SERA network incorporation.

SOM-MTK-8370-00-S

SERA Starter KIT

SMARC module

MEDIATEK

Overview

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

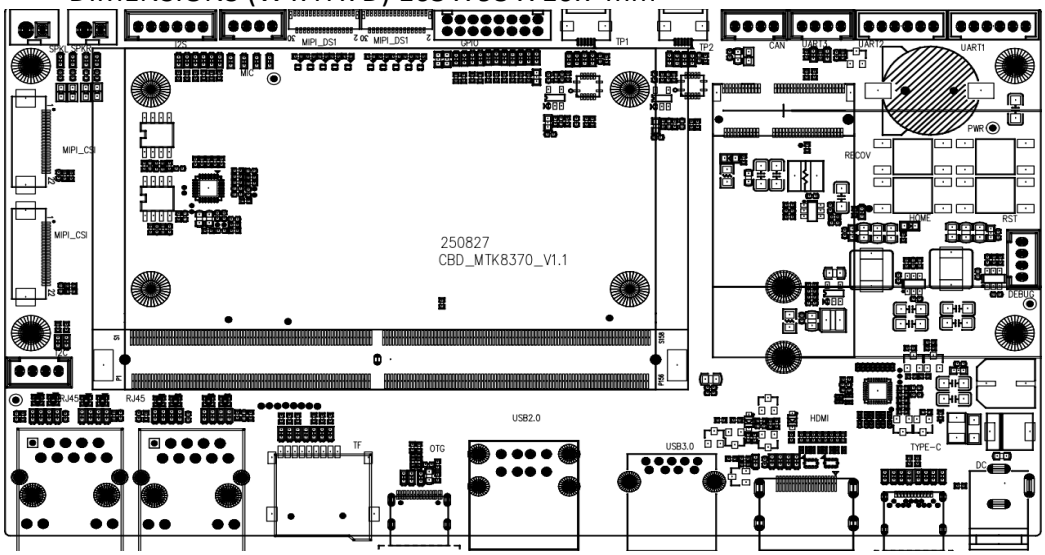
The module incorporates a spate of IoT technologies, such as on-device artificial intelligence (AI) capabilities and support for up to 3 cameras, while delivering a low power envelope, making it the ideal solution for robotic and drone applications across various sectors, including consumer, enterprise,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

- 6-core MediaTek MT8370 (Arm Cortex-A78 x2 + Cortex-A55 x4).
- 2.8 TOPS APU system.
- SMARC revision 2.1 compliant.
- Up to 8GB LPDDR4X.
- DSI up to 1080P.
- HD display up to 4K/60Hz
- 1x onboard eMMC5.1 up to 64 GB
- Supports One GbE port (Optional The second)
- Supports 2x MIPI CSI 4 lane interfaces (Optional 1x MIPI CSI 4 lane+2x MIPI CSI 2 lane)
- USB3/USB2 interfaces
- Support Linux Yocto/Android

- SERA Starter KIT
  DIMENSIONS (W x H x D) 165 X 95 X 16.7 mm



Hareware Specifications

SOM-MTK-8370-00-S

Interface	Features
Processor & System	CPU -MT8370 Hexa-core CPU：2x A78 @ 2.0GHz + 4x A55 @ 2.0GHz Memory 4 or 8 GB discrete LPDDR4X Cache-256KB L2 per core (2MB unified L3) Security -TPM 2.0 module (optional)
Video	GPU Core -Arm Mali-G57 MC2 GPU – Dual 4K @ 60 fps. APU - 1x MDLA3.0 + 1x VP6 HD display - 2.0b 4K @ 60Hz LVDS -Sigle channel LVDS (optional) DSI -1x 4 Lane DSI, maximum resolution 4K p60
Camera	CSI- 2x 2lanes / 1x 4 lane (one for feature connector, two for SMARC connectors)
System Storage	SDIO- 1x SDIO (4-bit) compatible with SD/SDIO standard, up to version 3.0 UFS/eMMC 32, 64 GB (build option) Compatible with eMMC gear 5.1
Audio	Audio Codec- I²S audio codec located on carrier.
Ethernet	1*10/100/1000 Mbit Ethernet (Optional The second)
Wireless	Wi-Fi-IEEE 802.11 2X2 MU-MIMO ac/a/b/g/n Bluetooth-Bluetooth 5.2
Extension Busses	1x USB 3.0, 2x USB 2.0(Optional More) 3x UART interfaces 1x CAN2.0B only (optional Microchip SPI to CAN) 2x SPI (Bootable from eMMC, without CAN bus) 1x I²S interface for carrier board to option audio codec 2* I²C interfaces (2* I²C for DPI, 2* I²C for Camera) 14x GPIO with interrupt, one GPIO with PWM (total 14 GPIOs, within multiple function) 1x PCIe 1 lane Gen2
Mechanical and Environmental	SMARC Startkit 165 mm x 95 mm x 16.7mm Operating Temperature: 0°C to 60°C Humidity 5-90% RH operating non-condensing. 5-95% RH storage (and operating with conformal coating)
Operating Systems	Standard Support : Linux Yocto/Android

**Specifications are subject to change without notice.*