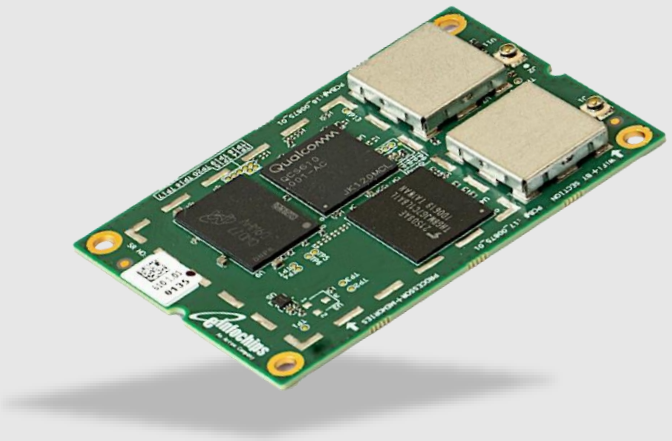
Aikri QCS610 System On Module (SoM)

Based on the Qualcomm® QCS610 SoC



1. Enterprise Security Cameras
2. IP Cameras
3. Dash Cam and Body Cam
4. Audio/Video Collaboration
5. Home/Industrial Automation
6. Tele-diagnostics
7. Smart Display, Videoconferencing
8. Industrial IoT

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.

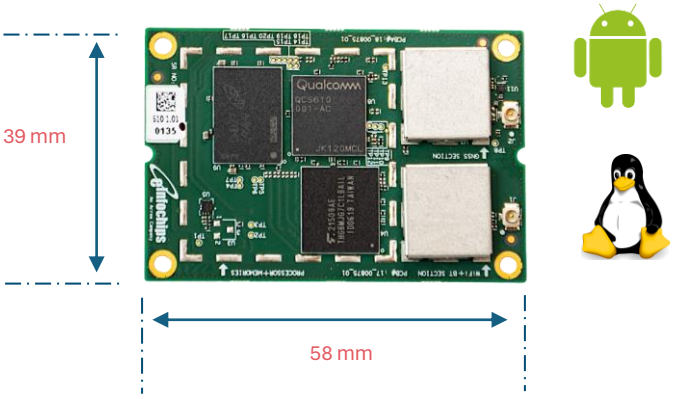
eInfochips QCS610 SoM

The Aikri 610 System on Module (SOM) is based on the Qualcomm® QCS610 processor. This SoM integrates Kryo™ 460 CPU, Adreno™ 612 GPU, Hexagon™ 685 DSP, AI Engine and the Spectra™ 230 camera ISP to enable advanced on-device camera processing and machine learning with very good thermal efficiency.

The Aikri 610 SoM coupled with features like Ethernet RGMII, calibrated 802.11nac Wi-Fi signal strength, Haptics, Bluetooth 5.x and location enables OEMs and engineers to use a readily available design solution and create advanced camera designs quickly, 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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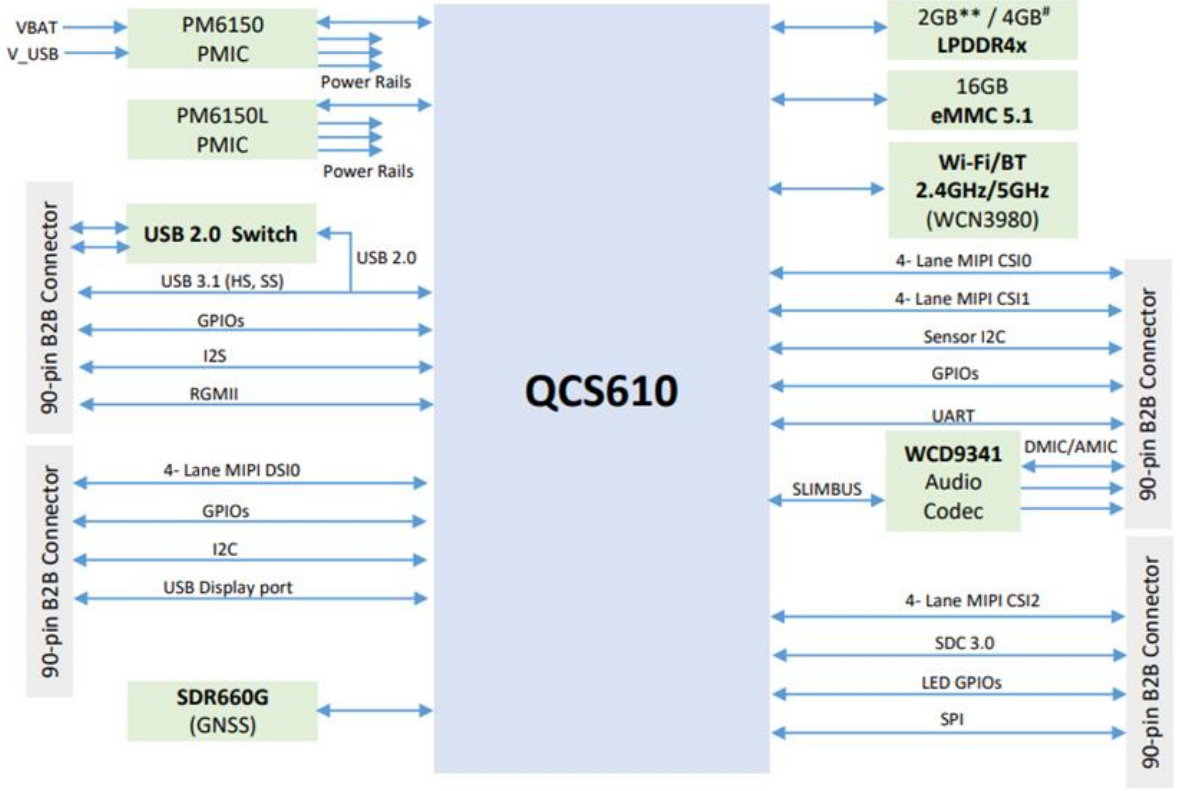

Aikri QCS610 SoM		
Processors	Qualcomm® QCS610 • 64-bit Kryo ARM® V-8 compliant CPU @2.2/1.8GHz each • Adreno™ 612 GPU at 845 MHz with 64-bit addressing • Hexagon™ DSP with dual HVX @1.1 GHz, for machine learning, integrated DNN and SNPE framework • Spectra™ 250L ISP	
Memory	4GB LPDDR4x, 16GB eMMC	
Wireless	• Qualcomm® Wi-Fi via WCN3980 WLAN 2 × 2 802.11ac; Bluetooth5.0 (1x UFL connector on SoM) • Ethernet RGMII	
Display Interfaces	1x MIPI-DSI 4-lane - D-PHY 1.2 at 1.5 Gbps per lane; split link supported	
Camera Interface	• 3x MIPI-CSI 4-lane - D-PHY 1.2 at 2.5 Gbps per lane supported. • 2 × ISP (13 MP + 13 MP or 25 MP) at 30 fps ZSL	
Location	Standalone, GPS, GLONASS, BDS, NAVIC, QZSS, SBAS and GALILEO based on WGR7640	
Audio Interfaces	• 7x PDM MICs from WCD9341 codec • 2x Speaker Output from WCD9341 codec	
I/O Interfaces	• 1x USB-C 3.1 • 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: 58mm x 39mm x 4mm*/5.41mm# with 4x 90-pin board to board connectors *Stacking height #Standalone height	
Software and OS	• Android; Linux	
Orderable Parts	• System On Module (SOM): 1x Aikri-X10-6S-4 • Development kit: Aikri-X10-6D-4 • Camera interface card: EIC-DB-CAM-OVS (camera sensors not included)	

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