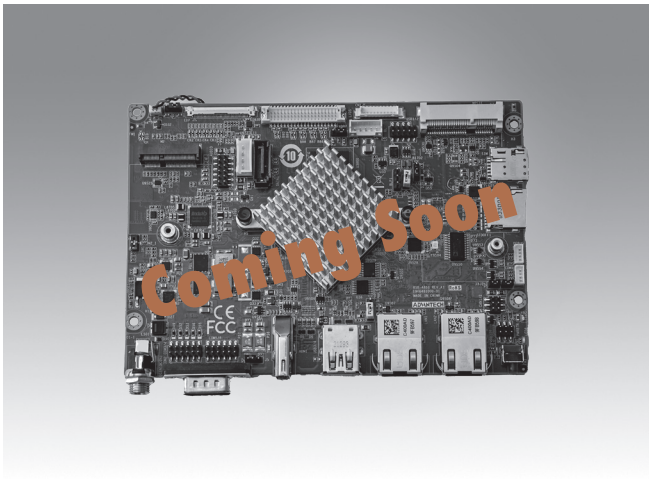
RSB-5810

Rockchip Arm Cortex-A73 RK3572 4" SBC



Features

- Rockchip RK3572 Dual-core Arm Cortex-A73@2.2GHz, Hexa-core Cortex-A53@2.1GHz
- Built-in NPU with processing performance of up to 4 TOPS
- Onboard 4/8GB LPDDR5 memory and 64GB eMMC
- Supports 1 x HDMI 2.1 4K, 1 x LVDS
- Provides 2 x GbE, 3 x UART, 4 x USB 3.0 and 3 x CAN
- Provides a M.2 E Key with PCIE 2.1 and UART signal for Wi-Fi 6 Modules, and a M.2 B Key with USB 3.0 / SATA 3.1
- Supports Linux Debian13 and Android17

Introduction

Advantech's RSB-5810 is an Arm-based 4" single board computer (SBC) powered by Rockchip RK3572 SOC. It leverages Dual-core Arm Cortex-A73 and Hexa-core Cortex-A53, 4 TOPs NPU, and a Mali-G310 graphics engine. RSB-5810 provides USB 3.0, 2 x Gigabit Ethernet, a dual channel LVDS, 3 x UART, and 3 x CAN for embedded applications. RSB-5810 also features M.2 B key, M.2 E-Key, and SIM card slot for Wi-Fi 6, BT, 5G/LTE. These features make Advantech's RSB-5810 an ideal solution for entry level edge AI computing in AIoT applications.

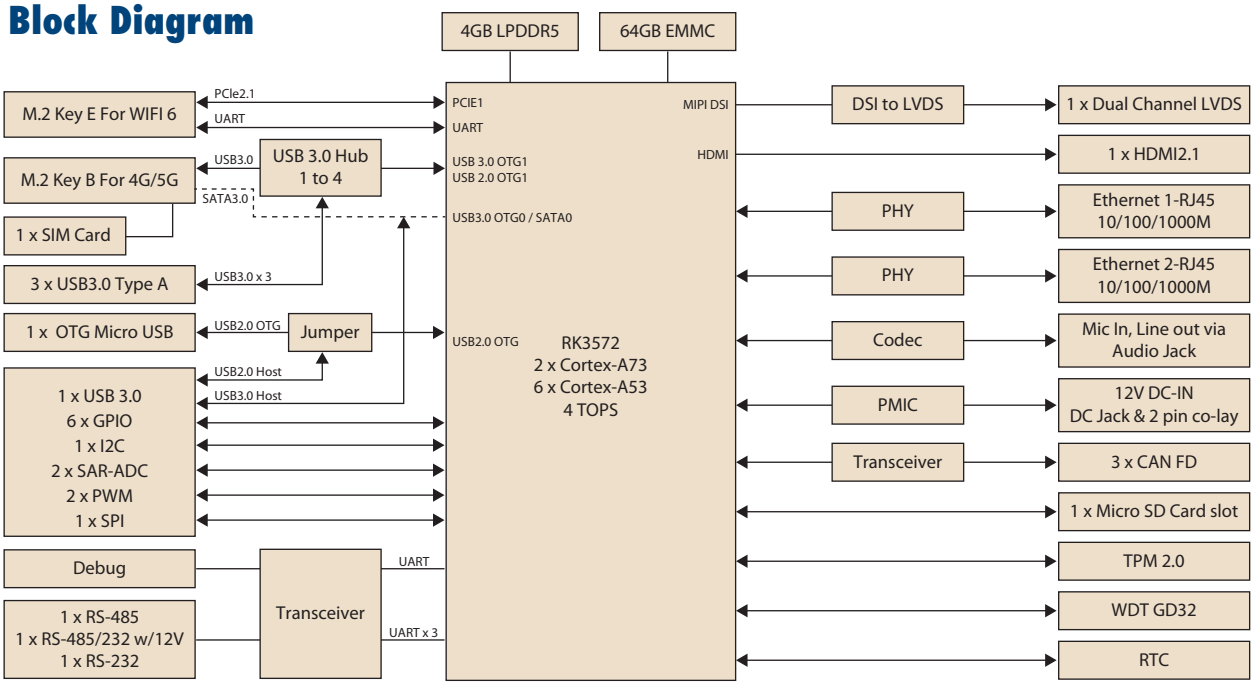
Specifications

Form Factor		4" SBC
Processor	CPU	Rockchip RK3572 Dual-core Arm Cortex-A73@2.2GHz, Hexa-core Cortex-A53@2.1GHz
Memory	Technology	LPDDR5/5X 5500MHz
	NPU	Up to 4 Tops. Support INT4/INT8/INT16/FP16/BF16/TF32
	Capacity	On-board LPDDR5/5X 4GB
	Flash	64GB of eMMC NAND flash for OS and Advantech's boot loader
Graphics	LVDS	1 x Dual channel LVDS up to 1920*1080@60Hz
	HDMI	1 x HDMI2.1 up to 4K @60Hz
	Graphics Engine	3D Graphics Engine Mali-G310, support OpenGL ES 1.1/2.0/3.2, OpenCL 3.0, Vulkan 1.4, OpenCL 3.0
	H/W Video Codec	Decoder: Supports up to 4K@120fps/8K@30fps H.265,4K@60fps H.264 Encoder: Supports up to 4K@40fps H.265/H.264
Ethernet	Chipset	RTL8211FSI-VS-CG
	Speed	2 x 10/100/1000 Mbps
WatchDog Timer		HW watchdog by MCU
I/O	USB	3 x USB3.0 Type A 1 x USB2.0 OTG Micro USB (selected by jumper) 1 x USB Host by Box Header (USB 3.0 singal default, shared with SATA3.1 by bom option,USB 2.0 singal default, selected by jumper)
	Audio	1 x Line out /Mic in
	SPDIF	-
	SDIO	-
	Serial Port	1 x Debug, 1 x RS232(2 Wire), 1 x RS-232/485(4 Wire) w/12VSupport flow control,default RS-485 1 x RS-485, by Box Header
	SPI	1 by Box header(3.3V Level)
	CAN	3 x CAN FD
	GPIO	6 by Box header(3.3V Level)
	I²C	1 by Box header(3.3V Level)
	SAR-ADC	2 by Box header(1.8V Level)
	PWM	2 by Box header(3.3V Level)
	MIPI CSI	-
	Button	1 x Power on button, 1 x Reset button, 1 Maskrom button
Expansion	SD Socket	1 x Micro SD slot
	SIM Slot	1 x Nano SIM slot
	M.2 Socket	1 x M.2 2230 Key-E w/PCIE2.1/UART 1 x M.2 3052 Key-B w/USB3.0 or SATA3.1 (default USB 3.0)
Power	Power Supply Voltage	12V±10%
	Power Type	DC-IN by lockable DC Jack (optional 2Pin type connector)
	Power Consumption	TBD
Environment	Operating Temperature	0 ~ 60 °C
	Operating Humidity	95% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	165 x 115 mm
Operation System		Linux Debian13
Certifications		CE EMC/FCC Class B/UKCA

All product specifications are subject to change without notice.

Last updated: 9-Nov-2026

Block Diagram



Ordering Information

Part Number	CPU	Memory	Flash	HDMI	LVDS	LAN	Serial Port	USB	SD	CAN Bus	Operating Temperature
TBD	Rockchip RK3572	4GB	64GB	1	1	2	3	4	1	3	0 ~ 60 °C (32 ~ 140 °F)

Packing List

Part Number	Description
RSB-5810	RSB-5810 4" SBC with heatsink

Optional Accessories

Part Number	Description

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

Dimensions

Unit: mm

External I/O