

Rockchip RK3588: Android 12 8K

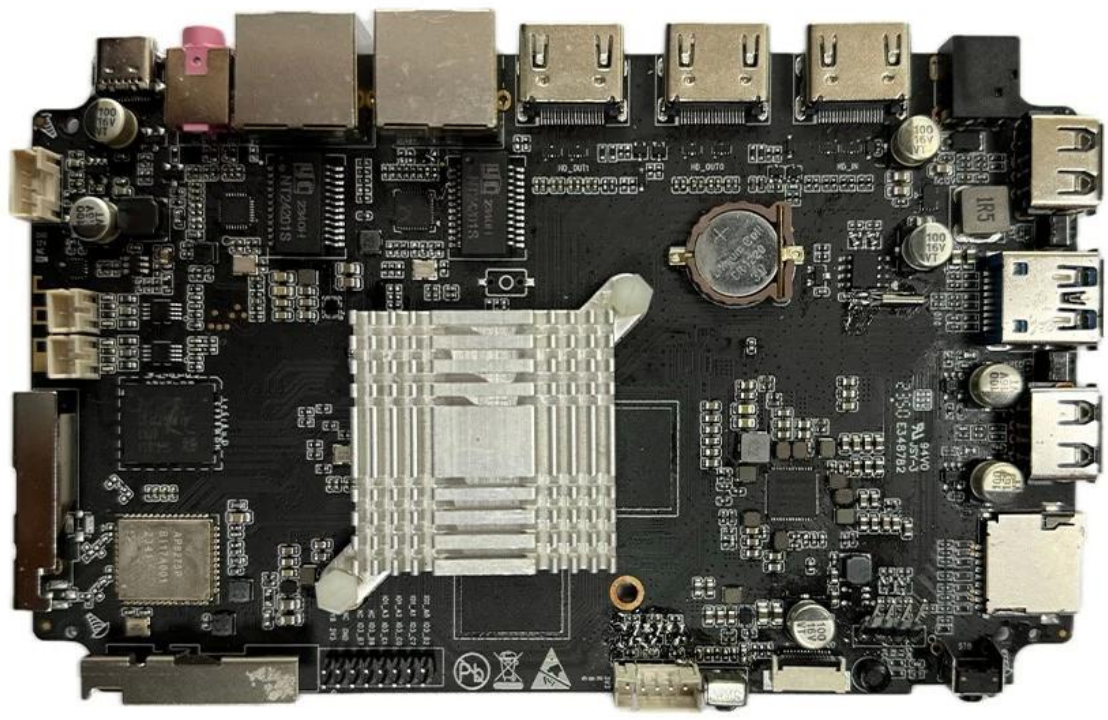


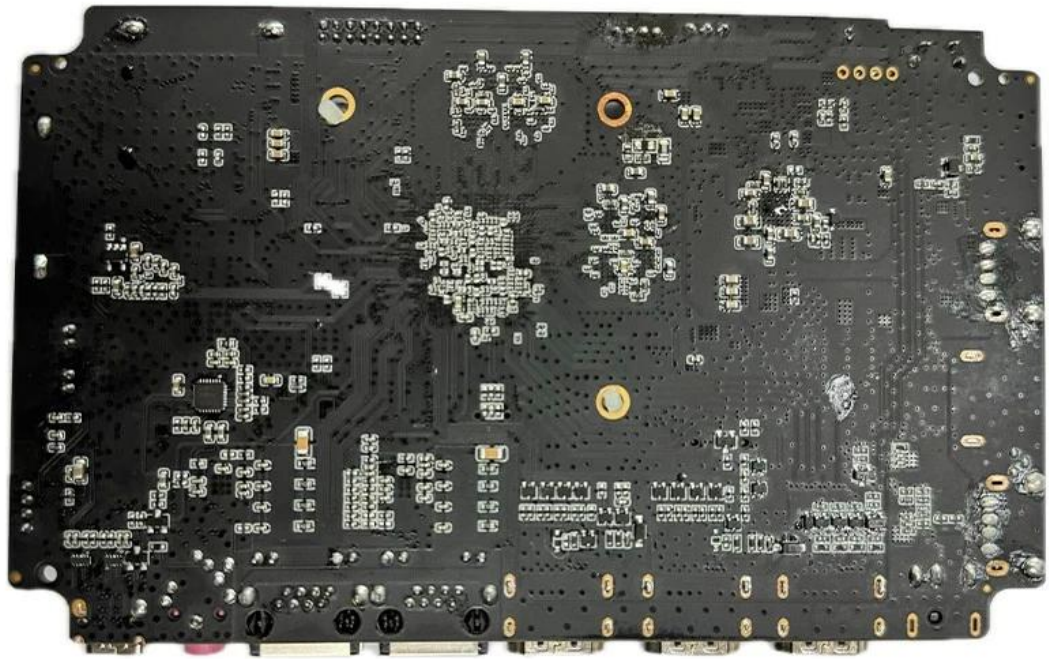
Processor	Rockchip RK3588 Cortex-A76 Cortex-A55
GPU	ARM Mali-G610 MC4 OpenGL ES 1.1/2.0/3.1/3.2 Vulkan 1.1, 1.2 OpenCL 1.1,1.2,2.0
NPU	6 int4/int8/int16/FP16/BF16/TF32
Memory	4 64 LPDDR4/LPDDR4x
Storage	32 256 / 128 / 64 (eMMC5.0/ 5.1)
Network	IEEE 802.11a/b/g/n/ac/ax Wi-Fi6 2.4 5.8 (PCIe v3.0) 2T2R
Connectivity	12 5.0

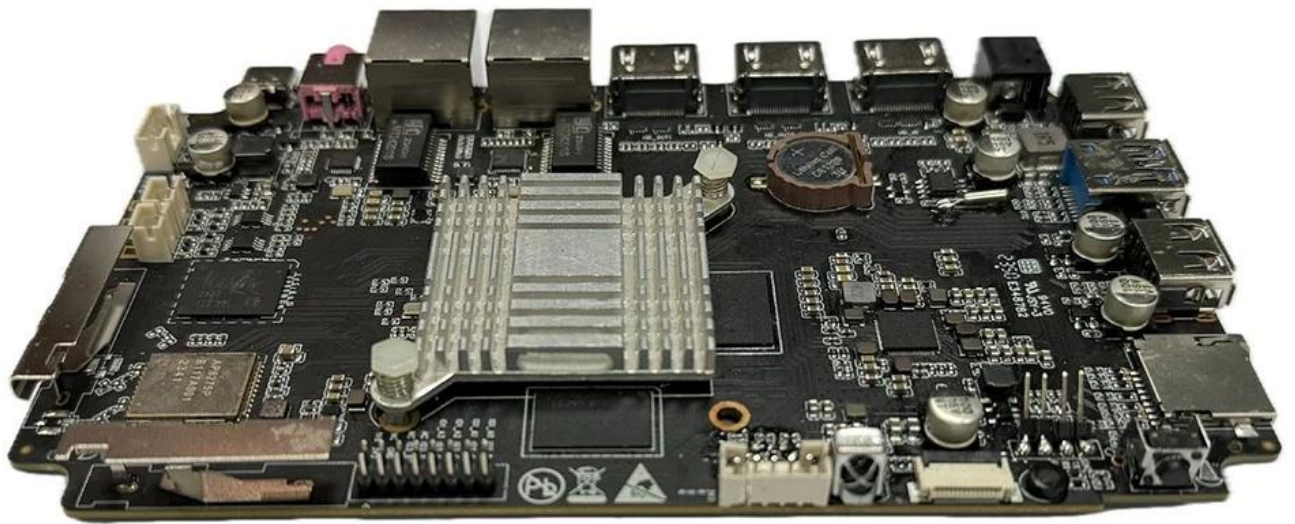
Media	<ul style="list-style-type: none"> * MPEG-1 MPEG-2 MPEG-4 H.263 H.264 H.265 VC-1 VP9 VP8 MVC AV1 * MMU * H.264 AVC/MVC Main10 L6.0: 8K 7680 30 x4320 * VP9 0/2 L6.1: 8K 4320 x 7680 60 * H.265 HEVC/MVC Main10 L6.1: 8K@60 7680 x4320 * AVS2 0/2 L10.2.6: 8K (4320 x 7680) 60 * AV1 8/10 L5.3: 4K x 3840 60 2160 * MPEG-2 MP: 1080p@60fps (1920x1088) * MPEG-1 MP: 1080p@60fps (1920x1088) * VC-1 AP 3: 1080 1088 x 1920 60 * VP8 (1088 x 1920) 60 1080 :2 * H.265/H.264 8 *K @ 30 * HDR 3DNR
IO	<ul style="list-style-type: none"> I2S 8 TX 8 RX * 32 16 192 * * I2S ((3 2 1 * PCM ((3 2 1 * TDM 2 1 1/2 * I2S PCM TDM

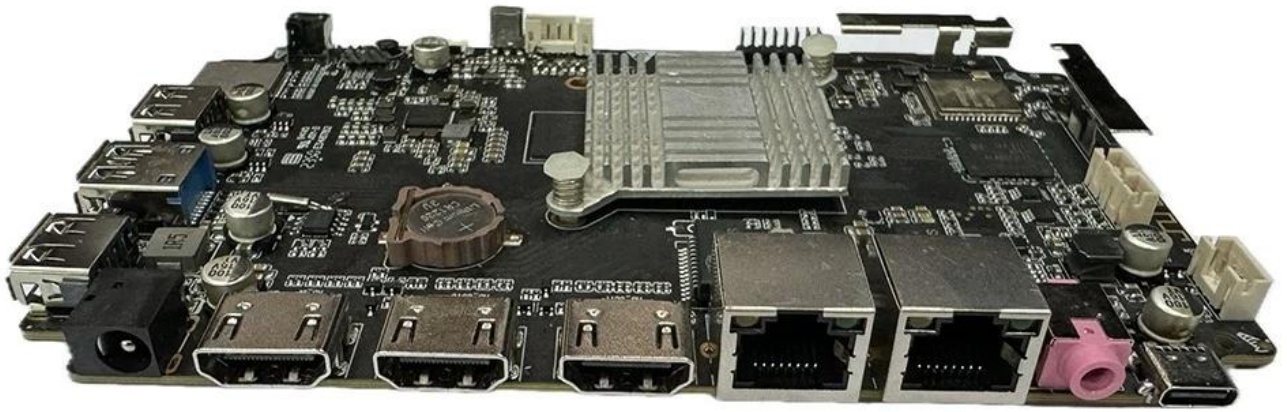
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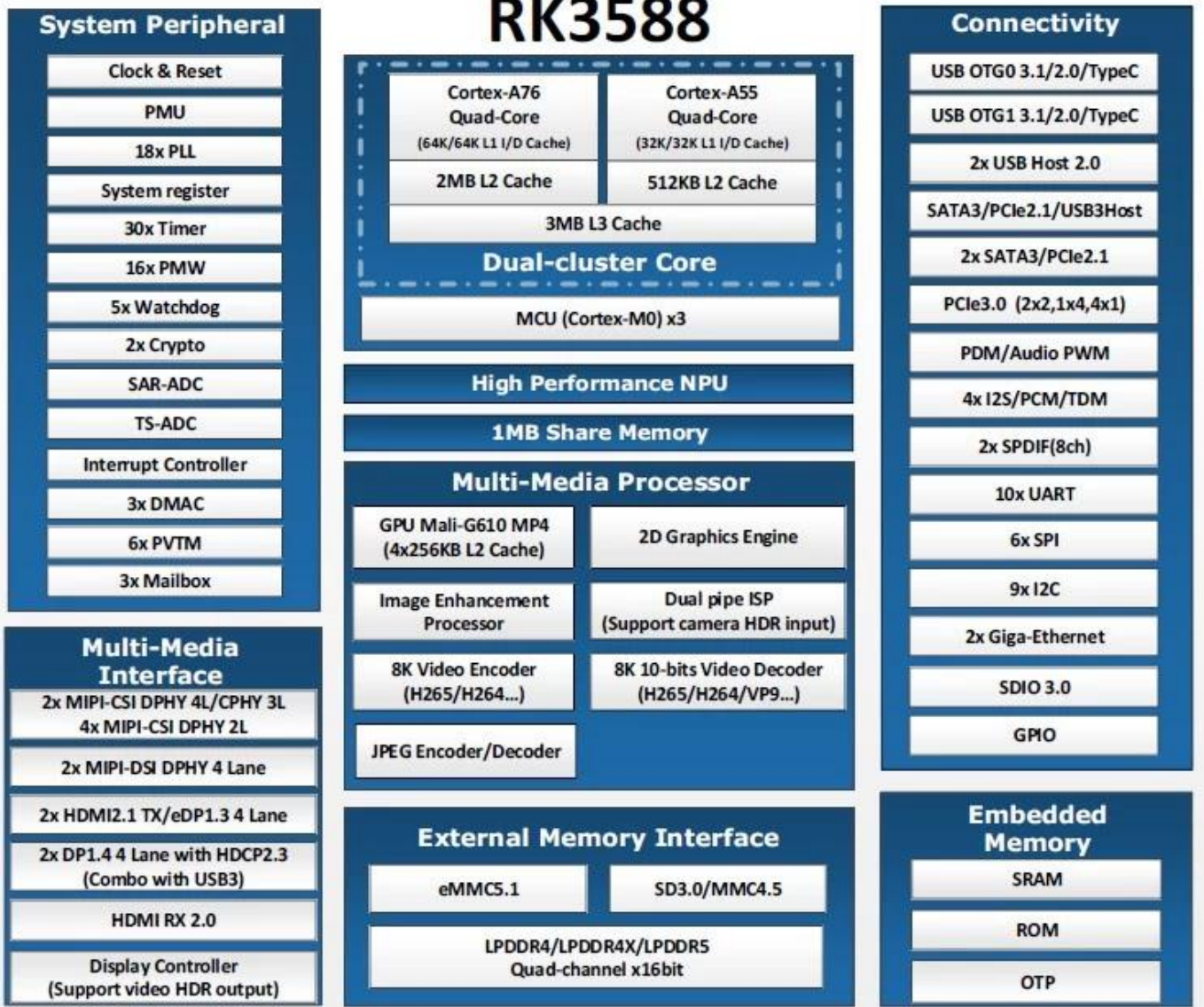
○○○○○ ○○○○	○○○○ :○○○○○○○ ○○○○○○ 2/○○○○○ 12 ○○○○○○ ○○○○
RTC	○○○○○
○○	○○○○○○○ ○○○○○○○○ ○○○○○○ ○○○○○○○○ ○○○○ ○○○○○○○○ BT
○○ ○○ ○○ ○○○	○○○○○ HDMI 1: HDMI 2.1/7680x4320 ○○○○○○ 60 ○○○○ ○○○○○ HDMI 2: HDMI 2.1/4096x2304 ○○○○○○ 60 ○○○○ ○○○○○ HDMI: ○○○○○○○○ ○○○○○○○○ HDMI 2.0/HDMI 1.4b 4K x 2K (3840x 2160p@24 25/○○○○○ 4096○ ○○○○○○ 30/○○○○○x2160p@24 ○○○○○○)
○○○○○	○○○○○ ○○○○○○ 3.5*1 ○○○○○○
○○○○○○○	□ 1000*1:1 ○○○○○○○○ (RGMII)
○○ ○○○○○○	□ 1000*2:1 ○○○○○○○○
○○ ○○○○○○	1 * ○○○○ ○○○○○○
○○ ○○ ○○ ○○○○	2 * (○○○○○) 2.0 ○○○○ ○○○○ ○○○○
○○○○○-C	1 * USB3.0 (○○○○○○○○○)
	1 * ○○○○○○ ○○○○ ○○○○○○○○○○ ○○○○○○○○○○ C 3.0 (○○○○○○○○○ ○○○○○○).











Typical Application Diagram – AIoT





Overview

The RK3588 is a powerful SoC designed for a wide range of applications. It features a high-performance CPU and GPU, supporting Android 12.8 and 8K video processing. The chip is optimized for various use cases, including smart displays, AI cameras, edge computing, and AR/VR. Its integrated components, such as the NVR and AR/VR modules, provide a comprehensive solution for developers and manufacturers.

Memory and Storage

The RK3588 supports up to 32GB of LPDDR5 memory and 16TB of storage. It offers flexible memory configurations, including 4GB, 8GB, and 16GB options. The integrated storage controller supports various storage interfaces, ensuring high-speed data transfer and reliable performance. This makes the RK3588 an ideal choice for applications requiring large amounts of memory and storage.

Android 12: Enhanced Performance

The RK3588 is fully compatible with Android 12, providing a smooth and secure user experience. It supports the latest Android features, including the new home screen, improved battery life, and enhanced security. The chip's performance is optimized for Android 12, ensuring fast boot times and responsive applications. Additionally, the RK3588 supports Google Play Protect, providing users with peace of mind. The integration of Android 12 on the RK3588 platform offers a modern and feature-rich environment for developers and users alike.

8K Video Processing Capabilities

The RK3588 is designed to handle 8K video processing, making it suitable for high-end surveillance and professional video applications. It features a powerful video codec engine that can decode and encode 8K video at 30 FPS. The chip also supports 4K video at 60 FPS and 1080P at 120 FPS. This high-performance video processing capability is essential for applications that require high-resolution video capture and playback. The RK3588's video processing capabilities are a key differentiator, enabling it to meet the demands of the most demanding video applications.

WiFi 6: High-Speed Connectivity

The RK3588 is equipped with WiFi 6, providing high-speed and reliable wireless connectivity. It supports up to 9.6 Gbps of data transfer rates, ensuring fast and efficient communication. The chip also features advanced WiFi 6 features, such as OFDMA and MU-MIMO, which improve network efficiency and reduce latency. This makes the RK3588 an ideal choice for applications that require high-speed wireless connectivity, such as smart homes, industrial automation, and professional video streaming. The integration of WiFi 6 on the RK3588 platform ensures that users can enjoy the full benefits of the latest wireless technology.

8 GB RAM, 128 GB Storage, 6.5-inch Display, 5000mAh Battery, 5G Network Support, Wi-Fi 6, Bluetooth 5.2, and a 64MP Camera. It is powered by the RK3588 processor.

Specifications

Processor: RK3588
RAM: 8GB
Storage: 128GB
Display: 6.5-inch
Battery: 5000mAh
Network: 5G
Wi-Fi: Wi-Fi 6
Bluetooth: Bluetooth 5.2
Camera: 64MP

Features

Powered by RK3588 processor, featuring 8GB RAM and 128GB storage. It supports 5G network, Wi-Fi 6, Bluetooth 5.2, and a 64MP camera. The device runs on Android 12. It is powered by the RK3588 processor.