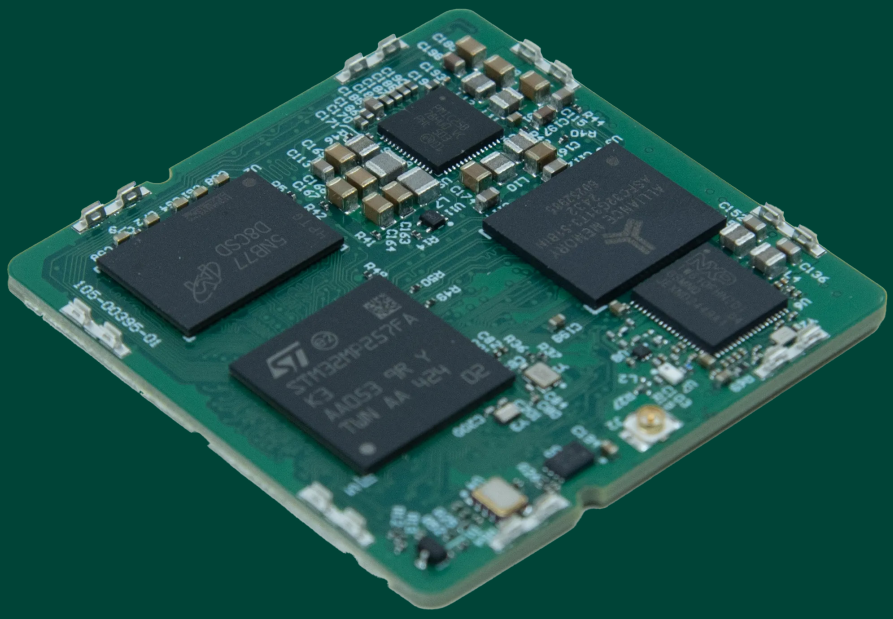


TECHNICAL SPECIFICATIONS

SOM-STM32MP2-OSM

NXP i.MX 93 applications processor with
Chip Down Wi-Fi/Bluetooth (IW612)

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SOM

OSM-STM32MP2

Category	Feature	Specifications
CPU	Name	ST Micro STM32MP25x
CPU	Primary Core	Dual Arm Cortex-A35 (1.5GHz)
CPU	Realtime Core	Arm Cortex-M33 (400MHz)
CPU	GPU	3D GPU VeriSilicon® – Up to 900 MHz
CPU	NPU	Optional NPU: VeriSilicon® – Up to 900 MHz
CPU	VPU	Hardware video encoder/decoder up to 600 MHz, H264/VP8 up to FHD (1920×1080) at 60 fps, JPEG up to 500 Mpixel/s
CPU	Processor Longevity	2035
Memory	RAM	512MByte to 4GByte LPDDR4 (32bit bus)
Memory	eMMC Flash	8GByte to 128GByte
Memory	EEPROM	256Byte
Display / Camera	MIPI-DSI	4 Lane / 2048 x 1536 at 60fps
Display / Camera	LVDS	2x 4 Lane / 2048 x 1536 at 60fps
Display / Camera	MIPI-CSI	2 Lane / 5 Mpixels at 30 fps, RGB, YUV, JPG, RawBayer with Lite-ISP, Lite-ISP, demosaicing, downscaling, cropping, 3 pixel pipelines
Display / Camera	Parallel Camera	8- to 14-bit parallel, up to 80 MHz, RGB, YUV, JPG
Audio	Output	4× SAI (stereo audio: I2S, PDM, SPDIF Tx)
Audio	Input	SPDIF Rx with 4 inputs
Networking	Ethernet	3x Gb Ethernet (RGMII interface)
Networking	Wireless	CC3351 with single u.FL antenna, Wi-Fi 6 Dual Band, Bluetooth 5.4
I/O	ADC	3 ADCs with 12-bit max. resolution (up to 5 Msps each, up to 23 channels)
I/O	CAN Bus	3 CAN FD
I/O	I2C	8
I/O	I3C	4
I/O	SPI	8
I/O	UART	9
I/O	USB	1× USB 2.0 high-speed Host 1× USB 2.0/3.0 high-speed/SuperSpeed dual role data with 480 Mbits/s and 5 Gbits/s PHY ****(5 Gbits/s PHY shared with PCI Express)
I/O	PCIe	1 × PCI Express with embedded 5 Gbits/s PHY ****(PHY shared with USB 3.0 SuperSpeed)
Operating Systems	Linux	Yocto with package manager
Operating Systems	RTOS	FreeRTOS on Realtime core
Physical / Environmental	Dimensions (W x L)	OSM-L (45mm x 45mm)
Physical / Environmental	Commercial operating temperature	0 to 70°C
Physical / Environmental	Industrial operating temperature	-40 to 85°C

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