

Huameishi Technology

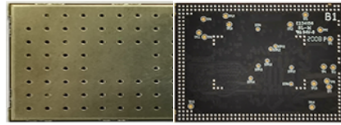
H8MM200 Series SOM Module

H8MM200 Series

High Performance Low Power SOM with NXP ARM® MX8M Mini/ Nano, Cortex-A53 Dual/Quad core up to 1.5GHz Processor

Features

- NXP MX8M Mini Cortex™-A53/Cortex™-M4, Dual/Quad up to 1.8GHz processor, or
- NXP MX8M Nano Cortex™-A53/Cortex™-M7, Dual/Quad up to 1.6GHz processor
- 512M/1/2/3/4GB DDR4, up to 64GB eMMC
- 4-lane MIPI CSI interface
- 4-lane MIPI DSI interface up to 1080p60 display
- Rich peripheral I/O support
- Validated w/ Yocto v2.5 and Android 10
- Long life time supply with NxP solution
- Simple product design using SOM



Specifications

Form Factor	SOM
Processor	MX8M Mini Cortex™-A53/Cortex™-M4, Dual/Quad up to 1.8GHz processor, or MX8M Nano Cortex™-A53/Cortex™-M7, Dual/Quad up to 1.5GHz processor
System Memory	512MB/1GB/2GB DDR4
Flash Memory	8GB eMMC on board (optional up to 64 GB)
Display	1x MIPI-DSI 4-lane up to 1920 x 1080 at 60 Hz
Video Codec	MX8M Mini: • 1080p60 VP9 • 1080p60 HEVC/H.265 Decoder • 1080p60 AVC/H.264 Baseline, Main, High decoder MX8M Nano: • 1080p60 VP8 • 1080p60 AVC/H.264 Encoder • 1080p60 VP8 • TrustZone support
Graphic	MX8M Mini: • GCNanoUltra for 3D acceleration • Vivante GC320 for 2D acceleration MX8M Nano: • GC7000UL with OpenCL and Vulkan support • Supports OpenGL ES 1.1, 2.0, 3.0, OpenCL
Audio Interface	3x I ² S, 1x SPDIF(Multi pin with others) for MX8M Mini, 2x I ² S, 1x SPDIF(Multi pin with others) for MX8M Nano
LAN	1x GbE LAN
USB	2x USB2.0 for MX8M Mini, or 1x USB2.0 for MX8M Nano
Image Capture Interface	1x MIPI-CSI2 4-lane
Serial	4x UART, 1x QSPI, 1x SPI Interface
Media Interface	1x High-speed MMC/SDIO (MMC 8-bit, SDIO 4-bit)
PCI-E	1x PCIe(x1) Gen2
SATA	N/A
GPIO	24x GPIO
PC	4x PC
CAN Bus	N/A
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 2.5 (Kernel 4.14.62) Android 9 (Kernel 4.14.62)
Certification	CE/FCC Class B

Ordering Information

H8MM200-M216	MX8M Mini, Quad core A53, 1.8GHz, 2GB LPDDR4, 16GB MLC eMMC (heat sink may required)
H8MM200-M216I	Industrial Grade MX8M Mini, Quad core A53, 1.2GHz, 2GB LPDDR4, 16GB MLC eMMC
H8MM200-N116	MX8M Nano, Quad core A53, 1.5GHz, 1GB LPDDR4, 16GB MLC eMMC (heat sink may required)
H8MM200-N116I	Industrial Grade MX8M Nano, Quad core A53, 1.2GHz, 1GB LPDDR4, 16GB MLC 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
H8MM200 SMARC	Putting H8MM200 module on SMARC 2.0 interface board using HX100 carrier board for evaluation/development