

# P05D00108-00

Rockchip RK3568

## Front View



## Features

- Rockchip RK3568 SMARC 2.1 Module
- High performance and low power for personal mobile internet devices and AIoT equipment
- Support almost full-format H.264 decoder by 4K@60fps, H.265 decoder by 4K@60fps, also support H.264/H.265 encoder by 1080p@60fps, high-quality JPEG encoder/decoder
- The built-in NPU supports INT8/INT16/FP16/BFP16 hybrid operations and has strong model compatibility across TensorFlow, MXNet, PyTorch, and Caffe frameworks

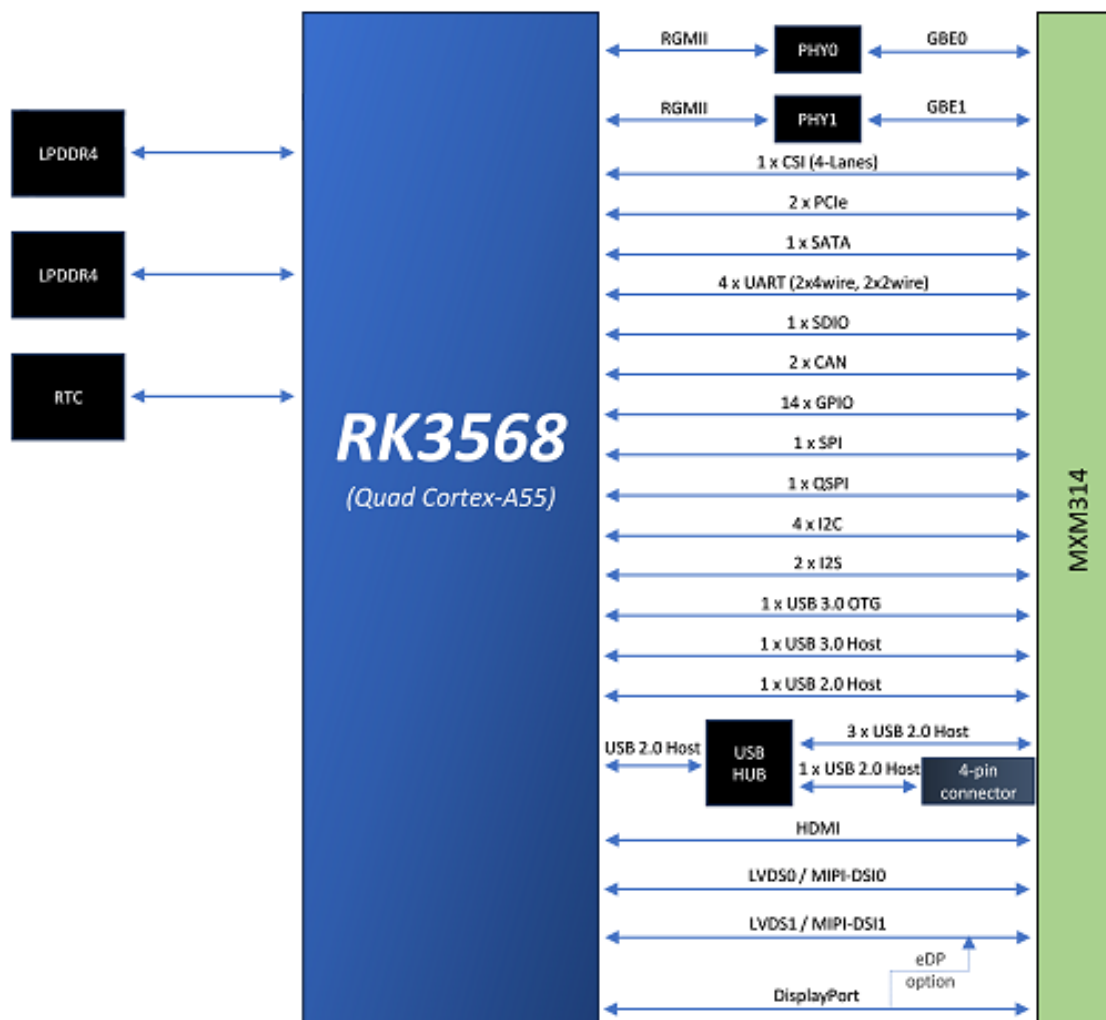
## Specifications

Hardware		
CPU	RK3568B2	Quad-Core ARM Cortex-A55
GPU	Mali-G52-2EE	OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1
NPU	RKNN	Accelerator with processing performance up to 1 TOPS
Memory	On Board RAM	2GB LPDDR4 SDRAM
	On Board Flash (Default Boot Device)	16GB eMMC Flash (Optional: 32GB/64GB)
I/O	Display (Up to three)	2 × LVDS or MIPI-DSI 1 × HDMI 2.0 1 × Display Port
	USB	1 × USB 3.0 OTG
		6 × USB Host (5 for USB 2.0, 1 for USB 3.0)
	Ethernet	2 × RGMII (10/100/1000 Mbps)

	Default Peripheral (maximum)	<p>4 x UART (SER3 for Debug Used)</p> <p>4 x I<sup>2</sup>C</p> <p>1 x SPI</p> <p>1 x QSPI</p> <p>2 x I<sup>2</sup>S</p> <p>1 x MIPI-CSI (4 Lane)</p> <p>2 x CAN</p> <p>1 x SDIO</p> <p>1 x SATA</p> <p>2 x PCI-E 3.0 x1 (or 1 x PCI-E 3.0 x2)</p> <p>14 x GPIOs</p>
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<u>Software</u>		
OS	Linux	Buildroot, Yocto, Debian
	Android	

## Block Diagram



## Dimensions

