

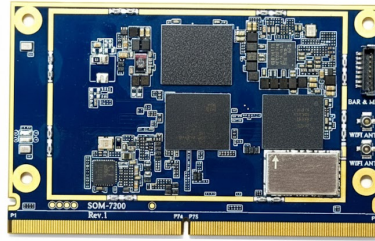
SOM Modules

VIA SOM-7200

Fanless low-power platform for Edge AI applications with MediaTek Genio 720 Octa-Core processor

Features

- Dedicated high-performance Edge AI engine delivering a massive 10 TOPS of powerful on-device processing
- Exceptional power efficiency
- Advanced 4K multimedia and dual full HD display support
- Broad OS support for development (Android, Yocto Linux and Debian)
- Platform scalability & rich I/O connectivity



Specifications

Model Name	SOM-7200
Processor	MediaTek Genio 720 Octa-Core Processor <ul style="list-style-type: none">- Two Cortex-A78 @ 2.6GHz- Six Cortex-A55 @ 2.0GHz
System Memory	8GB/16GB LPDDR5X SDRAM (1 x LPDDR5X)
Storage	128GB UFS Flash Memory
Graphics	ARM Mali-G57 MC2 High Performance GPU Graphics engine supporting OpenGL® ES 1.1/2.0/3.2, OpenCL ES 2.2, Vulkan 1.0/1.1 hardware acceleration Supports H.265 and H.264 video decoding up to 4K@60fps and video encoding up to 4K@30fps
AI Processor	MediaTek NPU 850 (supports up to 10 TOPS)
Ethernet	Integrated single-port Gigabit Ethernet Transceiver
PMIC/Audio Codec	MediaTek MT6365
Display	1 set of MIPI DSI 4D1C (MIPI C/D PHY) <ul style="list-style-type: none">- C-PHY: 2.0Gbps- D-PHY: 2.5Gbps 1 set of 4-Lane eDP 1.4b-TX supporting 5.4Gbps per lane
Supported I/O through Golden Finger	1 MIPI DSI 1 eDP 1 MIPI CSI 1 SDIO 2 SPI 2 I2S 6 I2C 4 UART 2 USB 3.2 3 USB 2.0 1 PCIe (1-Lane) 1 Gigabit Ethernet 1 Watchdog Management 1 GPIO 1 PWR with GND
Onboard I/O	1 Audio connector for Headphone out, Line out and MIC-in 2 Digital MICs 1 4-Lane MIPI CSI-2 connector
Operating System	Android 15, Yocto 5.0, Debian 12
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (relative humidity; non-condensing)
Form Factor	SMARC 2.2 82mm x 50mm (3.22" x 2")
Compliance	CE, FCC, TELEC, UKCA

Specifications

Model Name	SOMDB8 Carrier Board
HDMI	Single Chip 4-Lane DisplayPort 1.4 to HDMI 2.1 Converter with Embedded MCU
Ethernet	GbE USB 3.0 Ethernet Network Interface Controller
Audio Amplifier	3W Audio Power Amplifier with Shutdown Mode
USB	USB 3.1 Gen1 Hub Controller
High-Speed Signal Switches	8-to-4 differential channel multiplexer/demultiplexer switch 2:1 MIPI 4-Lane data switch
Power Delivery	USB Type C and USB PD Controller
Power Management IC	MediaTek MT6375
MCU	Mixed-signal microcontrollers with CAN-FD interface
Onboard I/O	1 MXM 314-pin connector 1 MIPI DSI connector 1 LVDS single-channel connector (shared with MIPI DSI) 1 HDMI connector 1 4-Lane MIPI CSI-2 connector 1 SIM connector 1 M.2 3052 B-Key Slot (supports USB 3.2/SIM for a LTE/5G module) 1 M.2 2230 E-Key Slot (supports PCIe x 1 for a Wi-Fi module) 1 M.2 2242 M-Key Slot (supports PCIe x 1 for a SSD module) 1 Battery charge connector 1 Audio connector (supports headphone-out, line-out and MIC-in) 1 ADC/GPIO pin header for multiplexed Analog inputs/GPIOs (supported by MCU) 1 RTC battery connector 2 4-wire UART connectors (TX/RX/CTS/RTS) 1 WDT select pin header 1 Console connector 1 DC-in select pin header 1 12V DC-in power connector
Front I/O	1 Volume+ button 1 Volume- button 1 MicroSD card slot
Back I/O	1 USB 3.2 and PD Type C port 1 USB 3.2 Type A port 2 USB 2.0 Type A ports 1 Micro USB 2.0 port (for image download) 2 GLAN ports 1 9-pin D-sub connector (supports CAN-FD) 1 3.5mm Audio jack (supports Headphone-out and MIC-in) 1 4-way spring clip socket (supports speaker-out) 1 Reset button 1 Power button with LED
Power Supply	12V DC-in or USB 5VDC
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (relative humidity ; non-condensing)
Form Factor	151mm x 134mm (5.94" x 5.28")