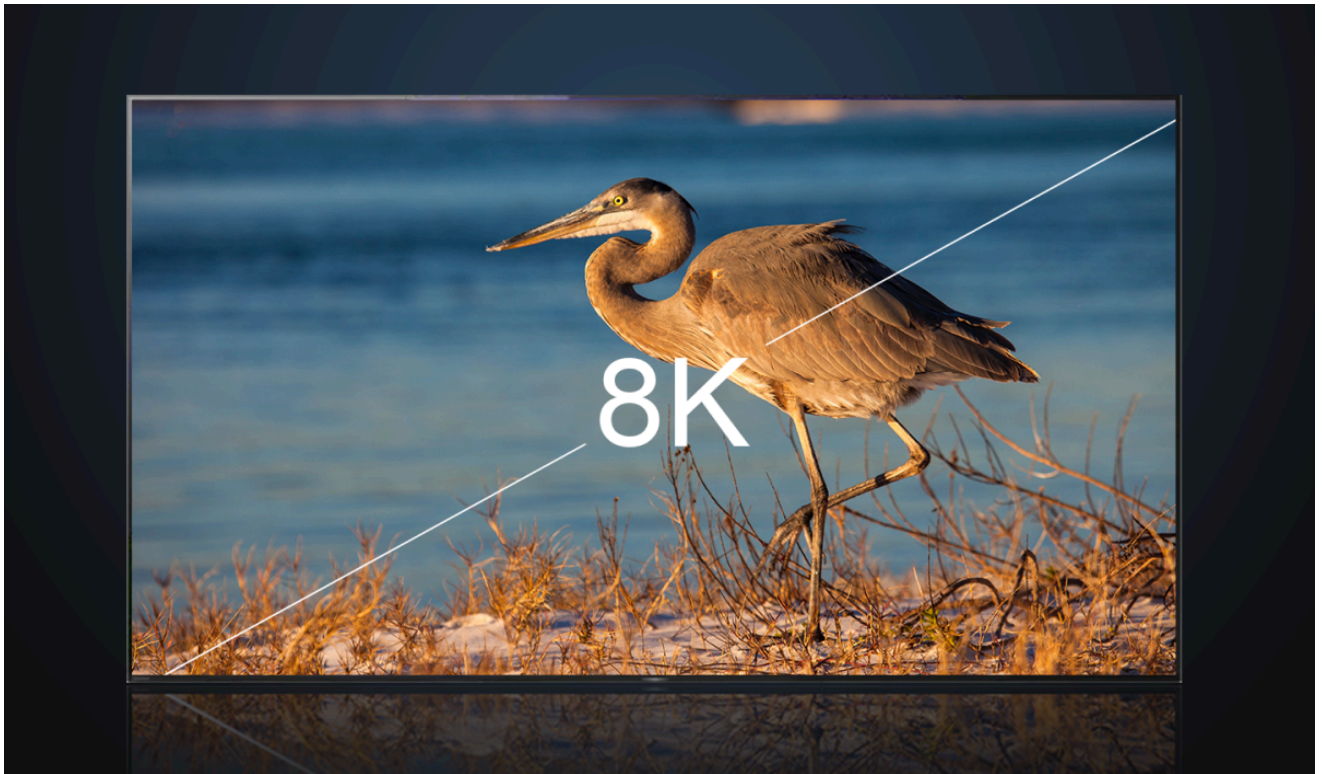
32GB RAM

Meet the application requirements of products with large RAM and large storage.



8K video decoding for clear and realistic picture

With support for up to 8K@60Hz, the powerful video codec allows for clearer images and more detailed picture quality.



High-quality and smooth gaming experience

8-core CPU + 8nm process + 8K video decoding for a smoother, more stable gaming experience

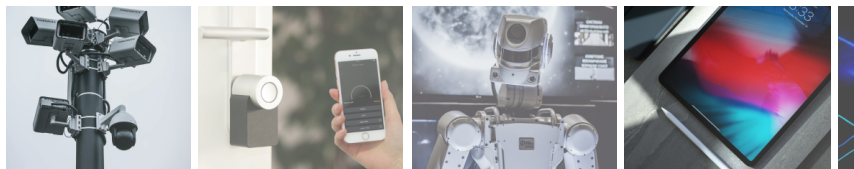


Supports Orange Pi OS (Droid)

With its self-designed Launcher, it provides users with the same operating habits as a regular computer to the maximum extent. The installation of Google Store allows users to run Facebook, Instagram, Twitter, YouTube, Telegram and other applications smoothly.

Wide range of application scenarios

It can be widely applied to tablets, edge computing, artificial intelligence, cloud computing, AR/VR, intelligent security, smart home and other fields, covering AIoT various industries.



Intelligent security

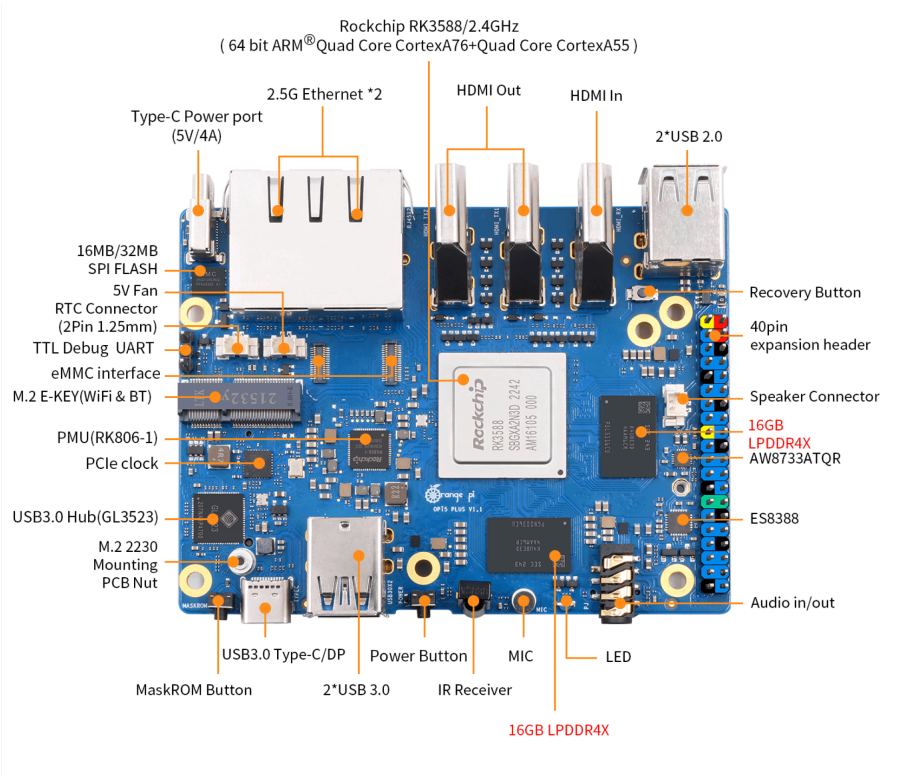
Smart home and other fields

Artificial intelligence

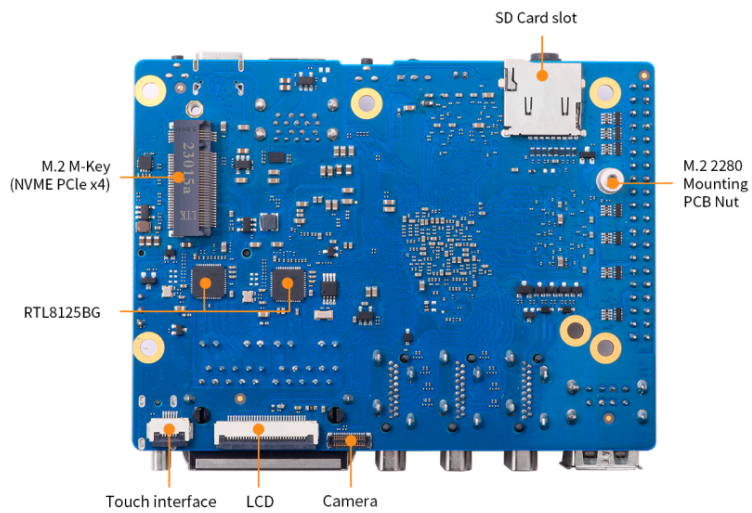
Tablets

Et

Product display



Top View



Bottom View

Hardware Parameters

SoC	Rockchip RK3588 (8nm LP process)
CPU	<ul style="list-style-type: none">• 8-core 64-bit processor• 4 x Cortex-A76(2.4GHz), 4 x Cortex-A55(1.8GHz) and separate NEON co-processors
GPU	<ul style="list-style-type: none">• Arm Mali-G610• Built-in 3D GPU• Compatible with OpenGL ES1.1/2.0/3.2, OpenCL 2.2 and Vulkan 1.2
NPU	Embedded NPU supports INT4/INT8/INT16/FP16 mixed operation, with up to 6Tops computing power
PMU	RK806-1
RAM	32GB LPDDR4X
Memory	<ul style="list-style-type: none">• QSPI Nor FLASH: 16MB/32MB• MicroSD card slot: up to 128GB• eMMC socket: 16GB/32GB/64GB/128GB/256GB eMMC module can be attached• M.2 2280 slot for NVMe SSDs (PCIe 3.0 x4) up to 2,000 MB/s
USB	USB3.0 × 2 USB2.0 × 2 Type-C × 1

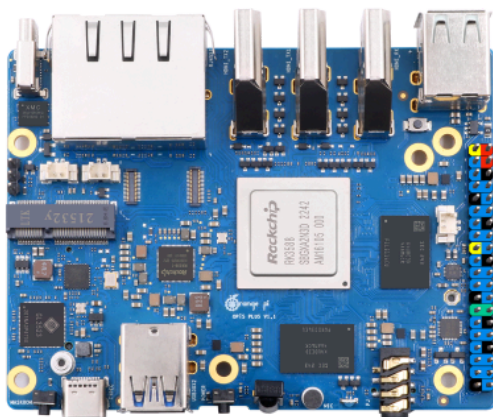
Video	<ul style="list-style-type: none"> • 2x HDMI 2.1 out up to 8k@60FPS • 1x Type-C with DP TX 1.4A, up to 8K@30FPS • 1x HDMI in with up to 4K@60FPS • 1 x MIPI DSI TX 4 Lane, up to 4K @60Hz
TP interface	1x 6Pin FPC socket
Camera	<ul style="list-style-type: none"> • 1xMIPI CSI 4 Lane
Audio	<p>CODEC:ES8388</p> <ul style="list-style-type: none"> • 1xAudio 3.5mm jack with mic • 1xMIC In • 1xHDMI 2.1 eARC • 1xSPK
Ethernet	2xPCIe 2.5G LAN (RTL8125BG)
Expansion Port	40Pin dual row pins with the following multiplexing functions: UART, I2C, SPI, CAN, I2S, PDM, AUDDSM, SDIO, PWM, GPIO
PCIe M.2 M-KEY Socket	M.2 connector M key (bottom) for NVMe with PCIe 3.0 x4 lanes 2280 SSD
PCIe M.2 E-KEY Socket	M.2 connector E key (top) for connectivity with PCIe 2.0 x1/PCM/UART/USB2.0,2230 Wi-Fi6 /BT supported
Button	<p>1×MaskROM key</p> <p>1xRecovery</p> <p>1×on/off key</p>
Power Source	Support Type-C power supply, 5V@4A
IR receiver	1x IR receiver tube
LED	RGB LED side light

FAN	5V FAN
RTC	2Pin: RTC backup battery
Debugging	3Pin debug serial port (UART)
Supported OS	OrangePi OS (Droid) 、 OrangePi OS (Arch) 、 Ubuntu22.04、 Debian11、 Android12

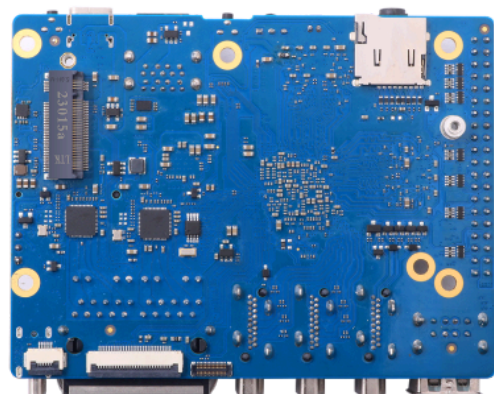
Appearance specification introduction

Dimension	100mm * 75mm
Weight	86.5g

Product display



Front



Back



45° angle



45° angle

Social group

