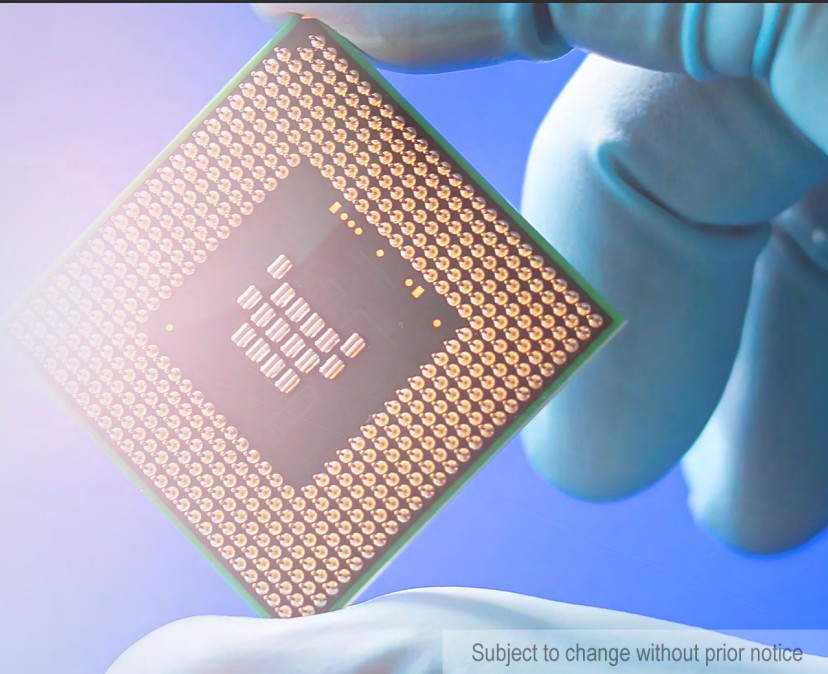
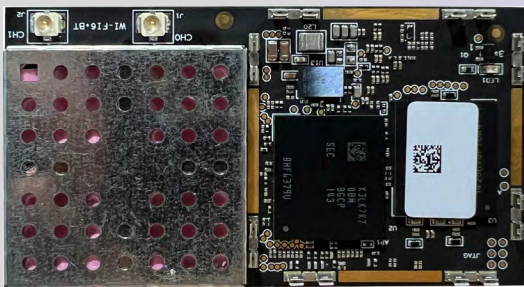


# Aikri QRB5165 System On Module (SoM)

Based on the Qualcomm® QRB5165 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 & 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 QRB5165 SoM

eInfochips Aikri QRB5165 System on Module (SoM) is based on Qualcomm® QRB5165 System on Chip (SOC). It is powerful computing for collaboration, video conferencing, tele-health, artificial intelligence & machine learning applications, with exceptional power and thermal efficiency.

QRB5165 incorporates four Kryo™ 585 Gold cores operating at 2.4GHz (three cores) & 2.8GHz (one core) and four Kryo™ 585 Silver cores operating at 1.8GHz. For AI acceleration, high-end camera, collaboration use cases, SoC incorporates dedicated NPU230, Hexagon 698 with quad hexagon vector processor (HVX), Adreno 650 GPU and Spectra 480 ISP. QRB5165 SOM enables OEMs to use readily available design solution for their compute application needs while minimizing design risk factors and reducing design cycle time with early time to market.

**AI and ML Applications**

**4K Camera**

**Medical Imaging / Medical**

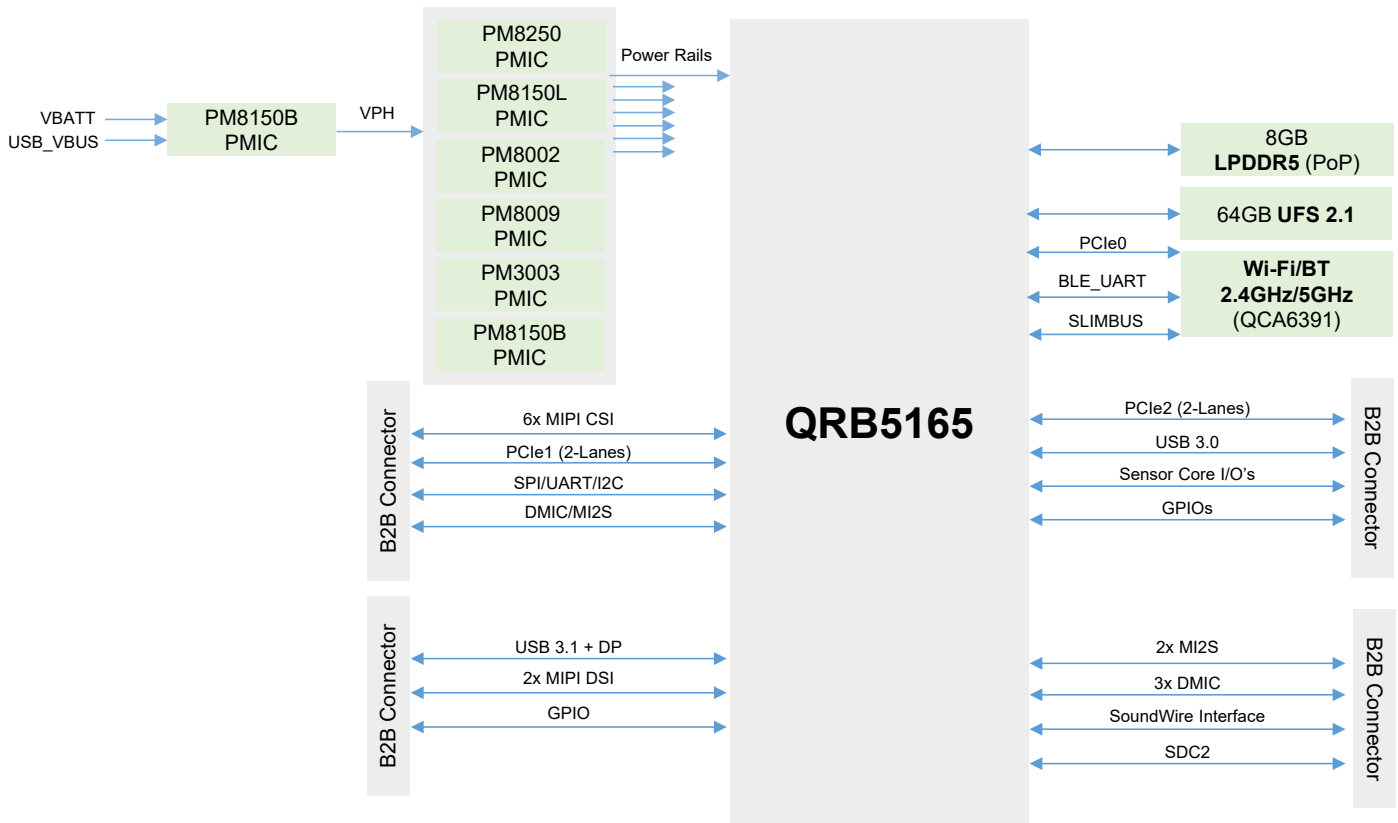
**Machine Vision**

**Digital Signage / HMI**

**Collaboration System**

**Robotics**

**Telematics**



Datasheet Rev 0.2

Preliminary specification – subject to change

### Processor

- Qualcomm® QRB5165
- 64-Bit Octa-core Kryo™ 585
- Hexagon™ DSP with quad HVX
- Adreno™ 650 GPU, 655 VPU
- Spectra™ 480 Dual 14-bit ISP

### Memory / Storage

- 8GB LPDDR5 PoP Memory
- 64GB UFS 2.1

### Connectivity

#### Wi-Fi:

- Qualcomm® Wi-Fi via QCA6391 802.11a/b/g/n/ac/ax 2.4/5.0 GHz
- Antenna – 2x Chip Antenna

#### Bluetooth:

- Support BT 5.0 + HS and backward compatible with BT 1.x, 2.x + EDR

#### USB

- 1x USB3.1 with DP
- 1x USB3.0

### Audio

- 2x MI2S
- 3x DMIC
- 1x SoundWire

### Camera

- 6x 4-lane MIPI CSI Support
- D-PHY & C-PHY Support

### Display

- 2x 4-Lane MIPI DSI
- DisplayPort over USB3.1

### Video

#### Encode:

- H.265 Main 10, H.265 Main, H.264 High, and VP8 codecs
- Video encode up to 4K120 or 8K30

#### Decode:

- H.265 Main 10, H.265 Main, H.264 High, VP9 profile 2, VP8, and MPEG- codecs
- Video decode up to 4K240 or 8K60

#### Simultaneous Encode + Decode:

- 4K 60D + 4K 30E

### Sensors

- Dedicated sensor core I/O's via Board-to-Board Connector

### Others

- 2x PCIe Support
- SPI/I3C/I2C/UART/I2S/ and GPIOs
- 1x SD Card Interface

### Power Specification

- Power supply input: 12V/5A input via Carrier Board
- VBATT Support

### Mechanical Specification

- SOM: 59.7mm x 32.2mm

### Operating System

- Linux

### Orderable Part

- System On Module (SOM): Aikri-51X-65S

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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