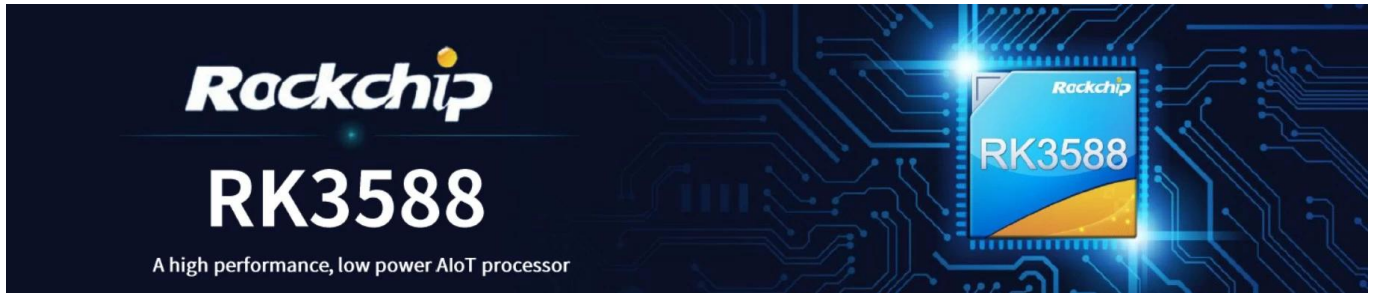


Rockchip RK3588 12 LCD 4K 8K AI



Processor

Processor	Rockchip RK3588
CPU	ARM Cortex-A76 @2.4GHz / 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
AI Acceleration	6 TOPS / int4/int8/int16 / FP16/BF16/TF32
RAM	4GB LPDDR4X / 2GB*2 / 32GB
Storage	32G
Network	802.11 ax/ac/a/b/g/n
Display	12
Audio	5.0

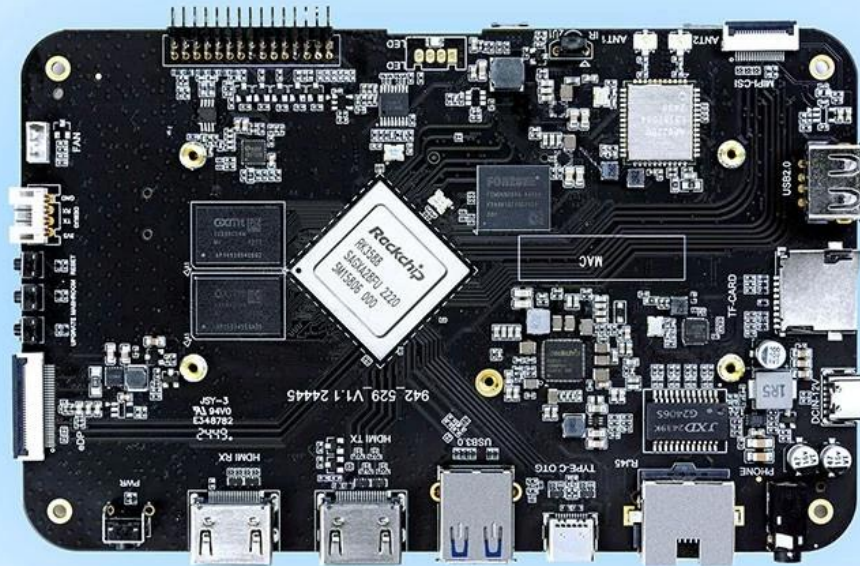
Connectivity

Port	Type-C 12V/2A
Storage	1*TF / 1*PCIE
Expansion	1* M.2
Serial	CR1220
UART	2*UART
Network	1* 10/100/1000 Mbps RJ45 / 802.11 ax/ac/a/b/g/n
USB	1*USB3.0 / 1*USB2.0 / 1* USB2.0 4-Pin
LED	1*LED
Display	1*32MP MIPI / 1*30MP EDP
Video	1*8K@60Hz / 1*DP1.4 4K@60Hz / 1*MIPI-CSI
Audio	1*4K@60Hz / 1*SPK
GPIO	7*GPIO 3.3V / 4*I2C 3V
Power	1* / 2* / 1*5V

Other

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
8K Codec
H.265 HEVC



4~32GB RAM
8~128GB ROM



WiFi6
1000M LAN



BT5.x



OS
Android/Linux

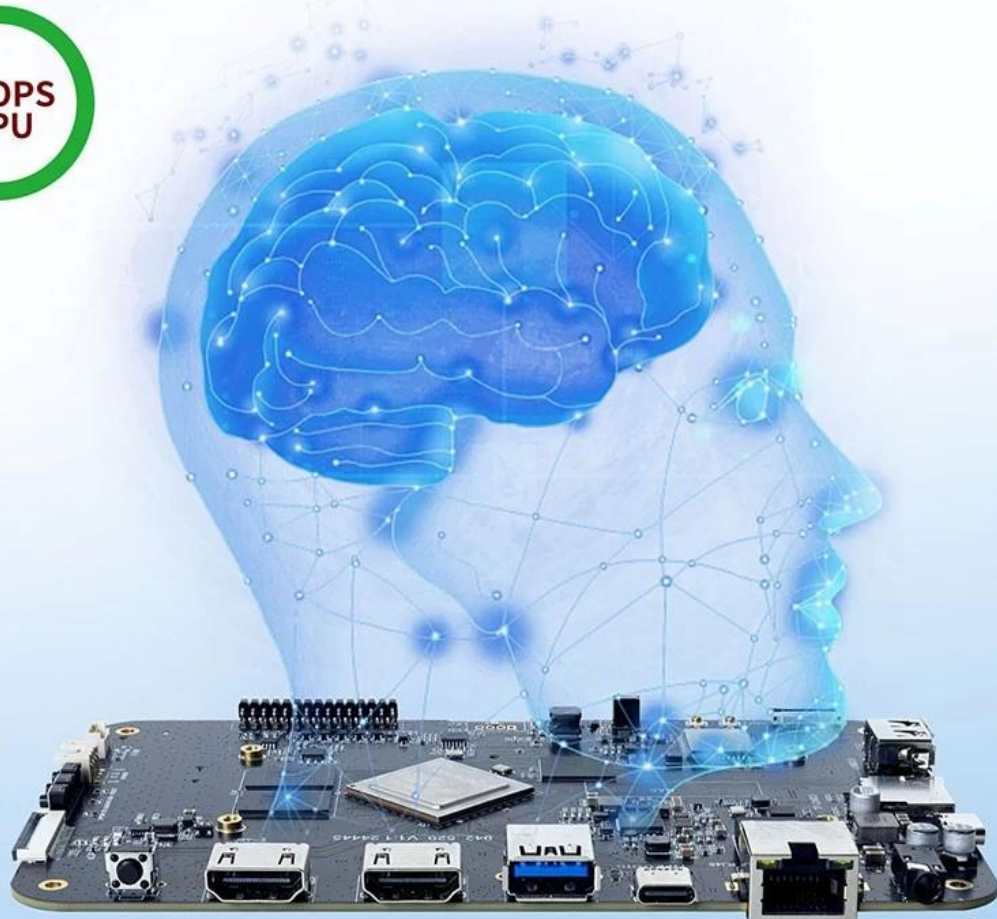
RK3588---Next-Generation Flagship AIoT CPU

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.



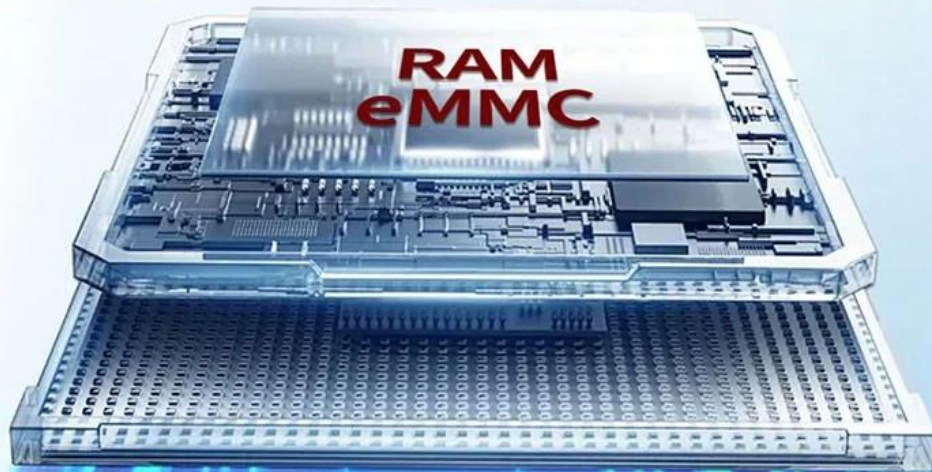
8K Video Encoding & Decoding

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

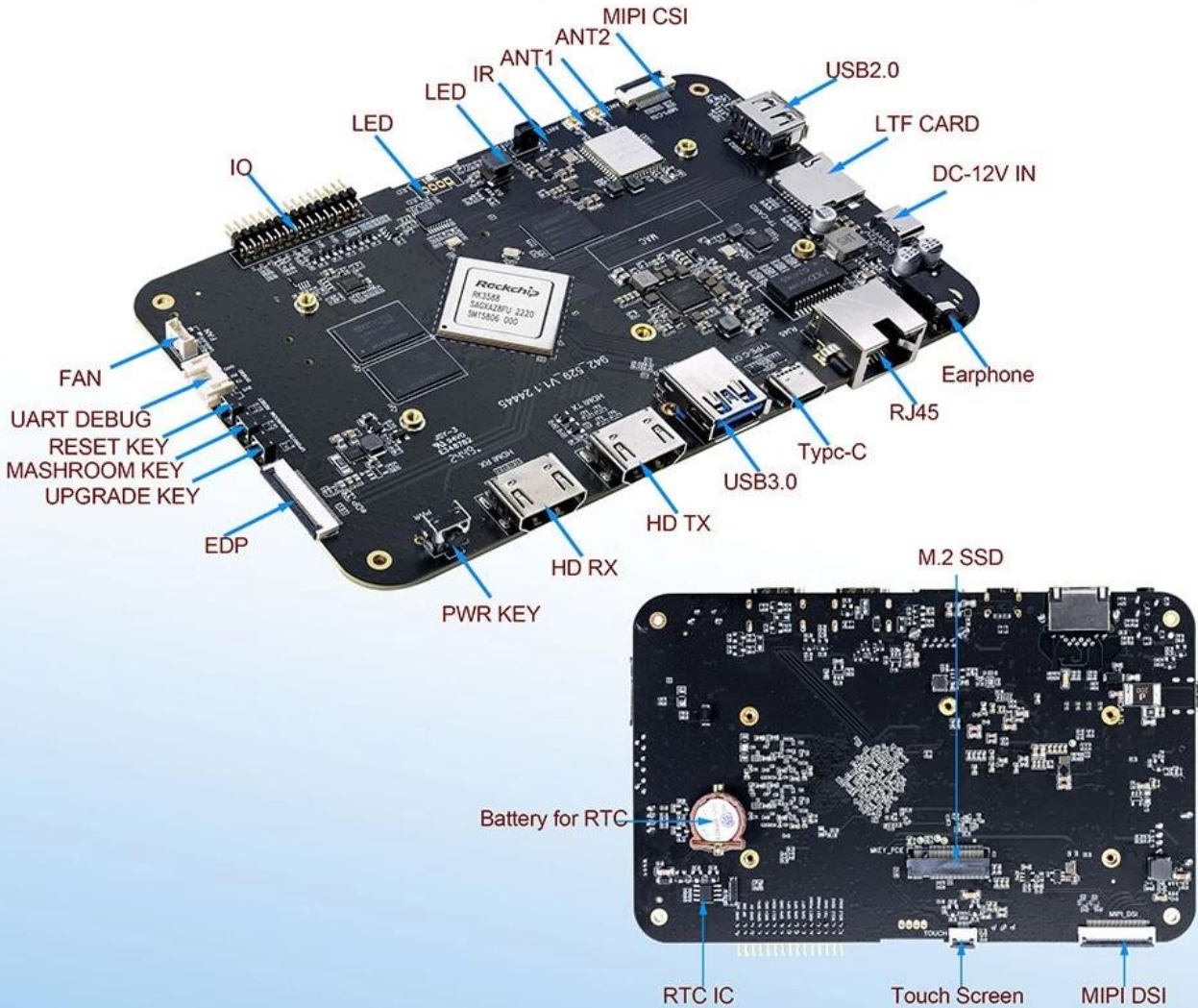
Up to 32GB RAM and 128GB eMMC storage, surpassing previous memory limits for faster response and meeting the demands of high-memory, high-storage applications.



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.



Rockchip RK3588 CPU Cortex-A76 Cortex-A55 GPU

4K/8K

RK3588 4K 8K HDR

Android 12

Android 12 Android

HDMI USB PCIe WiFi 6

Rockchip RK3588 LCD

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-
-
-
-

Android 12 Rockchip RK3588 SDK

Rockchip RK3588 Android 12 LCD