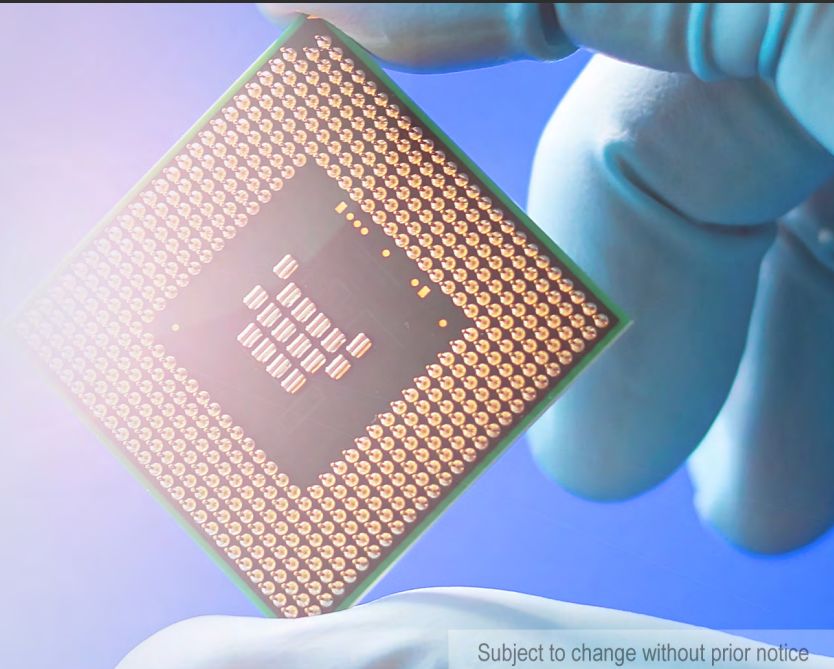# Aikri QCS6490 System on Module (SoM)

Based on the Qualcomm® QCS6490 SoC

Subject to change without prior notice

About eInfochips

eInfochips is product engineering services company offering technology consulting and product design services in multiple industry verticals like aerospace & defence, 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 QCS6490 SoM

eInfochips Aikri QCS6490 SoM is based on Qualcomm® QCS6490 System on Chip and delivers greater performance, better graphics, and broader connectivity options.

QCS6490 integrates a 64-bit Octa-Core application processor at 2.7 GHz (Gold+), 2.4GHz (3 x Gold), 1.9GHz (4 x Silver) Qualcomm® Kryo™ 670 CPU, Qualcomm® Adreno™ GPU 643, Qualcomm® Hexagon™ DSP with Hexagon Vector eXtensions (HVX) and Hexagon Tensor Accelerator, and Qualcomm® Spectra™ ISP 570L image-processing engine for the ultimate photography experiences.

QCS6490 SoM supports Wi-Fi 6E and enhanced Bluetooth 5.0 which offers battery-saving and enhanced security for robust connections. QCS6490 SoM enables OEMs and engineers to evaluate performance of QCS6490 for their next-gen designs while minimizing design risk factors and reducing design cycle time with early time to market.
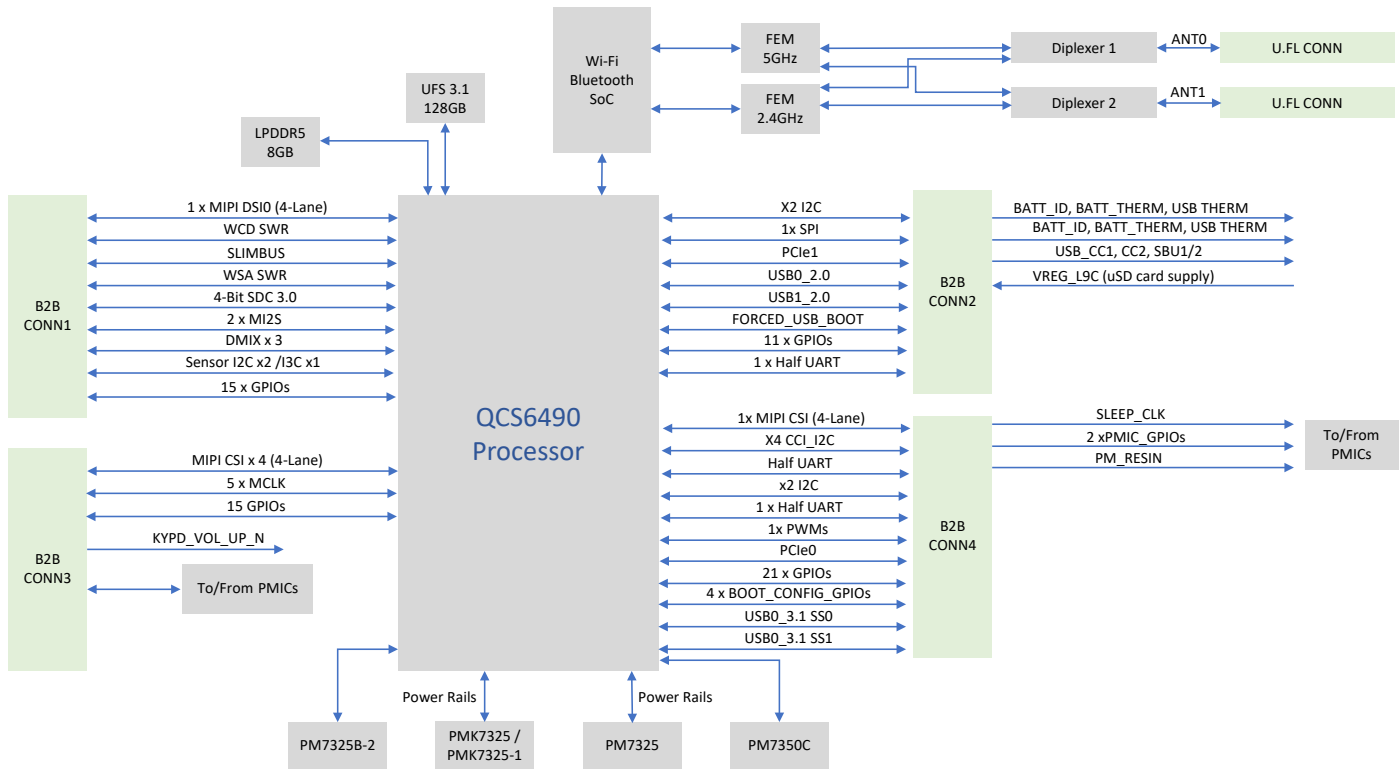
Transportation & Logistics

Smart Warehousing

Retail

Manufacturing

Healthcare

Ecommerce

Preliminary specification – subject to change

Processor

- Qualcomm® QCS6490
- Octa-core Kryo™ CPU 670
- Quad high-performance Gold+ core at 2.7GHz
- Quad low power silver cores at 1.9GHz
- Qualcomm® Hexagon™ DSP with Hexagon Vector eXtensions (HVX) and Hexagon tensor Accelerator
- Qualcomm® Adreno™ (GPU 643) for better graphics performance and power efficiency
- Qualcomm Spectra™ ISP 570L image-processing engine for the ultimate photography and videography experiences
- Adreno 633 VPU for high-quality, ultra-HD video encode and decode
- Adreno DPU 1075 for on-device and external ultra HD display support

Memory / Storage

- 8GB LPDDR5
- 128GB UFS

Connectivity

Wi-Fi

- Qualcomm® Wi-Fi via WCN6856 802.11a/b/g/n/ac/ax

Bluetooth

- Bluetooth 5.2/BLE

PCIe

- 2x PCIe

USB

- 1x USB 3.1

Audio

- SWR, I2S, SLIMBUS

MIC

- 3x DMIC

Camera

- Spectra 570L ISP
- 5x 4-lane CSIs (4/4/4/4/4) D-PHY 1.2 or C-PHY 1.2

Display

- 1x 4-lane DSI DSC1.2, D-PHY 1.2, or C-PHY 1.0
- FHD+, 10 bit DisplayPort, eight hardware layers, improved HDR10+
- Wide color Gamut, Qualcomm® Low-Power picture Enhancement display feature
- Qualcomm® True Palette display feature, VESA DSC 1.2

Video

Encode:

- Up to 4K30 for H.264/H.265

Decode:

- Up to 4K60 for H.264/H.265/VP9

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: 3.7V
- Operating Temperature: -25 to +65 °C

Mechanical Specification

- SOM: 65mm x 40mm

Operating System

- Android 13.0# and Linux*

Orderable Part

- System On Module (SOM): Aikri-64X-90AS-8# and Aikri-64X-90LS-8*
- Development kit: Aikri-64X-90AD-8