

# i.MX8M SOM

Up to 4 x Arm Cortex-A53 cores, 1 x Cortex-M4

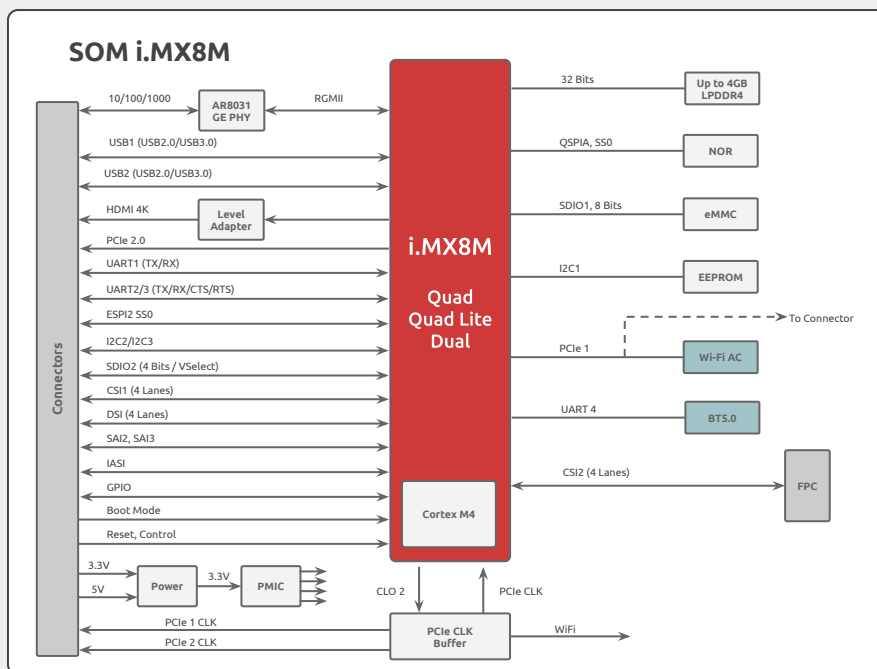
# NXP i.MX 8M Processor System on Module



- Dual to Quad core ArmV8 64-bit processors up to 1.5GHz
- Onboard Dual Band WiFi 802.11 a/b/g/n/ac with programmable 2.4Ghz SDR
- Multimedia powerhouse with 4K and dual display support with high-speed USB 3.0 and PCIe interfaces, 1080p60 video decode/encode



		i.MX8M Dual	i.MX8M Quad
CPU Details	CPU Name	NXP i.MX8M Dual	NXP i.MX8M Quad
	CPU Type	2 x Cortex A53 1 x Cortex M4	4 x Cortex A53 1 x Cortex M4
	CPU Speed	1.5GHz Commercial 1.3GHz Industrial	1.5GHz Commercial 1.3GHz Industrial
	Floating Point	VFPv4	VFPv4
	SIMD	NEON	NEON
RAM	Memory & Storage	1GB LPDDR4	3GB LPDDR4
	Internal Storage	8GB eMMC	8GB eMMC
	External Storage Support	NOR-Flash SD PCIe-SSD	NOR-Flash SD PCIe-SSD
Networking	Ethernet	10/100/1000 Mbps	10/100/1000 Mbps
	Wireless	802.11 ac/a/b/g/n + BT 5.0	802.11 ac/a/b/g/n + BT 5.0
Multimedia	GPU	Vivante GC7000 Lite	Vivante GC7000 Lite
	3D GPU Support	OpenGL ES 1.1/2.0/3.0/3.1 OpenCL 1.2 & Vulkan	OpenGL ES 1.1/2.0/3.0/3.1 OpenCL 1.2 & Vulkan
	Video Decoder	4Kp60	4Kp60
	Display Interfaces	HDMI 2.0, MIPI-DSI	HDMI 2.0, MIPI-DSI
	Camera Interface	2 x MIPI-CSI2 (4 Lane each)	2 x MIPI-CSI2 (4 Lane each)
	S/PDIF Input / Output	1	1
Connectivity	Digital Audio Serial Interface	20 channels, 32bits @384khz, DSD512, HDMI ARC	20 channels, 32bits @384khz, DSD512, HDMI ARC
	USB 3.0	2	2
	PCIe	2 (Gen 2.0)	2 (Gen 2.0)
	I2C	2	2
	SPI	1	1
	UART	2 (RTS/CTS/RX/TX) +1 (TX/RX)	2 (RTS/CTS/RX/TX) +1 (TX/RX)
	GPIO	75	75
	PWM	4	4
	SD/MMC	2	2
JTAG	Test point header	Test point header	
OS Support	Embedded Linux	Linux	Linux
Physical	Size	47 x 30 mm	47 x 30 mm
Power	Main Voltage	5V	5V
	I/O Voltage	3.3V	3.3V
Environment	Temperature	Commercial: 0°C to 70°C Industrial: -40°C to 85°C	Commercial: 0°C to 70°C Industrial: -40°C to 85°C
	Humidity	Humidity (non-condensing): 10% – 90%	Humidity (non-condensing): 10% – 90%



## Ordering Information

### Available on Shop

SKU	Description
<a href="#">SRMX8DUW00D01GE008V20C0</a>	SOM i.MX8M Dual   No WiFi/BT   1GB RAM 8GB eMMC   Com.Temp   R2.0   Unfused
<a href="#">SRMX8DUWB1D01GE008V20C0</a>	SOM i.MX8M Dual   Inc. WiFi/BT   1GB RAM   8GB eMMC   Com.Temp   R2.0   Unfused
<a href="#">SRMX8ODW00D03GE008V20C0</a>	SOM i.MX8M Quad   No WiFi/BT   3GB RAM   8GB eMMC   Com.Temp   R2.0   Unfused
<a href="#">SRMX8ODWB1D03GE008V20C0</a>	SOM i.MX8M Quad   Inc. WiFi/BT   3GB RAM   8GB eMMC   Com.Temp   R2.0   Unfused

- To choose your ideal configuration see our [Product Configurator Tool](#)

### Accessories:

SKU	Description
<a href="#">HS00016K</a>	i.MX8M Heatsink

### Kits

SKU	Description
<a href="#">SRMX8DUW00D01GE008U02CH</a>	SOM i.MX8M Dual   HummingBoard Pulse   No WiFi/BT   1GB RAM 8GB eMMC   Com.Temp   R02   Inc. Heatsink
<a href="#">SRMX8DUWB1D01GE008U02CH</a>	SOM i.MX8M Dual   HummingBoard Pulse   Inc. WiFi/BT   1GB RAM   8GB eMMC   Com.Temp   R02   Inc. Heatsink
<a href="#">SRMX8ODW00D03GE008U02CH</a>	SOM i.MX8M Quad   HummingBoard Pulse   No WiFi/BT   3GB RAM   8GB eMMC   Com.Temp   R02   Inc. Heatsink
<a href="#">SRMX8ODWB1D03GE008U02CH</a>	SOM i.MX8M Quad   HummingBoard Pulse   Inc. WiFi/BT   3GB RAM   8GB eMMC   Com.Temp   R02   Inc. Heatsink
<a href="#">SRMX8ODW00D03GE008X00CE</a>	SOM i.MX8M Quad   CuBox Pulse   No WiFi/BT   3GB RAM   8GB eMMC   Com.Temp   R00   Inc. Enclosure

For more information about the i.MX8M SOM Software/Hardware visit our:

Developer Center