Aikri QCS8250 System On Module (SoM)

Based on the Qualcomm® QCS8250 SoC

1. AI and ML Applications
2. 4K Camera
3. Medical Imaging / Medical
4. Machine Vision
5. Digital Signage / HMI
6. Collaboration System
7. Robotics
8. Telematics

About eInfochips

eInfochips, an Arrow Electronics company, is a leading provider of digital transformation and product engineering services. eInfochips accelerates time to market for its customers with its expertise in IoT, AI/ML, security, sensors, silicon, wireless, cloud, and power. 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 Aikri QCS8250 SoM

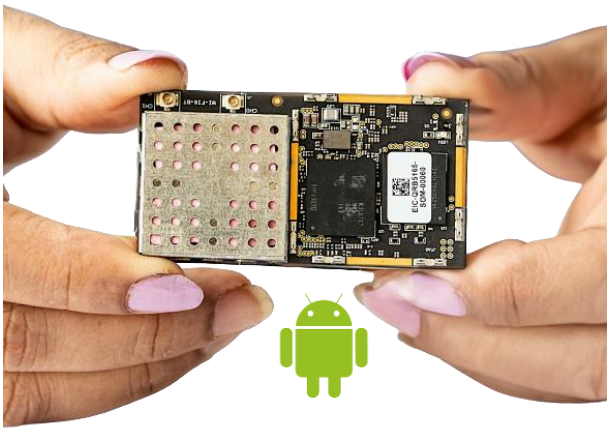
The Aikri 8250 System on Module (SoM) is based on Qualcomm® QCS8250 System on Chip (SOC). This SoM integrates Kryo™ 64-bit Octa-core 585 CPU, Adreno™ 650 GPU, Hexagon™ 698 HVX DSP, Spectra™ 480 camera ISP and Qualcomm's next-gen AI-Engine to maximize performance for compute intensive camera and AI applications on the edge.

The SoM coupled with 2x2 802.11ax WiFi-6, BT 5.0, multiple CSI cameras, full featured USB-C and high-fidelity audio provide excellent processing capabilities of multiple video streams up to 4K240 decode/4K120 encode.

The Aikri 8250 SoM enables OEMs to use a readily available design solution for their compute application needs while minimizing design risk factors and reducing design cycle time with early time to market.

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



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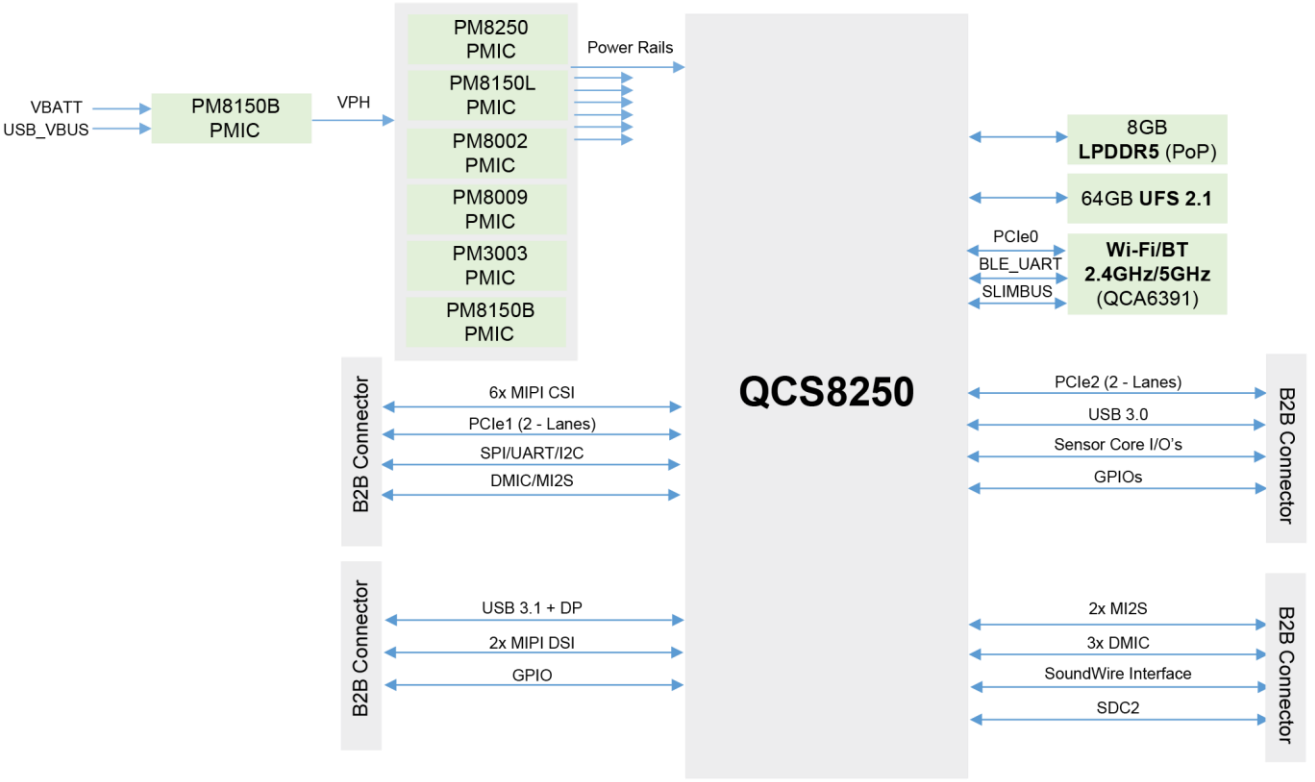

Aikri QCS8250 SoM		
Processors	Qualcomm® QCS8250 • 8x Kryo™ 585 – Quad Kryo gold cores @up to 2.8 GHz; Quad Kryo silver cores @1.8GHz • Adreno™ 650 GPU at 545 MHz; Adreno 5th gen UHD VPU; Adreno 995 DPU • Hexagon DSP with quad-HVX) and Hexagon Coprocessor (Hexagon CP) 2.0 • Dedicated neural processing unit NPU230, for performance and always-on neural network (NN) use cases • Spectra™ 480 ISP	
AI Performance (INT 8)	15 TOPS	
Memory	8GB LPDDR5 PoP, 64GB UFS 3.1	
Wireless	• Qualcomm® Wi-Fi via QCA6391 WLAN 2 x 2 802.11ax DBS (WiFi 6); Bluetooth5.1 • 2x UFL connectors on SoM	
Display Interfaces	• 2x MIPI-DSI 4-lane D-PHY 1.2 at 1.5 Gbps per lane • USB-C with DisplayPort v1.4 at 8.1 Gbps/lane	
Camera Interface	6x MIPI-CSI 4-lane - D-PHY 1.2 at 2.5 Gbps per lane supported.	
Audio Interfaces	• 2x MI2S • 3x DMIC • 1x SoundWire	
I/O Interfaces	• 2x PCIe Gen3 2-lane • GPIOs, SPIs, I2Cs, I3C, UARTs; GPIO connections to sensor core DSP	
Operating Environment	• Input voltage: 3.6V	• Operating temperature: -30 to +85° C
Mechanical Specification	• SoM: 59.7mm x 32.2mm	
Software and OS	• Linux	
Orderable Parts	• System On Module (SoM): Aikri-82X-50AS-8 • Development kit: Aikri-82X-50AD-8 • Camera interface card: EIC-DB-CAM-OVS (camera sensors not included)	