

8K AI



Processor	Rockchip RK3588
Core	Rockchip RK3588 ARM Quad-Core Cortex-A76 @2.4GHz Quad-Core Cortex-A55@1.8GHz
GPU	ARM Mali-G610 MC4, OpenGL ES 1.1/2.0/3.1/3.2, Vulkan 1.1, 1.2, OpenCL 1.1,1.2,2.0
Cache	6 int4/int8/int16/FP16/BF16/TF32
RAM	4GB LPDDR4X (2GB-2 32B)
Storage	32G
Wireless	802.11 ax/ac/a/b/g/n
Bluetooth	12
USB	5.0

Connectivity	Type-C (12V/2A)
Storage	1 - TF 1 - PCIE
Display	1 - CR1220
Serial	2 - UART
Network	1-10/100/1000 Mbps RJ45
Wireless	802.11 ax/ac/a/b/g/n
USB	1 - USB3.0 1 - USB2.0 1 - USB2.0 4
LED	1 - LED
Video	1 - MIPI 32 1 - EDP Dual-cChannel 30
Display	1 - HD 2.1 8K @ 60Hz 1 - DP DP1.4 4K @ 60Hz
Camera	1 - MIPI-CSI 1 - HD 2.0 4K @ 60Hz
GPIO	1 - L/R, 3.5 1 - 3.3V
I2C	7 - GPIO, 3.3V 4 - I2C, 3V
Power	1- 2- 1-5V

Video	MPEG-1, MPEG-2, MPEG-4, H.263, H.264, H.265, VC-1, VP9, VP8, MVC AV1@MMU
Audio	MP3, AAC, FLAC, WAV

晶片: RTL8111HS

網路埠

網路埠: 10/100/1000 Mbps 網路埠

網路埠:

網路埠: AP6275P

網路埠 WiFi:

網路埠 802.11ax/ac/a/b/g/n 網路埠 2.4 Gbps
網路埠 2.4GHz 網路 5GHz

網路埠

網路埠 MU-MIMO 網路埠

網路埠 BT:

5.BT 5.0 網路埠 BT 網路埠
網路埠 BLE (網路埠)

網路埠 BT

網路埠 HDMI_TX 網路埠 8K@60fps(7680x4320)
EDP 網路埠 4K@60fps(3840x2160)

網路埠

MIPI_CSI 網路埠 4K@60fps(3840x2160)

DP(type-c) 網路埠 4K@ 60fps(3840x2160)

網路埠, 網路埠

網路埠

HDMI_RX 網路埠 4K@60fps(3840-2160)

MIPI_DSI (網路埠)

網路埠 PIP (網路埠) 網路埠

網路埠

晶片: HYM8563

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High-Performance AI Development Board

The RK3588 is a flagship AIoT chip built on 8nm LP process, featuring an octa-core CPU (up to 2.4GHz), ARM Mali-G610 MP4 GPU, and a 6TOPs NPU for AI acceleration. It also integrates a 48MP ISP with HDR & 3DNR, supporting major deep learning frameworks for enhanced AI performance.



RK3588
Octa-core CPU



Mali-G610
MC4 1GHz GPU



6TOPs
NPU



8K Codec
H.265 HEVC



4~32GB RAM
8~128GB ROM



WiFi6
1000M LAN



BT5.x



Android/Linux

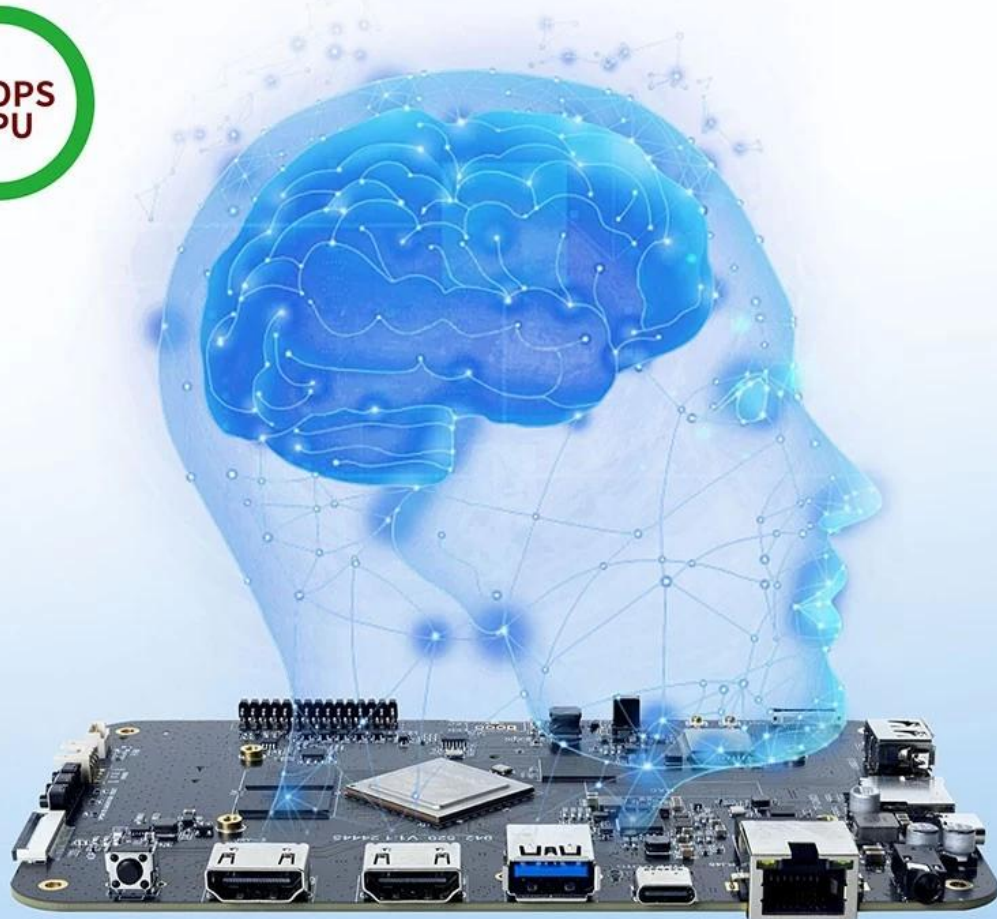
RK3588---Next-Generation Flagship AIoT CPU

Powered by the RK3588 octa-core 64-bit chipset, with ARM Mali-G610 MP4 GPU and 6TOPs AI NPU for superior AI performance and expanded possibilities.



6 TOPS Powerful Computing Boosts AI Applications

Powerful NPU with 6TOPS performance, supporting INT4/INT8/INT16 operations. Compatible with TensorFlow, MXNet, PyTorch, Caffe, and more. Efficiently accelerates convolution and traditional image processing operations like Gaussian filter, median filter, Laplacian, and Sobel, ideal for edge computing and vision control applications.



8K Video Encoding & Decoding

Supports 8K@60fps H.265/VP9 decoding and 8K@30fps H.265/H.264 encoding, with up to 32x 1080P@30fps decoding and 16x 1080P@30fps encoding. Delivers stunning 8K video quality.



32GB Large RAM & 128GB EMMC

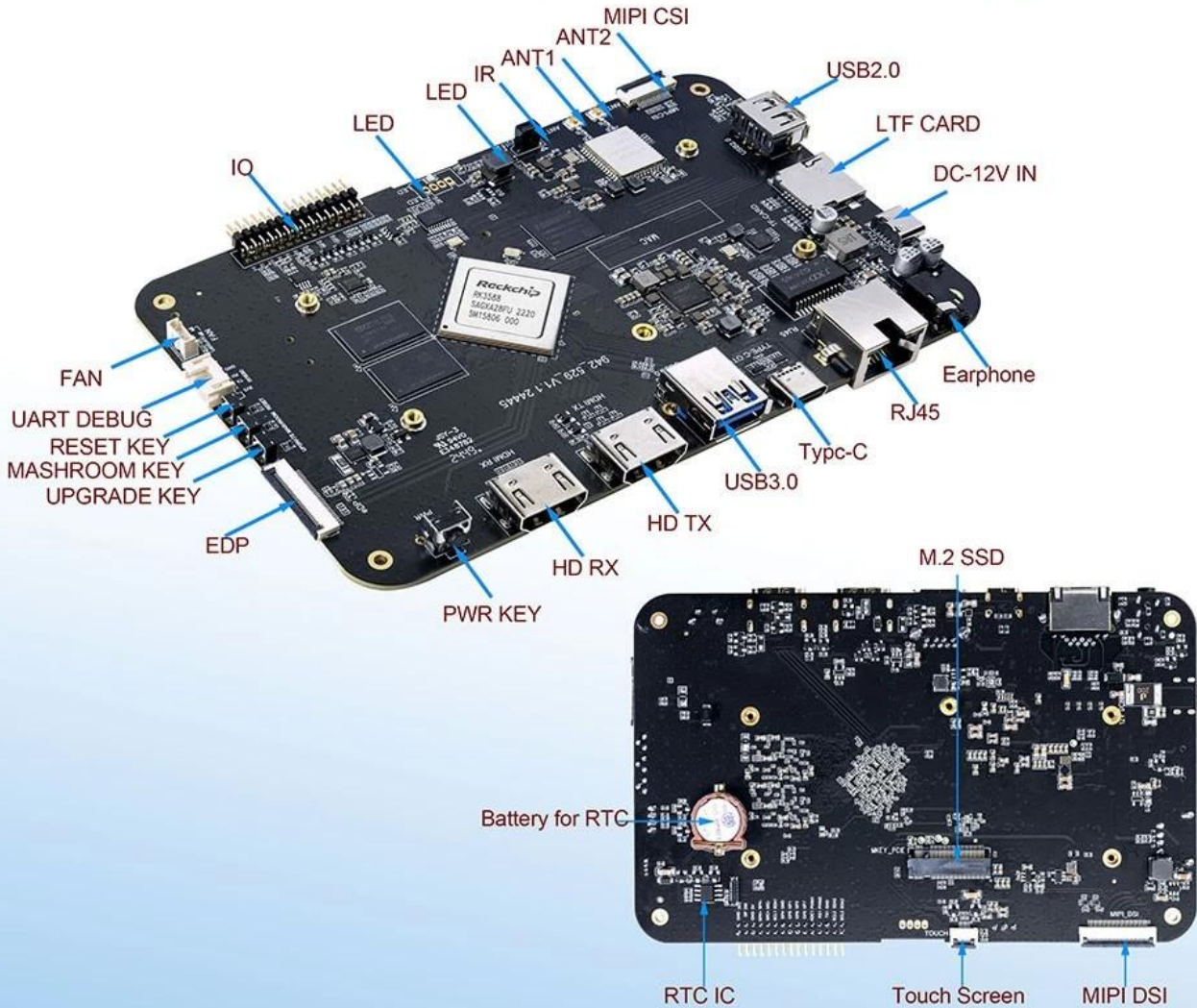
Up to 32GB RAM and 128GB eMMC storage, surpassing previous memory limits for faster response and meeting the demands of high-memory, high-storage applications.



32GB
128GB

Rich Expansion Interfaces

Multiple video output and input interfaces support simultaneous 8K@60fps video output and 4K@60fps video input. It also supports quad-screen display for high-definition interactive scenarios. The board offers rich expansion interfaces for diverse industry applications.



Powerful Network

Onboard Gigabit Ethernet, dual-band WiFi 6 (2.4GHz/5GHz), and Bluetooth 5.3 ensure seamless network connectivity and flexible support for various application needs.



Open System Architecture

Multi-system compatibility supporting Android 12 and Debian 11, with deep customization of the Linux kernel for remote upgrades and management, enhancing operational efficiency and ease.



- CPU 八核 ARM Octa-core RK3588 (Quad Core Cortex-A76 四核 Quad Core Cortex-A55) 主频最高可达 2.4 GHz 内置 GPU Mali-G610 四核 Quad Core 神经网络处理器 NPU 算力 6TOPS
- 制程工艺: 8nm LP
- 显示屏接口: MIPI (支持高清视频), EDP (支持高清视频)
- 接口: I2C
- 存储接口: TF 卡, PCIE 固态硬盘
- 其他接口: UART 串口, GPIO 引脚
- 系统: Android 12

支持 8K 分辨率 AI

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8K Ultra HD

... .. **8K**

AI

... .. AI

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-
- IoT

... .. AI

... ..

... .. GPU

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... ..

- **6:**
- **HDMI2.1:** 8K
- **USB 3.0** ... **USB-C:**
- **5.0:**

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... .. **4GB** and **32GB**

Android

Google Play Store
Android
Android
Android

Android

Android
Android
Android

Android

Android:

- Android: 8K
- Android: IoT
- Android:

Android

Top [8K AI](#)
Android
Android
Android