

Hardware Parameters

SoC	Rockchip RK3588S (8nm LP process)
CPU	<ul style="list-style-type: none">• 8-core 64-bit processor• Big.Little Architecture: 4xCortex-A76 and 4xCortex-A55, Big core cluster is 2.4GHz, and Little core cluster is 1.8GHz frequency.
GPU	<ul style="list-style-type: none">• Arm Mali-G610 MP4 "Odin" GPU• Compatible with OpenGL ES1.1/2.0/3.2, OpenCL 2.2 and Vulkan 1.2• 3D graphics engine and 2D graphics engine
NPU	Built-in AI accelerator NPU with up to 6 TOPS, supports INT4/INT8/INT16 mixed operation
PMU	RK806-1
RAM	4GB LPDDR4/4x
Memory	<ul style="list-style-type: none">• QSPI Nor FLASH 16MB• MicroSD (TF) Card Slot• PCIe M.2 M-KEY NVMe SSD
USB	USB3.0 × 1 USB2.0 × 2 Type-C (USB3.0) ×1
Video Output	<ul style="list-style-type: none">• HDMI2.1, up to 8K @60Hz• DP1.4 (DisplayPort), DP1.4 and USB3.0 ports are multiplexed, and the port is shared with Type-C• 2 * MIPI D-PHY TX 4Lane, configurable up to 4K @60Hz
Camera	<ul style="list-style-type: none">• MIPI CSI 4Lane• 2 * MIPI D-PHY RX 4Lane
Audio	<p>CODEC: ES8388</p> <ul style="list-style-type: none">• 3.5mm headphone jack audio input/output• Input: Onboard MIC• HDMI 2.1 eARC
Ethernet	10/100/1000Mbps Ethernet (YT8531B)
Expansion Port	26Pin double row pins supporting the following functions: 3 * UART、6 * PWM、2 * I2C、1 * SPI、2 * CAN、17 *GPIO, these functions are multiplexed and cannot be supported at the same time.
PCIe M.2 M-KEY Socket	The following functional modules are supported but not limited to: <ul style="list-style-type: none">• SSD module supporting PCIe M.2 M-KEY NVMe• Wi-Fi6+BT 5.0 custom module supporting PCIe M.2 M-KEY
Button	1×MaskROM key 1×Recovery key 1×On/off key
Power Source	Support Type-C power supply, 5V4A Power indicator: red
LED	Status indicator: green
Debugging	3 Pin debug serial port (UART)
Supported OS	Orange Pi (Droid) , Orange Pi (Arch) , Ubuntu, Debian, Android12