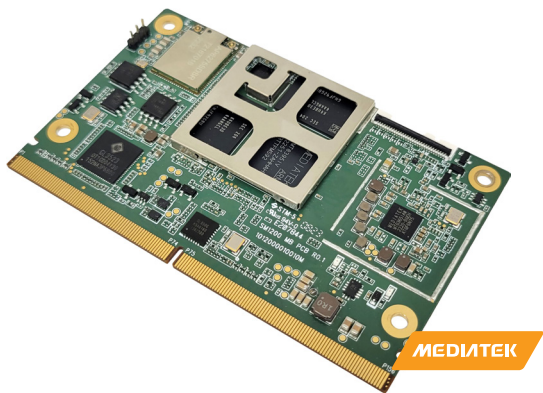




# SM1200

## SMARC 2.1.1 SOM Module



### Features

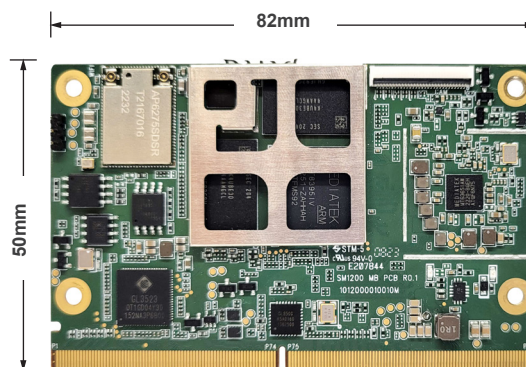
- MediaTek Genio 1200 SoC--High-performance, low-power platform
- Octa-Core, Arm Cortex-A78 x4 + Arm Cortex-A55 x4
- MediaTek APU AI engine, up to 4.8 TOPS performance
- SMARC 2.1.1, supports HDMI, DP, eDP
- 4K Resolution, up to Dual 4K60
- Supports Android and Yocto OS.
- Rich I/O, enhance user experience
- 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
	Storage	64GB UFS2.1
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	Support
		H.265 and H.264 video decoding up to 4K@90fps H.265 and H.264 video encoding up to 4K@60fps
Connectivity	WiFi	IEEE 802.11 ax/ac/a/b/g/n Wi-Fi
	Bluetooth	Bluetooth 5.2
PMIC/Audio Codec	I <sup>2</sup> S audio codec located on carrier board	
Extension busses	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	
	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		

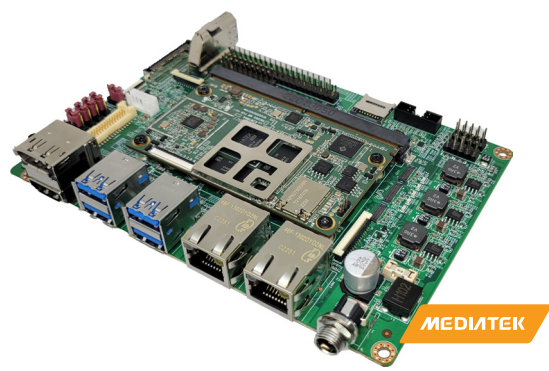
	4-Lane MIPI CSI connector
SoM I/O	I-PEX connectors for Wi-Fi and Bluetooth antennas HDMI RX Connector
Operating System	Android 13, Yocto 3.5
System Monitoring and Management	Watchdog Timer, System Management
Power-On Temp.	0°C ~ 60°C
Operating Temp.	-40°C ~ 85°C
Operating Humidity	0% ~ 95% at 60° C (relative humidity ; non-condensing)
Form Factor	SMARC 2.1.1 (82mm x 50mm )





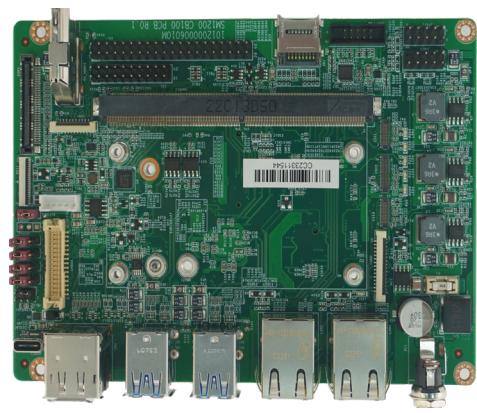
# CB100

## Carrier Board

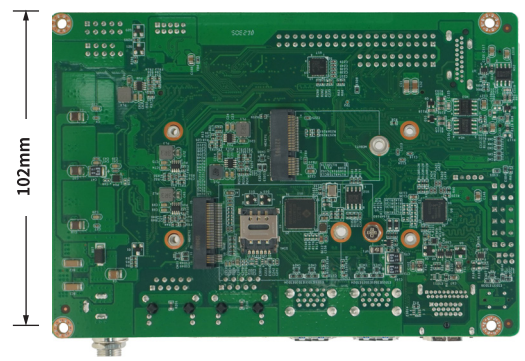


### Specifications

	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
Onboard I/O	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")



146mm



102mm

### Peripherals

13.0 mega-pixel camera module
8" LCD TFT 800 x1280 with touch
[Optional] M.2 5G Module

### 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

\*Optional M.2 5G module by region is upon request