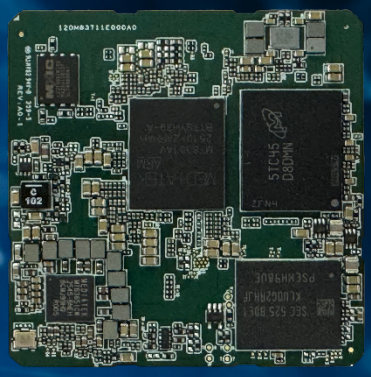
SERA network incorporation.

OSM-M8371
OSM-M8391

Embedded AI OSM SOM



OPEN STANDARD MODULE™

MEDIATEK

Overview

The SERA OSM-M8371/OSM-M8391 is a OSM module powered by the MediaTek Genio 520/720 SoC includes an octa-core processor with 2x Arm Cortex-A78 cores and 6x Arm Cortex-A55, and an Arm Mali G57 MC2 GPU

The module incorporates a spate of IoT technologies, such as on-device artificial intelligence (AI) capabilities and support for up to 2 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.

Features

- OSM-M8371: 2x ARM Cortex-A78@2.2GHz + 6x ARM Cortex-A55@2.0GHz.
- OSM-M8391: 2x ARM Cortex-A78@2.6GHz + 6x ARM Cortex-A55@2.0GHz.
- MediaTek 8th Generation NPU (NPU8.0)(Generative AI), up to 9 TOPS
- SGET OSM v1.2 compliant.
- 8GB LPDDR5X
- MIPI-DSI, 1 set of 4D1C (MIPI C/D PHY) D-PHY 2.5Gbps, C-PHY 2.0Gbps
- Display resolution up to 4K/60Hz
- Onboard 128GB UFS
- Supports one GbE port
- Supports two 4-lane MIPI-CSI interfaces. The OSM-M8371 features a single ISP, while the OSM-M8391 includes dual ISPs to enable simultaneous dual-camera operation
- 2xUSB 3.0/2xUSB 2.0 interfaces
- Support Android/Yocto Linux/Ubuntu operation
- 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

Embedded SMARC SOM

Specification

Interface	Specifications	Features
System	CPU	OSM-M8371: ARM Cortex-A78@2.2GHz x 2 + ARM Cortex-A55@2.0GHz x 6
		OSM-M8391: ARM Cortex-A78@2.6GHz x 2 + ARM Cortex-A55@2.0GHz x 6
	NPU	MediaTek 8th Generation NPU (NPU8.0)(Generative AI), up to 9 TOPS
	RAM	8GB LPDDR5X
	Storage	128GB UFS
Display	GPU	ARM Mali-G57 MC2 880MHz
	DisplayPort	1 x 4-Lane eDP, 1 x 4-Lane DP
	MIPI	1 x 4-Lane MIPI-DSI
Camera	CSI	2 x 4-Lane MIPI-CSI
	ISP	OSM-M8371: 1 x ISP
		OSM-M8391: 2 x ISP
Video	Encode	4K@30fps HEVC/H.264/VP9
	Decode	4K@60fps HEVC/H.264
Connectivity	Ethernet	1x10/100/1000 Mbit/s
Extension Busses	USB	2 x USB 3.0, 2 x USB 2.0
	UART	4 x UART
	I2S	2 x I2S/PDM
	I2C	2 x I2C
	SDIO	2 x 4-Lane SDIO
	SPI	2 x SPI
	GPIO	28 x GPIO
	PCIe	1 x PCIe 1-Lane Gen2
	JTAG	1 x JTAG
Power	DC	5VDC
Form Factor	OSM	OSM Large Size
	Dimension	45 x 45mm
Operation System	Linux	Yocto Linux
		Ubuntu
		Android

**Specifications are subject to change without notice.*