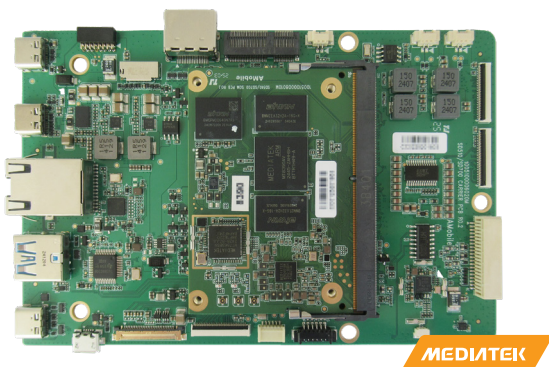




Features

- MediaTek MT8370 Genio 510 (2x CA78 2.0GHz / 4x CA55 2.0GHz)
- Dedicated AI Accelerator, up to 3.2 TOPS
- Supports Android 14 and Yocto 4.0 upgradable
- Support WiFi5/ BT5.1/GbE connectivity and Compatible extension WIFI 6 / BT5.2 data connectivity
- Multi-type I/O ports to extend application



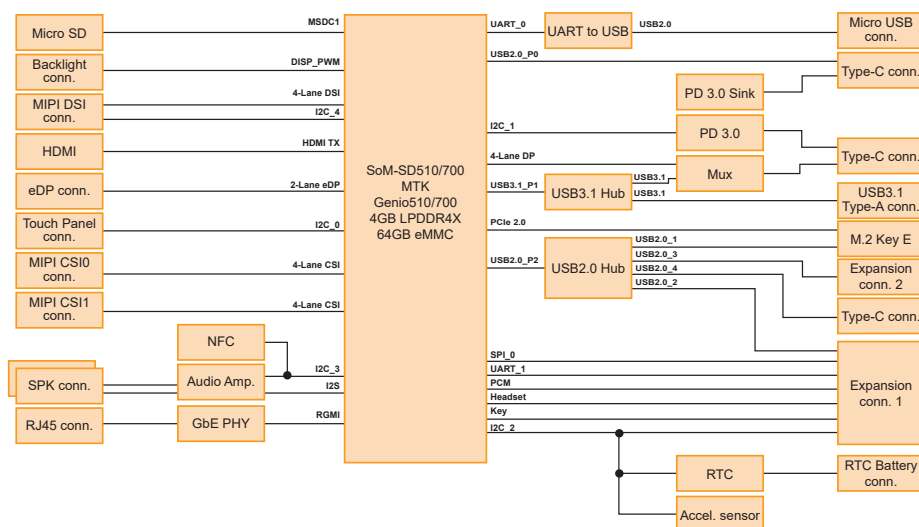
Specifications

Processor		MediaTek Genio 510 Hexa-Core SoC
Processor System	CPU	2 x Cortex A78, 2.0 GHZ 4 x Cortex A55, 2.0 GHz
	APU	1x MDLA 3.0 + 1x VP 6; 3.2 TOPS
	GPU	Mali-G57 MC2
	DSP	HiFi 5
Operation System		Android 14, Yocto 4.0 Kirkstone
Memory	RAM	4GB
	Storage	eMMC5.1, 64GB, SDIO Interface
Networking	WiFi	802.11 a/b/g/n/ac, 2T2R
	Bluetooth	Bluetooth 5.1
	Ethernet	Gigabit Ethernet (RGMII)
Compliance		CE, FCC
Display		• MIPI (FHD60) + HDMI (4K60) • MIPI (FHD60) + DP 1.4 (4K60) • eDP (FHD60) + MIPI (FHD60) • eDP (FHD60) + HDMI (4K @60) • eDP (FHD60) + DP (3840x2160@60)

*SoM-SD510 supports dual display from four available interfaces: DP, eDP, MIPI DSI, and HDMI. The default software configuration of the MB510 is set to support eDP and DP.

Onboard I/O Interface

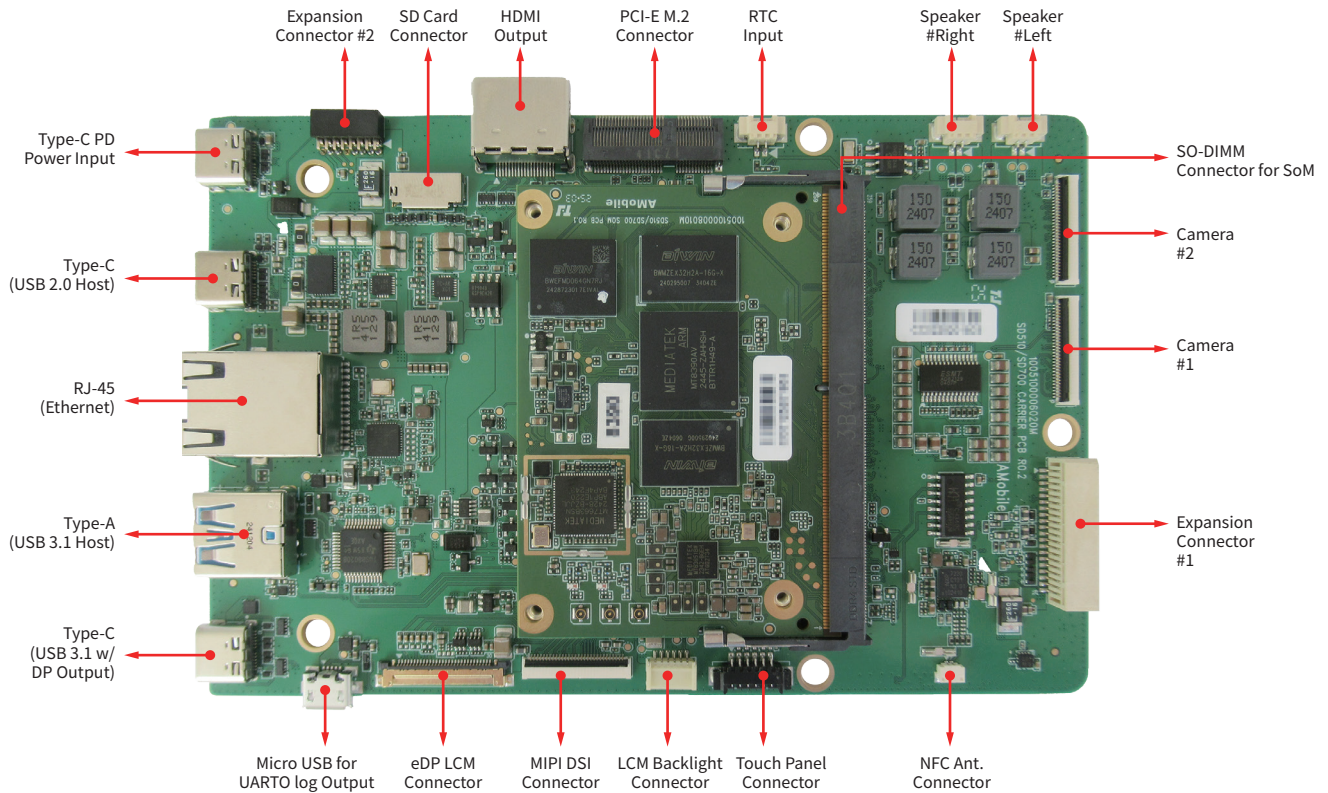
Network	1x Giganet, RJ45
USB	1x USB2.0/3.1 Type-A
	1x USB3.1 Type-C, support DP output
	1x USB2.0 Type-C
	1x USB2.0 Type-C, support PD3.0 power sink
eDP / DSI	1x eDP, 2 lane / 1x MIPI DSI, 4 lane
HDMI Output	1x HDMI2.0 Output
Touch Interface	1x I2C, 400KHz
SD Card	1x Micro SD Card Socket
Audio	Audio AMP, 10Wx2
Camera	2x MIPI CSI, 4 lane
M.2 Socket	1x M.2 Key, PCIe 2.0
Expansion Connector	I2C, SPI, UART, USB2.0, 5VDC, DMIC Input, Headset key x4 (Power, Reset, Vol. Up, Vol. Down)
Power Input	Type-C Adapter (20V)
RTC	RTC chip with backup battery connector
Dimension (LxW)	92 x 140 mm (3.62" x 5.51")
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)
Operating Humidity	0%~95% at 60°C (Relative Humidity; non-condensing)



SBC-MB510/710 Block Diagram



SBC-MB510 I/O Overview



Ordering Information

Part Number	Soc Frequency	Description
7405100001028M	Hexa-Core SoC@2.0GHz/2.0GHz	Genio 510 SoM-SD510 SoM with 4GB LPDDR4x & 64GB eMMC
7405100001048M		Evaluation Kit with SoM-SD510 (MediaTek G510 SoM) CB200 Carrier Board and Accessory kits (Adapter with US plug and cable, HDMI cable, Heat sink, Antenna*3, Camera and FPC)

All specifications are subject to change without notice. Last update: Apr/24/2025

