

SOM-M8370 SOM-M8390

Embedded SMARC SOM



SMARC
module

MEDIATEK

Overview

The SERA SOM-M8370/SOM-M8390 is a SMARC module powered by the MediaTek Genio 510/700 SoC with 2x Arm Cortex-A78 and 4x/6x Cortex-A55 cores and up to 2.8/4.0 TOPS APU.

The module incorporates a spate of IoT technologies, such as on-device artificial intelligence (AI) capabilities and support for up to 3 cameras, while delivering a low power envelope, making it the ideal solution for robotic and drone applications across various sectors, including consumer, enterprise, defense, industrial, logistics, and more.

Besides the Genio 700 platform is pin to pin compatible with Genio 510 .To give you more high-end APU system options.

Features

- Genio 510: 2x ARM Cortex-A78@2.0GHz + 4x ARM Cortex-A55@2.0GHz.
- Genio 700: 2x ARM Cortex-A78@2.2GHz + 6x ARM Cortex-A55@2.0GHz.
- Genio 510: 2.8 TOPS APU system.
- Genio 700: 4.0 TOPS APU system
- SMARC Revision 2.1 compliant.
- Up to 8GB LPDDR4X.
- DSI up to 1080P.
- HD display and DP up to 4K/60Hz
- 1x onboard eMMC5.1 up to 256 GB
- Supports two GbE ports
- Supports CSI 2x2 Lanes/1x4 Lanes interfaces
- 2xUSB 3.0/3xUSB 2.0 interfaces
- Support Linux Yocto/Android
- A high-performance multi-core AI processor with dedicated visual processing engine for a wide variety of computer vision applications, including facial recognition, object/people identification, collision warning, driver monitoring, gesture and posture detection, image segmentation
- Rich IO for peripherals, including scanners, card readers, sensors, factory equipment, network connectivity, etc
- Support for industrial grade temperature operation (-40 to 105C) in a fanless design

Specification

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Interface	Specifications	Features
System	CPU	Genio 510: ARM Cortex-A78@2.0GHz x 2 + ARM Cortex-A55@2.0GHz x 4 Genio 700: ARM Cortex-A78@2.2GHz x 2 + ARM Cortex-A55@2.0GHz x 6
	APU	Genio 510: Dual AI processing system (MediaTek DLA + VP6), up to 3.2 TOPS Genio 700: Dual AI processing system (MediaTek DLA + VP6), up to 4.0 TOPS
	RAM	8GB LPDDR4X
	Storage	32MB eMMC
Display	GPU	ARM Mali-G57MC2
	HD display	HD display 2.0 4K60fps
	DisplayPort	DisplayPort 1.2
	MIPI	MIPI-DSI 4-Lane
	LVDS	Dual Channel LVDS
Camera	CSI	2 MIPI-CSI 4 Lane or 1xMIPI-CSI 4 Lane + 2xMIPI-CSI 2 Lane
Video	Encode	4K@30fps 8-bit (H.265/H.264)
	Decode	4K@60fps 8/10-bit (H.265/H.264/VP9/AV1), FHD@60fps (VP8/MP2/MP4)
Connectivity	Ethernet	2x10/100/1000 Mbit/s
	Wi-Fi	2x2 Wi-Fi 5
	Bluetooth	Bluetooth 5.2
Extension Busses	USB	2xUSB 3.0 / 3xUSB 2.0
	UART	4xSerial UART
	CANBUS	1xCAN2.0B
	I2S	1xI2S
	I2C	2xI2C
	SDIO	1 x 4-Lan SDIO
	SPI	2xSPI
	GPIO	14xGPIO
	PCIe	1xPCIe 1 Lane Gen2
Power	DC	5VDC
Form Factor	SMARC	SMART Short Size
	Dimension	82 x 50 x 1.2mm
Operation System	Linux	Yocto Linux
		Ubuntu

**Specifications are subject to change without notice.*