



Features

- NXP i.MX 8M Plus Quad-core Cortex-A53 1.6GHz processor
- Up to 2.3 TOPS NPU
- 3GB LPDDR4, 16GB eMMC on board
- Extensive peripheral I/O support
- Validated with Yocto 4.0 and Android 11
- Long-term availability with NXP solution
- Compliant with SMARC™ 2.1
- Ruggedized and fanless design
- Wide-range operating temperature (-40°C ~ 85°C)

Specifications

CPU	NXP i.MX 8M Plus Quad-core Cortex-A53 processor
PCH	N/A
Memory	System memory: 3GB LPDDR4 on board (option: 4/8GB) Data memory: 16GB eMMC on board (up to 256GB)
BIOS	N/A
Watchdog Timer	N/A
H/W Monitor	N/A
Storage Device Interface	3x High-speed SDIO (eMMC/SD)
Expansion Slots	SMARC connector to carrier board
Graphics Controller	OpenGL ES 1.1/2.0/3.0/3.1, OpenCL 3.0, OpenVG 1.1, OpenGL 4.0, EGL 1.5, Vulkan 1.1
Video Output	1x MIPI-DSI 4-lane up to 1920 x 1080 at 60 Hz 1x 2-ch LVDS 4-lane (1-ch LVDS mux with MIPI-DSI) 1x HDMI
Ethernet	2x GbE with YT8531H LAN PHY on board
I/O Chipset	N/A
Serial Port	4x UART, 2x SPI
USB 2.0	N/A
USB 3.X	2x USB 3.0 with OTG interface
Serial ATA	N/A
Audio	2x I²S
TPM	N/A
Others	NPU: up to 2.3 TOPS 12x GPIO, 4x I²C, 2x CAN FD, 1x PCIe interface Image capture: 1x MIPI CSI-2 4-lane, 1x MIPI CSI-2 2-lane Video codec: 1080p/60fps decode & encode (AVC/H.264, HEVC/H.265, VP8, VP9)
Dimensions (L X W)	82mm x 50mm (3.2" x 2")

Power Consumption	N/A
Operating Temperature	-40°C ~ +85°C (-40°F ~ +185°F)
Storage Temperature	N/A
Relative Humidity	0% ~ 90% RH @60°C (non-condensing)

Ordering Information

RM-N8MP	NXP i.MX 8M Plus Quad-core Cortex-A53 1.8GHz processor, 3GB LPDDR4, 16GB eMMC
---------	---

Dimensions and Drawing

