

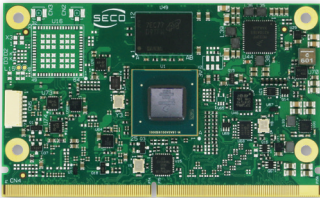


SOM-SMARC-MX8M

SMARC® Rel. 2.1.1 module with NXP i.MX 8M Applications Processors



Standard solution for next generation multimedia applications



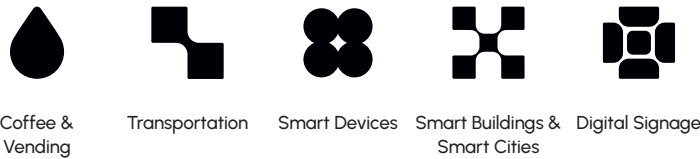
HIGHLIGHTS

CPU NXP i.MX 8M Applications Processors	CONNECTIVITY WiFi + BT LE, CSI camera, QuadSPI interface, 14 x GPIOs
GRAPHICS Integrated Graphics Processing Unit, supports 2 independent displays	MEMORY Up to 4GB soldered down LPDDR4-3200 memory, 32-bit interface

Available in Industrial Temperature Range



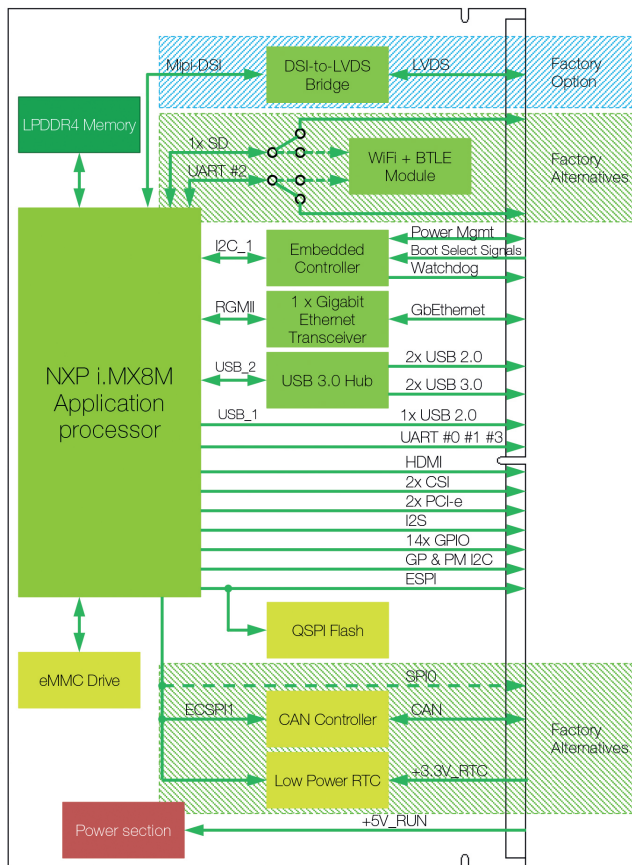
MAIN FIELDS OF APPLICATION



FEATURES

Processor	NXP i.MX 8M Family based on Arm® Cortex®-A53 cores + general purpose Cortex®-M4 processor: · i.MX 8M Quad - 4x Cortex®-A53 cores up to 1.5GHz · i.MX 8M Dual - 2x Cortex®-A53 cores up to 1.5GHz · i.MX 8M QuadLite - 4x Cortex®-A53 cores up to 1.5GHz, no VPU	Serial Ports	Up to 2x UART Tx/Rx/RTS/CTS 2x UART Tx/Rx 1x CAN Bus (TTL level)
Memory	Soldered Down LPDDR4-3200 memory, 32-bit interface, up to 4GB	Other Interfaces	1x 4-lanes + 1x 2-lanes CSI camera interfaces I2C Bus SM Bus 2x SPI interfaces QuadSPI interface 14 x GPIOs Boot select signals Power Management Signals
Graphics	Integrated Graphics Processing Unit, supports 2 independent displays Embedded VPU, supports HW decoding of HEVC (H.265), H.264, H.263, MPEG-4, MPEG-2, AVC, VC-1, RV, DivX, VP6, VP8, VP9, JPEG Supports OpenGL ES 3.1, Open CL 1.2, OpenGL 2.X, Vulkan, DirectX, Open VG 1.1	Power Supply	+5V _{DC} +3.3V _{RTC}
Video Interfaces	HDMI® 2.0a interface, supporting HDCP 2.2 and HDCP 1.4 18- / 24-bit Dual Channel LVDS interface (factory option)	Operating System	Linux Yocto Android
Video Resolution	HDMI®: Up to 4096 x 2160 @ 60 (4K) LVDS: Up to 1920 x 1080 @ 60Hz	Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Mass Storage	Optional SD 4-bit interface QSPI Flash soldered-onboard eMMC 5.0 drive soldered on-board	Dimensions	50 x 82 mm (1.97" x 3.23")
Networking	1 x Gigabit Ethernet interface Optional WiFi + BT LE module onboard	*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.	
USB	2 USB 3.0 Host ports 2 USB 2.0 Host ports 1 USB 2.0 OTG port		
PCI-e	2x PCI-e x1 ports		
Audio	I2S Audio Interface		

BLOCK DIAGRAM



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DATA ORCHESTRATION

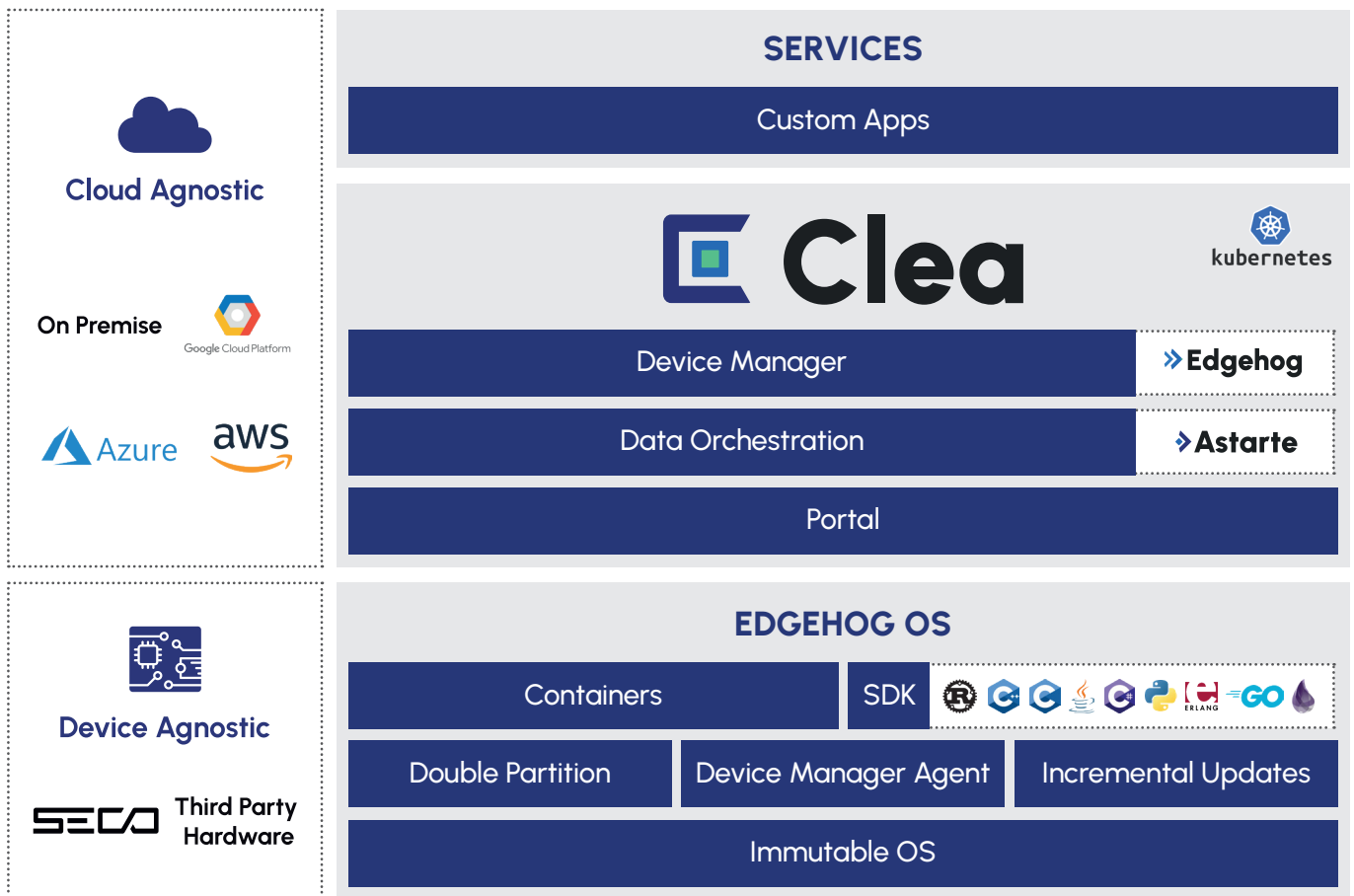
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

DEVICE MANAGER

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PORTAL

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