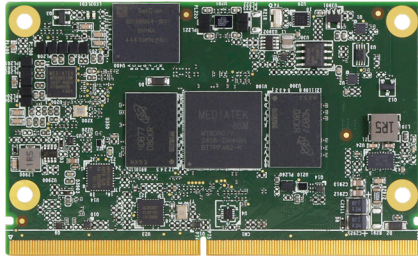


uCOM-M700/M510



SMARC CPU Module with MediaTek Genio 700/510, up to Cortex-A78 x 2 + Cortex-A55 x 6 processor



Features

- ARM MediaTek Genio 700 / 510
- Onboard LPDDR4, Up to 8GB
- HDMI 2.0 x 1, DP 1.4 x 1
- eDP 2 lane x 1, MIPI-DSI 4 lane x 1
- GbE x 1
- USB 3.0+2.0 x 1, USB 2.0 x 5
- UART x 4, GPIO x 12, MIPI CSI x 2, TPM 2.0



Specifications

System	
Form Factor	SMARC 2.1 Compliant
CPU	MediaTek Genio 700 (MT8390): Dual-core Arm® Cortex®-A78, 2.2GHz Hexa-core Arm® Cortex®-A55, 2.0GHz Arm® Mali™-G57 MC3 GPU, 4 TOPs MediaTek Genio 510 (MT8370): Dual-core Arm® Cortex®-A78, 2.0GHz Quad-core Arm® Cortex®-A55, 2.0GHz Arm® Mali™-G57 MC2 GPU, 3.2 TOPs
Chipset	—
Memory	Onboard LPDDR4, up to 8GB
Storage	eMMC 5.1, 16GB (Optional: 32GB/64GB/128GB) SDIO 3.0 x 1 (for SD Card)
BIOS	—
MTBF (Hours)	3,092,590
Wake On LAN	—
Watchdog Timer	Yes
Real Time Clock	RTC x 1
Boot Select	Module eMMC Flash
Security	TPM 2.0 (optional)
Display	
Graphics Controller	Arm® Mali™-G57 MC2/MC3 GPU, supports OpenGL® ES 1.1/2.0/3.2 and Vulkan® 1.0/1.1 (MC3 for model 700, MC2 for model 510)
Video Output	HDMI 2.0 x 1 DP 1.4 x 1 (4k x 2k @ 60Hz) eDP 1.2 (2-Lane) x 1 MIPI-DSI (4-Lane) x 1 (by request) *Supports up to dual display (4K x 1 + 2K x 1)
I/O Interfaces	
Ethernet	Gigabit Ethernet x 1 (TSN support)
USB	USB 3.0 + 2.0 x 1 USB 2.0 x 5
Serial Port	UART x 2 (4-wire, 1.8V) UART x 2 (2-wire, 1.8V, one for debug port)
Audio	I2S x 1
PCIe	PCIe 2.0 x 1
CANBus	—
MIPI-CSI	MIPI CSI x 2 (4-Lane x 1 + 2-Lane x 1, by request)
GPIO	12-bit
Other Interfaces	SPI x 1 I2C x 5
Power	
Power Requirement	DC 3V ~ 5.25V, AT (Optional : ATX for Yocto)
Power Consumption	4.25W

Environmental And Mechanical

Dimensions	3.23" x 1.97" (82mm x 50mm)
Weight	0.0374 lb (0.017kg)
Operating Temperature	-40°F ~ 185°F (-40°C ~ 85°C) Optional: 32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 95% relative humidity, non-condensing
Certification	CE/FCC Class A
OS Support	Yocto 4.0 (Kernel 5.15) Ubuntu, Android 14, Debian 13 (by request)
Support Protocol	By request

Packing List

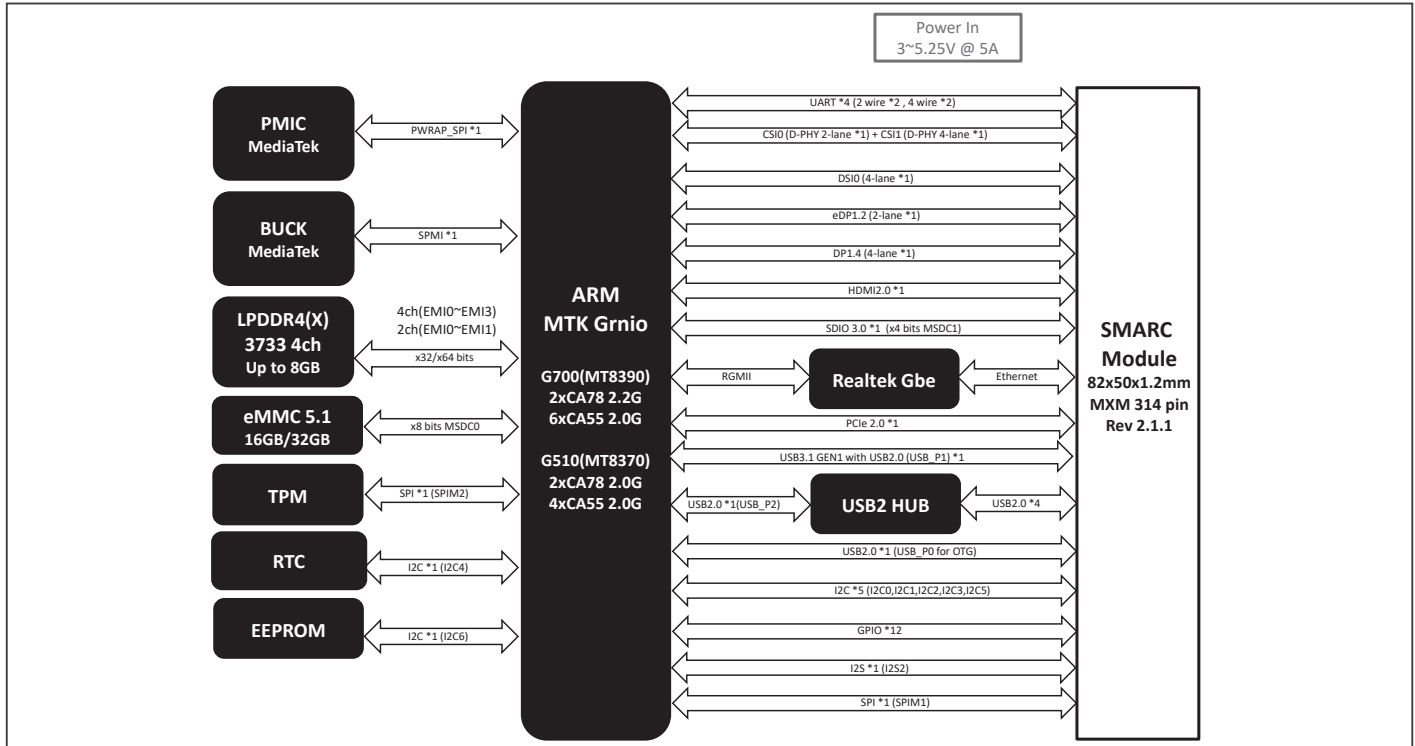
- uCOM-M700/M510

Optional Accessories

Part Number	Description
UCOM-M700-HSK01	HeatSink.82*42*21.5mm.for uCOM-M700/M510
UCOM-M700-FAN01	Fan.82x42x16mm.for uCOM-M700/M510
ECB-960T-A15-0002	Carrier board for uCOM-M700/M510 (please contact with sales for more details)

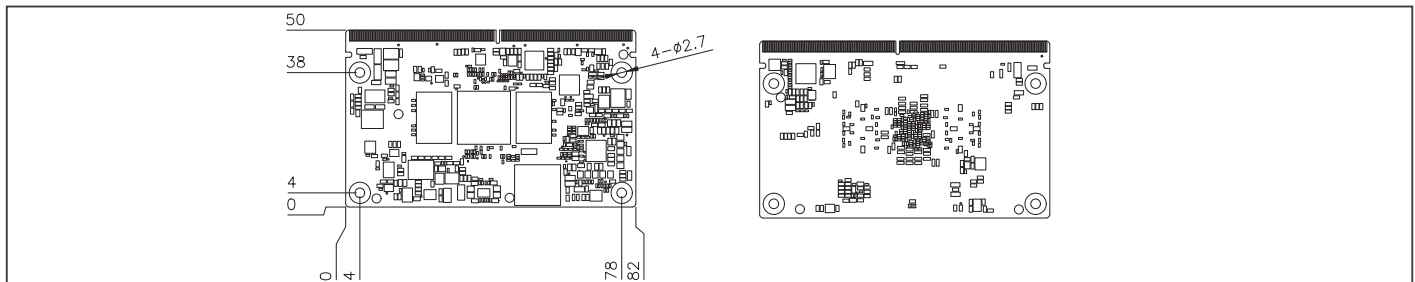


Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	Form Factor	CPU	Memory	Display	Storage	LAN	USB	UART	Expansion	Power	Temperature	Others
uCOM-M700-A10-0001	SMARC	ARM MediaTek Genio 700 2 x Cortex-A78 2.2GHz + 6 x Cortex-A55 2.0GHz processor (4 TOPs)	Onboard LPDDR4 8GB	HDMI 2.0 x 1 DP 1.4 x 1 eDP x 1 MIPI-DSI x 1	16GB eMMC	GbE x 1	USB 3.0 x 1 USB 2.0 x 5	UART x 4 (1.8V, 4-wire x 2, 2-wire x 2, one for debug port)	PCIe Gen 2.0 x 1	+5V	-40°C ~ 85°C	MIPI-CSI x 2 SPI x 1 I2C x 5 GPIO 12 bits
uCOM-M510-A10-0001	SMARC	ARM MediaTek Genio 510 2 x Cortex-A78 2.0GHz + 4 x Cortex-A55 2.0GHz processor (3.2 TOPs)	Onboard LPDDR4 8GB	HDMI 2.0 x 1 DP 1.4 x 1 eDP x 1 MIPI-DSI x 1	16GB eMMC	GbE x 1	USB 3.0 x 1 USB 2.0 x 5	UART x 4 (1.8V, 4-wire x 2, 2-wire x 2, one for debug port)	PCIe Gen 2.0 x 1	+5V	-40°C ~ 85°C	MIPI-CSI x 2 SPI x 1 I2C x 5 GPIO 12 bits