

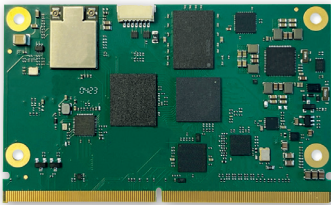


SOM-SMARC-MX93

SMARC® Rel. 2.1.1 module with NXP i.MX 9 Applications Processors



NXP i.MX 93 in SMARC® module for low power applications



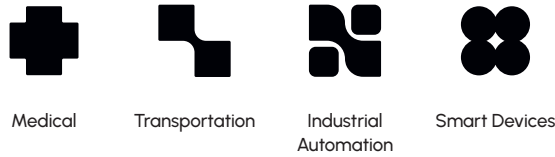
HIGHLIGHTS

CPU NXP i.MX 933/935 processor On request also available with NXP i.MX 91 with reduced functionalities	CONNECTIVITY 2x GB Ethernet, 1x USB 2.0 OTG, up to 4x USB 2.0, 2x CAN, 4 x UART, opt Wi-Fi+BT 5.0, MIPI-CSI, 1x I2S
GRAPHICS Display up to FHD	MEMORY Soldered-down LPDDR4X/LPDDR4-3200 memory, up to 2GB total, 16-bit interface

Available in Industrial Temperature Range



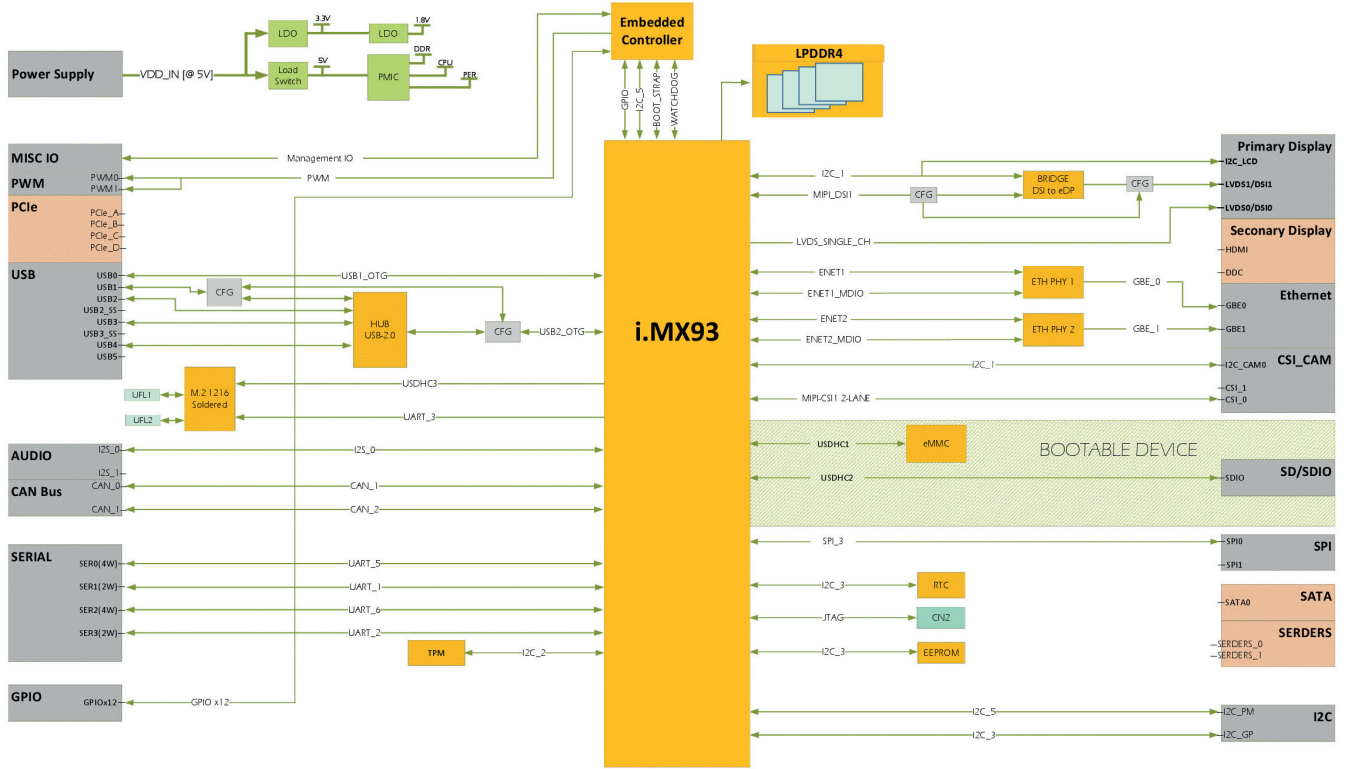
MAIN FIELDS OF APPLICATION



FEATURES

Processor 1-2x Arm® Cortex®-A55 @ 1.7 GHz Arm® Cortex-M33 @ 250Mhz Arm® Ethos™ U-65 microNPU	Embedded Controller Functionalities Power management Watchdog Boot select signals GP I/O	
Memory Soldered-down LPDDR4X/LPDDR4-3200 memory, up to 2GB total, 16-bit interface	Power Supply +5VDC ± 5% and +3.3V_RTC	
Video Interfaces LVDS Single Channel MIPI-DSI or eDP interface (factory alternatives)	Operating System Linux Yocto	
Video Resolution MIPI-DSI: up to 1080p60 LVDS: up to 720p60	Operating Temperature* 0 ÷ +60°C (Commercial Range) -40 ÷ +85°C (Industrial Range)	
Mass Storage eMMC 5.1 Drive soldered on-board, up to 64GB (boot device) SD 4-bit interface (boot device)	Dimensions 82 x 50 mm	
Networking 2x Gigabit Ethernet interfaces, opt. Wi-Fi + BT5.0	*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 1x USB 2.0 OTG port up to 4x USB 2.0 using optional internal 2.0 HUB		
Audio 1x I2S port		
Serial Ports 2x UART (4-wires) 2x UART (2-wires)		
CAN Bus 2x CAN interfaces		
Other Interfaces 12 x GPIOs 1x MIPI-CSI 2 Lanes Camera interface 1x General Purpose I2C Bus 2 x PWM ports		
Security TPM		

BLOCK DIAGRAM



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DATA ORCHESTRATION

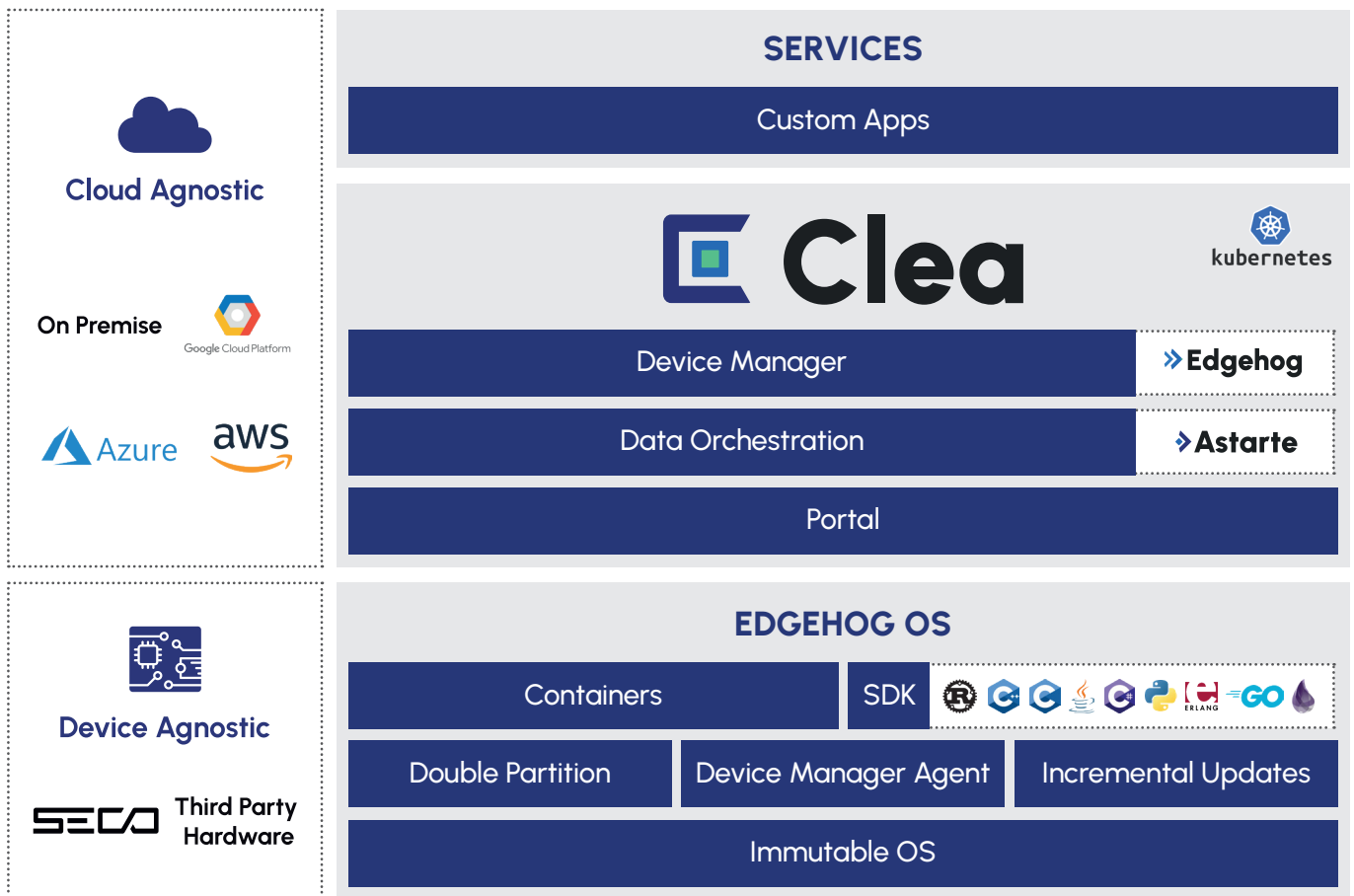
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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