

8 Rockchip RK3588



Rockchip RK3588	
Processor	Rockchip RK3588 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 2.0
NPU	6 TOPS (int4/int8/int16/FP16/BF16/TF32)
Memory	4x LPDDR4X (2x 32GB)
Connectivity	802.11 ax/ac/a/b/g/n, 12 antennas, 5.0Gbps
I/O	
Storage	1x M.2 NVMe C (12 lanes 2/3/4)
Expansion	1x PCIe
Serial	1x UART
Display	1x CR1220
Network	2x RJ45, 1x 10/100/1000 Ethernet, 802.11 ax/ac/a/b/g/n
USB	1x USB3.0, 1x USB2.0, 1x USB2.0 (4 ports)
LED	1x LED
Video	1x MIPI (32 lanes), 1x EDP (30 lanes), 1x HDMI (8K@60), 1x DP (4K@60)
Camera	1x MIPI-CSI (4 lanes), 1x HD 2.0 4K@60
GPIO	1x L/R (3.5V), 7x GPIO (3.3V)
Other	4x I2C, 3x I2S, 1x SPI, 2x UART, 5x CAN

:
MPEG-1 MPEG-2 MPEG-4 H.263 H.264 H.265 VC-1 VP9 VP8
MVC AV1@MMU
H.264 AVC/MVC Main10 L6.0: 8 K@30fps(7680*4320);
VP9 0/2 L6.1: 8 K@60 4320*7680);
H.265 HEVC/MVC Main10 L6.1: 8 K@60fps(7680*4320);
AVS2 0/2 L10.2.6: 8 K@60 (4320*7680)
AV1 8/10 L5.3: 4 K@60 (2160*3840)
MPEG-2 MP: 1080 (1088*1920) 60
MPEG-1 MP: 1080p@60fps(1920*1088)
VC-1 AP 3: 1080p@60fps(1920*1088)
VP82 : 1080p@60fps(1920*1088)
MP3 AAC FLAC WAV

RTL8111HS

10/100/1000 :
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AP6275P

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802.11 ax/ac/a/b/g/n 2.4

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5 2.4

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MU-MIMO .

:
BT 5.0 BT .

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BT

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HDMI_TX 8 K@60 7680) x4320).
EDP 4 K@60 3840) x2160).
MIPI_CSI 4 K.(2160 x 3840) 60
DP(type-c) 4 K@60 3840) x2160).
HDMI_RX 4 K@60 2160*3840)

MIPI_DSI ((

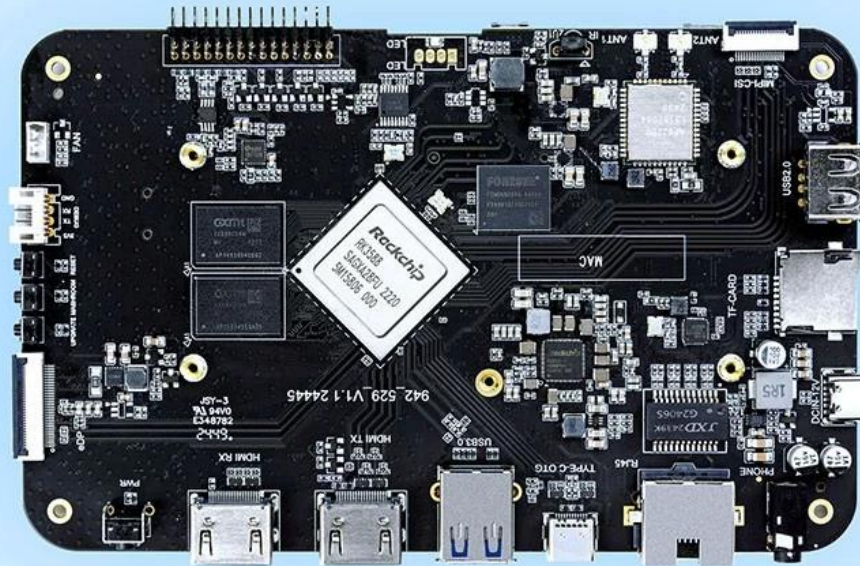
PIP (

HYM8563

RTC

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



Android/Linux

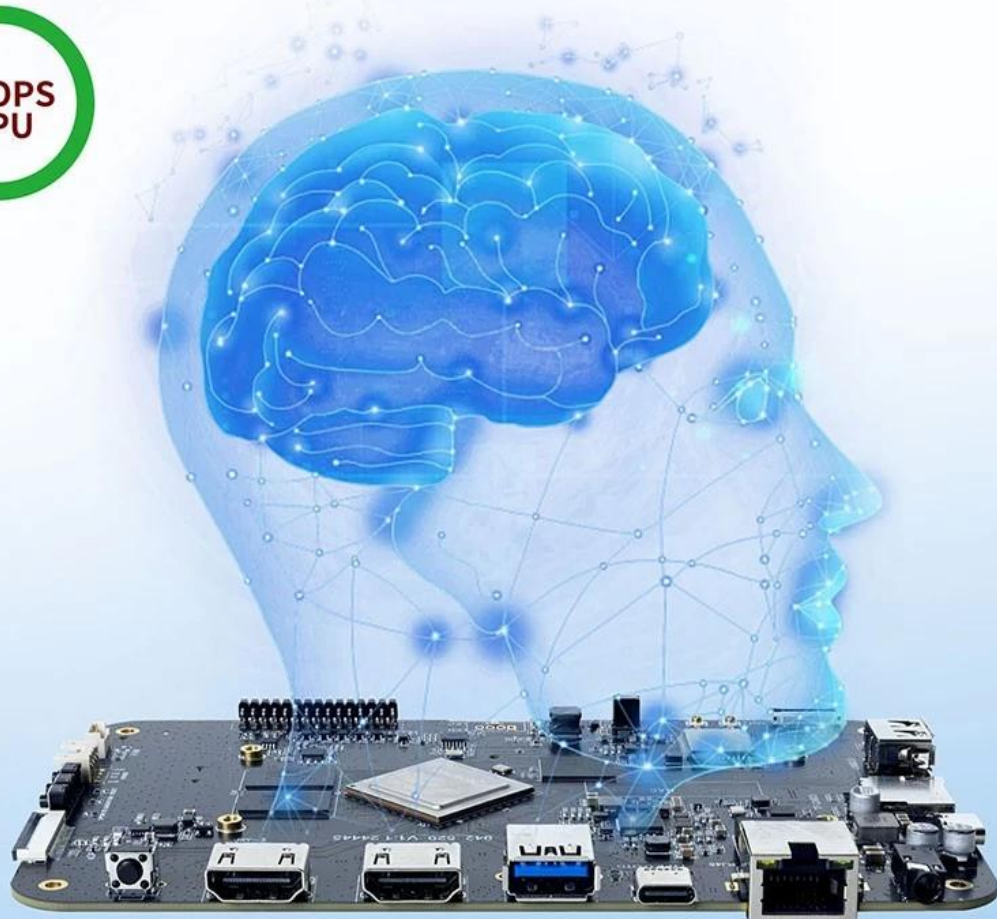
RK3588---Next-Generation Flagship AIoT CPU

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

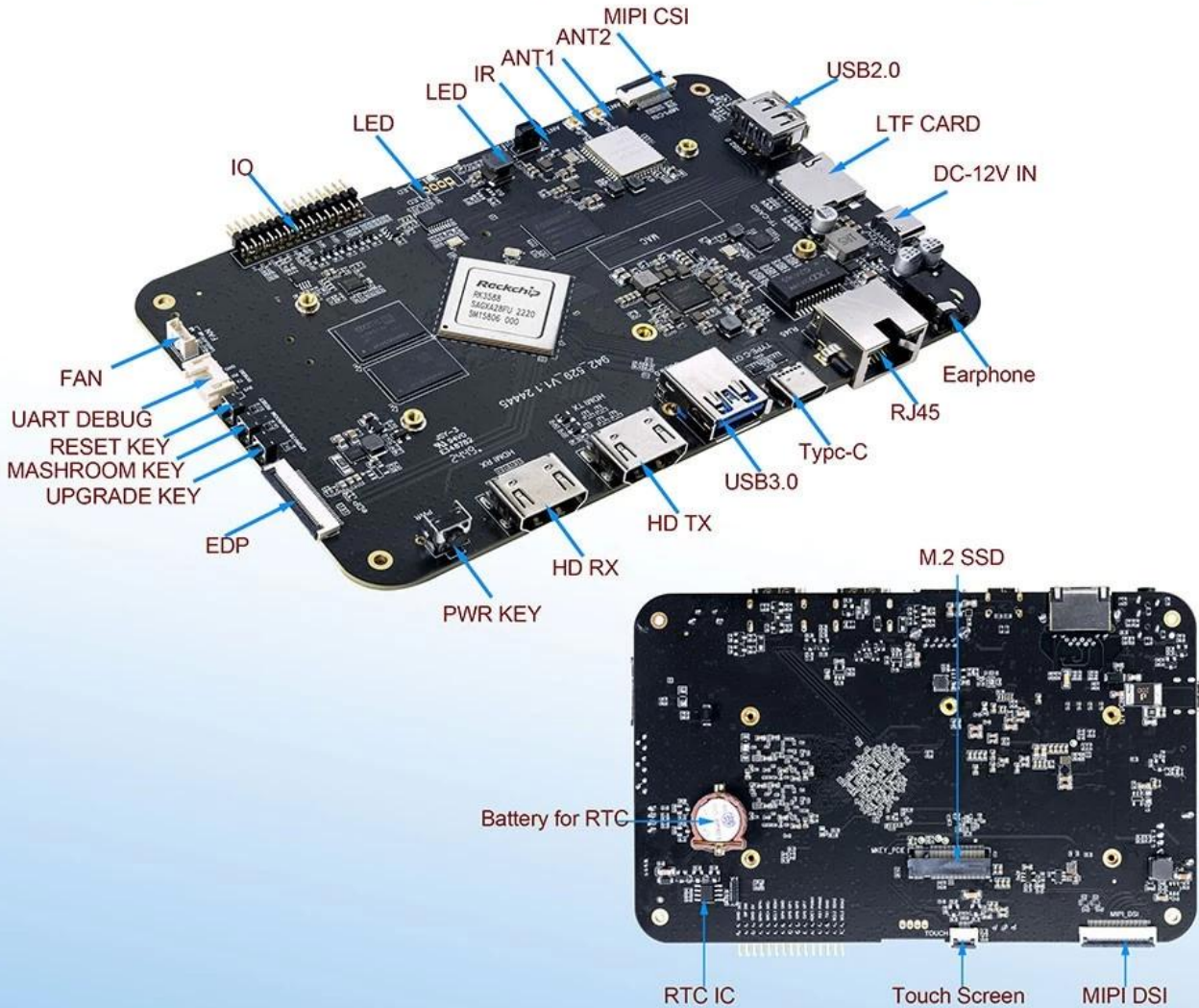
Up to 32GB RAM and 128GB eMMC storage, surpassing previous memory limits for faster response and meeting the demands of high-memory, high-storage applications.



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.



എന്നിവയുടെ വിലകളും സവിശേഷതകളും പറ്റി അറിയാൻ [കുറിച്ചറിയാൻ](#) ക്ലിക്ക് ചെയ്യുക. [പുതിയ](#) [സ്മാർട്ട്ഫോണുകൾ](#) [പറ്റി](#) [അറിയാൻ](#) ക്ലിക്ക് ചെയ്യുക.

കുറിച്ചറിയാൻ

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