



# Aikri QRB4210 System On Module (SoM)

## Based on the Qualcomm® QRB4210 SoC





## **About elnfochips**

elnfochips is 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.

eInfochips being a Qualcomm Snapdragon Technology Partner (STP) offers turnkey product designs on multiple Snapdragon and other SoCs of Qualcomm\* and have enabled global customers with Qualcomm based product designs.

#### eInfochips Advantages

- 28 Years of experience in system design
- 10 Design centers worldwide
- 500+ Product designs
- 35+ Product designs on Qualcomm
- 15M+ Product deployments across globe
- ISO 9001, ISO13485, AS9100/EN9100, ISO26262 and CMMi L3 compliant processes

#### eInfochips Aikri QRB4210 SoM

eInfochips Aikri QRB4210 System on Module (SOM) is based on Qualcomm\* QRB4210 System on Chip (SOC). It delivers greater performance, better graphics, and broader connectivity options.

QRB4210 integrates a 64-bit Octa-Core Qualcomm® Kryo™ 260 application processor (Quad Gold cores operating at 2.0 GHz and Quad Silver cores at 1.8 GHz), Qualcomm® Hexagon™ DSP, Qualcomm® Adreno™ 610 GPU, and Qualcomm® Spectra™ 340T image signal processor. QRB4210 SoM supports Wi-Fi 5 and enhanced Bluetooth 5.1 which offers battery-saving and enhanced security for robust connections.

QRB4210 SoM enables OEMs to use readily available design solution for their next-gen business application while minimizing design risk factors and reducing design cycle time with early time to market.

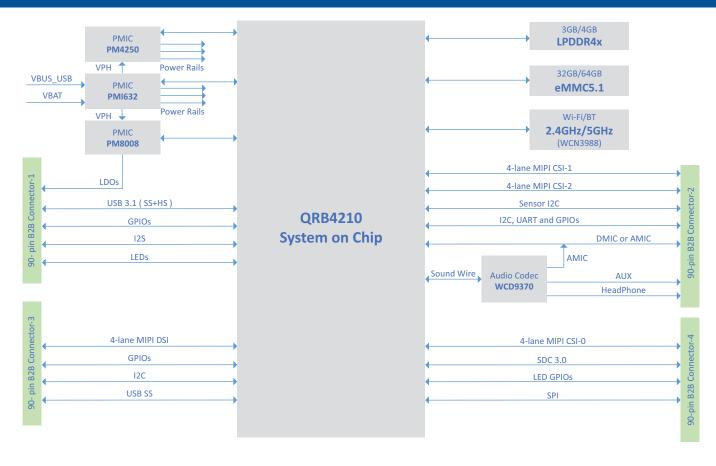
Robotics

Industrial Handhelds

Telehealth / Medical Devices

Digital Signage / HMI





Preliminary specification – subject to change

#### **Processor**

- Qualcomm® QRB4210
- 64-bit Octa-core Kryo™ 260
  - Quad high-performance Gold cores at 2.0 GHz with 1 MB L2 cache
  - Quad low-power Silver cores at 1.8 GHz with 512 KB L2 cache
- Qualcomm<sup>®</sup> Hexagon<sup>™</sup> DSP with dual HVX at 1.0 GHz; Integrated low-power island (LPI) DSP, shared between sensors and audio
- Adreno<sup>™</sup> 610 GPU at 950 MHz with 64-bit addressing

#### Memory / Storage

- 3GB LPDDR4x
- 32GB eMMC 5.1

## Connectivity

#### Wi-Fi:

 Qualcomm<sup>®</sup> Wi-Fi via WCN3988 WLAN 1 × 1 802.11a/b/g/n/ac

#### **Bluetooth:**

• Bluetooth 5.1

## USB

1x USB3.1

#### **Audio**

- WCD9370 Audio codec
- Soundwire, I2S, SLIMbus to WCN3988 BT

#### Camera

- Spectra 340T ISP
- 3x 4-lane CSIs (4/4/4 or 4/4/2/1 configuration)
- D-PHY 2.5Gbps/lane

#### **Display**

- 1x 4-lane MIPI-DSI
- D-PHY 1.2 at 1.5 Gbps per lane, FHD+ (1080 × 2520)

## Video

#### Encode:

• 1080p60 8-bit HEVC/H264

#### Decode:

• 1080p60 8-bit HEVC/H264

#### Sensors

 SPI, I2C, I3C, GPIO connections to sensor core DSP

#### **Others**

- USB 3.1; SDIO; I2S; UART, I2C, I3C, SPI
- GPIO

#### **Operating Environment**

- Input Voltage: 3.6V
- Operating Temperature: -30 to +85° C

## **Mechanical Specification**

- SOM: 58 mm x 39 mm x 4mm\*/5.41mm# with 4x 90-pin board to board connectors
  - \*Stacking height #Standalone height

#### **Operating System**

Linux, Yocto Dunfell, Kernel 5.4

#### **Orderable Part**

 System On Module (SOM): Aikri-42X-10LS

eInfochips, an Arrow company, is a leading global provider of product engineering and semiconductor design services. With over 500+ products developed and 40M deployments in 140 countries, eInfochips continues to fuel technological innovations in multiple verticals. The company's service offerings include digital transformation and connected IoT solutions across various cloud platforms, including AWS and Azure.

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