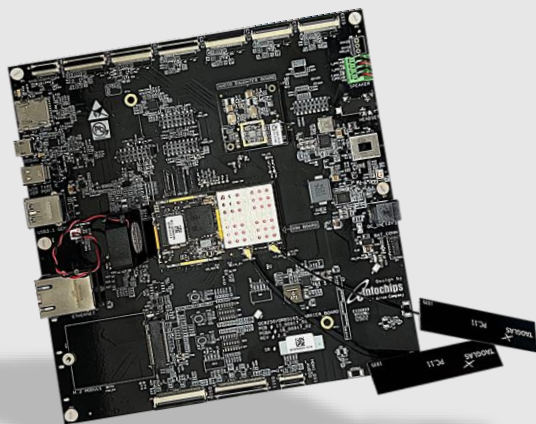


Aikri QRB5165 Development Kit

Based on the Qualcomm® QRB5165 Robotics 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 QRB5165 Dev Kit

The Aikri 5165 Development Kit is powered by the Qualcomm® QRB5165 based Aikri System on Module(SoM). 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 specifically power AI-enabled, low power robots and drones.

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 5165 Development Kit enables OEMs and engineers to evaluate performance of QRB5165 for their product designs and reduce 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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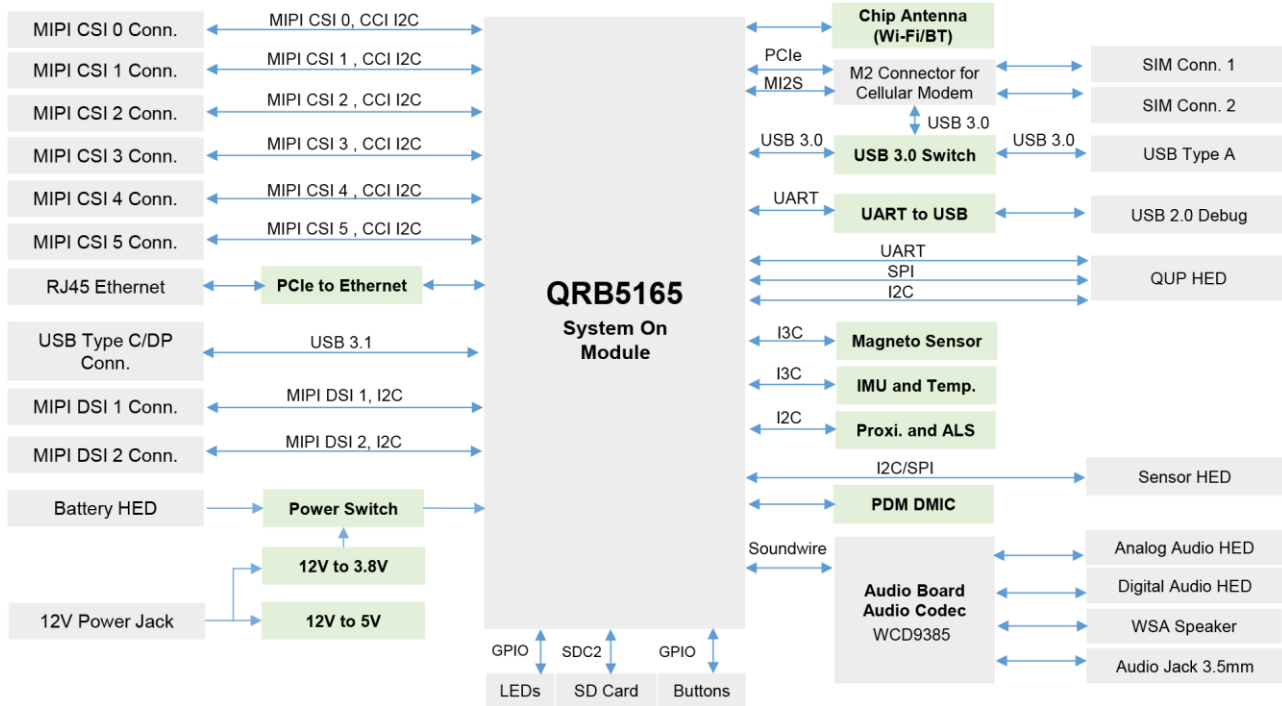


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Qualcomm



ENRICHING LIVES
THROUGH
ENGINEERING
EXCELLENCE



Aikri QRB5165 SoM	
Processors	8x Kryo™ 585@ up to 2.8 GHz, Hexagon 698 DSP with HVX, Tensor Accelerator and Scalar Accelerator, Adreno™ 650 GPU and 920 DPU, and Spectra™ 480 ISP
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
AI Performance (INT 8)	15 TOPS
Aikri QRB5165 Dev Kit	
Display Interfaces	<ul style="list-style-type: none"> 2x MIPI-DSI 4-lane D-PHY 1.2 at 1.5 Gbps per lane USB Type-C port with DisplayPort v1.4 at 8.1 Gbps/lane Miracast upto 4K60
Camera Interface	<ul style="list-style-type: none"> 2x 4-lane CSIs (CSI0, CSI1) on 30-pin connectors for HDMI-Input 4x 4-lane CSIs (CS2-CSI5) on 30-pin connectors for camera sensors
Sensor Interface	<ul style="list-style-type: none"> IMU, Temperature and magnetometer (I3C based) Proximity + Ambient Light sensor (I2C based)
Audio Interfaces	<ul style="list-style-type: none"> 6x AMICs and 8x DMICs interfaces on CODEC digital header (WCD9385) 6c DMICs through QRB5165 PDM interface 1x Headset Mic
I/O Interfaces	<ul style="list-style-type: none"> 1x USB-C 3.1 ; 1x USB Type-A 3.1 ports 1x PCIe Gen3 2-lane over M.2 key B PCIe connector 2x SIM card slots GPIOs (low speed expansion connector) High and low speed expansion headers
Operating Environment	<ul style="list-style-type: none"> Input voltage: 12V
Mechanical Specification	<ul style="list-style-type: none"> SoM: 59.7mm x 32.2mm
Software and OS	<ul style="list-style-type: none"> Linux Ubuntu 18.04 .5 Kernel 4.19.x
Dev Kit Contents	<ul style="list-style-type: none"> 1x Aikri-51X-65LS-8 SoM 1x Carrier board
Orderable Parts	<ul style="list-style-type: none"> Development kit: Aikri-51X-65LD-8 Camera interface card: EIC-DB-CAM-OVS (camera sensors not included) DSI to HDMI conversion card: EIC-DB-DSIHDMI (to enable HDMI-Input)