SOMDEVICES
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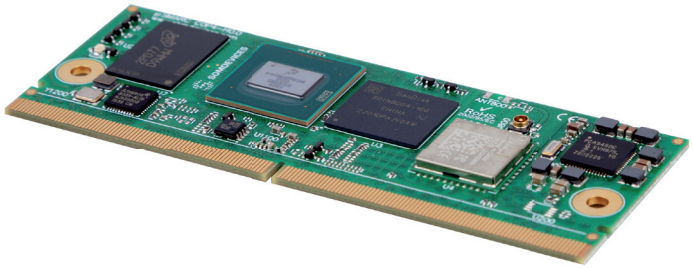
SOMDEVICES µSMARC iMX8M PLUS



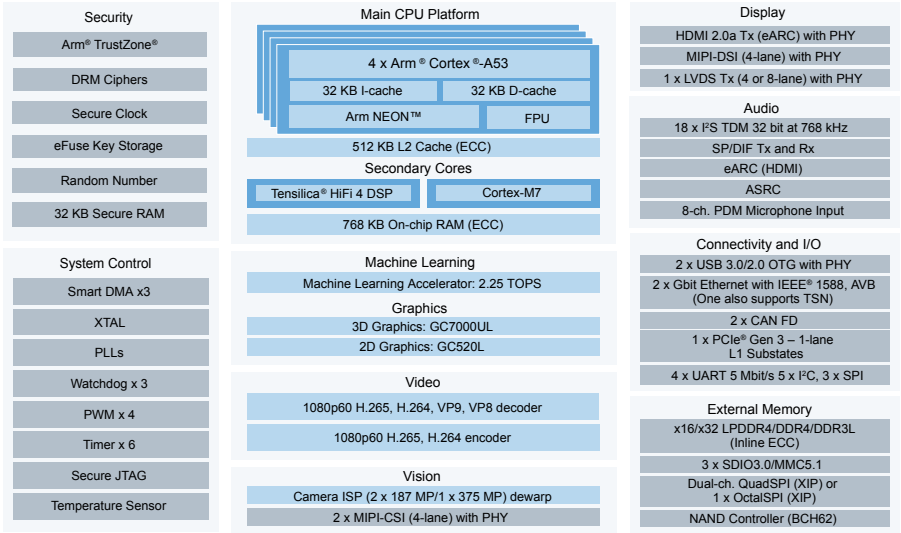
SOMDEVICES µSMARC i.MX8M Plus product is based on i.MX8M Plus NXP processor family (Quad core ARM Cortex-A53 and ARM Cortex-M7) and equipped with WiFi/BT, 2x Gigabit ethernet, 2D/3D Graphics, Full HD @ 60fps multimedia and **Artificial Intelligence (AI) machine learning neural processing unit (NPU)**.

i.MX8M Plus provides the first entry point to process AI algorithms and machine learning on embedded edge-computing, dual vision, cost-effective integration and affordable performance for smart, connected, power-efficient devices requiring graphics, video encoding/decoding, voice control, intelligent sensing and general-purpose processing.

SOMDEVICES presents µSMARC, a NEW smaller mechanical concept form factor beyond SMARC module standard but 100% compatible up to SMARC 2.1.

Benefits

- Artificial intelligence (AI) machine learning and vision
- Powerful multimedia
- Video encoding / decoding
- Fast time to market
- Industrial grade
- Customizable
- Long term support
- Warranty
- Full open source ecosystem



Specifications

Processor	Up to 4x ARM Cortex-A53 1.6 GHz up to 1.8 GHz 1x Cortex-M7 up to 800MHz
Memory	RAM: From 512MB up to 8GB LPDDR4 FLASH: From 4GB up to 128GB eMMC
PMIC	NXP PCA9450
Video	Up to 2x LVDS or MIPI-DSI (4 lanes) **1x HDMI 2.0a (up to 4k@30fps)** Video decode 1080p60 (h.265, VP9, h.264, VP8) Video encode 1080p60 (h.264, h.265)
2D/3D	GC7000UL 3D GPU OpenVG 1.1, Open GL ES3.1, Vulkan, and Open CL 1.2 FP GC520L 2D GPU
Machine learning	**Neutral Processing Unit (NPU) 2.3 TOPS**
	1x MIPI CSI2 (4 lanes) 1x MIPI CSI2 (2 lanes)
Peripherals	1x 10/100/1000 Mbps Ethernet (TSN) 1x 10/100/1000 Mbps Ethernet 2x CAN 1x I2S 3x I2C 1x SPI 1x QSPI 3x UART (2x flow-control 4-wire, 2x 2-wire) 13x GPIOs 1x SDIO 1x USB 3.0 OTG 1x USB 3.0 HOST Up to 3x PWM 1x PCIe (1 lane)
Wireless	Wifi: WiFi 802.11 a/b/g/n/ac Bluetooth: 5.1
Mechanical	New µSMARC form factor 82x30 mm
Mounting	MXM 3.0 314 pin SMARC connector
Temperature	-40ºC to 85ºC
Humidity	93% relative Humidity at 40ºC, non-condensing (IEC 60068-2-78)
Support	Linux (Yocto, Ubuntu or Debian)

Ordering information

C0P4-V10	SOMDEVICES µSMARC iMX8M PLUS FULL (Quad 1600MHz/2048MB LPDDR4/16GB eMMC/WiFi/BT/2x ETH)
C0P4-V11	SOMDEVICES µSMARC iMX8M PLUS NO WIFI (Quad 1600MHz/2048MB LPDDR4/16GB eMMC/2x ETH)
C0P4-V1?	SOMDEVICES µSMARC iMX8M PLUS custom (Contact sales to assemble custom made products such as better project adjustment or large volumes. We are manufacturers.)

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