

iG-G61M®

i.MX 95 Size-L OSM System on Module

The i.MX 95 SoC-based Size-L System on Module (SoM) is designed in compliance with the Open Standard Module™ (OSM) Specification v1.2, offering a compact, scalable, and high-performance computing platform for next-generation embedded applications. Powered by NXP's i.MX 95 applications processor, it features six Arm® Cortex®-A55 cores operating at up to 2.0 GHz, one Cortex®-M33 core at 333 MHz, and one Cortex®-M7 core at 800 MHz to support application processing and real-time control tasks. The module integrates 8GB LPDDR5

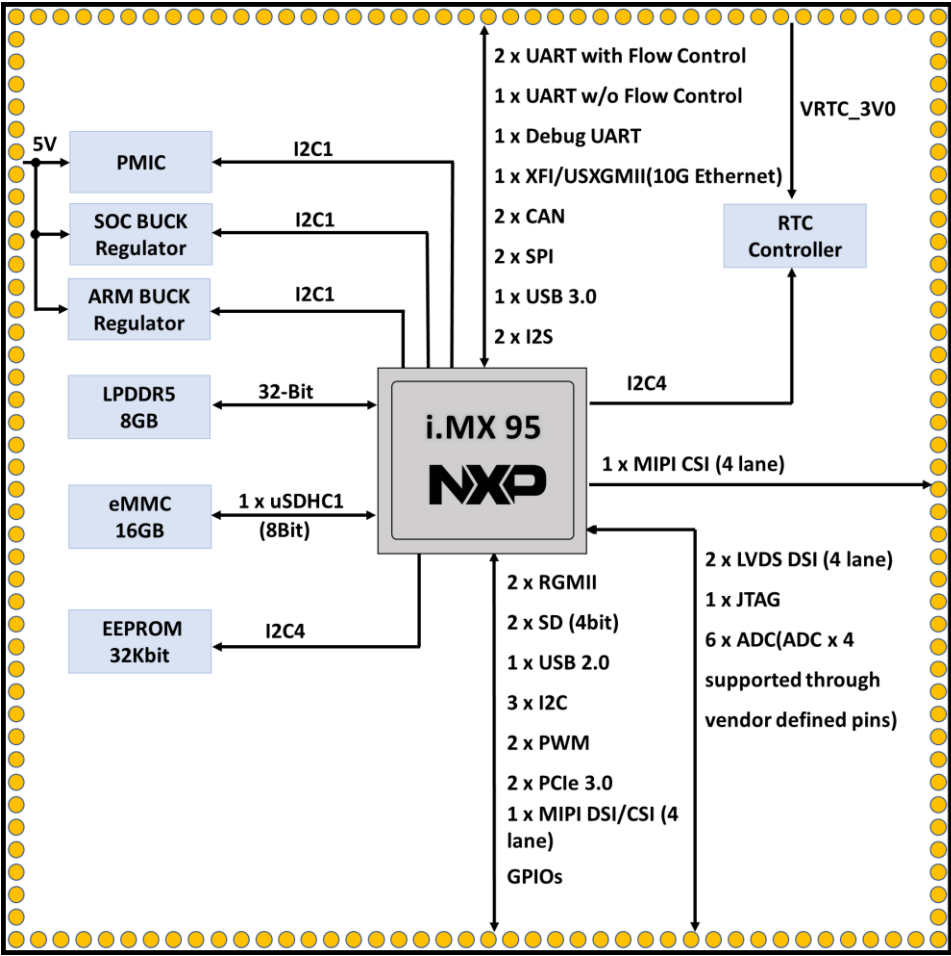
memory, 16GB eMMC storage, 32-Kbit EEPROM, and dual 1Gb Ethernet interfaces, delivering efficient data processing, reliable storage, and high-speed network connectivity. Its OSM-compliant design simplifies system integration and supports flexible carrier-board development, making it suitable for automotive, industrial automation, edge computing, and intelligent HMI applications.



Highlights

- ❖ i.MX 95 CPU with 6 Arm Cortex-A55 @2.0 GHz, 1 x Cortex-M33 @333MHz, 1 x Cortex-M7 @800MHz
- ❖ 8GB LPDDR5, 16GB eMMC
- ❖ Supports 2 x 1Gb Ethernet
- ❖ OSM v1.2 Size-LF LGA Solderable Module
- ❖ 10+ years of Product Longevity Program

Block Diagram



Technical Specifications

CPU	Supports 6 Arm Cortex-A55 @2.0 GHz, 1 x Cortex-M33 @333MHz, 1 x Cortex-M7 @800MHz
Memory & Storage	8GB LPDDR5 16GB eMMC 32Kb I2C EEPROM
OSM LGA Features	2 x RGMII 1 x USB 2.0 1 x USB 3.0 2 x SD (4bit) 2 x SPI 3 x I2C 2 x I2S 2 x UART with Flow Control 1 x UART w/o Flow Control 1 x Debug UART 2 x CAN

OSM LGA Features	2 x PCIe 3.0 2 x LVDS DSI (4 lane) 1 x MIPI CSI (4 lane) 1 x MIPI DSI/CSI (4 lane) 2 x PWM 1 x JTAG 1 x XFI/USXGMII(10G Ethernet) 6 x ADC(ADC x 4 supported through vendor defined pins) - GPIOs
Power Input	5V, 2.5A through OSM LGA
Operating Temp.	-40°C to +105°C (Automotive Grade)
Form Factor	45mm x 45mm (Size L)
OS Support	Android Auto 15
Environment Spec.	REACH & RoHS3 Compliant

Deliverables

- i.MX 95 OSM Module
- Thermal solutions
- Board Support Package

Optional Kits/Modules

- i.MX 95 Single Board Computer
- Heat Sink

Custom Development

- BSP Development/OS Porting
- Custom SOM/Carrier Development
- Custom Application/GUI Development
- Design Review and Support

Product accessories

i.MX 95 OSM based SBC

The i.MX 95 Size-L OSM based SBC integrates NXP's i.MX 95 SoC offering 6 Arm Cortex-A55 @2.0 GHz, 1 x Cortex-M33 @333MHz, 1 x Cortex-M7 @800MHz, 2 x Ethernet PHY, 4 Lane MIPI DSI display, 4 Lane LVDS Display Connector, MIPI CSI Camera Connector, M.2 Key-B Connector, CAN Header, 3.5mm Audio In & Out Jack through I2S Codec, LINE IN & OUT Speaker Headers and SPI flash.

Thermal Solutions & Enclosure

For any highly integrated OSM Modules, thermal design is very important factor. iWave Supports Heat Sink solution i.MX95 OSM LGA Module.

The Enclosure is essential for a SBC, iWave provides rugged Aluminum and metal enclosure options which keeps the device safe whilst maintaining full access to all the major ports.

Applications

- Machine Vision & Inspection
- Connectivity Domain Controllers & Gateways
- Driver Monitoring Systems (DMS) & Surround View
- Functional Safety
- Unmanned Aerial Vehicles (Drones)

A Global Leader in Embedded Systems Engineering and Solutions

Since 1999, we have pioneered leadership in embedded systems technology, establishing ourselves as a strategic embedded technology partner for advanced solutions. Our comprehensive portfolio encompasses ARM and FPGA System on Modules, COTS FPGA solutions, and ODM solutions which include Telematics, Gateways & HMI Solutions.

Beyond our robust product ecosystem, we provide comprehensive ODM support with specialized custom design and manufacturing capabilities, enabling customers to accelerate and optimize their product development roadmaps. With a strategic focus on industrial, automotive, medical, and avionics markets, we deliver innovative technology solutions to global clients.

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