



Features

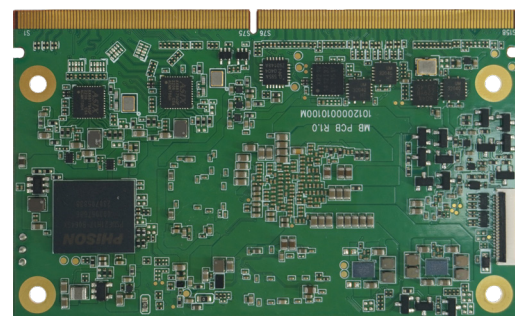
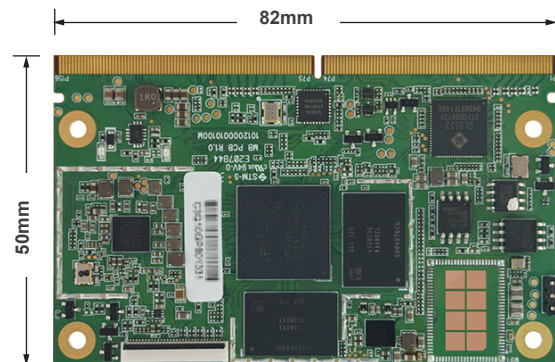
- MediaTek Genio 1200 SoC--High-performance, low-power platform
- 6nm MT8395 with Octa-Core, Arm Cortex-A78 x4 + A55 x4, TDP: 3.1W
- MediaTek APU AI engine, up to 4.8 TOPS performance
- SMARC 2.1.1, supports MIPI, HDMI, LVDS, DP, eDP
- Dual Display (4K60+4K60), Triple Display (FHD60+ FHD60+4K60)
- Video Decoder: 4K90, AV1/VP9/H.265/H.264
- Video Encoder: 4K60, H.265/H.264
- HDMI RX support HDMI2.0 video input Max 4K60
- M.2 B/E/M- key slot reserved for 5G/WIFI6+BT/SSD module expansion
- 10-year product longevity

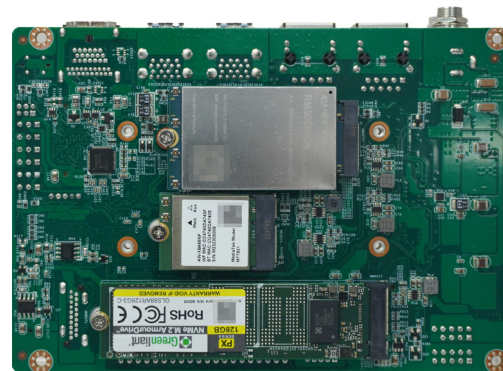
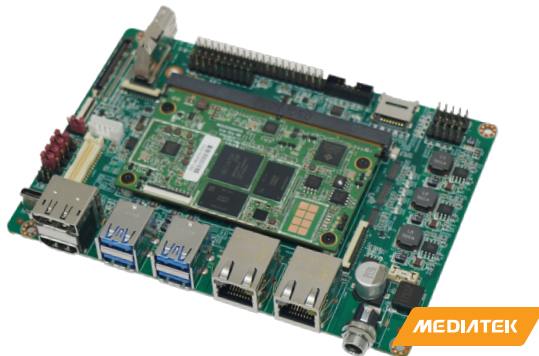


Specifications

Core System	Processor	MediaTek Genio 1200 Octa-Core SoC
	Architecture	- Four Cortex A78 @ 2.2GHz - Four Cortex A55 @ 2.0GHz
	Memory	8GB LPDDR4X SDRAM / 16G (Optional)
	Storage	64GB UFS2.1 / 128G (Optional)
Graphics	GPU Core	Five-core Arm Mali-G57 GPU – Dual 4K @ 60 fps 3D graphic accelerator capable of processing 17600M pixel/sec @ 880MHz
	GPU Feature	H.265 and H.264 video decoding up to 4K@90fps H.265 and H.264 video encoding up to 4K@60fps
PMIC/Audio Codec		I ² S audio codec located on carrier board
		1x 4-Lane MIPI DSI, 1x 4-Lane MIPI DSI/EDP 2x MIPI CSI (1 x 4-Lane, 1 x 2-Lane), 1x 4-Lane MIPI CSI (ZIF Connector) 1x Display Port 2x USB 3.1(HOST) 2x USB 2.0 (Host), 1x USB 2.0 (Host/Device), 1x USB 2.0 (DL Port) 2x 10/100/1000 Mbps (GbE) Ethernet
Extension Busses		1x SPI 2x I2S 3x I2C 1x UART(Debug), 1x UART (TX/RX), 1x UART (TX/RX/CTS/RTS) 1x PCIe x 2 Gen3, 1x PCIe Gen2 1x SDIO 14x GPIO 2x CAN BUS 5V DC-in
		4-Lane MIPI CSI connector I-PEX connectors for Wi-Fi and Bluetooth antennas HDMI RX Connector
SoM I/O		
Operating System		Android 13, Yocto 4.0 Kirkstone
System Monitoring and Management		Watchdog Timer, System Management
Power-On Temp.		0°C ~ 60°C

Operating Temp.	-40°C to 60°C [with default sink plate] -40°C to 85°C [with cooling solution]
Operating Humidity	0% ~ 95% at 60° C (relative humidity ; non-condensing)
Form Factor	82mm x 50mm SMARC





Specifications

Connectivity	WiFi	IEEE 802.11 ax/ac/a/b/g/n Wi-Fi
	Bluetooth	Bluetooth 5.2
Onboard I/O		USB 2.0 TYPE A x 2
		USB 3.1 gen1 TYPE A x 4
		Internal USB TYPE C (DL & Debug Port) x1
		RJ45 x 2
		DP x 1, HDMI (RX) x 1, HDMI (TX) x1
		2.0mm Pinheader Audio line out/MIC x1
		MIPI-CSI 2 lanes x 1, MIPI-CSI 4 lanes x 1, MIPI-CSI 4 lanes x 1 form SM1200
		Power Jack x 1
		Power Button x 1, Reset Button x 1, Volume Up x 1, Volume Down x 1
		LVDS with inverter connector x1
		40-pin Expansion Header (I2C/CAN/UART/SPI) x1
		Micro SD card slot x1
		SD Card Specification version 3.0
		SIM card slot x1
		M.2 B- key slot & USB3.1 for 5G Module (Optional)
		M.2 E- key slot, PCIe x1 & USB2.0 for WIFI6 & BT5.2
		M.2 M-key PCIe x1 for external SSD storage (Optional)
Power Supply		12V, 3.0A, 36W DC-IN (Power Adaptor)
Power-on Temp.		0°C ~ 60°C
Operating Temp.		-40°C ~ 85°C

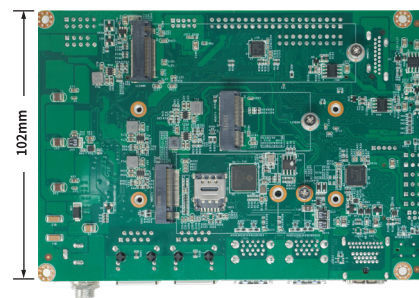
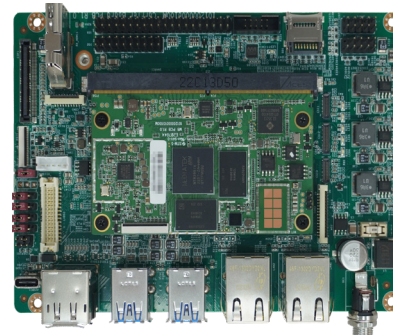
Operating Humidity	0% ~ 95% at 60° C (Relative humidity; Non-condensing)
Form Factor	3.5" SBC, 146mm x 102mm (5.75" x 4.17")

Peripherals

13.0 mega-pixel camera module

8" LCD TFT 800 x1280 with touch

[Optional] M.2 5G Module



SM1200 EVK Development Kit

Development Kit	Product Configuration
SM1200 Android-US-Wi-Fi	SM1200 Dev Kit Android OS, 8G/64G, Power Adaptor Plug US
SM1200 Android-EU-Wi-Fi	SM1200 Dev Kit Android OS, 8G/64G, Power Adaptor Plug EU
SM1200 Yocto-US-Wi-Fi	SM1200 Dev Kit Linux Yocto OS, 8G/64G, Power Adaptor Plug US
SM1200 Yocto-EU-Wi-Fi	SM1200 Dev Kit Linux Yocto OS, 8G/64G, Power Adaptor Plug EU
SM1200 Ubuntu-US-Wi-Fi	SM1200 Dev Kit Ubuntu OS, 8G/64G, Power Adaptor Plug US
SM1200 Ubuntu-EU-Wi-Fi	SM1200 Dev Kit Ubuntu OS, 8G/64G, Power Adaptor Plug EU

*Optional SSD storage or M.2 5G Module with 4x cable and antenna set is available upon request.

*Display interface for Android and Yocto OS are configured to use MIPI and HDMI as default, for LVDS, DP and eDP display panel use, customization will be required.

All specifications are subject to change without notice. Last update: 02/22/2024

