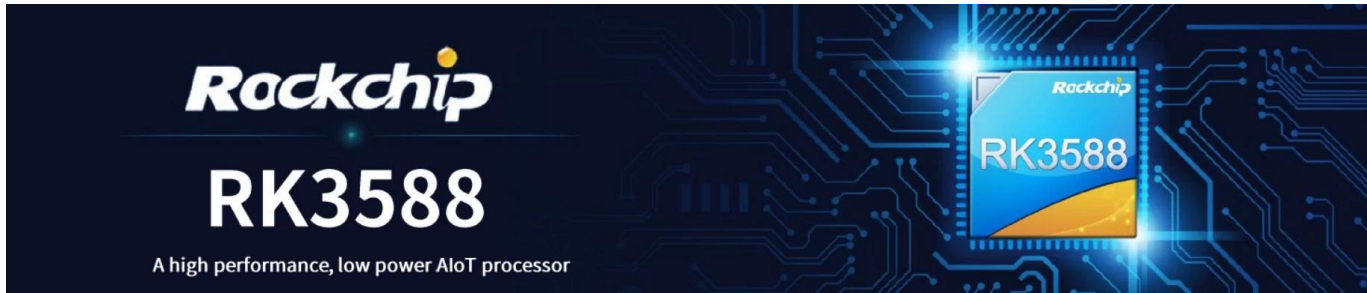


Rockchip RK3588

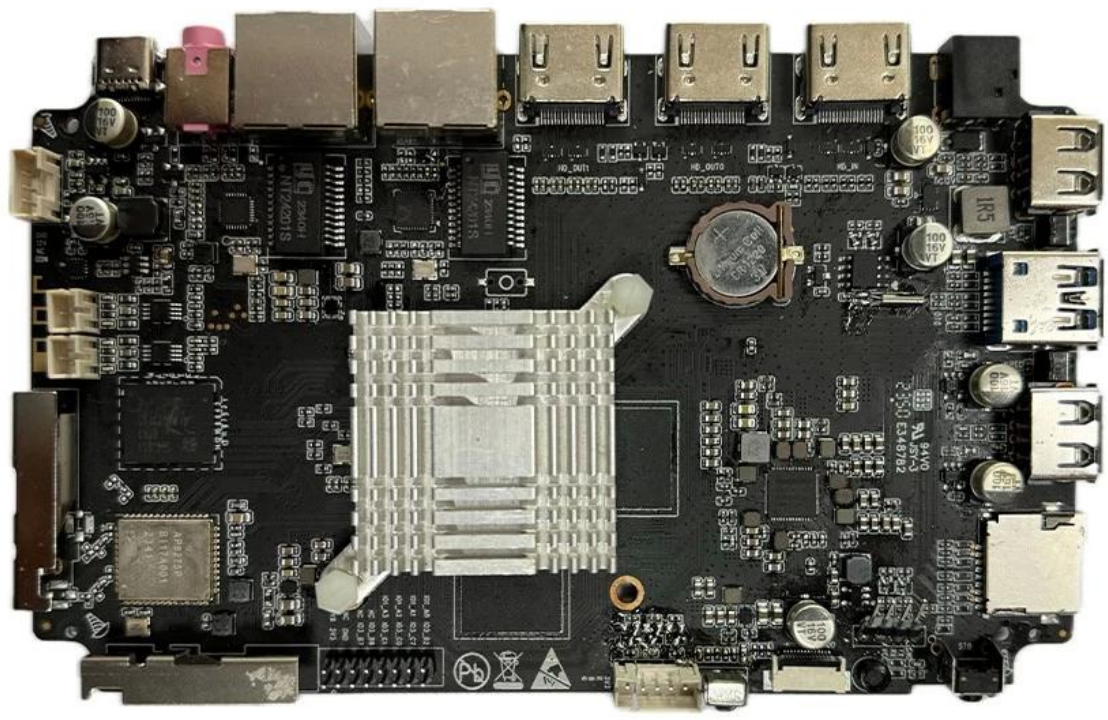


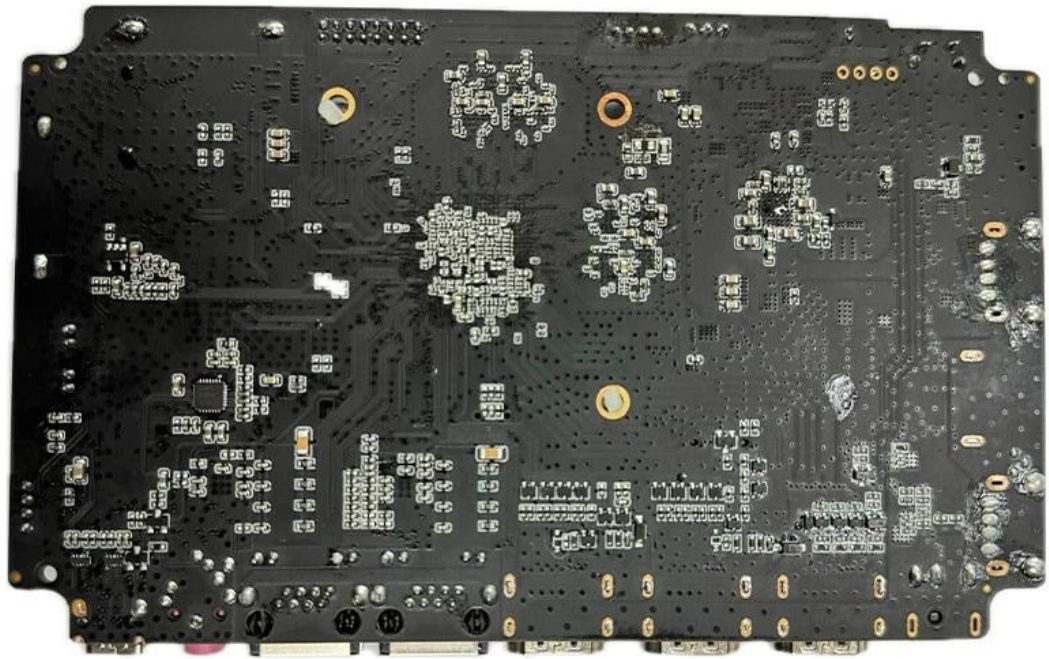
Processor	Rockchip RK3588 Cortex-A76 / Cortex-A55
GPU	ARM Mali-G610 MC4 OpenGL ES 1.1/2.0/3.1/3.2 Vulkan 1.1, 1.2 OpenCL 1.1,1.2,2.0
NPU	6 int4/int8/int16/FP16/BF16/TF32
Memory	4x 64-bit LPDDR4/LPDDR4x
Storage	32-bit 256 / 128 / 64-bit eMMC5.0/ 5.1
Network	IEEE 802.11a/b/g/n/ac/ax, Wi-Fi6 2.4, 5.8GHz,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

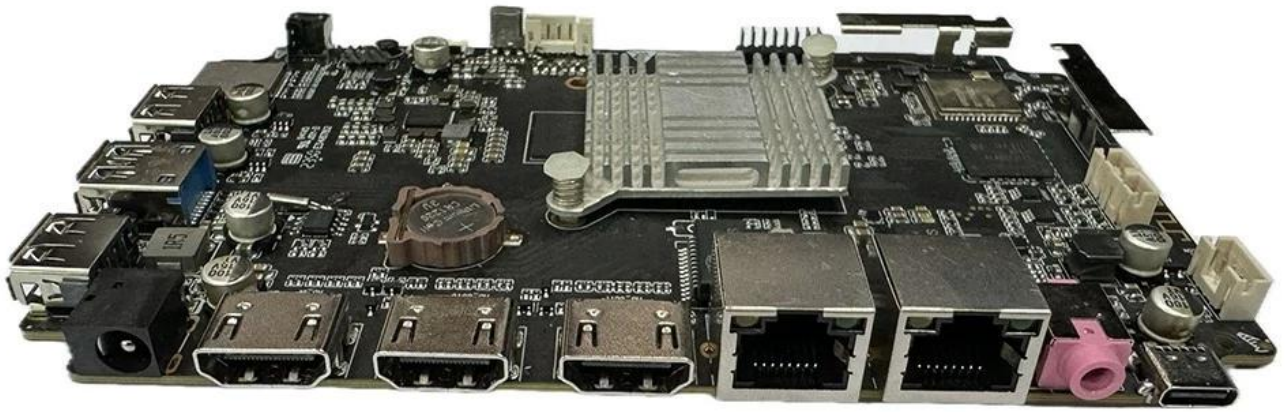
Video Codec	<ul style="list-style-type: none"> * H.264 AVC/MVC Main10 L6.0: 8K 7680 * H.264 HEVC/MVC Main10 L6.1: 8K@60 7680 * H.265 HEVC/MVC Main10 L6.1: 8K@60 7680 * AVS2 0/2 L10.2.6: 8K (4320 x 7680) * AV1 8/10 L5.3: 4K x 3840 * MPEG-2 MP: 1080p@60fps (1920x1088) * MPEG-1 MP: 1080p@60fps (1920x1088) * VC-1 AP 3: 1080 1088 x 1920 * VP8 (1088 x 1920)
Audio	<ul style="list-style-type: none"> * I2S * PCM * TDM * I2S PCM TDM

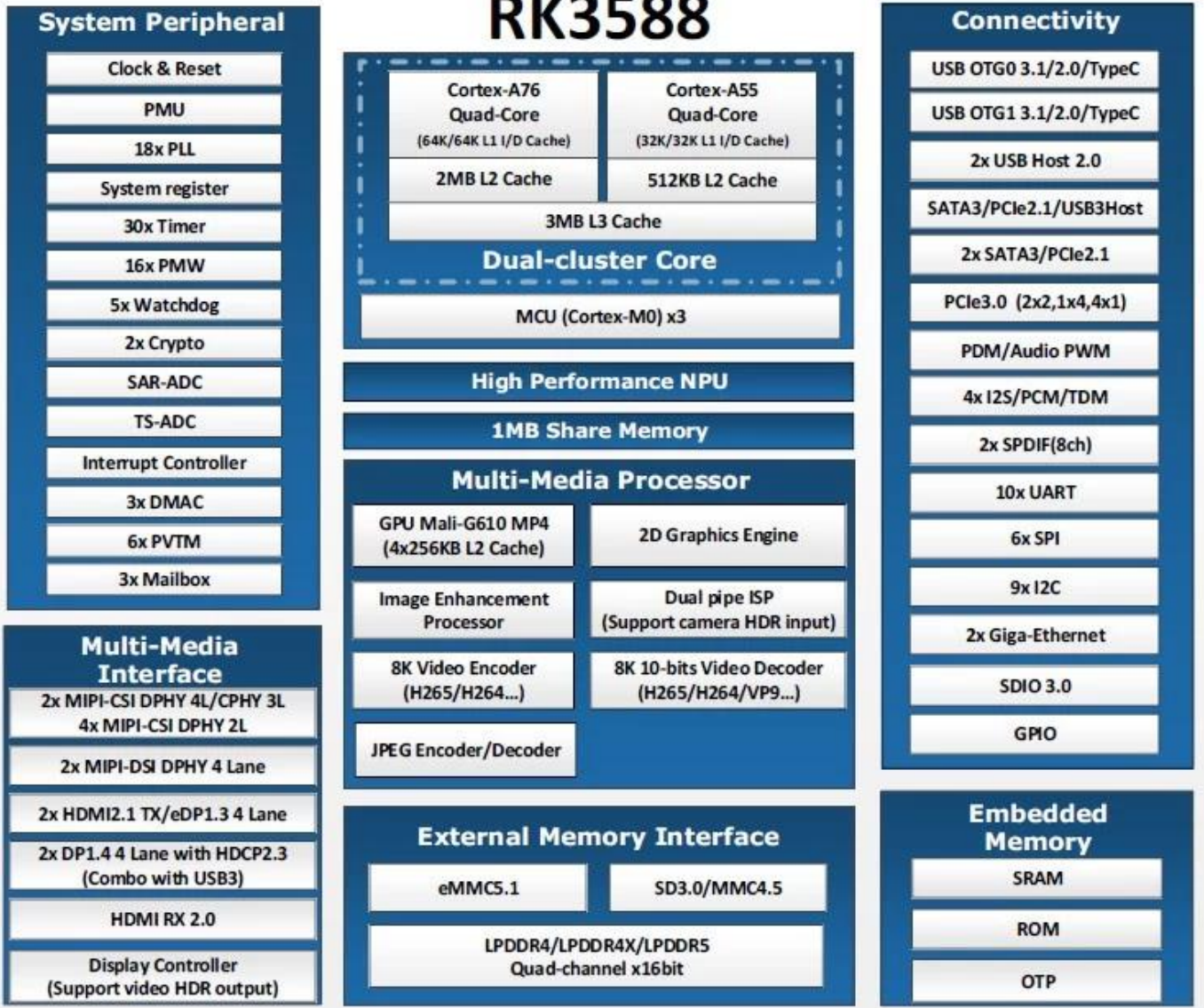
○○○○○○○/○○○○○○○ ○○○○

○○○○○ ○○○○	○○○○ :○○○○○○○ ○○○○○ 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

Rockchip RK3588 Octa Core processor is designed for various applications. It features an 8-core ARM Cortex-A78 and Cortex-A55 architecture, providing high performance and low power consumption. The processor is suitable for a wide range of devices, including smart displays, AI cameras, edge computing, and more. The RK3588 also supports various protocols and standards, ensuring compatibility and flexibility in different environments.

Key Features

Rockchip RK3588 processor offers several key features:

- 8-core ARM Cortex-A78/A55:** Provides high performance and low power consumption.
- AI Acceleration:** Supports AI applications like image recognition and video analysis.
- Video Processing:** Capable of handling 8K Ultra HD video.
- Connectivity:** Supports various protocols like WiFi 6, Bluetooth, and Ethernet.
- Security:** Includes hardware security modules for data protection.

8-core ARM Cortex-A78/A55

Rockchip RK3588 8-core ARM Cortex-A78/A55 processor. The 8-core architecture includes 4 high-performance Cortex-A78 cores and 4 energy-efficient Cortex-A55 cores. This configuration allows for efficient multitasking and handling of complex workloads. The processor is designed for high-performance applications, such as AI, video processing, and gaming. The 8-core design also contributes to better power management and thermal performance.

12-core ARM Cortex-A78/A55

Rockchip RK3588 12-core ARM Cortex-A78/A55 processor. The 12-core architecture includes 6 high-performance Cortex-A78 cores and 6 energy-efficient Cortex-A55 cores. This configuration provides even higher performance and better multitasking capabilities. The processor is suitable for demanding applications, such as AI, video processing, and gaming. The 12-core design also contributes to better power management and thermal performance.

WiFi 6

Rockchip RK3588 processor supports WiFi 6. WiFi 6 offers significant performance improvements over previous generations, including higher data rates and better efficiency. The processor is designed to support the latest WiFi standards, ensuring compatibility and high performance in wireless networks. The WiFi 6 support is particularly beneficial for applications requiring high-speed data transfer and low latency.

