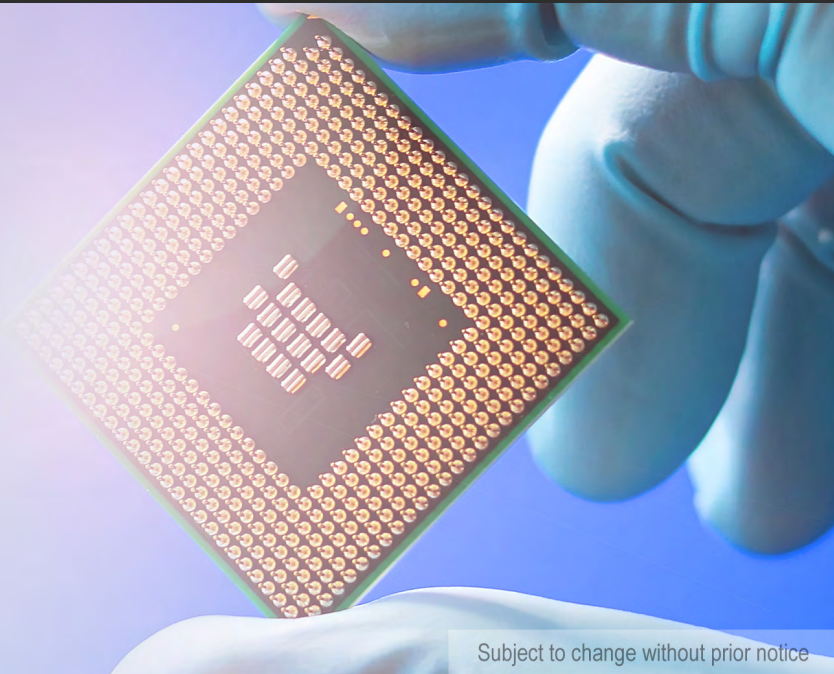


Aikri QCS8550 System on Module (SoM)

Based on the Qualcomm® QCS8550 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 QCS8550 SoM

eInfochips Aikri QCS8550 System on Module is based on Qualcomm® QCS8550 System on Chip (SOC).It delivers greater performance, better graphics, and broader connectivity options.

QCS8550 integrates a 64-bit Octa-Core application processor at 3.2 GHz (Gold+), 2.8GHz (4 x Gold), 2.0GHz (3 x Silver) Qualcomm® Kryo™ CPU, Qualcomm® Adreno™ GPU 740, Qualcomm® Hexagon™ Tensor Processor (HTP) with Hexagon Vector eXtensions (HVX) and Hexagon Matrix eXtensions (HMX), Qualcomm® Secure Processing Unit for advanced secure use cases, Low Power AI (LPAI) subsystem with dedicated DSP and AI accelerator (eNPU) supporting always-on audio, sensors, contextual data streams, and Always-on camera.

QCS8550 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.

Autonomous Mobile Robots

Industrial Drones

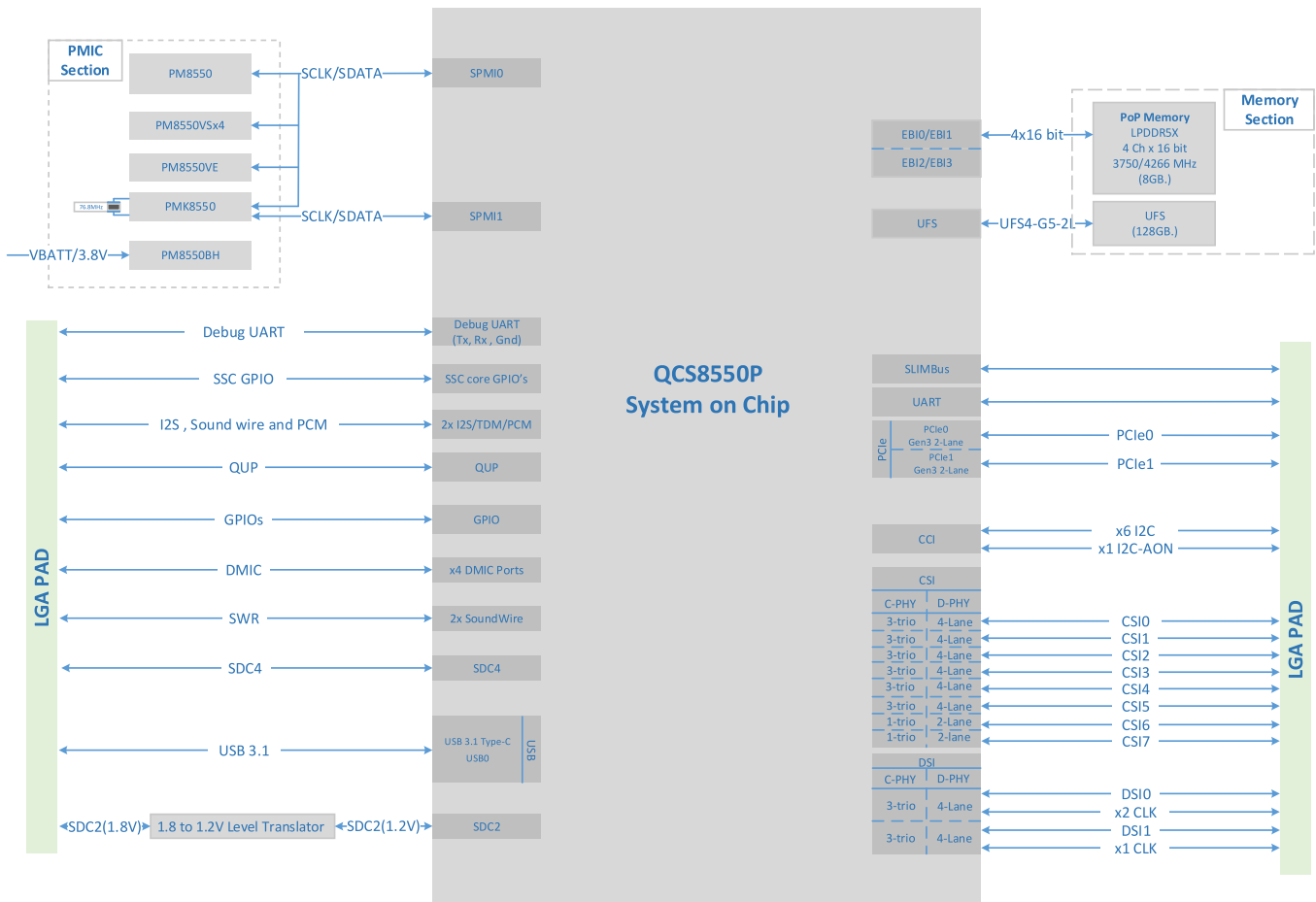
Retail

Camera

Video Collaboration

Edge AI Gateways

Cloud Gaming



Preliminary specification – subject to change

Processor

- Qualcomm® QCS8550
- 64-bit Octa-Core
- Application processor at 3.2 GHz (Gold+), 2.8GHz (4 x Gold), 2.0GHz (3 x Silver) Qualcomm® Kryo™ CPU
- Qualcomm® Adreno™ GPU 740
- Qualcomm® Hexagon™ Tensor Processor (HTP) with Hexagon Vector eXtensions (HVX) and Hexagon Matrix eXtensions (HMX)
- Qualcomm® Secure Processing Unit for advanced secure use cases
- Low Power AI (LPAI) subsystem with dedicated DSP and AI accelerator (eNPU) supporting always-on audio, sensors, contextual data streams, and Always-on camera.

Memory/Storage

- 8GB LPDDR5x
- 128GB UFS 3.1

Audio interfaces

- 2x SWR
- 8x DMIC
- 8x I2S

Camera interfaces

- Qualcomm Spectra ISP
- 6x 4-lane CSIs & 2x 2-lane CSIs
- D-PHY v1.2: 2.5 Gbps/lane
- C-PHY v2.0: 13.68 Gbps/trio

Display interfaces

- 2x 4-Lane DSI
- Supports dual MIPI DSI ports, with support for split-link for fold use case.

Video

- UHD video processing unit
- AV1 decode
- Native decode support for H.265 Main 10, H.265 Main, H.264 High, and VP9 profile 2
- Native encode support for H.265 Main 10, H.265 Main, H.264 high formats

Sensor interfaces

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

I/O interface

- 1x USB 3.1 Type C
- 1x MicroSD Card
- 1x MicroUSB for debug Console
- 2x PCIe (1x PCIe 2-lane Gen 3, 1x PCIe 2-lane Gen 4)

Operating environment

- Input Voltage: 3.6V
- Operating temperature: -20 to +60°C

Mechanical Specification

- SOM Board: 40.27x33.41mm LGA form factor

Operating system

- Android 13.0

Kit Contents

- 1x Aikri QCS8550 SOM

Orderable Part

- SoM: Aikri-85X-50AS-8
- Dev Kit: Aikri-85X-50AD-8

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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