P05D00129-01

NXP i.MX8M Plus

Front View



Features

- Quad Arm Cortex-A53 + Cortex-M7 for high-performance computing and real-time control
- Integrated NPU up to 2.3 TOPS for edge AI and machine vision applications
- Designed for AIoT, smart HMI and industrial automation

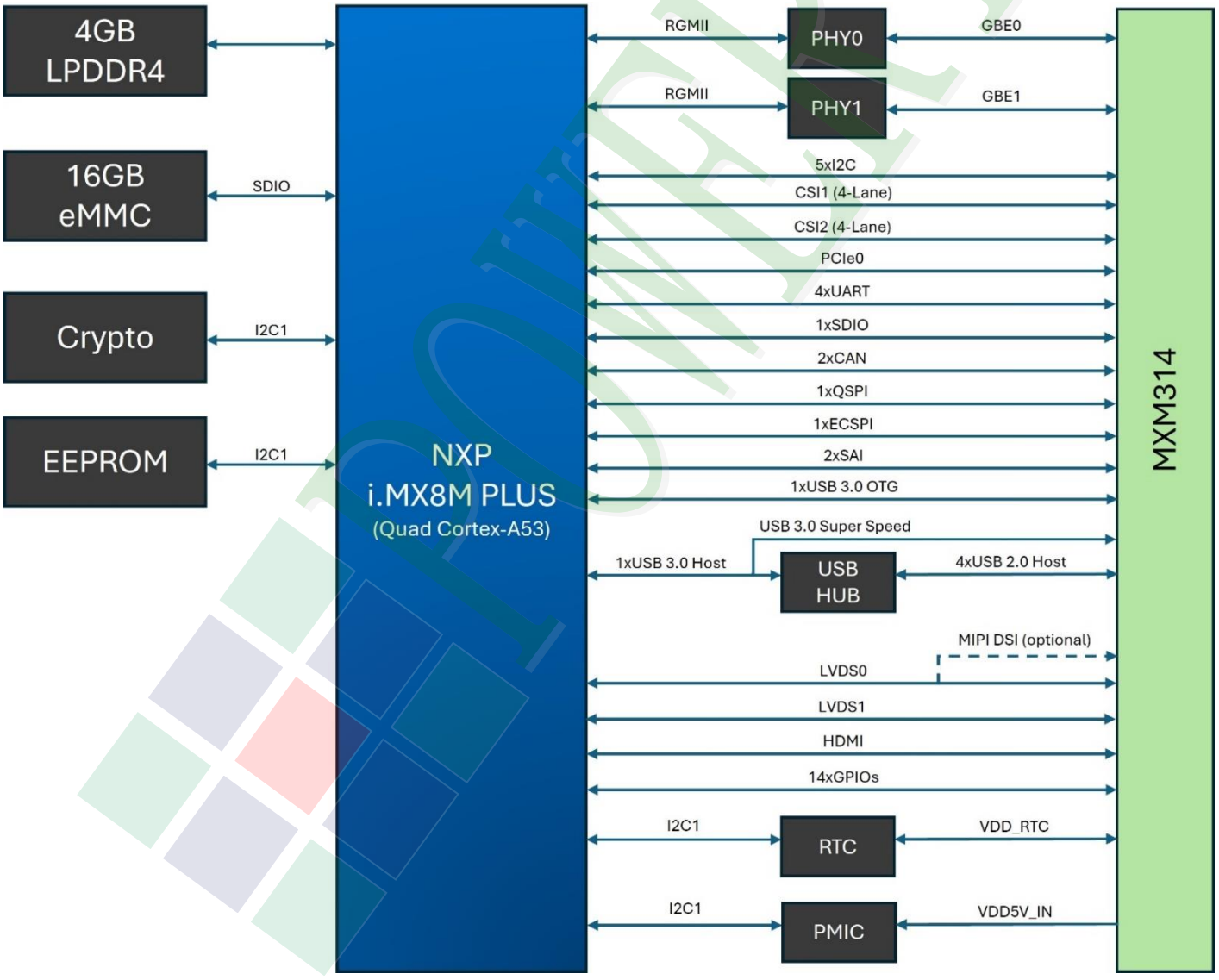
Specifications

Hardware		
CPU	i.MX8M Plus	Quad Core,1.8GHz ARM Cortex-A53 & ARM Cortex-M7
GPU	2D Graphics	Vivante GC520L
	3D Graphics	Vivante GC7000UL
NPU	Integrated into SoC	Accelerator with processing performance up to 2.3 TOPS
Memory	Onboard RAM	4GB LPDDR4 SDRAM
	Storage	16GB eMMC Flash (Default Boot Device) 8K Bit EEPROM
I/O	Display	1 × MIPI DSI (optional) 2 × Single LVDS channels 1 × HDMI 2.1
	Camera	2 × MIPI-CSI (4-lane)
	Audio	2 × SAI
	USB	1 × USB 3.0 OTG 1 × USB 3.0 Host (Super Speed) 4 × USB 2.0 Host (via USB HUB)
	Ethernet	2 × 10/100/1000 Mbps
	PCIe	1 × PCIe 3.0 x1
	SDIO	1 × SDIO
	Serial Port	4 × UART (UART2 for debug)
	CAN Bus	2 × CAN
	Low-speed Bus	5 × I^2C 1 × ECSPI 1 × QSPI
	GPIO	14 × GPIOs

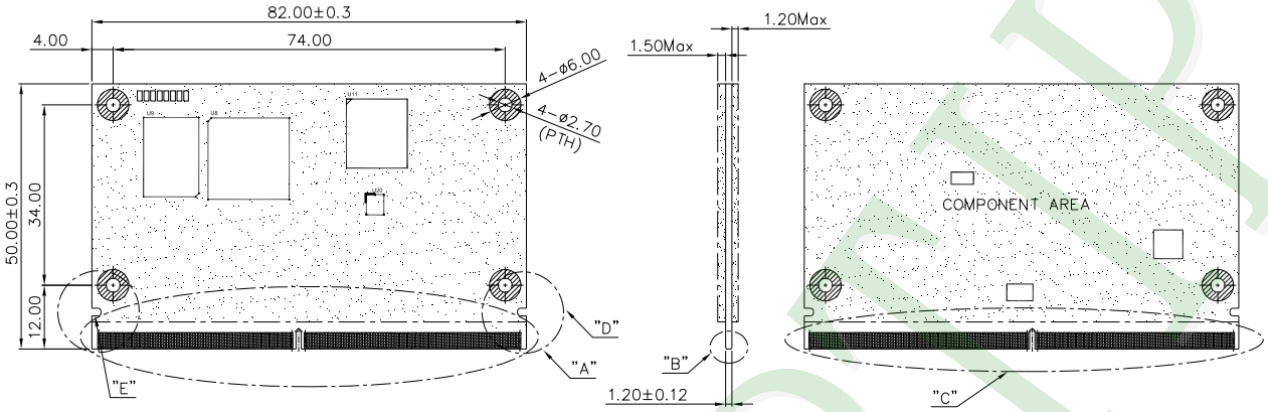
Hardware		
Environment	Operating Temp.	0 ~ 70 °C
	Storage Temp.	-30 ~ 85 °C
Mechanical	Form Factor	SMARC 2.2 Module [82 × 50 mm]

Software		
OS	Default	Yocto 5.X
	Optional	Android

Block Diagram



Dimensions



POWERTIP