i.Core MX8M Plus – Fast Ethernet

The new i.Core MX8M Plus Fast Ethernet is **based on i.MX 8M Plus** processor equipped with the **quad-core Arm® Cortex®-A53 plus Cortex-M7**. The i.MX 8MP series features offer powerful video processing with an **H.265 video encoder** for efficient compression in live video streaming applications. It runs at **up to 1.8 GHz** with integrated neural processing unit **(NPU)**. As the first i.MX processor with **a machine learning accelerator**, it provides high performance for ML inference at the edge.

HIGHLIGHTS

- Standard Edimm 2.0
- Powerful quad Arm Cortex-A53 processor with a Neural Processing Unit (NPU)
- Suitable for high performance HMI, video and networking applications

APPLICATIONS

Artificial Intelligence · Industrial · Digital Signage Infotainment · Transportation · Automotive · Avionics · Surveillance · Robotics · Biomedical/ Medical devices · Gaming · Home Automation

FEATURES

CPU	NXP® i.MX8M Plus
CORES	Quad Arm Cortex-A53 @ up to 1.8GHz processor with a (NPU) up to 2.3 TOPS and Cortex-M7 CPU @ 800 MHz.
MEMORY	Up to 4GB LPDDR4
GRAPHICS	GC7000UL (2 shaders), OpenGL ES 2.0/3.0/3.1, Vulkan, OpenCL 1.2; GC520 (2D)
VIDEO INTERFACES	• LVDS 18/24bit up to Full HD • HDMI up to Full HD
VIDEO PROCESSING	• 1080p60 HEVC (h.265, VP9, VP8) dec • 1080p60 HEVC (h.265) enc
AUDIO	• I²S interface
NETWORKING	LAN 10/100 Ethernet interfaces
PCIE	1 x PCIe 3.0
USB	• USB OTG 3.0 • USB HOST 3.0
MASS STORAGE	Starting from 4GB eMMC drive soldered on-board
PERIPHERAL INTERFACES	UART, I²C, SPI, JTAG, CAN,SDIO, GPIOs
POWER SUPPLY	+5V DC
OPERATING SYSTEM	• Linux • Yocto • Android
OPERATING TEMPERATURE*	Industrial qualified
DIMENSIONS	32.1 x 67,6 mm

* Valid for all components except CPU. Customer shall consider junction temperature for CPU. Temperature will widely depend on application. Specific cooling solutions could be necessary for the final system.

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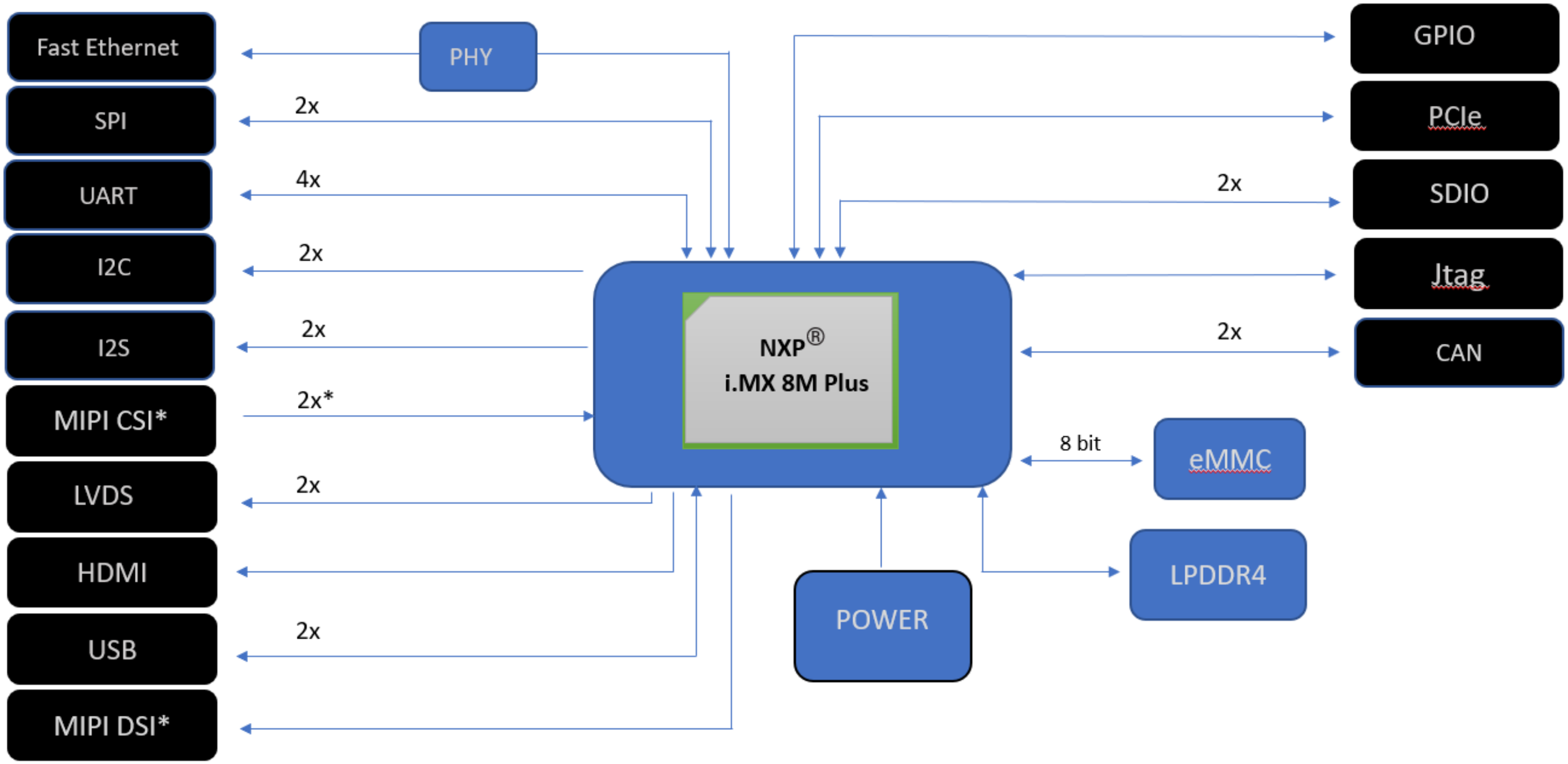
BLOCK DIAGRAM



* The MIPI CSI2 have signals shared with DSI, please see the related chapters on HW Manual for details

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