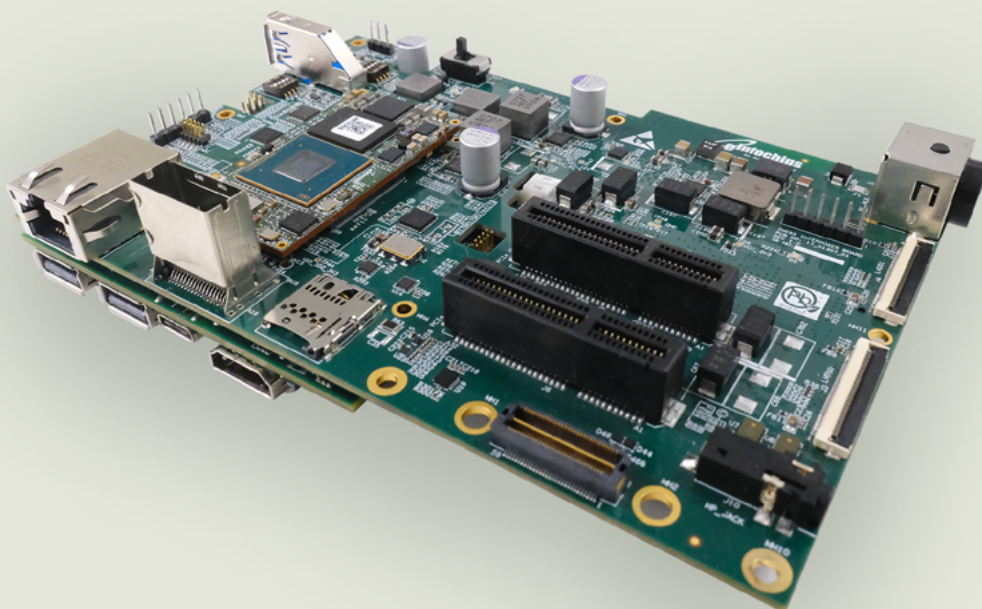


NXP i.MX95 Evaluation Kit

eInfochips-i.MX95 Evaluation Kit Reference Development Platform



About eInfochips

eInfochips is a global leader in product engineering and semiconductor design services, offering solutions across multiple industry verticals including aerospace, security, industrial automation, healthcare, and smart home appliances. As an elite design partner of NXP Semiconductors, eInfochips has been selected for "Early Access Programs" for the entire i.MX series. We leverage deep expertise in embedded computing to deliver innovative solutions for our global customers.

Engineering Highlights

- **30 Years** of experience in system design
- **17 Design centers** spread across India, USA, Europe, and Africa
- **750+ Products** designs
- **100M Product** deployments
- **ISO9001, AS9100, ISO3485, ISO16949** compliant

EIC-i.MX95 Evaluation Kit Reference Development Platform

The EIC-i.MX95 Evaluation Kit Reference Development Platform is a high-performance evaluation kit based on the NXP i.MX95 applications processor, designed for machine learning, industrial automation, automotive, and edge AI applications. It features 6x Arm Cortex-A55 cores (up to 1.8 GHz) for power-efficient processing, along with 1x Cortex-M33 (333 MHz) and 1x Cortex-M7 (800 MHz) microcontrollers for real-time applications. For AI workloads, it offers a dedicated NPU supporting 8-bit and 16-bit operations adding intelligence to designs for devices in smart homes, smart cities, smart factories, and automotive displays. The kit provides high-speed connectivity options, including Wi-Fi 6, Bluetooth 5.3, Gigabit Ethernet, PCIe, USB 3.0, and CAN. Additionally, it supports MIPI DSI, LVDS, HDMI, and MIPI CSI camera interfaces for display and multimedia applications. With a pre-integrated Linux OS, the EIC-i.MX95 EVK enables rapid development and deployment, making it an ideal choice for developers building next-generation embedded systems.

Edge Computing

Infotainment

Industrial Automation

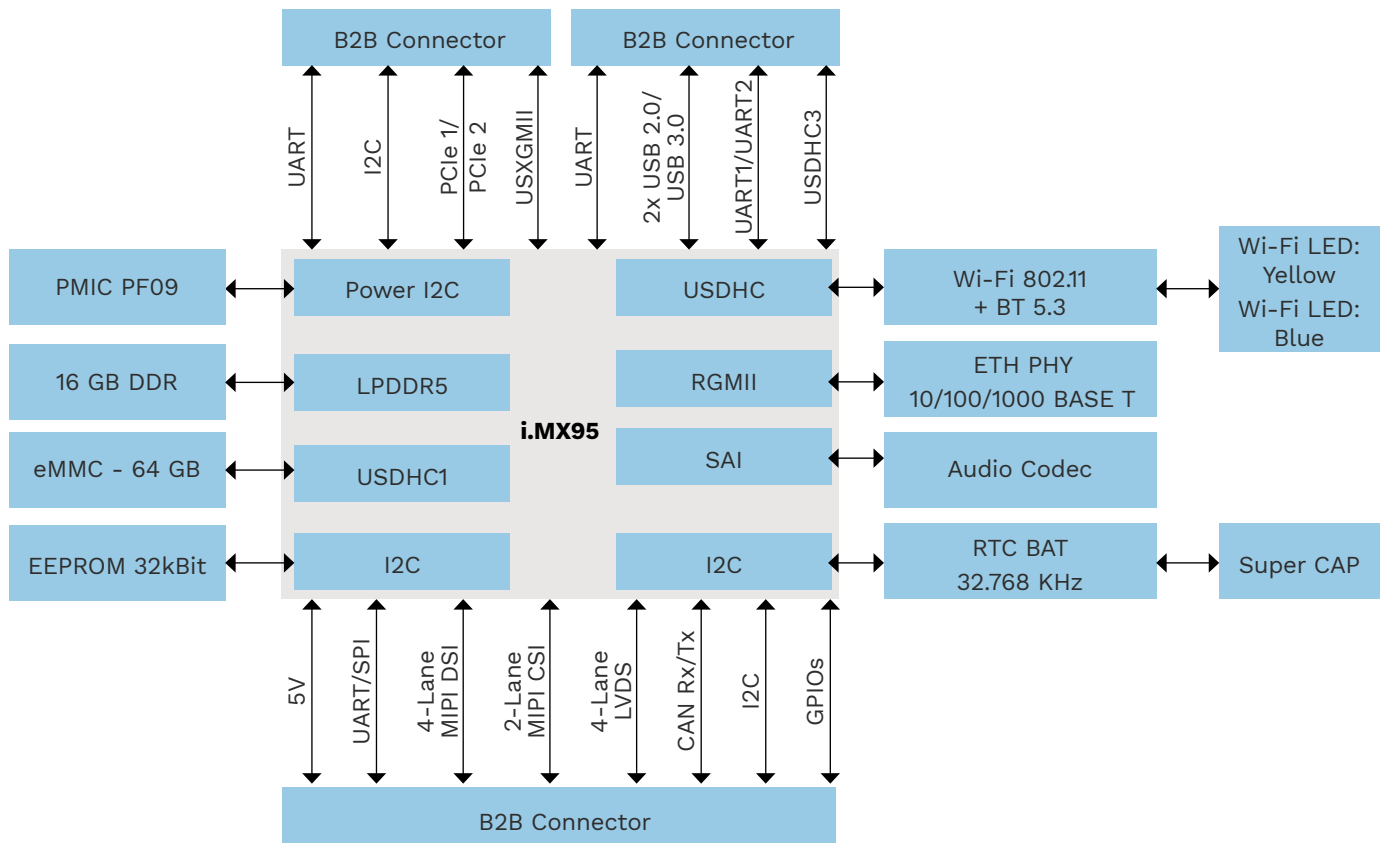
Real-time Aircraft Surveillance

Smart Appliances

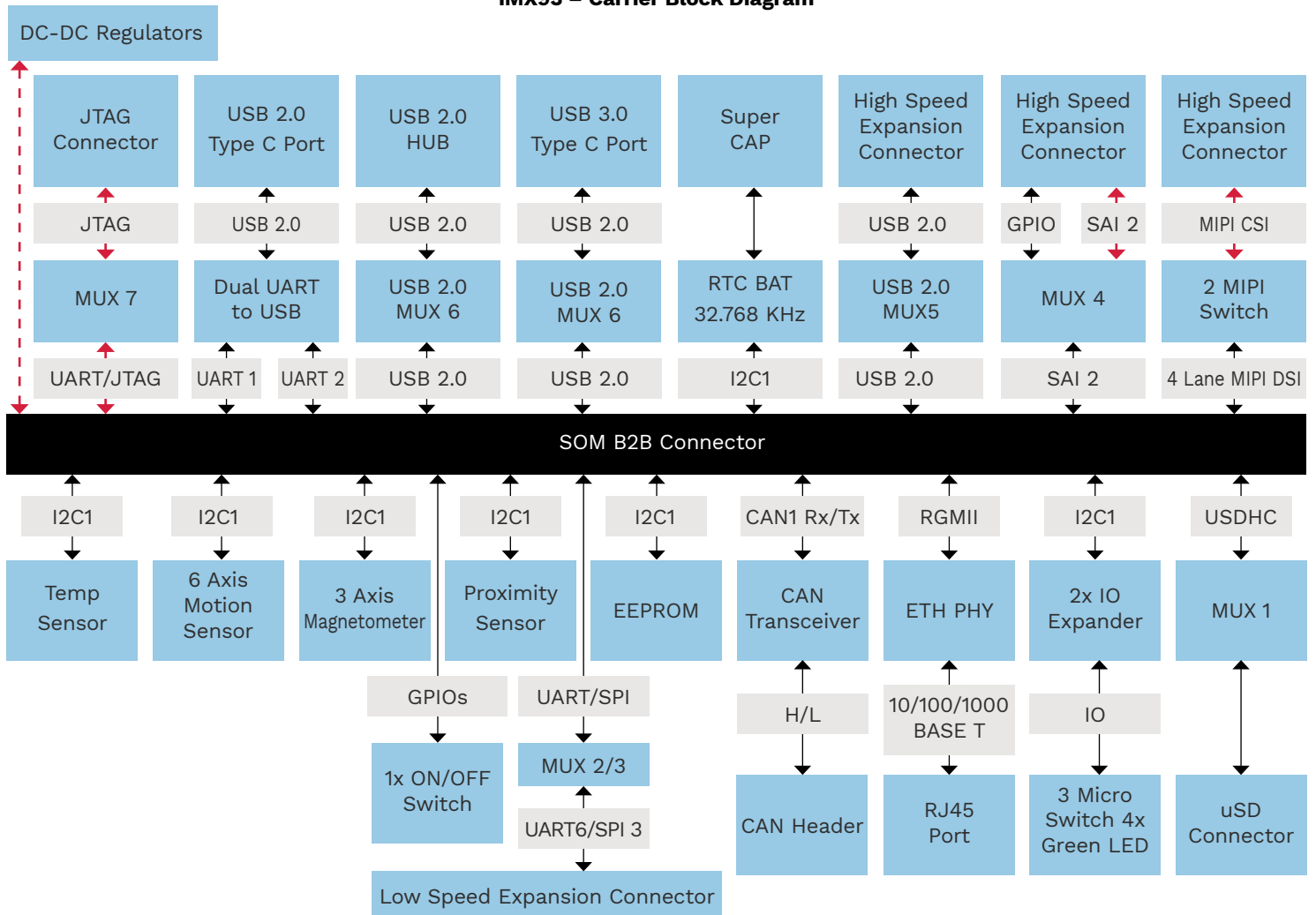
Clinical Monitoring

Robotics

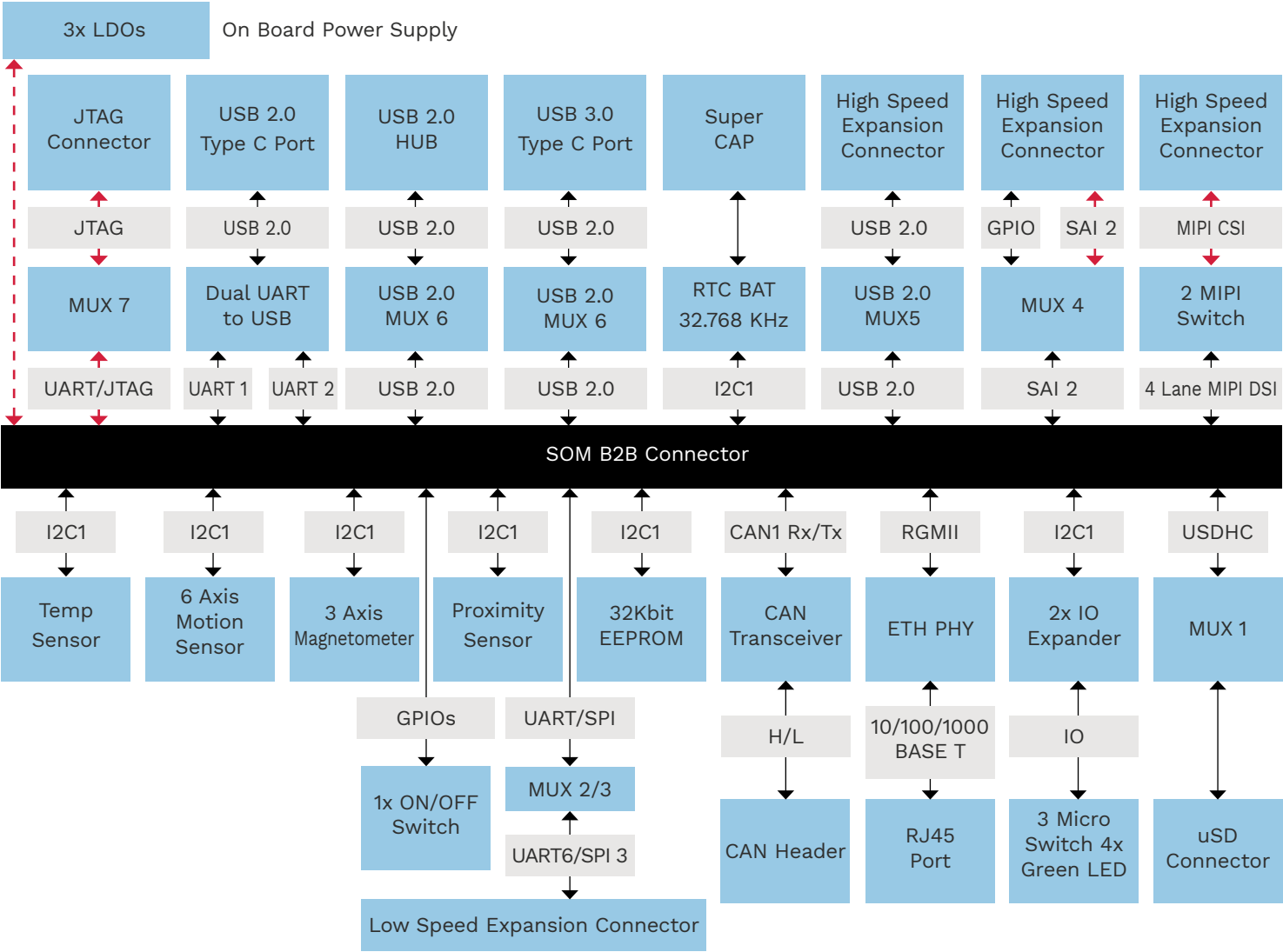
iMX95 - SOM Block Diagram



iMX93 - Carrier Block Diagram



iMX95 – Interposer Block Diagram



iMX95 Kit (SOM + Interposer + Carrier) Specifications

CPU

- CPU Name: NXP i.MX95
- CPU Type: 6x Arm Cortex-A55, up to 1.8 GHz frequency
- MCU Type: 1x Arm Cortex-M33, up to 333 MHz frequency, 1x Cortex-M7, up to 800 MHz frequency
- Neural Processing Unit (NPU): 2.0 TOP/s Neural Network performance up to 1.0 GHz
- Graphics Processing Unit (GPU): Arm Mali-G310

Memory

- DDR: 1x 16GBByte LPDDR5 (4Gbit x 32, 8.5GT/s) (Micron MT62F4G32D8DV-023 FAAT:C)
- Storage Memory
 - 1x 64GBByte eMMC 5.1 (Micron MTFC64GBCAQTC-AAT)
 - 1x 32 Kbit EEPROM (Microchip 24AA32AFT-I/OT)
 - 1x 1Gbit Octal SPI flash (Micron MT35XU01GBBA1G12-0AAT)
 - 1x 128Mbit Quad SPI flash (ISSI IS25WP128-JLLE)
- Micro-SD Card: 1x SD Card 3.0 interface

Connectivity

Wi-Fi:

- IEEE 802.11a/b/g/n/ac/ax, 2.4/5.0GHz (Murata LBES5PL2EL-923)

Bluetooth:

- Bluetooth 5.3 compliant with basic rate (BR)/enhanced data rate (EDR)/ low energy (LE) (Murata LBES5PL2EL-923)

USB

- 1x USB 3.0 (Type C)
- 2x USB 2.0

Ethernet

- 1x 10Gbps interface
- 2x 10/100/1000Mbps interface (MaxLinear MXL86110I-AQB-R (SOM), Microchip VSC8541XMV-02 (Carrier board))

PCI Express

- 2x PCIe Slot (x4) with PCIe Gen3 x1 interface

Display

- DSI: 1x 4-lane MIPI CSI v2.0 (with ISP) / DSI v1.2 interface
- LVDS: 2x LVDS (Up to 1080p60) interface (Microtech MTF101IA-01B-SPEC(350 NITS))
- HDMI: 1x HDMI 1.4 (Converted from DSI) (Lontium LT9611UXC)

Camera

CSI:

- 1x 4-lane MIPI CSI v2.0 (with ISP) interface (NXP IMX-OS08A20)
- 1x 4-lane MIPI CSI v2.0 (with ISP) / DSI v1.2 interface (Analog Devices MAX96724-BAK-EVK#)

Audio

- Analog: 1x Stereo Out and Mic In (3.5mm Audio Jack)
- Digital
 - 1x PCM (Mux)
 - 1x SAI (Mux) (Cirrus Logic WM8904CGEFL/RV)
 - 2x Digital Mics (Knowles SPK0641HT4H-1)

Sensors

- 1x Ambient Light + Proximity Sensor (Everlight EAAPMST3923A2)
- 1x Temperature Sensor (NXP PCT2075GVX)
- 1x RTC (Micro Crystal RV-3028-C7 32.768KHZ 1PPM-TA-QC)
- 1x 6-axis Motion sensor (Accelerometer + Gyro) (TDK IIM-42652)
- 1x 3-axis Magnetometer (ROHM BM1422AGMVZE2)

Other

- 1x SDIO3.0 (Mux)
- 4x I2C, 8x 12-bit ADC, 5x UART, 1x JTAG, GPIOs
- 1x CAN, 1x SPI
- 1x ON/OFF Switch
- 1x Reset Switch

Power Specification

- SOM: '+3.8V to +5.5V (Typ. 5V)
- Interposer (Kit): '+10.8V to +13.2V (Typ. 12V)

Mechanical Specification

- SOM: 55mm x 29mm
- Interposer (Kit): 154mm x 105.1mm
- Carrier: 85mm x 100mm

OS Support

- Linux Yocto Scarthgap 5.0

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