

i.Core STM32MP2 is based on the Next-gen STM32 MPUs by ST® Microprocessors, with industrial-grade 64-bit MPU for secure Industry 4.0 and advanced edge computing applications that require high-end multimedia capabilities. This new SOM includes single or dual Arm® Cortex®-A35 up to 1.5 GHz and Arm® Cortex® -M33 at 400 MHz, NPU at 1.35 TOPS and 3D GPU for advanced HMI applications. Robustness, extended connectivity, high-end graphics and strong security.



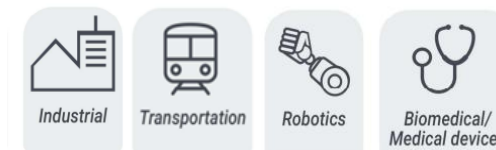
FEATURES

	CPU	ST® STM32MP25x
	CORES	Single or dual core Arm Cortex-A35 @1.5 GHz and Arm Cortex-M33@400MHz
	MEMORY	Up to 4GB LPDDR4 @2400MTs
	AI & GRAPHICS	<ul style="list-style-type: none"> 1.35 TOPS NPU 3D GPU: VeriSilicon® - Up to 900 MHz OpenGL® ES 3.2.8 - Vulkan 1.2 OpenCL™ 3.0, OpenVX™ 1.3 Up to 150 Mtriangle/s, 900 Mpixel/s
	VIDEO INTERFACES	<ul style="list-style-type: none"> MIPI® DSI 4 data lanes up to 2.5 Gbit/s each Dual channel LVDS up to 1.1 Gbit/s per lane Up to QXGA (2048x1536) @60 fps with dual link MIPI-CSI
	VIDEO PROCESSING	<ul style="list-style-type: none"> 1080p60 HEVC (h.264, VP8) dec 1080p60 HEVC (h.264, VP8) enc
	AUDIO	<ul style="list-style-type: none"> I²S interface
	NETWORKING	3x 10/100 Ethernet interfaces

HIGHLIGHTS

- Neural Processing Unit (NPU)
- 3 x Ethernet 10/100
- 1080p graphics capabilities (3D GPU, H.264 hardware video Codec)
- MIPI DSI and LVDS displays

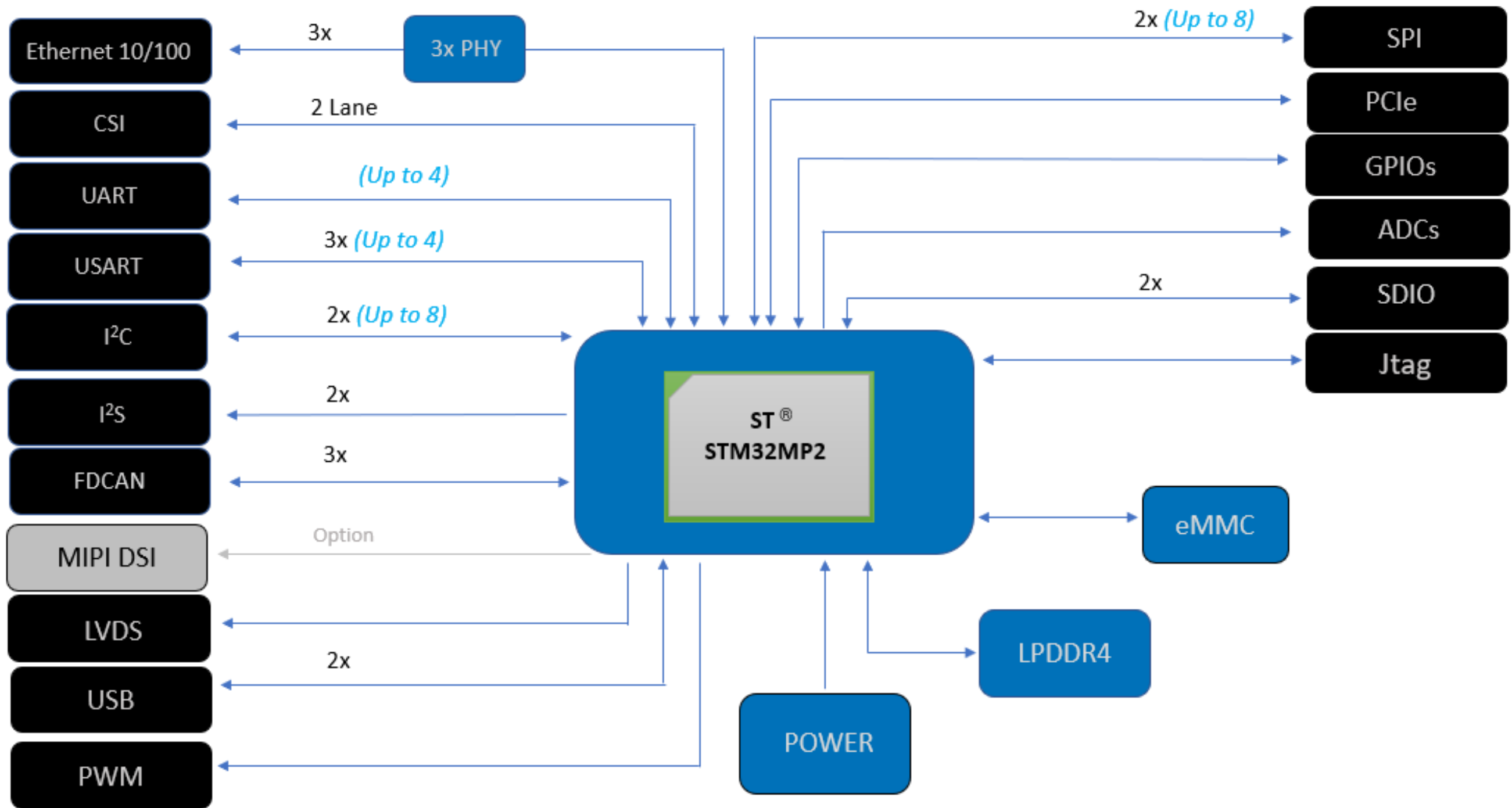
APPLICATIONS



	USB	<ul style="list-style-type: none"> 1x USB HOST 2.0 1x USB HOST/DEVICE 2.0 (USB 3.0 on PCIe)
	MASS STORAGE	Starting form 8GB eMMC drive soldered on-board
	PERIPHERAL INTERFACES	UART, I²C, SPI, CAN Bus, PWM, SDIO i/f, JTAG i/f, PCIe, GPIOs
	POWER SUPPLY	+5V DC
	OPERATING SYSTEM	<ul style="list-style-type: none"> Linux Yocto
	OPERATING TEMPERATURE*	Up to -40°/+125°
	DIMENSIONS	67,6 x 32,1 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.

BLOCK DIAGRAM



Note: Using additional peripherals (*in blue*), may cause losing the availability of other functionalities.