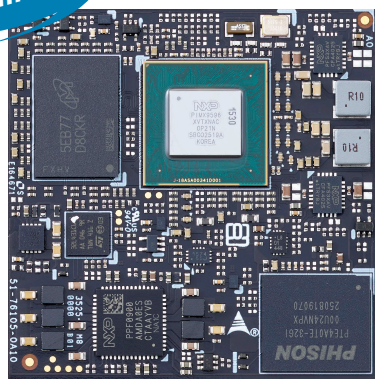
ADLINK
LEADING EDGE AI COMPUTING

OSM-IMX95

OSM L Size Module with
NXP i.MX95 series

Preliminary



Features

- i.MX95 series with 4/6-core Cortex-A55, Cortex M7, and M33 MCU
- eIQ Neutron N3 NPU
- OSM revision 1.2 compliant
- DSI and LVDS graphic output interfaces
- Rugged operating temperature option : -40°C to 85°C (standard SKU consumer temp.)
- 15 year product availability
- USB3.0 /2.0 interfaces
- Dual Gigabit RGMii Ethernet with TSN
- eMMC up to 256 GB, QSPI interface to carrier

Specifications

Processor & System	SoC	i.MX95 with up to six Cortex-A55 cores, Cortex-M7/M33 MCUs, and eIQ Neutron AI processor
	Memory	2/4/8 GB LPDDR4L via BOM option
	L2 Cache	Per core: Coherent 512 L3 cache, 64KB L2 cache
	Security	NXP ARM TrustZone with safety island (Cortex M33)
Video	GPU Core	Arm® Mali™ G310 GPU
	GPU Feature Support:	
	MIPI DSI	1x MIPI DSI 4 lanes
	LVDS	8 Lanes LVDS interface
	Camera	1x MIPI CSI 4 Lanes

Note: "Build option" indicates an alternative BOM configuration to support additional or alternative functions that are not available on the standard product. Be aware that these "build option" part numbers will need to be newly created and this will result in production lead times.

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Specifications

System Storage	SDIO	2x SDIO (4-bit) compatible with SD/SDIO standard, up to version 3.0
	eMMC	Up to 256 GB (build option) Compatible with eMMC specification 4.41, 4.51, 5.0, and 5.1
	Flash	SPI NOR flash via QSPI on the carrier
Debug Header		
Audio	Audio Codec	I^2S audio codec (located on the carrier)
Dual Ethernet	Primary LAN	MAC 10/100/1000 RGMii interface with TSN
	Secondary LAN	MAC 10/100/1000 RGMii interface with TSN
Extension Busses	USB	1x USB 3.0 host, 1x USB 2.0 device / host
	UART	4x UART interfaces
	SPI	3x SPI interfaces (SPI_A can be used as QSPI)
	I^2S	2x I^2S interfaces with audio resolution from 16-bit to 32-bit and sample rate up to 192KHz (see Audio Codec support)
	I^2C	2x 1^2C interfaces
	GPIO	14 x GPIO with interrupt
	PCIe	1x GEN3 single lane
Power	Input	5Vdc +/- 5%
Mechanical and Environmental	Form Factor	OSM revision 1.2
	Dimension	OSM size L 45x45 mm
	Operating Temperature	Standard: 0°C to 60°C Rugged: -40°C to 85°C (optional)
	Humidity	5-90% RH operating, non-condensing 5-95% RH storage (and operating with conformal coating)
	Shock and Vibration	IEC 60068-2-64 and IEC-60068-2-27, MIL-STD-202 F, Method 213B, Table 213-I, Condition A and Method 214A, Table 214-I, Condition D
	HALT	Thermal Stress, Vibration Stress, Thermal Shock and Combined Test
Operating Systems	Standard Support	Yocto Linux BSP
	Extended Support (BSP)	Foundries.IO Linux microPlatform (LMP) Note: contact sales for more information

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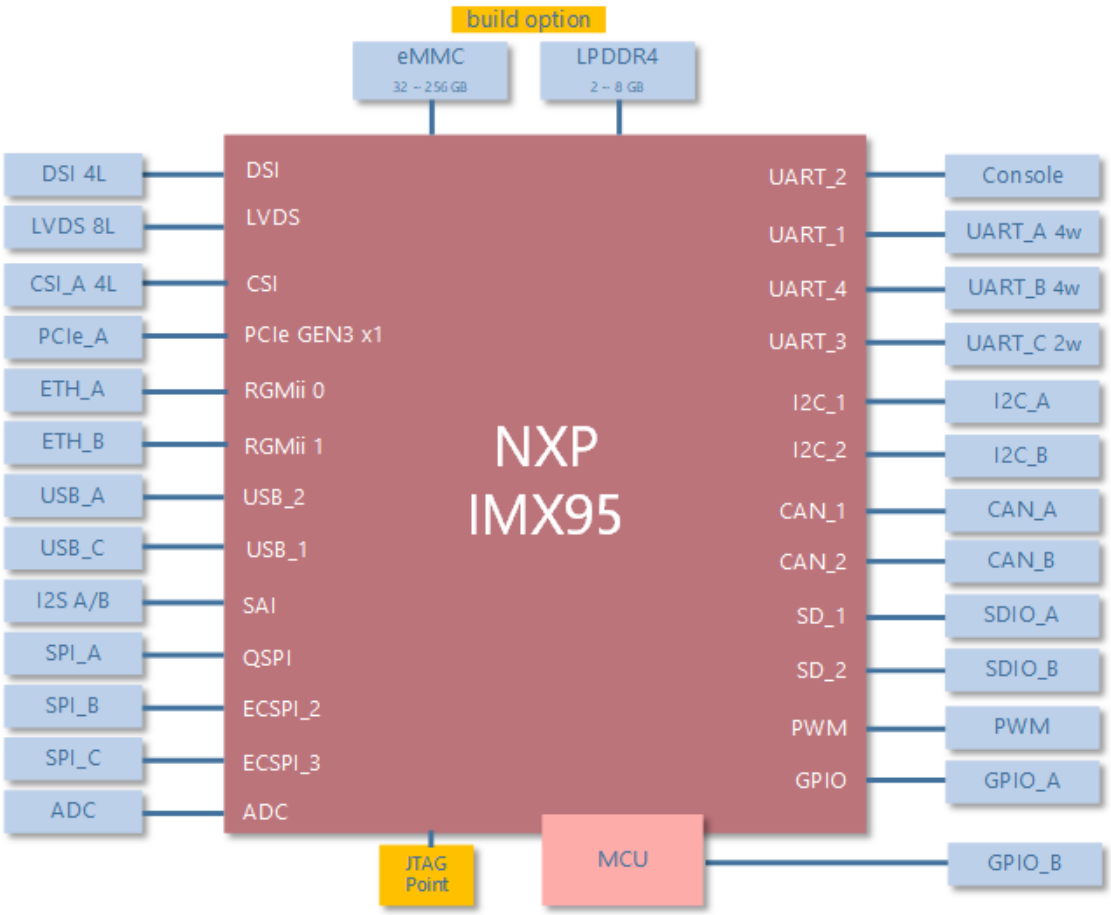
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Ordering Information

Part name	Description/Configuration
OSM-IMX95-H-4G-32G-CT	OSM module L size with i.MX95 SOC , NPU , 4 GB LPDDR4, 32 GB eMMC, 0°C to 70°C
OSM-IMX95-H-4G-32G-ER	OSM module L size with i.MX95 SOC , NPU , 4 GB LPDDR4, 32 GB eMMC, -40°C to 85°C

Note: Non-listed configurations available on demand.

Block diagram



Note: "Build option" indicates an alternative BOM configuration to support additional or alternative functions that are not available on the standard product. Be aware that these "build option" part numbers will need to be newly created and this will result in production lead times.

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