

RSB-4810

Rockchip RK3568 Cortex-A55
3.5英寸单板电脑



- 采用 Rockchip RK3568 Arm Quad Cortex-A55, up to 2.0GHz
- 内置NPU, 处理性能高达1.0 TOPS
- 板载 2/4GB LPDDR4 memory 和 16/32GB eMMC
- 支持 1 x HDMI 2.0 4K, 1 x LVDS/MIPI-DSI, and 1 x eDP
- 支持 4K H.264/H.265 video decoder
- 提供 2 x GbE, 1 x SATA 3.0, 6 x UART, 2 x USB 3.0, 2 x USB 2.0, 1 x USB
- OTG, and 2 x CAN FD
- 提供 M.2 E Key, 支持 PCIE 3.0/USB 2.0/SDIO/UART, 支持 Wi-Fi 5/6
- 支持 PCIE 3.0/USB 2.0 信号的 MINI-PCIE, 适用于 LTE/5G 模块
- 支持 Linux Debian10 和 Android12 系统



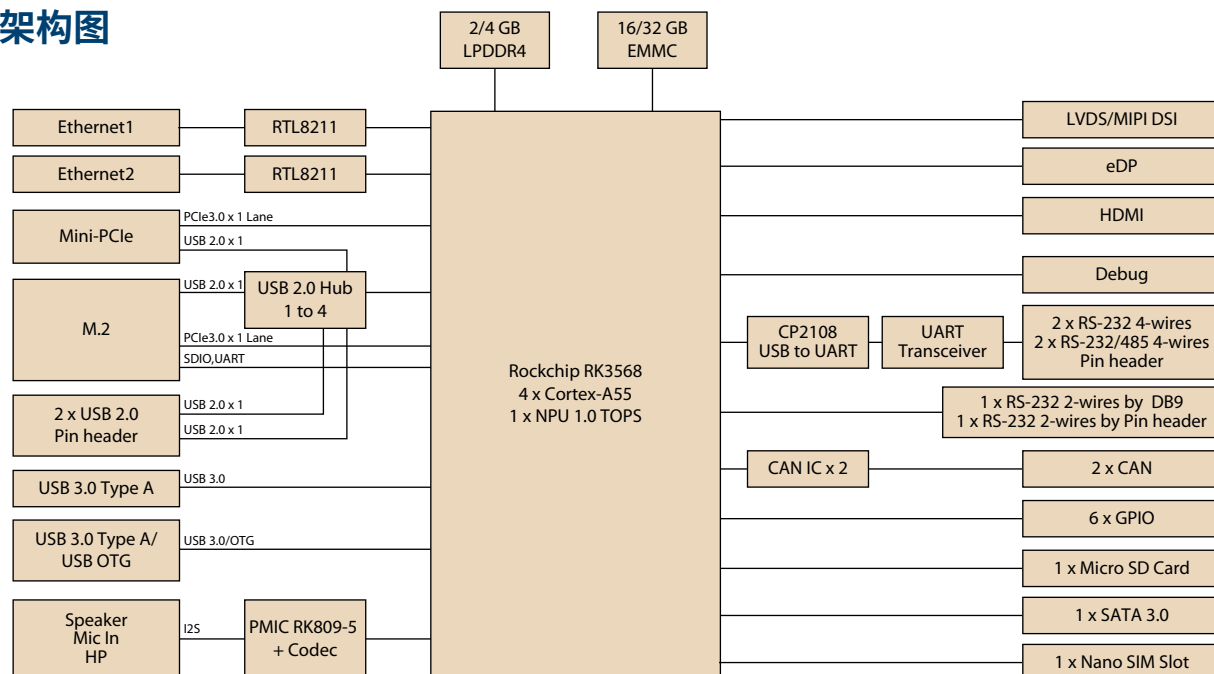
产品介绍

研华 RSB-4810 是一款 Arm-based 3.5" 单板电脑, 搭载 Rockchip RK3568 SOC. 该处理器支持 4 个 Arm Cortex-A55 cores, 1Tops NPU, 和 1 个 Mali-G52 图形引擎. RSB-4810 提供 USB 3.0, PCIE 3.0, SATA 3.0, 2 x Gigabit Ethernet ports, 1 个单通道 LVDS (与 MIPI-DSI 共享), 6 x UART, 和 2 x CAN FD 用于嵌入式应用. RSB-4810 还提供 Mini-PCIE, M.2 E-Key, 和 SIM card slot 支持 Wi-Fi 6, BT, 5G/LTE 和 AI 加速模块. 这些特征使 RSB-4810 是 AIoT 应用中入门级边缘 AI 计算的理想解决方案.

规格

Form Factor		3.5" SBC
Processor	CPU	Rockchip RK3568 Arm Quad Cortex-A55, up to 2.0GHz
	Technology	LPDDR4 1333MHz
Memory	NPU	Up to 1.0 Tops
	Capacity	Supports INT8/INT16 hybrid operation
	Flash	On-board LPDDR4 2/4GB
Graphics	Flash	16/32GB of eMMC NAND flash for OS and Advantech's boot loader
	LVDS	1 x single channel LVDS(Default) or 1 x 4Lane MIPI-DSI
	HDMI	1 x HDMI 2.0, up to 4096x2304@60fps
	eDP	1, max 2.7Gbps
	Graphics Engine	Mali-G52 support OpenGL ES 1.1/2.0/3.2, Vulkan 1.0/1.1, OpenCL 2.0
	H/W Video Codec	Decoder: H.265 HEVC/MVC Main10/H.264 AVC/MVC Main10/VP9 Profile0/2 up to 4096x2304@60fps; VP8,VC1,MPEG-4/2/1, up to 1920x1088@60fps
		Encoder: H.264/AVC H.265/HEVC MP@level4.1, up to 1920x1080@100fps. Support YUV/RGB video source with rotation and mirror
Ethernet	Chipset	RTL8211FSI
	Speed	2 x 10/100/1000 Mbps
WatchDog Timer		1-6553s, default 60s, power on/off 1s by MCU
I/O	SATA	1 x SATA 3.0
	SATA Power	1
	USB	1 x USB 3.2 Gen 1 by 1 Type A
		1 x USB 3.2 Gen 1 by 1 Type A/OTG
		2 x USB2.0 Pin header
	Audio	1 x Mic in, HP, and Speaker out via pin header
	SPDIF	-
	SDIO	-
	Serial Port	1 x RS-232 w/4wire via DB9;
		2 x RS-232/RS-485 by pin header;(SW config)
		3 x RS-232 by pin header;
		1 x Debug by pin header
	SPI	-
	CAN	2 x CAN2.0 B
	GPIO	6 x GPIO via pin header (3.3V TTL level)
	PC	1 x can be configured to GPIO via software
	System Bus	-
	Touch	-
	MIPI CSI	-
	Button	1 x reset button and 1 x power button via a pin header
Expansion	Mini PCIe	1 x Mini PCIe slot, w/USB 2.0 and 1 x PCIE 3.0
	SD Socket	1 x Micro SD slot
	SIM Slot	1 x SIM slot
	M.2 Socket	1 x M.2 2230 Key E slot, w/SIO*UART*PCIE 3.0 x, and 1 x USB 2.0
Power	Power Supply Voltage	12 V
	Power Type	DC-in
	Power Consumption	Boost 13W
Environment	Operating Temperature	0 ~ 60 °C/-40 ~ 85 °C (32 ~ 140 °F/-40 ~ 185 °F)
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	146 x 102 mm (5.7 ~ 4.01 in)
Operation System		Linux Debian10 and Android12
Certifications		CE/FCC Class B

架构图



订货信息

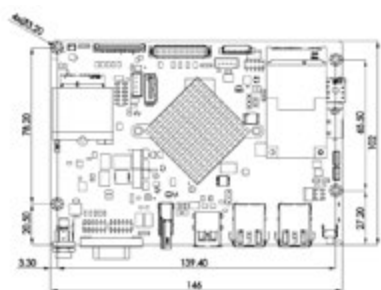
Part Number	CPU	Memory	Flash	HDMI	eDP	LVDS	LAN	Serial Port	SATA	USB	SD	CAN Bus	Operating Temperature
RSB-4810CQ-MNA1E	Rockchip RK3568	2GB	16GB	1	1	1	2	6	1	4	1	2	0 ~ 60 °C (32 ~ 140 °F)
RSB-4810WQ-MNA1E	Rockchip RK3568J	2GB	16GB	1	1	1	2	6	1	4	1	2	-40 ~ 85 °C (-40 ~ 185 °F)
RSB-4810CQ-NNA1E	Rockchip RK3568	4GB	32GB	1	1	1	2	6	1	4	1	2	0 ~ 60 °C (32 ~ 140 °F)

装箱单

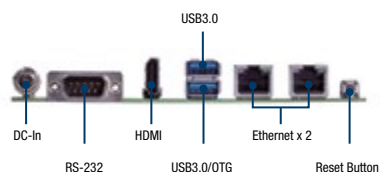
Part Number	Description
RSB-4810	RSB-4810 3.5" SBC with heatsink

尺寸

Unit: mm



外部I/O



可选配件

Part Number	Description
96PSA-A36W12W7-5	ADP A/D 100-240V 36W 12V C6 LOCK DC JACK 62368
170203183C	Power Cord 3P EU 10A 250V 183 cm
170203180A	Power Cord 3P UK 10A 250V 183 cm
1700001524	Power Cord 3P UL 10A 125V 180cm
1700008921	Power Cord 3P PSE 183 cm
1700019146	Power Cord CCC 3P 10A 250V 183cm
1700021565-01	A Cable 1 x 4P-1.25/D-SUB 9P(F), Debug
1700023588-01	M Cable USB-A 4P(M)/USB-A 4P(M) 120cm
1700031060-01	2 x M cable D-SUB 9P(M)/ 2 x 6P, RS232/485x2
1700028482-01	F CABLE 2 x 6P, RS232 x2
1700031093-01	A cable 2 x 5P-2.0/2 x JACK, line out and Mic
1700002172	A Cable 2 x 5P-2.0/2 x USB-A 4P(F), 2 x USB
1750007965-01	Antenna Cable R/P SMA (M) to MHF4, 300 mm (11.8 in)
1750008717-01	WiFi Dual band 2.4G and 5G Antenna
EWM-W159M201E	802.11 ac/a/b/g/n, RTL 8822CE-CG, 2T2R, w/ BT5.0
AIW-344FQ-*01	AIW-3 series LTE CAT4 mini PCI-e module
968AD00479*	4G module LTE Cat 4 for China
1750006264	Antenna cable SMA(F)/MHF 15 cm (5.9 in)
1750008303-01	Antenna AN0727-64SP6BSM
1700031071-01	LVDS cable for IDK-1107WR
1700031103-01	EDP cable 1*40P-0.5/1*30P-0.5 20cm
SQF-ISDM1-16G-21C	SQ Flash SD card UHS-I MLC 16GB (0 ~ 70 °C)
IDK-1107WR-40WVA1E	7" LED panel 400N with 4WR touch, 800x480(G)
XUTC-B156XTN07.1	AUO 15.6", 1366 x 768, 220nits, for UTC project

* Please contact us to get suitable cellular module for your region.