

Huameishi Technology

RM-N8MP Computer on Module Low Power Cortex-A53 i.MX 8M Plus 1.8 GHz Processor

RM-N8MP Series SMARC 2.0 CPU Module

Wide temperature SMARC 2.0 with NXP ARM@Cortex-A53 i.MX 8M Plus 1.8 GHz Processor

Features

- SMARC Small Form Factor (82mm x 50mm) SoM
- CPU: i.MX8M Plus Quad core 1.8MHz
- Video: video decode/encode up to 1080p/60fps.
- 2D+3D GPU: GC7000UL with OpenGL ES 1.1, 2.0, 3.0, OpenCL 1.2 and Vulkan support
- Low power, no heat sink required



Specification

Form Factor	SMARC™ V2.0
CPU	NXP i.MX8M Plus Quad Cortex-A53, 1.8GHz, NPU up to 2.3 TOPS
System Memory	2GB LPDDR4 on board (optional 3 or 4GB available) 8GB eMMC on board (optional up to 64GB available)
Display	HDMI, LVDS 2-ch and MIPI-DSI 4-lane up to 1920 x 1080 at 60 Hz
Video Decode	Up to 1080p/60fps video decode, AVC/H.264, HEVC/H.265, VP8, VP9
Video Encode	Up to 1080p/60fps video encode, AVC/H.264, HEVC/H.265
LAN	2x GbE LAN
USB	2x USB 3.0
Image Capture Interface	2x MIPI-CSI2 4-lane each
Serial	4x UART, 2x SPI
Media Interface	1x High-speed SDIO
PCI-E	1x PCI-E interface
SATA	N/A
GPIO	12x GPIO
I²C	4x I²C
CAN Bus	N/A (Refer to carrier board solution)
Dimensions	82mm x 50mm
Environment	Humidity: 0 % to 90 % RH at 60° C (non-condensing) Shock: Non-Operating: 1G, 15 mins (x-, y-, z-axis) Vibration: Non-operating: 3 Hz to 500 Hz, 15 mins
Operating Temperature	0°C to +65°C (Consumer grade, no heat-sink required) -40°C to +85°C (Industrial grade, with heat-sink)
Software Support	Yocto 3.0 (Kernel 5.4.70)/ Android 11
Certification	CE/ FCC Class A

Ordering Information

RM-N8MP-Q308	Comercial Grade SMARC 2.0 CPU module, Cortex™-A53 i.MX 8MPlus Quad 1.8GHz, 3GB LPDDR4, 8GB MLC eMMC
RM-N8MP-Q308I	Industrial Grade SMARC 2.0 CPU module, Cortex™-A53 i.MX 8MPlus Quad 1.8GHz, 3GB LPDDR4, 8GB MLC eMMC
HX100 Carrier Board (For evaluation)	SMARC 2.0 carrier board, Dual LVDS, HDMI, 2x CSI, DSI, RS-232/422/285, USB3.0, M.2 Key-E(2230), Mini PCI-E w/ SIM socket, USB OTG, Audio/Speaker out/HP&MIC, MicroSD and 12~24VDC