

NXP i.MX93-210 Reference Development Platform



eInfochips EIC-i.MX93-210 Reference Development Platform



About eInfochips

eInfochips is a product engineering services company offering technology consulting and product design services in multiple industry verticals like aerospace & defense, security, and surveillance, medical and healthcare, industrial and home automation, consumer electronics, and more.

As an elite design partner of NXP semiconductor, eInfochips has been selected for "Early Access Programs" for all i.MX series platforms. We have designed and developed products for a variety of global customers by leveraging our partnership with NXP.

Engineering Highlights

- **25+ Years** of experience in system design
- **10 Design centers** spread across India, USA, Europe, and Africa
- **500+ Products** designs
- **35+ Product** designs
- **15M+ Product** deployments across the globe
- **ISO 60601** and **IEC 62304** compliant medical design processes

eInfochips EIC-i.MX93-210 Reference Development Platform

The EIC- i.MX93-210 is an RDP based on the i.MX93 application processors. The processor features a scalable Arm Ethos™-U65 microNPU Core for efficient machine learning acceleration, as well as advanced security with an integrated EdgeLock secure enclave to support edge computing. The RDP enables developers to begin creating high-performance, cost-effective, and energy-efficient machine-learning applications. Wi-Fi, Bluetooth, Gigabit Ethernet, CAN, and 3G/4G/LTE connectivity via a Mezzanine Card are all available. The kit includes pre-integrated Linux, making it an excellent choice for applications such as industrial automation, smart home & intelligent appliances, smart buildings, and automotive.

Edge Computing

Infotainment

Smart Home Appliances

AI and ML Applications

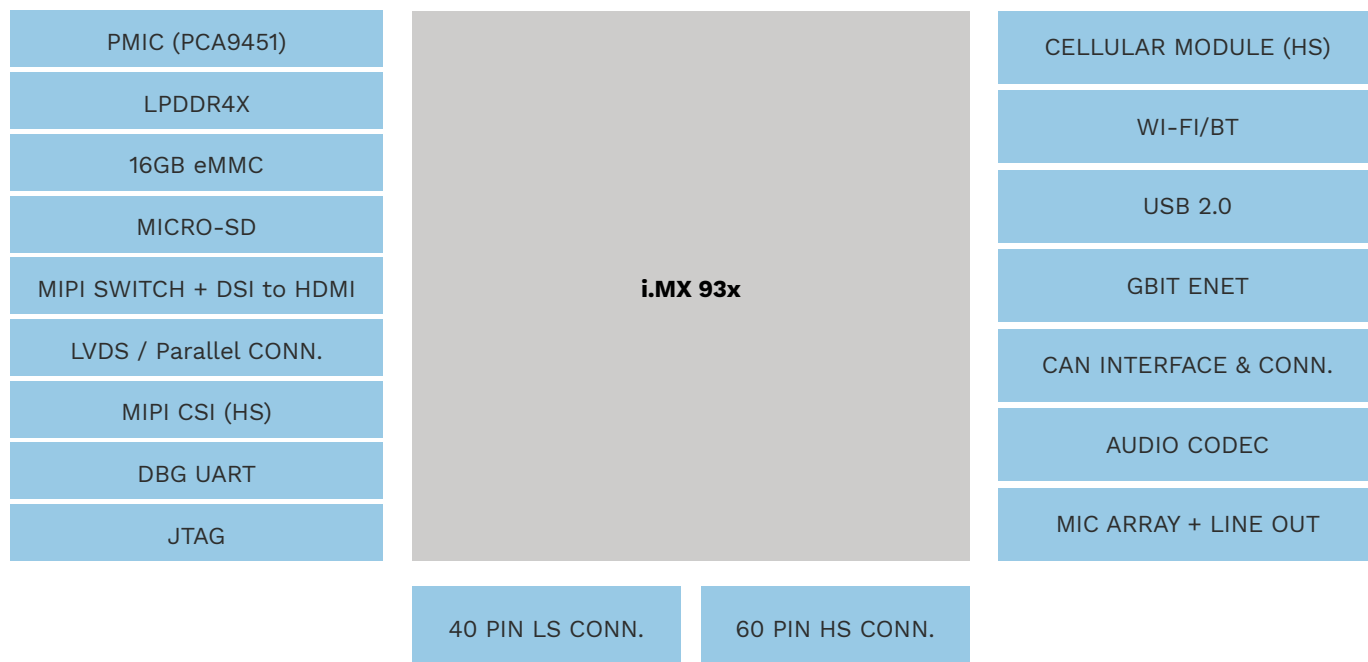
Digital Signage/ Industrial

HMI

Machine Vision

Matter 1.0 Ready

iMX 93x Platform



Note: This is preliminary information and subject to change without notice

Processor

- NXP iMX935, iMX933
- Two Cortex®-A55 processors operating up to 1.7 GHz
- 64-bit Arm® v8.2-A architecture
- MPE with Arm® NEONTM
- Floating Point Unit (FPU) with support of the Arm® VFPv4-D16 architecture
- One Cortex®-M33 CPU operating up to 250 MHz
- NPU targets 8-bit and 16-bit integer RNN, handles 8-bit weights.

Memory and Storage

- 1x 2GB LPDDR4x RAM
- 1x 16GB eMMC 5.1
- 1x SDIO 3.0 interface (mux with WLAN)
- 1x SD Card 3.0 interface

Connectivity

Wi-Fi:

- AWCM276NF - IEEE 802.11 a/b/g/n/ac, 2.4/5.0 GHz
- 2x MHF4 antenna connector
- Matter 1.0 Ready

Bluetooth:

- Bluetooth 5.3 compliant with Bluetooth 2.1 + Enhanced Data Rate (EDR)

USB

- 1x USB2.0 with DRP
- 1x USB2.0 Host mode Only

Ethernet

- 1x RGMII Interface

Display

- 1x 4-Lane MIPI DSI v1.2 interface
- 1x 4-Lane LVDS
- 1x HDMI interface (Mux)

Camera

- 2 Lane MIPI CSI-2 v1.2 interface
- 8-bit RGB interface (Mux)

Audio

- 3x SAI
- 1x PDM

Sensors

- 1x 4 channel current sensor

Other

- 1x CAN Interface
- 3x UART, 4x I2C, 2x SPI, 4x ADC, GPIOs
- 1x Reset Switch, 1x ON/OFF Switch

Power Specification

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

Mechanical Specification

- SOM: 65mm x 55mm
- Carrier Board: 85mm x 100mm

Operating System

- Linux

Orderable Part

- EIC-i.MX9-210 Dev Kit
 - iMX93 SOM
 - iMX93 Carrier
- EIC-i.MX93-210 Multimedia Kit
 - Multimedia Mezzanine board
 - Display board for MIPI-DSI and LVDS
- EIC-i.MX93-210 RGB Camera Module
 - RGB Camera board.
 - RGB Sensor Module.

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