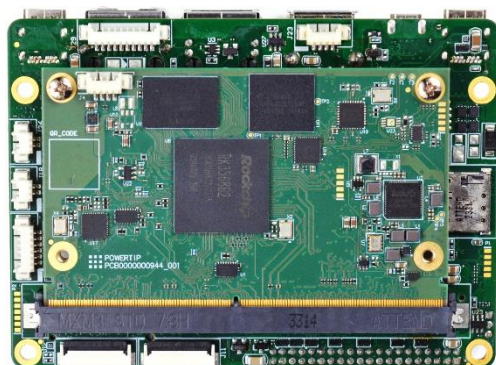


P05D00108-01

Rockchip RK3568

Front View



Features

- 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

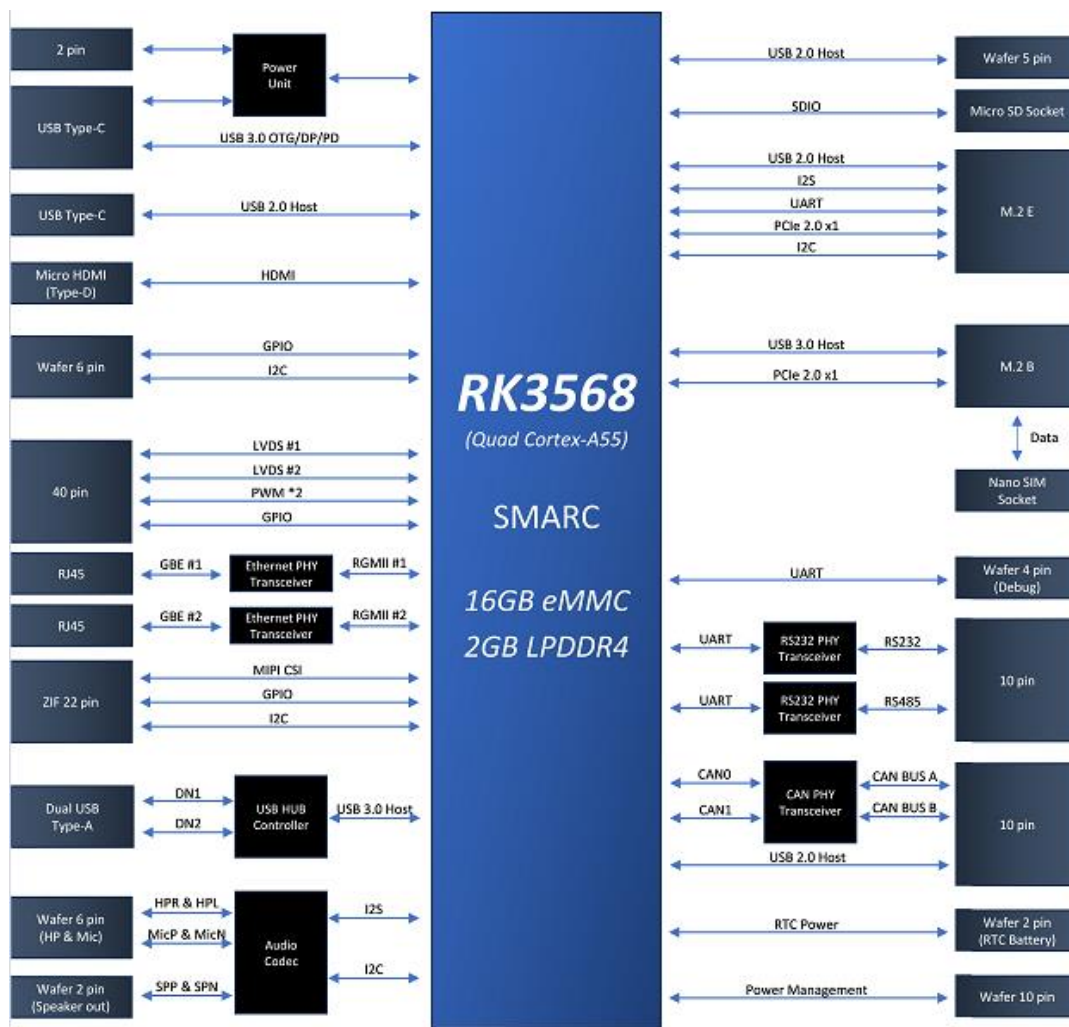
Specifications

Hardware		
CPU	RK3568B2	Quad-Core ARM Cortex-A55
GPU	ARM Mali-G52	1-Core-2EE OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1
NPU	RKNN	Acceleration engine with processing performance up to 1 TOPS Support INT8/INT16/FP16/BFP16 MAC hybrid operation
Memory	On Board RAM	2GB LPDDR4 SDRAM (Option: 4/8GB)
	On Board Flash	16GB eMMC flash, default boot device (Option: 32/64GB)
Display	LVDS	2 × LVDS single channel output or 2 × MIPI DSI 4-lane output, both support dual channel
	HDMI	1 × HDMI output, up to 4096x2304@60Hz
	eDP	1 × eDP output, up to 2560x1600@60Hz
Camera	MIPI CSI	1 × MIPI CSI 4-lane input
IO	USB	1 × USB 3.0 OTG (type-C: J2), support DP, PD function 2 × USB 3.0 Host (2 for type-A: J13) 3 × USB 2.0 Host (1 for type-C: J3; 1 for wafer connector: J14, 1 for pin header: J25)
	Ethernet	2 × 10/100/1000 Mbps

	Audio	1 × Headphone output 1 × Microphone input 1 × Speaker output
	Serial Port	3 × UART (1 for debug used, 1 for RS232, 1 for RS485)
	I ² C	1 × I ² C
	CAN	2 × CAN
	PWM	2 × PWM
	Other	GPIOs
Expansion	M.2	1 × E-Key (1 × USB 2.0, 1 × I ² S, 1 × UART, 1 × PCIe 2.0 x1, 1 × I ² C) 1 × B-Key (1 × USB 3.0, 1 × SIM interface, 1 × PCIe 2.0 x1)
	SD Socket	1 × Micro SD card socket
	SIM Socket	1 × Nano SIM card socket
Power	DC	9 ~ 24 V
	RTC Battery	1.1 ~ 5.25 V

<u>Software</u>		
OS	Default	Yocto 4.0
	Optional	Android12, Buildroot, Debian 11

Block Diagram



Dimensions

