Huameishi Technology

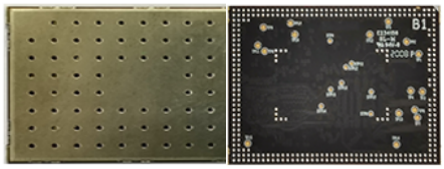
H8MP500 SMARC 2.0

ARM® iMX8M Plus

H8MP500 Series

High performance low power SOM with NXP i.MX 8M Plus Quad Cortex™-A53 1.6 GHz, Cortex™-M4, and machine learning accelerator up to 2.3 TOPS.

Features



- NXP Cortex™-A53, i.MX 8M Plus Quad 1.6 GHz processor
- up to 4GB DDR4, up to 64GB eMMC
- Machine learning accelerator for AI applications
- Using 14nm FinFET process technology for low power consumption
- Rich peripheral I/O support
- Long life time supply with NxP solution
- Simple product design using SOM and carrier board development kit

Specifications

Form Factor	SOM
Processor	NXP i.MX 8M Plus Quad Cortex™-A53 1.6GHz, Cortex™-M4, and Machine learning accelerator up to 2.3 TOPS.
Video Codec	1080P encode (H.264, H.265) 1080P decode (H.264, H.265)
Graphic	Open VG 1.1, Open GL ES 3.1, Vulkan, Open CL 1.2 FP
System Memory	3GB LPDDR4 (optional 1GB, 2GB or 4GB)
Flash Memory	16GB eMMC (optional up to 64 GB)
Display	1x MIPI DSI 4-lanes 1x LVDS 2-ch 1x HDMI 2.0
Camera	2x MIPI-CSI 4 lanes
Audio Interface	2x SAI
LAN	2x GbE GMAC
USB	2x USB3.0
Serial	4x UART, 1x CSPI, 1x QSPI Interface
Media Interface	2x SDIO
PCI-E	1x PCIe Gen2
GPIO	Most unused function can be used as GPIO
I²C	3x I²C
CAN Bus	2x CAN bus
Dimensions	36mm x 49mm x 3mm
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	Consumer Grade: 0°C ~ 60°C Industrial Grade: -40°C ~ 85°C (with heat sink)
Software Support	Yocto 3.0 Android 11
Certification	N/A

Ordering Information

H8MP500-316	Consumer grade, MX8M Plus Quad core A53, 1.8GHz, 3GB LPDDR4, 16GB eMMC
H8MP500-316I	Industrial grade, MX8M Plus Quad core A53, 1.8GHz, 3GB LPDDR4, 16GB eMMC
HX100 Carrier Board (For evaluation)	3.5” SMARC 2.0 carrier board, Dual LVDS, HDMI, 2x CSI, DSI, RS-234/422/285, USB3.0, M.2 Key-E(2230), Mini PCI-E w/ SIM socket, USB OTG, Audio/Speaker out/HP&MIC, MicroSD and 12~24VDC
H8MP500 SMARC	Putting H8MP500 module on SMARC 2.0 interface board using HX100 carrier board for evaluation/development