









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.



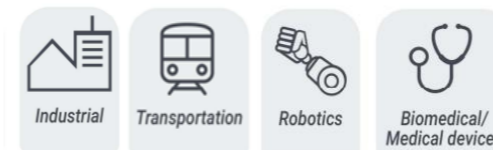
FEATURES








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|  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 |
|  GRAPHICS | <ul style="list-style-type: none"> 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 (2048 x 1536) @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

